

**INTEGRATED MULTIGENERATIONAL HOUSING:
A NEW APPROACH
TO ELDER HOUSING THAT BENEFITS
ALL GENERATIONS**

By

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Abstract

Current approaches to eldercare and elder housing in North America are segregating elders away from their family, friends and community. Such segregation results in higher rates of depression, loneliness and boredom in institutionalized elders. Such segregation also has a negative impact on the younger generations of people. By limiting the access young people have to older people, segregation leads to a discontinuity in the human lifecycle. Everyone loses.

Such segregation is unnecessary and represents a marked departure from the history of human development, which saw elders quite active in the family and community activities. Industrialization, the introduction of retirement structures, urbanization, increased mobility rates, and the rise of the nuclear family – all worked to undermine the position of elders in families and society. And for the past forty years, most elders have become used to the idea that they at some point would have to enter a care facility that more resembled a hospital than home.

Today in North America, alternatives to the traditional care home model are being developed, albeit slowly. Private sector developers are stepping into a perceived void left by the public providers and are marketing new supportive and assisted care homes that emphasize independence, youth and active lifestyles. These developments, like the government ones before them fail in large part because they continue to segregate elders away from family, friends and community.

In looking for answers to the problem posed by the current state of eldercare, the research portion of this thesis (Part A) examined senior's living in other countries of Europe and Asia as well as alternative views from within the medical profession here in North America (ie the Eden Alternative). From the research it became clear that there are many alternative models of senior's housing throughout the world that seek to keep elders integrated with society and other generations. Much can be learned from these countries' programs and perhaps applied to the North American context. The surveys and analysis of alternative approaches to elder housing elsewhere in the world further confirmed that North American thinking needs to be challenged with new ideas of senior living.

Part B of the thesis (Architectural Design) set out to test the thesis that "Inserting a mixed model of family and seniors housing into a community center setting will enable seniors to age in place as well as strengthen intergenerational connections in the community". A local site within Vancouver, B.C. – Britannia Community Center on Commercial Drive -- was chosen, analyzed and program developed. Resolution of the final design confirms that such multigenerational living project are entirely feasible. Such projects would not only benefit seniors but people of all generations.

Table of Contents

Abstract.....	i
Table of Contents	ii,iii
List of Figures/ illustrations	iv
Acknowledgements	v
<u>Part A: Literature Review / Research</u>	
1. Introduction ..	1
1.1 The Problem: Segregated Elder Housing and Discontinuity of Life-cycle.....	1
1.1.1 Impact on Elders: Loneliness, Boredom and Helplessness	1
1.1.2 Impact of Society: Discontinuity of Life Cycle	1
1.2 Urgency and Relevance	2
1.3 Thesis Statement.....	4
1.4 Goals	4
2. A History of Elderhood and Changing Intergenerational Attitudes.....	5
2.1 Elderhood and the Human Life-cycle	5
2.2 Elderhood Throughout History	5
2.2.1 Pre-industrial Societies: Connected and Integrated Families	5
2.2.2 Industrial and Post-Industrial Societies: Segregation of Elders	6
2.3 Elderhood and Other Cultures.....	8
2.3.1 East / West Comparison of Cultural Attitudes Toward Elders	8
2.3.2 Elderhood and the Immigrant Experience	9
3. Current Approaches to Elder-care In Vancouver B.C. Region	10
3.1 Elderhood and Levels of Care	10
3.2 Home Care Services	10
3.3 Supportive Living	11
3.4 Assisted Living.....	11
3.5 Campus of Care	11
3.6 Case Studies of Current Approaches in Vancouver B.C.....	12
3.6.1 Public Care Facility: Youville Residences, Vancouver B.C.	12
3.6.2 Public Campus of Care: Haro Park Center, Vancouver B.C.	13
3.6.3 Market Elder Housing: Tapestry at the O'Keefe, Vancouver, B.C.....	14
3.7 Summary and Critique of Current Approaches	15
4. Alternate Views of Elderhood and Aging	17
4.1 Eden Alternative	17
4.2 Multigenerational Integration	18
4.3 Emerging Social Principles	19
5. Multigenerational Programs and Case Studies	20
5.1 UBC Intergenerational Community Garden Program.....	20
5.2 Kotoen Age-Integrated Daycare and Elder home, Tokyo Japan	21
5.3 Quayside Village Cohousing, North Vancouver B.C.	22
5.4 Humanitas Bergweg, Rotterdam Netherlands.....	23
5.5 Multi-generational House, Heslach, Germany.....	25
5.6 Unite d'Habitation, Marseille, France	27
6. Literature Review Discussion and Conclusions	29
6.1 Discussion	29
6.2 Conclusions of Literature Review / Research Analysis	30

Part B : Architectural Design and Resolution

7. Introduction: From Theory to Practice.....	31
8. Project Site Selection and Analysis	32
8.1 Site Description (Physical, Location, Topography, Endowments).....	32
8.2 Site Description (Community / Cultural)	34
8.3 Site Analysis Observations.....	35
8.3.1 Multiple Streets.	36
8.3.2 Programs Separated.....	36
8.3.3 Street Presence on Commercial Drive Needed.....	37
8.3.4 Site Endowments Abound.....	37
8.3.5 Seniors Housing is lacking in the Area.	37
8.4 Site Analysis: Discussion and Conclusions	38
9. Master Plan: Britannia Community & Intergenerational Center	39
9.1 Site Concept: Synergy of Gathering	39
9.2 Site Planning Principles.....	40
9.2.1 Clarify Site Circulation.....	40
9.2.2 Intensify interaction by Collecting Similar Uses Together	41
9.2.3 A Series of Gathering Places.....	42
9.2.4 Densify a Rural Typology by Terracing Residential Component	43
9.2.5 Incorporate Environmental Design.....	43
9.3 Master Plan Resolution	44
10. Building Design I: Britannia Multigenerational Residences (Independent)	45
10.1 Concept: Densified Mix of Ground-oriented Housing.....	46
10.2 Architectural Principles	46
10.2.1 Densify by Terracing and Stacking Residential Units	46
10.2.2 Accessibility of through-site movement / Grade access	47
10.2.3 Unit Design: Orientation - Southern exposure and daylighting.....	47
10.2.4 Unit Design: Flexibility of use over time	47
10.2.5 Unit Design: Gathering spaces (public / private)	49
10.3 Building Design I Resolution.....	50
11. Building Design II: Britannia Assisted Care Residences	51
11.1 Concept: A building that connects residents with their surroundings.....	52
11.2 Architectural Principles	52
11.2.1 Unit Design: Orientation and Daylighting	52
11.2.2 Unit Design: Entry Threshold Personalization	54
11.2.3 Unit Design: Kitchens Should be Part of Assisted Care Units	55
11.2.4 Unit Design: Balcony and Planter Design	56
11.2.5 Circulation and Shared Amenities are Great Places to Gather	57
11.2.6 Easy Access to Commercial Drive, Community Fitness Center	59
11.3 Building Design II Resolution.....	60
12. Building Design III: Britannia Multigenerational Center	61
12.1 Concept: A Building that is Magnet for all Generations.....	61
12.2 Architectural Principles	62
12.2.1 A Mixture of Spaces for all Generations	62
12.2.2 Shared Kitchen, Lounge and Play Areas Encourage Interaction	63
12.2.3 Multi-purpose Community Room Brings People together	64
12.3 Building Design III Resolution	64
13. Thesis Discussion and Conclusions	65
Bibliography	66-67
Appendices	68

LIST OF FIGURES

Figure 1	Loneliness, Boredom and Helplessness	2
Figure 2	Population, Age and Sex.....	3
Figure 3	Intergenerational Relationships.....	4
Figure 4	Typical Life Cycle Diagram	5
Figure 5	Pre-industrial Family showing Multi-generational living	6
Figure 6	Expansion to the West	7
Figure 7	Female Factory Workers.....	7
Figure 8	The American Dream	7
Figure 9	Levels of Care Diagram	10
Figure 10	Youville Residences.....	13
Figure 11	Haro Park Center	13
Figure 12	Tapestry at the O'Keefe	14
Figure 13	Tapestry Website	14
Figure 14	The Eden Lifecycle	18
Figure 15	The Cycle of Cultural Evolution.....	19
Figure 16	UBC Community Garden	20
Figure 17	Humanitas Bergweg.....	24
Figure 18	Multigenerational House Heslach	26
Figure 19	Unite D'Habitation	28
Figure 20	Gathering and the Making of Place	31
Figure 21	Site Location	32
Figure 22	Aerial Perspective of Project Site (Existing).....	33
Figure 23	View of Escarpment / Playing Field Juncture (Existing).....	33
Figure 24	View of Central Courtyard at Napier St. (Existing).	33
Figure 25	Context Photos.....	34
Figure 26	Site Analysis	35
Figure 27	Existing Exterior Walkway Between Programs	36
Figure 28	Site Plan with Five and Ten Minute Walk Circles	37
Figure 29	Britannia Envisioning Process Advertisement.....	38
Figure 30	Synergy of Gathering	39
Figure 31	Public Gathering.....	39
Figure 32	Proposed Master Plan: Site Circulation	40
Figure 33	Proposed Master Plan Layout (Conceptual)	41
Figure 34	Proposed Master Plan: Gathering.....	42
Figure 35	Densifying a Rural Typology	43
Figure 36	Passive and Active Environmental Design.....	43
Figure 37	Master Plan Resolution	44
Figure 38	Multi-generational Context Plan	45
Figure 39	Section at Multi-generational Residences	46
Figure 40	3D Model Views of Typical Multi-generational Residence	46
Figure 41	Site Section at Central Walkway.....	47
Figure 42	Multi-generational Residences: Typical Unit Plans	48
Figure 43	Multi-generational Residences: Central Courtyard	49
Figure 44	Multi-generational Residences: Photos of Model.....	50
Figure 45	Britannia Assisted Care Residences Context Plan	51
Figure 46	Assisted Care Building Plans.....	52
Figure 47	Assisted Care Building Unit Plan Model (2 views)	53
Figure 48	Assisted Care Unit Plans	54
Figure 49	Assisted Care Unit Entry Alcove and Kitchens	55
Figure 50	Assisted Care Unit Design Planters and Balconies	56
Figure 51	Assisted Care Gathering Areas at Elevator Lobby.....	57
Figure 52	Assisted Care Amenity Level Floor Plan.....	58
Figure 53	Entry Point to Podium at Exterior Escalator	59
Figure 54	Assisted Care Resolution: Selected Photos	60
Figure 55	Multi-generational Center Context Plan	61
Figure 56	Ground Floor Plan Showing Community Spaces.....	62
Figure 57	Enlarged Floor Plan of Multi-generational Center	63
Figure 58	Multi-generational Center and Outdoor Amenity Space.....	64
Figure 59	Final Building Resolution.....	65

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Part A: Literature Review / Research Analysis

*"The continuity of all cultures depends on the living presence of at least three generations."*¹

- Margaret Mead, 1970

1. Introduction

1.1 The Problem: Segregated Elder Housing and Discontinuity of Life cycle.

It is a sad shame that after full lives, many elders today find themselves living out their last years in care facilities segregated away from their family, friends and community. Such segregation lowers elders' quality of life. It also creates a discontinuity in the human life cycle, whereby elders are considered superfluous, aging an illness to be mitigated against and interaction with younger generations is not a priority. No one wins from this approach. Everyone loses.

1.1.1 Impact on Elders: Loneliness, Boredom and Helplessness

Segregation of elders from their families, communities and friends leads to loneliness, boredom and helplessness. Desperation and depression often follow. Whereas 5% to 10% of elders living in the community will experience a depressive disorder that is serious enough to require treatment, it is estimated that 30% to 40% of seniors living in institutional settings will experience anxiety and depression.² Indeed first-hand accounts of care home residents begging doctors or friends and family to rescue them -- to take them to their real home -- are heartbreaking³ and confirm that current approaches to elder housing and care is failing miserably.

1.1.2 Impact on Society: Discontinuity of Life Cycle

For society, segregation prevents interaction and exchange of ideas between people of different generations. Elders are deprived of meaningful relationships with younger generations. Younger people don't have the access to the wisdom and experience of elders. This lack of interaction between generations represents a discontinuity in the human life cycle. Historically, elders have been quite involved with community, family and child-rearing activities. Such discontinuity is unnecessary.

¹ Margaret Mead, Culture and Commitment. New York: Natural History Museum, 1970.

² Mood Disorders Society of Canada. Depression in Elderly. Online Brochure.

³ William H. Thomas, What Are Old People For?: How Elders Will Save the World, (VanderWyk & Burnham, Acton Ma, 2004), 180-186.

Figure 1 Loneliness, boredom and helplessness are common in care homes today.



1.2 Urgency and Relevance

The need is urgent. Our planet is getting older. The percentage people who are over 65 years old is increasing every year, leading to a demographic shift from youth to the elderly. The demographic shift is the result of increased life expectancy, as well as lower birthrates. The experience of Canada is representative of this trend: in 2008, Canada's life expectancy reached a record 80.1 years. At the same time it was reported that fertility rates declined to 1.59, significantly less than the 2.1 needed for replacement.⁴ Between 2001 and 2041, the number of people in Canada greater than 65 years old is projected to more than double, from 3.9 to 9.2 million⁵. At the global Level, the statistics just as compelling: By 2050 one third of the world's population will be over 60 years of age; Population figures also show that throughout the world one million people turn 60 years old every month⁶. The figure below clearly shows how Canada's population will continue to age through 2041.

It is clear that our society is aging and older people will indeed make up a larger percentage of the population well into the future. In light of this, a number of basic questions must be asked relating to elder housing, elder relationships with community and other generations. First off, where are the older people going live? It is clear from studying current housing stock for elder care that the current system is stretched. The situation is compounded by the fact that much of the housing is aging and in need of being replaced⁷. What will replace the current housing stock? Should it be duplicated? Should we accept the planning approaches to elder care of the post-war era? I submit no.

⁴ Statistics Canada. 2008. Components of Population Growth On-line Report. <http://www.statcan.gc.ca/pub/91-003-x/2007001/4129903-eng.htm>

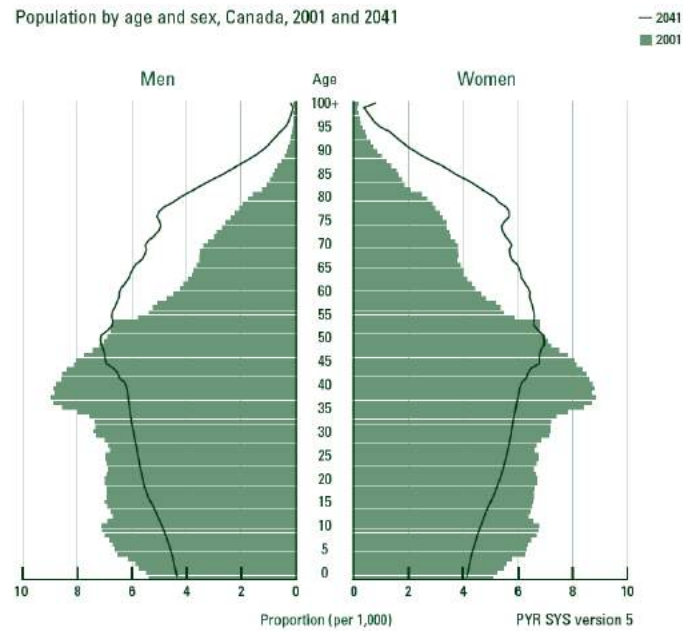
⁵ Ibid.

⁶ Kaplan, Matthew, Henkin, Nancy. Kusano Atsuko. Linking Lifetimes: A global View of Intergenerational Exchange. (Lanham MD, University Press of America, 2002) ix.

⁷ Thomas, 2004, 52.

The elder housing situation, strained today as it is, will in a few years become critical. As this happens, and elder housing becomes a an important public policy issue, it will be imperative that the architectural profession play an active role in shaping how elder housing of the future is conceived of and built. How buildings are designed and built has a direct impact on the quality of people lives, young and old. Victor Regnier summarizes the importance of designing for the elderly, noting that “The value and meaning of a civilization can be determined from the record it leaves in the form of architecture and the true measure of the compassion and civility of a society lies in how well it treats its frail older people”⁸

Figure 2 Population by Age and Sex



Source: Statistics Canada

⁸ Victor Regnier, Design for Assisted Living: Guidelines for Housing the Physically and Mentally Frail, (New York, John Wiley and Sons, 2002), 1.

1.3 Thesis Statement

“Inserting a mixed model of family and seniors housing into a community center setting and sharing services will enable seniors to age in place as well as strengthen intergenerational connections in the community.”

1.4 Goals

This thesis has a number of goals:

- To demonstrate that more integration of elders with the community, environment and other generations can benefit people of all ages
- To explore how architecture can bring people of different generations together and integrate them with their community, environment and each other.
- To challenge people's attitudes toward aging and housing for elders

Figure 3 Intergenerational Relationships Benefit People of All Ages.

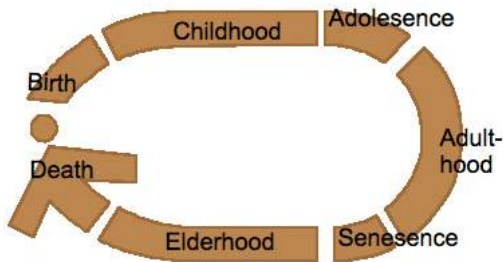


2. A History of Elderhood and Intergenerational Attitudes

2.1 Elderhood and the Human Lifecycle

Elderhood is one stage in the human cycle – in fact the last stage prior to death. This time of life has been described as both the culmination of life's achievements and the diminishment of human vigor. Unfortunately, in today's youth-obsessed society, the latter description is most often used to describe senior citizens. With time, these perceptions may change – they have indeed throughout history.

Figure 4 : Typical Life-cycle Diagram



2.2 Elderhood Throughout History

2.2.1 Pre-Industrial Societies: Connected and Integrated Families

From the beginning of time, humans have relied on elders for a wide range of assistance. In hunter-gatherer as well as early agricultural societies, family elders were very involved in daily family activities, including child tending, cooking and domestic work. Even in later stages of development, such as during the cottage industry period, elders were able to contribute, again with child tending but also with piecemeal craft-work (spinning, knitting, weaving etc.).

In pre-industrial societies, elders lived as an integral part of extended families, were valued and cared for in old age by family members. They were valued in part because they were able to contribute in some way to the family life. In some situations, elders maintained key status within families and communities as family heads, tribal chiefs or leaders, storytellers, and healers. In these settings, elders were valued as part of family and community, not segregated and ignored.

It should be noted that this reliance on elders and their willingness to assist with child tending, cooking etc...has directly contributed to increased human longevity over time. In hunter-gatherer societies, for example, grandparents looking after grandchildren meant that mothers were free to gather food for the family while the fathers hunted. Such a willingness by a grandparent to care for a child that is not her/his own child is a key human trait that distinguishes us from animals. No other species on earth exhibits such behavior.⁹

⁹ Thomas, 2004, 56.

Figure 5 Pre-Industrial Family Showing Multi-generational Living



2.2.2 Industrial and Post-Industrial Societies: Segregation of Elders

With industrialization came many changes to the way families worked and related to each other. In general it can be said that industrialization led to an increased emphasis on the nuclear family and less on the extended. For elders, such a shift in emphasis would have long-lasting impacts felt to this day.

Industrialization brought about many changes. Factory and later office work replaced home-based cottage industry work; elders once involved in piece-meal work were not able to contribute as much as before. During this time, single-family home ownership was emphasized; extended family living was not as important. As well, during this time, mobility rates increased with the introduction of the automobile, and road networks. Families that used to live in the same neighborhood with extended family now were spread apart across the land in any number of different cities. Urbanization began to take hold, sparking a rural-urban migration, that continues to this day. As cities grew (and grow), individual sense of anonymity and isolation also grew, especially among the elderly.

With industrialization came also a clearly defined division of work. Eight-hour workdays, and retirement emerged as public policy during the 1930's and continues to shape our lives. Turning 65 years old for elders became a benchmark year. Some describe it as the 'golden years' others as 'the kiss of death'.

Due to the above factors, during the second half of the last century, it became more and more common for older people to enter a residential care home instead of living out their life with their extended family. This emerging pattern of elder living became dominant, particularly in the USA and Canada, and spurred the construction of thousands of residential senior's care homes across the continent. Although they are aging and in need of repair, these care homes -- designed, built and run as hospitals -- continue to be home for millions of elders today.

Figure 6. Expansion to the west led to higher mobility rates of Americans.



Figure 7. Female Factory Workers during the 1940's showing division of work and labour.



Figure 8. The American Dream: Single Family Home Ownership



2.3 Elderhood and Other Cultures

Different cultures throughout the world and over time have had different attitudes toward elders and elderhood. No one attitude is static. However, looking briefly at a number of different countries attitudes may help illustrate the wide range of attitudes on the subject. To be sure, there are stereotypes for each country – and individuals certainly do not always fit stereo types.

2.3.1 East / West Comparison of Cultural Attitudes Toward Elders.

Attitudes in the east toward the elderly differ greatly from those in the west. In contrast to the western emphasis on the individual, it is often said that Asian cultures are more collectivist¹⁰. Attitudes toward the elderly in these societies tend also to exhibit a greater sense of responsibility toward the elderly. In fact, in Japan, the term “*Xiao*” (filial piety) refers to the obligation a child has for his / her aging parents.¹¹

To be sure, such attitudes, while stereotypes, do have some element of truth in them. Where they begin to fall apart is when one begins to examine individual exceptions to the rule. For example, in China, although filial piety is taught to children from a young age, it is clear that the birth control measures limiting births to one per family is producing a situation known as 4-2-1: which means four grandparents and two parents supported by one child.¹² Such obligations are without a doubt stress-filled and challenge preconceived notions of filial piety.

Similarly, in the west it can also be shown that there are notable differences not only between countries but also within countries. Compared to USA and Canada, most European countries behave in a much more collectivist- mind-set. This mindset influences everything from public policy, design and private individual attitudes toward the elderly. It is no wonder that most of the progressive thinking regarding new models of eldercare has emerged from European countries like the Netherlands, Denmark, Sweden, Germany and Austria (more on these countries in the case studies).

¹⁰ Howard Giles, R. McCann, “Challenging Intergenerational Stereotypes Across Eastern and Western Cultures”. in Kaplan, M., Henkin, N. Z. & Kusano, A. T. Linking lifetimes: a global view of intergenerational exchange /. Lanham, MD: University Press of America, 2002, 14.

¹¹ Matthew Kaplan, “A Conceptual Framework for Cross-cultural Comparisons of Intergenerational Initiatives”. In Kaplan, M., Henkin, N. Z. & Kusano, A. T. Linking lifetimes: a global view of intergenerational exchange /. Lanham, MD: University Press of America, 2002, 2

¹² Ibid, 3.

2.3.2 Elderhood and the Immigrant Experience

Vancouver is an international city that many people from a great many countries now call home. The experience of the immigrant elder must be considered if we as designers are going to effectively meet the housing needs of all people. Attitudes that worked in the old country may not necessarily be relevant in this society. There are a couple of identifiable trends however.

Older immigrants tend to keep their same attitudes and belief systems intact. The interaction between elder and first-generation child can sometimes be argumentative. This is particularly the case when referring to girlfriends, marriages.

It should also be noted that one tends to see fewer immigrant elders in care homes -- this is because those immigrant elders raised their family within the same set of social rules as their former home society. Often within one generation however, many changes in attitudes begin to take place – a westernizing of ideas and attitudes. Dr. Liz Drance at the Providence health care unit in Vancouver B.C. has observed that first-generation ethnic minorities are represented almost to the same levels as the resident population within the region.¹³ Subsequent generations continue to adopt the ways of the new home society, and raise their children in ways that, while often retaining elements of the former society, reinforce western attitudes toward family and the elderly.

¹³ Dr. Elizabeth Drance, Providence Health Care, Interview with C. Britton, 22 November 2008

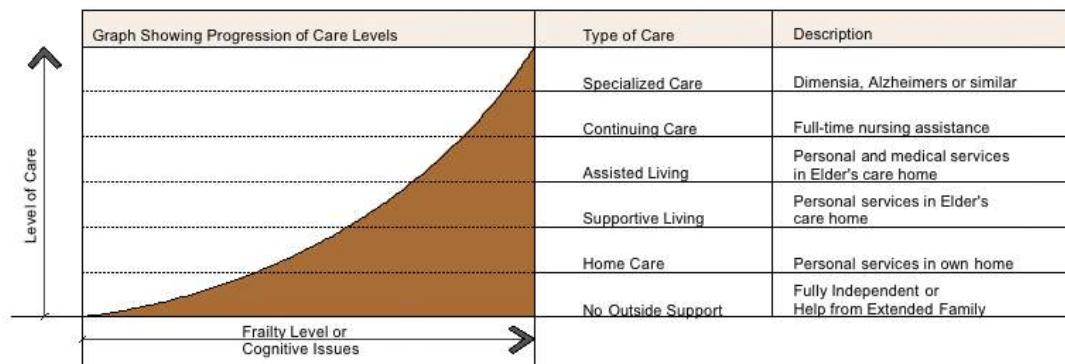
3. Current Approaches to Eldercare in Vancouver B.C. Region

3.1 Elderhood and Levels of Care

To better understand the issues relating to eldercare today, one must first examine the current approaches to eldercare in Canada. Eldercare includes a wide range of services provided to people over 65 years old, from informal in-home care provided by family members to continuing 24-hour medical care provided by health care professionals. The figure below summarizes the range of care that can be provided to elders today.

The appropriate level of care for any given person is determined by the following factors: Level of frailty (physical); and, cognitive wellness (mental).¹⁴ A person's level of frailty includes such physical activity as the ability to move, dress, bathe and feed oneself. As frailty levels increase, so too does level of care. The same can be said of the cognitive wellness, which measures a person's mental faculties. Dementia and Alzheimer's are among the most common conditions that lead to increased levels of care to due cognitive issues.¹⁵ Below follows a summary of each care level.

Figure 9: Levels of Care Diagram



3.2 Home Care Services

Home Care services are the most basic type of assistance that can be provided to an elder. As implied by the name, such services are provided to an elder in that elder's home. Such services include: help with cooking, cleaning, groceries, errands and hygiene. Because of their non-specialized nature, home care services can be provided in part or whole by an elder's relatives. As well, private home care companies also provide such services.

¹⁴ Dr, Habib Chudhury, SFU Gerontology. Interview with C. Britton, 10 October 2008.

¹⁵ Ibid.

3.3 Supportive Living (Independent)

Projects that offer “supportive living” services to elders go beyond home care level but fall short of medical care of higher levels of care such as assisted living and continuing care. Supportive living housing developments can range in both size and scale, from single-family houses to high-rise towers. Regardless of building type, a supportive living unit will have been built (or modified) to be accessible for handicapped people. Door widths, door levers, passageways of a decent width, walk-in showers, and wheelchair-compliant door thresholds – all are built-in features of a supportive housing unit.¹⁶

In addition to the home care services listed above, supportive living services can include personal grooming, bathing and hygiene, hair care as well as community bus shuttles and organized shopping and field trips.¹⁷ Supportive living is provided by both government and market developers and is often paired with assisted living facilities. This is primarily due to the nature of aging. As one ages, one normally will require more care: individuals whose needs exceed the services able to be provided in a supportive living situation naturally will move over to the assisted care wing of the care home.

3.4 Assisted Living

Assisted living services are designed to help elders who are still mobile and cognitively well, but who need more assistance than that provided under supportive housing. Assisted living includes rental accommodation, hospitality and personal care services. The rental units are private, lockable and can be furnished with one’s own belongings. Assisted living facilities also contain a common dining room, socializing spaces and offer a variety of social activities. Residents are offered both hospitality and personal services, including two meals a day, assistance with bathing, grooming, dressing, weekly housekeeping, weekly laundering of linens and a 24 hour emergency response system.¹⁸ Additionally, medication management by a registered nursing staff is also provided to residents. It should be noted however that medication management does not necessarily mean full-time medical supervision in most assisted care facilities, medical attendants or nurses are only present for part of each week.¹⁹

3.5 Continuing Care (Complex Care)

When a person’s frailty level or cognitive condition changes so that he or she can no longer care for himself or herself, that person will need continuing care. Continuing care services include all of those provided in assisted living but also include 24-hour supervision by trained medical staff. Depending on the facility, continuing care beds can be found in both single rooms as well as shared suites. As well, continuing care facilities also look after people with specialized physical and/or mental conditions such as Dementia and Alzheimer’s. The security and safety of staff and residents are a central part of today’s continuing care facilities.

¹⁶ B.C. Housing, Senior’s Supportive Housing: Live Independently! On-line PDF Brochure.

¹⁷ Ibid.

¹⁸ Vancouver Coastal Health. 2005. Assisted Living. Brochure. www.vch.ca/assisted/docs/brochure.pdf

¹⁹ Chudhury, 2008. Interview.

3.5 Campus of Care

The campus of care is an approach to elder care that combines supportive, assisted living and complex care into one facility. The core of the idea is to offer elders a range of both housing and support services. A further goal of the approach is to allow people to age in place. Campuses of care minimize the transition of seniors as their need levels change. Although relatively new to British Columbia, the Campus of Care Concept is being endorsed by all levels of government and health authorities.²⁰

3.6 Case Studies of Current Approaches in Vancouver B.C.

3.6.1 Public Care Facility: Youville Residences, Vancouver, B.C.

Project: Youville Residences by Providence Health
Location: 4950 Heather Street, Vancouver, B.C.
Built: 1969
Suites: 152 suites for seniors.
Key Words: Supportive housing for seniors, assisted living facility, dementia ward, childcare
Summary:

The Youville Residences is a government-run senior's care home operated by Providence Health Care located at 4950 Heather Street in Vancouver B.C. Supportive living as well as assisted living is offered on three of the facility's floors. A specialized dementia care unit is provided on a fourth floor. As a typology this building is fairly typical of government operated care homes built between 1950 and 1980. Like other care homes from the same era, the Youville residences more resembles a hospital than a home: long corridors, uniform unit entries, and no exterior balconies. A surprising co-occupant in the building is a Montessori preschool in the walkout basement level. Unfortunately, despite close proximity, there is little contact between the elderly residents and the preschool children or instructors.

In addition to the hospital-like character of the built form, attitudes of the staff and governing umbrella agencies also contribute to the hospital-like environment. Most of the people involved with the administration of Youville residences, from its earliest days to today, come from a medical background(Providence Health Care). Such medical background affects people's attitudes and how they approach the Youville Residences as a facility. To most in the past and many still today, it remains a hospital. Bureaucratic and slow to change, such a medical approach to elder living, while necessary in some cases for life safety lacks a human side. It is too institutional.²¹

²⁰ Canada Mortgage and Housing Corporation. 2005. First Campus of Care Opens in Vancouver. Web News Release. 17 March 2005. <http://www.cmhc.ca/en/corp/nero/nere/2009/2009-01-22-1500.cfm>

²¹ Dr. Elizabeth Drance, Providence Health Care, Interview with C. Britton, 20 Oct 2008.

Figure 10. Youville Residences at Heather Street, Vancouver



3.6.2 Public Campus of Care: Haro Park Center, Vancouver B.C.

Project: Haro Park Center, Vancouver
Location: 845 Bute Street Vancouver, B.C.
Built: 1980, renovated in 2005
Suites: Independent Rental Units: 28 Units
Assisted Living Units: 36 Units
Complex Care Units: 154 Units

Key Words: Campus of Care, Independent Living, Supportive, Assisted Living, Complex Care
Summary:

Haro Park Center has the distinction of being the first 'campus of care' to open in Vancouver BC. Located in the residential district of the West End, the development now is able to offer a range of services to elderly residences from supportive (independent) living to assisted and complex care services. Since 1980, the project has been home to 154 elders requiring complex care and 64 elders living independently. With the renovation of 2005, 36 of the 64 independent apartments have been converted to assisted living units.^{22 23} The conversion of the Haro Park Center is considered a success. It is a step in the right direction, because it is clear that some of the needs of elders (in this case – increasing need of assistance) are being considered.

Figure 11 Haro Park Center: Campus of Care



Source: www.haropark.org

²² The renovation was sponsored under a BC housing and Independent Living BC (ILBC) program that sought to provide 3,500 affordable housing apartments with support services by 2006/7.

²³ Canada Mortgage and Housing Corporation. 2005. First Campus of Care Opens in Vancouver. Web News Release. 17 March 2005. <http://www.cmhc.ca/en/corp/nero/nere/2009/2009-01-22-1500.cfm>

3.6.3 Market Elder Housing: Tapestry at the O'keefe, Vancouver B.C.

Project: Tapestry at the O'Keefe – Arbutus Walk
Location: 2799 Yew Street, B.C.
Built: 1997
Suites: 200 bachelor, one and two bedroom suites for seniors.
Key Words: Supportive (independent) and assisted housing for seniors.
Summary:

The Tapestry Independent Living development at the O'Keefe, by Concert Properties, is home to 200 elderly residents. Located on the west side of Vancouver B.C., the development is one of a dozen buildings making up the master planning community known as the Arbutus Walk on the site of the former Labatt industrial lands. The services offered by Tapestry include both supportive living and assisted living services. The project does not offer continuing care services. ²⁴

Tapestry is typical of a recent approach developers are taking toward senior's housing: Independent living, with active lifestyles emphasized on websites and brochures cater to an aging generation (baby boomers) that has both money and a desire to stay active, lively and young.

Figure 12 : Tapestry at the Okeefe, Vancouver, BC



Source: Charles Britton Photo

Figure 13: Website of Tapestry Emphasizing Active Lifestyles



Source: www.discovertapestry.com

²⁴ www.discovertapestry.com

3.7 Discussion and Critique of Current Approaches

Current approaches to eldercare are trying to better the lives of elders; however, both government and privately-run care homes are falling short in several key areas.

Traditional government care homes like the Youville Residence are tempting to criticize because of the cold, hospital-like building environment. In addition to that, a health care authority (in this case Providence Health Care) used to operating and overseeing hospitals, is very likely to approach the operation of an elderly care facility in a similar manner as they would a hospital. For example, speaking in the context of the slow introduction of the Eden Alternative (See 4.1) to the Youville Residences and linking it to larger structural issues relating to bureaucracies, Dr. Drance noted to me that “change in this system does not happen fast”.²⁵ Such slow movement is frustrating to most people. To health care professionals like Dr. Drance, it is confirmation traditional approaches to Elder housing are not working as well as they should.²⁶

The ‘Campus of Care’ model is an improvement on the traditional elder home model, primarily because of the continuity that is afforded residents as their levels of care changes. The popularity of such programs is growing. In the time since the opening of the Haro Park Center Campus of Care in 2005, other health care providers began to look at the campus model. For Example, Providence Health Care’s St. Vincent’s Hospital on Heather Street has been designed as a Campus Of Care.²⁷ Currently under construction with only the assisted living wing constructed to date, Providence is looking to partner with private industry for the independent portion of the project.²⁸

The Campus of Care approach to elder housing and elder care is a clear step in the right direction. However, it should be noted that, like the traditional elder-home model, the campus of care also segregates elderly people away from their families, friends and communities. As noted earlier, such segregation can have a significantly detrimental effect on people’s attitudes feelings and spirits. In short, the Campus of Care can be learned from; however, it is not a panacea for all the woes of elderhood and eldercare.

²⁵ Dr. Elizabeth Drance, 2008. Interview with Charles Britton. 20 October 2008.

²⁶ Ibid.

²⁷ Providence Health Care. The Legacy Project. Online Website
http://www.providencehealthcare.org/legacy_renewal_plans.html

²⁸ Ibid.

The market approach to elder living as illustrated by the Tapestry Independent Living Project at the O'Keefe is becoming a popular option for elders *who have the means to take advantage of such services*. Marketing brochures emphasizing active lifestyles, exclusive suite layouts, customized treatment plans, and high-end hotel-like lobbies and lounges are appealing to some. Not so much to others.

Certainly, such a market approach to elder housing and eldercare does fill a niche in the eldercare market. So what is wrong with such an approach? There are a number of problems with the model as represented by Tapestry at the O'Keefe. First, the services offered at Tapestry are limited to supportive and assisted living; people requiring continuing (complex) care must move to a different facility. Second, from an architectural perspective, the building does not integrate well with the neighborhood. Although the building is part of a pedestrian-oriented master-planned community, residents have little interaction with the neighborhood due to how the base of the building has been set off from grade. Understandably, security and safety was a key element in the minds of the designers. Unfortunately an opportunity was lost. Third, and similar to the traditional and campus approaches by government to eldercare, the market approaches studied by this author also segregated elders away from the community. Segregation, even in a well-appointed 'hotel', is still segregation.

As discussed, there are a number of different approaches to elder living and eldercare B.C, both government and privately-funded. Despite wide ranging approaches and results between the options, there does exist a common thread between all the models discussed. This thread relates to an underlying notion that elders should be brought together in one place, segregated away from their families, friends and community. Safety, Security, economies of scale in delivery of services – all are cited when discussing the issue of segregation in eldercare. The presumption that an integrated eldercare approach cannot be safe, secure or economic is a falsehood that has been allowed to pervade our entire way of thinking in this province, country and continent. It must be challenged.

4. Alternate Views of Elderhood and Aging

4.1 Eden Alternative: Elder-centered

One of the strongest advocates for redefining what elderhood means and can transform into comes from the Eden Alternative. The Eden Alternative was founded in 1991 by William Thomas, M.D., a New York Geriatrician who was fed up with the state of the current approaches to elder care. Thomas and his wife started an alternative elder care home that was elder-centered, and allowed the testing of a number of developing ideas such as how to eliminate loneliness, helplessness and boredom. Since that time, over 300 care homes in Canada, USA and Europe have become 'Eden-registered Facilities'.²⁹

The Eden Alternative is based on the core belief that aging should be a "continued stage of development and growth, rather than a period of decline".³⁰ The Eden Alternative is seeking to remake the experience of aging around the world. The bulk of its work to date has been in de-institutionalizing the culture and environment of today's nursing homes and other long-term care institutions.

So-called green homes have been developed that essentially are elder co-housing developments in a test case to de-institutionalize the elderly population. Situated within a single family building footprint, the green homes were made up of six or eight individual sleeping rooms that opened toward a central social and eating space.³¹

The Eden Alternative teaches that where elders live must be habitats for human beings, not sterile medical institutions. Practitioners of Eden principles are dedicated to eliminating the plagues of Loneliness, Helplessness, and Boredom that make life intolerable in most of today's long-term care facilities. The Eden Alternative also shows how companionship, the opportunity to give meaningful care to other living things, and the variety and spontaneity that mark an enlivened environment can succeed where pills and therapies often fail. Places that have adopted the Eden Alternative typically are filled with plants, animals and children.^{32,33}

²⁹ The Eden alternative. Welcome to Eden. 2009 Web page. <http://www.edenalt.org/>

³⁰ Ibid.

³¹ William Thomas, 223-238.

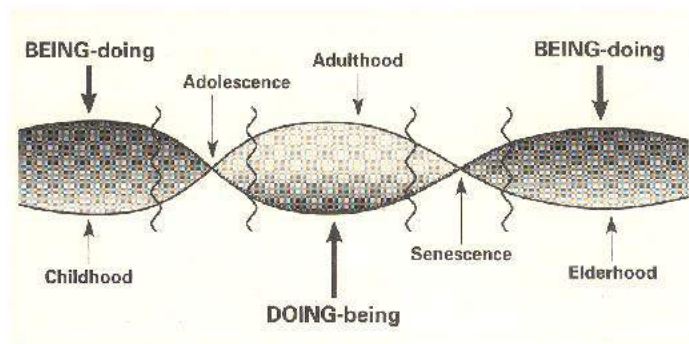
³² William Thomas, 182.

³³ Note that both the Youville Residences and Haro Park Center in Vancouver, B.C. are registered Eden Care homes but have not yet achieved all that the Eden Alternative calls for. Change comes slowly.

4.2 Multigenerational Integration

A particularly interesting part of William Thomas' book, "What Are Old People For?" was his discussion of the similarities between old people and children. In fact, he argues that children have more in common with old people than with adults, due in part to the fact that children and old people are at similar stages in life. As Thomas notes, both children and old people define themselves not by what they *do* -- like adults do ("doing-being"); but rather by what they *are* ('being-doing').³⁴ Thomas' main intent with this discussion was to demonstrate that children and elders like to spend time together and indeed are suited toward it. The below figure graphically shows the life cycle according to the doing-being/ being-doing relationships.

Figure 14: Eden Lifecycle



Thomas, 2007, 127.

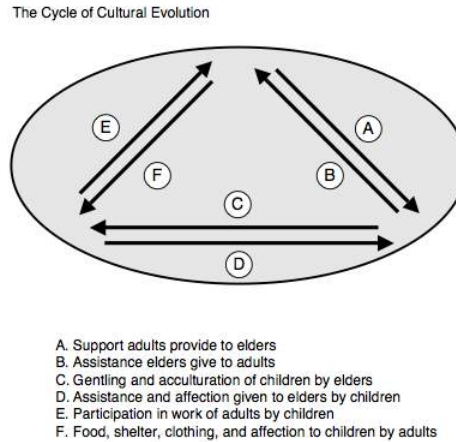
Integrating elderly people with children can benefit both generations. At a cultural level, such intergenerational exchange plays a larger role, as Shirley Travis notes in her review of programming at child and adult-day care centers, "Bringing the young and old together is important for the transfer of history, knowledge, culture and beliefs".³⁵ Given its importance, resolving safety and security issues related to such integration should be a priority to be addressed rather than a stumbling block preventing development of new ideas and programs.

Given the potential benefits that can be realized by combining young and old, it bears asking, 'why not integrate all generations together?' In short, integration of generations represents not so much a departure from as a return to former ways of living. In an integrated community, such as during the pre-industrial era, (as noted earlier) generations tended to help each other out. At that time, it was the sense of fairness and common helpfulness that allowed all people, young, adult and old to sit at the same table. The below figure identifies how relationships between young, old and adult can work together in a 'give and take' manner. Every generation benefits according to this model.

³⁴ William Thomas, 2007, 126-128.

³⁵ Shirley Travis, and Andrew Stremmel "Predictors of the Likelihood to Provide Intergenerational Activities in Child and Adult Day Care Centers." In Kaplan, M., Henkin, N. Z. & Kusano, A. T. Linking lifetimes: a global view of intergenerational exchange /. Lanham, MD: University Press of America, 2002. 112

Figure 15 The Cycle of Cultural Evolution



Source: 1 Thomas, 2007, 300.

4.3 Emerging Social Principles

From the research, a number of social principles have emerged in support of the primary conclusion that the integration of multiple generations with each other and their surrounding community has the potential to not only enrich the lives of the building residents but to act as a catalyst of change. While these principles are not specifically architectural, they are central to the issue of elder housing and form the basis of the resulting architectural principles expressed later (section 6.1).

Proposed Social Principles

1. *Elders deserve easy access to plants, animals and people of other generations.*
2. *Elders and children are at similar stages in life: "being-doing versus doing-being".*
3. *Elders deserve close companionship.*
3. *Elders deserve spontaneity and play.*
4. *Elders need to be allowed to make their own decisions for as long as possible.*
5. *Elders deserve to age in place*
6. *Elders need to be given the opportunity to feel useful by giving care.*
7. *Multi-generational relationships benefit people of all ages.*
8. *Integrating people with their community and environment benefits everyone.*

5. Multigenerational Programs and Case Studies

Aging is a global trend. Similarly, it is increasingly recognized throughout the world that intergenerational relationships are valuable tools in the transmission of history, culture and ideas. As such, new research into and programs for multi-generational interaction and integration is being pursued in many different countries. This section seeks to examine a number of different multi-generational programs and housing projects from five different countries: Canada, Japan, the Netherlands, Germany and France. The size, scope, and type of any given project often varies; however, collectively, the intergenerational case studies give one a sense of the broader picture of intergenerational programming and relationships.

5.1 U.B.C Farm: Intergenerational Landed Learning Exchange

The Intergenerational Landed Learning exchange is a unique program sponsored by the University of British Columbia's Faculty of Education Curriculum Development. Located on part of the 40 hectare U.B.C. Community Farm, the Program uses the land, food, and community garden as a base for a grade seven class, who, working with retired farmers, plan, grow, and care for gardens. The work in the garden is incorporated into the school curriculum for the seventh Graders. ³⁶

The program is popular with both students and elders. Many participant students do not have gardens at home. Through this program, many gain an appreciation not only for where their food comes from but also that elders are good to talk to, can be learned from, and have something to offer all of us. Similarly, elders too learn from the experience. As the UBC Faculty of Education notes, "By uniting generations in a community learning initiative this program illustrates the values of lifelong learning, community mindedness, ecological and social citizenship, and civic responsibility. These are values that are difficult to communicate in schools and classrooms and are best learned through personal and community experience" ³⁷

Figure 16 UBC Community Garden

QuickTime™ and a
decompressor
are needed to see this picture.

Source: UBC Landed Learning Project

³⁶ U.B.C. U.B.C. Farm: A place for Land, Food and Community Learning. 2009 Web Document. http://www.landfood.ubc.ca/ubcfarm/documents/program_summary_2004.pdf

³⁷ U.B.C. The Landing Learning Project. 2009 <http://www.edcp.educ.ubc.ca/landedlearningproject/index.htm>

5.2 Kotoen Age-Integrated Daycare and Elder Home, Tokyo Japan

Project: Kotoen Intergenerational daycare and elder home
Location: Tokyo, Japan
Built: 1992
Facility: Child daycare for 80 children
Adult daycare center for 15 elders from community.
Nursing home for frail and senile elders
Old age home for poor but mobile elders capacity: 50.

Key Words: Intergenerational exchange, child and adult daycare, assisted living, complex care
Summary:

Started in 1992, the Kotoen Project in Tokyo Japan is an experimental welfare project that integrates generations of old and young together in unique ways. The facility combines four different services: a nursery with a capacity of 80 children ages 0 to 4 years, an adult day service center for 15 elders staying in the community; a nursing home for the frail; and, an old age home for poor but mobile elders. Since its creation, the program has gained in popularity and is now cited as a success storey in intergenerational research circles.³⁸

The program warrants closer examination because of the wide variety of types of intergenerational interaction that occurs at the center. Such interaction includes for example:

- Combined daily morning exercise for old and young which includes lively greetings, handshaking and game-playing such as rock, scissors and paper;
- Elders dressing the children after afternoon naps;
- Elders assisting in the beginning childcare of one-year-old toddlers;
- Children's visits to the elder's quarters, during which origami, clay building and paper drama are shared experiences;
- Open childcare by groups of elders once a month where by the elders stay with the children for the entire day for playing, eating and share time together;
- Joint celebrations of special events including cultural events and birthday parties
- Informal visiting and joint walks.³⁹

According to Kaplan, during the daily activities, two different concepts of 'grand-parenting' were observed to be in play: '*Event Grand-parenting*' whereby "emotional connections...are expected to happen within the temporal boundaries of short activity sessions and within the spatial boundaries of the institution"; and '*Collective Grand-parenting*' whereby grandparenthood is defined as a collective identity which "allows the children and elders to take on grandchildren and grandparent roles that transcend their individual selves."⁴⁰ All know that they each will be succeeded by the next generation of elders or children, and as elders anxiously await the next group of children to arrive, the children view their transition to elementary school as a sort of kotoen graduation.⁴¹

³⁸ Matt Kaplan and Leng Leng Tang " Intergenerational Programs in Japan: Symbolic Extensions of Family Unity" in Kaplan, M., Henkin, N. Z. & Kusano, A. T. Linking lifetimes: a global view of intergenerational exchange/. Lanham, MD: University Press of America, 2002. 161-162.

³⁹ Ibid, 161.

⁴⁰ Ibid, 161.

⁴¹ Ibid, 162

5.3 Quayside Village Cohousing, North Vancouver B.C.

Project: Quayside Village Cohousing,
Location: 510 Chesterfield Ave, North Vancouver, B.C.
Built: 1995-1998
Architect: Courtyard Architects
Facility: 19 apartment units of mixed sizes, rental and owned.
Key Words: Cohousing, intergenerational diversity, Affordable Housing, Shared Commons
Summary:

Quayside Village Cohousing project in North Vancouver B.C. began in 1995 with a group of individuals and families coming together and creating a development that is unique in its diversity. Indeed as Quayside's goal statement reads, "the goal of Quayside Village is to have a community which is diverse in age, background and family type that offers a safe, friendly, living environment which is affordable, accessible and environmentally conscious. The emphasis is on quality of life including the nurture of children, youth and elders".⁴²

Quayside Village is home to 26 adults, including four elders (who were founding members)⁴³ and 8 children under 18 years. There are professionals, singles, families with children, and elders -- very much a diverse slice of the local population. As well, of the 19 apartments five of the units are affordable rental units, in accordance with an agreement with the City of North Vancouver.⁴⁴

The design of the complex, prepared by Courtyard Architects won a silver Georgie Award in 1999. Among the features are: a central courtyard that is used by residents to eat, relax, play and be together; a roof deck on the third floor that includes a reading room with views to downtown Vancouver; and a common house that contains a kitchen, dining and social room.⁴⁵

As a typology, Quayside is interesting to consider because it has achieved a certain level of Multigenerational Integration. While the focus is not specifically elder housing, elders do live there and according to Kathy McGrenera, are happy and involved with other members of the community.

⁴² Graham Meltzer PhD. Sustainable Community: Learning from the Cohousing Model, Trafford Publishing, Victoria B.C., 2005, 21.

⁴³ Kathy McGrenera (resident of Quayside Village). Interview with Charles Britton. 21 January 2009.

⁴⁴ CMHC. Cohousing Strategy: Quayside Village Cohousing. On-line report. http://www.cmhc-schl.gc.ca/en/inpr/afhoce/tore/afhoid/cohode/cost/cost_005.cfm 1.

⁴⁵ Ibid, 2.

5.4 Humanitas Bergweg, Rotterdam Netherlands

Project: Humanitas Bergweg
Location: Rotterdam, Netherlands
Architect: EGM Architecten
Built: 1996
Facility: 195 Apartments for life
Key Words: Independent, supportive, assisted and complex care housing, Podium
Summary:

The Humanitas Bergweg development Rotterdam is a European variation on the campus of care model being developed North America. It is similar to the north american campus approach in that it offers housing for three different levels of care: Independent Living; Assisted Living; and Complex Care. However the dutch approach (as exemplified by the Humanitas Bergweg) to this type of housing differs from the north american model in that the three different levels of care are mixed together.

This can be achieved because all unit designs in the project are able to be converted to receive complex care equipment (stretcher beds etc.).⁴⁶ Very progressive in their social programs in general, the dutch have developed the idea of 'apartments for life' whereby people do not have to move out of their apartment for the remainder of their life.⁴⁷

North American observers might assert that mixing people of different levels of care together is not as efficient as grouping them together. The dutch come at the problem from a different perspective: help people help themselves. If people help themselves, they stay more independent for longer. The dutch refer to it as "helping with our hands behind our back".⁴⁸ Applying this to the question of service delivery, most of the independent apartment dwellers receive no support at all (compared to the north American model of supportive living). Even at the assisted care level, much of the assistance is provided by spouses and or family, to keep costs down. Complex care services are provided by groups of traveling nurses as needed.⁴⁹

Perhaps a final distinguishing feature of the project is the central atrium, which is open to the public. This atrium, which all of the units opens onto is actually the roof of a supermarket below. The atrium has a number of restaurants, and personal service firms around the perimeter and is well used by the public and residents for daily and special occasion use.⁵⁰

⁴⁶ Victor Regnier. Design for Assisted Living: Guidelines for Housing the Physically and Mentally Frail. John Wiley & Sons, 2002.158-159.

⁴⁷ Ibid, 159.

⁴⁸ Ibid, 160.

⁴⁹ Ibid, 160.

⁵⁰ Ibid, 160.

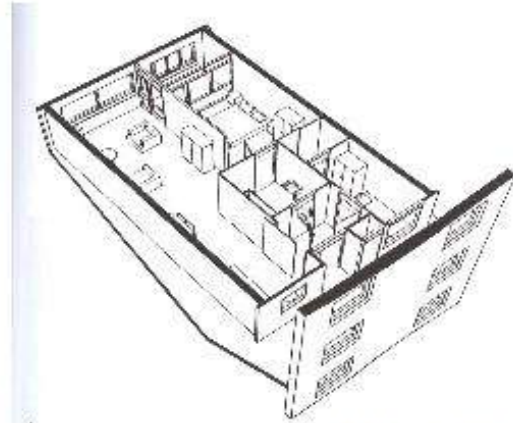
Figure 17

Humanitas Bergweg

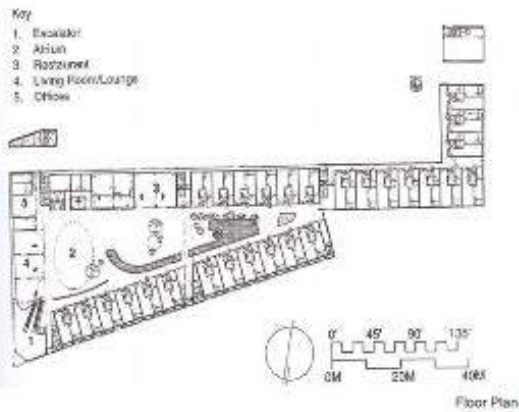
Location: Rotterdam, Netherlands, 1996
 Architects: EGM Architects
 Project: 195 Apartments for Life - subsidized elder housing
 Description: Independent and assisted care
 Social/community services ground floor
 Public access to atrium space
 Travelling meal and nurse program



View of Atrium



Typical Unit Plan - Apartments for Life



Floor Plan



Street View of Complex



Observations:

- Flexible Housing: Age-in Place; adaptable apartments
- Podium concept redefines ground plane.
- Services support age-in-place principles
- Atrium maintained as public despite early hardships.

5.5 Multi-generational House, Heselach Germany

Project: Multigenerational House Heselach
Location: Stuttgart, Germany
Built: 1996
Architects: Haag Haffner, Stroheker
Facility: 86 suites for Seniors and disabled Children
Key Words: Center for generational interaction with each other and community, rental spaces
Summary:

The Multigenerational house in Heselach, a district of Stuttgart, by Drei Architekten (Haag, Haffner and Stroheker) represents a recent attempt in Germany to encourage interaction between generations and the community. Part renovation and part new construction, the architects have organized the building to emphasize the shared common spaces, such as:

- 5 meeting rooms on the ground floor accessible to and by the public for a fee.
- Semi-private courtyard "feiergarten" that is often used by residents young and old alike to celebrate special occasions, and birthdays.
- Common areas on main and second floors such as dining, and seating areas

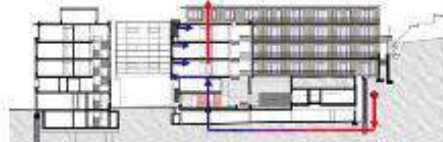
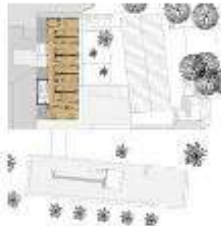
A key element of this project is the manner in which it reaches out to the community. A pleasant courtyard and comfortable meeting spaces accessible from the street can be rented by residents (for a private function, party etc..) or by members / groups from the public. The rental rates are intentionally low enough to be competitive with other space in the neighborhood. The spaces are well used enjoyed by many people, residents and members of the public.⁵¹

⁵¹ Prof. Kai Haag. Generationenhaus Heselach: Rudolf and Herman Schmid Stiftung Stuttgart. On-line PDF document from University of Karlsruhe. http://www.ifw.uni-karlsruhe.de/vortrag/ws_0506/vortrag_heselach_240106.pdf

Figure 18

Multigenerational House Heschl

Location: Stuttgart, Germany, 1996
 Architects: Haag, Haffner, Stroheker
 Project Description: 86 Suites for Seniors and disabled children
 Center for generational interaction with community
 Meeting spaces.



Grundriss 1. Stockgeschoss



Table with 4 columns: Raumnummer, Fläche, and two other columns. The table lists various rooms and their areas.

Raumnummer	Fläche		
1. Stockgeschoss	1.1	1.2	1.3
2. Stockgeschoss	2.1	2.2	2.3
3. Stockgeschoss	3.1	3.2	3.3
4. Stockgeschoss	4.1	4.2	4.3
5. Stockgeschoss	5.1	5.2	5.3
6. Stockgeschoss	6.1	6.2	6.3
7. Stockgeschoss	7.1	7.2	7.3
8. Stockgeschoss	8.1	8.2	8.3
9. Stockgeschoss	9.1	9.2	9.3
10. Stockgeschoss	10.1	10.2	10.3
11. Stockgeschoss	11.1	11.2	11.3
12. Stockgeschoss	12.1	12.2	12.3
13. Stockgeschoss	13.1	13.2	13.3
14. Stockgeschoss	14.1	14.2	14.3
15. Stockgeschoss	15.1	15.2	15.3
16. Stockgeschoss	16.1	16.2	16.3
17. Stockgeschoss	17.1	17.2	17.3
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59. Stockgeschoss	59.1	59.2	59.3
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61. Stockgeschoss	61.1	61.2	61.3
62. Stockgeschoss	62.1	62.2	62.3
63. Stockgeschoss	63.1	63.2	63.3
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65. Stockgeschoss	65.1	65.2	65.3
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67. Stockgeschoss	67.1	67.2	67.3
68. Stockgeschoss	68.1	68.2	68.3
69. Stockgeschoss	69.1	69.2	69.3
70. Stockgeschoss	70.1	70.2	70.3
71. Stockgeschoss	71.1	71.2	71.3
72. Stockgeschoss	72.1	72.2	72.3
73. Stockgeschoss	73.1	73.2	73.3
74. Stockgeschoss	74.1	74.2	74.3
75. Stockgeschoss	75.1	75.2	75.3
76. Stockgeschoss	76.1	76.2	76.3
77. Stockgeschoss	77.1	77.2	77.3
78. Stockgeschoss	78.1	78.2	78.3
79. Stockgeschoss	79.1	79.2	79.3
80. Stockgeschoss	80.1	80.2	80.3
81. Stockgeschoss	81.1	81.2	81.3
82. Stockgeschoss	82.1	82.2	82.3
83. Stockgeschoss	83.1	83.2	83.3
84. Stockgeschoss	84.1	84.2	84.3
85. Stockgeschoss	85.1	85.2	85.3
86. Stockgeschoss	86.1	86.2	86.3

Notes:
 - The building is a multi-story structure with a central courtyard.
 - The building is designed to be a center for generational interaction with the community.
 - The building features a variety of spaces available to rent by the community.



