3

Social Spaces

Promoting Sociability Among Seniors in High-rise Buildings

Acknowledgements

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We would also like to thank the members of our advisory board and key project partners, as well as all of the industry stakeholders and NORC residents who offered their time and ideas as participants in our co-design engagements.

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Contents

This paper is the third of three projects exploring high-potential solutions that can help shape the future of aging in place in urban Canada. They take the decades old concept of a naturally occurring retirement community (NORC) and reimagines it within the context of the tech-driven world of today and the near future.

Introduction

Beginning with population level trends on location and typology - we are working to better understand where seniors choose to live, and how architectural modifications might empower more vibrant communities.

Seniors are the fastest growing segment of the Canadian population, and they are increasingly moving to urban areas. In 2016, approximately 4 million Canadian seniors (66 percent) lived in census metropolitan areas, a 21% increase from just 5 years earlier.[1,2] This trend is expected to intensify over the next two decades as senior populations double in size.[1]

Increasing urbanization has given rise to the phenomena of naturally occurring retirement communities (NORC) buildings: seniors downsizing into co-ops, condos and rental buildings not originally built for seniors. Nowhere is this phenomenon more apparent than in Toronto where there are 489 high-rise NORC buildings where over 30 percent of residents are seniors.

Nevertheless, for many seniors the actual experience of aging is typified by a sense of loneliness and isolation. A widely referenced meta-analysis from 2010 found that social isolation exceeds obesity and physical inactivity as a risk factor for mortality.[3] Furthermore, a 2014 report found that a lack of a supportive social network is linked to a 60% increase in the risk of dementia and cognitive decline, as well as increased risk of developing mental health issues, further perpetuating cycles of isolation.[2]

The sciences of Situated Cognition and Environmental Psychology tell us that the design of our physical spaces matters more to psycho-social states of well being then ever previously imagined.[4–6] Flexible designs that embrace changes in individual needs and capabilities foster more satisfied, trustful and sociable communities.[7] The design of functionally suitable and accessible shared spaces can either help or hinder the social wellbeing of the community as a whole.[8]

If the design of space can be one of the most powerful solutions to the challenges of loneliness, isolation and quality of life, how might we retrofit existing high-rise buildings to improve sociability amongst senior residents?

This paper aims to understand the stock of rental apartment buildings that qualify as NORCs from a spatial and environmental standpoint, and presents a series of design opportunities to inform future ‘social retrofits’. The report is broken down into four sections:

An Illustrated Building Inventory: a visually typology of the most common traits in NORC buildings across the City of Toronto.

A Detailed Building Audit: which explores three NORC buildings and documents how spaces are utilized for social interaction.

An Illustrated Literature Review: which explores evidence-based design features that can be used to increase social interactions and reduce social isolation.

Imagined Configurations: a playful imagining of design features to improve sociability amongst seniors, including outdoor spaces, entryways and lobbies, corridors, elevator landing spaces, and stairwells.

Illustrated Building Inventory

Methodology

The first step taken in understanding NORC's in Toronto from an architectural standpoint was to perform a visual audit of NORC buildings in the city. As a starting point, this project looked at rental apartment buildings that have a high density of senior residents and qualify as NORCs. Approximately 175 of the 319 buildings are apartment rentals. These were filtered through a list of architectural building traits, which are outlined in the sections to follow.

The data used was retrieved from the Toronto Central Local Health Integration Network (LHIN), who used the Registered Persons Database to isolate postal codes in which there are a high density of senior residents. In this case, high-density is defined as postal codes that have more than 100 seniors residents over 65 years old, and a density greater than 30% seniors.

Once the postal code data was filtered, manual validation of each building was conducted by OpenLab using Google search, Google Maps, and telephone calls with property managers to confirm that each postal code represented a single building and to discern key elements of the property.

Key Limitations:

The data captured is what was publicly reported, and is an approximate picture of where seniors live in the TCHIN. Retirement homes and long-term care institutions were not included. In some cases, buildings had multiple postal codes, which is the result of being built on adjacent plots of land that previously held separate addresses. Some postal codes contained both mid-rise buildings and surrounding houses. These 'mixed' postcodes were excluded. Lastly, the data captured included what was available within the TCLHIN boundary and is not inclusive of the rest of the City of Toronto or the Greater Toronto Area.

Architectural Filtering:

The objective of PART I was to determine the most common building traits in NORCs. Each building was manually mapped based on their postal codes and, using a combination of satellite imagery and Google Streetview, each building was evaluated based on the following characteristics:

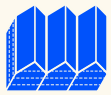
- Typology
- Building Height
- Green Space
- Proximity to street
- Base program
- Exterior materiality
- Balconies
- Style
- Building access
- Fenestration

This method of analysis provided an overview of the an average NORC building looked like **(See page 15)** and, using the data generated in the building audit, 3 buildings were selected for further investigation and documentation in PART II.

NORC Building Traits

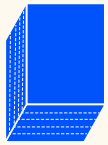
TYPOLOGY

For this study, buildings were categorized by a formal typology, referring to their general shape and configuration. Classifying buildings into types helps to convey a sense of scale and provides information on how residential units may be organized on a given site.



ROW HOUSE

- Row of houses joined by common sidewalls

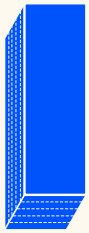


MID-SIMPLE

- Mid-rise height
- Simple box-like form

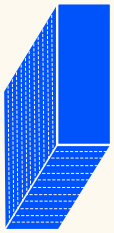
MID-ARTICULATED

- Mid-rise height
- Irregular building floorplate



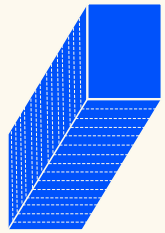
LONG BAR

- Mid-rise height
- Elongated rectangular floorplate



TALL BAR

- High-rise height
- Elongated rectangular floorplate



TALL TOWER

- High-rise height
- Rectangular or square shaped floorplate

BUILDING HEIGHT

The number of stories in a building including the ground floor. This is important for distinguishing between low-rise, mid-rise, and high-rise buildings.

<3 FLRS

- 3 floors or less

3-4 FLRS

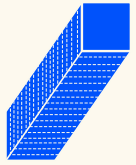
- Between 3 and 4 floors

5-6 FLRS

- Between 5 and 6 floors

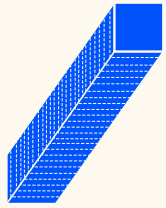
7-11 FLRS

- Between 7 and 11 floors



12-20 FLRS

- Between 12 and 20 floors



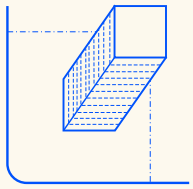
>20 FLRS

- 20 floors or higher

NORC Building Traits

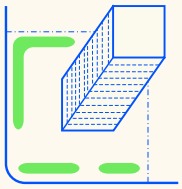
GREEN SPACE

Outdoor spaces are measured based on their size and percieved function. Outdoor spaces have the potential to provide opportunities for socialization and the capacity to host events for tenants.



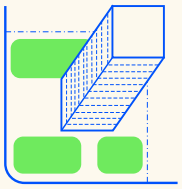
NONE

- No aesthetic or functional green space



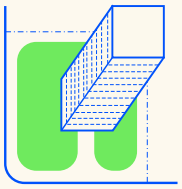
SMALL

- Only aesthetic green space available



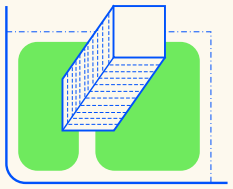
MEDIUM

- Appropriate and proportioned for small family-sized activities



LARGE

- Appropriate and proportioned for effectively hosting large events

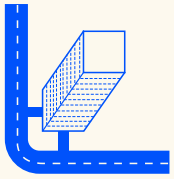


X-LARGE

- Appropriate for wandering

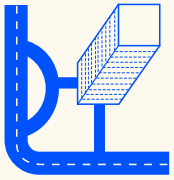
PROXIMITY TO STREET

The distance between the building relative to the main street/road, which indicates how easily accessible the building is for both vehicles and pedestrians.



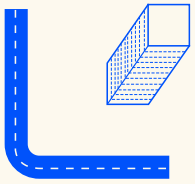
ON

- Located directly off of main street/road



CLOSE

- Located close to main street/ road

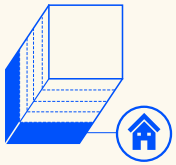


REMOVED

- Located far from main street/ road

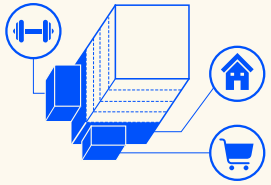
BASE PROGRAM

How the ground floor of a building is used (whether it is designated for residential purposes only or if there are other commercial/community amenities).



RESIDENTIAL

- Ground floor dedicated to residential use only



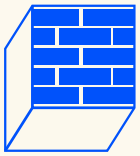
MIXED

- Ground floor has commercial, retail, or other space (i.e. grocery store, pharmacy, community services, etc.)

NORCs Building Traits

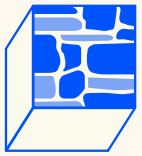
EXTERIOR

The exterior finish of the building.



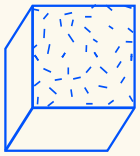
BRICK

- Brick exterior (most commonly red or white)



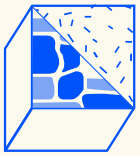
STONE

- Stone finish



CONCRETE

- Concrete finish



HYBRID

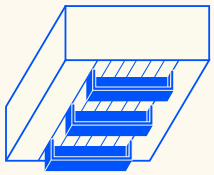
- Combination of multiple exterior materials

OTHER

- Unidentified exterior finish

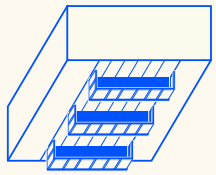
BALCONIES

This trait identifies the type of balcony present on a building. Balconies are semi-private spaces that give tenants a place to hang out, but also provide a visual connection to their neighbours. Think of a balcony as the urban equivalent of the front porch.