- Observations:
- Building integrates with neighboring community.
 - Outdoor spaces "fielergarten" emphasized.
 - Variety of spaces available to rent by community.

5.6 Unite D'Habitation, Marseille France.

Project: Unite d'Habitation
Location: Marseilles, France
Built: 1952
Architect: Le Corbusier
Facility: 337 Apartments of varying size, in-building services Rooftop Kindergarten and amenity
Key Words: Vertical village, Flexibility of module expansion, diversity
Summary:

One of Le Corbusier's most famous buildings, one would not immediately identify the Unite D'Habitation in Marseille as specifically a multi-generational building. However, closer examination reveals that the typology embodied by this building, the vertical village, meets several multigenerational criteria.

For example, the Unite D'Habitation was flexible in its unit layouts. Several different unit types and flexibility in how units were joined meant that the unit range extended from bachelor suites to seven bedroom apartments. While this may also be called flexible housing, it could be argued that such variety of unit sizes would attract a mix of people, young families to elderly people.⁵²

In-building Services such as a grocery store and hairdressers would have been quite convenient to an elderly person, as well as the rooftop gym, pool and leisure area. While we may not agree with all of Le Corbusier's ideas, in the Unite D'Habitation, he sought to improve the life of a wide variety of building residents. The potential for an elderly person making his or her way to the rooftop pool while a young mother delivered her child to the rooftop kindergarten was certainly there.

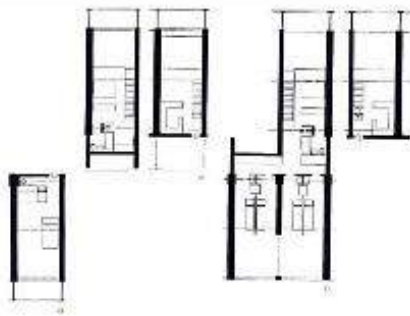
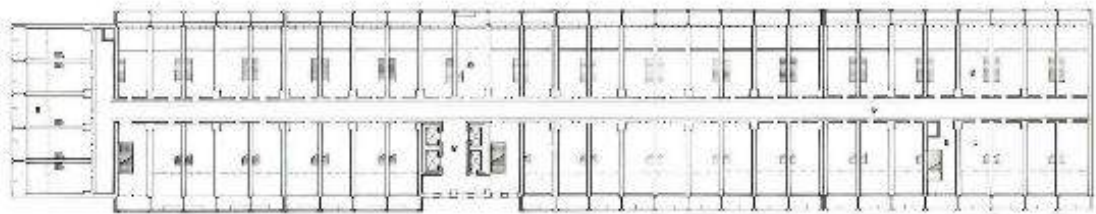
Perhaps the weakest part of the building, if it were considered as a multigenerational building, is the base. The building is a self-contained island, removed from its context and surrounding neighborhood. Reaching out to the community is difficult from such a building, yet still worth studying.

⁵² Cohen, J. Le Corbusier (Taschen Basic Art Series). Taschen GmbH, 2004.

Figure 19

Unité d'habitation

Location: Marseilles, France, 1952
 Architect: Le Corbusier
 Project: Vertical City (337 Apartments)
 Description: Streets every third floor
 Units received daylight to both ends
 Unit modules could be expanded up to 7 people.
 7th floor street housed shops and hotel
 Rooftop terrace: Gymnasium and Kindergarten



Observations:

- Flexible housing for variety of users: variety of unit plans
- Light at both ends of dwelling units : very livable
- In-building services: very convenient.
- Roof-top amenity space

6. Literature Review Discussion and Conclusions

6.1 Discussion

This thesis began with a desire to understand the current state of elder housing in Vancouver, B.C. Personal site visits early on to government and privately-run care homes led to the early conclusion that little had changed in the fifteen years since I last stepped into a care home. The current system segregates elderly people. Elderly people suffer because of it as well as the rest of society.

The history of elderhood and eldercare confirmed that things were not always the way they are today: Elders were not always marginalized, nor segregated from family, friends and community. Indeed, elders of past times were central figures in the creation and transmission of knowledge, history and culture.

From the summary review of current approaches to elder housing in Vancouver a clear conclusion emerged, that the current approaches, whether government or private, are not serving the needs of elderly people and the greater community at large. Maintaining the status quo is not an option. New alternatives must be developed.

Alternate views of elderhood and aging do exist and are gaining exposure as people seek out new approaches to long-standing problems. The Eden Alternative is an excellent example of an alternate worldview of elderhood. Elder-centered developments whereby elders have more control, companionship, and spontaneity warrant closer examination and consideration. Multigenerational integration of elder housing represents an exciting and relatively untapped field of study, one that focuses on the benefits that can be realized when groups of different generations are brought together. Such exploration of ideas leads to the development of a new set of proposed social principles. These principles, related to elderhood and multigenerational integration, set the groundwork for later work.

A number of case studies of multigenerational programs and developments throughout Europe and Asia allowed the examination of the range of approaches to the issue of multigenerational integration and living. Individually, the case studies focus on a different element of intergenerational interaction. Community gardens, adult and child daycares, apartments for life, co-housing living arrangements, rentable courtyards, and flexible unit design in vertical villages all work to inform the next steps of this journey, Part II : Architectural Design.

6.2 Conclusions of Literature Review / Research Analysis

Current approaches to eldercare and housing are failing. It is clear from this thesis review of the current state of eldercare locally, as well as the review of alternative multigenerational programs and developments worldwide that new approaches to the issue of elder housing in B.C. need to be developed. Of particular importance is the exploration and testing of the thesis *that Inserting a mixed model of family and seniors housing into a community center setting and sharing services will enable seniors to age in place as well as strengthen intergenerational connections in the community*. I look forward to the design portion of the thesis to assume that burden.

Part B: Architectural Design and Resolution

7. Introduction: From Theory to Practice

The architectural design stage of the thesis (Part B) seeks to test the theoretical position developed during the research portion of the thesis on a real parcel of land in Vancouver B.C. More specifically, Part B is an architectural response to the thesis that “*Inserting a mixed model of family and seniors housing into a community center setting and sharing services will enable seniors to age in place as well as strengthen intergenerational connections in the community*”.

As with any architectural project, a successful design solution needs to be a marriage between ‘program’ and ‘site’; and, both need to work together to support the original intent – the thesis proposition. This thesis achieves that marriage.

The following sections summarize the key areas of focus of Part B of the thesis. The order in which they are presented corresponds generally with the order in which they were considered: Site selection; Site Analysis; Master Plan and finally Building Design.

Figure 20 Gathering and the Making of Place



8. Project Site Selection and Analysis

8.1 Site Description (Physical, Location, Topography, Endowments)

The project site is approximately 8.2 acres and is located on and next to the site of the Britannia Community Center at 1110 Cotton Drive, Vancouver B.C. A portion of the project site extends beyond the community center site to the east to include Commercial Drive frontage from the 1000 to 1200 block. The site is a sloping site (30 feet drop across length of built area) and is flanked to the south by Grandview Park, to the north by Britannia Ice Rink and to the west by Britannia Secondary School. The site is currently occupied by a series of community center buildings and elementary school developed and built during the 1970's as well as a mixture of aging commercial buildings along Commercial Drive. Currently working its way through the envisioning stage of re-development, the Britannia Community Center is set to be overhauled within the next five years.

Figure 21: Site Location



Figure 22 : Aerial Perspective of Project Site



Figure 23: View of Escarpment / Playing Field Juncture



Figure 24: View of Central Courtyard at Napier Street



8.2 Site Description : Community / Cultural Context

The project site is located in the vibrant urban neighborhood of Commercial Drive, Vancouver. The neighborhood is largely a pedestrian – oriented urban neighborhood. Pedestrian movement through the project site is impressive as well as the number of people gathering in Grandview Park at all hours of day to eat, talk, play music relax etc...The importance of Britannia Community Center to this neighborhood cannot be understated. It is a well-used community center with a large number of programs serving a large number of people, ranging from children, teen, families and seniors and special interest groups.

Figure 25: Context Photos (see Appendix for more detail)



8.3 Site Analysis (Observations)

If Britannia Community Center is so well-used, one might ask whether change is necessary. While the community center is well-used, it needs to be pointed that there are not many options in the area – this community center is all there is for many in the neighborhood. In fact, a detailed review of Britannia Community Center and its programs identified a number of problems that need to be addressed if intergenerational connections are to be improved, ranging from built form to programming issues to local demographics. In all noted cases below, architecture can provide an answer.

Figure 26: Site Analysis



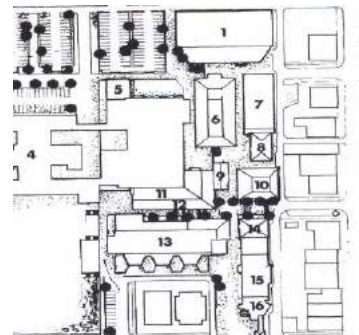
8.3.1 Multiple Streets

The first apparent problem with the existing design of Britannia Community Center is the number of exterior ‘streets’ (paved passageways) connecting various Community Center program elements. For the most part, the streets are devoid of nooks, alcoves seating areas etc, and are uncovered to the sky. These are spaces to be moved through as quickly as possible without stopping.

8.3.2 Programs Separated

Related in part to the intentions of the original designers of Britannia Community Center (B.C.C.) , a second criticism of the B.C.C. is that so many of the programs are separated apart from each other. Such separation of programs leads to segregation of people and community center user groups from each other. Michelle Ziebart, Coordinator for the Al Mattison Seniors Lounge, noted for example that while most of the seniors who come to the lounge do use other services at the community center (primarily the pool), the majority of seniors do not interact very often with other user groups of the center⁵³. A survey prepared for this thesis and administered by Ms. Ziebart to thirty seniors using the lounge confirmed this as well⁵⁴. The lack of intergenerational interaction is due in large part to the physical design of the community center: most people choose to move through the exterior streets as quickly as possible to get to their next destination. The central courtyard is perhaps the only exception to this rule; but even here, benches are most passed by many months out of the year because there is no covered space in which to stop. It is clear in this case that the built form is not helping to bring people together, but rather keeps people apart.

Figure 27: Existing Exterior Pedestrian Walkway Between Programs



⁵³ Ziebart, Michelle, Interview 2009.

⁵⁴ Britton. *B.C.C. Multigenerational Survey*, 2009

8.3.3 Street Presence on Commercial Drive Needed

A second observation regarding the community center is that it does not have a presence on Commercial Drive. For first-time visitors to the community center, the lack of public face combined with the large number of exterior passageways is disorienting. Any redevelopment of the parcel should consider this.

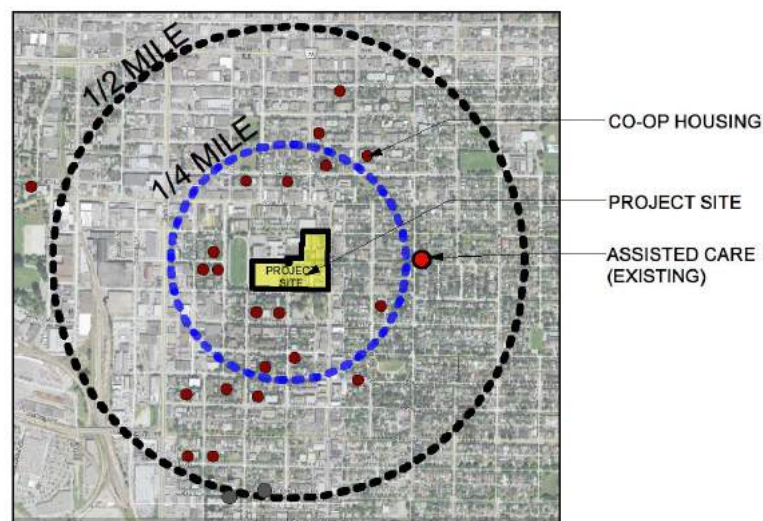
8.3.4 Site Endowments Abound

There are wonderful site endowments that need to be mentioned and imbedded in later design phases. First, the site has great southern and western exposure. To the south is Grandview Park. Along the western boundary is an escarpment overlooking the school playing fields. From this escarpment one enjoys unobstructed views to the city and north shore. The proximity of Commercial Drive and its shopping / eateries is another endowment to be considered during design.

8.3.5 Seniors Housing is lacking in the Direct Are

One interesting finding of the survey conducted of users of the Al Mattison Seniors Center was that none of the 30 respondents live in assisted care facilities – most live either in senior's independent housing, or in family homes. The reality is that there is a shortage of seniors assisted care living in the area: within ½ mile of B.C.C. there is only one assisted care facility (1/4 mile uphill from the center). For seniors in assisted care then it is not surprising that few residents attend the Britannia Community Center. The provision of assisted care housing for seniors that provides access to community services is of fundamental importance and needs to be included in any intergenerational design proposal for this site.

Figure 28: Site Plan with Five (in Blue) and Ten Minute Walking Circles



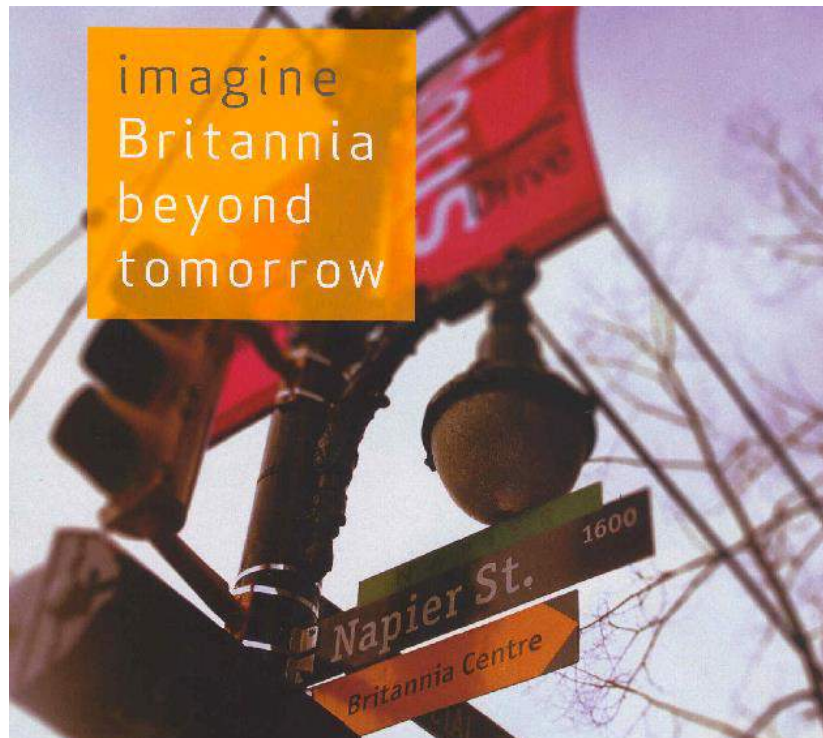
SITE PLAN WITH 1/4 & 1/2 MILE RADII

Scale: 1:15000

8.4 Site Analysis Discussion and Conclusions

From the site analysis it is clear that the project site, while located in a vibrant neighborhood and exhibiting many positive natural endowments, is at the same time not living up to its potential. In light of the fact that the site will undergo a transformation over the next five years, it is fitting that this thesis seek to offer a vision of a future Britannia Community Center complete with Multigenerational Living and senior's housing located on site and sharing some services. Such a move will allow more seniors to age in place, remain active in their community and strengthen intergenerational bonds. During the following design stages, the thesis will present a master plan and building design that not only meets the programmatic requirements set out but also will show that the proposal responds to the site, and attempts to 'fix' the apparent deficiencies evident on the site currently.

Figure 29: Britannia Envisioning Process Advertisement



9. Master Plan: Britannia Community and Intergenerational Center

9.1 Site Master Plan Concept: Synergy of Gathering

In keeping with the desire to bring people together, the concept for the Site Master Plan can be described as the 'Synergy of Gathering'. Synergy refers to the idea that two or more agents can work together to create something that is greater than the sum of their individual efforts. Similarly, the 'Synergy of Gathering' holds that people who gather together on the Britannia Community Center site will, through their combined efforts, create something that is greater than the sum of their individual efforts. In this case, it is hoped that through careful planning and design, people gathering on site will create a sense of place, whereby people identify with a specific place and claim it as their own. This in turn will lead to a greater sense of community. The introduction of multigenerational residences for a range of age-groups (from single to families to senior assisted care) is central to this effort to improve the interaction between generations and strengthen a sense of community for all residents.

Figure 30: Synergy of Gathering



Figure 31: Public Gathering



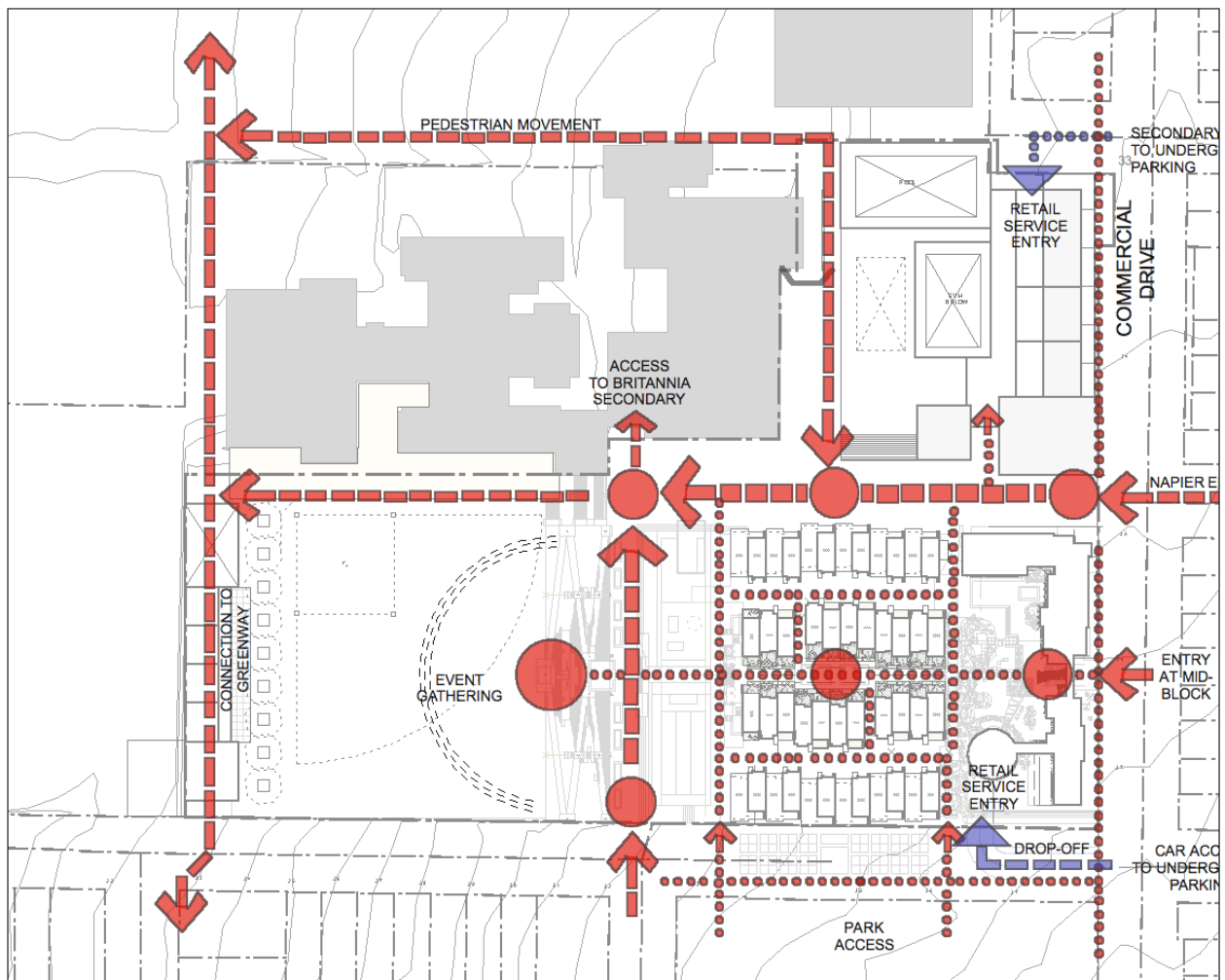
9.2 Site Planning Principles

In support of the site concept above, a number of principles have been developed. Below find a summary of each principle. See also Master Planning Principles Drawing attached.

9.2.1 Clarify Site Circulation

As noted above, one of the main deficiencies of the current Britannia Community Center is the number of exterior passageways working their way through the site. Transforming the existing site circulation into a well-organized system with fewer passageways and a clear hierarchy of spaces will make it much easier for people to navigate through the site. Such a transformation will also bring people together along the main circulation passageways in higher concentrations, and if designed properly will lead to gathering.

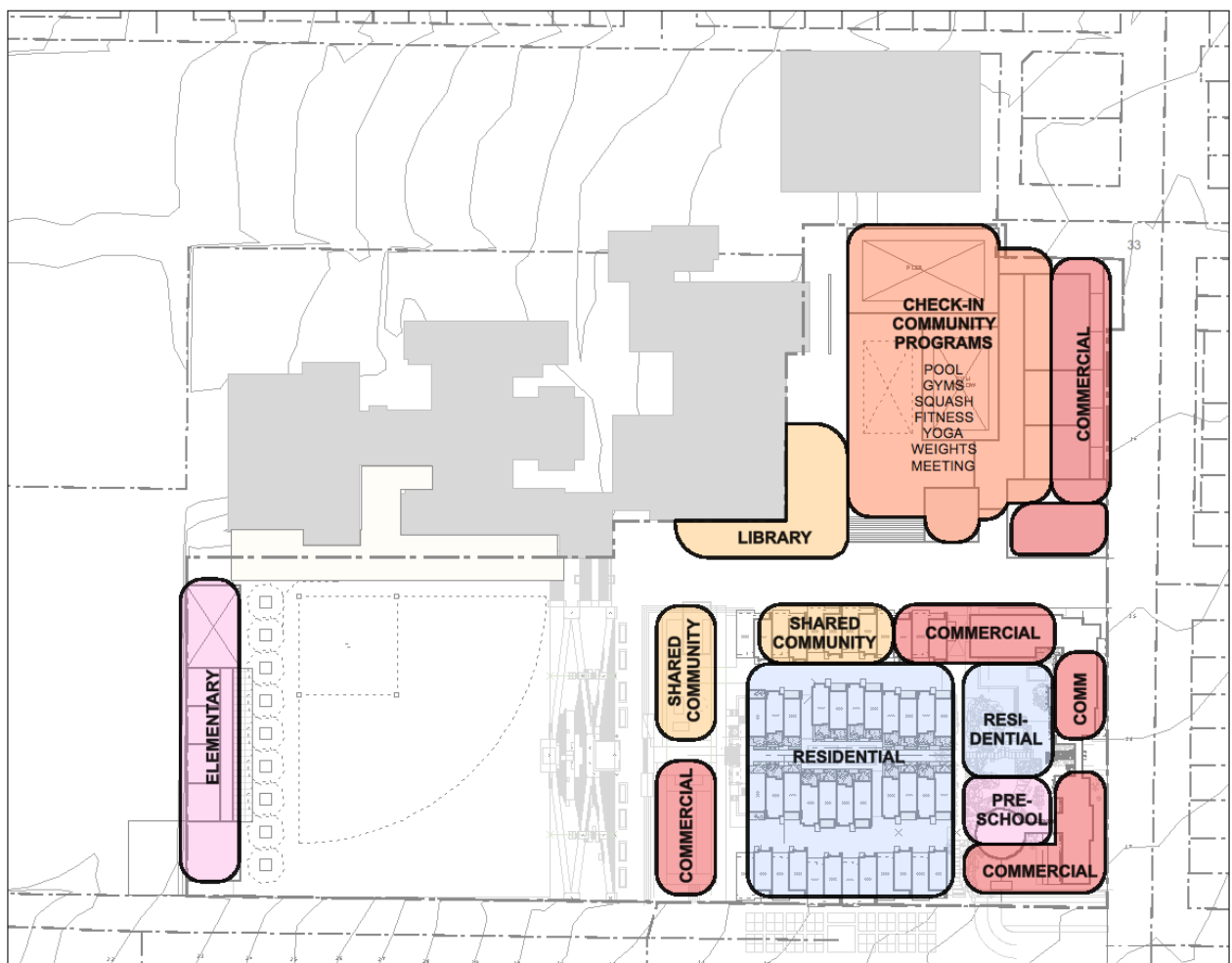
Figure 32: Proposed Master Plan : Site Circulation



9.2.2 Intensify Interaction by Collecting Similar Uses Together

Responding directly to the observation above that separation of community center programs tends to segregate and isolate user groups from one another, the proposed solution deliberately concentrates similar program functions together. For example, all check-in programs like pool, gym and fitness are located in close proximity to each other. Similarly, community / cultural shared services like the teens, family, and seniors centers are also located together within the multi-generational lounge, to the south and west of Napier Courtyard.

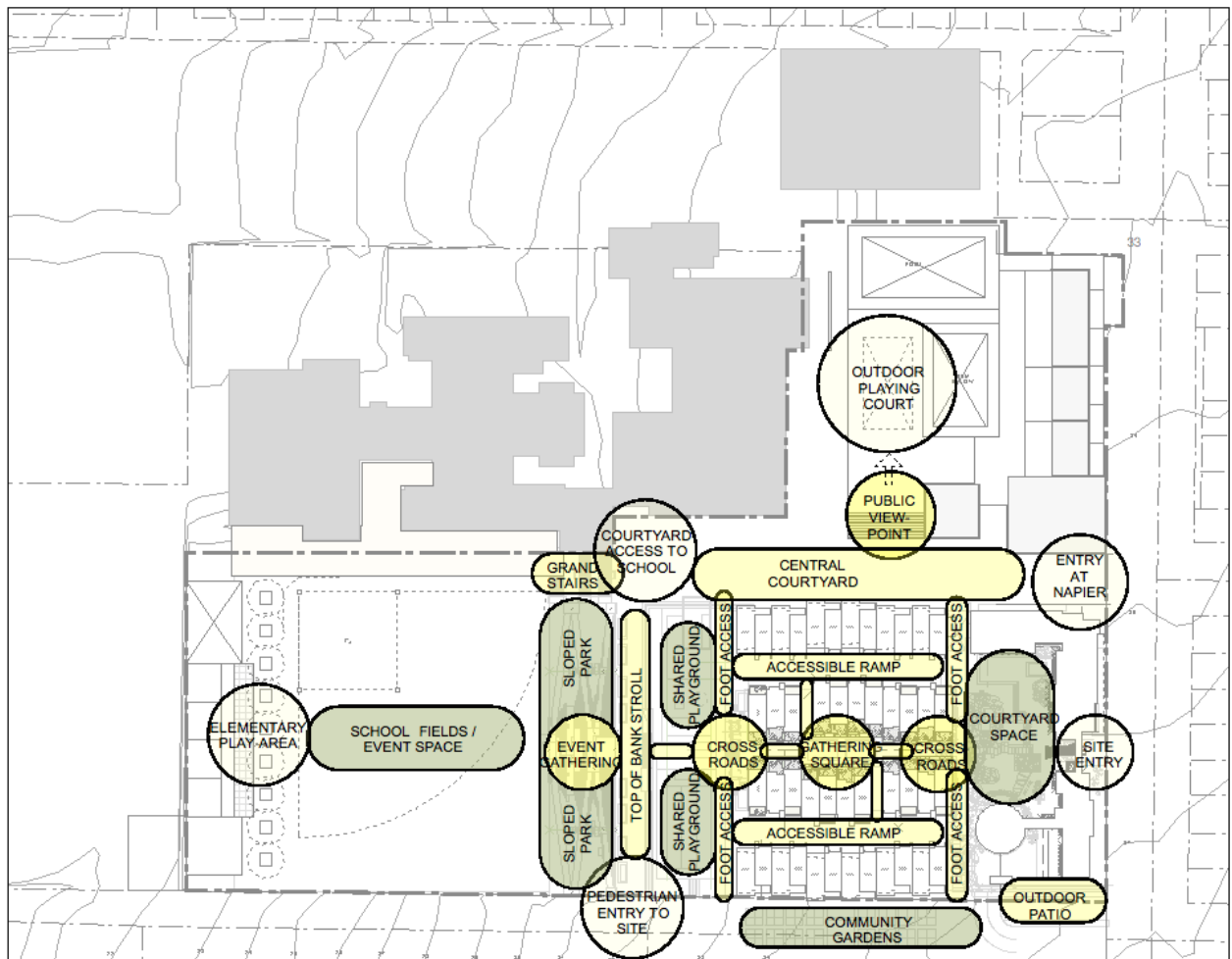
Figure 33: Proposed Master Plan : Program Layout (Conceptual)



9.2.3 A Series of Gathering Places

Community Centers are about gathering, as is the site concept. The proposed solution creates a variety gathering areas located throughout the site, from public to semi-private and fully private. See architectural drawings for more information.

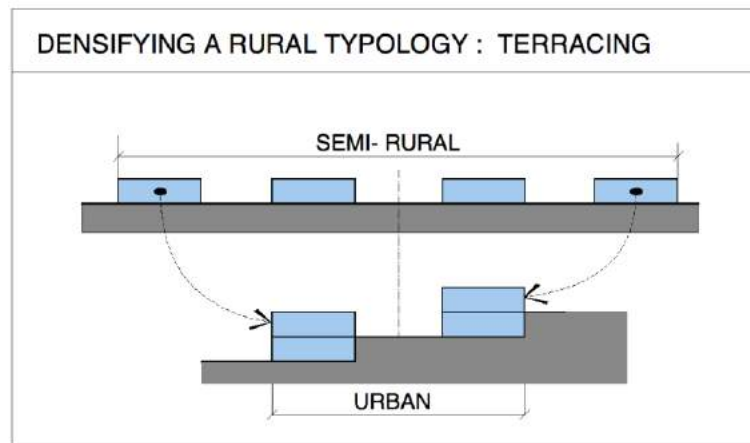
Figure 34: Proposed Master Plan : Gathering Areas



9.2.4 Densify a Rural Typology by Terracing the Residential Component

Drawing on the experience of northern European seniors living developments (in which the majority of developments are ground-oriented row housing) the proposal for the B.C.C. site seeks to insert essentially that rural typology into an urban context, by stacking and terracing the units. See drawings for more information.

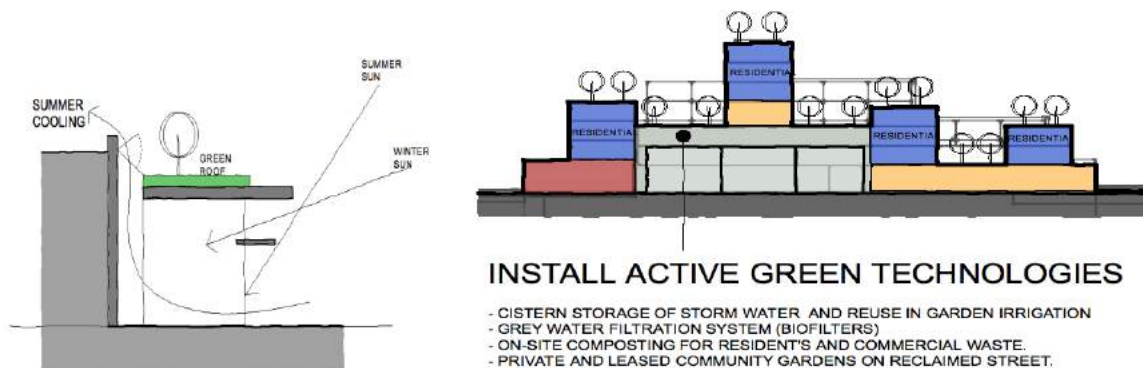
Figure 35: Densifying a Rural Typology



9.2.5 Incorporate Environmental Design

Proper site planning must incorporate a sensitivity to the surrounding environment. In this case, the master plan for the B.C.C. site responds not only to solar orientation (see study models for shading analyses / studies) but also to the need for connection to adjacent public green spaces, notably Grandview Park to the south and playing field escarpment to the west.

Figure 35: Passive and Active Environmental Design



9.3 Master Plan Resolution

As a result of applying the above Principles, the Master Plan for the new Britannia Community Center has two main exterior pedestrian streets connecting to Commercial Drive and Napier St.. To the north of the main east / west entry axis are all check-in Community Center Programs. To the south of the same axis, the proposed solution locates multigenerational living residences and assisted care. To the west end of the site, the elementary school is relocated to be closer to playing fields, high school and parking lot.

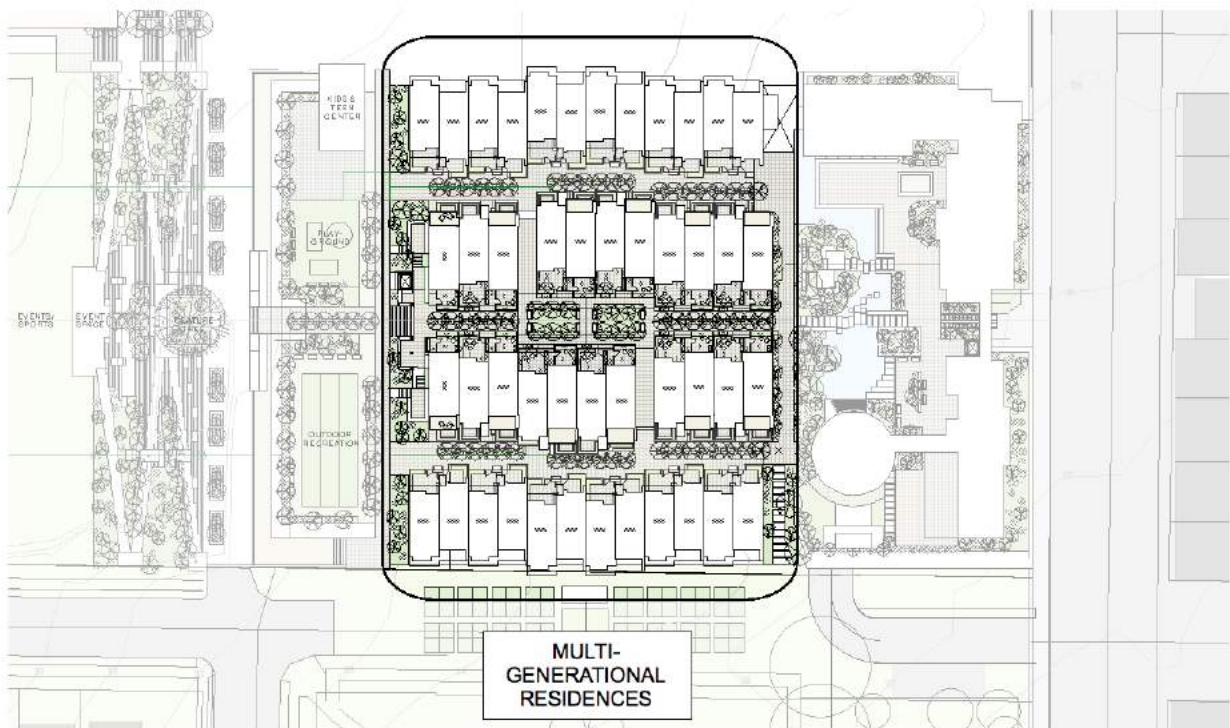
It bears mentioning that at the conclusion of the master planning stage, due to the scale of the project, the scope of work was necessarily narrowed to the Multigenerational Residences, Assisted Care and shared Community Services such as the Multigenerational Center. Check-in program areas of the Community Center were laid out and located according to master planning principles, and floor areas, circulation and general massing confirmed. However, due to the narrowing of scope of work, these areas of the project were not advanced beyond the master planning resolution stage.

Figure 37: Master Plan Resolution



10. Building Design I: Britannia Multigenerational Residences (Independent)

Figure 38: Multigenerational Context Plan



10.1 Concept: Densified Mix of Ground-oriented Housing

In support of the goal to bring people of different generations together and to densify the urban project site, the first stage of the building design proposes to introduce sixty intergenerational residences located to the south of the main Napier Court and directly to the west of the proposed assisted care home. Located on a sloping grade plane above an underground parking structure, the residences vary in size from 600 – 1400 sf and from 1 bedroom apartments to 3 bedroom townhouses. Fully half of the units are in the 600 sf apartment range and are intended to be occupied mostly by seniors or members of extended families.

10.2 Architectural Principles

10.2.1 Densify Site by Terracing and Stacking Residential Units

Building on the principles laid out for the master planning portion of the thesis, terracing and stacking the residential units allows the site to achieve a higher density while maintaining grade access for most units. The section below illustrates how the stacking and terracing of the residential units work to both densify the site and also maximize the number of units with grade access to the unit entries.

Figure 39: Section at Multi-generational Residences

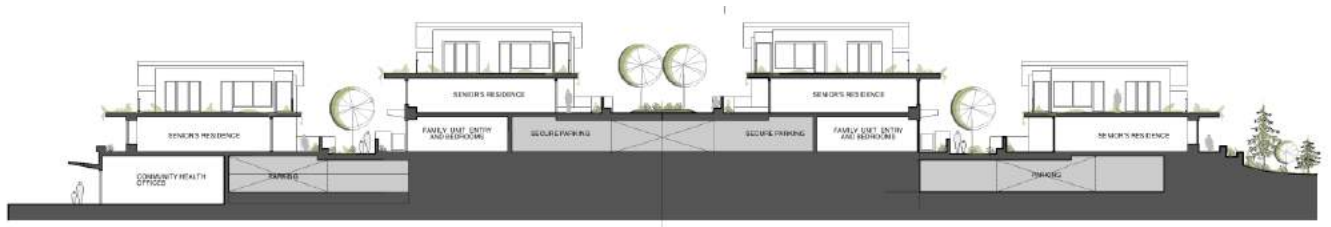
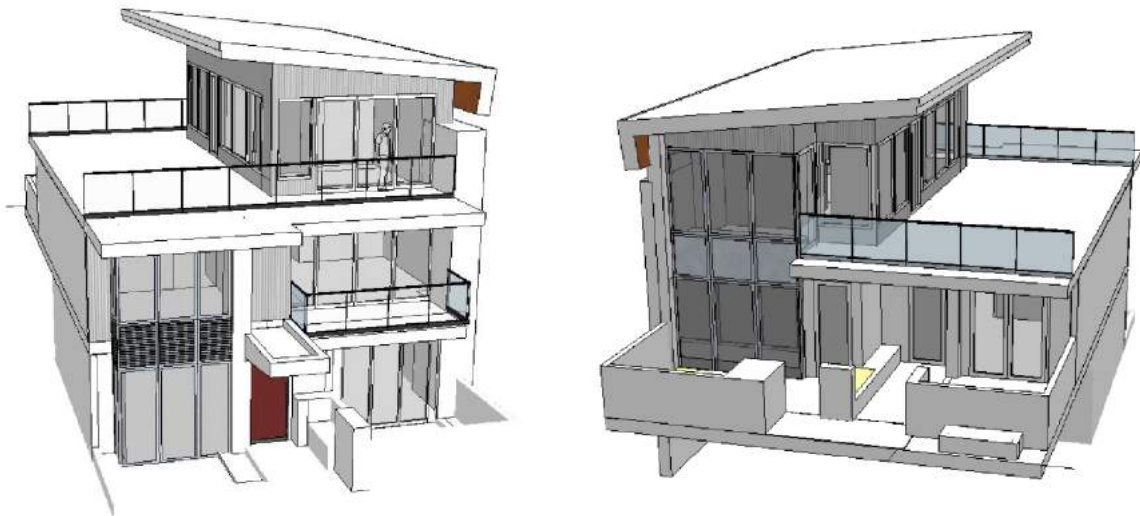


Figure 40: 3D Views of Typical Multi-generational Residences



10.2.2 Accessibility of Through-site Movement / Grade Access

Indeed, providing grade access to all senior – oriented units is of key importance in efforts to help seniors retain independence and supporting ‘age in place’ ideals. As the section below illustrates, the proposal calls for the the development and multigenerational residences to be located on a podium over underground parking. Wheelchair access is provided to the podium level for public access by means of an exterior escalator off of Commercial Drive as well as elevator access both internal and external. Once at the high point of the podium (approximately 4 meters above the sidewalk below) the path of travel to and through the multigenerational residences is between 5% and 8.33%, and is fully accessible.

Figure 41: Site Section at Central Walkway



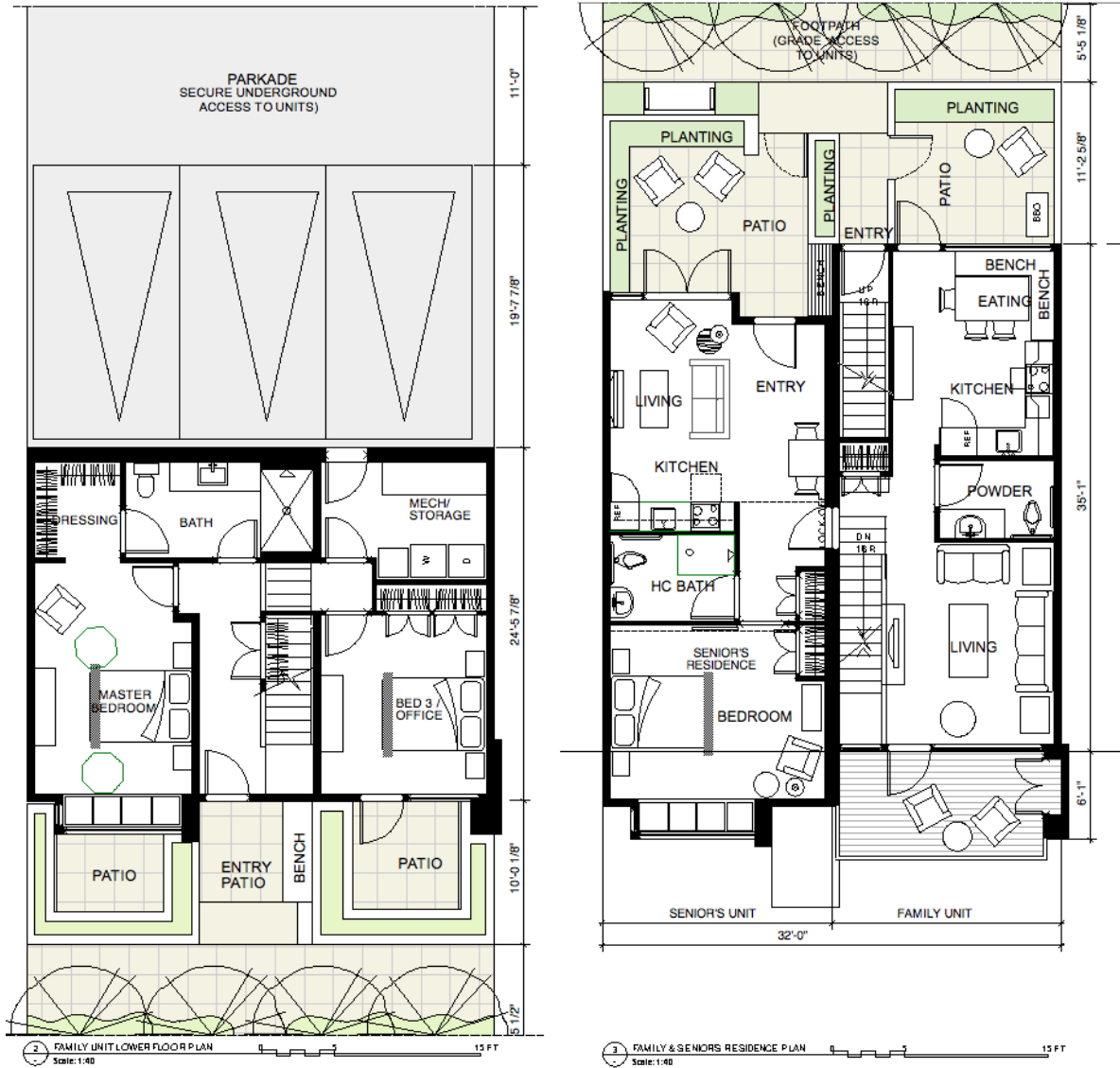
10.2.3 Unit Design: Orientation - Southern Exposure and Daylighting

A key design consideration for the layout and design of the Multigenerational Residences was the desire to provide all units with light on two sides. This necessarily had an impact on the unit dimensions (the design module being approx. 16'x32') as well as the layout on site in single loaded rows of buildings (albeit stacked). All units not only enjoy light on two sides, but they also are oriented to take advantage of the southern exposure.

10.2.4 Unit Design: Flexibility of Use over Time

One particularly strong point of the design of the Multigenerational Residences has to do with their flexibility of use over time. Every two bedroom townhouse is linked through an internal lock-off door to an adjacent 600 sf one bedroom apartment that could at any given time be used for a student, a third child, an elderly parent /inlaw, or for a complete stranger. These lock-off units could be used for additional rental income, or sold separately to another person. The figure below illustrates two of the levels in the townhouse and the senior's apartment and how they interrelate.

Figure 42: Multigenerational Residences: Sample Unit Plans



10.2.5 Unit Design: Gathering Spaces (public / private)

Another goal of the multigenerational residences is to encourage gathering by providing a variety of gathering areas. These areas range in both size and location as well as in degrees of privacy, from private to public. For example the plans above show sitting areas for a senior within the privacy of the bedroom as well as in the living room and also exterior patio. It is recognized that people's use of these gathering areas will change over time with changing use patterns. The design intentionally allows for that change. Beyond the limits of each individual unit, gathering is supported through careful design of the public / semi-public realm. Such spaces as sitting benches near walls, planted areas and stair landings offer people a chance to stop and pause for a moment to talk, observe, or reflect.

Figure 43: Multigenerational Residences: Central Courtyard



10.3 Building Design I : Resolution

The Multigenerational Living Residences are a key component of the design proposition for the Britannia Community and Living Center. At this time it is anticipated that most of the 600 sf units with grade access will be occupied by seniors looking to downsize or looking to move closer to their extended family. The use of the units could change over time as demographics also changes. However, I believe the unit designs are strong enough to adapt to that change.

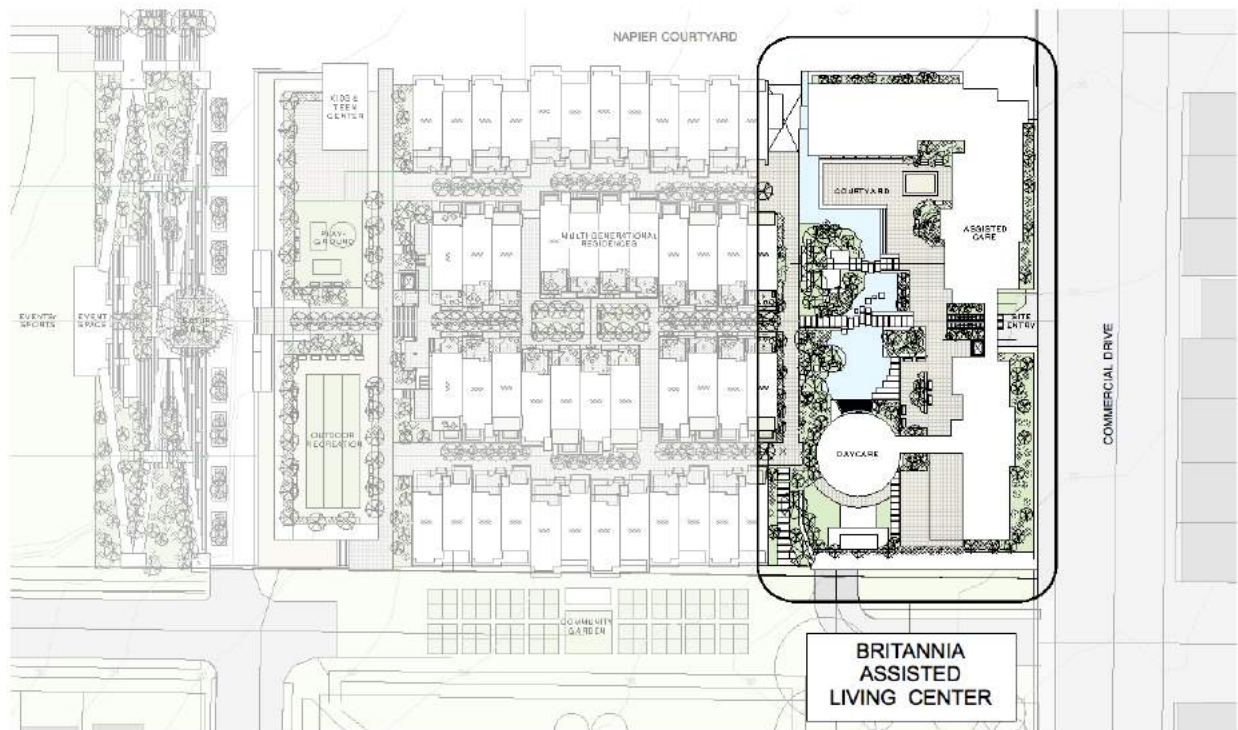
The Multigenerational Residences are one part of the overall strategy to build a community that encourages more intergenerational interaction, allows people to age in place, and enjoy the company of their friends and family for as long as possible. Together with the assisted care and multigenerational center, the multigenerational residences at Britannia Community and Living Center offer a fresh alternative for senior's independent living – one that provides grade access, flexibility while also densifying the site by terracing and stacking the development.

Figure 44: Photos of Final Model Showing Multigenerational Residences



11. Building Design II: Britannia Assisted Care Residences

Figure 45: Britannia Assisted Care Residences Context Plan



The second component of the Britannia Community Living Center is an assisted care facility that is geared toward enabling residents to maintain their independence for as long as possible through careful design of individual assisted care units, interior common areas and shared exterior courtyard spaces.

The proposal calls for forty-eight assisted care units located on three stories above a common shared amenity space level which in turn opens out onto a shared exterior courtyard. The building also has an drop-off and front building entry at the corner of Commercial Drive and Napier Street.

Some program areas on the main floor of the assisted care building are able to be used by the public to varying degrees. For example, the dining room area can be operated such that it is open to the public during certain hours. As well near the south edge of the podium, people from the residences below and from the neighborhood can access the preschool, daycare and a shared craft room for their children.

11.1 Concept: A building that connects residents with their surroundings

The concept for this part of the design work is a building that connects residents with their natural and neighborhood surroundings in real and practical ways, from progressive kitchen and entry design to innovative planted balconies and vertical gardens to various shared common spaces. All elements work to support the concept and the goal of helping residents maintain independence for as long as possible, and to remain connected with the neighbors and community.

11.2 Architectural Principles

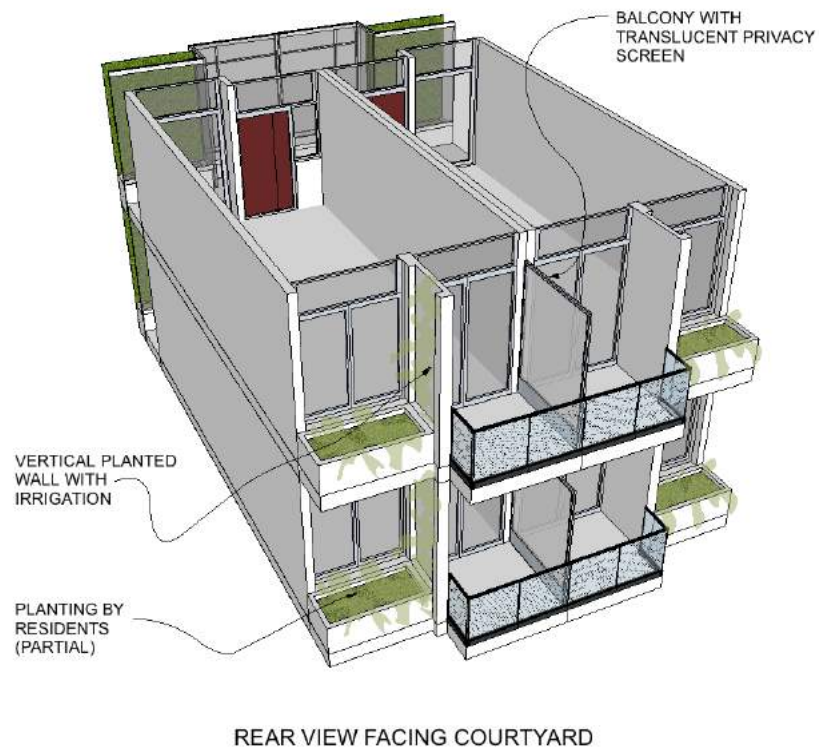
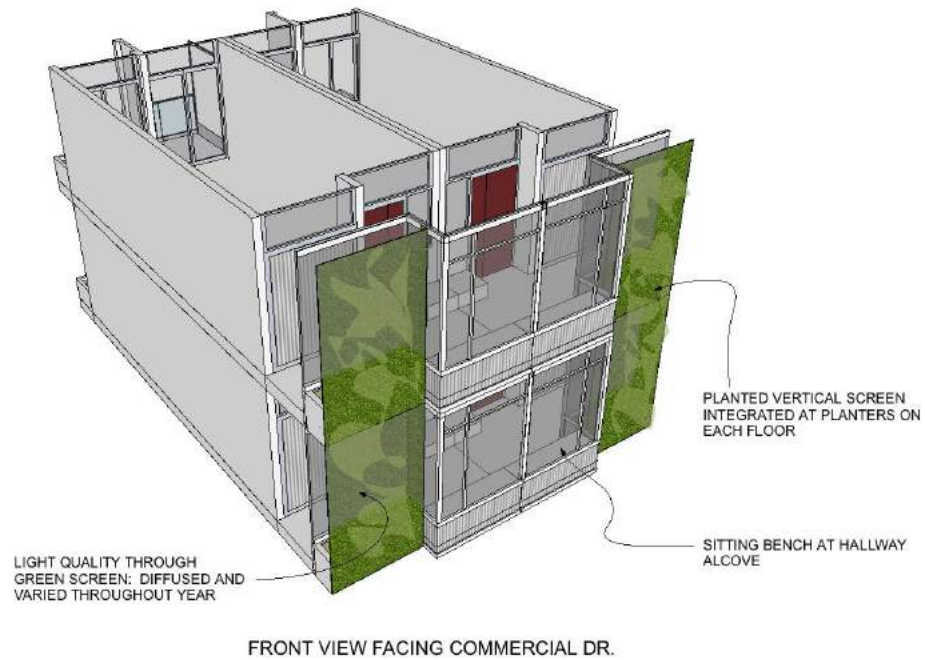
11.2.1 Unit Design: Orientation and Day-lighting

The proposal calls for all units to have day-lighting on at least two sides. This has a notable impact on the design of the building. Double-sided corridors have been replaced by single loaded glazed corridors located to the streetside of the units. As a result all units look directly either south or west into the shared amenity courtyard. The glazed corridor acts both to let daylight into each unit along the east and north walls by means of higher windows and door sidelights; as well, the corridor also acts as an acoustic barrier to the street noise of Commercial Drive to the East.

Figure 46: Assisted Care Building Plans



Figure 47: Assisted Care Unit Plan Model (2 Views)

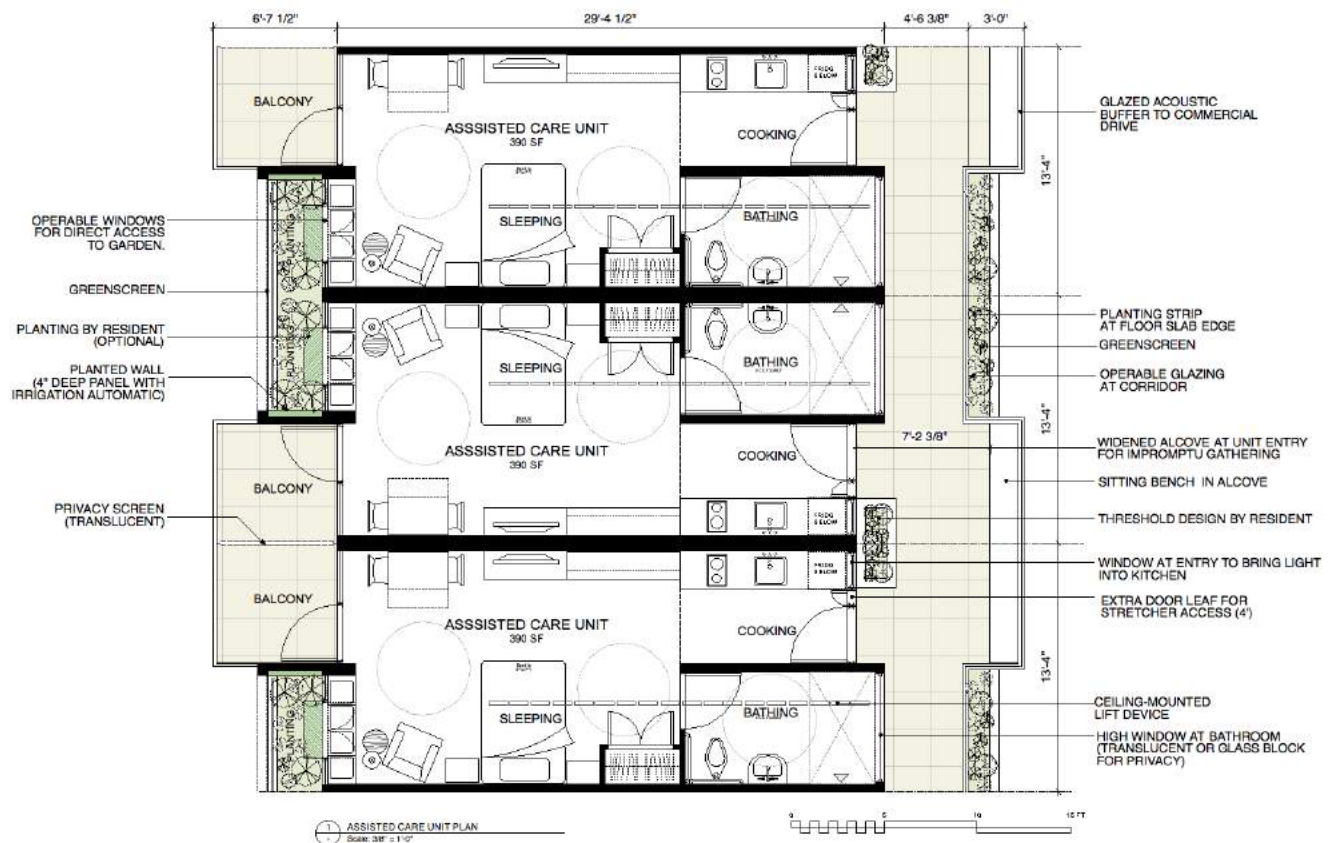


11.2.2 Unit Design: Entry Threshold Personalization

Unit entries are an excellent opportunity for residents to express their individuality by declaring “this is my front door and ‘porch’”. The proposal supports this privatization of semi-public corridor space by deliberately allocating enough space at each entry to allow each resident an alcoved space to personalize.

Unit entries are also a great place to meet one’s neighbors. The proposal helps support this by creating sitting alcoves on the street side of each corridor opposite each entry. The figure below shows a series of three assisted care units combined to create the entry and sitting alcoves at each unit entry. The residential units are mirrored deliberately to locate the unit entries and alcoves close to each other to increase chance meetings between residents. The vertical gardens and planters work to bring the outdoors closer to residents on the public side of the building. Such a device also alters the quality of light and experience of each resident moving along the corridor throughout the year.

Figure 48: Assisted Care Unit Plans



11.2.3 Unit Design: Kitchens Should Be Part of Assisted Care Units.

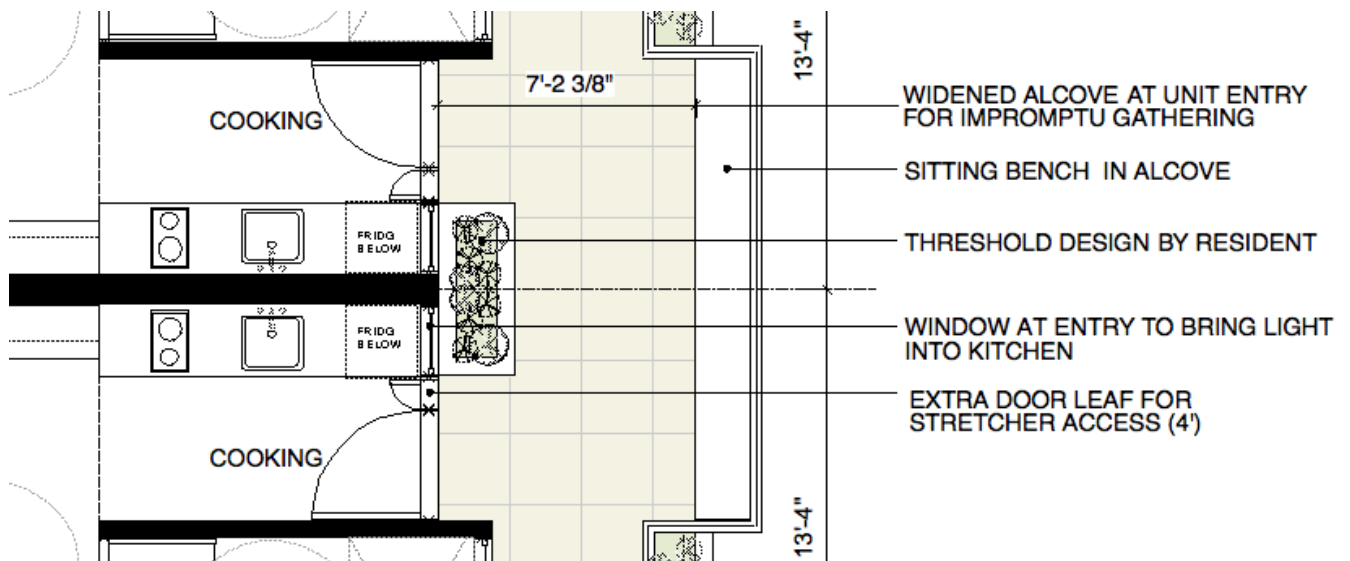
Kitchens in North American assisted care homes are all but non-existent due largely to safety concerns by operators / approving authorities. Yet, elsewhere in the world, kitchenettes are routinely built into assisted care dwelling units⁵⁵.

The intent behind providing kitchens within assisted care is to help residents remain independent for as long as possible. Meal preparation in one's own dwelling is a very important routine for most people – for some even a ritual. To deny people the chance to prepare a small meal is to remove control from the individual.

Drawing on successful cases of assisted care facilities in other countries, the proposal call for a modest but well-equipped kitchenette to be included with each suite. The kitchenette would include a sink, refrigerator, a two burner range and storage for necessary dishes and pantry items.

The kitchenettes are located along the entry wall of each unit opposite the bathroom and part of the entry. The countertop and food work surface intentionally extends to the sidelight next to each door. This proximity to the corridor allows daylight to penetrate to the kitchen counter surface. As well, the location allows residents to observe passersby in the adjacent corridor and quite likely will lead to impromptu interactions among residents / neighbors.

Figure 49: Entry Alcove and Kitchens

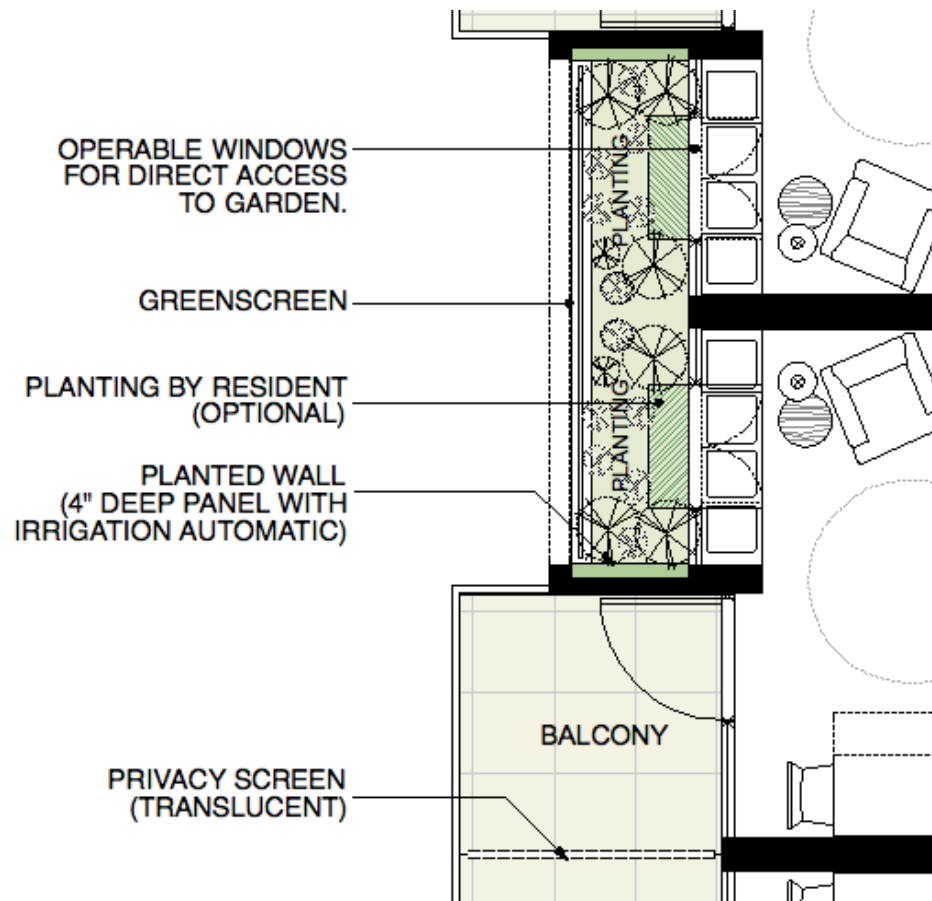


⁵⁵ See Regnier, Victor 2002.

11.2.4 Unit Design: Balcony and Planter Design

In contrast to most currently operating assisted care residences, this proposal calls for each unit to have an outdoor balcony space as well as an outdoor planting area. As a result of the building / unit orientation, all unit balconies overlook into the central courtyard to the south and west of the building, ensuring good sun exposure for both balconies and planters. The balconies are shared between the units to allow easy interaction between residents if desired (if privacy is preferred, a translucent privacy screen is also provided). The planters and vertical gardens are located to the side of the projecting balconies and are designed such that residents are easily able to reach the planting area from the adjacent window bench. It is recognized that not all residents will want to garden – in this case the proposal calls for the facility operators to expand their planting to include those not wishing to garden.

Figure 50: Unit Design: Planters and Balconies



11.2.5 Circulation and Shared Amenities are Great Places to Gather

The proposal for the assisted care recognizes that to support informal gathering by residents, a variety of gathering spaces needs to be developed. These include widened corridor alcoves at unit entries, waiting lobbies at elevators and main floor gathering areas like shared dining rooms, shared snack kitchens, T.V. rooms, internet nooks, library room, and outdoor courtyard spaces. All such spaces offer residents and visitors a variety of different settings (complete with different scales, orientation, views, privacy, etc...) in which people from assisted care residences can interact with each other and people of the neighborhood.

It needs to be noted that the following amenity spaces are open to the public as well as residents and their guests: shared dining with hours for public access; shared crafts room (shared between preschool and Seniors Center) On-site Preschool for 25 children and on-site Daycare (for 15 children).

Figure 51: Gathering Areas at Elevator lobby (Sample)

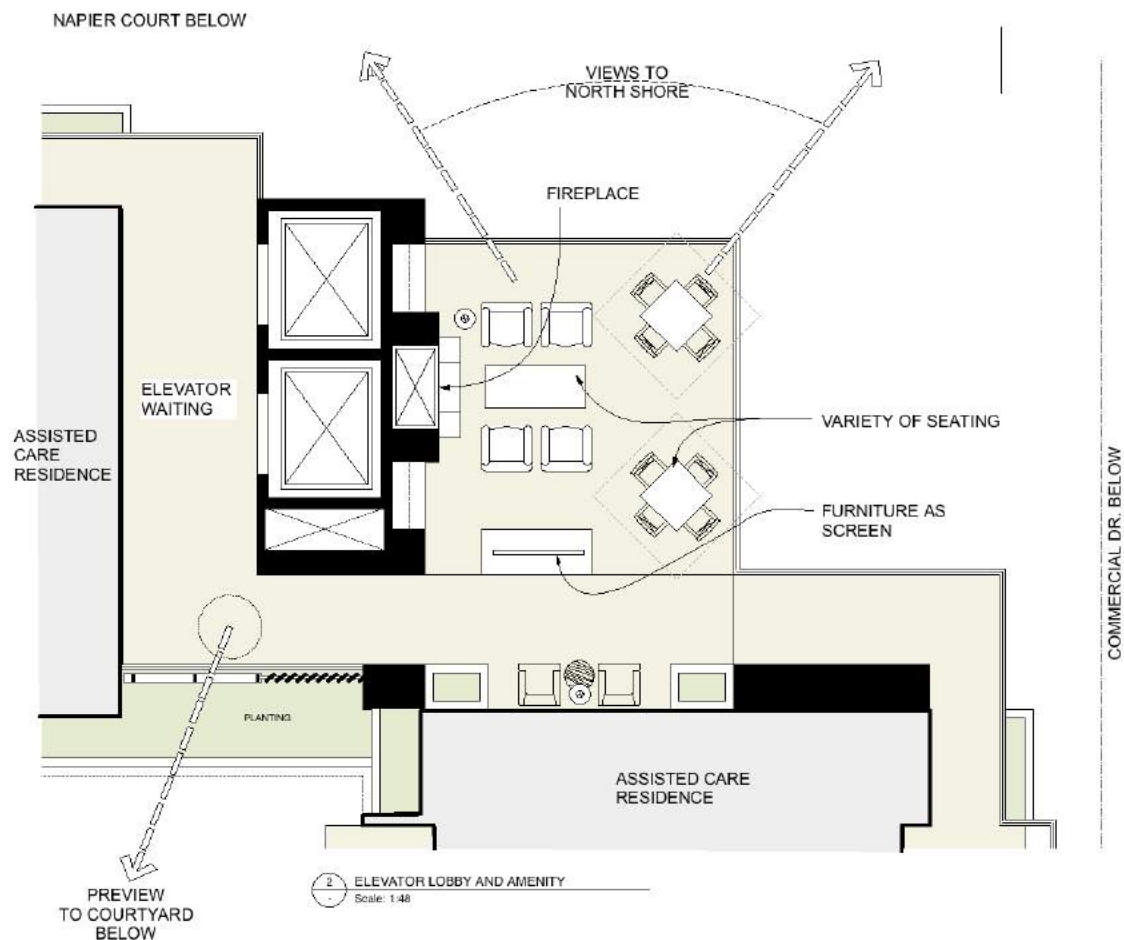
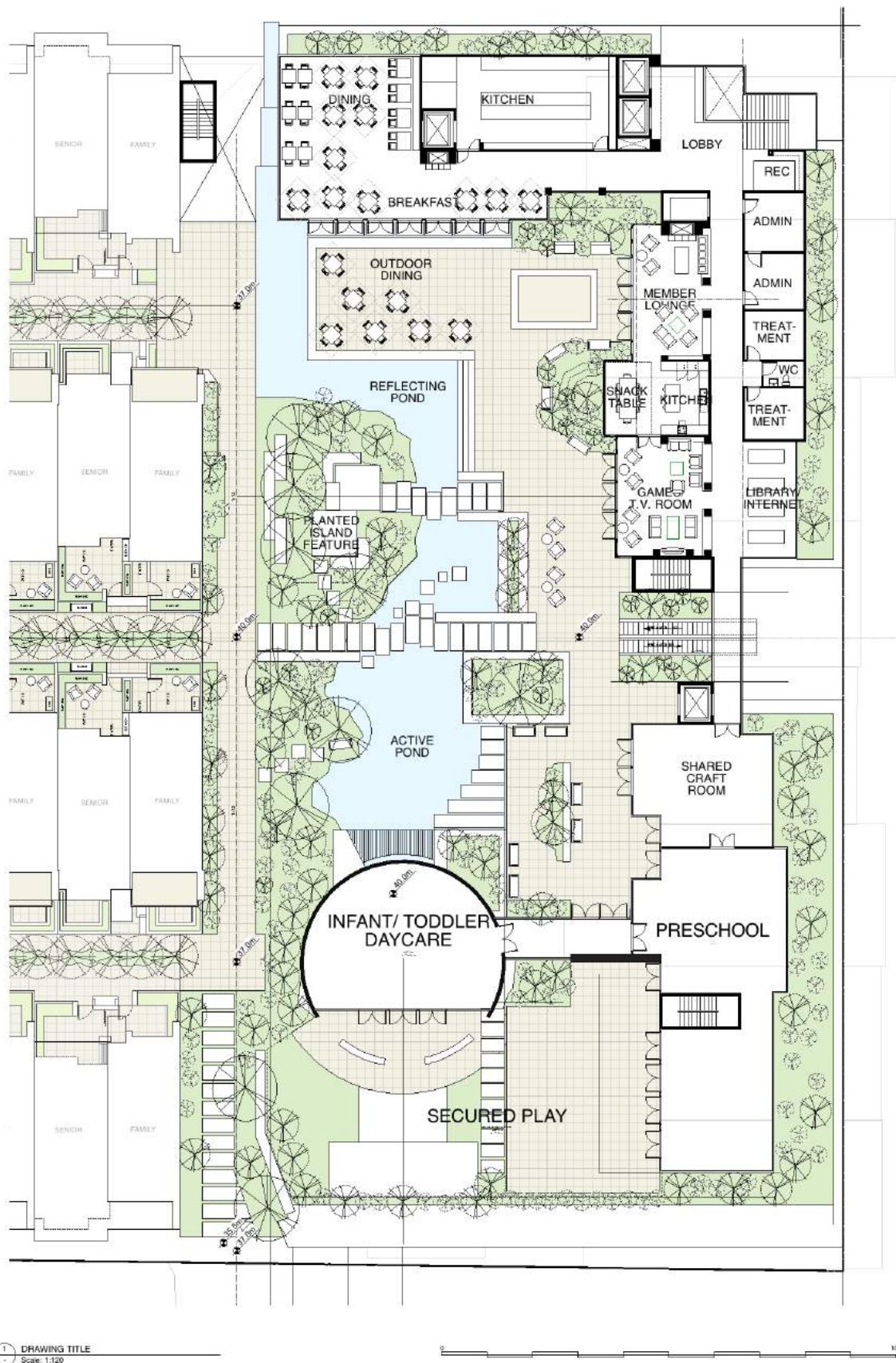


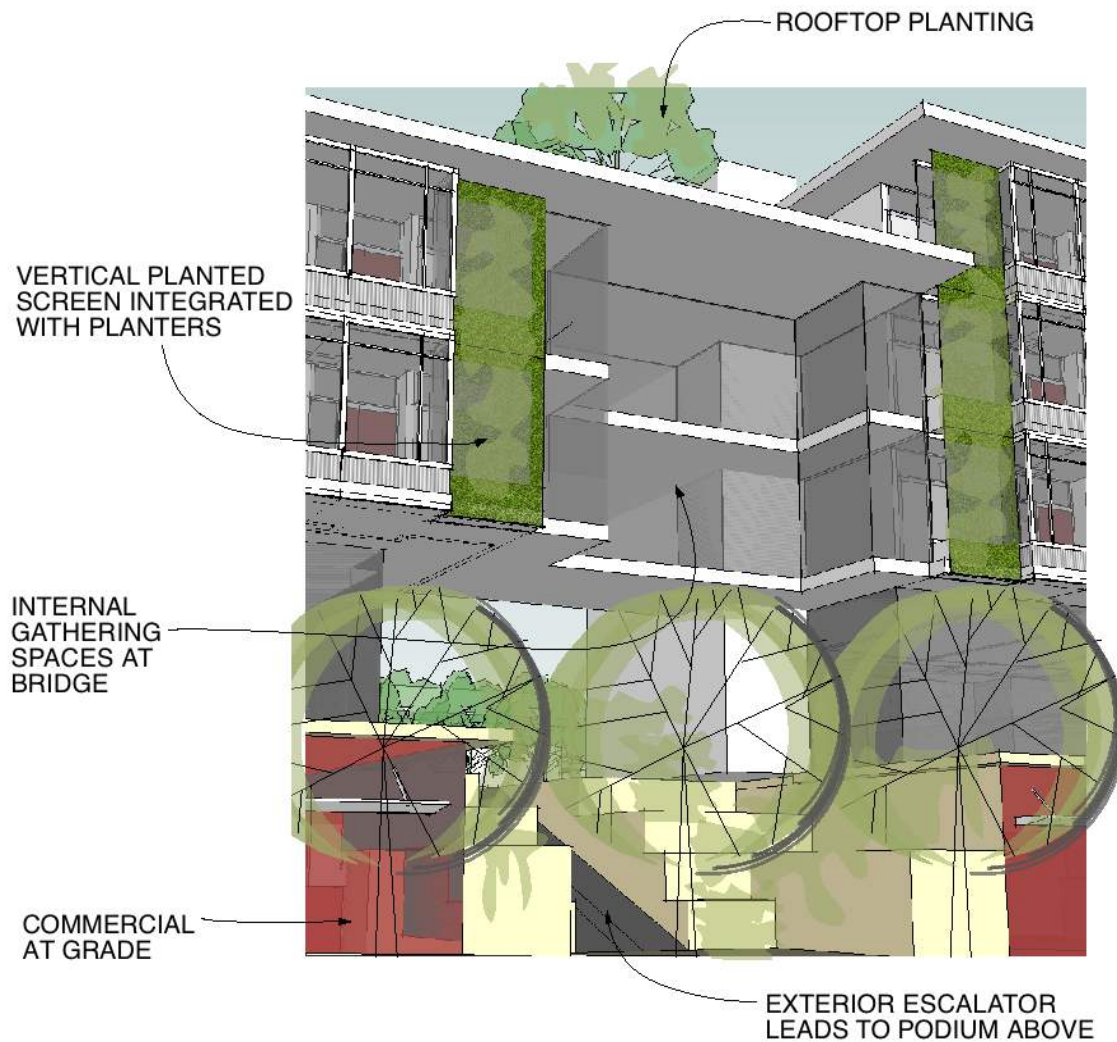
Figure 52: Assisted Care : Amenity Level Floorplan



11.2.6 Easy Access to Commercial Drive, Community Fitness Center

The proposal gives easy access to residents to both Commercial Drive and also to the Britannia Community Fitness Center across Napier Courtyard. Although the main building entry is at the corner of Commercial Dr. and Napier St., there is another public access to the site by means of an exterior escalator that brings a person from street level on Commercial Drive up four meters to the raised podium level. Once at this level, a person has a choice to pass through the outdoor courtyard space in front of the assisted care or to continue on through the site to the multigenerational residences.

Figure 53: Entry Point to Podium at Exterior Escalator



11.3 Building Design II Resolution

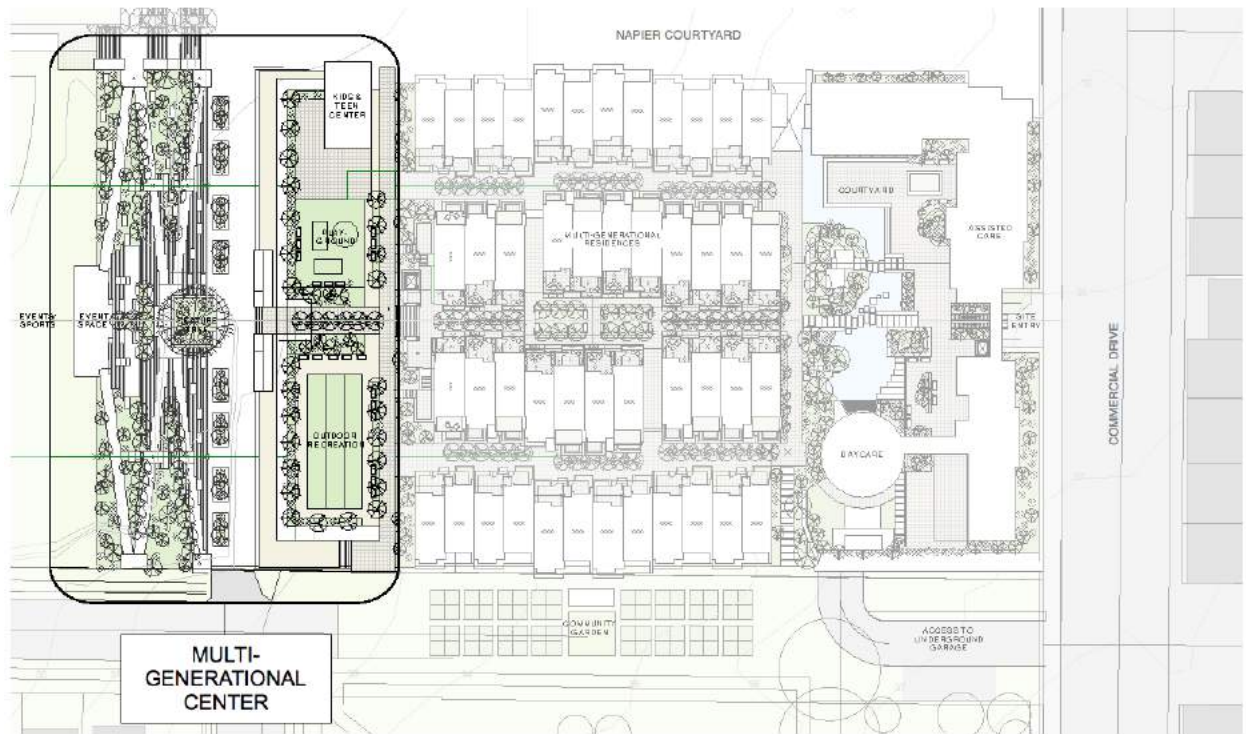
The assisted living residences at the Britannia Community and Living Center represents a departure from traditional approaches to senior's care housing in this country. With a strong emphasis on gathering, bringing the outdoors to residents and maintaining independent living for as long as possible, the proposal challenges conventional thinking and offers a feasible new alternative for senior's assisted living. The figures below illustrate some views of the final resolution of the assisted care facility.

Figure 54: Assisted Care - Selected Views



12. Building Design III: Britannia Multigenerational Center

Figure 55: Multigenerational Center Context Plan



12.1 Concept: A Building that is Magnet for all Generations

The third part of the building design phase relates to the shared multigenerational center. It is a two storey building located downhill of both the multigenerational residences and assisted care, and opens out onto a roof deck at the upper level and onto the main escarpment plaza to the west. The center is strategically located at a prominent point on the site: not only is the center at the top of the escarpment which provides easy access to the sloping leisure park and event space to the west, but the center is also located at an intersection of courtyard pathways and entry to the Britannia Secondary School.

The main concept for this building is that of a magnet that draws people of all generations unto itself, to interact amongst themselves and with people of other generations.

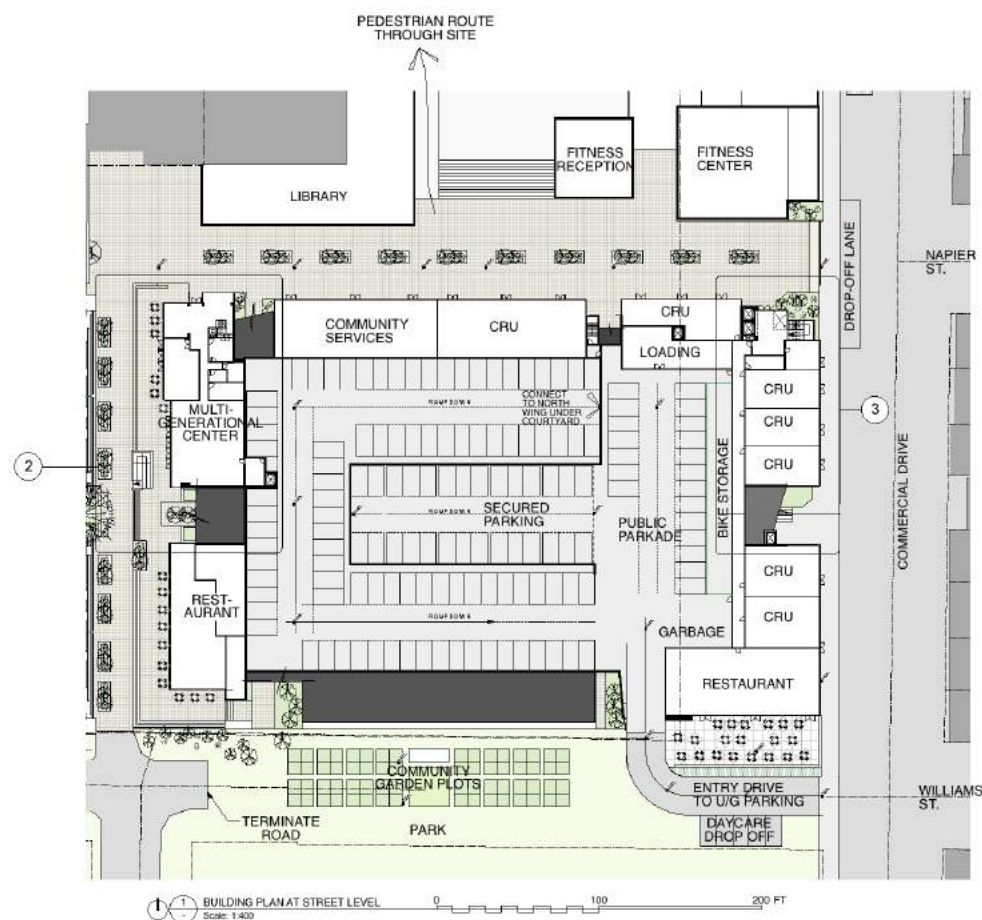
12.2 Architectural Principles

12.2.1 A Mixture of Spaces for all Generations

In response in part to the lessons learned by analyzing the existing Britannia Community Center (which separated the Teen, Family and Seniors program areas from each other) this proposal gathers program spaces for each group within one building. Each group still has its own distinct programmable space, capable of being closed off for privacy or opened up to the remainder of the building.

The following program areas are included in the multigenerational center: a children's center, complete with indoor / outdoor play areas and reading nooks; a teen and family center complete with leisure activities games and outdoor recreational activities such as table tennis or baccii; and finally, a seniors' center with a variety of sitting areas in which to gather, eat, talk, read, play cards etc.. It is my firm belief that such spaces should not be separated; rather, placing them within close proximity of each other ensures vitality.

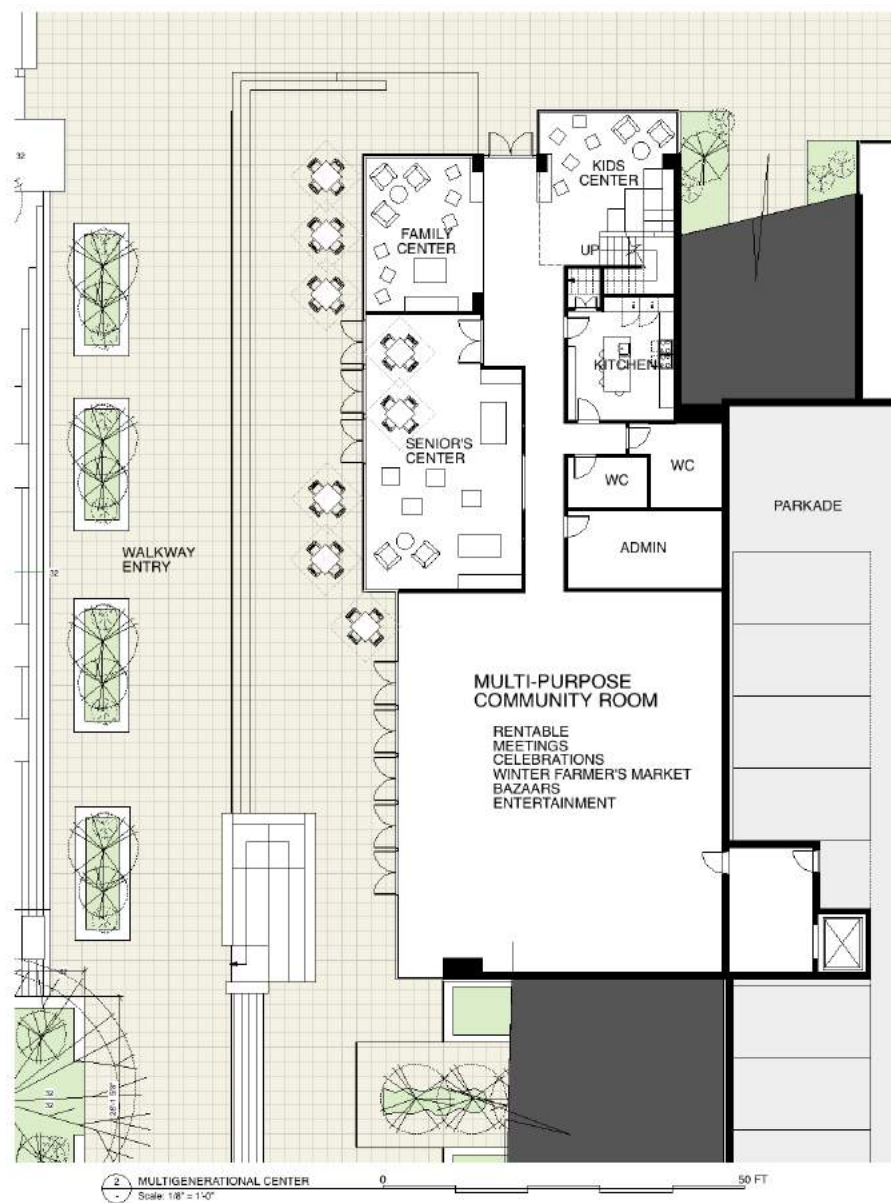
Figure 56: Ground Floor Plan Showing Shared Community Spaces



12.2.2 Shared Kitchen, Lounge and Play Areas Encourage Interaction

As important as individual program areas are at times to each user group, it is equally important that these user groups interact with each other in natural and meaningful ways. To that end, the proposal calls for the multi-generational center to also have a variety of shared gathering areas. These areas include a shared kitchen, lounge, and indoor / outdoor play areas. The figure below illustrates both the individual and shared program spaces.

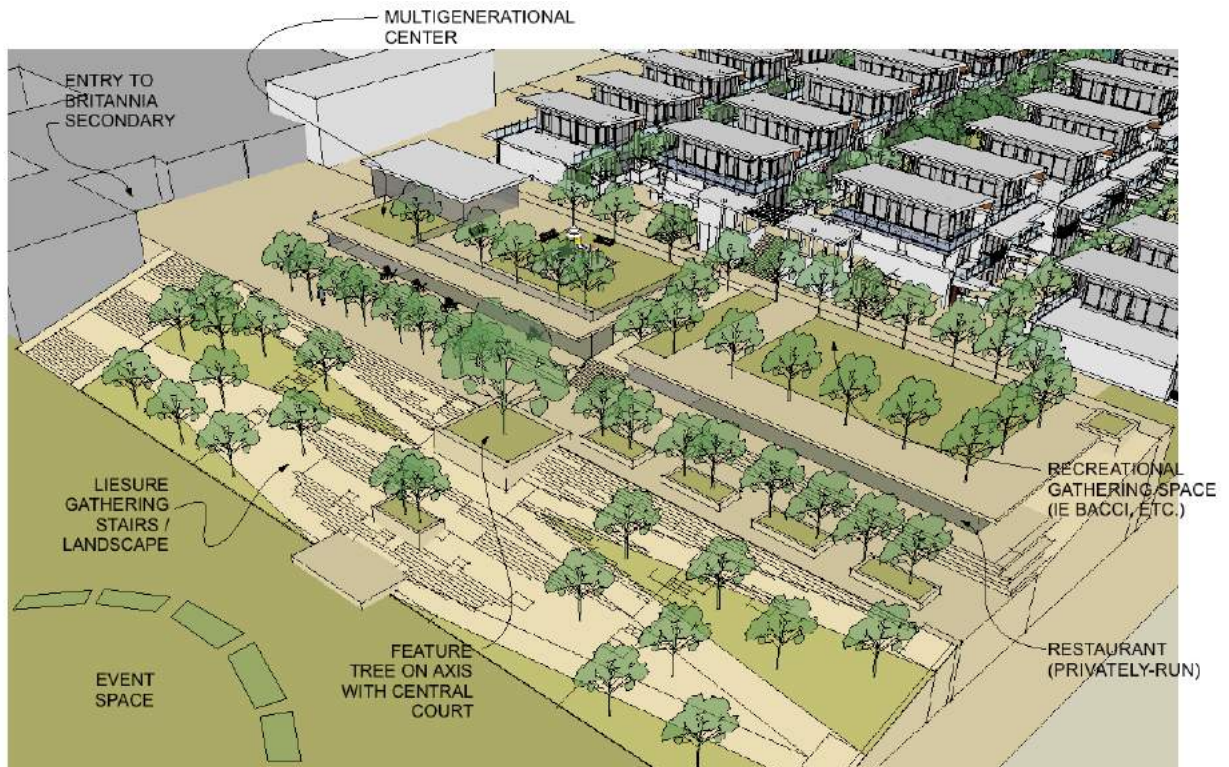
Figure 57: Enlarged Floor Plan of Multigenerational Center



12.2.3 Multi-purpose Community Room Brings People together

Further to the intent to bring people together, the multigenerational center is also home to a 5000sf multi-purpose community room. This room is intended to be rented and used by a variety of community user groups for such events as: celebrations, concerts, meetings, craft sales, farmers markets etc.

Figure 58: Multi-Generational Center and Outdoor Amenity Space



12.3 Building Design III Resolution

The Multigenerational Center is an important element of this thesis proposition. As discussed above, the center's main purpose is to bring people together in natural ways and thereby facilitate greater interaction between generations. A mixture of defined program spaces along with a variety of shared amenity spaces sets the multigenerational center apart from most community center developments. The benefits of having a multigenerational center at the proposed location on site are significant. Not only does the location at the top of escarpment command great views to the west and solar exposure, the location is also a natural entry point to sloping leisure park and community event space below. This area will be used and frequented by people looking to sit in the sun, relax, read a book, play music, observe an event below. In this context, the multi-generational center is well-positioned to help bring people together.

Figure 59: Final Building Resolution



13. Thesis Discussion and Conclusions

This thesis began with the observation that the North American approach to senior's living and housing is not serving our elder population well and that alternate approaches need to be developed to meet impending demands for senior housing in the coming decades. In particular, it was observed that current assisted care facilities tend to segregate seniors away from their families and communities, leading to a number of negative consequences such as isolation, helplessness and hopelessness.

New thinking and approaches need to be developed. Indeed, the literature review portion of the thesis concluded that innovative ideas regarding housing for seniors and aging in place abound. While the bulk of the new ideas within North America are limited to the academic world (there are exceptions, notably the Eden Alternative), elsewhere in the world, such ideas have been implemented and tested in the real world.

In response to the call for alternate approaches to senior's housing, this thesis focused its efforts on addressing one of the core problems associated with seniors housing: segregation. The thesis statement addresses the segregation issue by arguing that *"Inserting a mixed model of family and seniors housing into a community center setting and sharing services will enable seniors to age in place as well as strengthen intergenerational connections in the community."*

Of course, inserting seniors housing into a community center setting brings with it many issues related to the existing site. During the Master Planning Stage of the project, the thesis explored these issues, such as through-site circulation, site endowments, and the synergy of gathering, to arrive at a Master Plan that is sensitive to the project clients (new residents young and old) and to the existing community context.

With a solid Master Plan in place, the Building Design Phase of the thesis narrowed its scope to those program elements that were most relevant to thesis statement: Multi-generational Residences, Assisted Care Residences and Shared Community Spaces. Each of these areas were considered and developed throughout the Building Design Phase and concluded with the final proposed resolution presented above.

It has been said that a sign of good architecture is the successful 'marriage of program and site'. I believe that this project, even with its complex program located on a dense urban site, does achieve that balance. I also believe that the ideas and proposal presented above would indeed succeed in improving the lives of seniors and strengthening intergenerational bonds. Finally, I believe the thesis is successful in the very least for having challenged conventional thinking regarding seniors' housing. It is my hope that this thesis will encourage others to expand their thinking and continue to explore new ideas related to senior and multi-generational housing in the future.

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Drance Elizabeth Dr. (Providence Health Care) Interview with Charles Britton. 20 October 2008, and 22 November 2008

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Appendices

Appendix 1	Project Statistics (Table)
Appendix 2	Multigenerational Survey (Sample Response)
Appendix 3	Architectural Presentation Drawings D9B Midterm
Appendix 4	Architectural Presentation Drawings D9B Final Presentation
Appendix 5	Massing Study Models (Photos)
Appendix 6	Final Presentation Model (Photos)

Appendix 1 : Project Statistics (Table)

PROJECT STATISTICS SUMMARY			
	PROJECT SITE AREA	33,633	m ²
	TOTAL BUILDING AREA (SEE BELOW)	23,445	m ²
	PROPOSED F.S.R.	.70	

BUILDING AREA SUMMARY			
SHARED PROGRAM AREAS		AREA	m ²
	LIBRARY	1700	m ²
	COMMUNITY HEALTH	265	m ²
	MULTI-GENERATIONAL CENTER (TEEN, SENIOR, FAMILY)	1650	m ²
	CAFETERIA	900	m ²
	KITCHEN / STORAGE	400	m ²
	COMMON HOUSE	120	m ²
	CAFE	180	m ²
	WORKSHOP / GREENHOUSE	50	m ²
	EXTERIOR PATIO AND GARDENS	NIC	
	TOTAL	5265	m ²
RESIDENTIAL			
	ASSISTED CARE (400 SF MODULE)	3250	m ²
	MULTI-GENERATIONAL HOUSING (600-1200 SF) (INDEPENDENT, SINGLE & FAMILY, (SUPPORTIVE AND MARKET)	4460	m ²
TOTAL		7710	m ²
CHECK-IN PROGRAM AREAS			
	POOL	932	m ²
	GYM (INDOOR)	700	m ²
	COURT (EXTERIOR)	1000	m ²
	SQUASH	150	m ²
	CHANGE	450	m ²
	FITNESS, EXERCISE, MEETING	800	m ²
	ADMIN	418	m ²
	CIRCULATION	400	m ²
	EXTERIOR ROOF PATIO	NIC	
	TOTAL	4850	m ²
ELEMENTARY AND PRESCHOOL			
	CLASSROOMS AND CIRCULATION	1870	m ²
	GYM	700	m ²
	DAYCARE	200	m ²
TOTAL		2770	m ²
COMMERCIAL			
	COMMERCIAL RETAIL UNITS	2850	m ²
TOTAL		2850	m ²
TOTAL BUILDING AREA PROPOSED		23,445	m ²

48 DU
60DU

Appendix 2 : Multigenerational Survey (Sample Response from Senior)

Multigenerational Living Survey - Britannia Neighborhood

R.A.I.C. Syllabus Architectural Program

Thesis Candidate: Charles Britton, Vancouver B.C.

Please specify what age group you are in:

- ☐ 55-65 years
☒ 66-75 years old
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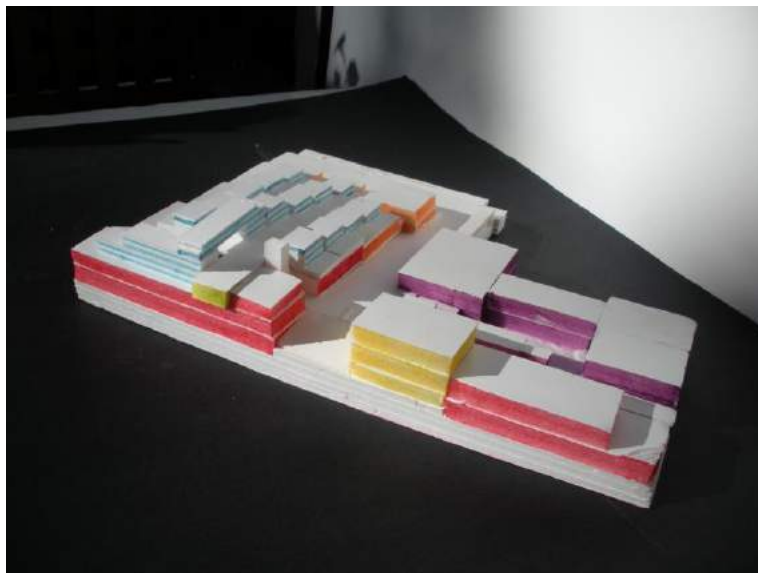
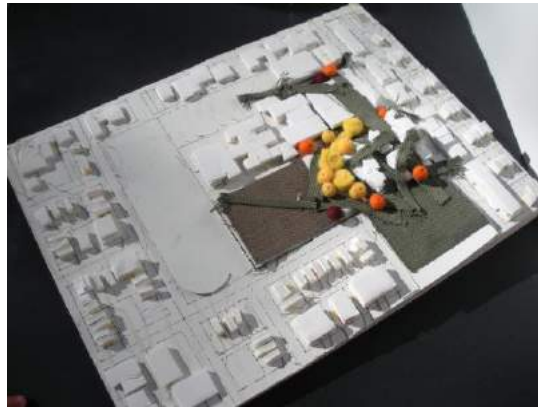
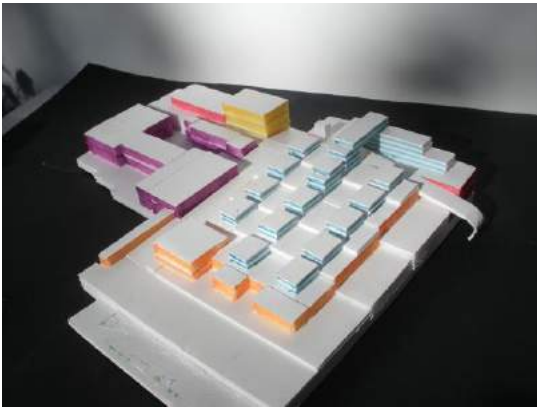
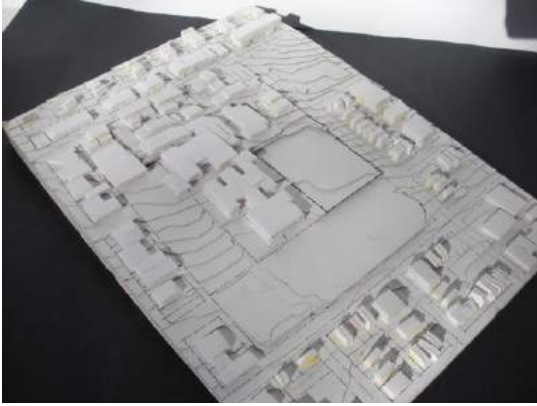
1. How far (in blocks) do you live from the Britannia Community Center (B.C.C.) ? 6
2. How did you get here today? Bus.
3. How long have you been coming to the B.C.C.? 10 years.
4. What programs do you use at B.C.C.? Computer Lab.
5. Do you also go to the Lion's Den? Yes.
5. Do you feel part of a social network of people? Yes.
6. Of those people you share a social network with, are those people all of the same generation as yourself? Yes.
If not, how many are with people under 25 years of age? 0
How many with people under 15 years of age? 0
7. Have you ever spent time on-site interacting with kids from the youth center or neighborhood? No.
If so how often do you interact with children and in what context (je pool...)?
Don't - use to volunteer Grades 3-4 -
readings writing skills at Grandview Elementary
8. Have you participated with intergenerational programming in the past, such as the 'memories' program or meal-sharing? No.
Did you enjoy the program? -
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Appendix 3 : Architectural Drawings to D9B Midterm

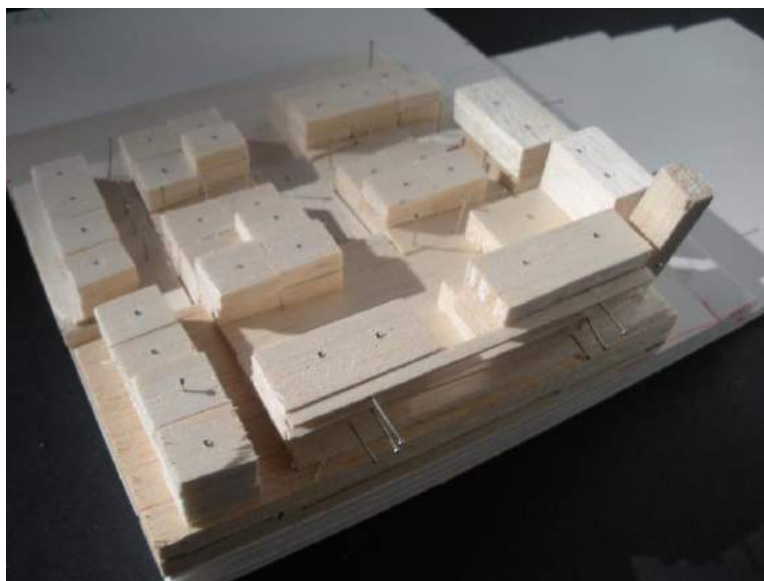
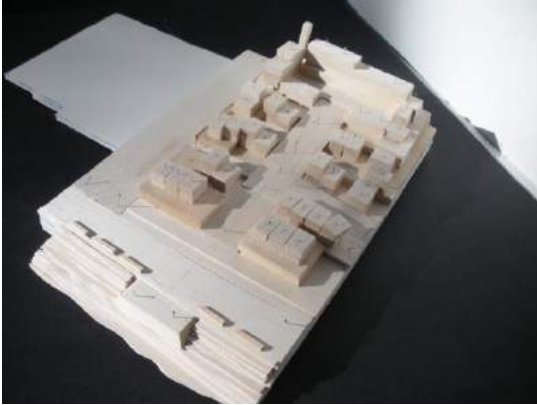
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Appendix 5 : Massing Study Models (Photos)

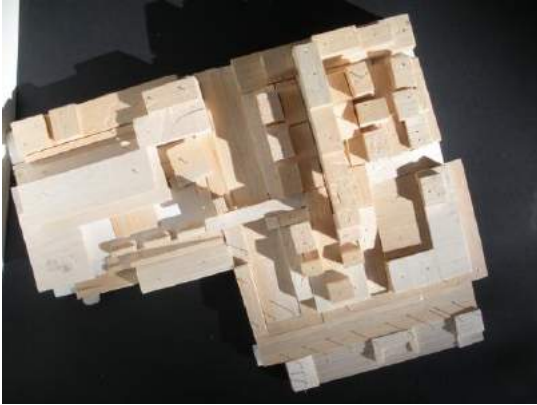
Appx 5.0 Early Site Base and Massing Models using Cardboard, Foamcore and Fabric



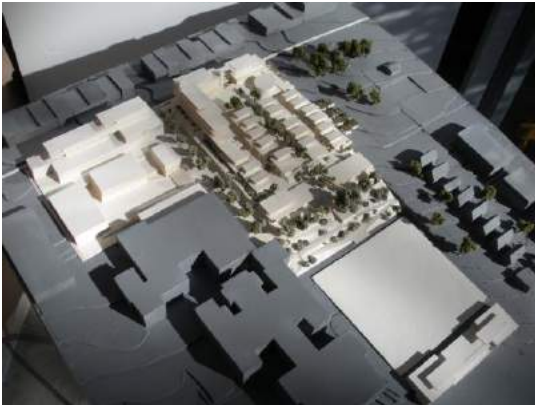
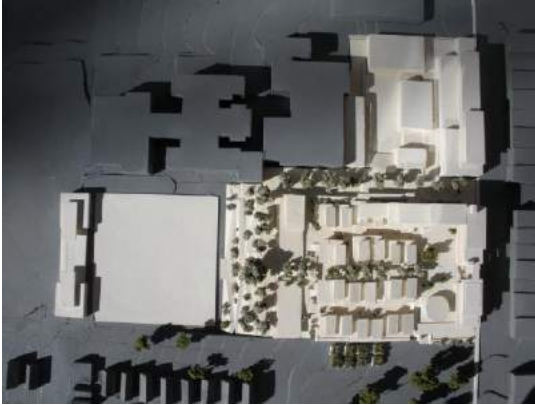
Appx 5.1 Balsa Wood Study Model I for Massing, Site Layout and Shadow Analysis



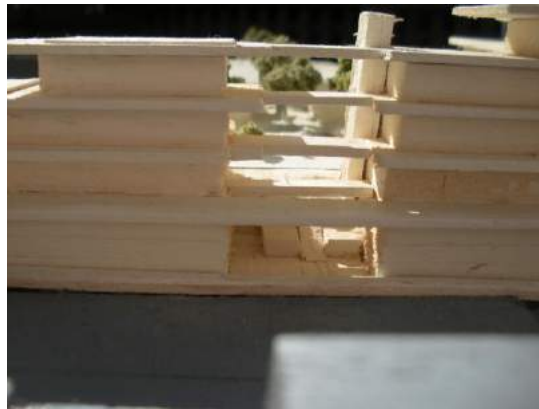
Appx 5.2 Balsa Wood Study Model II for Massing, Site Layout and Shadow Analysis



Appendix 6 : Final Presentation Model (Photos)









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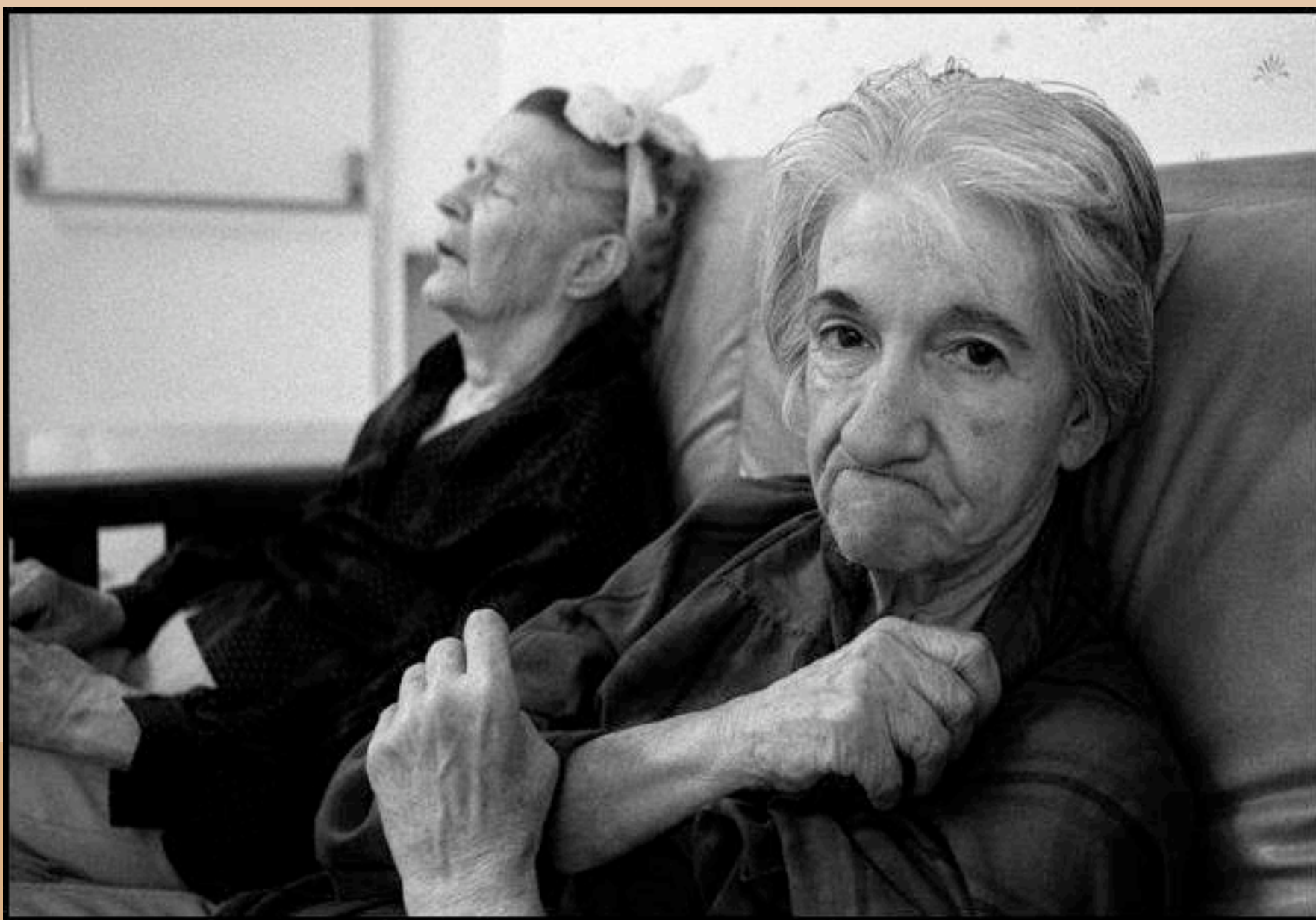
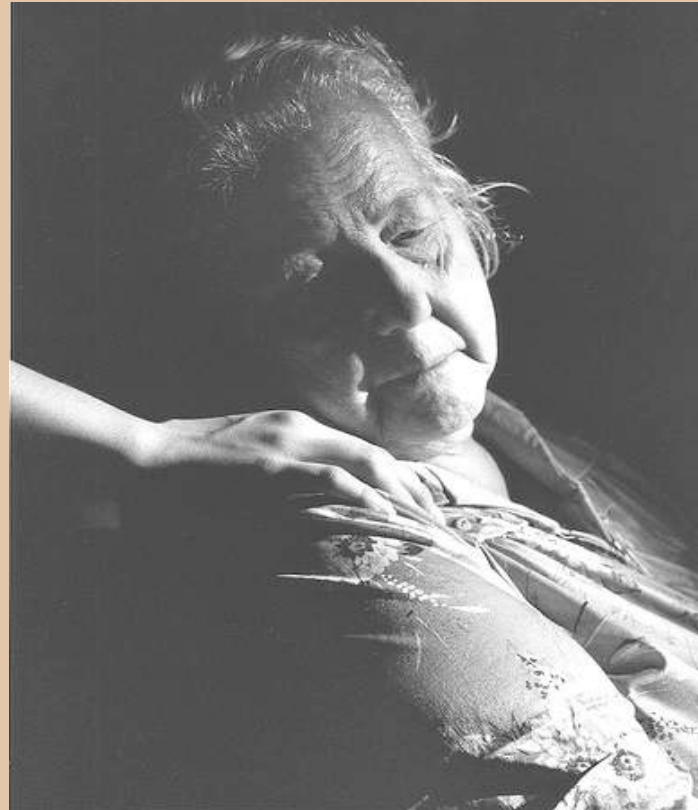
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Appendix 3 : Architectural Drawings to D9B Midterm



Integrated Multigenerational Housing: *A New Approach to Elder Living that Benefits All Generations.*

The Problem: Segregated Senior's Housing & Discontinuity of Lifecycle

- Today's care facilities segregate elders from community, family and friends.
- Segregation lowers elders' quality of life.
- Segregation creates a discontinuity in the human lifecycle:
 - Elders considered superfluous
 - Aging is an illness
 - Interaction with younger generations not a priority.
- No one wins from this approach - everyone loses.