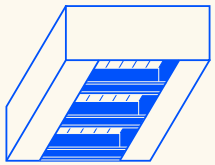
OUTBOUND SOLID

- Balconies protrude outwards
- Opaque material



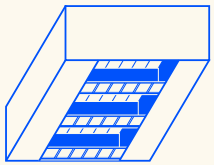
OUTBOUND TRANSPARENT

- Balconies protrude outwards
- Glass or other transparent material



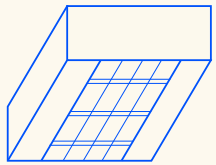
INBOUND SOLID

- Balconies pushed inwards
- Opaque material



INBOUND TRANSPARENT

- Balconies pushed inwards
- Glass or other transparent material



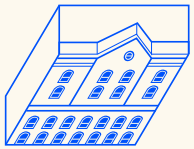
NONE

- No balconies

NORC Building Traits

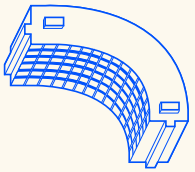
STYLE

The architectural style of a building focusses on the aesthetic features of a buliding that make it visually identifiable and convey a sense of the era the building was constructed.



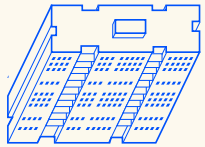
HISTORICAL

- Decorative facade
- Building or structure has some sort of "historical value" or unique elements



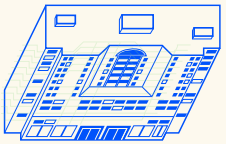
HIGH-MODERN

- Horizontality
- Expressive planes such as an evacuated base, solid vs. void
- Expressive balconies
- Expressive plan with simple elevation (drum & crescent buildings)



UTILITARIAN MODERN

- Lack of expressive elements
- Often brick finish with punched windows
- Flat roof



HIGH-MODERN

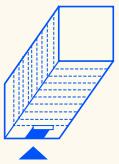
- Formal exuberance
- Historical references
- Constructed after 1975

CONTEMPORARY

- Systematized facade
- Newly constructed apartments

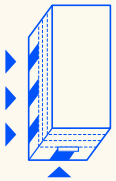
BUILDING ACCESS

Whether a building has a common entrance or if individual tenants have their own entrance.



COMMON

- Single entrance for building

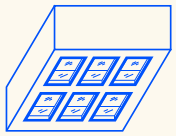


INDIVIDUAL

- Units have their own entrances

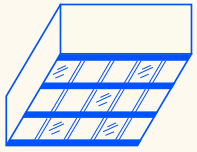
FENESTRATION

The fenestration of the building refers to the openings within the building envelope. In this case, window types were split into 3 categories:



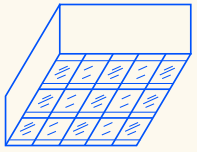
PUNCHED

- "Hole-like" opening in the wall allowing light to pass through



WINDOW WALL

- Glazing is placed between floor slabs
- A break is created between the floor slab and the window



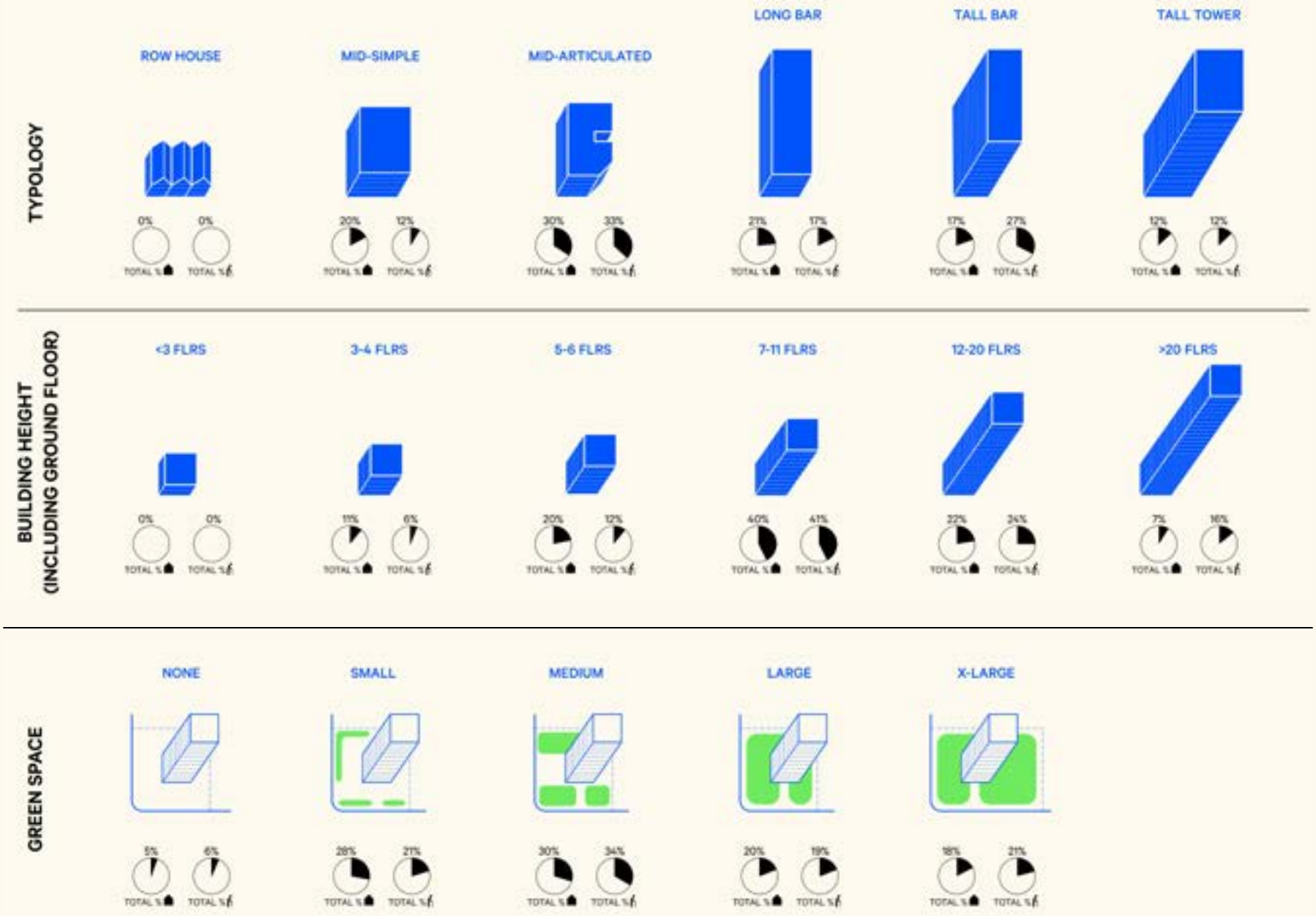
CURTAIN WALL

- Glazing is attached to the outside of the floor slab

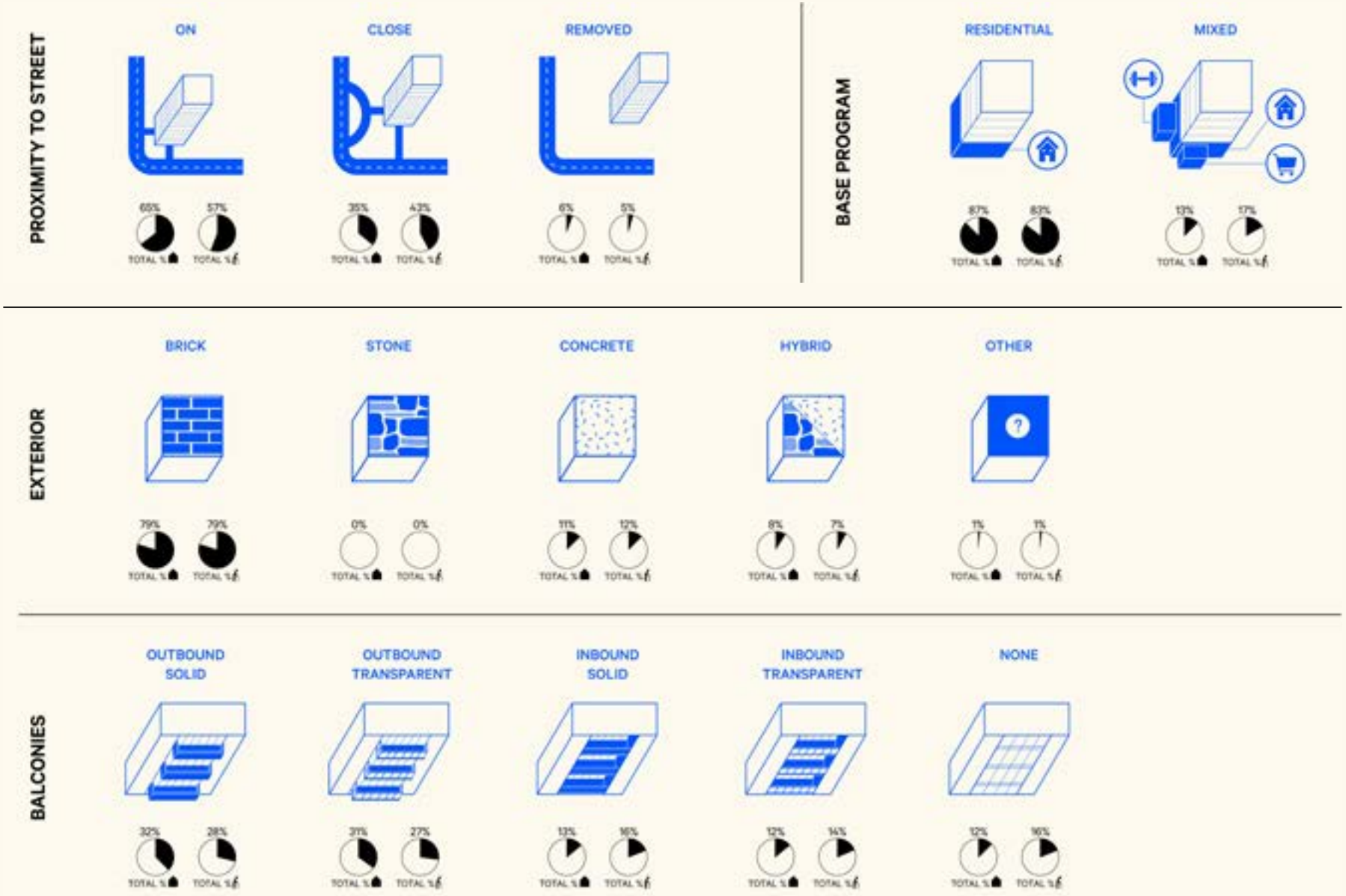
NORC Building Traits:

Summary of Findings

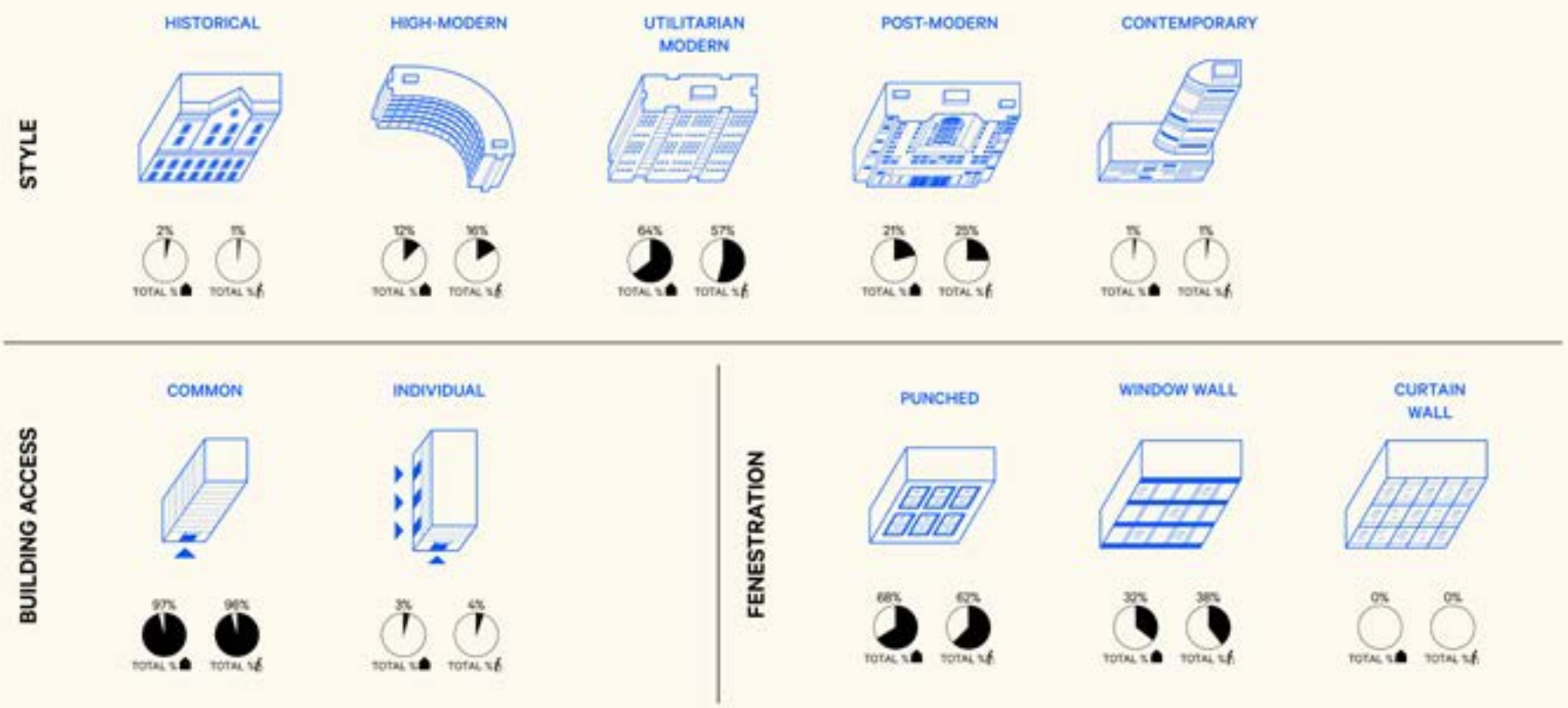
NORC Building Traits - Summary Of Findings



NORC Building Traits - Summary Of Findings

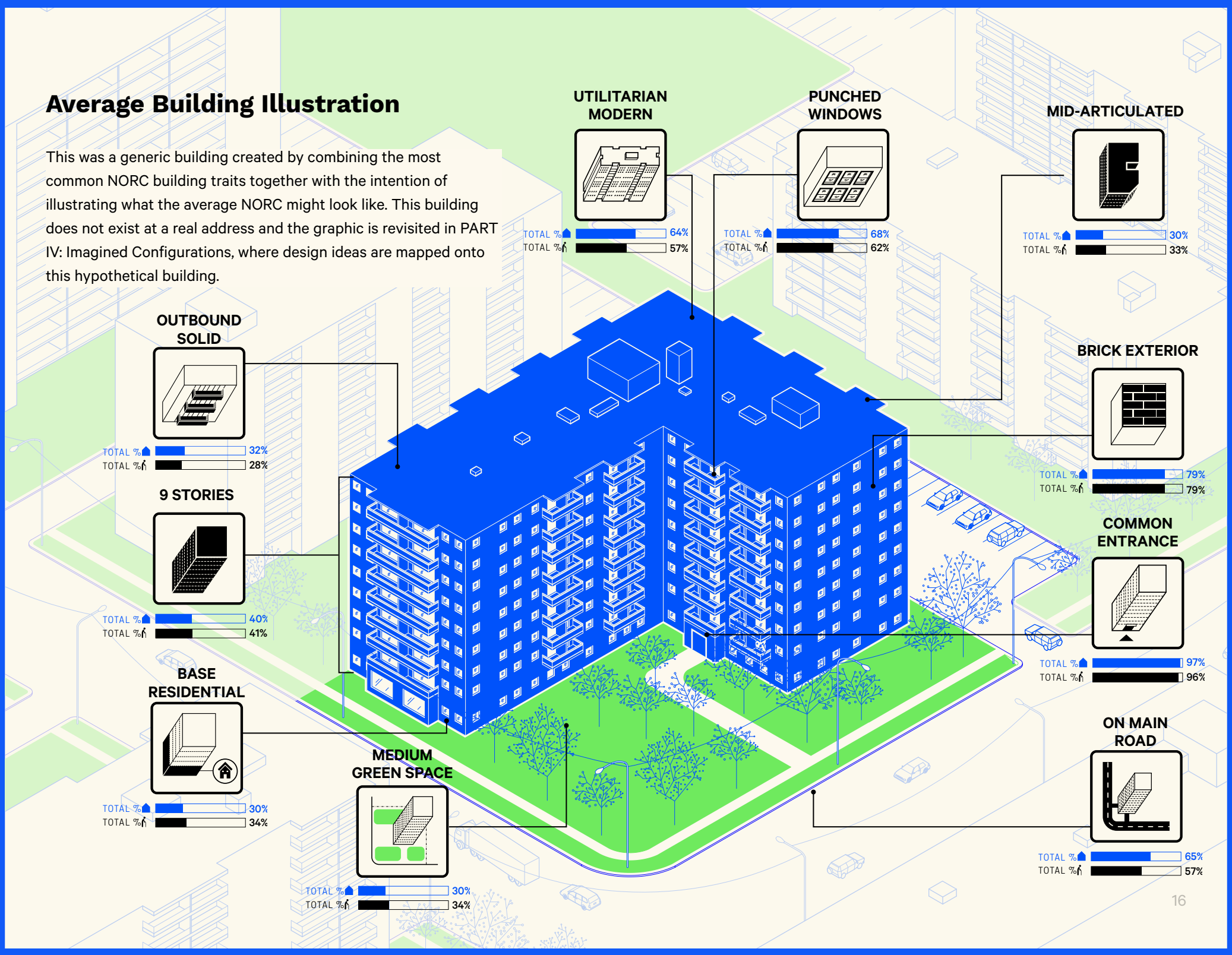


NORC Building Traits - Summary Of Findings



Average Building Illustration

This was a generic building created by combining the most common NORC building traits together with the intention of illustrating what the average NORC might look like. This building does not exist at a real address and the graphic is revisited in PART IV: Imagined Configurations, where design ideas are mapped onto this hypothetical building.



Detailed Building Audit

Methodology

Based on the data generated in PART I, the most common architectural building traits for NORCS in Toronto were determined. Three buildings that contained the majority of these traits were then selected for further analysis:

- Site A : South Parkdale
- Site B : East York
- Site C : Thorncliffe Park

The objective of this research phase was to examine how buildings perform in terms of how spaces are occupied and to identify how seniors are utilizing spaces for social interaction. Another objective was to identify pain points within each building and areas that could become opportunities for a potential retrofit project.

Site Map (*Image via Google Maps)