For Elders: Loneliness, Boredom, and Helplessness

- Segregation leads to loneliness, boredom and helplessness.
- Desperation and depression follow.
- First hand accounts heartbreaking
- Current approaches are failing miserably.

For Society: Discontinuity of Life Cycle

- Segregation prevents interaction and exchange of ideas between generations.
- Elders are being deprived of meaningful relationships with younger generations.
- Younger people don't have access to the wisdom and experience of elders.
- Lack of interaction between generations is a discontinuity to human development.
- Historically elders quite involved with community, family and child-rearing activities.
- Such discontinuity is unnecessary.

Urgency and Relevance

- The need is urgent: Canada's society is aging:
 - Increase life expectancy: 80.1 years
 - Fertility rates are below the replacement level 1.59 < 2.1 (required for replacement).
 - 2001-2041, the number of people > 65yrs projected to more than double. (3.9 to 9.2m.).
- Elder housing is relevant to architects
 - Much of existing elders housing stock is >40years old and needs replacement.
 - How buildings are designed and built has a direct impact on people's lives.
- Elder issues should concern everyone.
 - Personal experience and interest
 - Everyone knows an elder and we will all be in a similar position eventually.



Thesis Statement:

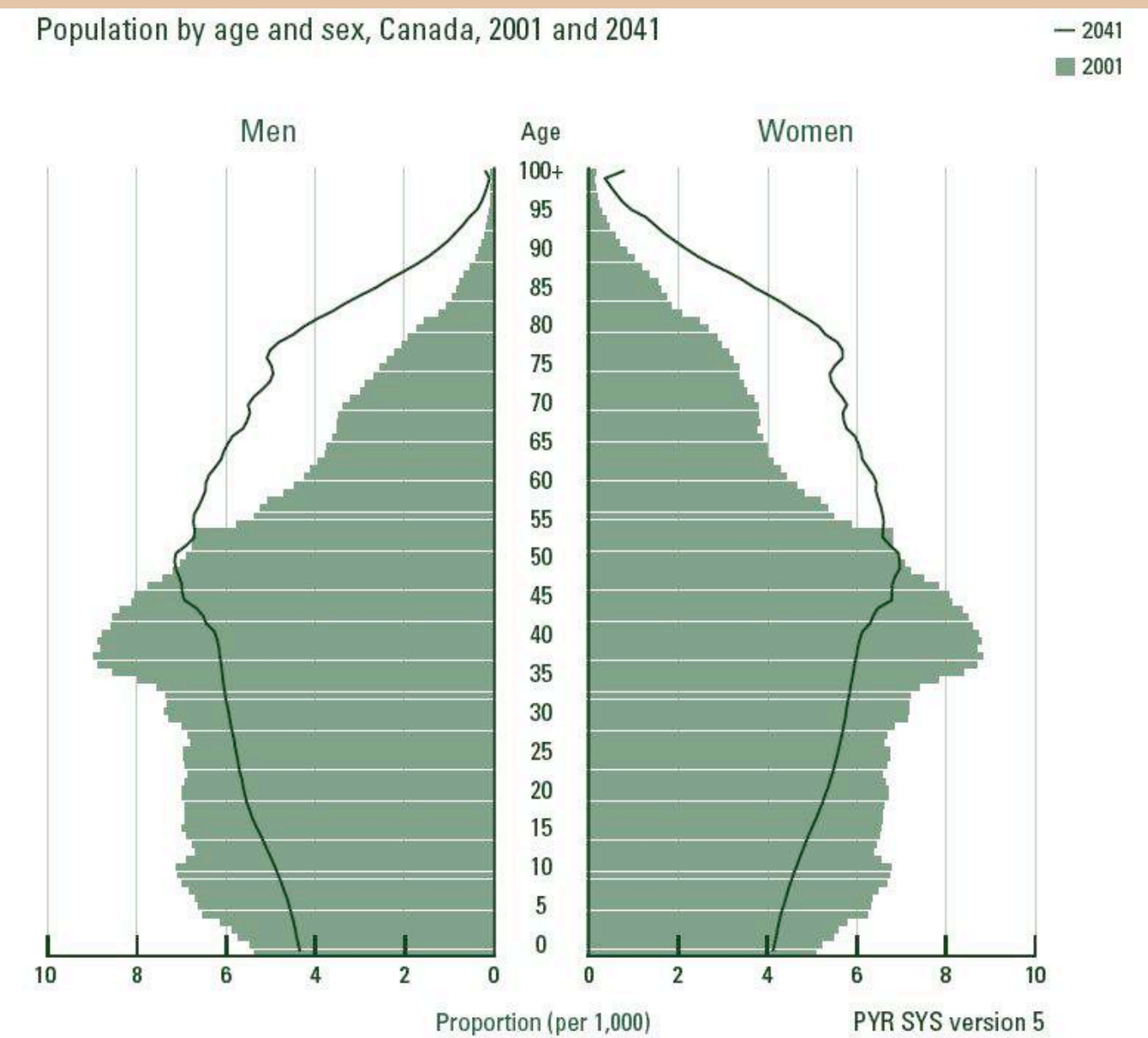
Multi-generational housing developments will facilitate the re-integration of elders into the broader society by creating environments for people of all ages to interact with each other, the community and their surroundings.

Goals

- To demonstrate that more integration of elders with the community, environment and other generations can benefit people of all ages.
- To explore how architecture can bring people of different generations together and integrate them with their community, environment and each other.
- To challenge people's attitudes toward aging and housing for elders.

Client Description

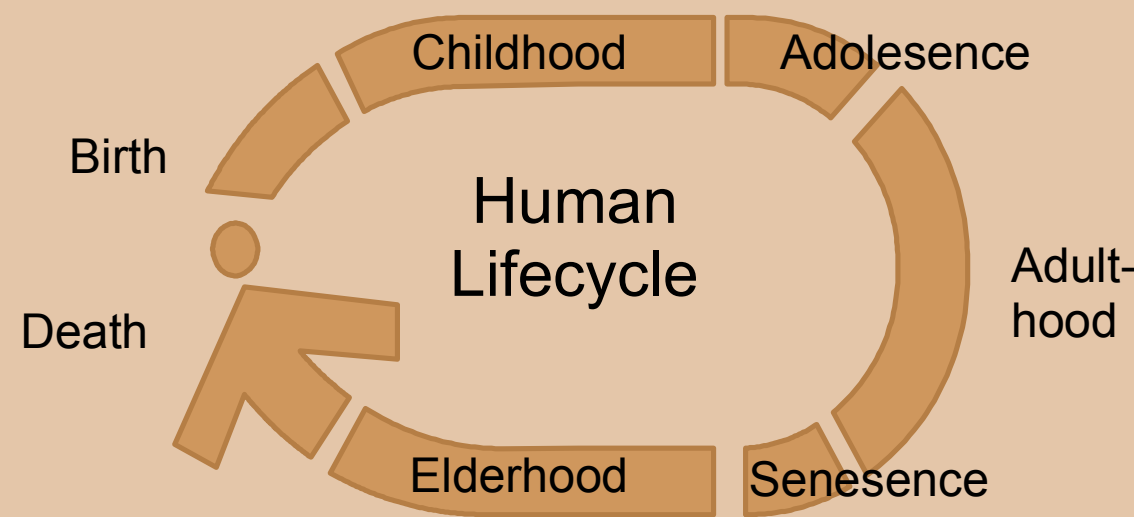
- People of all ages up to full-time nursing care level.



Introduction

1

Elderhood and the Human Lifecycle



Intergenerational Family

Elderhood Throughout History

- Preindustrial Societies: Connected and Integrated Families
 - Elders very involved in daily family activities: child tending, cooking, piecemeal work.
 - Elders lived as integral part of extended families, cared for in old age by family members.
 - Elders maintained key status in families and communities (heads, leaders, storytellers, healers).
 - Elders valued as part of a family and community -- not segregated.
- Industrial and Post-industrial Societies: Segregation of Elders
 - Factory and office work replaces cottage industries. (elders not able to contribute as before)
 - Greater emphasis on nuclear family. (less on extended).
 - Single family home ownership emphasized (extended family living not as important).
 - Mobility rates higher: families more spread out
 - Urbanization rates higher: leading to greater sense of anonymity and isolation.
 - Concept of "retirement" introduced in mid-1900's: (retirement and elderhood begin with 65years).
 - Care homes for the elderly introduced gradually through the 20th century. Most care facilities today are more than forty years old.



Mobility is part of our history



Factory Workers: Division of Labor



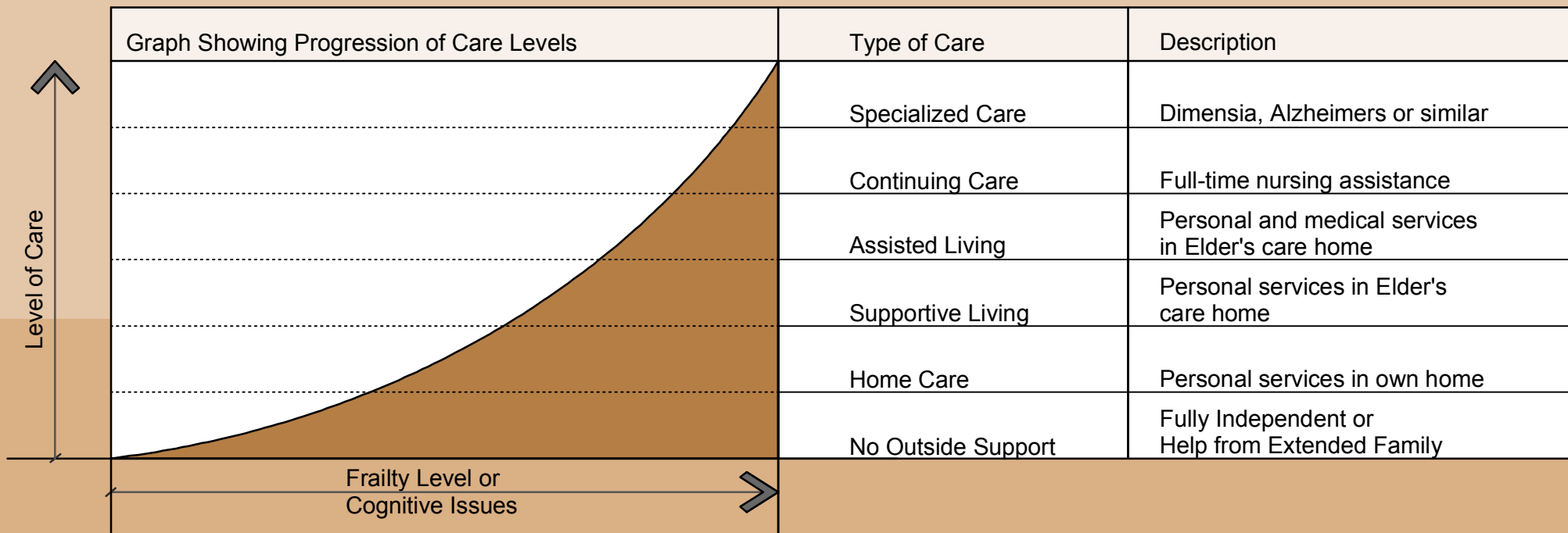
Single Family Home Ownership

Elderhood: Other Cultures

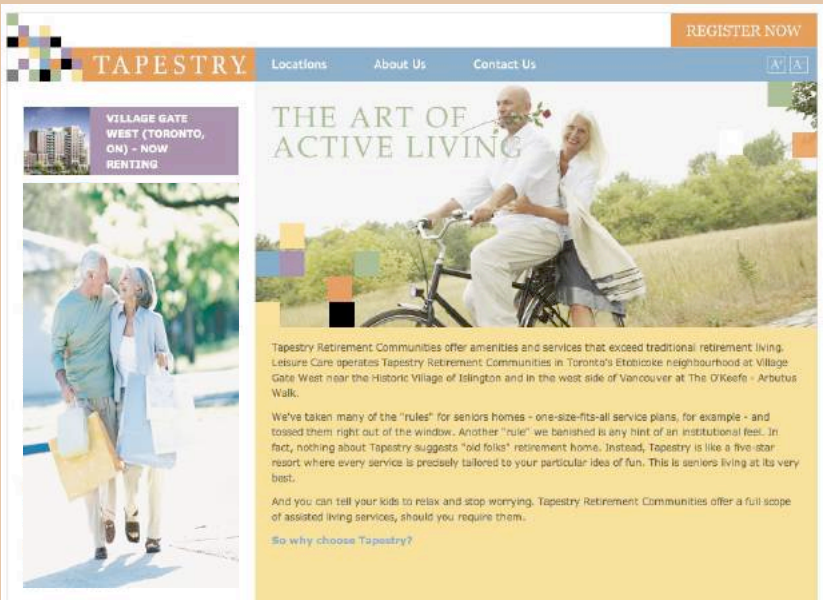
- Other cultures traditionally place higher value on role and place of elders in their society and families.
- Industrialization and urbanization are leading to similar patterns and attitudes.
- Although most pronounced here, segregation of elders is not limited to north america.

Elderhood: Levels of Care

- Graph showing progression of level of care.
- Level of care depends on:
 - Frailty levels (physical)
 - Cognitive wellness (mental)



Case Studies of Existing Elder Housing Approaches



Marketing Brochure for Tapestry



The Arbutus Walk Neighborhood, Vancouver, B.C. Concert Properties, 1997.



View of the O'keefe Residences

The O'keefe Independent Living Facility
Built: 1997
Accommodation: 200 residents. Independent and assisted living.
Of special note: Market senior's home caters to 'active seniors'. Integration with site limited. Segregation to residents from community exclusionary practices reported (no wheelchairs, walkers or helpers) negative attitudes toward aging and a continuing obsession with youth.
Visit Impressions: Lobby welcoming. Almost club or hotel-like linkages and degree of integration with the site or community: weak.

Market-supplied 'Independent Living Residences'

- provides rental housing to seniors 55+
- some assisted living, no dementia care.
- Aggressive marketing literature focussing on seniors who want an active lifestyle.
- 'staying young and active' emphasized in marketing literature.
- exclusionary practices have been tried in the past to limit wheelchair or walker use as well as limit the visibility of helpers in lobbies.

Government-run Long Term Care Facilities

- Hospital-like and institutional in character
- Provide assisted living as well as dementia care.
- Traditional approach: long hallways double loaded : confusing to dementia patients.
- Buildings are aging : most >40 years and in need of replacement.
- Institutional nature of facilities dehumanizes residents (ie mealtimes and mealplans)
- Symptoms of isolation, helplessness and boredom most acute here.
- Most people afraid of placing loved ones in such homes
- Most people who do move into such facilities do so as a last resort.

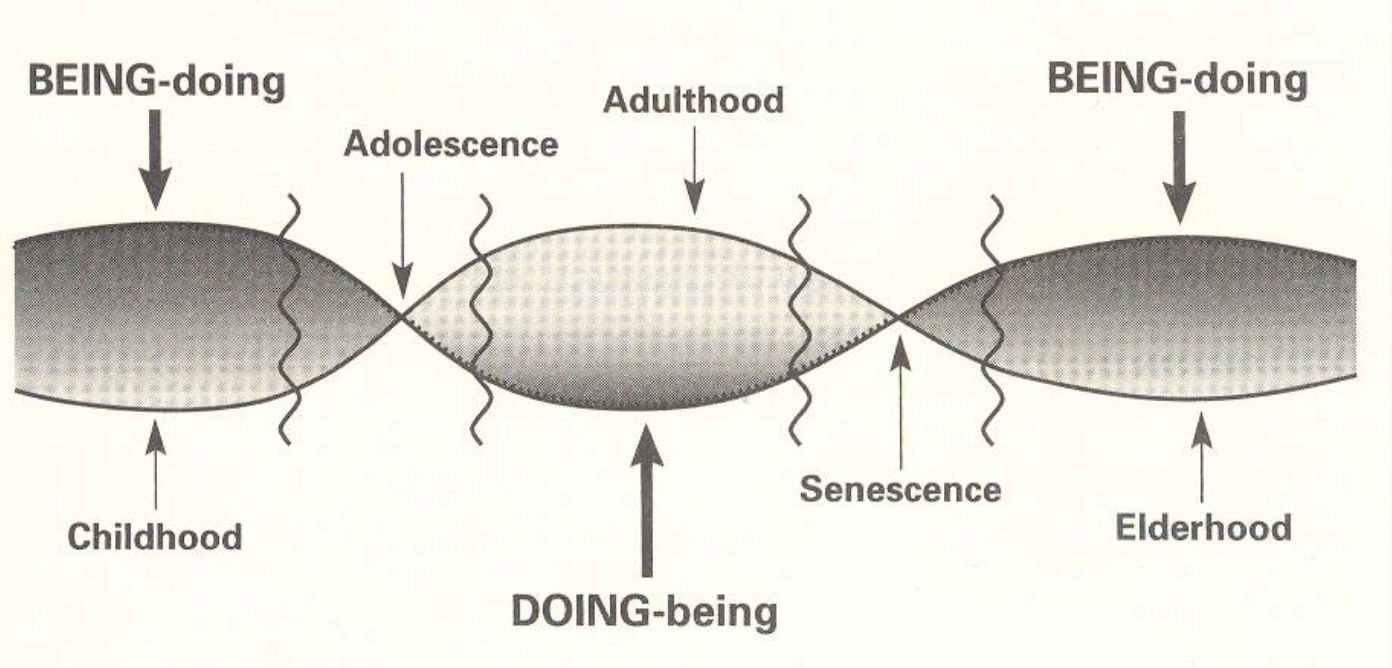
Consequences for Elders Today

- Elders less likely today to live in close contact with extended family.
- Elders more likely to live on own for as long a possible and then move into a care home when no other choice is available.
- Elders in care homes segregated from their community and other generations. Elders more likely to suffer from isolation, depression and helplessness.

Social Principles

Throughout the research a number of social principles have emerged. While these principles are not specifically architectural, they are central to the issue of elder housing and form the basis of the resulting architectural principles.

1. Elders deserve easy access to plants, animals and people of other generations.
2. Elders and children are at similar stages in life: "being-doing versus doing-being".
3. Elders deserve close companionship.
3. Elders deserve spontaneity and play.
4. Elders need to be allowed to make their own decisions for as long as possible.
5. Elders deserve to age in place
6. Elders need to be given the opportunity to feel useful by giving care.
7. Multi-generational relationships benefit people of all ages.
8. Integrating people with their community and environment benefits everyone.



The Eden Alternative Life Cycle Diagram

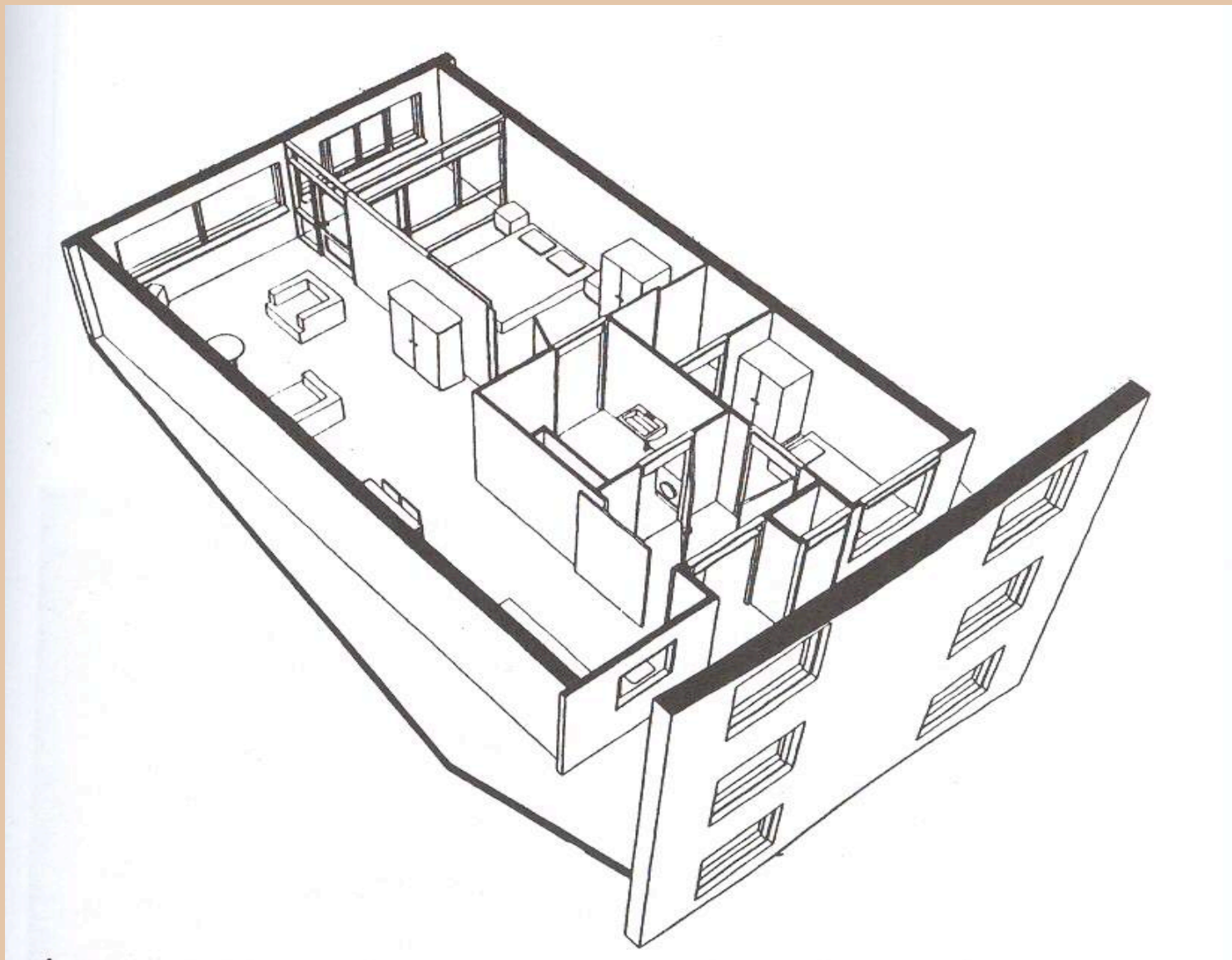
Elderhood: A Brief History

Humanitas Bergweg

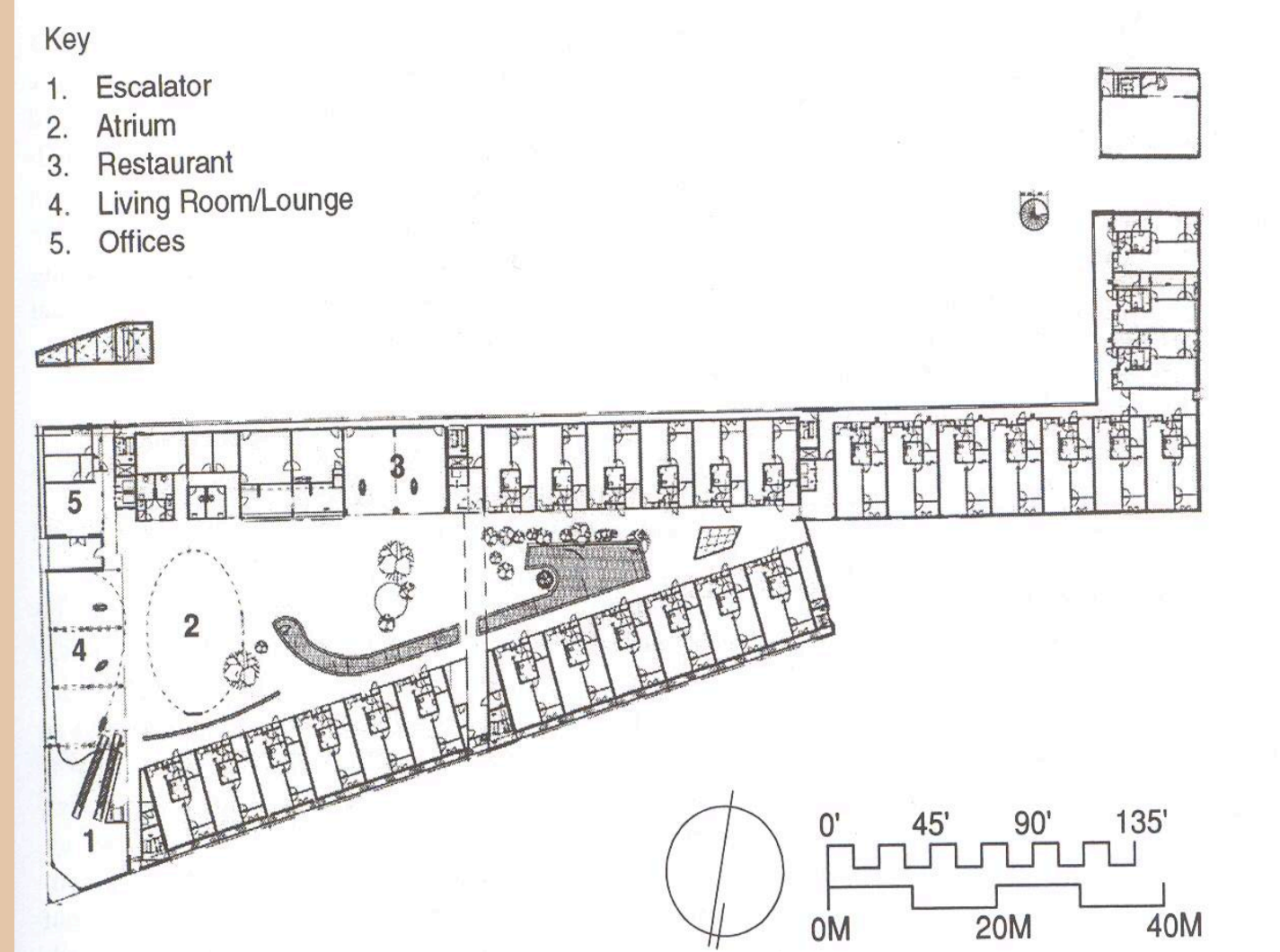
Location: Rotterdam, Netherlands, 1996
Architects: EGM Architects
Project: 195 Apartments for Life - subsidized elder housing
Description: Independent and assisted care
Social/community services ground floor
Public access to atrium space
Travelling meal and nurse program



View of Atrium



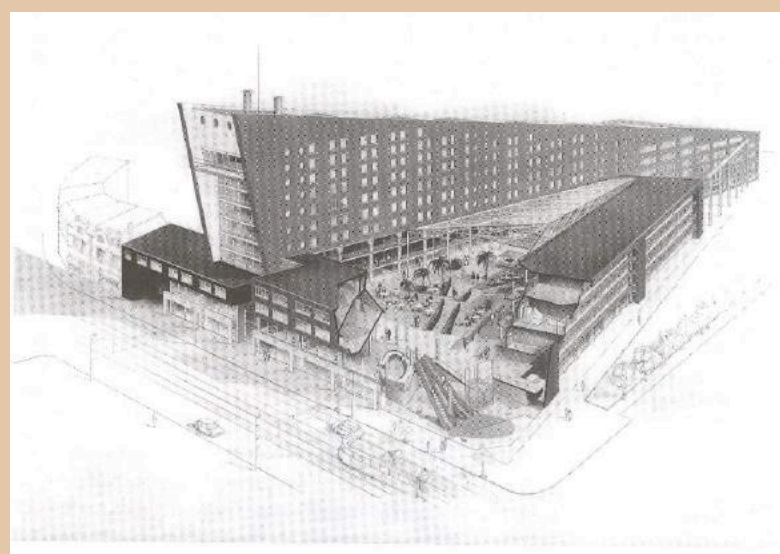
Typical Unit Plan - Apartments for Life



Floor Plan



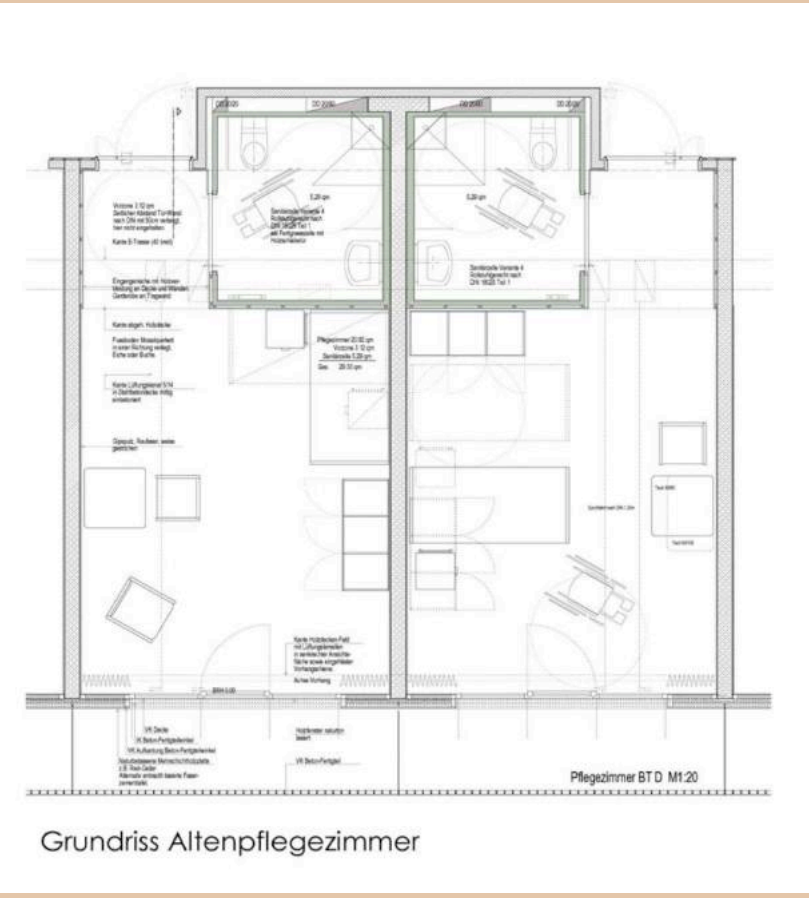
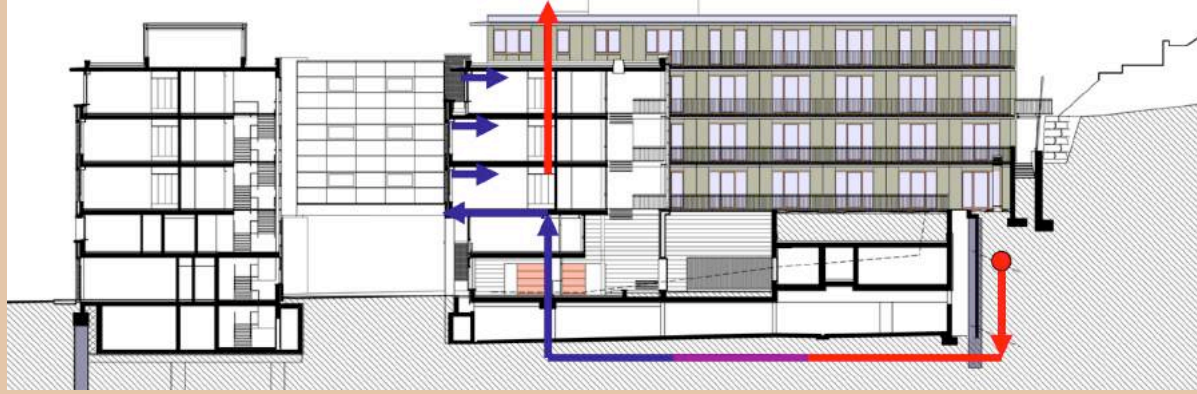
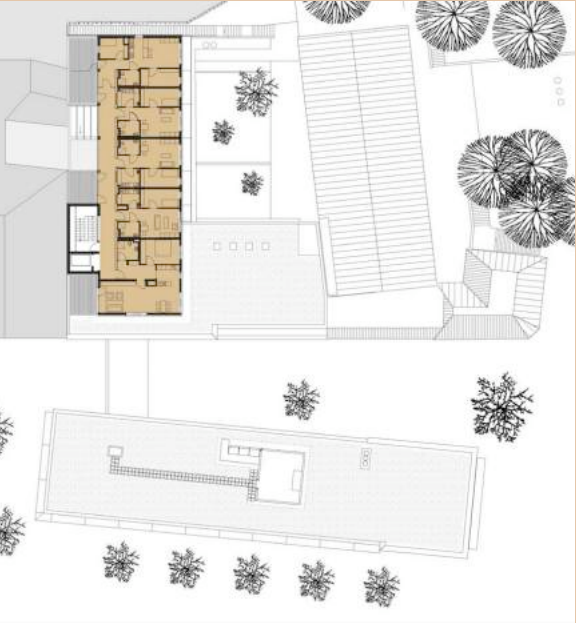
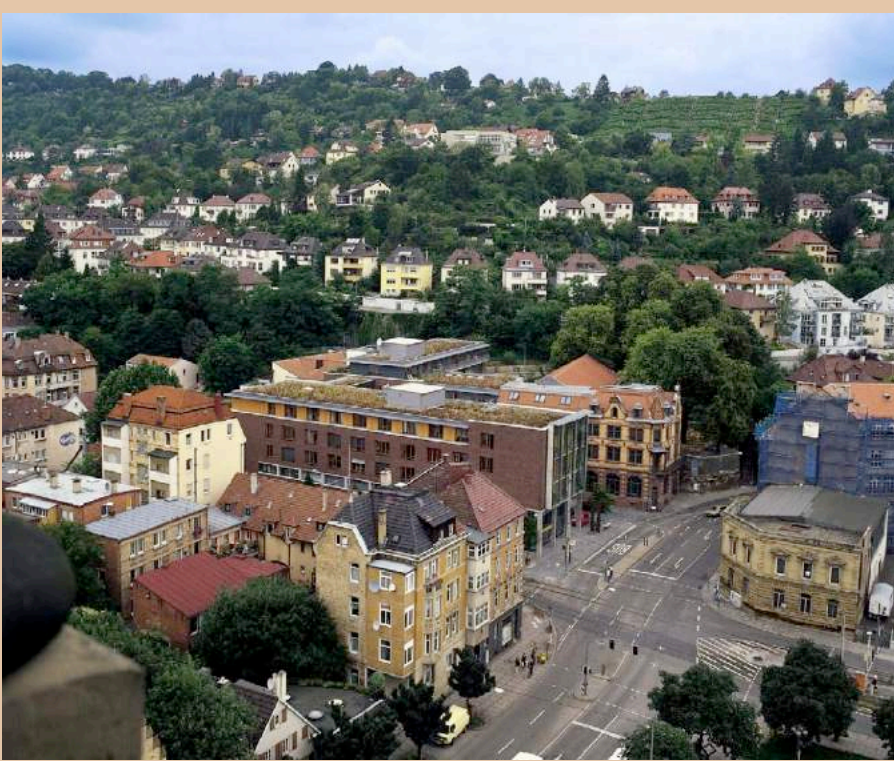
Street View of Complex



- Observations:
- Flexible Housing: Age-in Place; adaptable apartments
 - Podium concept redefines ground plane.
 - Services support age-in-place principles
 - Atrium maintained as public despite early hardships.

Multigenerational House Heslach

Location: Stuttgart, Germany, 1996
Architects: Haag, Haffner, Stroheker
Project: 86 Suites for Seniors and disabled children
Description: Center for generational interaction with community
Meeting spaces.



Grundriss Altenpflegezimmer



I. Grundmiete für die Nutzung bis zu vier Stunden			
Initiativraum mit Teeküche ca. 40 m², 2. OG	2. OG 0,30 €/m² Für nicht angelernte Nutzungen der Förderungsbedürftigen Nutzer und für Einzelnutzer wie Sitzungen, Schulungen etc. mit reich verstellbarem Charakter der Ästhetik, Experimentelle und Grenzen ohne Bezug zum Stadtquartier.	Tariff II 0,60 €/m² Für nicht kommunale Nutzungen	Tariff III 0,80 €/m² Für kommerzielle und private Nutzungen
Initiativraum mit Teeküche 75m², 1. OG	23 €	45 €	68 €
Ca. 200 Personen zusammen mit dem großen Saal nutzbar, Equipment: Stühle und Tische im Freien, Bühne	30 €	58 €	89 €
Großer Saal 180 m², 1. OG	30 €	58 €	89 €
Feiergarten Ranchhof	90 €	118 €	179 €
	75 €	75 €	75 €

**Foyer-
Tagesbetreuung:**
Raum für 10 Personen,
Equipment: Stühle und
Tische
Großer Saal: Raum für
ca. 100 Personen,
wenn Sie ihn
zusammen mit dem
anschließenden
Feiergarten nutzen, bis
zu ca. 200 Personen.
Der Große Saal ist teilbar in zwei Räume
Equipment: Stühle und Tische, Theke,
Bühne, Flgel; Geschirrbnutzung für bis zu
150 Personen möglich (Preise siehe
Nutzungsgeleit)
**Der Feiergarten unter
Kastanienbäumen** für
ca. 200 Personen
zusammen mit dem
großen Saal nutzbar,
Equipment: Stühle und
Tische im Freien,
Bühne
**Initiativraum mit
angelegter
Teeküche** für ca. 40
Personen, Equipment:
Stühle und Tische
Küchen- und
Geschirrbnutzung
möglich



- Observations:
- Building integrates with neighboring community.
 - Outdoor spaces "feiergarten" emphasized.
 - Variety of spaces available to rent by community.

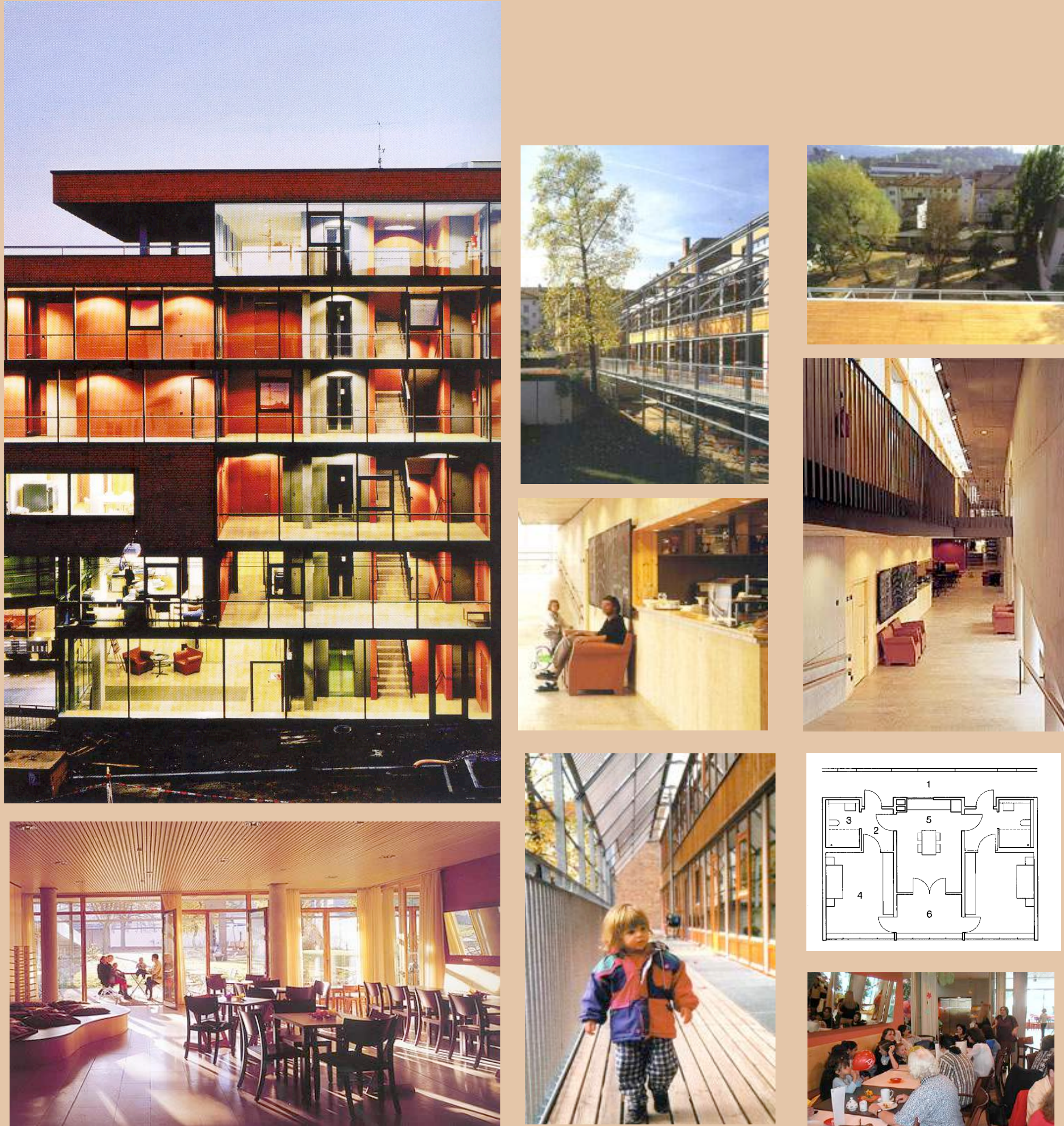
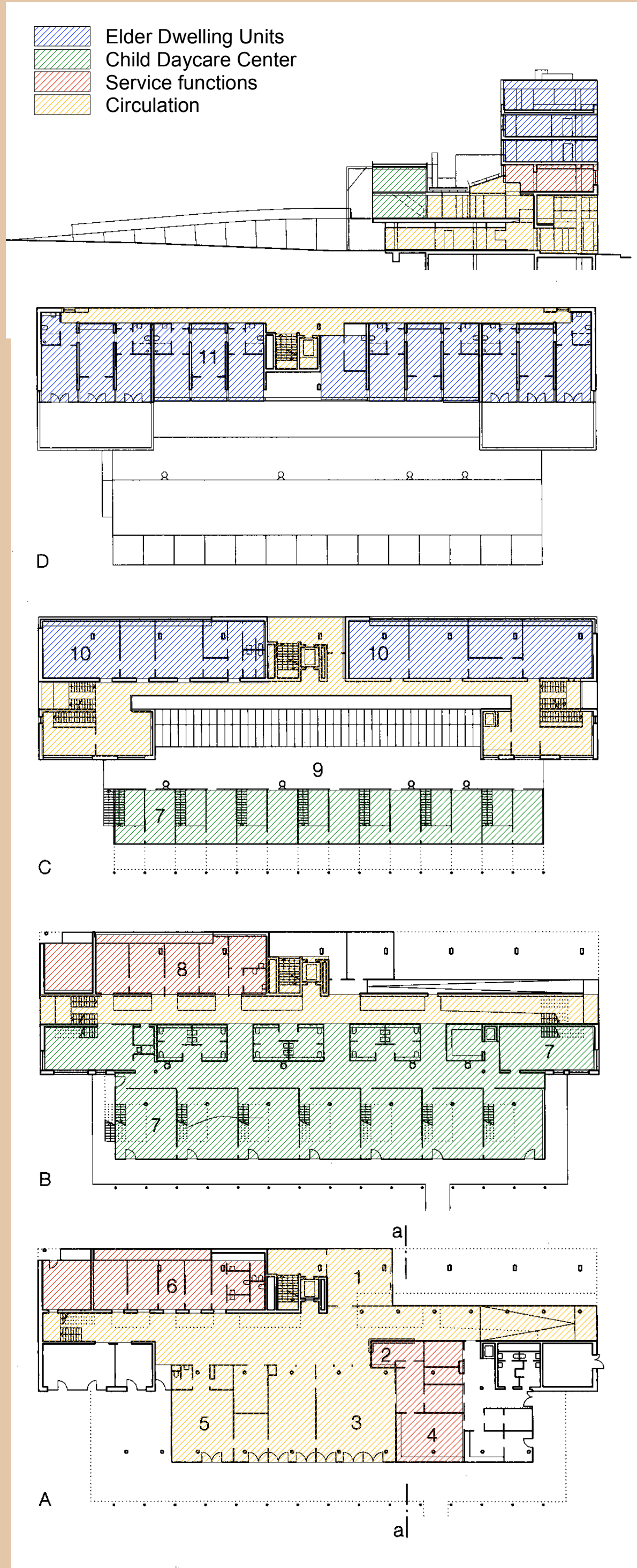
Multi-generational Housing in Stuttgart

Location: Stuttgart, 2001
Architects: Kohlhoff & Kohlhoff, Stuttgart

Project Description: Child Care Center for 120 Children
10 Shared living units for seniors (90 sm)
District and Communication center
Total Floor Area: 5200 sm

Legend:

A Ground Floor	1 Foyer	5 Gymnastic room	8 Sleeping room
B First Floor	2 Info-bar	6 Service office	9 Roof terrace
C Second Floor	3 Cafeteria	7 Day care unit	10 group room
D Third Floor	4 Kitchen		11 Senior living unit



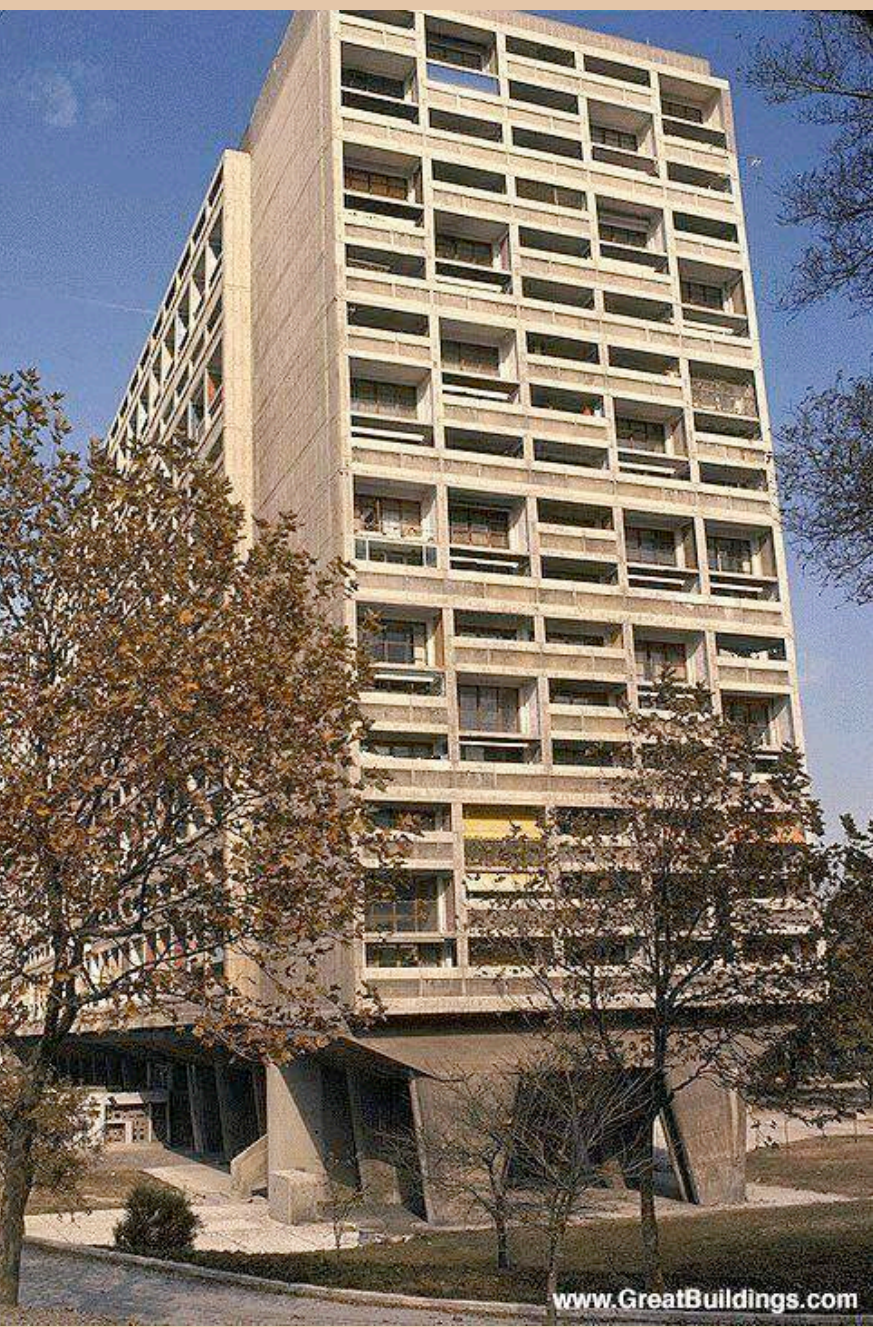
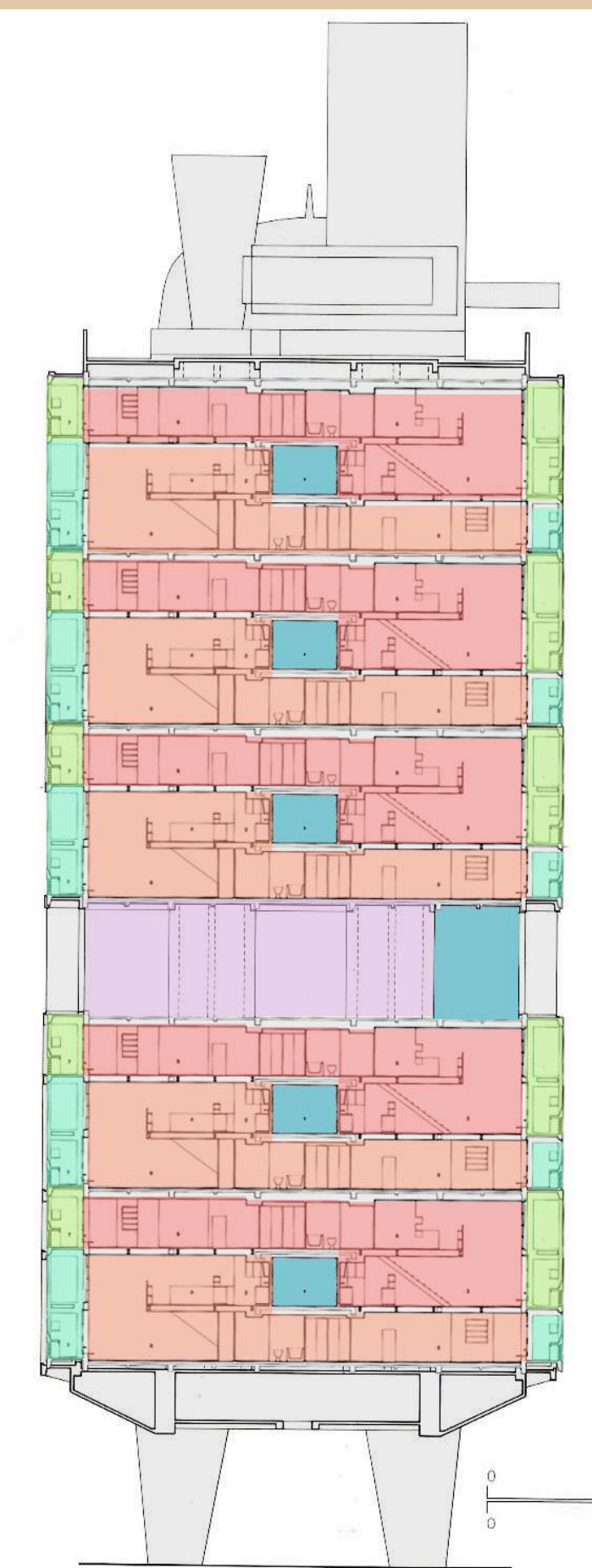
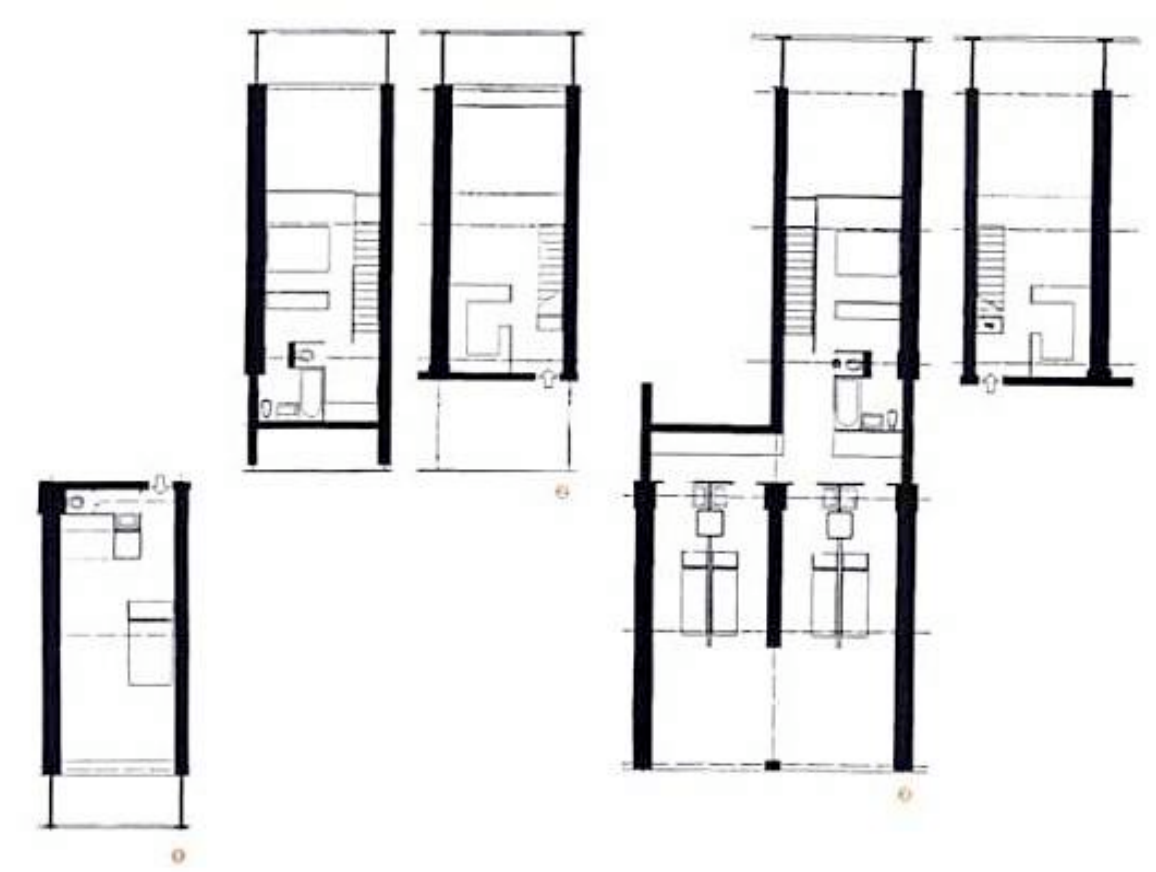
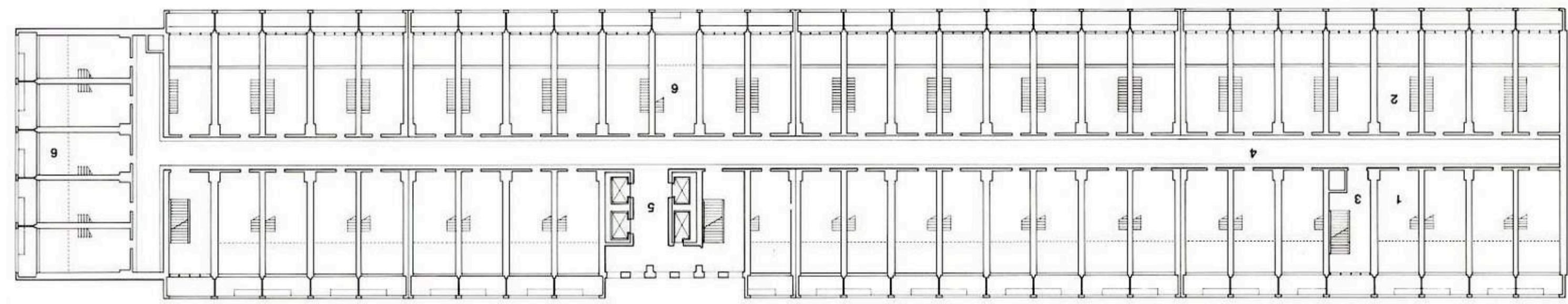
- Observations:
- Multigenerational Mix of Program successful
 - Programming effective on lower Floors (street edge, park)
 - Circulation efficient
 - Elder housing still segregated



Site Plan

Unité d'habitation

Location: Marseilles, France, 1952
Architect: Le Corbusier
Project Description: Vertical City (337 Apartments)
Streets every third floor
Units received daylight to both ends
Unit modules could be expanded up to 7people.
7th floor street housed shops and hotel
Rooftop terrace: Gymnasium and Kindergarten



- Observations:
- Flexible housing for variety of users: variety of unit plans
 - Light at both ends of dwelling units : very livable
 - In-building services: very convenient.
 - Roof-top amenity space

Architectural Principles

1. Integrate building with the community.

Site selection: pedestrian access to and from.
Ground floor plane: retail, community, service components

2. Integrate building with the environment.

Site Planning: integrate building with natural site
Building Design: Green Building Systems / orientation design
Rooftop design
Elders as Stewards: Active involvement in environmental features

3. Create a variety of 'commons' spaces for all people.

Young people, families, professionals, elders
Spaces: informal, organized, passive and active
Playgrounds, Community Gardens, Lobbies, Restaurants, Greenhouses

4. Enable interstitial spaces to be used as meeting spaces.

Hallways, Shared Balconies, Stairwells
Daily chance meetings

5. Make dwelling units adaptable to changing needs.

Building Structure to allow for unit expansion / contraction / subdivision over time.
Young Families expanding need for space
Elder housing: Age in Place unit design (stretcher door widths, Tubs etc...)