Site A : South Parkdale

BUILDING STATS

CONSTRUCTION DATE: 1960's

TOTAL FLOORS: 7

TYPOLOGY:
MID-ARTICULATED

AVERAGE RENT:
$1700 - $1800

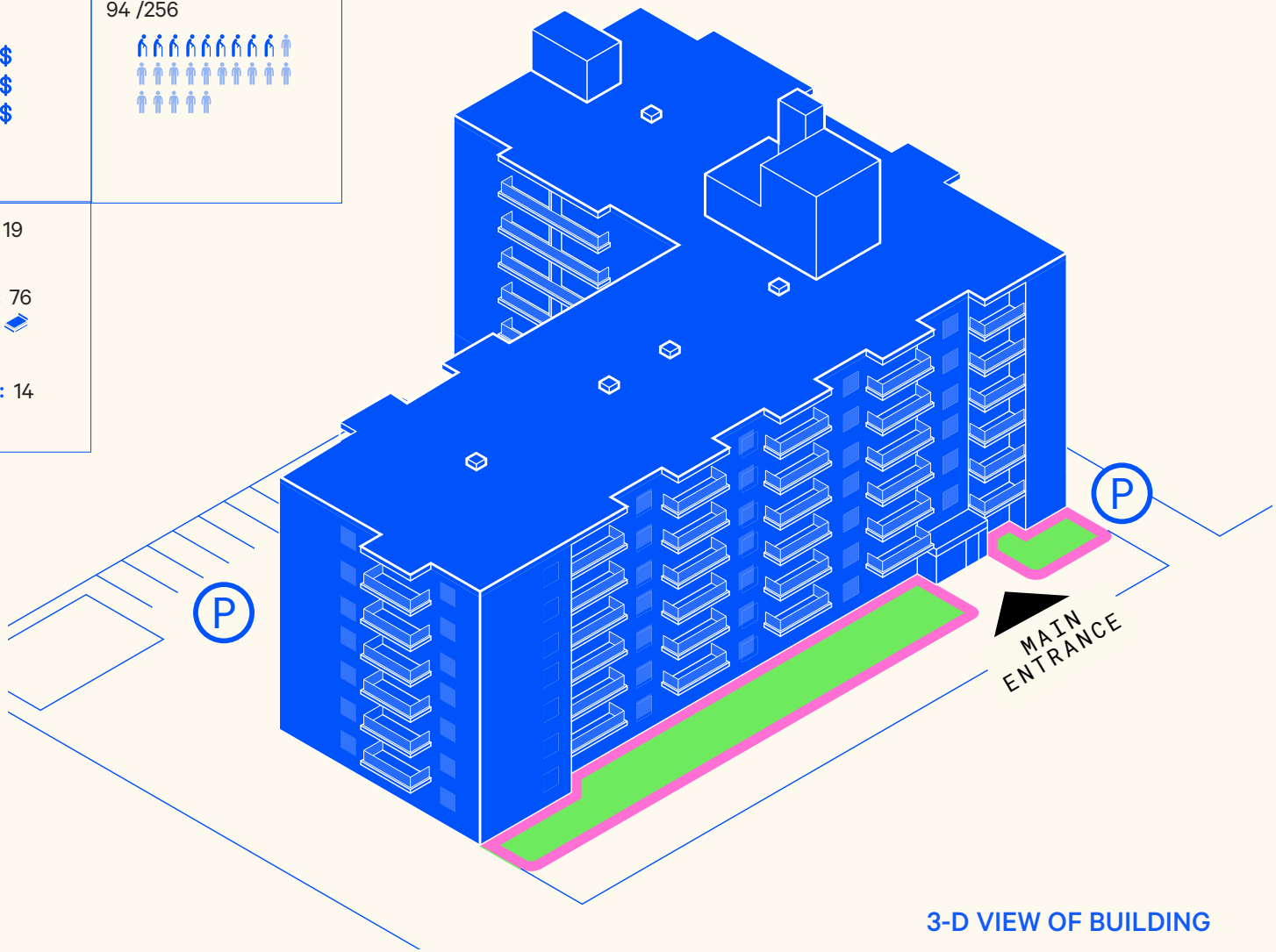
TOTAL SENIORS:
94 /256

TOTAL UNITS:
19/108 SENIORS UNITS

 # BACHELOR: 19

 # 1 BEDROOM: 76

 # 2 BEDROOM: 14



3-D VIEW OF BUILDING

Legend

- (P) Parking
- Green Space
- Social Space
- (#) Call-out

Site A : South Parkdale

Key Observations

The South Parkdale site was characterized by:

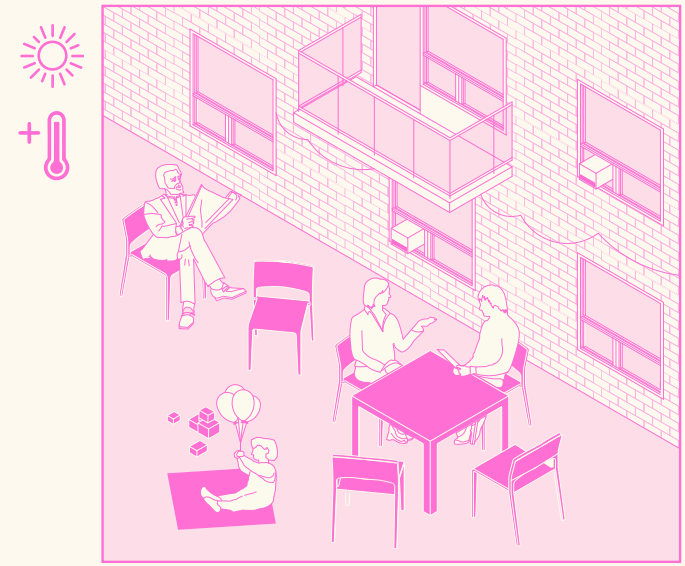
- The primary social spaces of the building were the outdoor spaces facing the street
- Chairs and tables were put out on the lawn during spring and summer months
- Some residents enjoy activites like gardening
- The laundry room was where many residents like to bring their coffee and socialize while folding clothes
- The lobby had a small ledge for sitting, a tv screen that displayed general notices about the apartment, as well as a vending machine. This was a main space for greeting the neighbours and getting the mail
- Small events are organized in the lobby (i.e. Christmas party)
- The building manager was the most proactive in facilitating social events

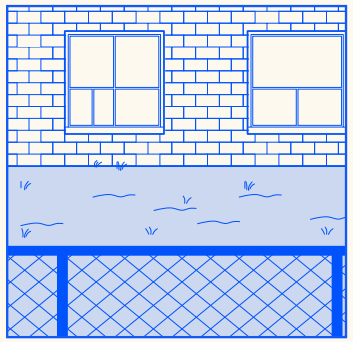
Pain points observed:

- There was no designated games room or lounge located in the building
- Many of the older residents preferred to stay in their units
- Children were discouraged from playing in corridors
- Outdoor spaces were not utilized during the colder months of the year
- Balconies are fenced off to fend off pigeons, which looks quite unpleasant and hostile
- The building could be improved by new carpeting and paint

SUCCESSFUL VS. UNSUCCESSFUL SPACES

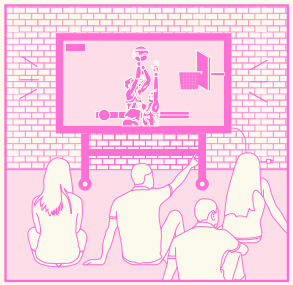
❶ OUTDOOR SPACE





Outdoor space was not utilized in colder months

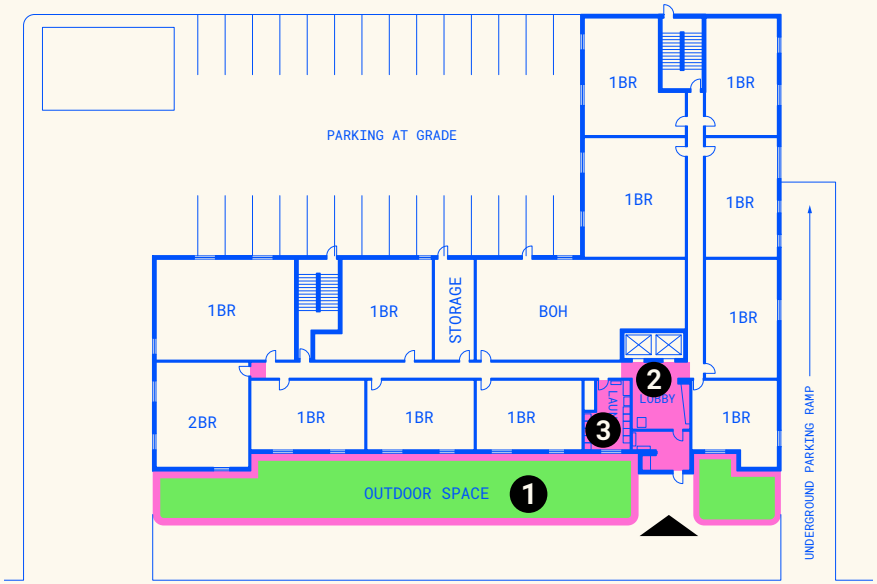
Tables and chairs brought out during warm seasons to celebrate holidays like Canada Day



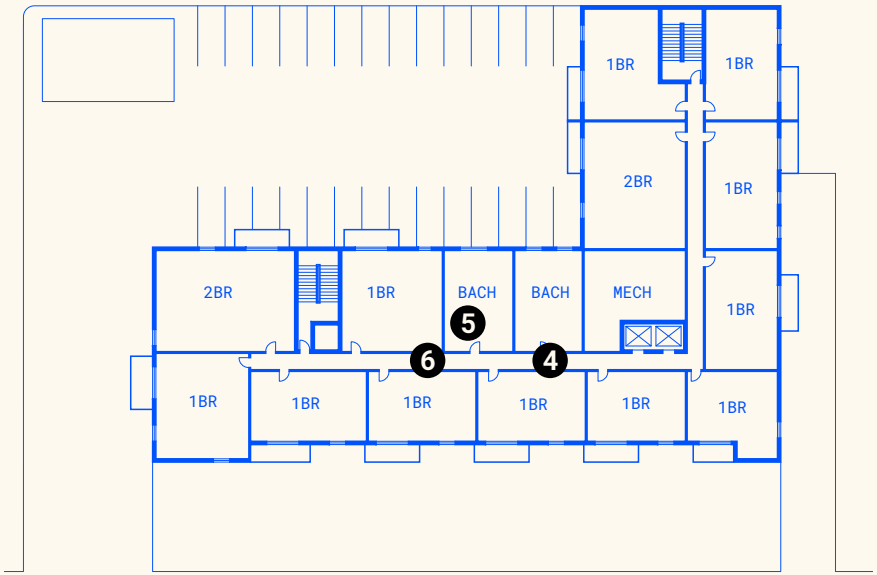
Movie and sports tournament screenings are organized for the residents and children

Site A : South Parkdale

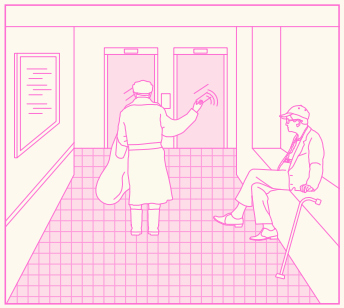
GROUND FLOOR PLAN



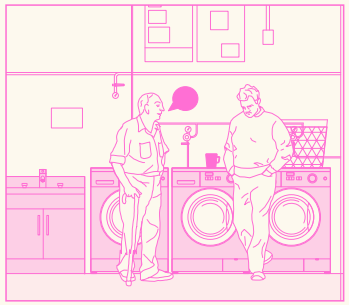
TYPICAL UPPER FLOOR PLAN



2 LOBBY

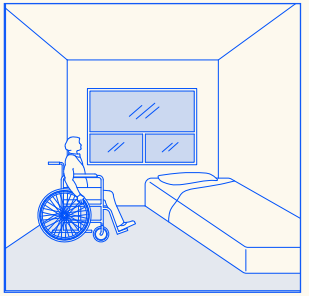


3 LAUNDRY ROOM



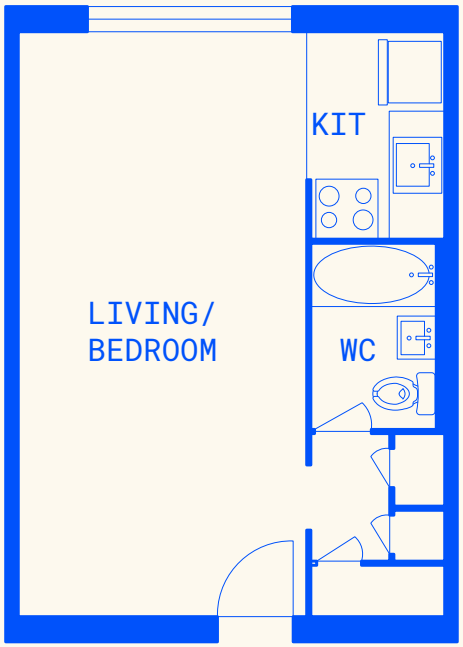
4 PLAYING DISCOURAGED IN CORRIDORS

5 MANY SENIORS DO NOT LEAVE THEIR APARTMENTS



Site A : South Parkdale

UNIT FLOOR PLAN



5 BACHELOR UNIT LAYOUT
[368 SQ. FT]

Each apartment has its own radiator while 1 bedroom and 2 bedroom units above the ground floor also have balconies. According to a senior tenant, the balcony is an enjoyable space for sitting and watching cars and people go by.

The window inside the apartment generally provided a great view of the neighbourhood and the lake beyond.

4 TYPICAL CORRIDOR

The corridor was generally dark and painted dully. The lighting was unevenly distributed along the length of the hallway, which created zones that were much darker than others.

6 THRESHOLD PERSONALIZATION

Tenants are technically not allowed to to decorate doorways; however, the building manager allows it and believes it is important for residents to express themselves.

Site B : East York

BUILDING STATS

CONSTRUCTION DATE: 1960's

TOTAL FLOORS: 12

TYPOLOGY:
TALL BAR

AVERAGE RENT:
<$1000 - SENIORS
$1850 AVERAGE RENT

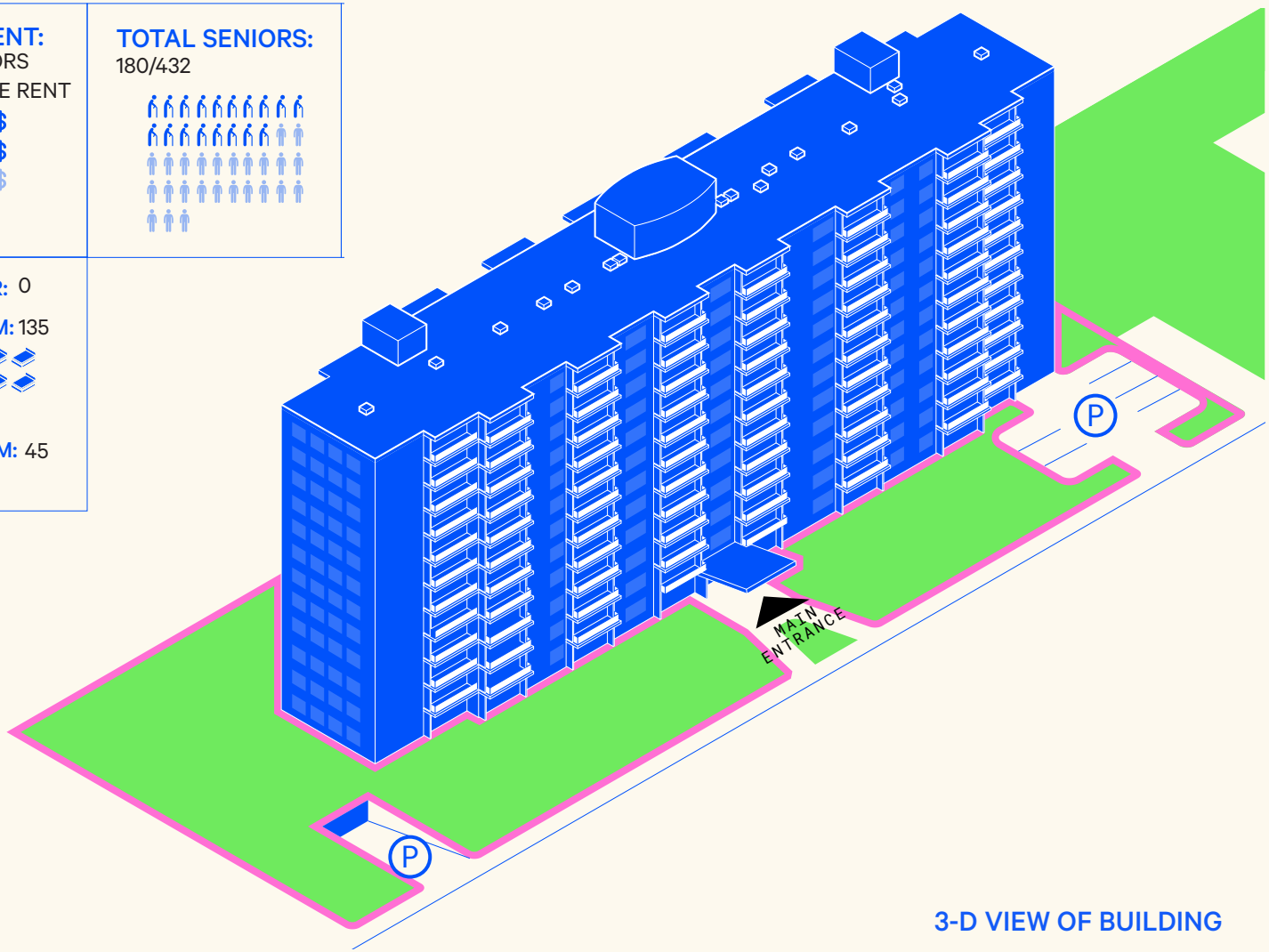
TOTAL SENIORS:
180/432

TOTAL UNITS:
19/171 SENIORS UNITS

 # BACHELOR: 0

 # 1 BEDROOM: 135

 # 2 BEDROOM: 45



3-D VIEW OF BUILDING

Legend

- (P) Parking
- Green Space
- Social Space
- (#) Call-out

Site B : East York

Key Observations

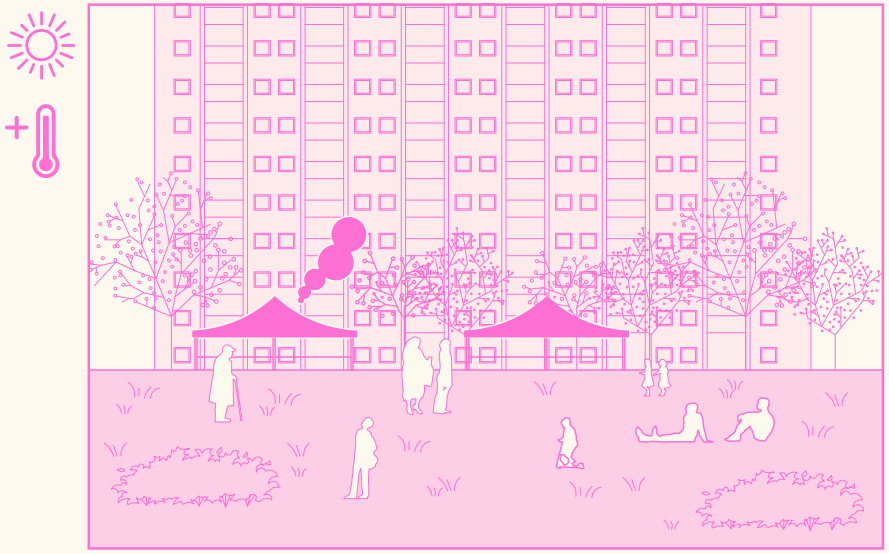
The East York site was characterized by:

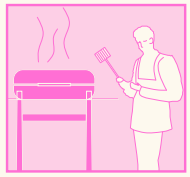
- The building had a much larger outdoor space in comparison to the other sites.
- The outdoor space was used for an annual Summer BBQ organized by the property managers
- Landscapers were hired to plant flowers and maintain planting in the outdoor spaces
- The ground floor lobby had seating, some artwork, and residents enjoy sitting there
- The lobby was used for an annual Christmas party for residents
- Some residents tended to socialize in the laundry room as well

Pain points observed:

- There was no designated games or lounge space in the building
- The upper mezzanin level was underutilized, mainly because there was no seating
- Outdoor spaces were underutilized during the colder months
- Balconies were fenced off for pigeons which does not look visually appealing

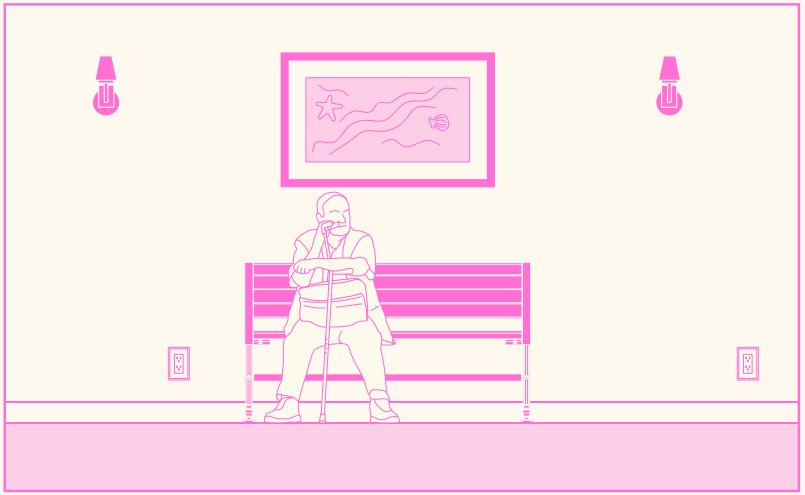
SUCCESSFUL VS. UNSUCCESSFUL SPACES





1 OUTDOOR EVENTS - SUMMER BBQ

Outdoor spaces were activated in the warmer months, and underutilized during colder weather.