6. Promote personalization of thresholds.

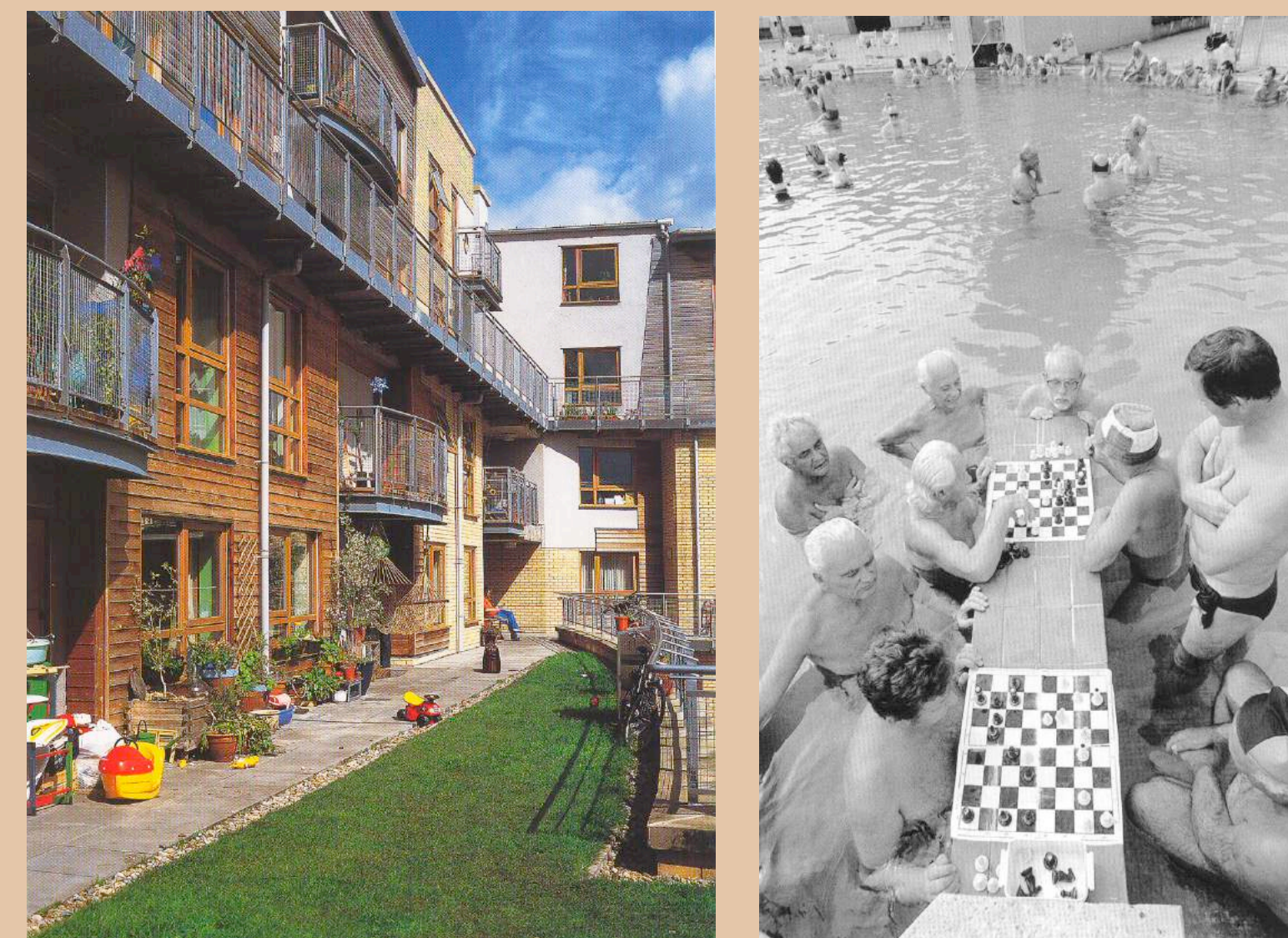
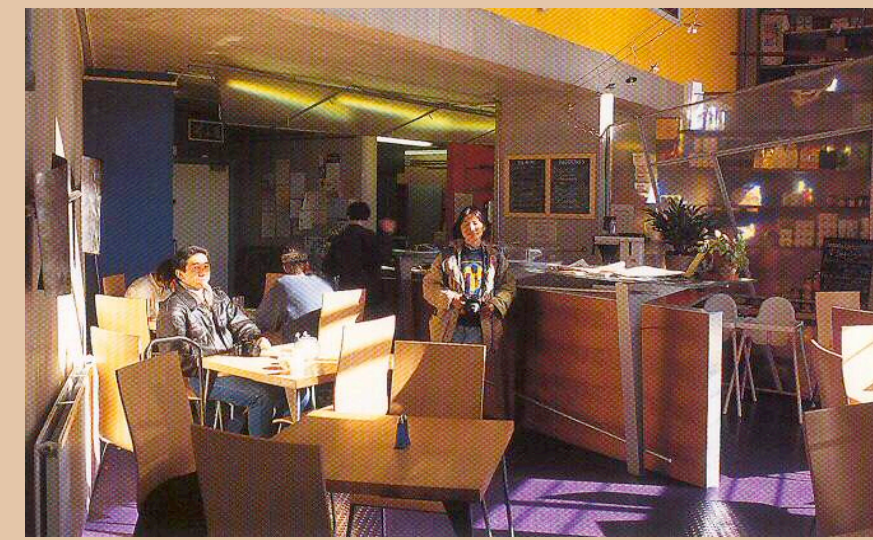
Porch analogy, personalize doors.
Private / public boundaries at thresholds.
encourage integration while allowing people to interact on their own terms.

7. Encourage private use of common public space.

Exterior decks, gardens taken over as private unit gardens'
Community Gardens, Greenhouses

8. Promote rooftops as an amenity space and room.

Garden, amenity space, environmental meeting space.



Potential Program

Mix of units

Rented apartments
owned
subsidized
bachelor/student
1 bed - 5bed family
Co-operative

Exterior Private space / decks

Exterior Rooftop amenity space

Commons

Green house

Community garden

Playground for young and old

Event Space

Retail functions

Grocery store

Art store

Sports store

Office functions

Restaurant

Cafe

Bookstore + reading center

Daycare

Preschool

Medical center with nurses station

Fitness center

Food services center for travelling meals

Environmental stewardship center (educational) composting, greenhouse tomatoes,

Meeting rooms

Admin

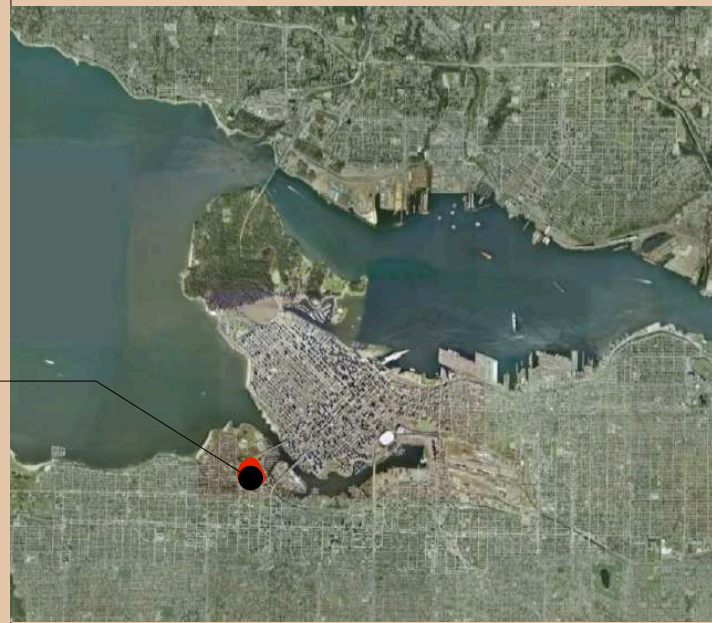
Interstitial spaces as meeting places



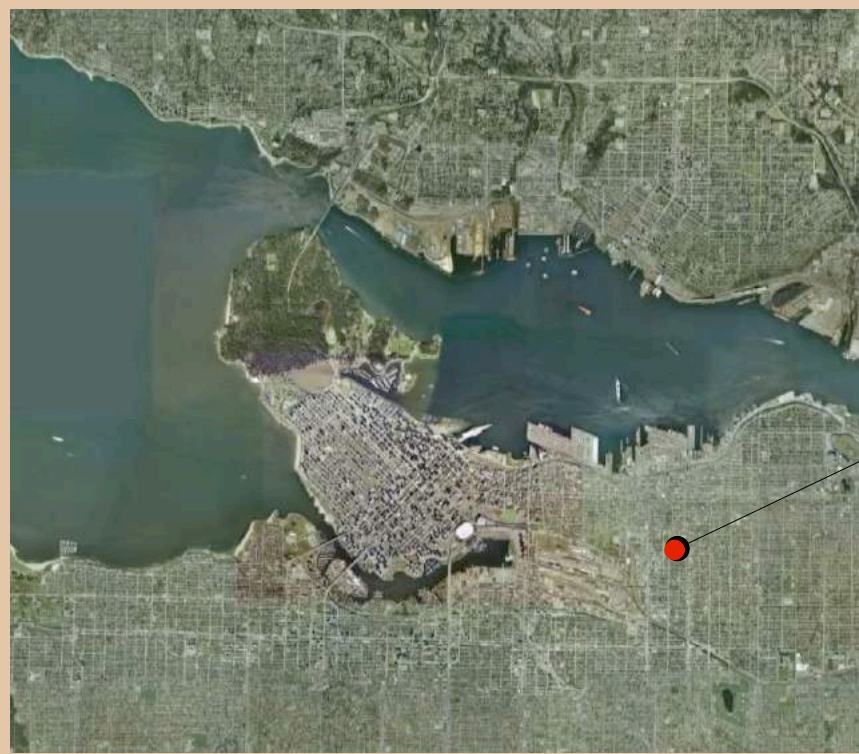
Principles and Program

5

Potential
Project Site



Key Plan of Site 1

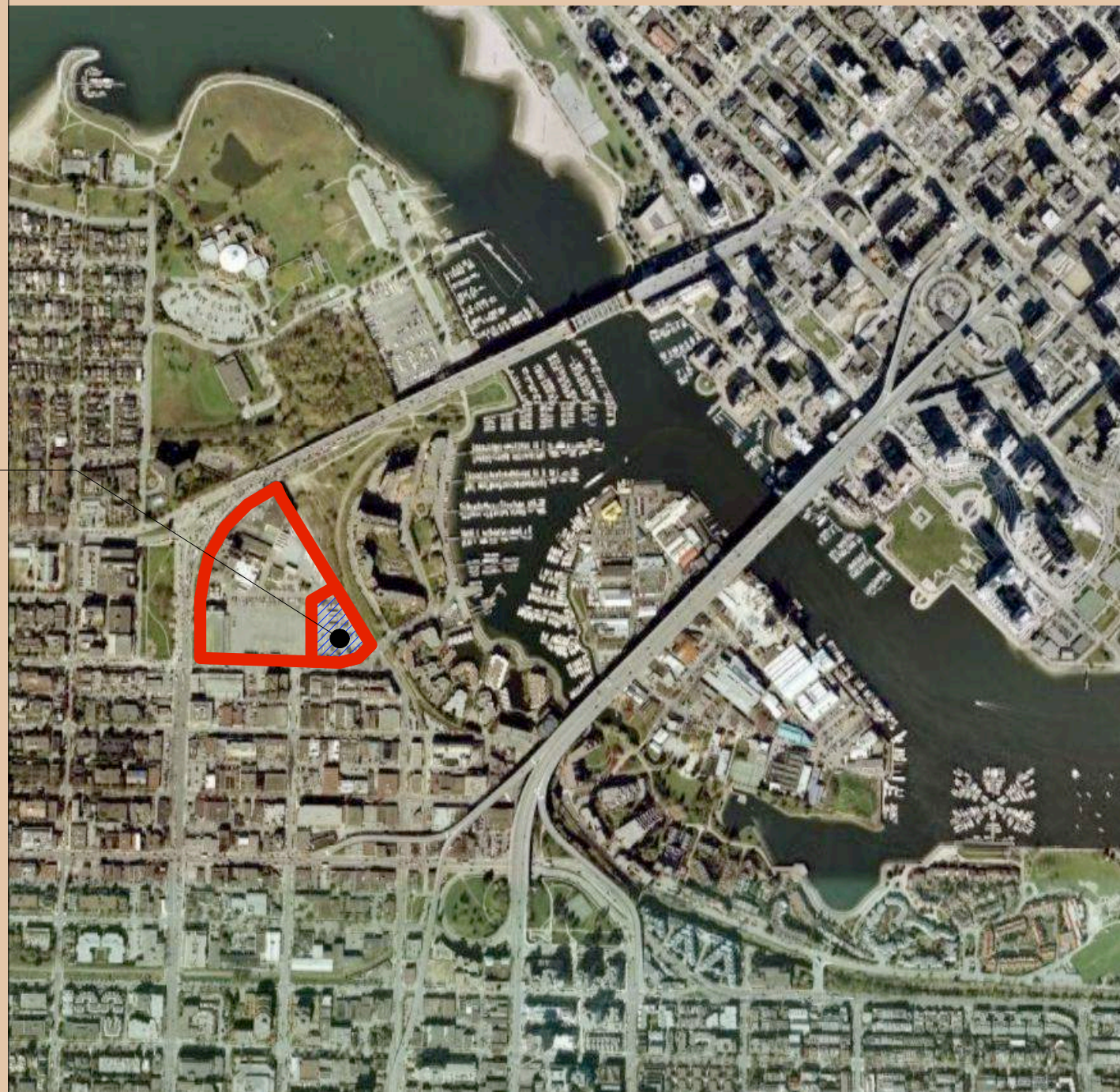


Potential
Project Site



Potential Project Site

Potential
Project Site



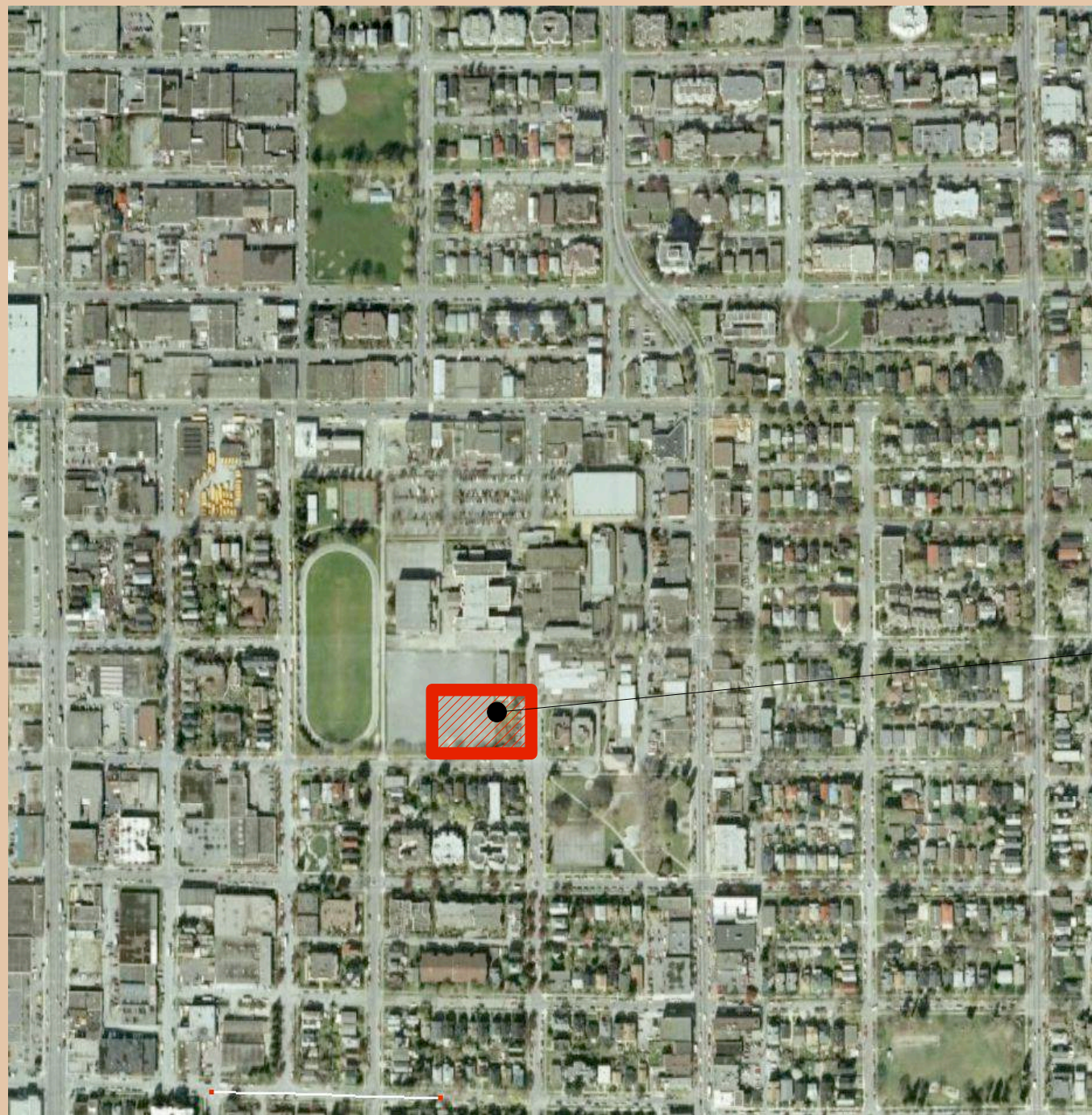
Context Plan of Site 1



Potential Project Site



Potential Project Site



Potential
Project Site



Potential
Project Site



Potential Site 1: Molson Brewery Site

Current Use: Parking Lot, Molson
Site Area: 5900 sm



Potential
Project Site

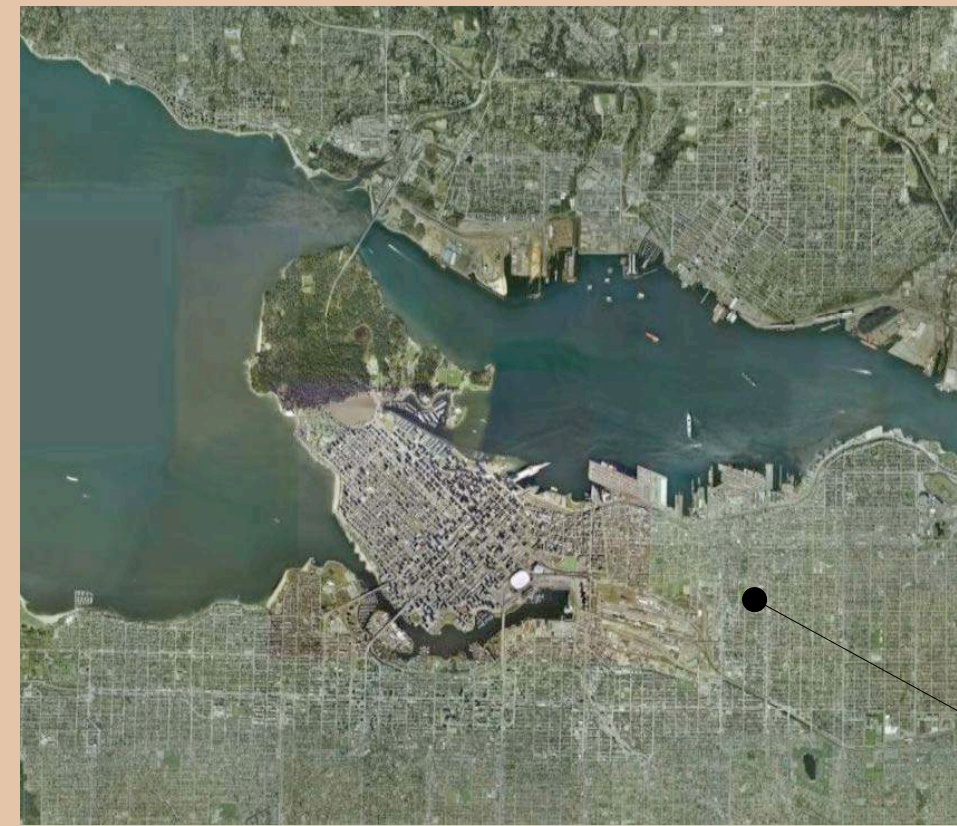


Potential Site 2: Brittania Community

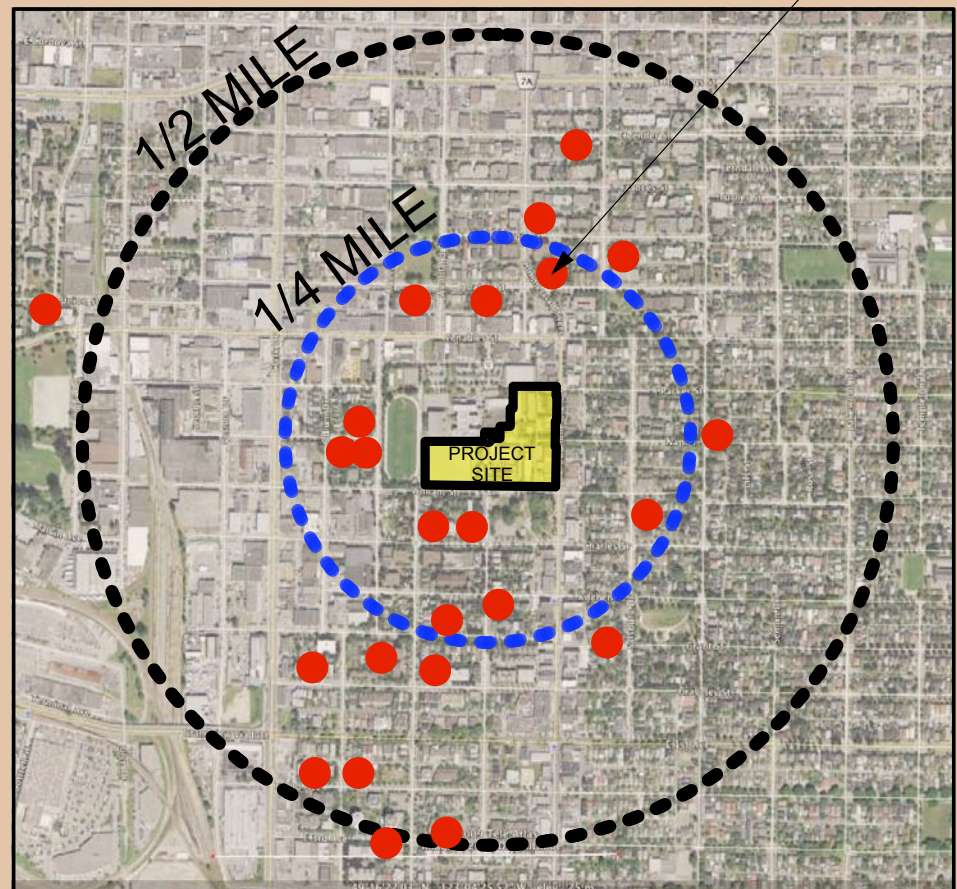
Current Use: Parking Lot, Playing Field
Site Area: 4100 sm

Potential Site Selection

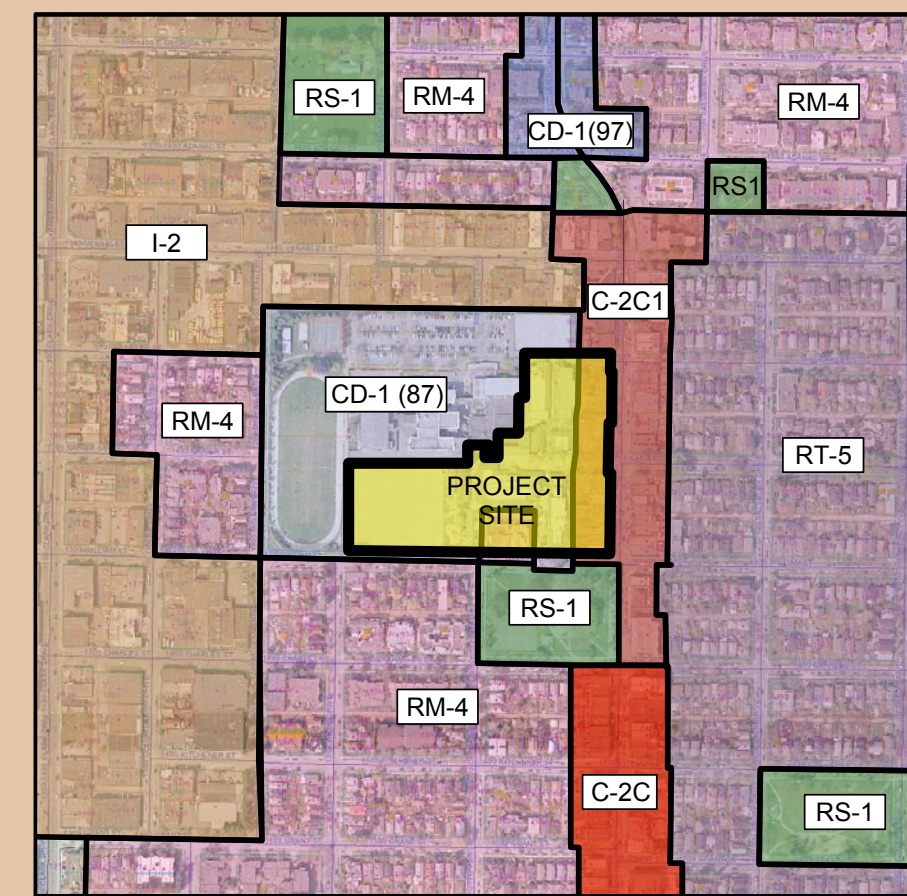
6



KEY PLAN



SITE PLAN WITH 1/4 & 1/2 MILE RADII
Scale: 1:15000



CONTEXT ZONING ANALYSIS
Scale: 1:7500

- ADANAC TOWERS
ADANAC STREET
FOCUS: 55+

ALMA BLACKWELL CO-OP
ADANAC STREET
FOCUS: FAMILIES & SENIORS

GRANDVIEW CO-OP
NAPIER STREET
FOCUS: FAMILIES & SENIORS

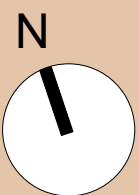
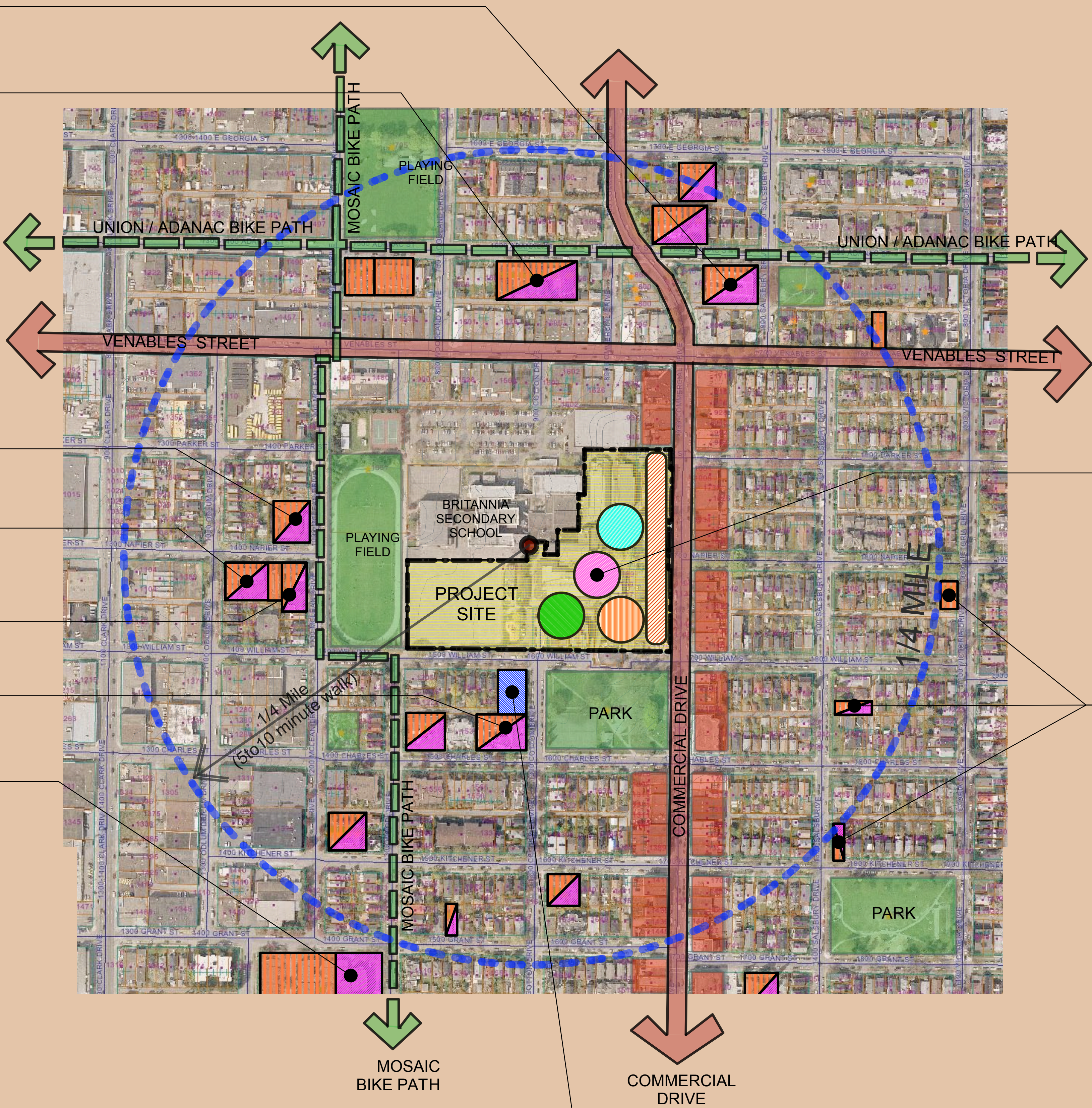
TIDAL FLATS CO-OP
ODLUM STREET
FOCUS: FAMILIES & SENIORS

HFBC HOUSING CO-OP
NAPIER STREET
FOCUS: FAMILIES & SENIORS

CHARLES SQUARE CO-OP
CHARLES STREET
FOCUS: FAMILIES & SENIORS

GRANDVIEW TERRACES CO-OP
GRANT STREET
FOCUS: FAMILIES, SENIORS, DISABLED PEOPLE
- ZONING LEGEND

C2C	COMMERCIAL
C2C-1	COMMERCIAL
CD-1(87)	COMPREHENSIVE DISTRICT
CD-1(97)	COMPREHENSIVE DISTRICT
I-2	INDUSTRIAL
RM-4	RESIDENTIAL
RT-5	RESIDENTIAL
RS-1	PARKS



CONTEXT PLAN

Scale: 1:2500

PROPOSED LAND-USE

MARKET HOUSING

CO-OPERATIVE HOUSING

SUPPORTIVE LIVING (SENIORS)

ASSISTED LIVING (SENIORS)

RESIDENTIAL LIVING (SENIORS)

BRITANNIA COMMUNITY CENTER / SCHOOL SITE

COMMERCIAL RETAIL

PROPOSED MULTI-GENERATIONAL COMMUNITY LIVING PROJECT

BRITANNIA COMMUNITY CENTER AND ADJACENT SITES

VANCOUVER EAST CO-OP

SALSBURY DRIVE

FOCUS: SENIORS & PEOPLE W/ DISABILITIES

OBSERVATIONS

1. LOCATION

2. TRAFFIC: HIERARCHY

3. TOPOGRAPHY: SLOPING SITE

4. ZONING: I-2, C2C, RM4

5. BUILDING HEIGHT: LOW-SCALE

6. LANDUSE: SCHOOL,BCC, SHOPPING

7. PEDESTRIAN FOCUS: PARK + PATHS

8. CULTURAL DIVERSITY: APPARENT

9. CO-OP HOUSING: GOOD SUPPLY

10. SUPPORTIVE, ASSISTED & RESID'L CARE: LACKING, DEMONSTRATES A NEED

11. RESPONSE TO PROBLEM:

INSERT A MULTIGENERATIONAL LIVING COMPLEX INTO A COMMUNITY CENTER SETTING:

A. CONVERT PORTION OF COOP

Context Site Analysis

7



1 VIEW OF GRANDVIEW PARK AND S.E. CORNER OF PROJECT SITE AT WILLIAM ST.



2 APARTMENT BUILDING AT WILLIAMS STREET



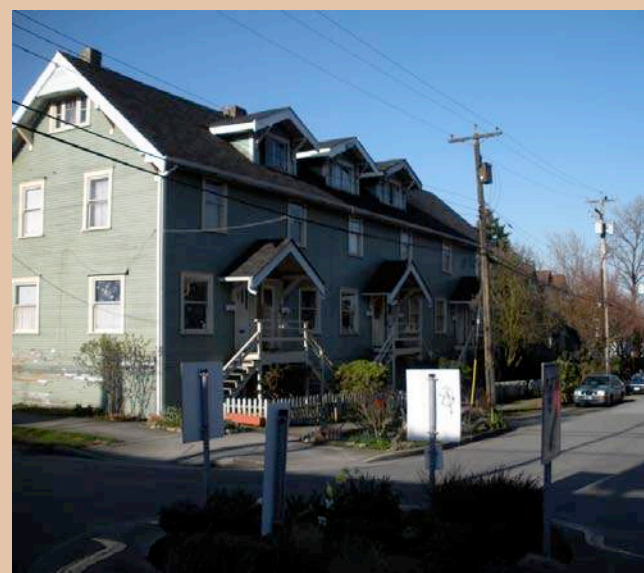
3 EASTSIDE FAMILY PLACE



4 GRANDVIEW CO-OP



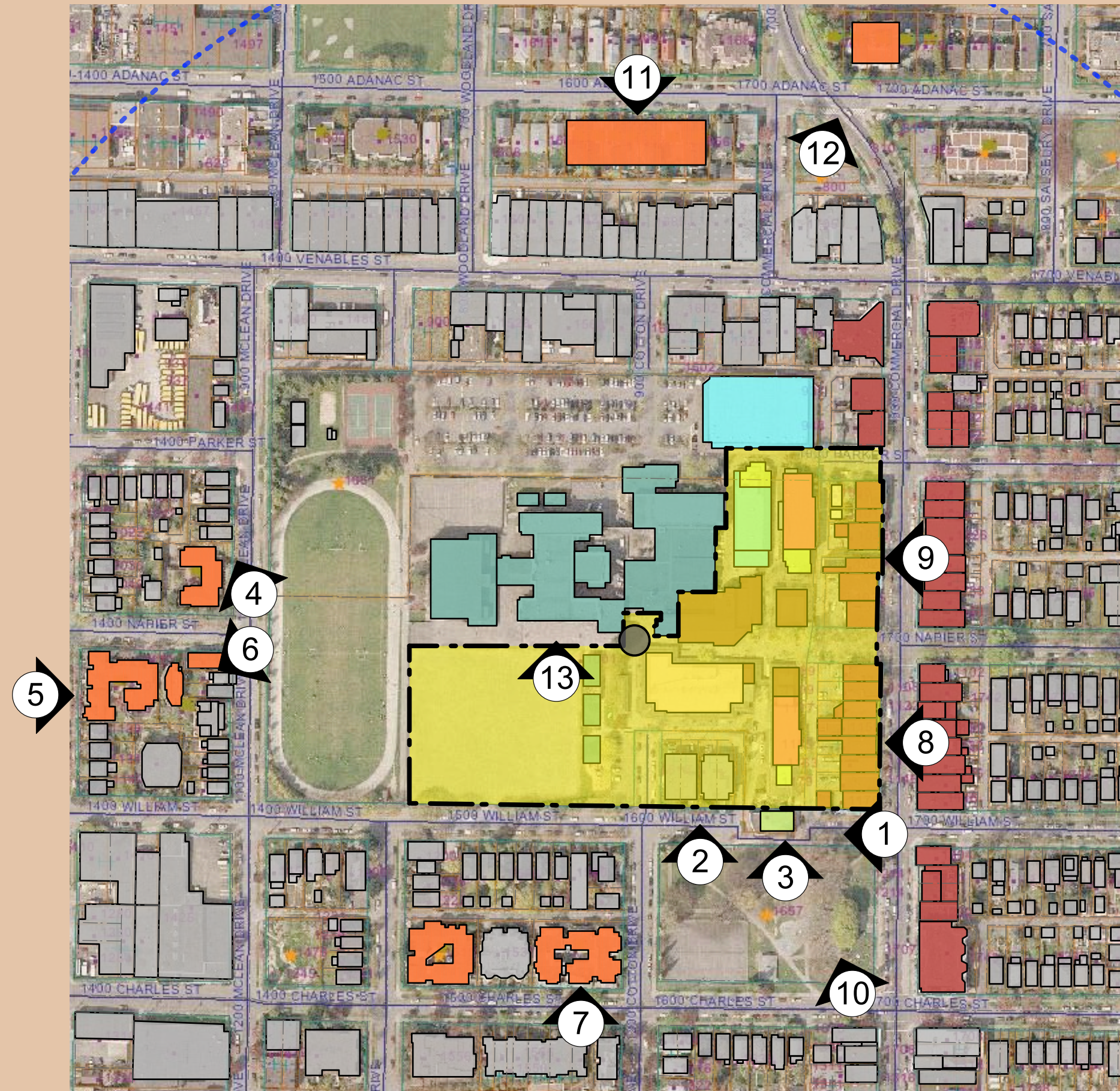
5 TIDAL FLATS CO-OP



6 HFBC CO-OP



7 CHARLES SQUARE CO-OP



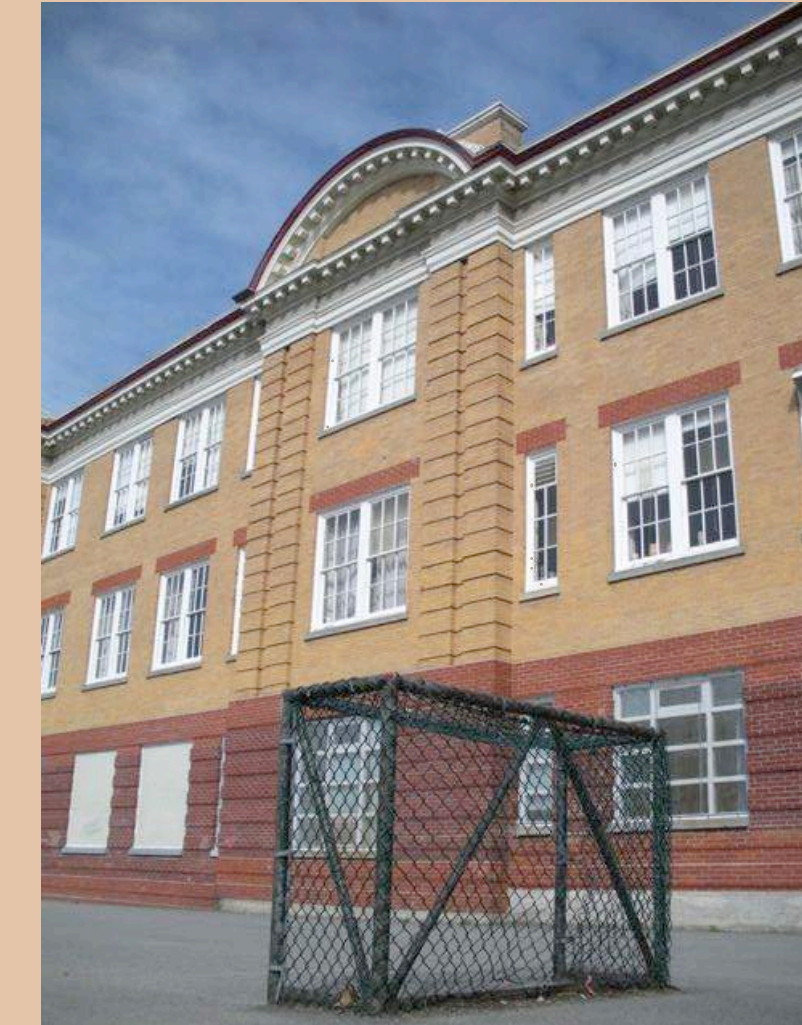
1 SITE PLAN
Scale: 1:2500



11 ALMA BLACKWELL CO-OP



12 ADANAC TOWERS



13 BRITANNIA SECONDARY SCHOOL



10 PLAYGROUND AT GRANDVIEW PARK

OBSERVATIONS

1. PROJECT SITE: NO ADDRESS
2. COMMERCIAL DRIVE EDGE: INCORPORATE
3. GRANDVIEW PARK EDGE: INCORPORATE
4. ADJACENT USES: PEDESTRIAN FRIENDLY
5. CO-OPS: CONVERT PART TO SUPPORTIVE

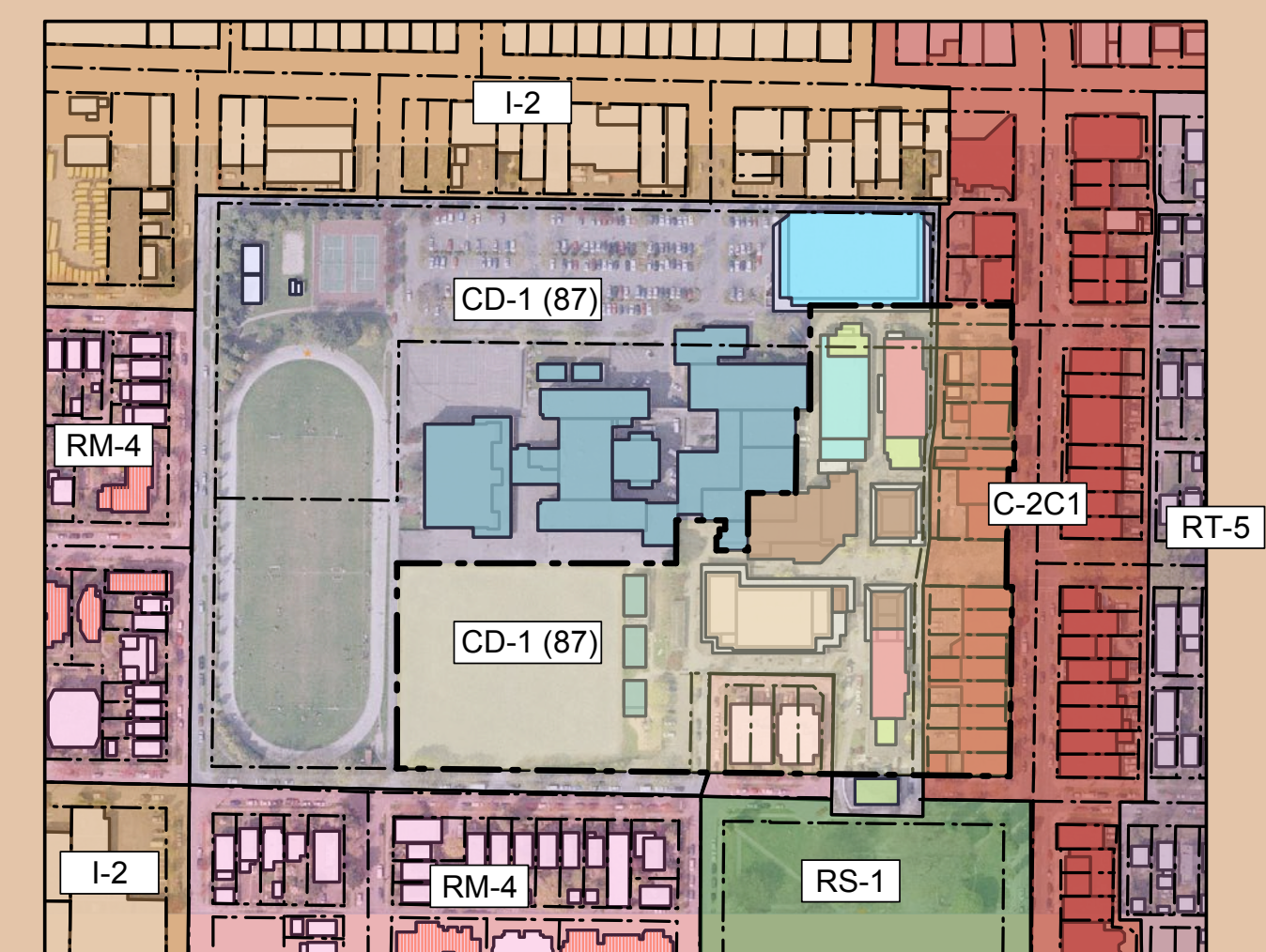
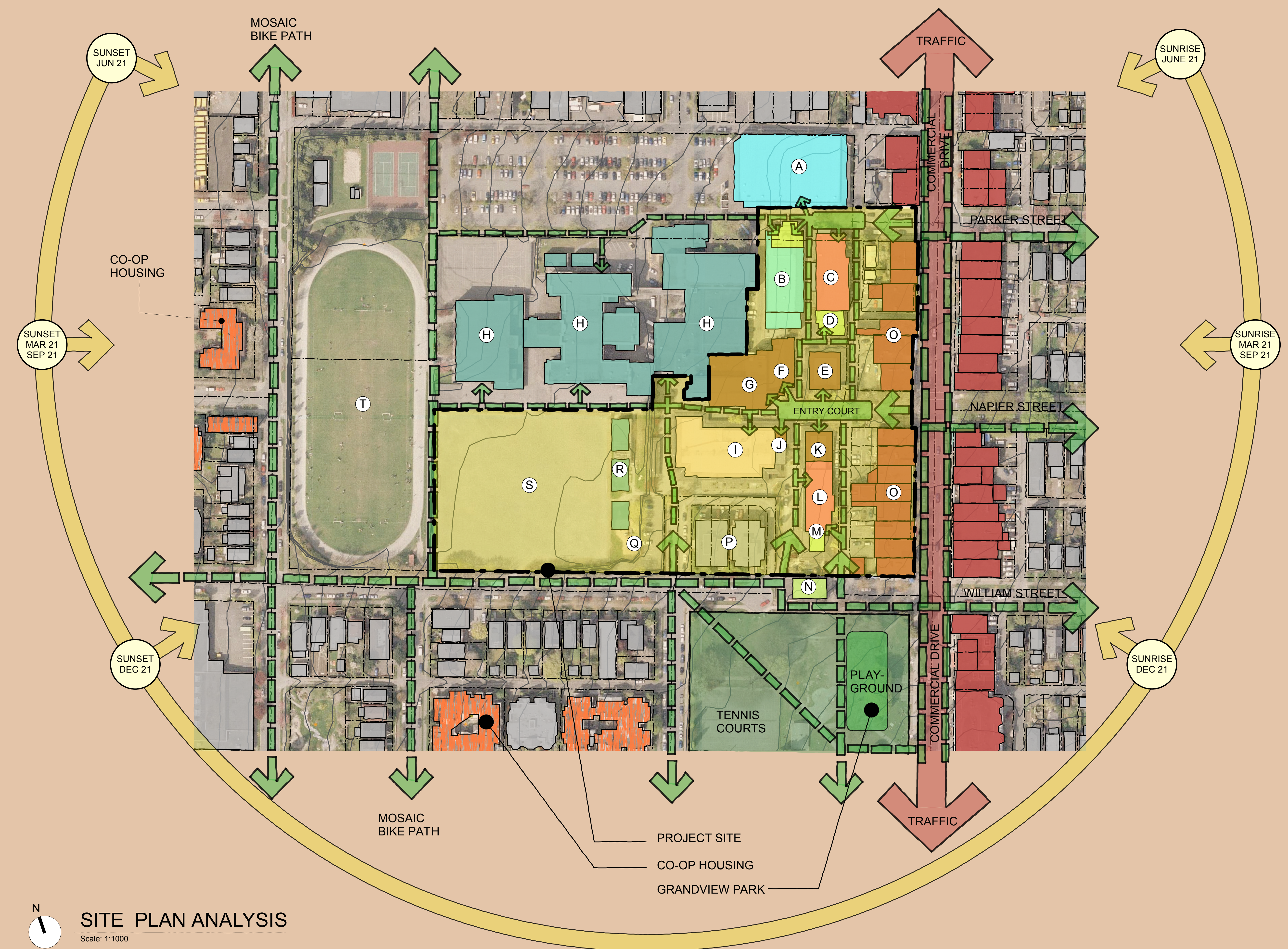


8 COMMERCIAL DRIVE BETWEEN WILLIAM & NAPIER STREET

9 COMMERCIAL DRIVE BETWEEN NAPIER & PARKER STREETS

Context Site Photos

8



SITE ZONING
Scale: 1:3000

ZONING ANALYSIS

CODE	COLOR	DESCRIPTION	HEIGHT LIMIT	MAXIMUM F.S.R.	NOTES
C2C-1	[Red]	COMMERCIAL /RES	10.7m	3.0	
CD-1(87)	[Blue]	COMPREHENSIVE DISTRICT	12.2m	.45	REZONING NECESSARY
I-2	[Orange]	INDUSTRIAL	18.3m	3.0	
RM-4	[Pink]	RESIDENTIAL	10.7m	0.6	
RT-5	[Purple]	RESIDENTIAL	10.7m	0.6	
RS-1	[Green]	PARKS	PARKS		

- BRITANNIA CENTER EXISTING LAND USE**
- | | |
|--------------------------------|----------------------------|
| A. ICE RINK | K. SENIORS CENTER |
| B. POOL AND FITNESS | L. GYM D |
| C. GYM C AND RAQUET COURTS | M. CHILD DAYCARE |
| D. TEEN CENTER | N. EAST-SIDE FAMILY PLACE |
| E. INFORMATION CENTER | O. COMMERCIAL RETAIL UNITS |
| F. PRE-TEEN CENTER | P. APARTMENT BUILDINGS |
| G. LIBRARY | Q. ELEMENTARY PLAYGROUND |
| H. BRITANNIA SECONDARY SCHOOL | R. PORTABLES / STORAGE |
| I. BRITANNIA ELEMENTARY SCHOOL | S. SCHOOL RECREATION FIELD |
| J. FAMILY ROOM | T. SCHOOL TRACK AND FIELD |

- OBSERVATIONS**
- WHY THIS SITE: THERE IS A NEED (BCC)
 - LOCATION: 1/2 BLOCK OFF COMMERCIAL
 - TOPOGRAPHY: SLOPING SITE
 - ZONING: LAND-USE / HEIGHT: LOW SCALE
 - SOLAR: NO OBSTRUCTIONS
 - SITE ACCESS: SEVERAL
 - PEDESTRIAN EMPHASIS: PATHS
 - "STREETS" at B.C.C: TO MOVE THROUGH ONLY.
 - BUILT FORM: LOW SCALE CLUSTER
 - PROGRAMS: PULLED APART: SEPARATED
 - LIST OF PROGRAMS: MANY PROGRAMS (ABOVE)
 - USER GROUP SURVEY: SEGREGATION EXISTS
 - THE PROBLEM: BCC FAILING TO BRING ITS USERS INTO MEANINGFUL CONTACT WITH OTHER GENERATIONS. PARTLY A PROGRAMMING ISSUE. ALSO A BUILT FORM ISSUE.
 - RESPONSE TO PROBLEM: INSERT A MULTIGENERATIONAL LIVING COMPLEX INTO A COMMUNITY CENTER SETTING. INTEGRATE FAMILY AND ELDER HOUSING INTO THE COMMUNITY FUNCTIONS OF THE COMMUNITY CENTER. SHARE COMMON SPACES

Project Site Analysis I 9



1 ENTRY ALLEY BEHIND COMMERCIAL



2 ELEMENTARY SCHOOL SHOWING BREAK OUT AREA



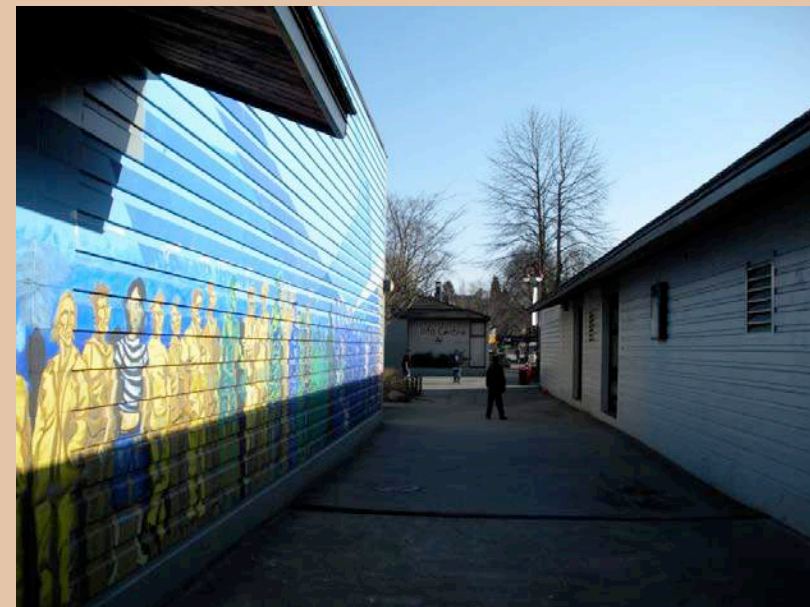
3 TEEN CENTER ADJACENT TO ALLEY



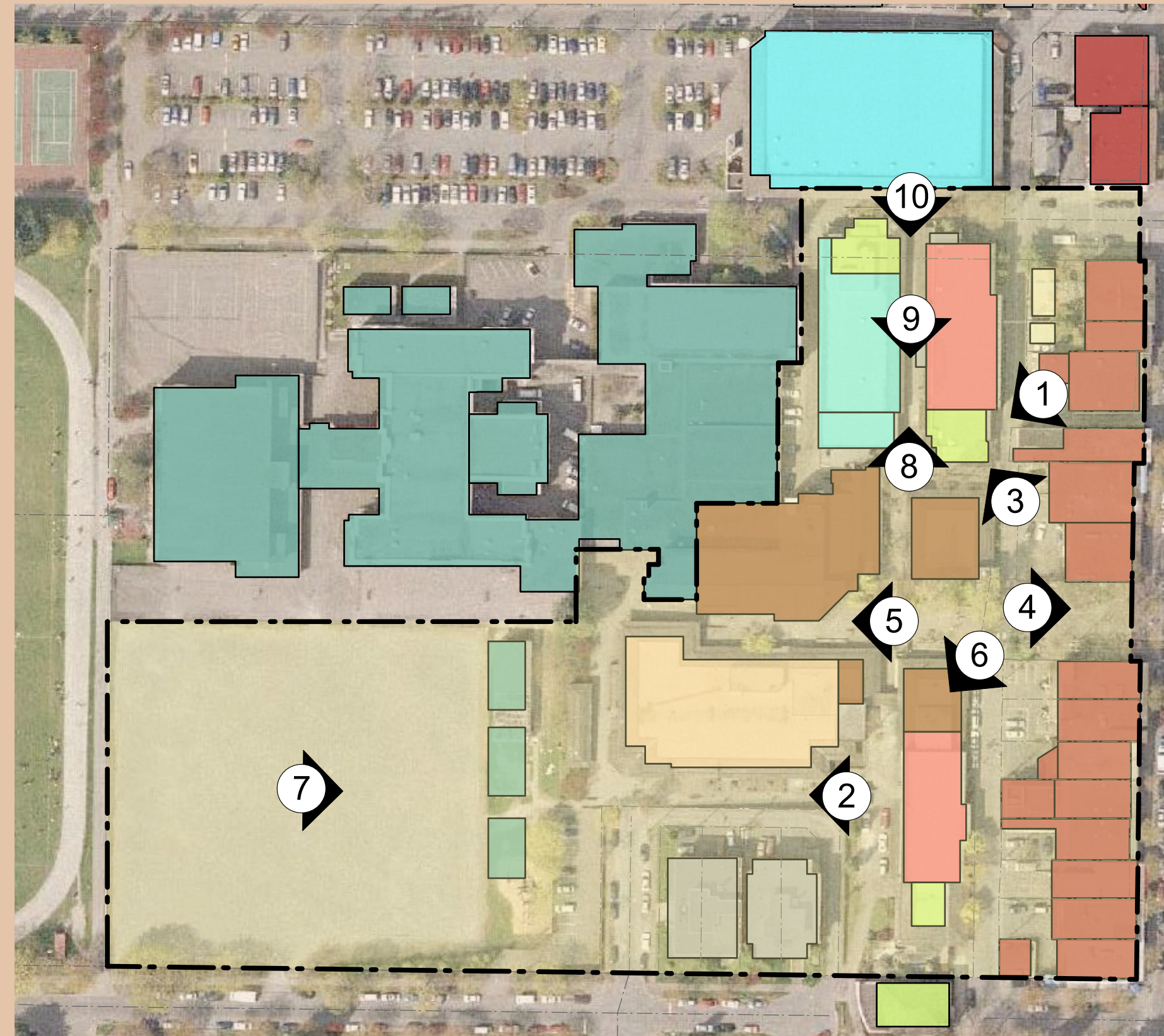
10 VIEW OF 'STREET' FROM ICE RINK TOWARD ENTRY COURTYARD