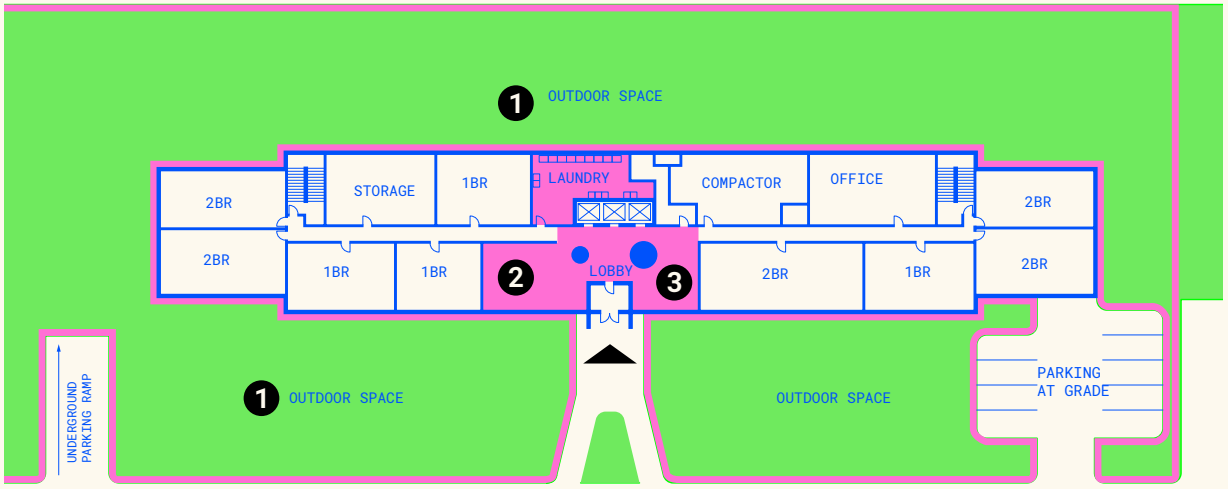


2 LOBBY

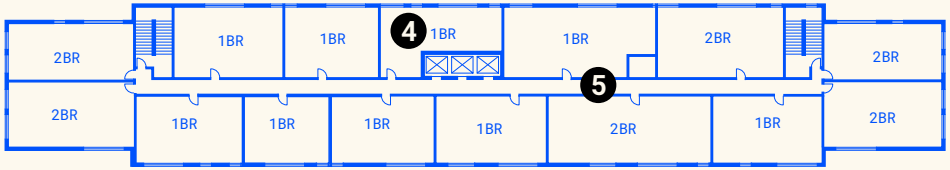
Seating in the lobby was typically where residents like to sit and chat or to wait for their ride to arrive.
The decor of the space is slightly reminescent of a park (i.e. park bench, pine cone decorations, paintings featuring nature and etc.)

Site B : East York

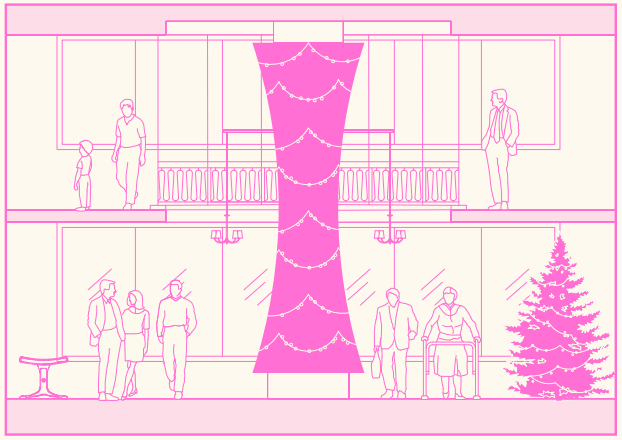
GROUND FLOOR PLAN



TYPICAL UPPER FLOOR PLAN

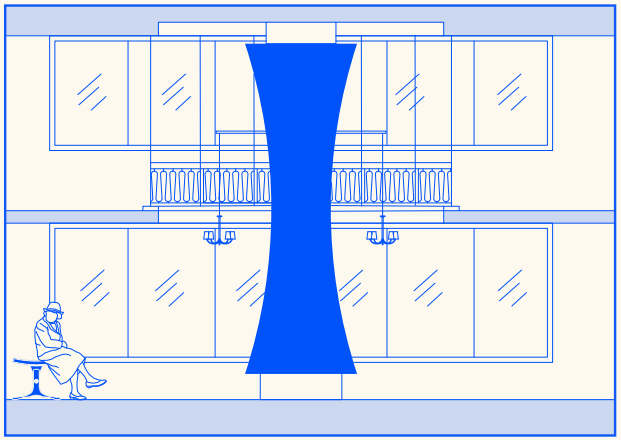


3 LOBBY CHRISTMAS PARTY



The building hosted a holiday party for residents every year. The lobby was the most social during this time.

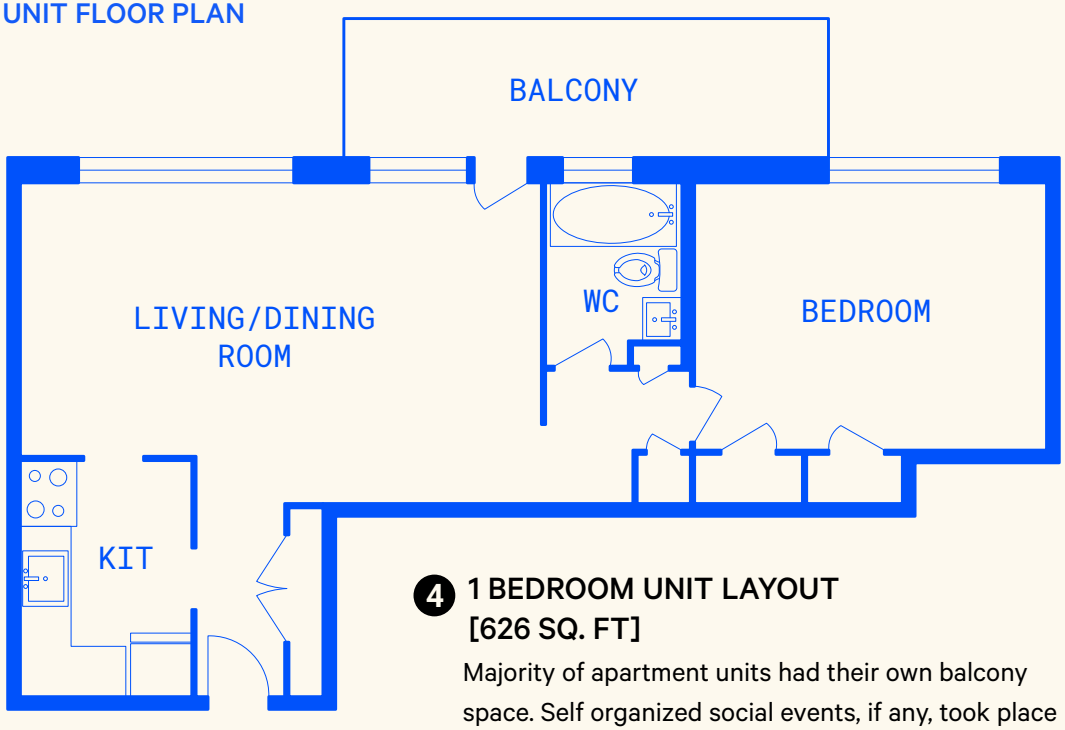
3 LOBBY + UPPER LEVEL MEZZANINE



This area was not only the most spacious and unique, but also the most underutilized due to the lack of seating which discouraged people from hanging out.

Site B : East York

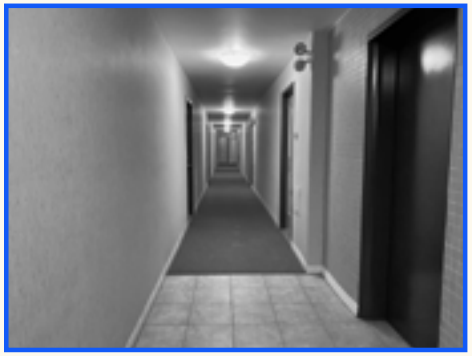
UNIT FLOOR PLAN



4 1 BEDROOM UNIT LAYOUT [626 SQ. FT]

Majority of apartment units had their own balcony space. Self organized social events, if any, took place inside a tenant's unit because they were discouraged from booking off common spaces for events. Each unit had their own mail slot so there was no need to have a common mail room.

5 TYPICAL CORRIDOR



The corridors were generally well lit and the floor was carpeted. However, according to building managers, this apartment was poorly maintained in comparison to others in the area.

3 UPPER LEVEL - OPEN TO BELOW

Tenants were not able to book the lobby space or upper level area and were discouraged from trying to organize gatherings in common spaces.

Site C: Thorncliffe Park

BUILDING STATS

CONSTRUCTION DATE: 1981

TOTAL FLOORS: 7

TYPOLOGY:
MID-ARTICULATED

AVERAGE RENT:
~$950
(RGI = 30% OF INCOME)