8 VIEW OF 'STREET' TOWARD ICE RINK



9 VIEW OF 'STREET' TOWARD ENTRY



1 SITE PLAN
Scale: 1"= 100 ft



4 ENTRY PLAZA AT NAPIER STREET



5 ENTRY PLAZA SHOWING LIBRARY ENTRANCE AND STREETS



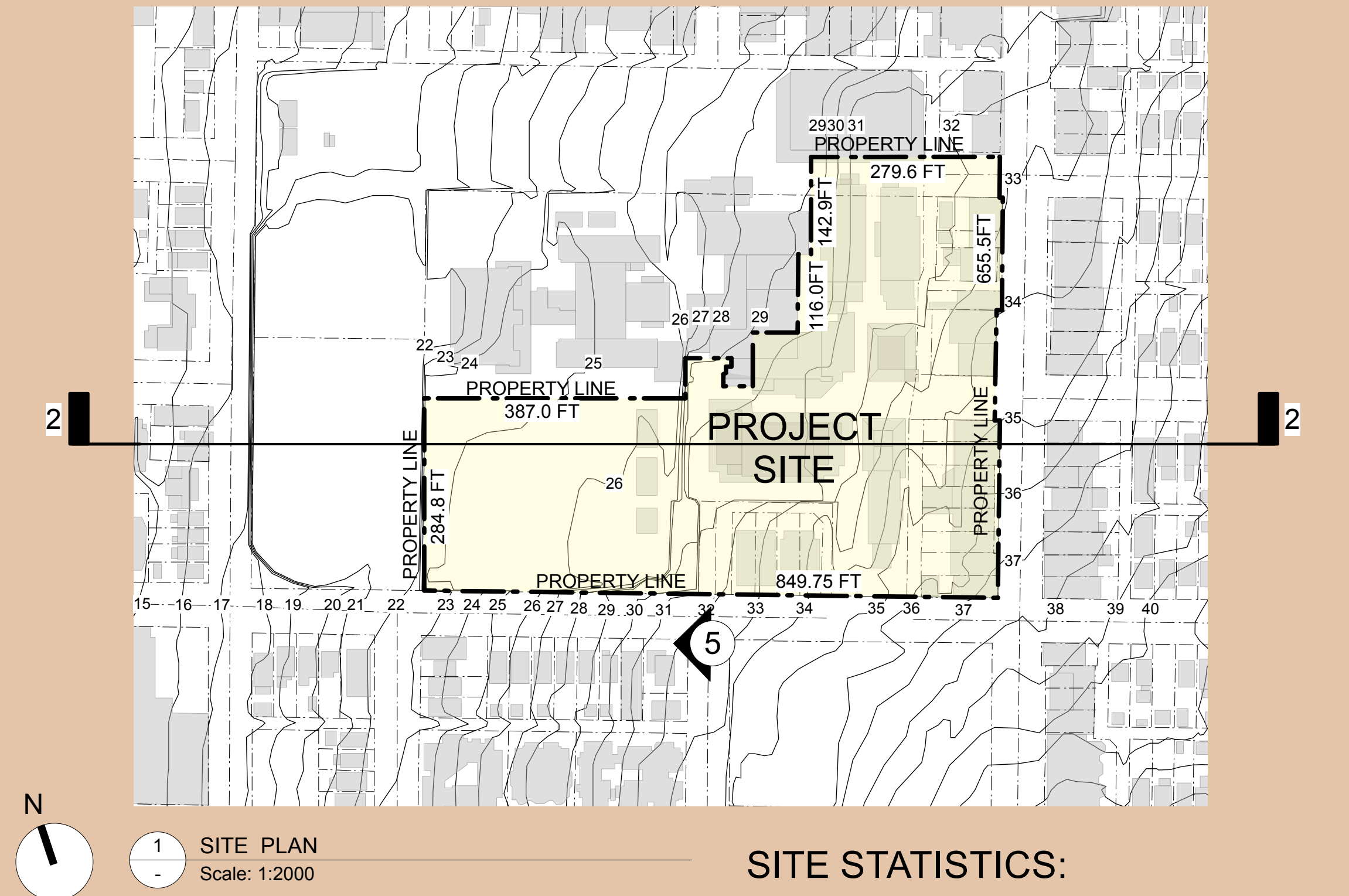
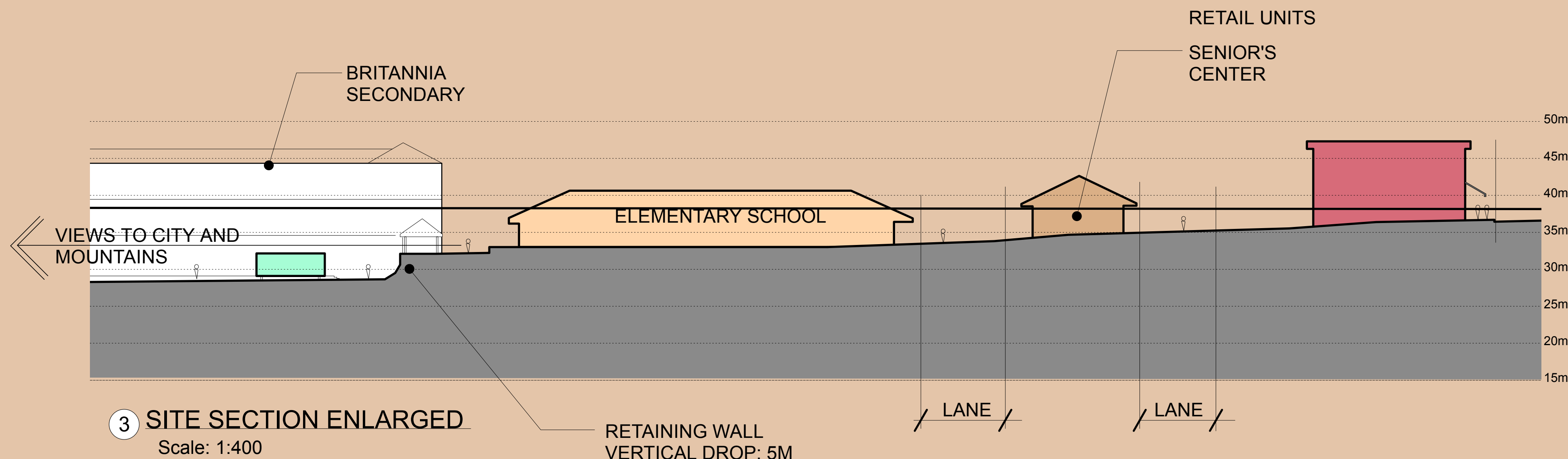
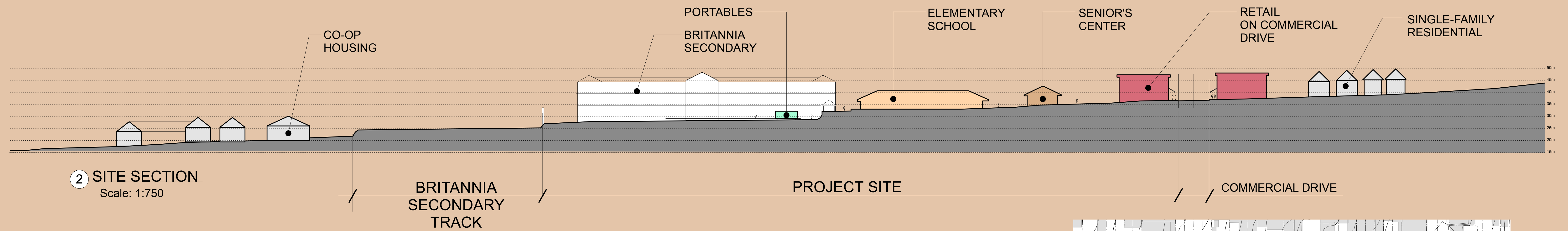
7 VIEW OF SITE FROM RECREATION PLAYING FIELD



6 SENIORS CENTER AT ENTRY AND ALLEY JUNCTION

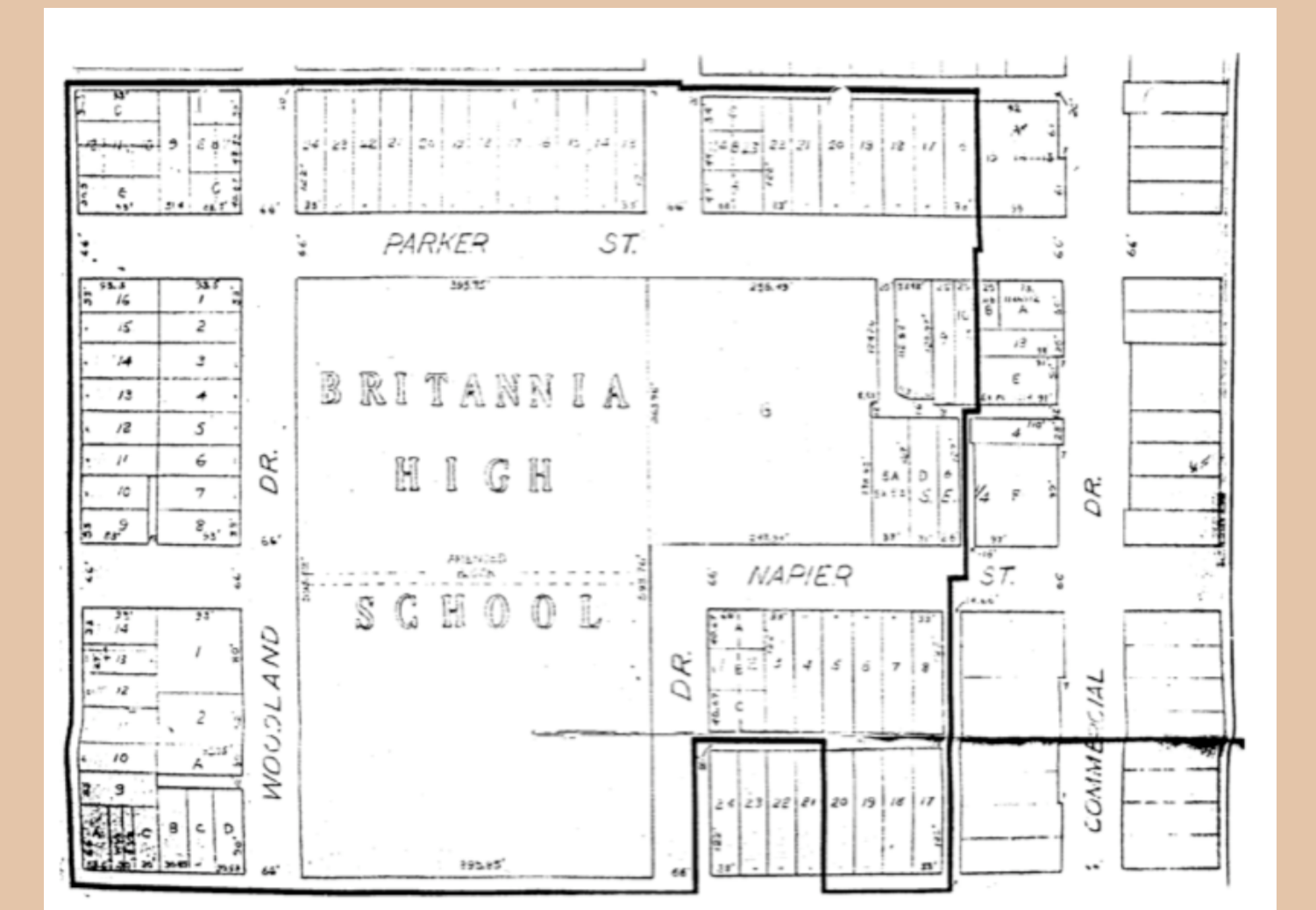
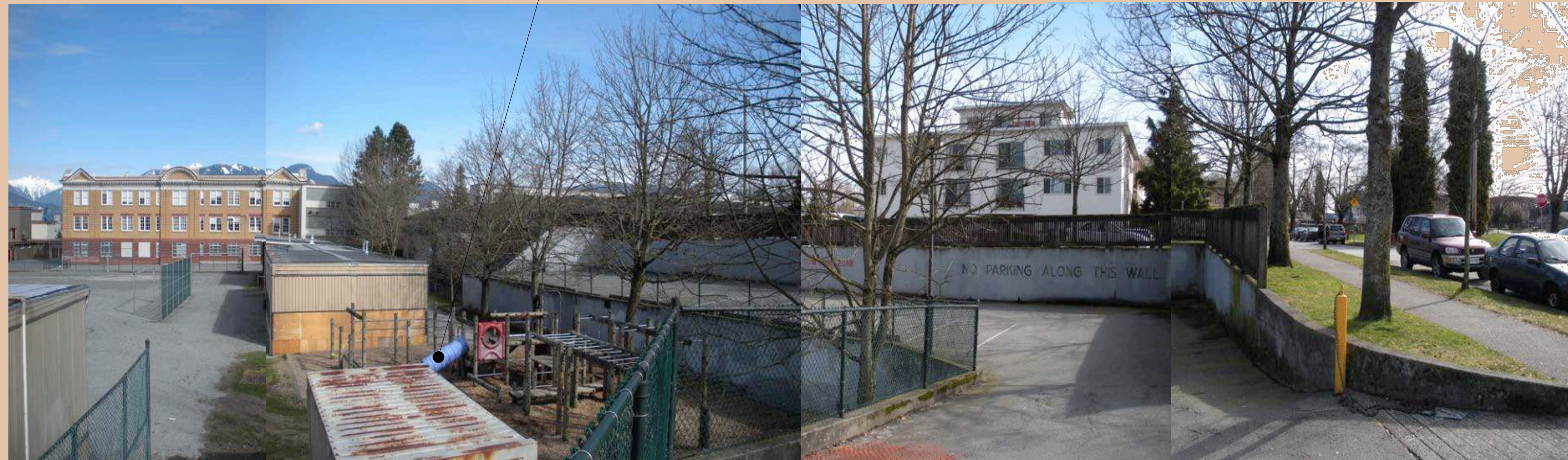
Project Site Photos

10



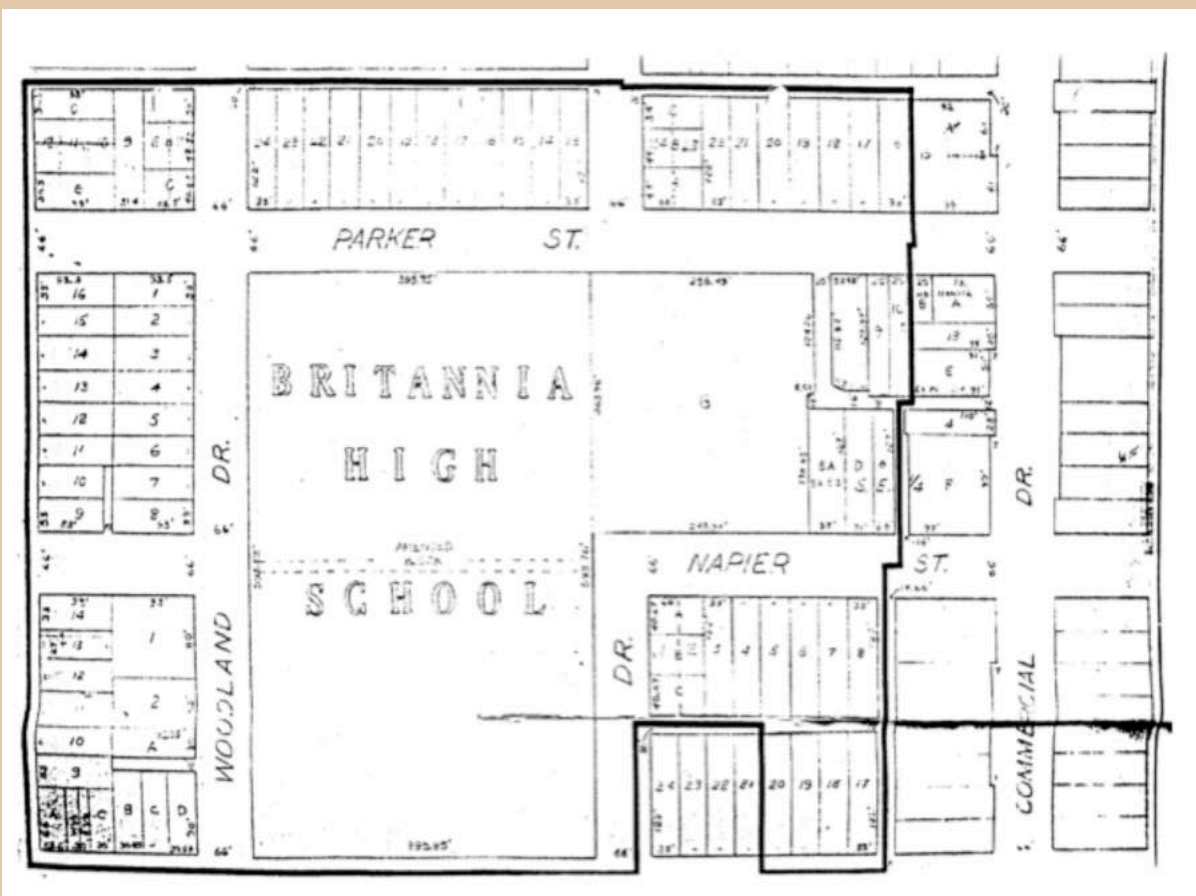
SITE STATISTICS:

SITE AREA: 33,586 sm
VERTICAL DROP: 15m

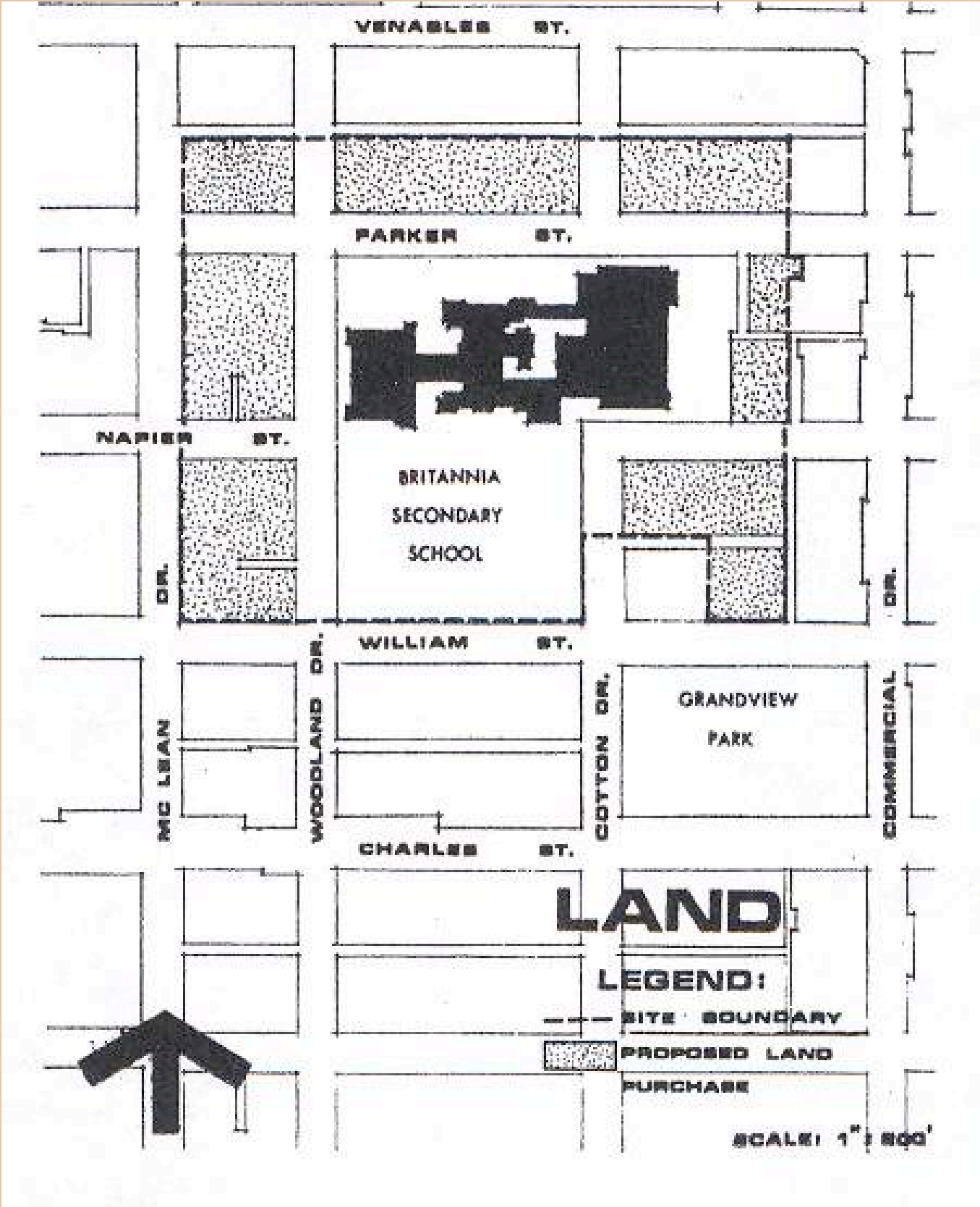


Project Site Analysis II

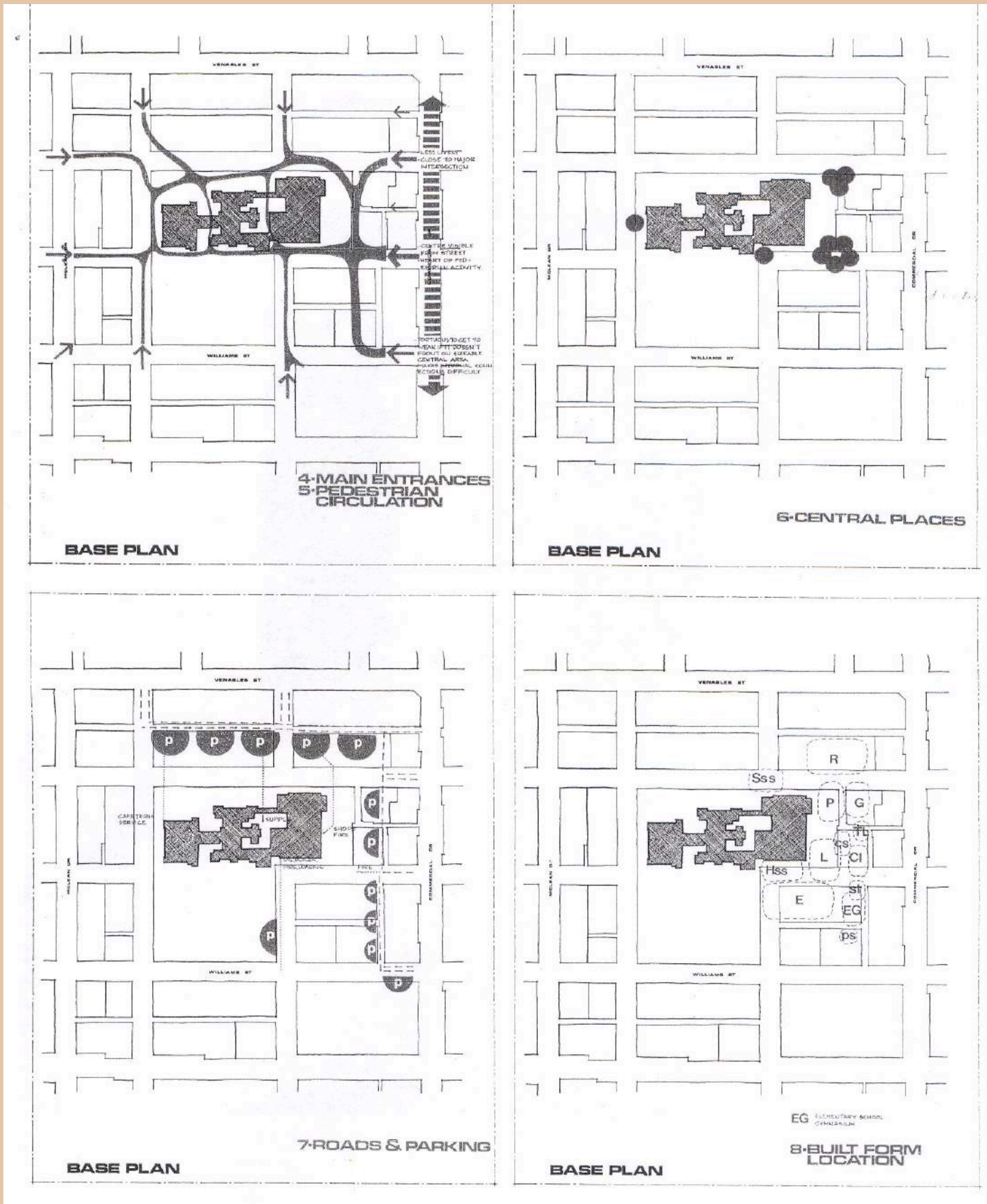
11



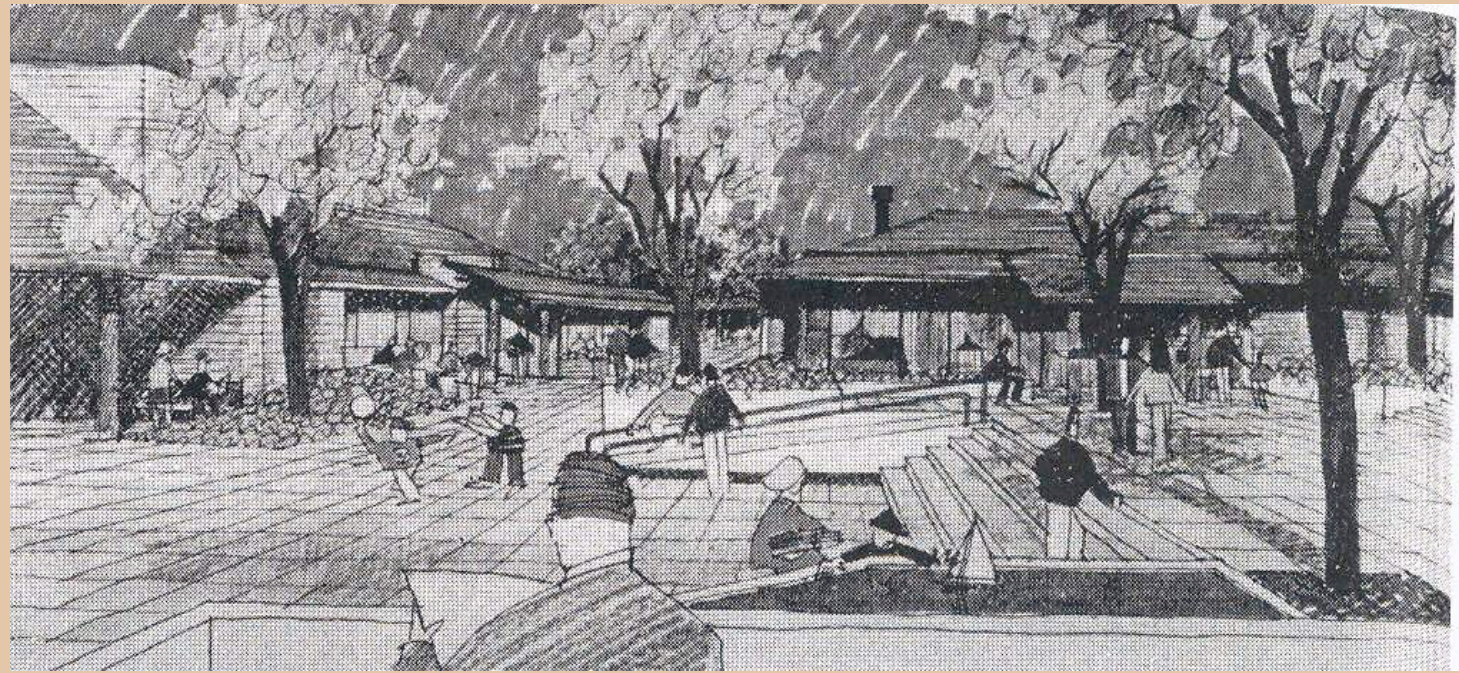
1973 CD-1 Britannia Rezoning



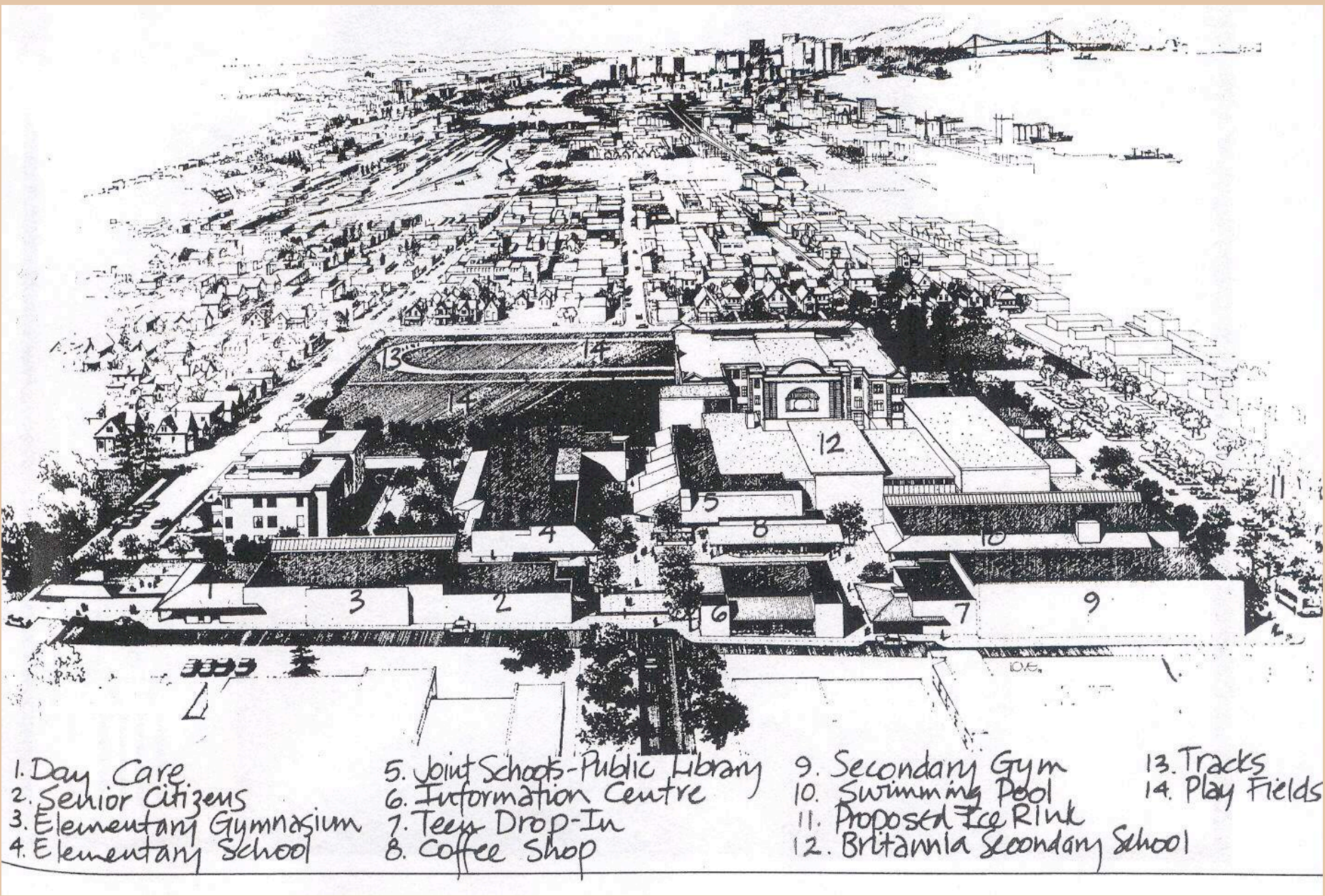
1973 City Proposed Land Purchase



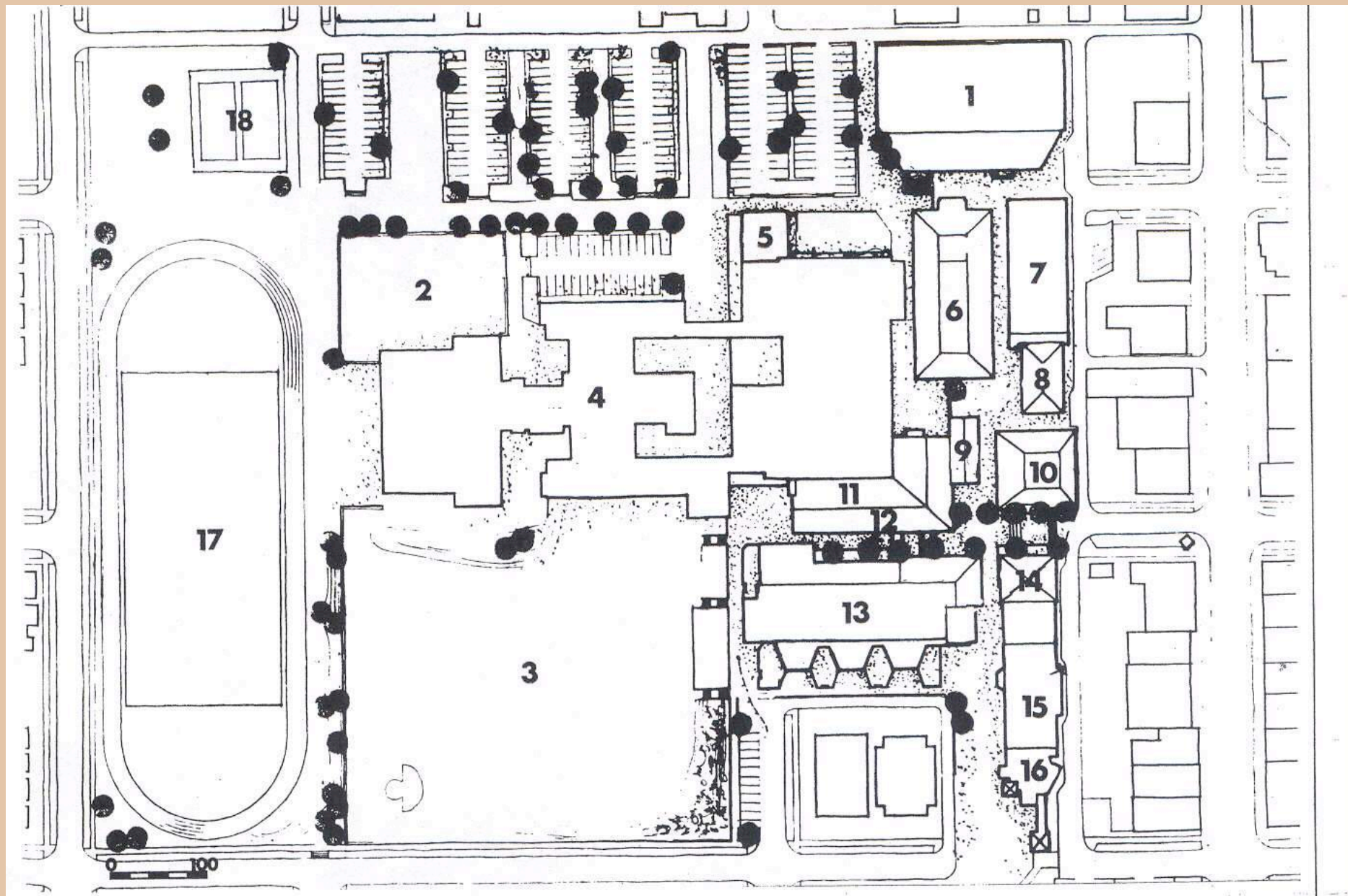
1973 City Proposed Land Purchase



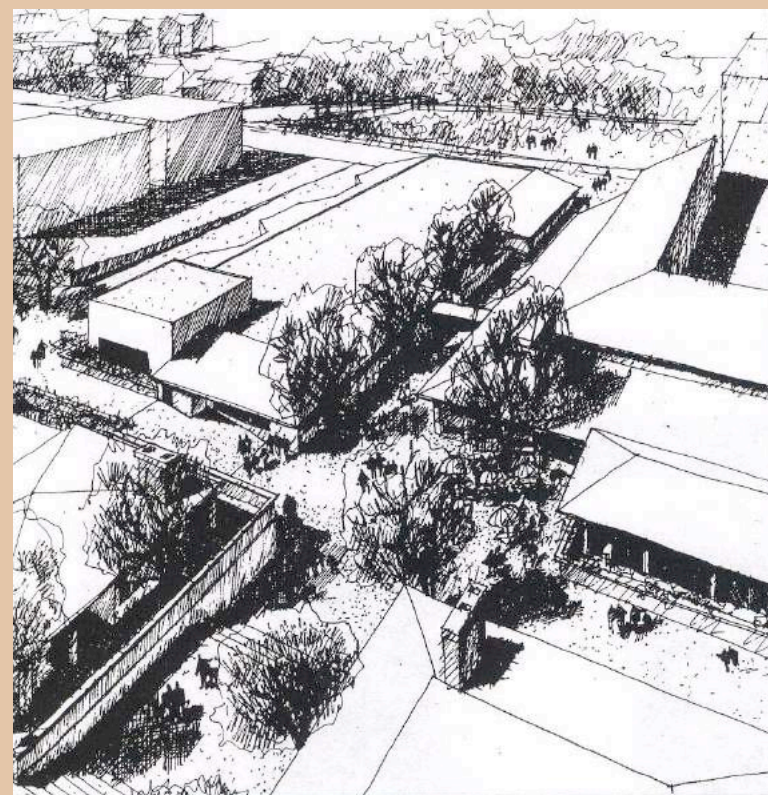
1973 Canadian Architect Perspective of Commons



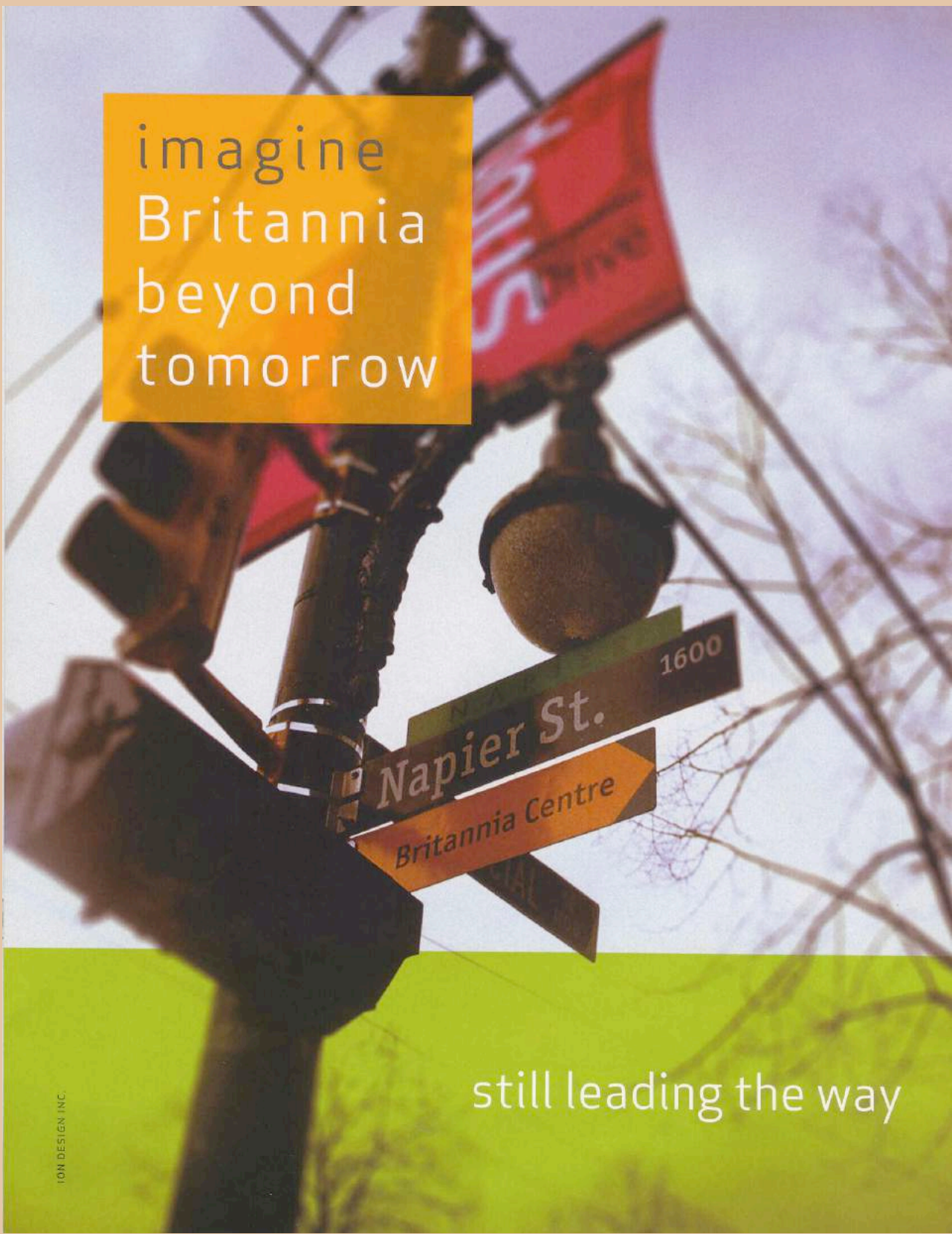
Birds Eye Perspective of Proposed Britannia Center (1973)



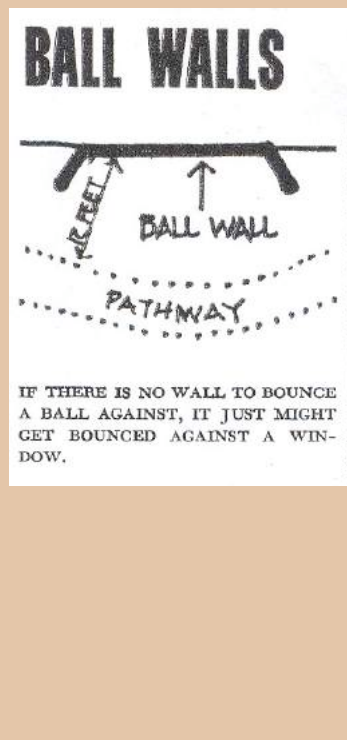
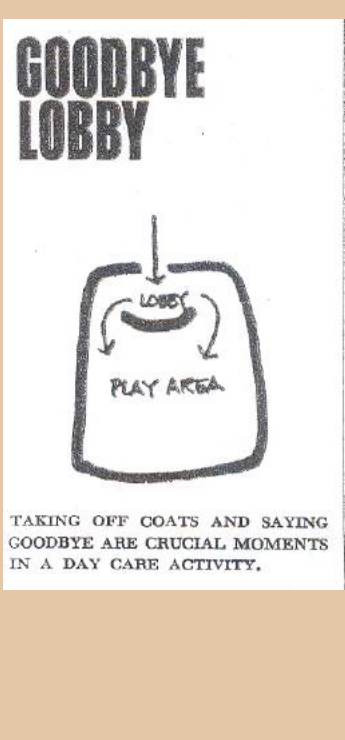
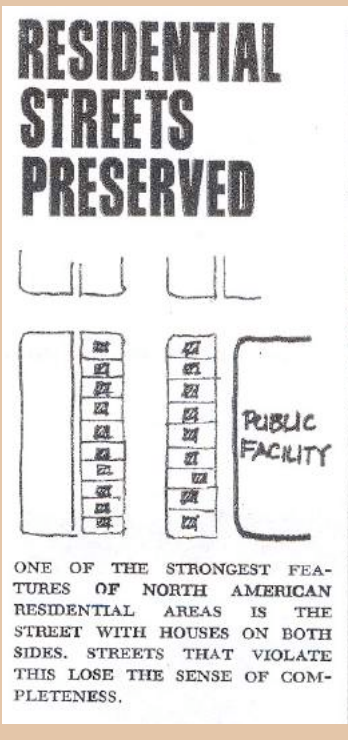
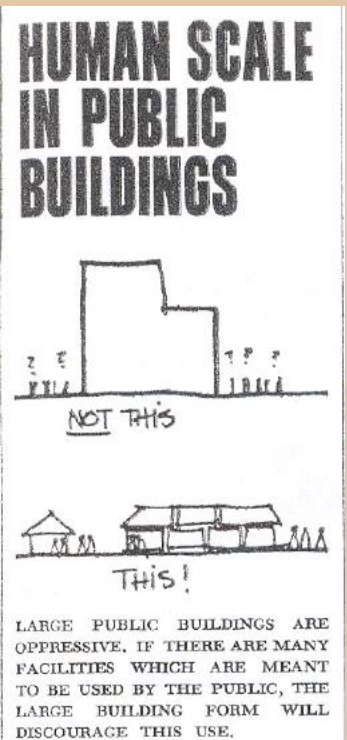
Plan of Proposed Britannia Center and schools (1973)



Perspective of Britannia Central Court (1973)



Envisioning Process Today 2009:
in-progress



PATTERN LANGUAGES (REF C.ALEXANDER) USED IN DESIGN OF BRITANNIA CENTER

OBSERVATIONS

1. CONSTRUCTED: 1973-74
2. ARCHITECTS: DOWNS / ARCHAMBAULT ARCHITECTS
3. PROCESS: STRONG NEIGHBORHOOD INVOLVMENT - SURVEYS
BRITANNIA DESIGN COMMITTEE: CITIZENS + DESIGN PROFESSIONALS
4. DESIGN TOOLS: Pattern Language (C. Alexander)
5. KEY CRITERIA SET BY COMMITTEE:
 - A. MAJOR AREAS: LIBRARY, ELEMENTARY SCHOOL
 - B. CENTER EDGE: RESIDENTIAL STREETS PRESERVED
 - C. MAIN ENTRANCES: NEAR LIVE ACTION
 - D. PEDESTRIAN CIRCULATION
 - E. ROAD SYSTEM: ACCESS TO CENTER NOT THROUGH RESIDENTIAL AREAS
 - F. BUILT FORM: BUILDING SHAPED FOR LIGHT. BUILDINGS SURROUND OPEN SPACE
 - G. HUMAN SCALE OF BUILDING EDGE
ROOF FORM CLOSE TO GROUND
 - H. OPEN SPACE: SOUTH FACING
HIERARCHY OF SPACE
STREETS TO STAY IN
ACTIVITY POCKETS

Historical Review

11

Appendix 4 : Architectural Drawings D9B Final Presentation

1. VIEW OF SITE FROM EXISTING COMMERCIAL BUILDING

2. ELEMENTARY SCHOOL, SHOWING SCHOOL YARD AREA

3. VIEW FROM SITE LOOKING TO ALLEY

4. VIEW OF STREET FROM SITE LOOKING INTO RESIDENTIAL AREA

5. VIEW OF STREET

6. VIEW OF STREET

7. VIEW OF SITE FROM ALLEYWAY, SHOWING EXISTING BUILDING

8. VIEW OF SITE FROM ALLEYWAY, SHOWING EXISTING BUILDING

9. VIEW OF SITE FROM ALLEYWAY, SHOWING EXISTING BUILDING

10. VIEW OF SITE FROM ALLEYWAY, SHOWING EXISTING BUILDING

CHARLES BRITTON STUDY #RC200004

ROYAL ARCHITECTURAL INSTITUTE OF CANADA (RAIC) PROGRAM

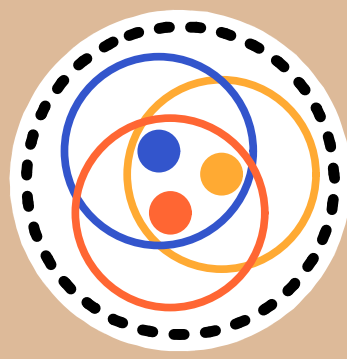
DESIGN STUDIO LEVEL ONE - SITE ANALYSIS AND PLANNING

20 JUNE 2009

INTEGRATED
MULTI-GENERATIONAL
HOUSING

Site Information		Site Analysis Conclusions	
Location	Britannia Community Center	1	Multiple streets Dilute human interaction
Topography	Sloping site (10m)	2	Programs Decentralized(Segregation)
Zoning	CD-1	3	Street presence None on Commercial Drive.
Landuse	School, Community Center	4	Site endowments Not taken advantage of: Parks, topography, solar, views.
Context	Park, School, Commercial Dr.	5	Assisted Care None within 1/2 mile (20 min walk).
Solar	South/ west part of site		
Views	to West at Escarpement.		

Site Concept



"The Synergy Of Gathering"

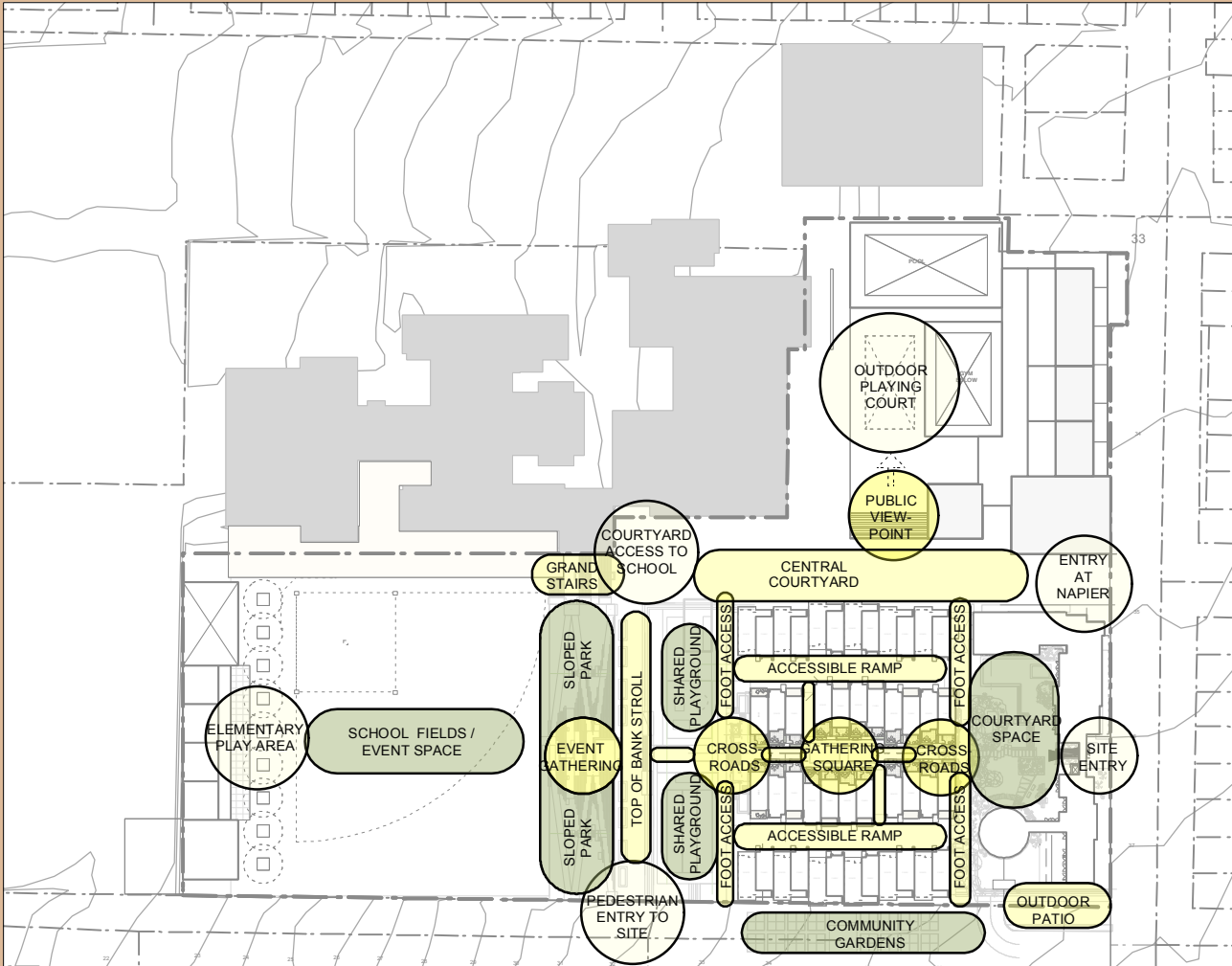
A series of gathering areas that bring people together to interact and create a strong sense of place and community.



Priorities

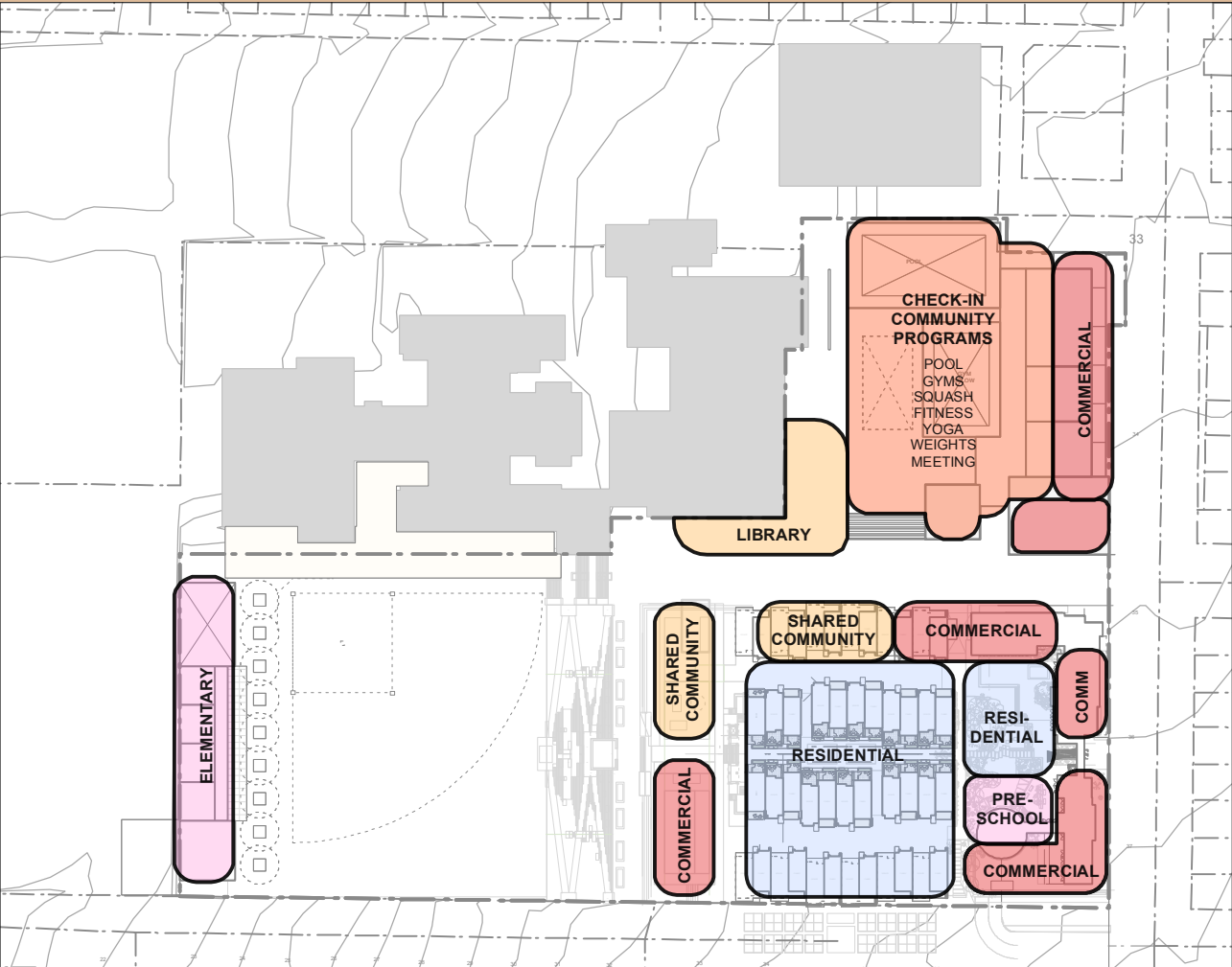
Create Gathering Areas

- Create a variety of gathering areas throughout the site.
- Areas vary with use, location, and adjacent uses (public / private).
- Gathering areas bring people together to interact (Site Concept).



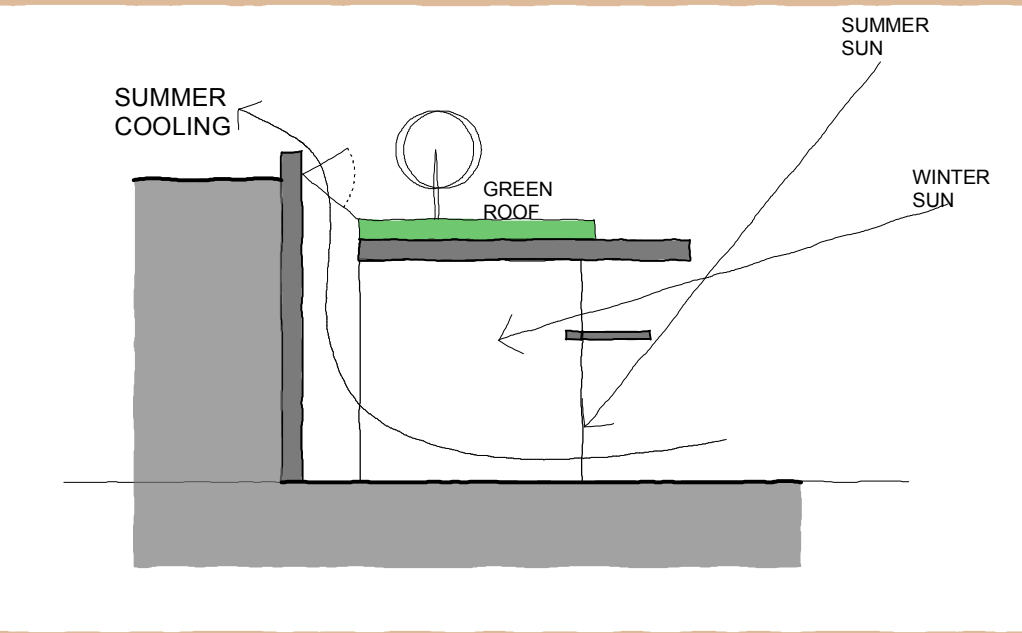
Collect Program Uses

- Collect similar program uses together to create a shared energy and foster interaction between user groups.
- Locate groupings to take advantage of site features. (solar, views, privacy, adjacent uses, topography etc.)