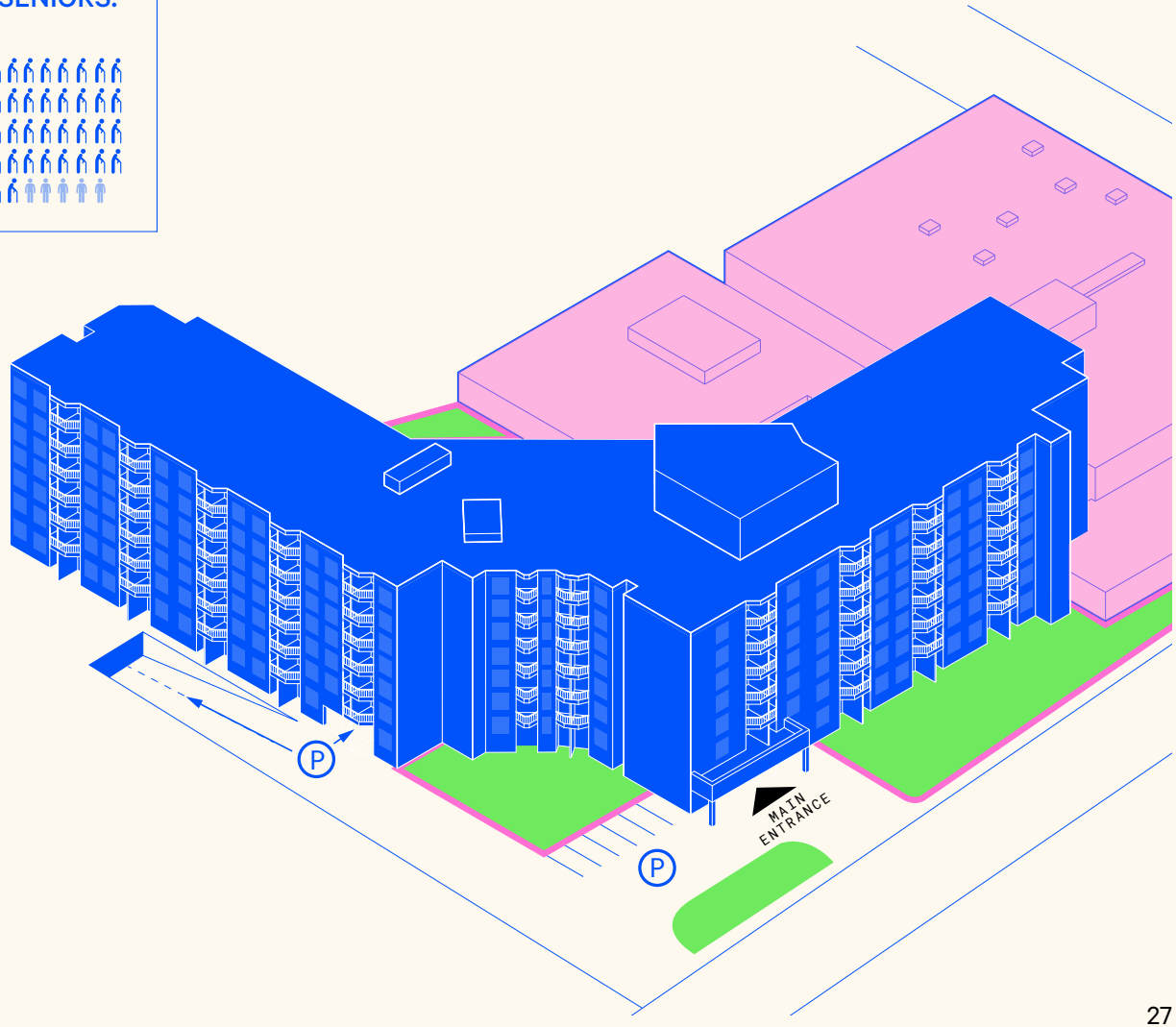
TOTAL SENIORS:
487/542

TOTAL UNITS:
247/247 SENIORS UNITS

 # BACHELOR: 148

 # 1 BEDROOM: 87

 # 2 BEDROOM: 0



Legend

- (P) Parking
- Green Space
- Social Space
- (#) Call-out

Site C: Thorncliffe Park

Key Observations

The Thorncliffe Park site was characterized by:

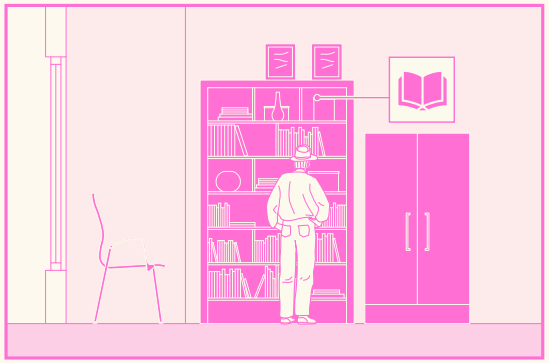
- This building is run by Toronto Community Housing (TCH), which provides subsidized housing based on a a rent-geared-to-income model
- This building contained a variety of social spaces and was also connected to a community centre allowing seniors to easily access amenities such as a library and swimming pool
- Seniors also enjoyed hanging out at a nearby mall
- The building provided classes and events for seniors on a regular basis (i.e. dance and exercise classes)
- There was a spacious lobby with seating and a visible mail area

Pain points: observed:

- On the upper levels, the elevator landing area was underutilized for the amount of space available
- Many residents would not leave their units, usually due to language barriers and mental health or mobility issues

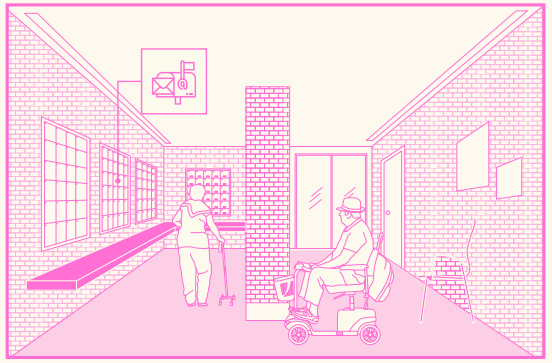
SUCCESSFUL VS. UNSUCCESSFUL SPACES

1 GAMES/READING ROOM



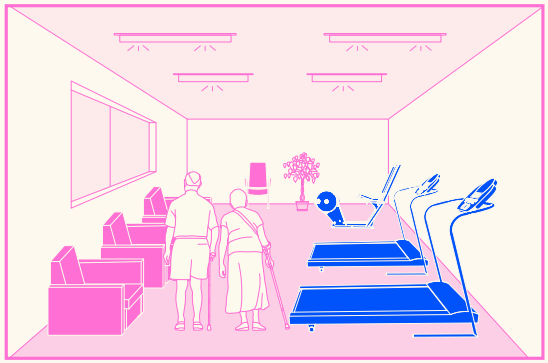
The reading room is space for seniors to engage in quieter activities. The room was fairly small and could only accomodate a small number of people at one time.

2 LOBBY



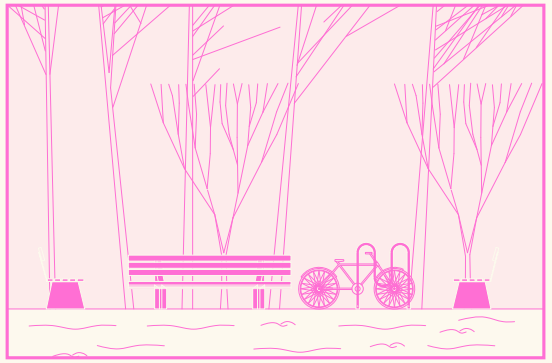
The lobby was observed to be an important social space where seniors greeted each other, interacted with building staff, and got their mail. There were several places to sit along the walls.

3 EXERCISE ROOM



The exercise room was spacious and had a number of exercise machines (i.e. treadmills and stationary bikes) as well as seating. The gym equipment may be difficult for a senior with mobility issues to use.

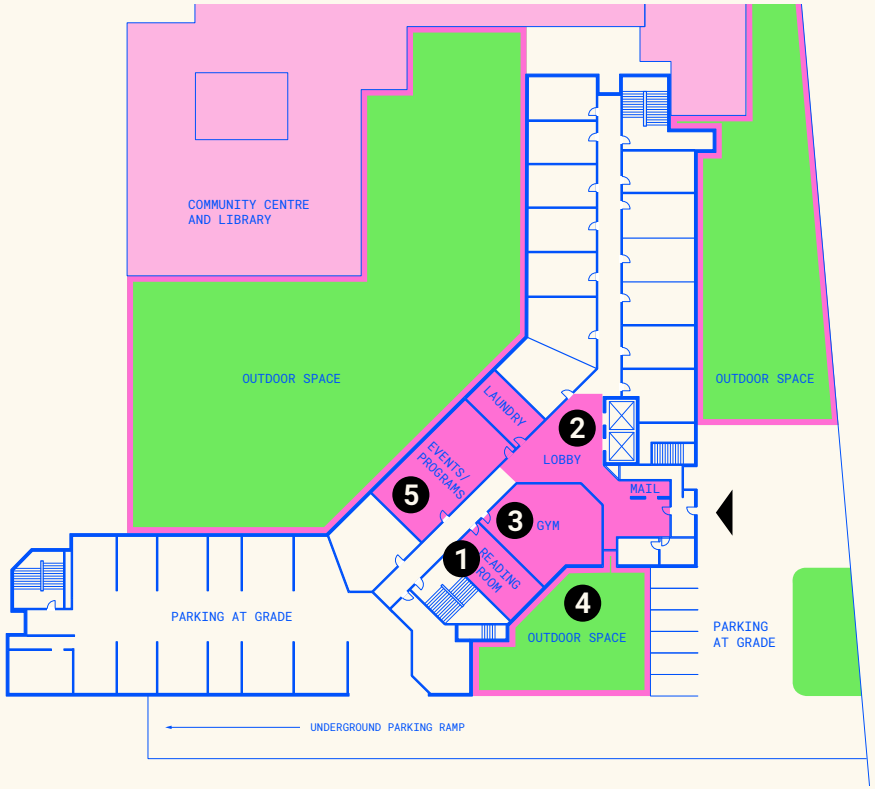
4 OUTDOOR SPACE



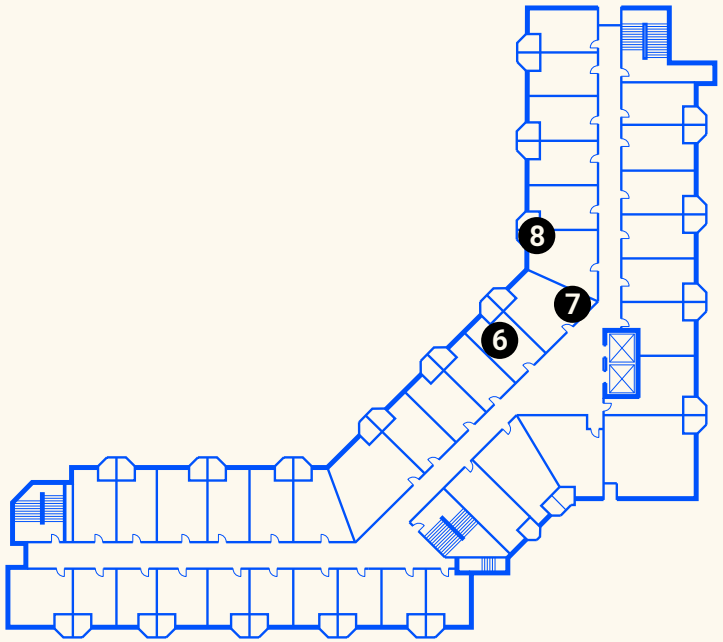
There was a courtyard and smaller outdoor space which had trees, plants, and benches for seating. This space appeared to be underutilized during colder months of the year, but offers a place for seniors to hang out in warmer weather.