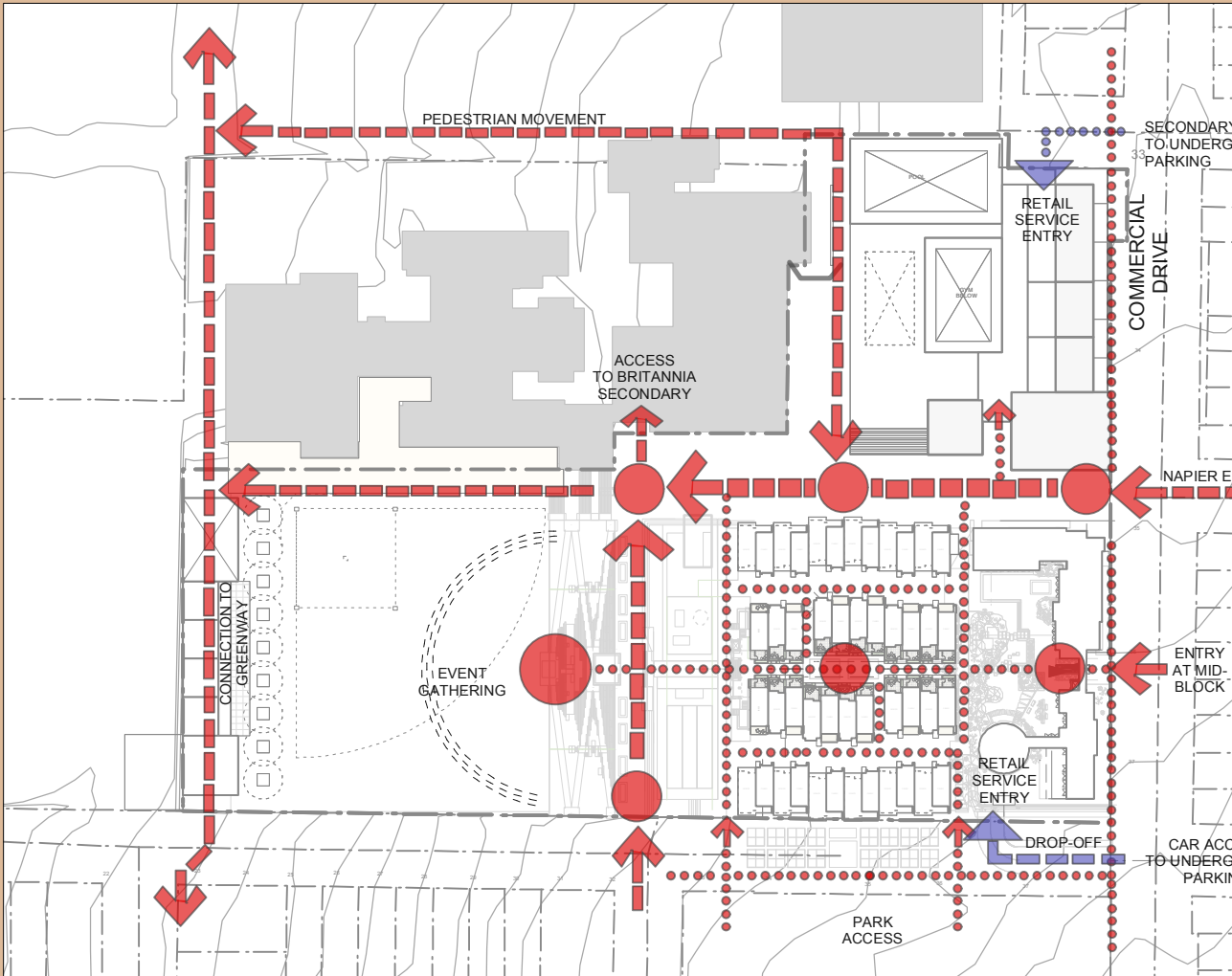
Apply Passive Environmental Design Strategies

- Orientation
- Overhangs
- Window Openings
- Shade Devices
- Sun Traps
- Thermal Mass
- Natural Cooling
- Natural Daylighting
- Vegetation
- Materials
- Human Dimension
- Architecture 2030 Challenge



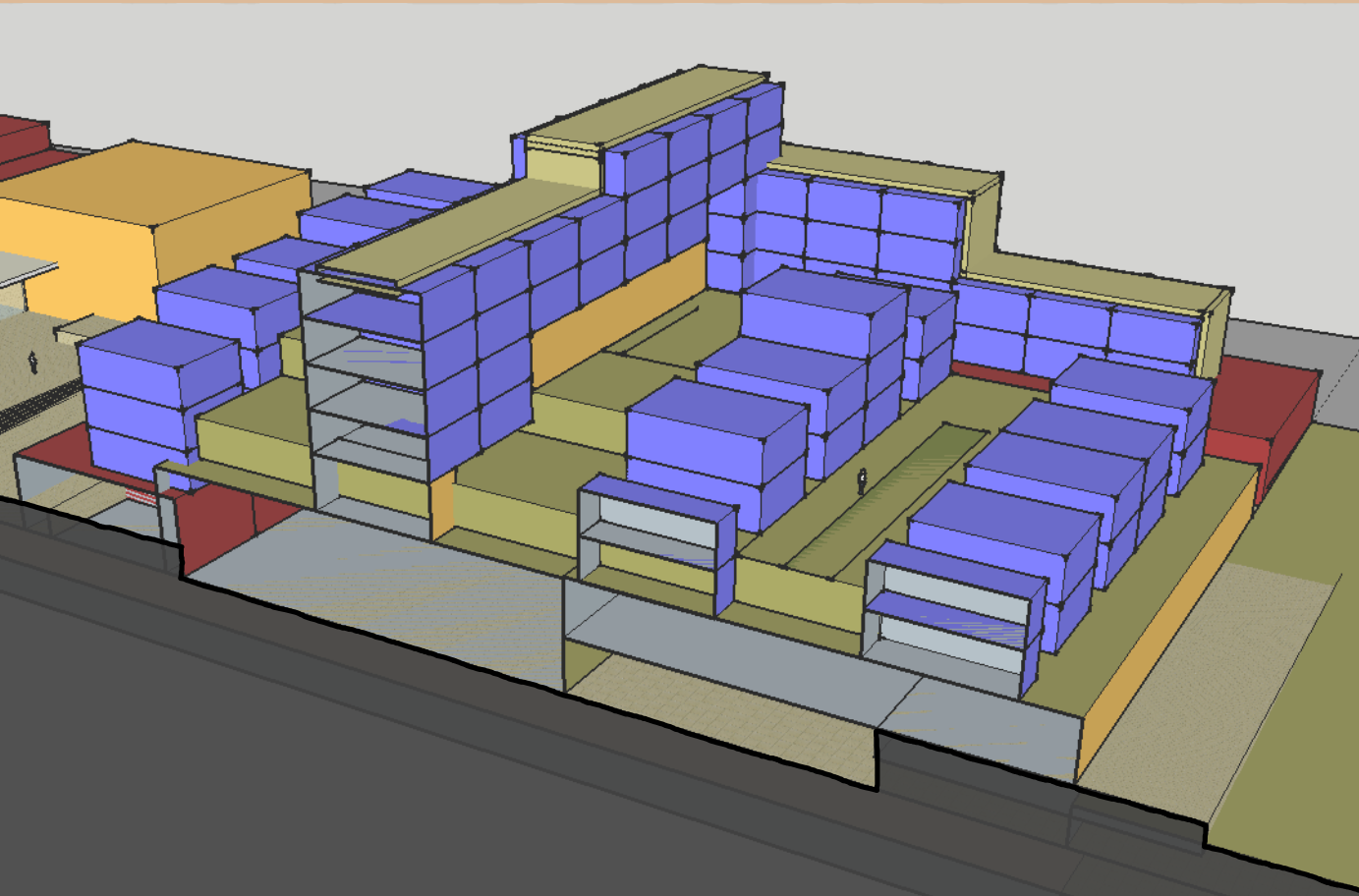
Simplify Site Circulation

- Collect and concentrate pedestrian movement --> More energy.
- Improve street presence along Commercial Drive.
- Provide for discreet automobile access to new underground parking.



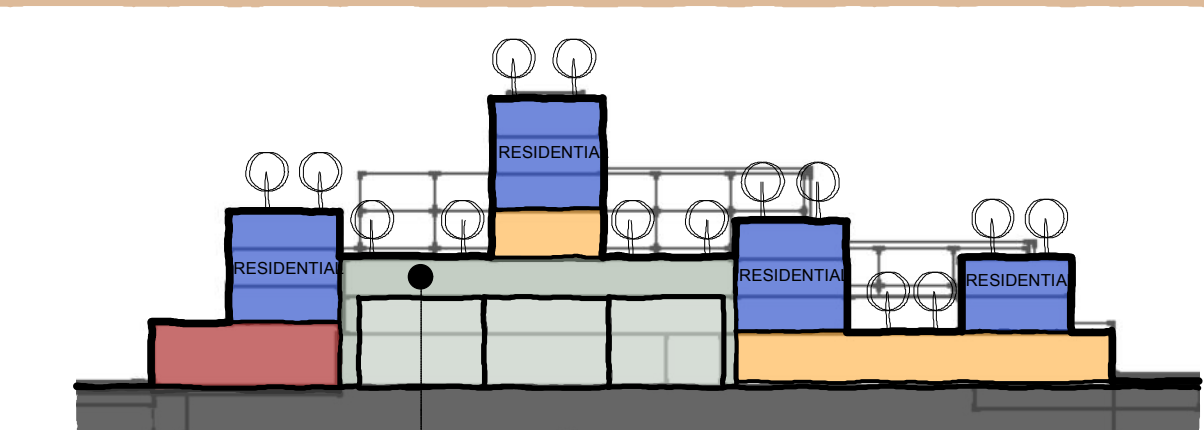
Increase Site Density

- Support building as site concept by terracing building.
- Maintain as much grade access for residents as possible.
- Adapt a rural typology to an urban context.



Apply Active Environmental Design Strategies

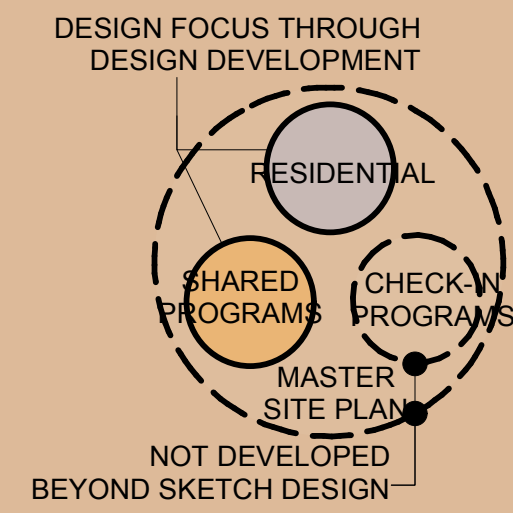
- Green Roofs
- Solar Water Preheat
- Solar Photovoltaic
- Storm Water management (cistern)
- Grey Water filtration system
- Geothermal



INSTALL ACTIVE GREEN TECHNOLOGIES

- CISTERN STORAGE OF STORM WATER AND REUSE IN GARDEN IRRIGATION
- GREY WATER FILTRATION SYSTEM (BIOFILTERS)
- ON-SITE COMPOSTING FOR RESIDENTS AND COMMERCIAL WASTE.
- PRIVATE AND LEASED COMMUNITY GARDENS ON RECLAIMED STREET.

Scope of Work

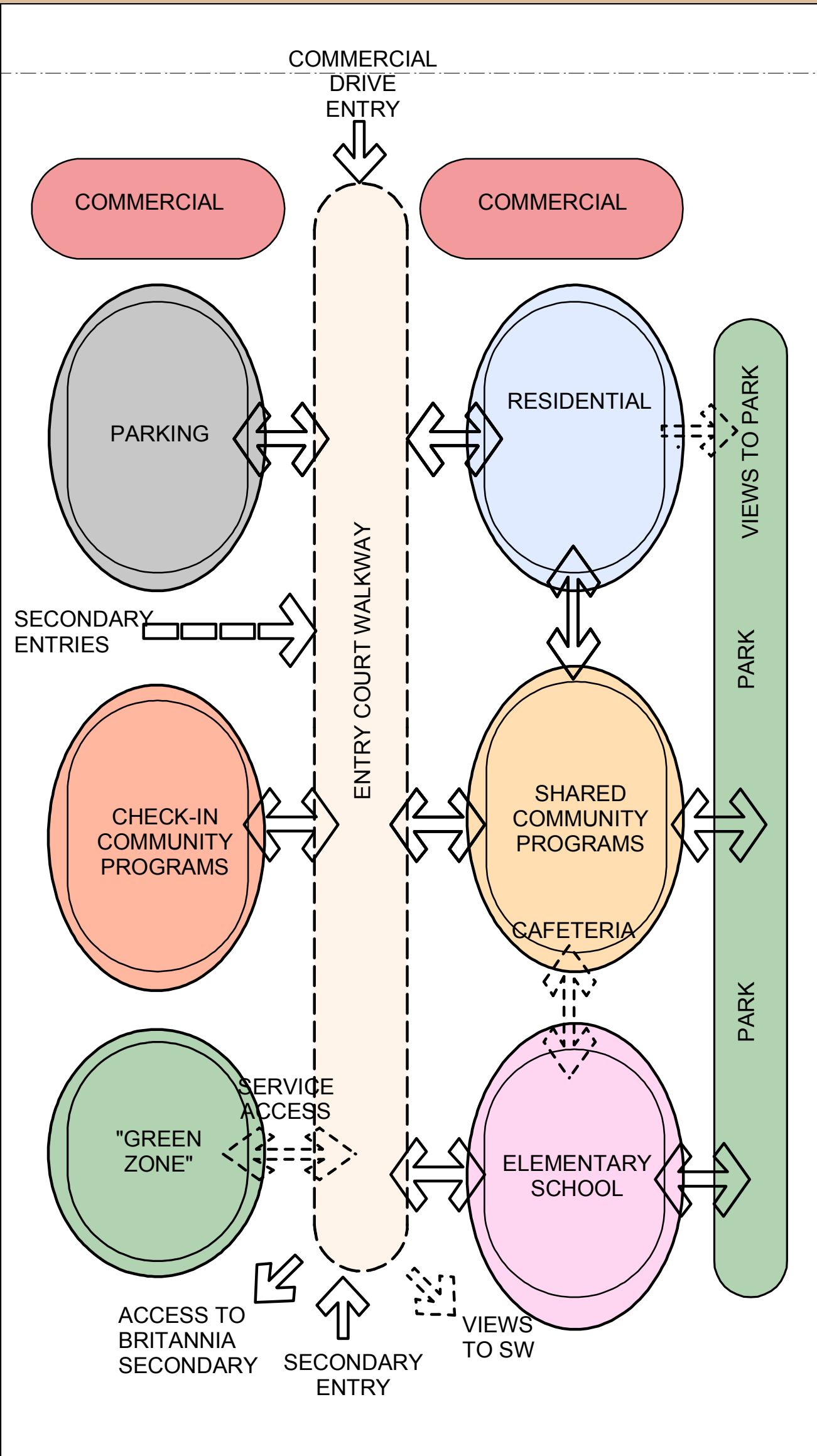


Design Focus:

- Shared Community Program areas
- Residential Areas
- To Sketch design only:
 - Master Plan
 - Check-in Community Center Programs

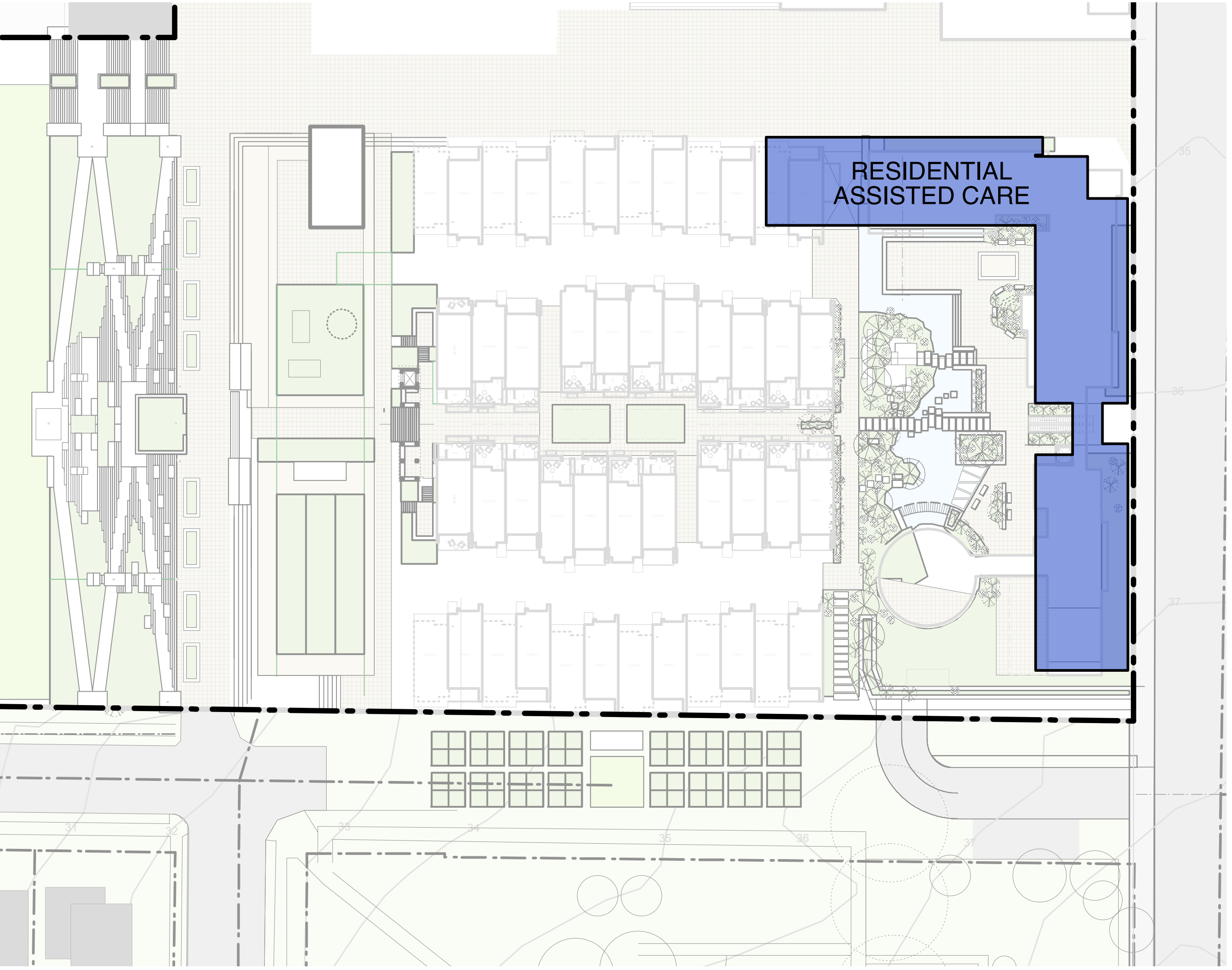
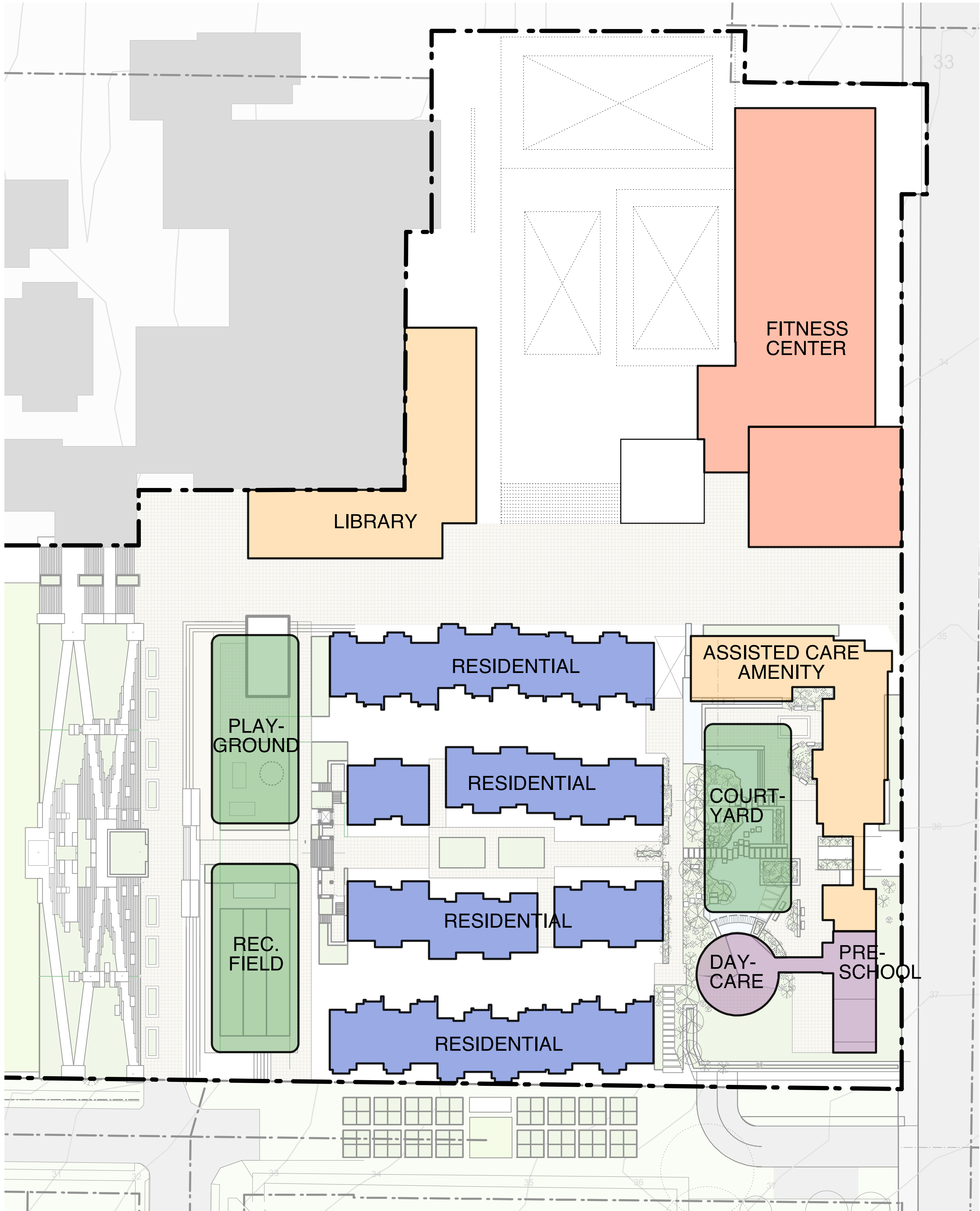
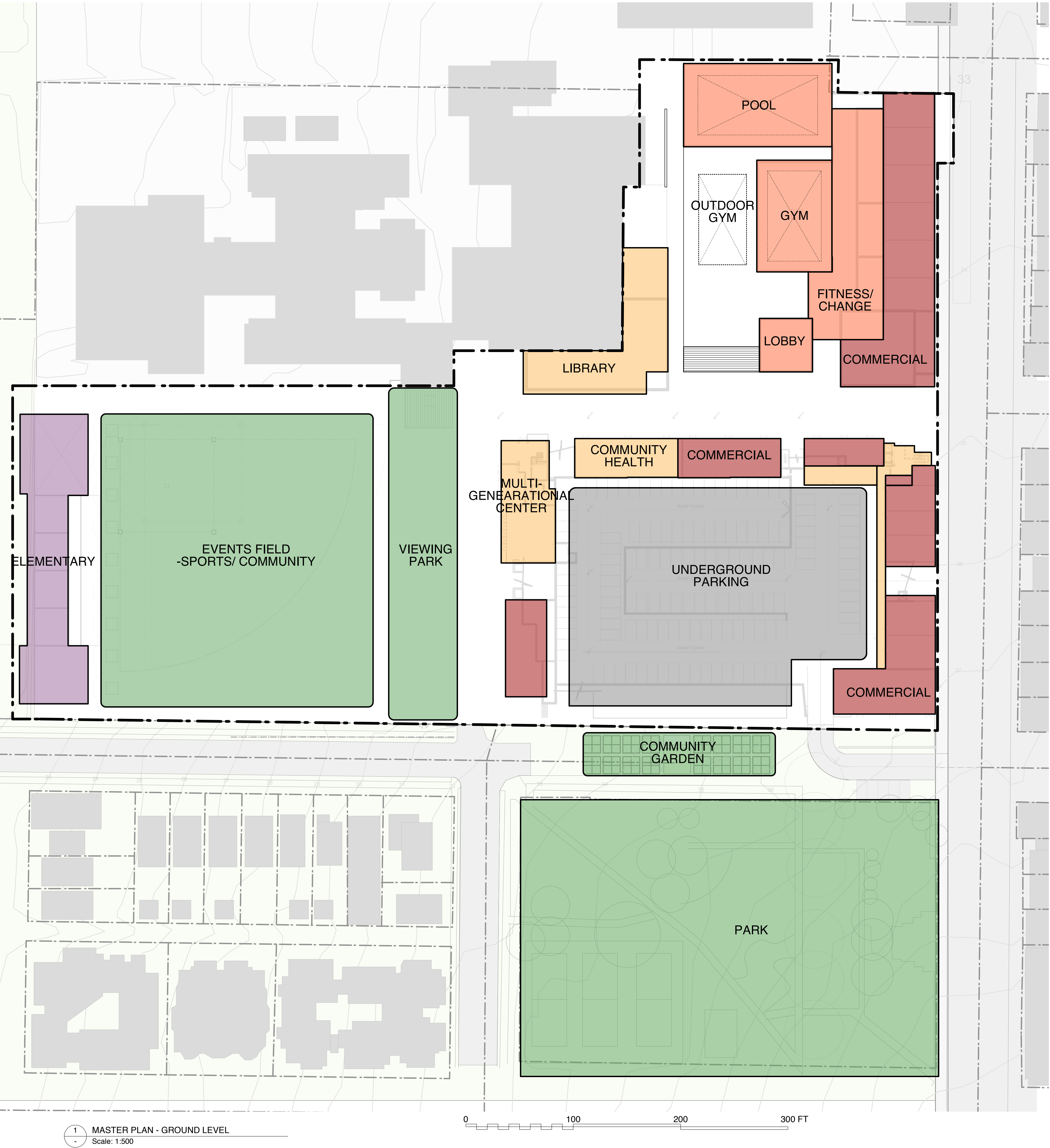
Program Relationships

Simplif ed Relationship Diagram



MASTER PLAN CONCEPTS & PRIORITIES

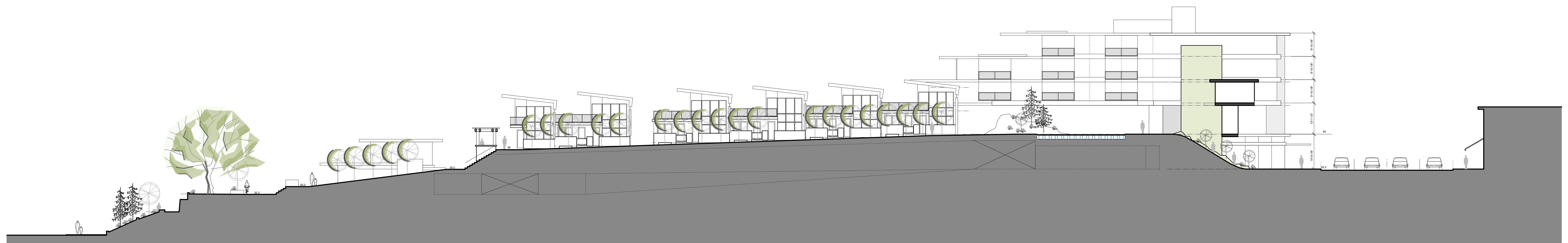
A3.0



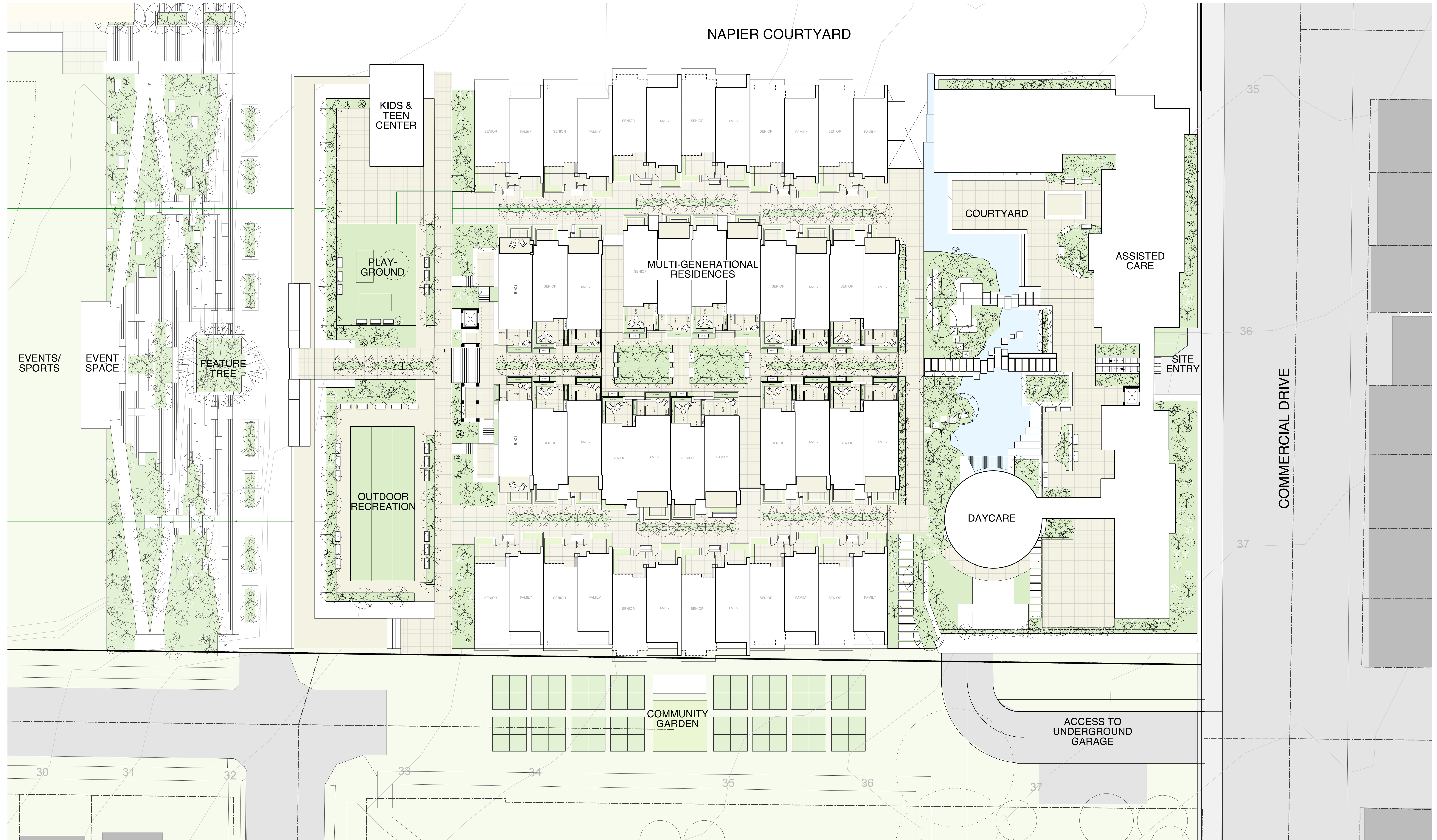
AREA SUMMARY		
SHARED PROGRAM AREAS		AREA
LIBRARY		1700
COMMUNITY HEALTH		265
MULTI-GENERATIONAL CENTER (TEEN, SENIOR, FAMILY)		1650
CAFETERIA		900
KITCHEN / STORAGE		400
COMMON HOUSE		120
CAFE		160
WORKSHOP / GREENHOUSE		50
EXTERIOR PATIO AND GARDENS		NIC
TOTAL		5265
RESIDENTIAL		
ASSISTED CARE (600 SF MODULE)		50
MIXED GENERATIONAL HOUSING (600 SF) (INDEPENDENT, SINGLE & FAMILY, (SUPPORTIVE AND MARKET)		60
TOTAL		
CHECK-IN PROGRAM AREAS		
POOL		932
GYM (INDOOR)		700
COURT (EXTERIOR)		1000
SQUASH		150
CHANGE		450
FITNESS, EXERCISE, MEETING		800
ADMIN		418
CIRCULATION		400
EXTERIOR ROOF PATIO		NIC
TOTAL		4850
ELEMENTARY AND PRESCHOOL		
ELEMENTARY SCHOOL		1800
PRESCHOOL		250
DAYCARE		130
TOTAL		2770
PARK AND RECREATION AREAS		
PARK AND RECREATION AREAS		
COMMUNITY GARDENS		m ²
OUTDOOR GREEN ROOFS		
STORM WATER CISTERN AND SERVICES		
GREY WATER BIO-FILTER SYSTEM		
TOTAL		
COMMERCIAL		
COMMERCIAL RETAIL UNITS		3200
TOTAL		3200

MASTER PLAN RESOLUTION

A4.0



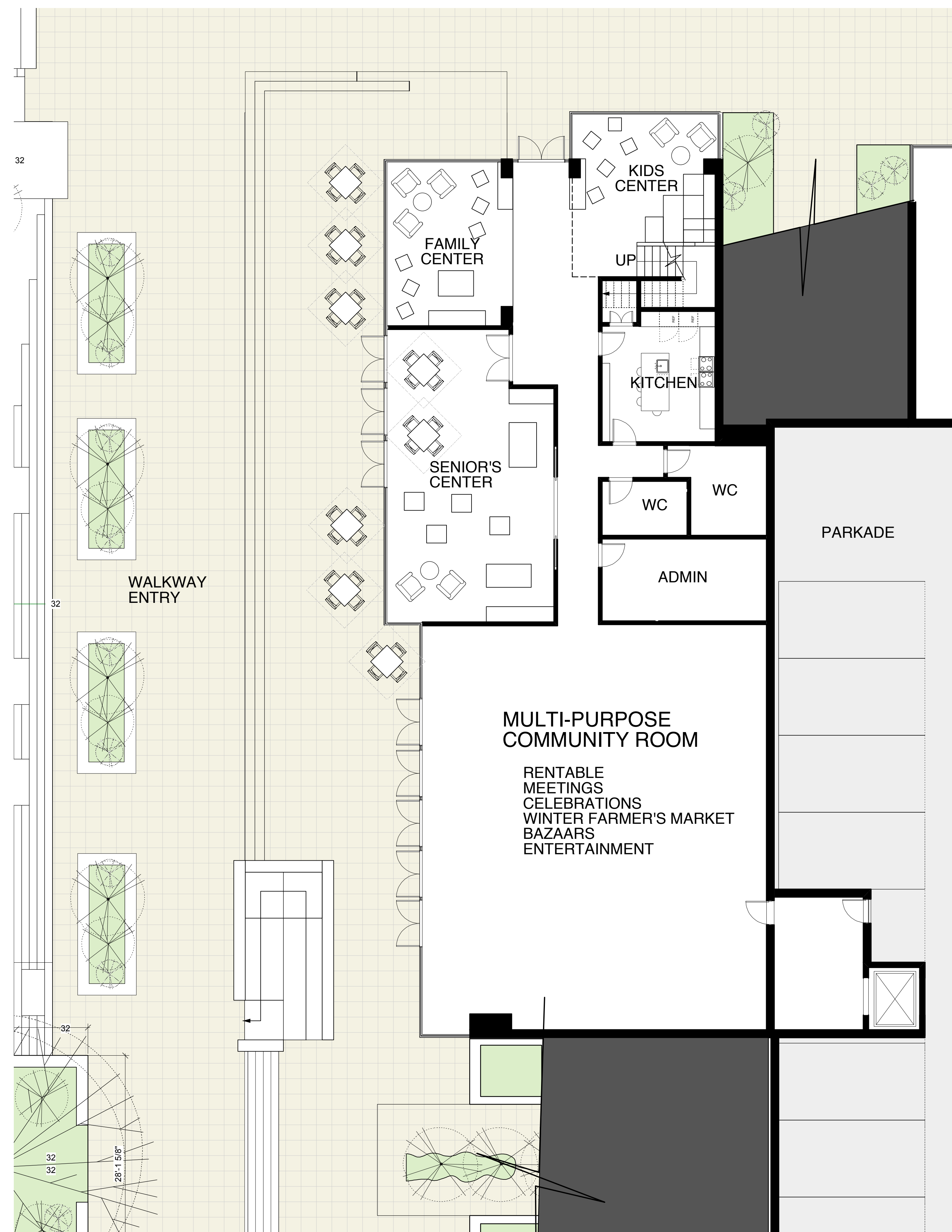
2 SITE SECTION
Scale: 1:200



1 BUILDING PLAN - UPPER GRADE LEVEL
Scale: 1:200

BUILDING LAYOUT AT UPPER LEVEL

A5.0



2 MULTIGENERATIONAL CENTER
Scale: 1/8" = 1'-0"

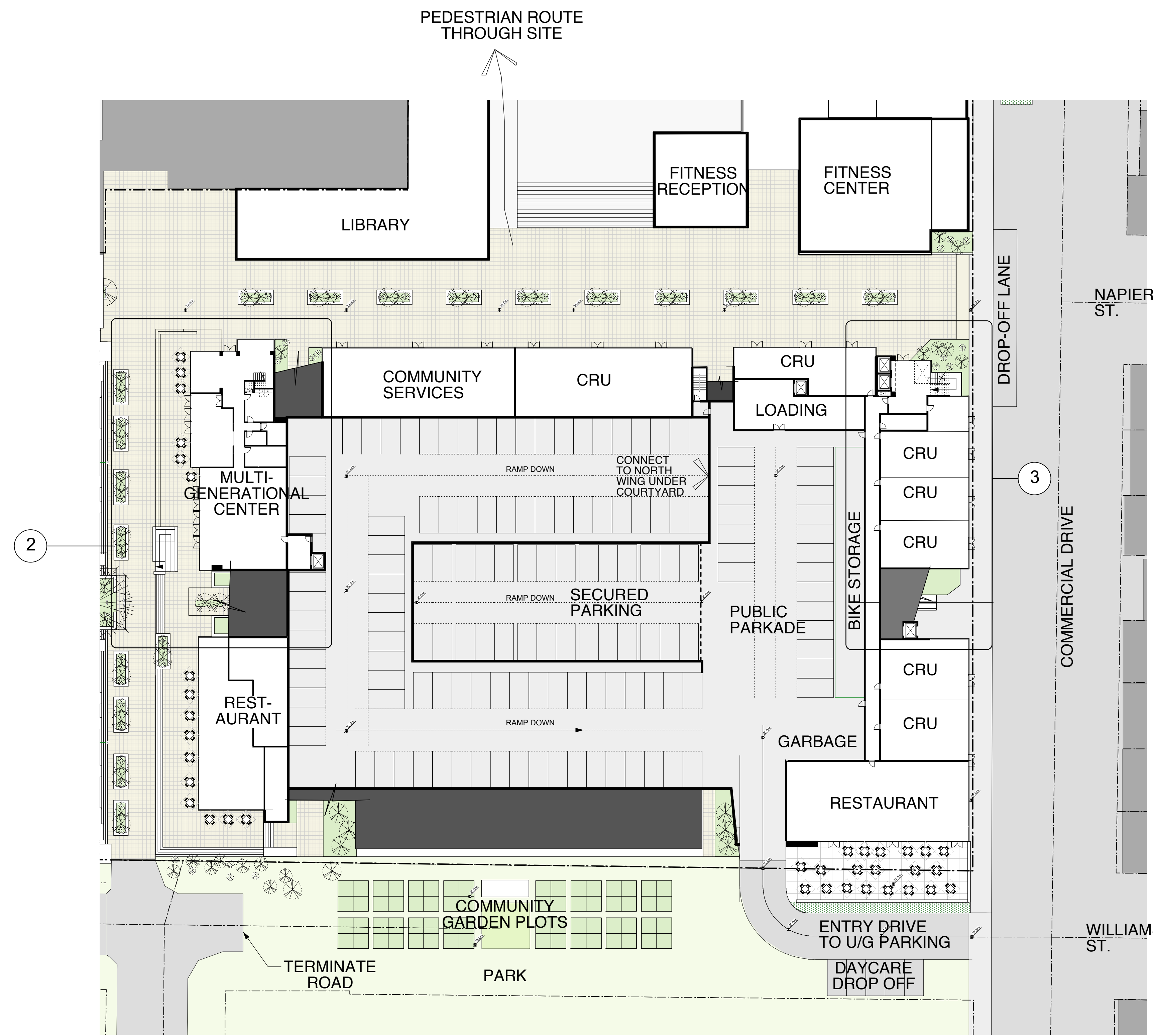
MULTIGENERATIONAL CENTER

DESIGN CONCEPT:

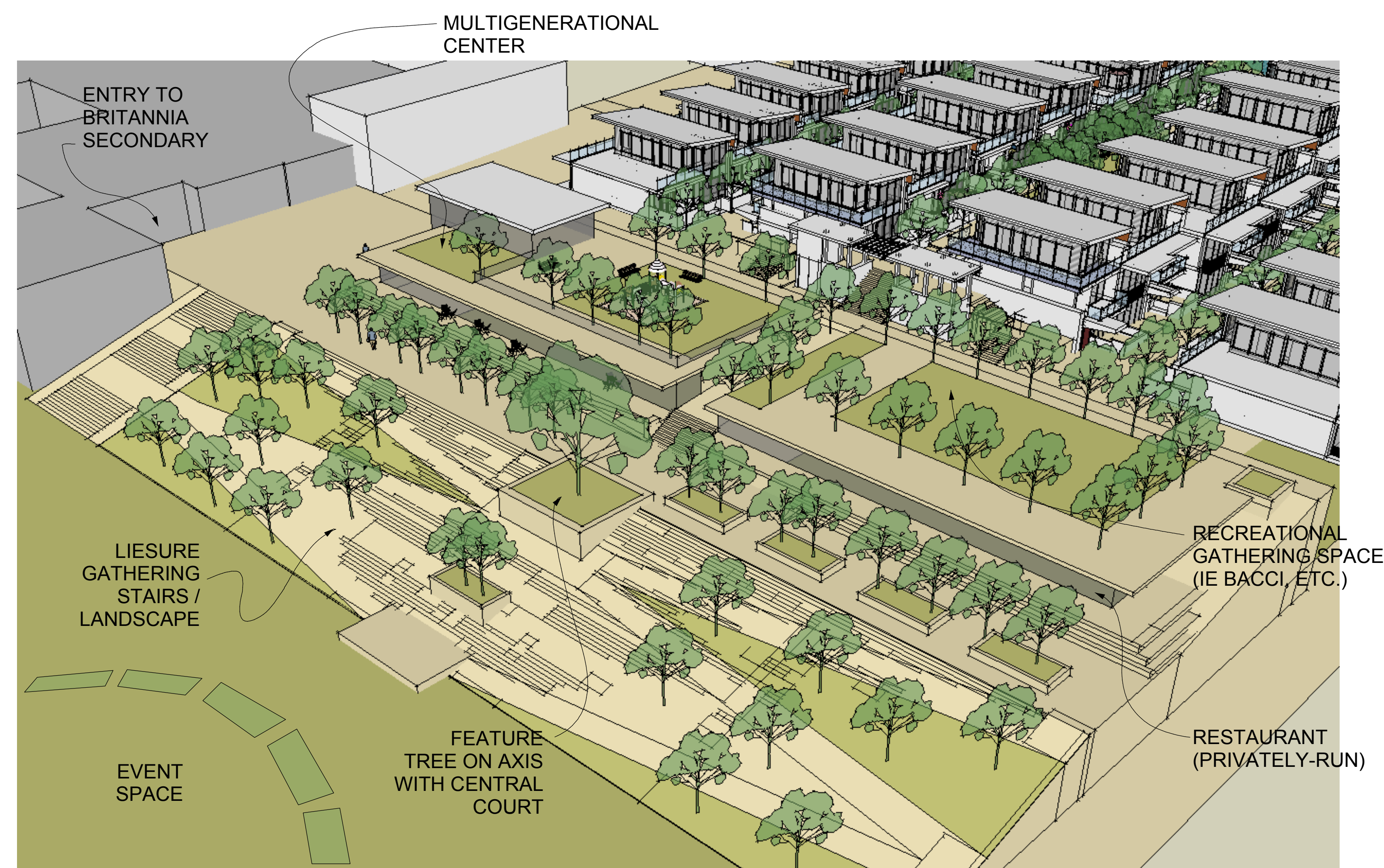
- A BUILDING THAT IS A MAGNET FOR PEOPLE OF ALL AGES IN THE NEIGHBORHOOD TO GATHER IN, PLAY, COOK, ENTERTAIN, OBSERVE, BUY, SELL AND ENJOY EACH OTHER'S COMPANY.

PRIORITIES:

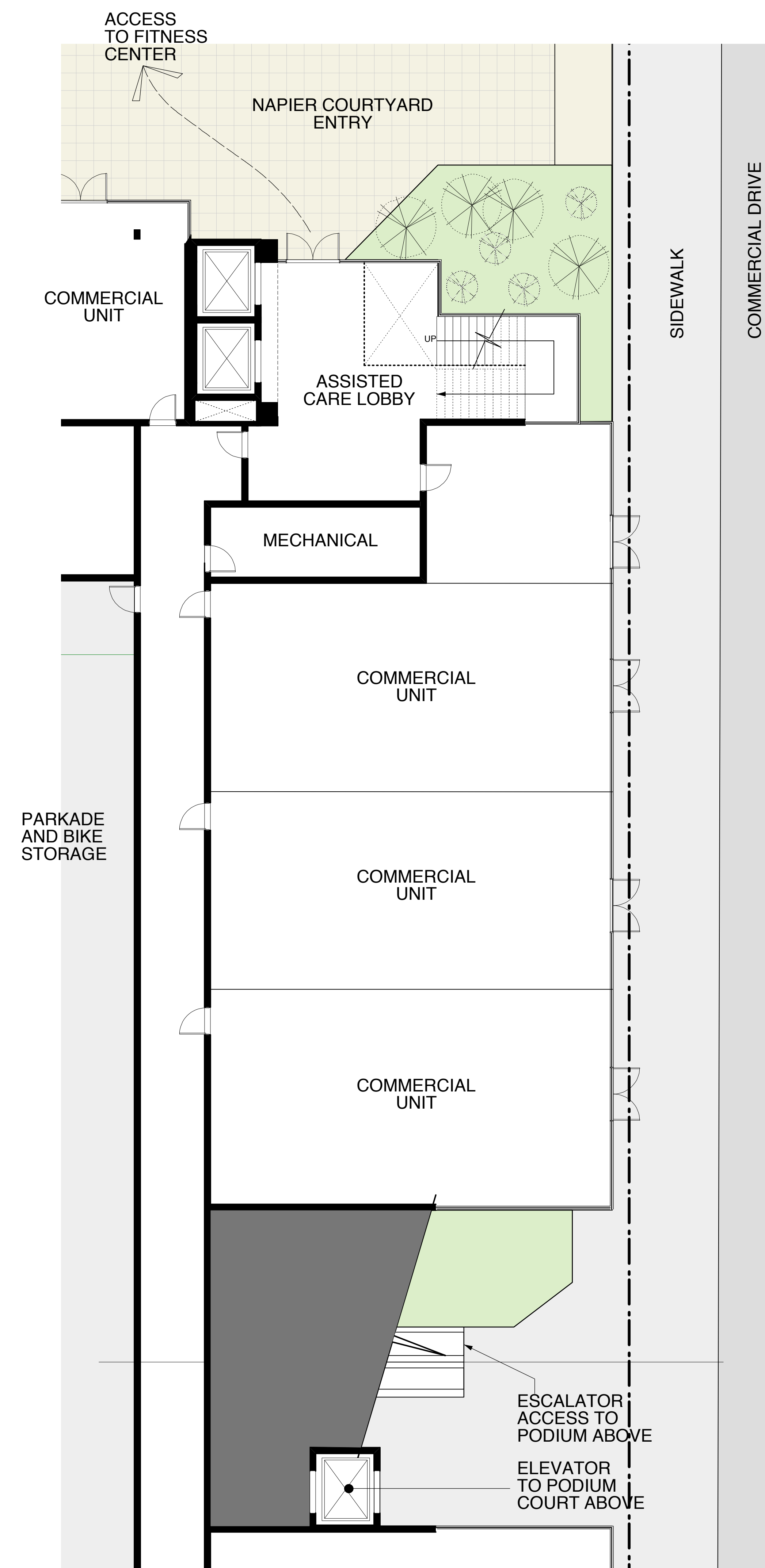
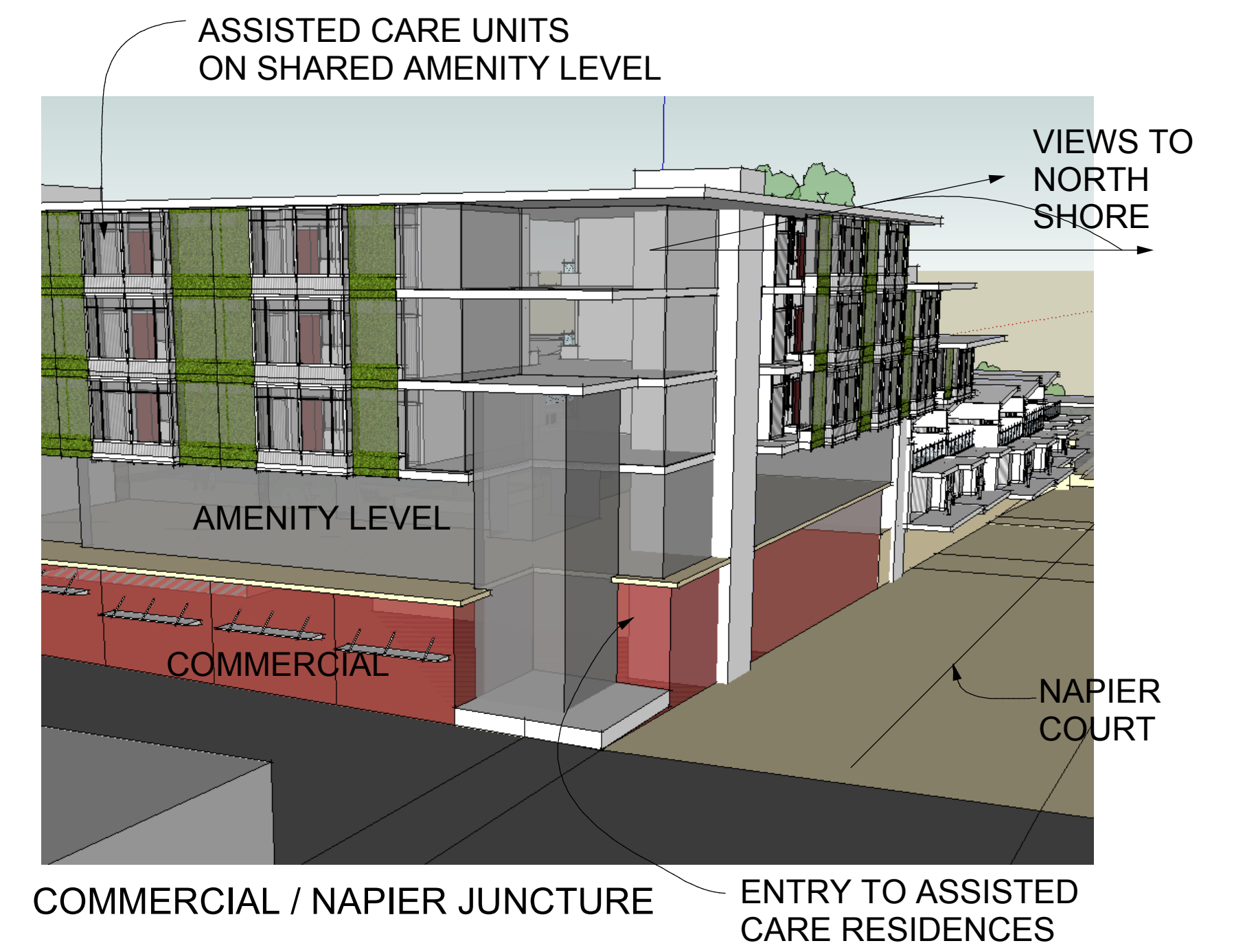
- SENIOR'S, FAMILY AND TEEN SPACES
- KITCHEN
- SHARED LOUNGES / GAMES SPACE
- KIDS PLAY AREAS (INDOOR / OUTDOOR)
- OUTDOOR LOUNGE AREAS
- MULTI-PURPOSE COMMUNITY ROOM
 - RENTABLE (MEETINGS)
 - SOCIAL EVENTS AND CELEBRATIONS
 - BAZAARS
 - WINTER FARMER'S MARKET



1 BUILDING PLAN AT STREET LEVEL
Scale: 1:400



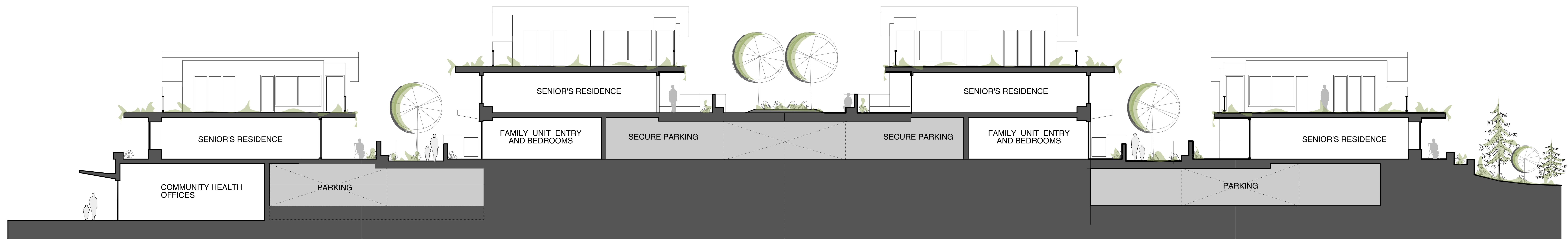
VIEW OF MULTIGENERATIONAL CENTER AND ADJACENT LEISURE PARK



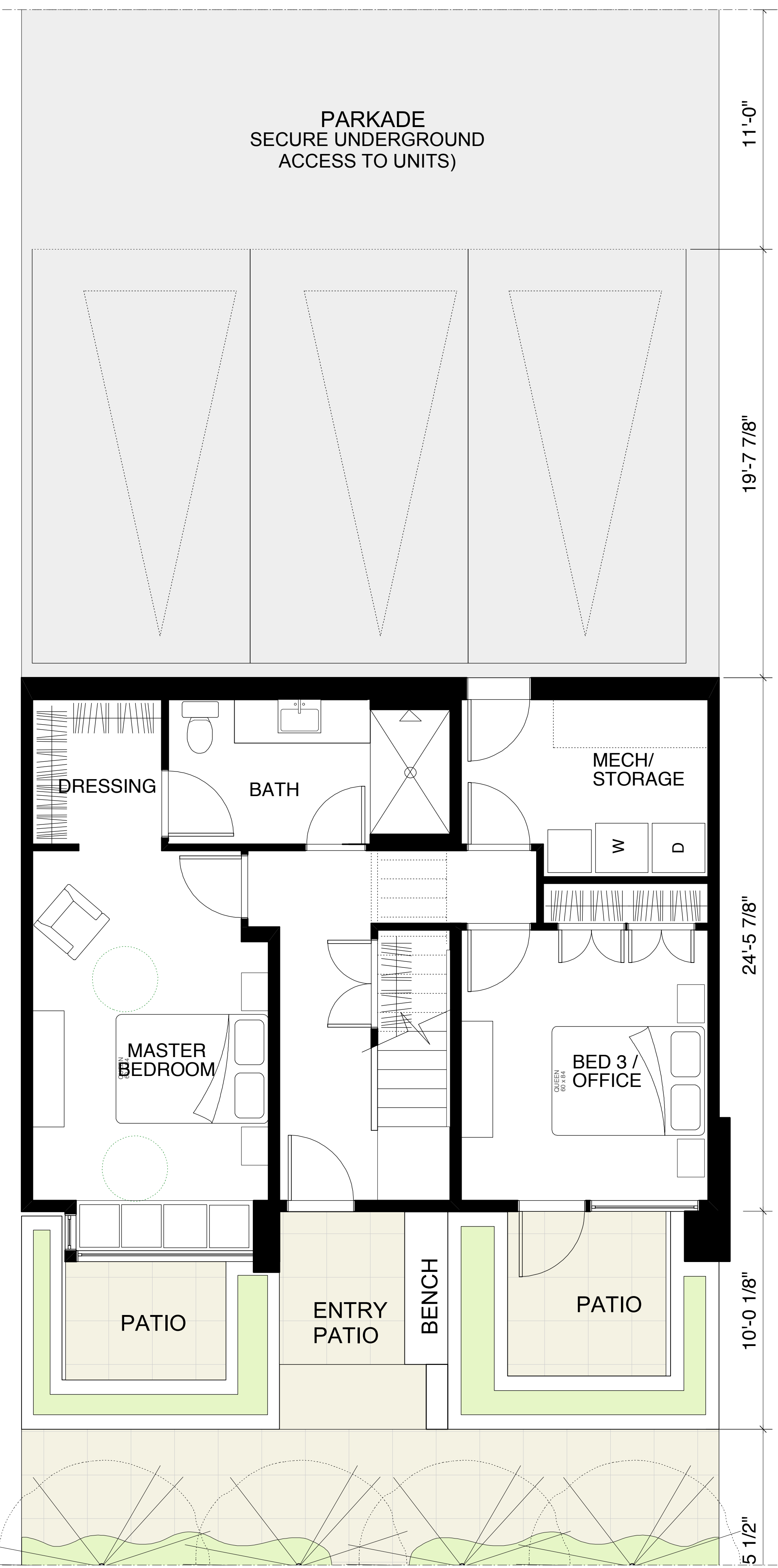
3 ASSISTED CARE AND SITE ENTRY
Scale: 1/8" = 1'-0"

BUILDING LAYOUT AT LOWER GRADE LEVEL

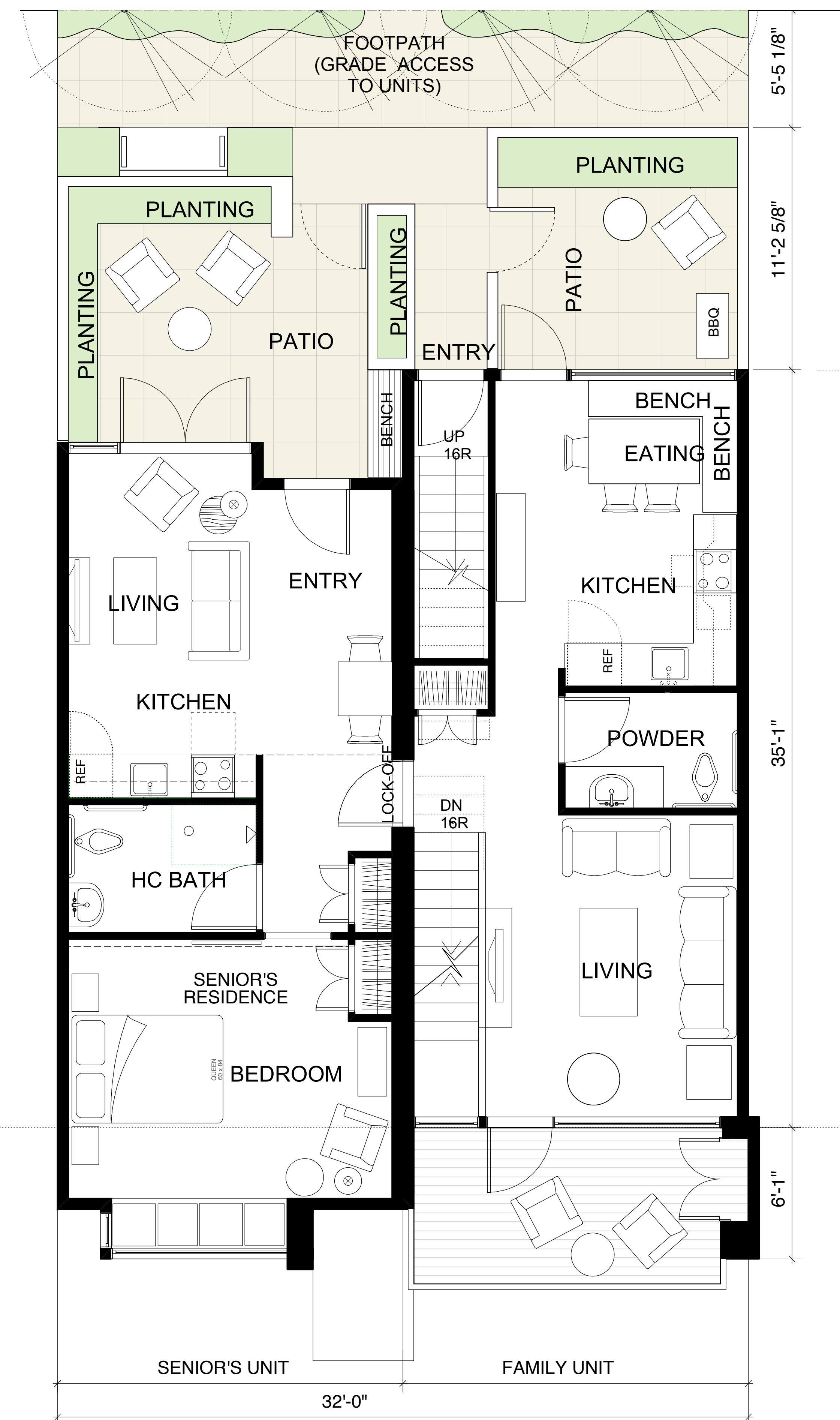
A6.0



1 SECTION THROUGH RESIDENCES
Scale: 1:87



2 FAMILY UNIT LOWER FLOOR PLAN
Scale: 1:40



3 FAMILY & SENIOR'S RESIDENCE PLAN
Scale: 1:40



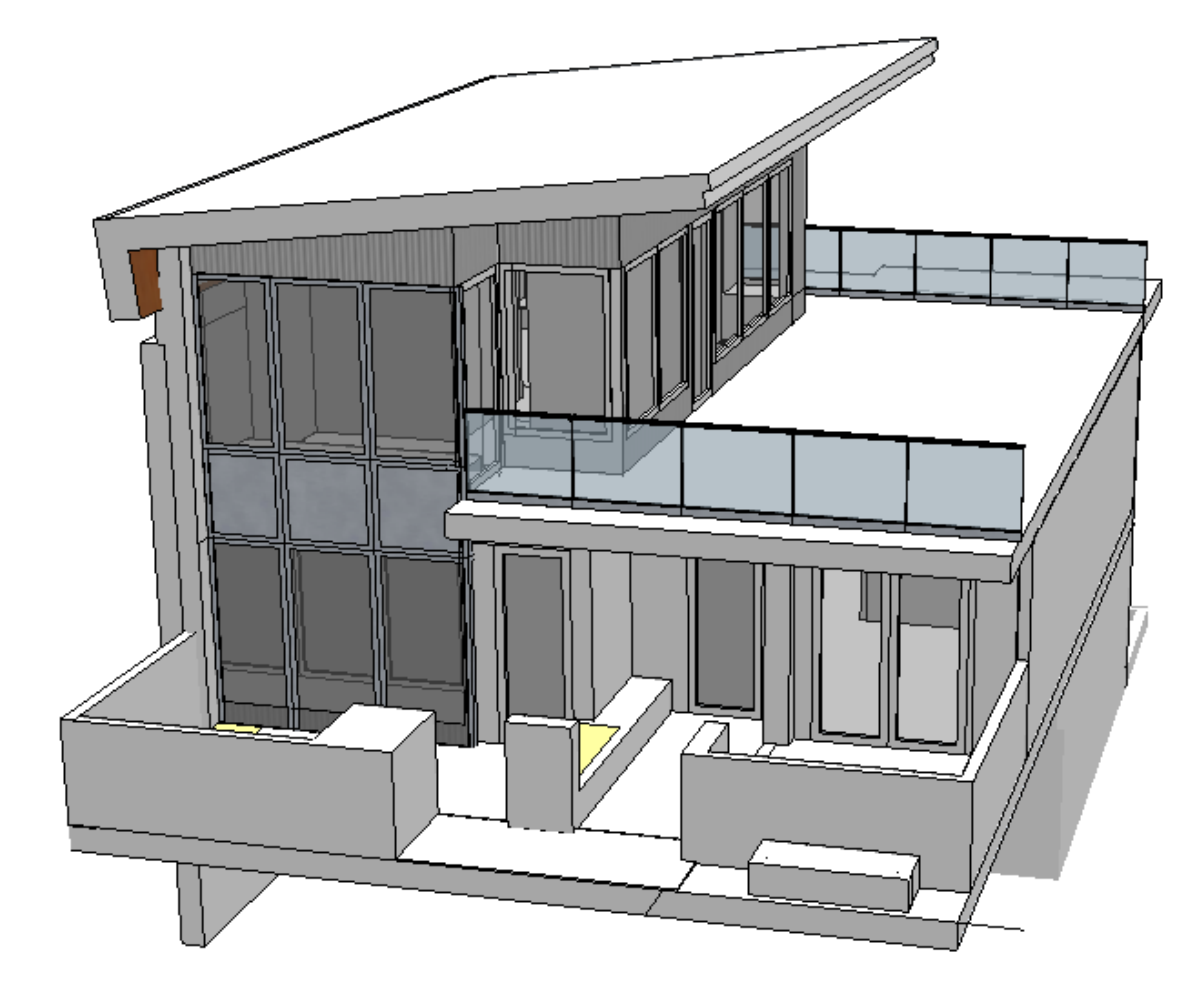
GROUND-ORIENTED HOUSING
WITH GATHERING AREAS



4 LEVEL 3 RESIDENCE
Scale: 1:40

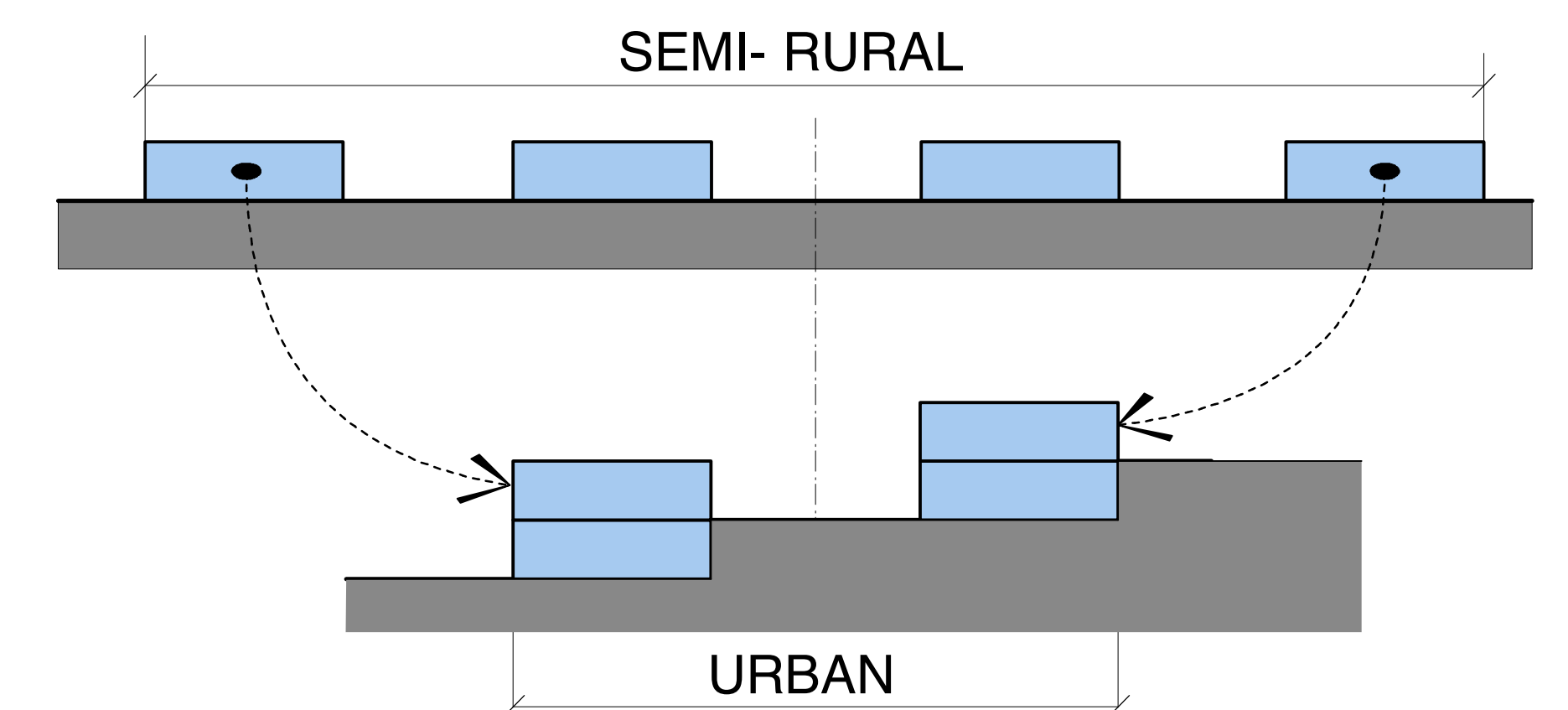


FRONT VIEW OF
THREE STOREY UNIT



REAR VIEW OF
THREE STOREY UNIT

DENSIFYING A RURAL TYPOLOGY : TERRACING



MULTIGENERATIONAL LIVING

DESIGN CONCEPT:

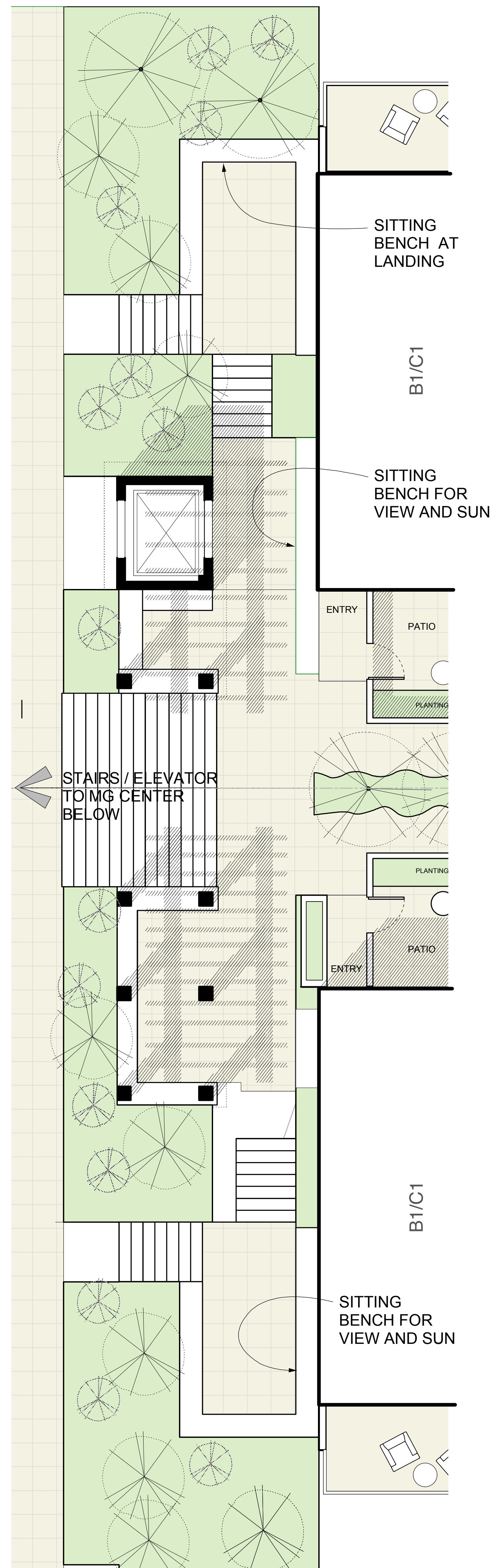
- A DENSIFIED MIX OF GROUND-ORIENTED FAMILY AND SENIOR'S RESIDENCES WHOSE ARCHITECTURE SUPPORTS INTERGENERATIONAL LIVING AND ENCOURAGES PEOPLE TO GATHER IN NATURAL WAYS.

PRIORITIES:

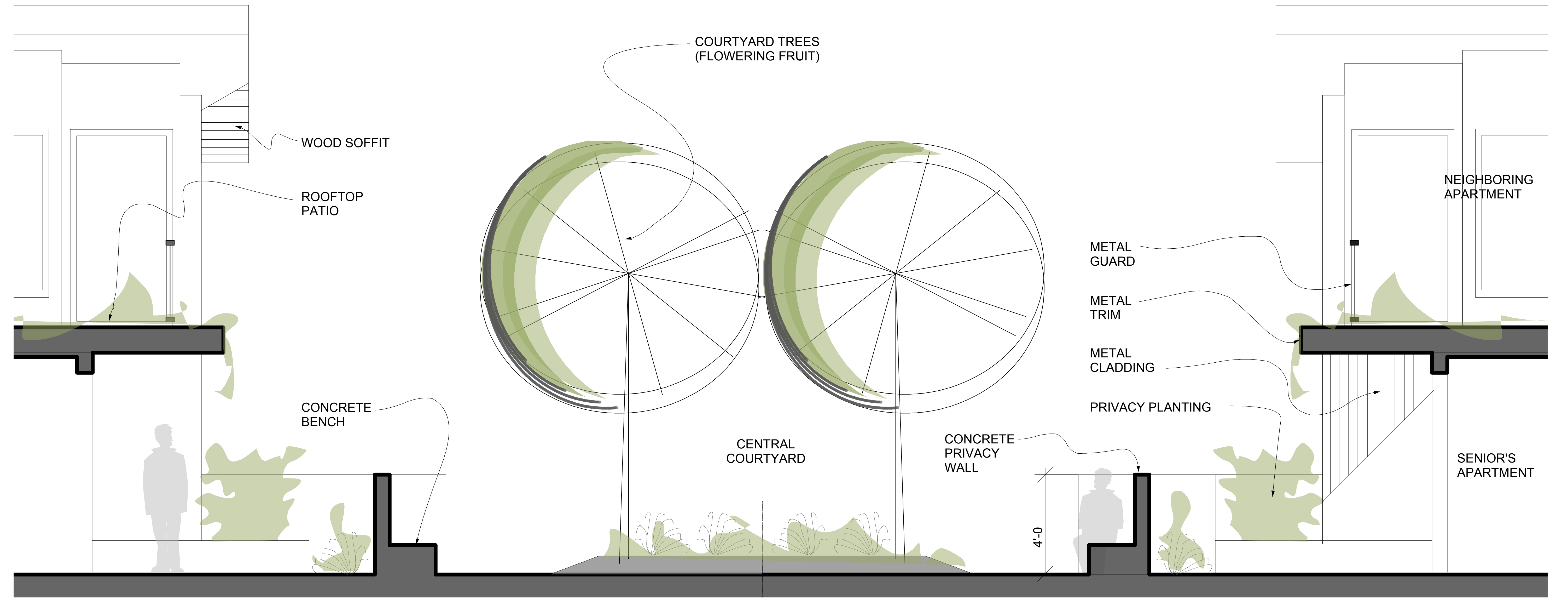
- DENSIFY URBAN SITE (TERRACE)
- GRADE ACCESS TO UNITS (TERRACE)
- SITE ACCESS
- UNIT DESIGN
 - ORIENTATION (SOUTHERN EXPOSURE)
 - DAYLIGHTING (2 SIDES)
 - FLEXIBILITY (SENIOR'S LOCK-OFF)
- GATHERING SPACES (PUBLIC AND PRIVATE)

MULTIGENERATIONAL RESIDENCES I

A7.0



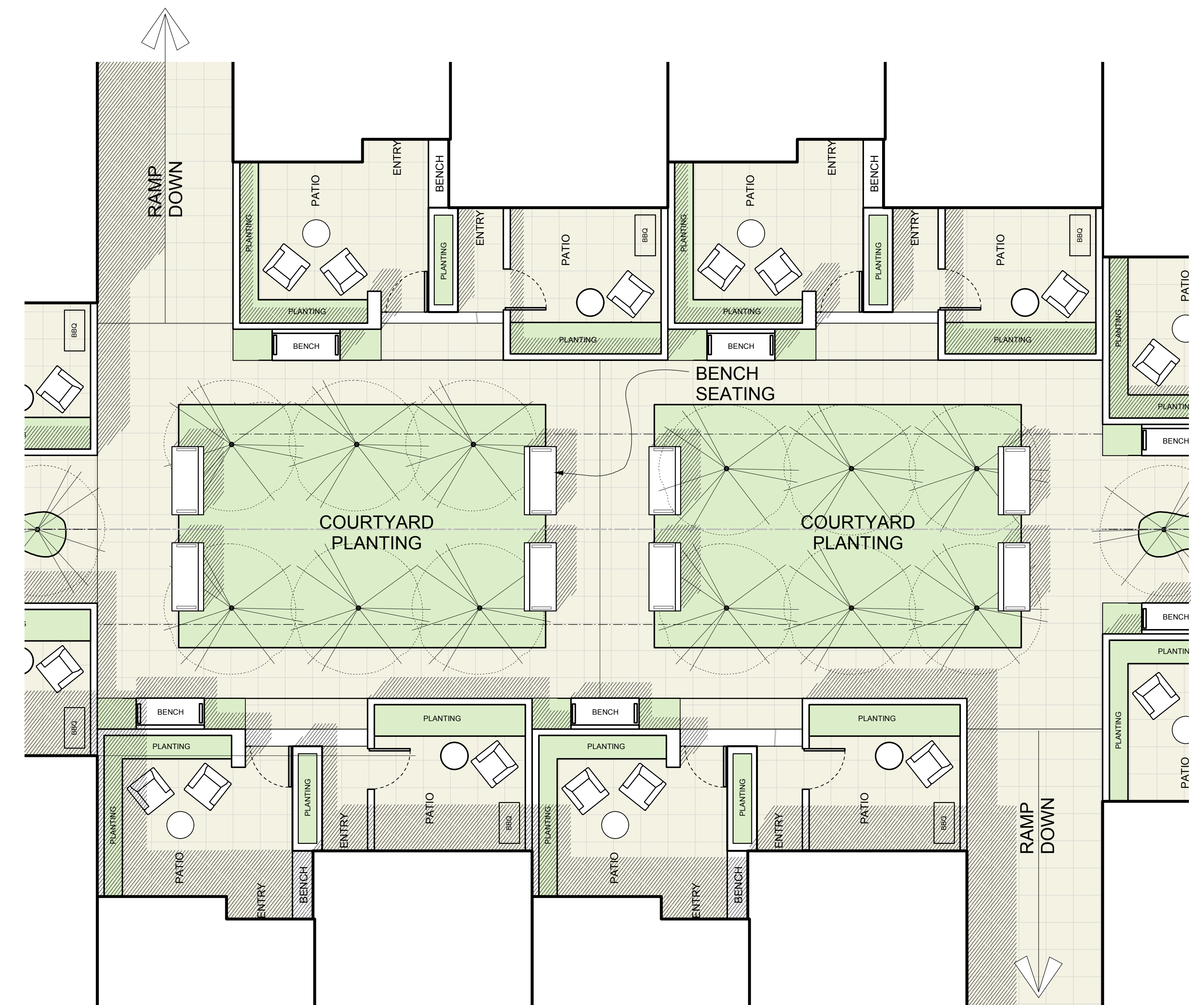
1 GATHERING AREA AT STAIR / ELEVATOR
Scale: 3/16" = 1'-0"



2 SECTION THROUGH UNIT PATIOS & COURTYARD
Scale: 1/2" = 1'-0"



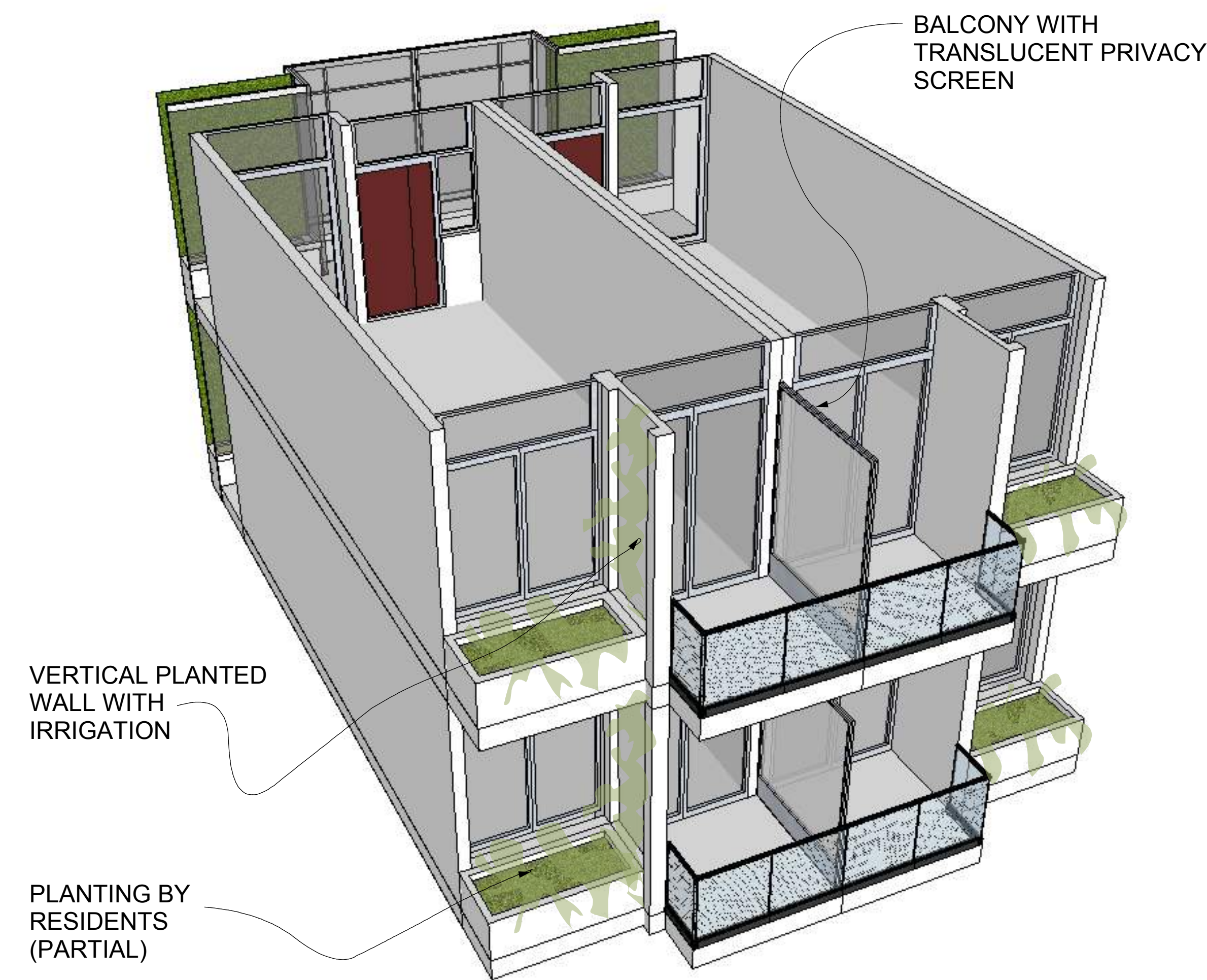
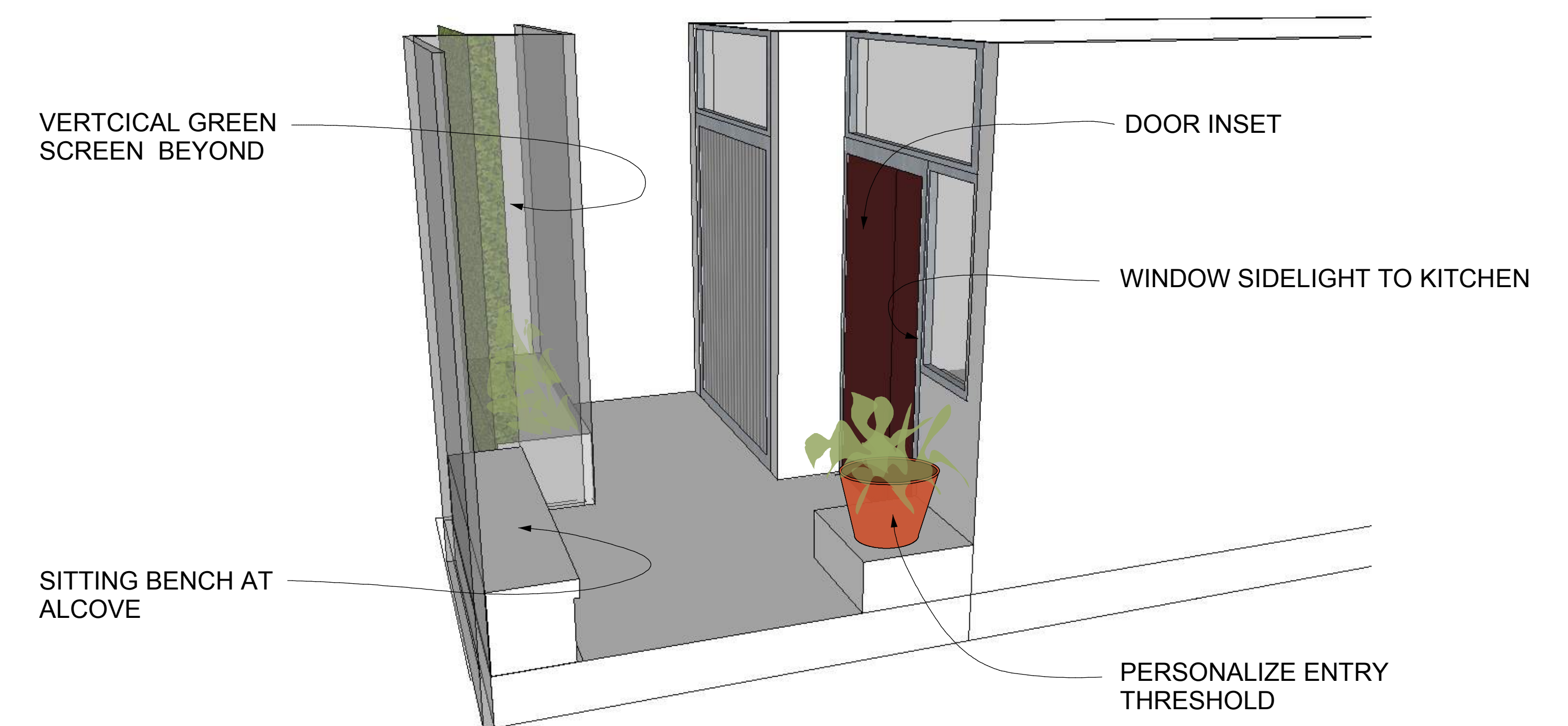
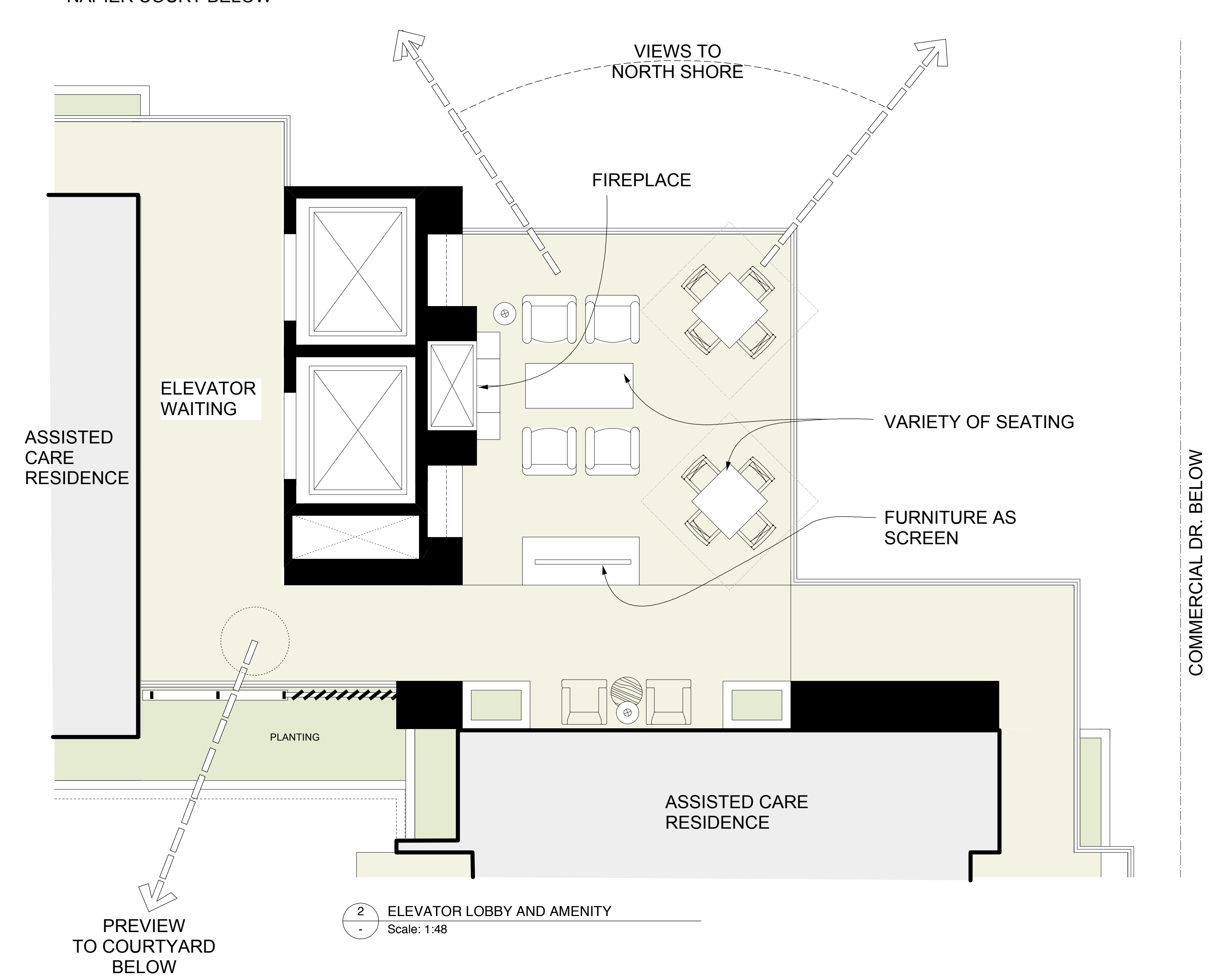
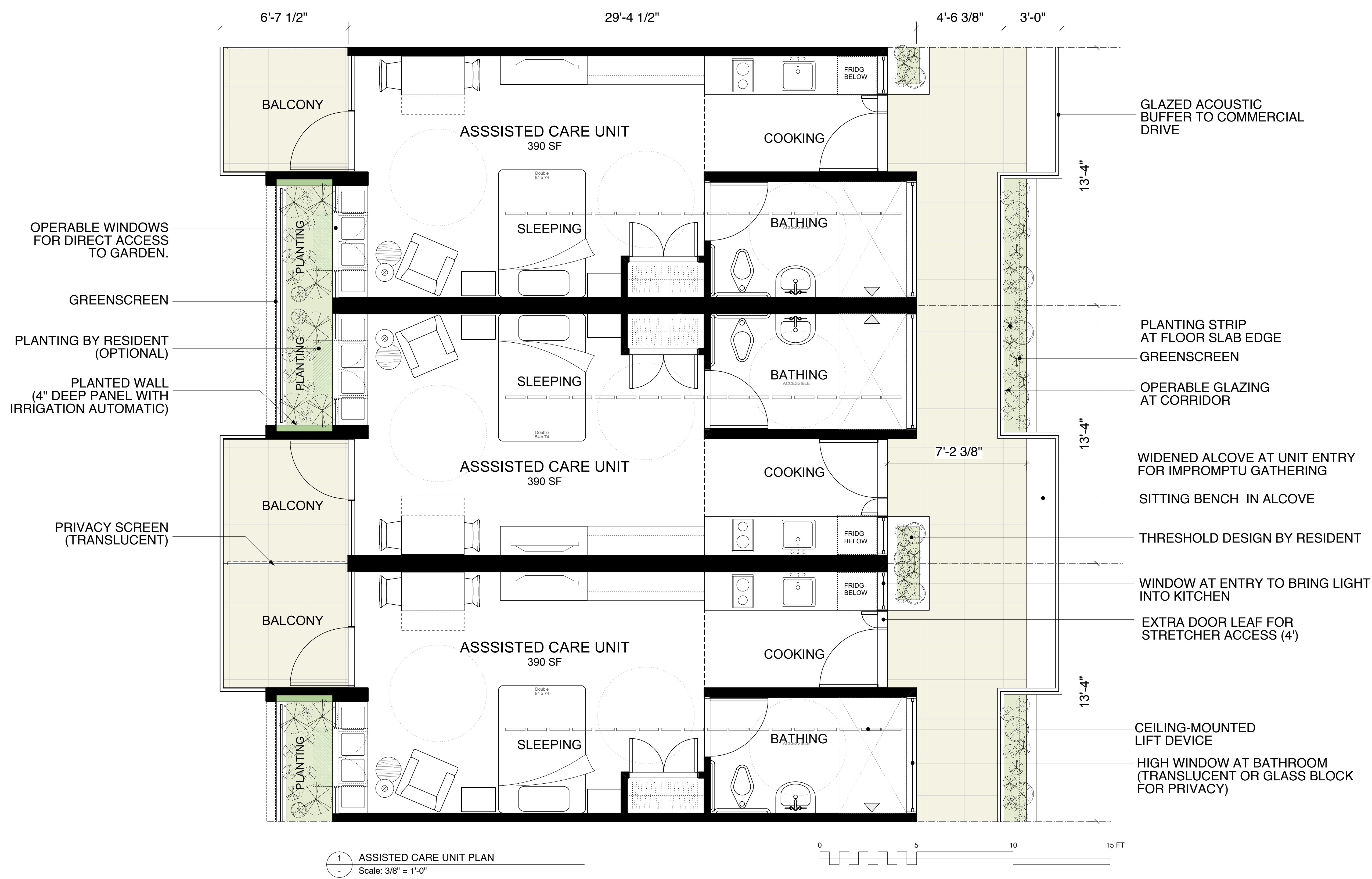
4 RENDERING OF CENTRAL COURTYARD



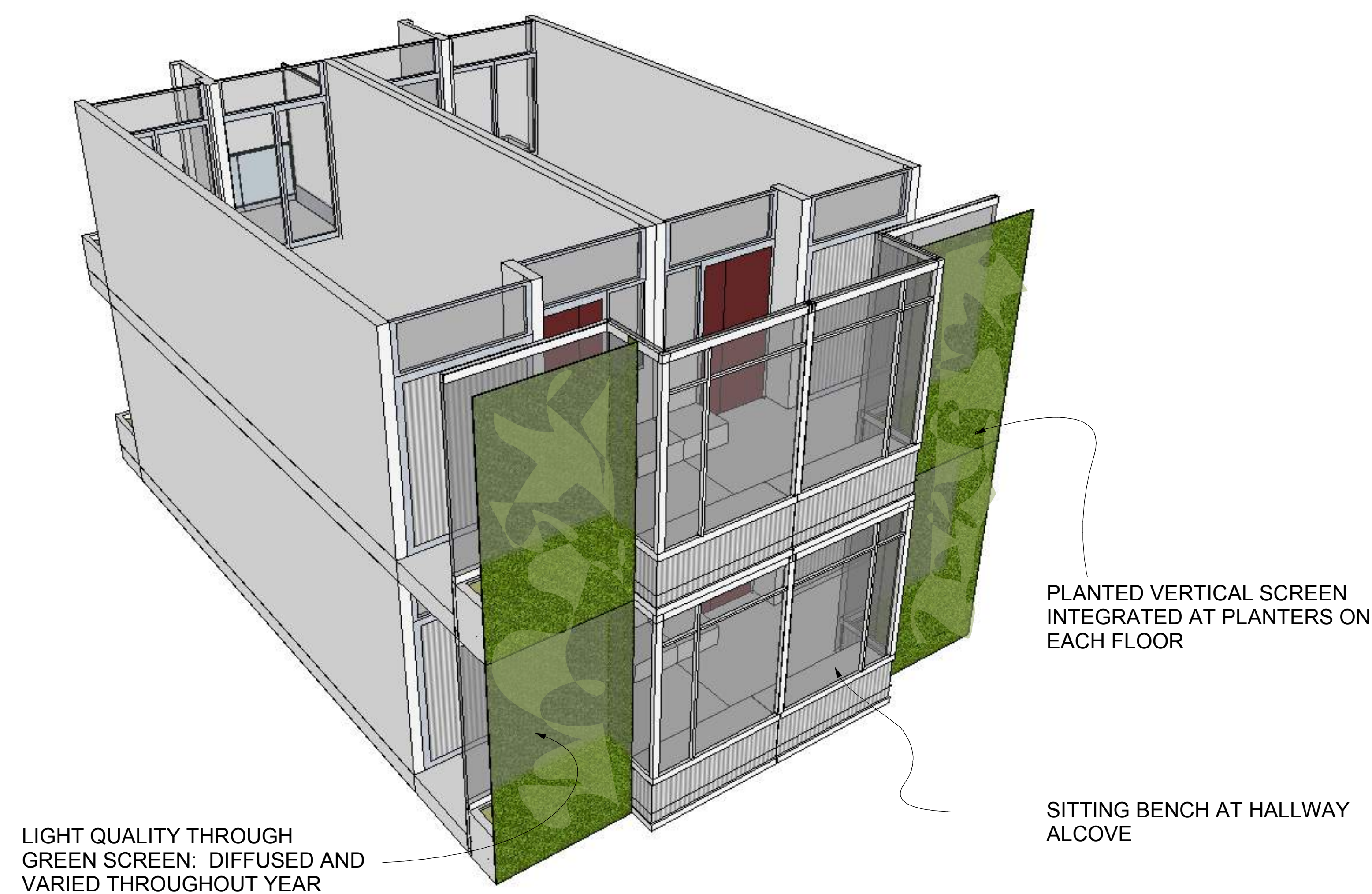
3 GATHERING AREA AT CENTRAL COURTYARD
Scale: 3/16" = 1'-0"

MULTIGENERATIONAL RESIDENCES II

A8.0



REAR VIEW FACING COURTYARD



FRONT VIEW FACING COMMERCIAL DR.

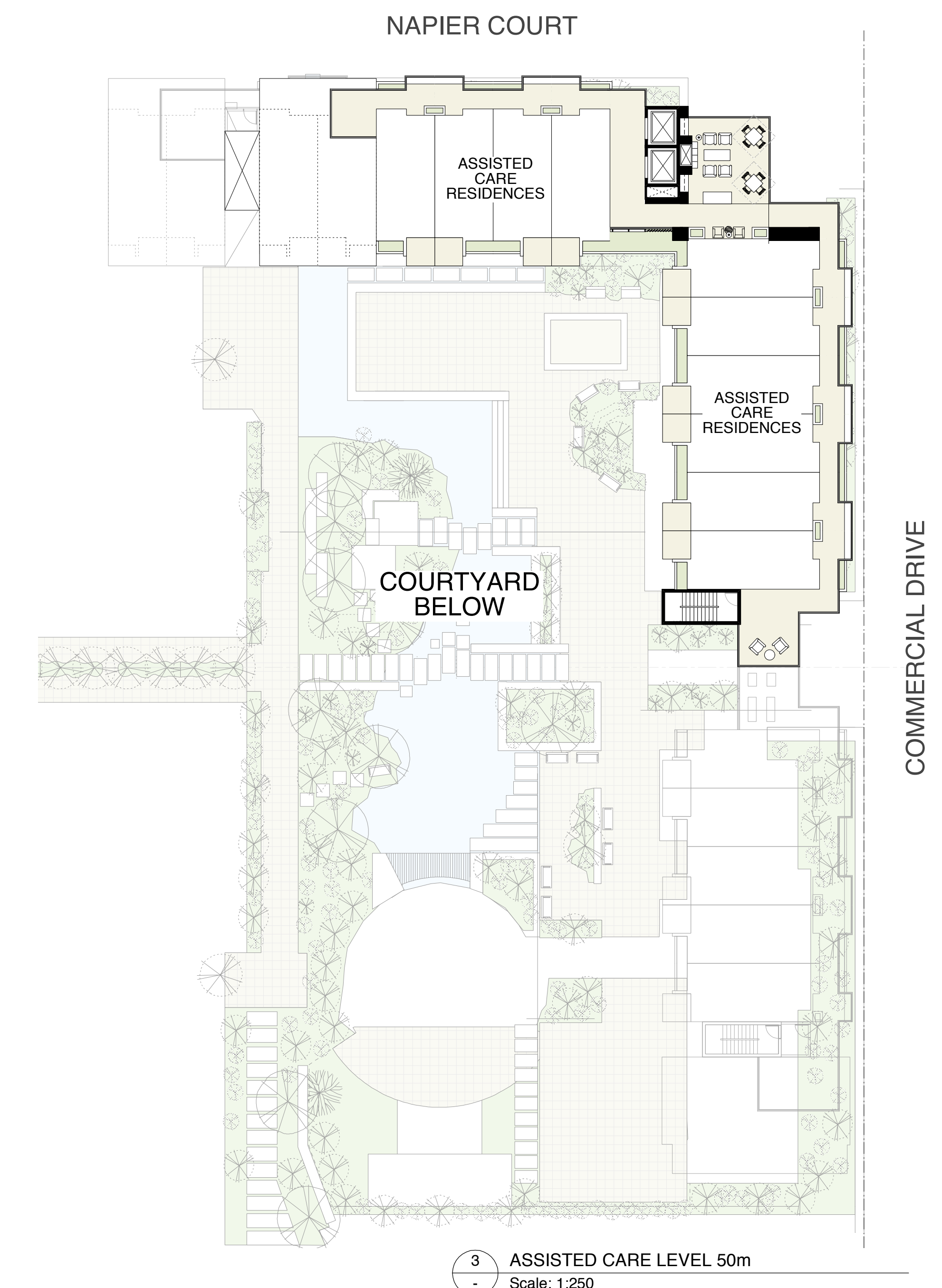
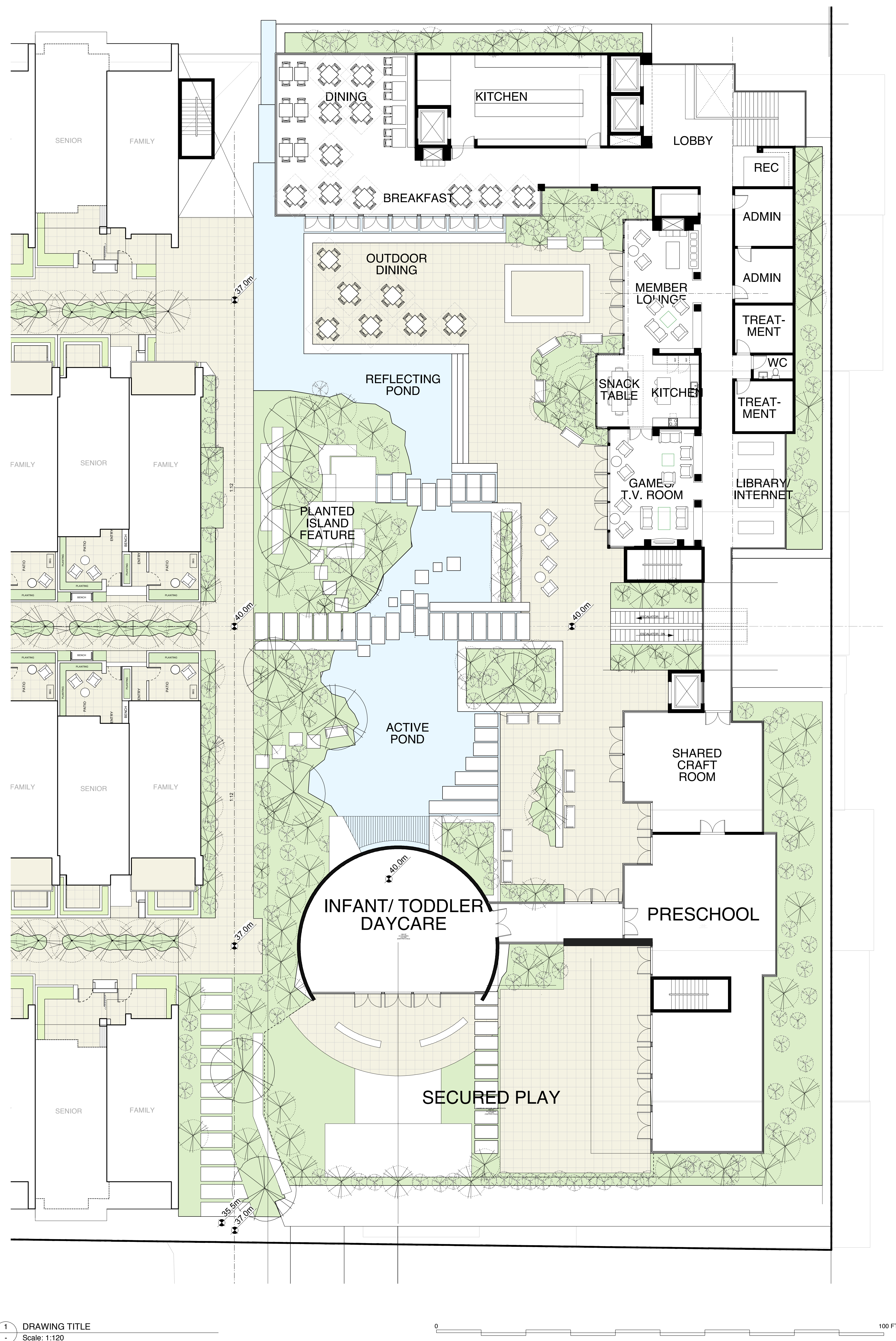
ASSISTED CARE RESIDENCES

DESIGN CONCEPT:

- A BUILDING THAT SUPPORTS INDEPENDENT LIVING AND CONNECTS RESIDENTS WITH THEIR SURROUNDINGS IN DIRECT AND MEANINGFUL WAYS.

PRIORITIES:

- UNIT DESIGN
 - ORIENTATION (SOUTHWEST EXPOSURE)
 - DAYLIGHTING (2 SIDES)
 - ENTRY THRESHOLD
 - KITCHEN DESIGN (WINDOW & HOTPLATE)
 - BALCONY DESIGN (SHARED SPACE)
 - PLANTER DESIGN (BRING OUTDOORS TO RESIDENTS)
- AMENITY GATHERING AREAS
 - CORRIDOR DESIGN (WIDE ALCOVES)
 - MID-FLOOR ALCOVES + ROOFTOPS
 - ELEVATOR LOBBY (PROGRAM + PREVIEWING AREA)
 - MAIN FLOOR AMENITY SPACES (GATHERING)
 - CONNECTION WITH PRESCHOOL
 - COURTYARD AREAS
- ACCESS TO GRADE, STREET & COMMUNITY CENTER



PUBLIC / PRIVATE
DINING ROOM



PLANTED ROOF

DAYCARE AND
PRESCHOOL

VERTICAL PLANTED
SCREEN INTEGRATED
WITH PLANTERS

ROOFTOP
PLANTING

SHARED COURTYARD
SPACE

INTERNAL
GATHERING
SPACES AT
BRIDGE

COMMERCIAL
AT GRADE

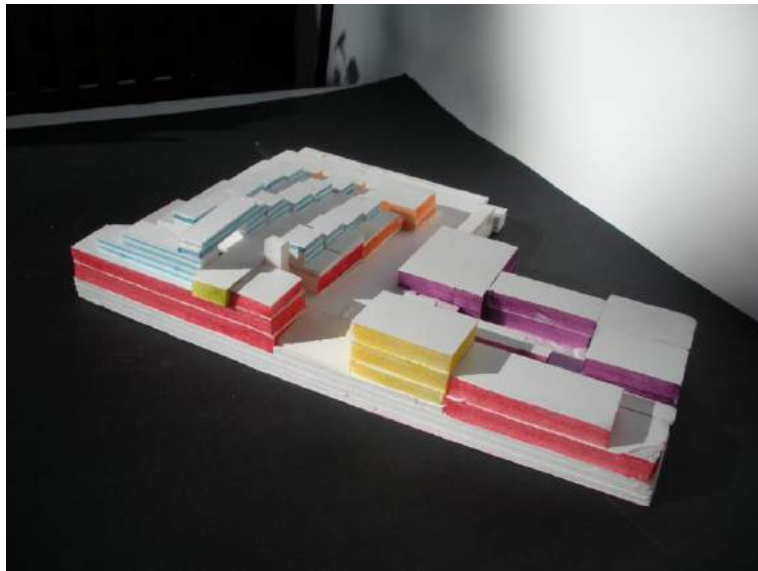
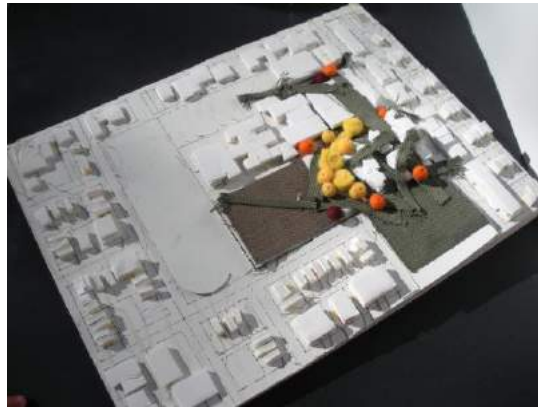
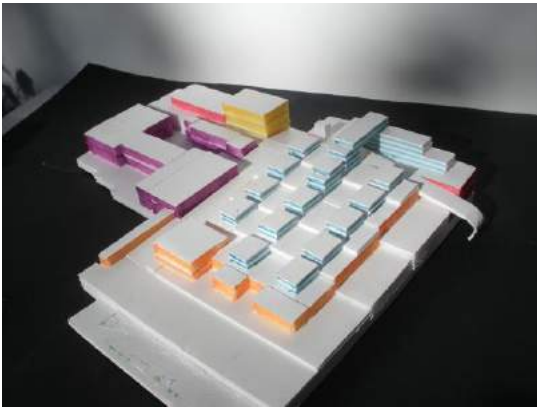
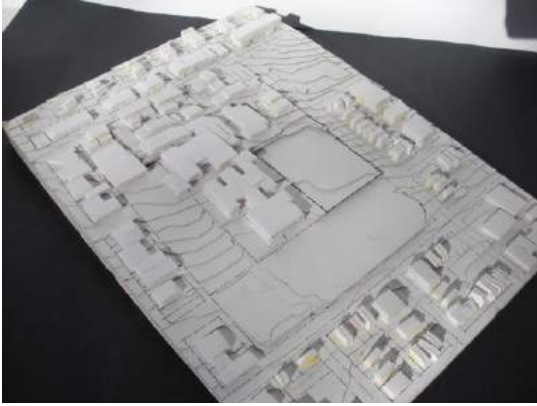
EXTERIOR ESCALATOR
LEADS TO PODIUM ABOVE

ASSISTED CARE II

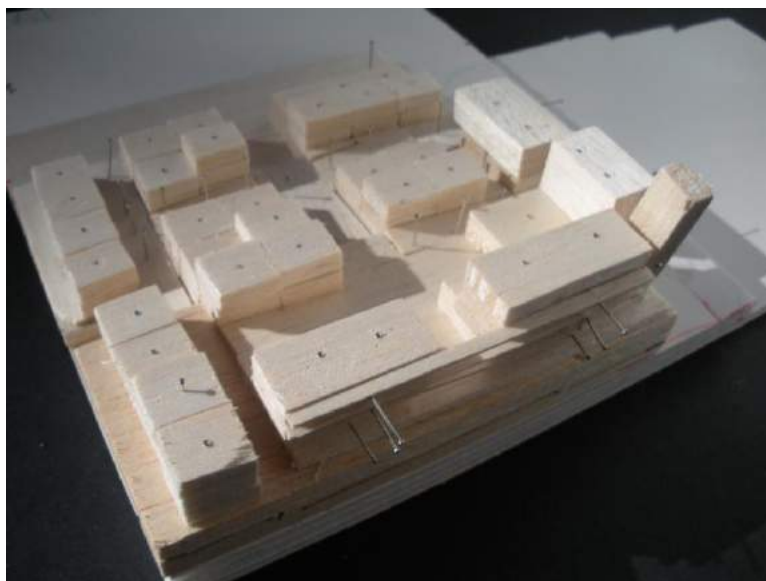
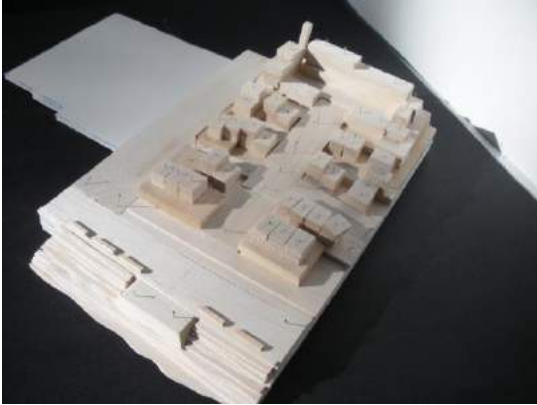
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Appendix 5 : Massing Study Models (Photos)

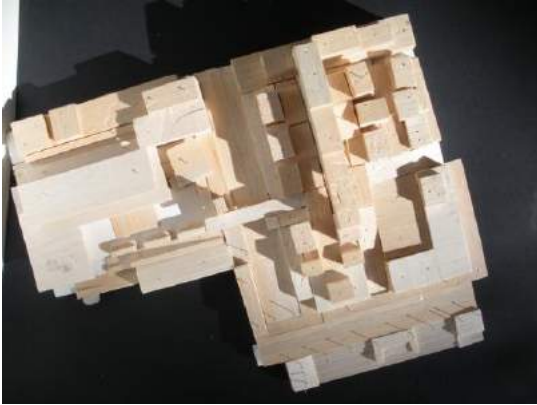
Appx 5.0 Early Site Base and Massing Models using Cardboard, Foamcore and Fabric



Appx 5.1 Balsa Wood Study Model I for Massing, Site Layout and Shadow Analysis



Appx 5.2 Balsa Wood Study Model II for Massing, Site Layout and Shadow Analysis



Appendix 6 : Final Presentation Model (Photos)