Site C: Thorncliffe Park

GROUND FLOOR PLAN



TYPICAL UPPER FLOOR PLAN



5 ACTIVITY ROOM

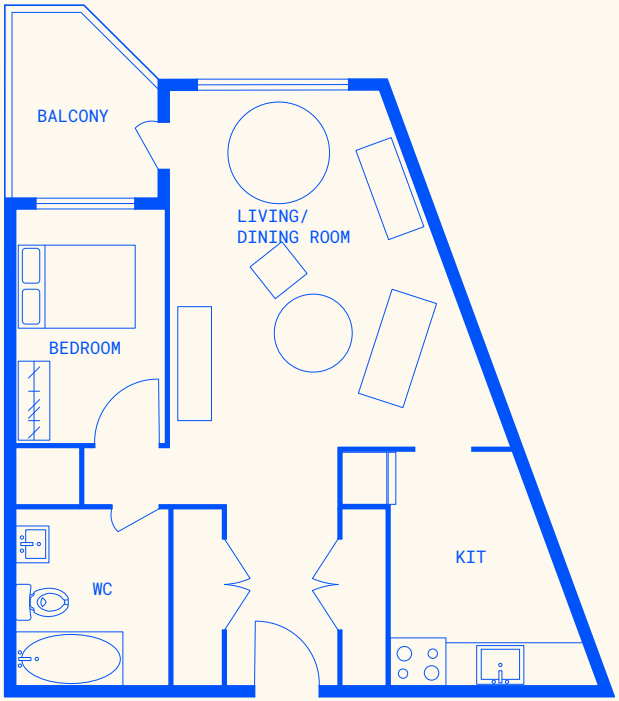
Nearly every day of the week, the building provided programs for seniors to socialize such as group exercise classes, bingo, cooking, and music related activites. Seniors could also use this room for more casual activities such as watching tv together.

6 CORRIDOR

The corridor was similar to the other building sites in terms of narrowness and being dully painted.

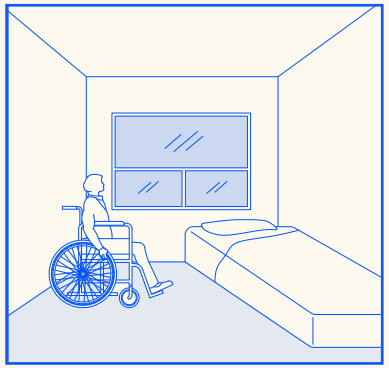
Site C: Thorncliffe Park

UNIT FLOOR PLAN



8 UNIT INTERIOR

8 MANY SENIORS DO NOT LEAVE THEIR APARTMENTS



Residents and building staff expressed the need for more programming that is appropriate for various health levels (i.e. mental health, bed-bound, walker-bound, etc.) and more culturally appropriate activites.

LANGUAGE BARRIER

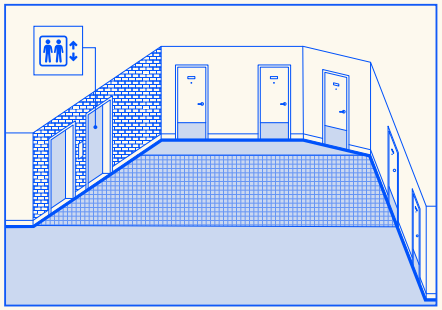
MENTAL HEALTH

MOBILITY ISSUES

8 1 BEDROOM UNIT LAYOUT [550 SQ. FT]

Apartment units were spacious with a generous amount of storage space as well. Tenants could customize and personalize their space to make it their own. Most units had their own balconies.

7 UNDERUTILIZED ELEVATOR LANDING SPACE



The elevator landing space was observed to be underutilized given its size and residents felt that there could be more opportunities for spaces like this to be animated with seating, greenery, and art.

Illustrated Literature Review

Methodology

In order to better understand how to address the issue of social isolation, a literature review was performed to generate a list of evidence-based design features that can be used when retrofitting existing high-rises to create more welcoming social spaces, increase social interactions, and reduce social isolation.

The design features that promoted sociability found in the literature range from features relevant to new buildings to features that can be easily implemented in a retro-fit of an existing building. From these features, 4 key themes emerged:

PERSONALIZATION

The ability to personalize and customize a space was noted to be an important design feature not only for encouraging socialization but to help seniors create the sense of “home” and belonging.

SOCIAL SPACES

Based on the literature review, there were a number of specifically programmed spaces that could be added to an existing building to better facilitate social interaction amongst seniors.

ACCESSIBILITY

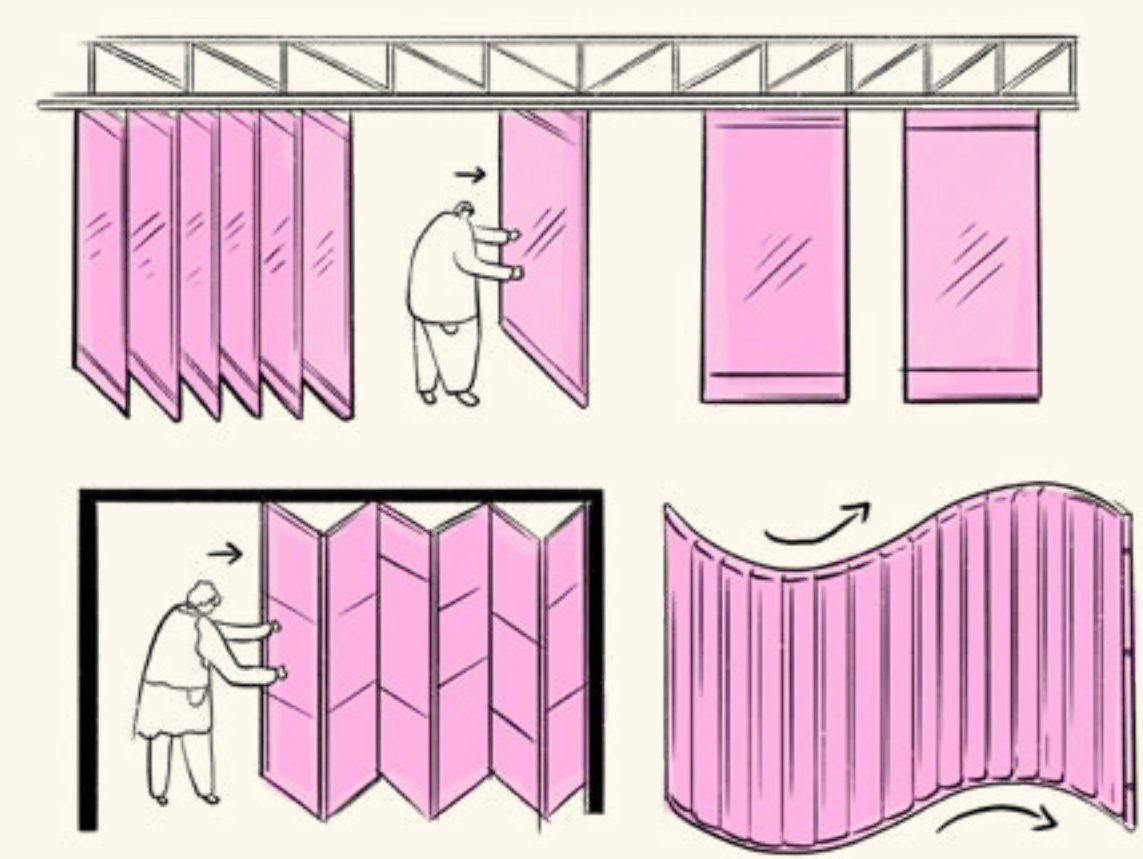
When designing for seniors, it was important to consider various levels of mobility which appeared to be a major barrier for utilizing certain spaces in a building. Creating more accessible spaces would encourage seniors to explore their surroundings and be more engaged with the community.

EMOTION + COGNITION

These are design features which can be used to manage negatives feelings associated with social isolation or methods of creating more uplifting and “happy” environments through design.

A Moveable Partitions

In both personal and social spaces, one feature highlighted as important by residents is the ability to make the space bigger or smaller by having movable walls.[10-14] In personal spaces, this feature is more applicable for families with young kids, as it enables the space to grow with the family; however, for seniors, having movable walls in social spaces allows the space to be used for multiple activities in parallel.[13,14] Furthermore, controlling the size of a social space enables residents to adjust the space for the size of a crowd. This is a key feature as a space that is too crowded will make residents feel like their personal space is being violated, an experience that often deters residents from participating in social activities.[10,11,14–20] On the contrary, in small groups one person not attending can make-or-break a social event. Thus, being able to make a space smaller can help abate feelings of disengagement that may be pervasive in small groups.[9–14, 21]



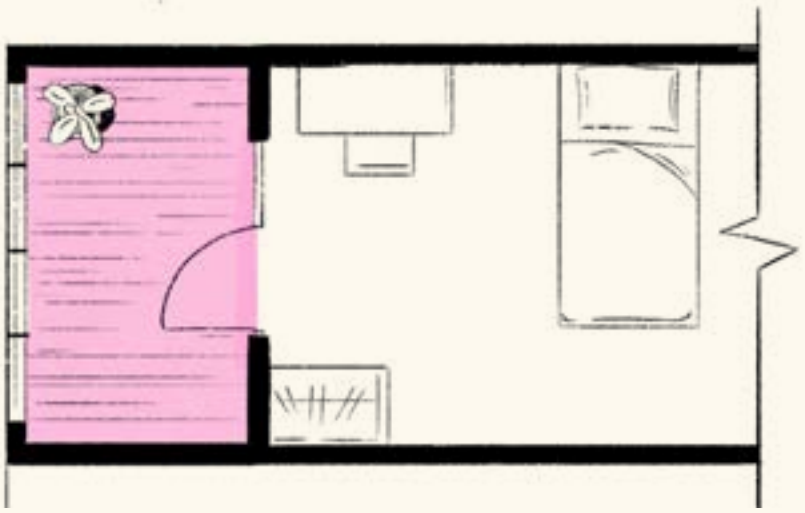
B Balconies And All Weather Enclosures

Balconies are important semi-private spaces where a resident can commune with nature or with chosen guests.[31] Furthermore, it is an outward facing space that residents can decorate as an expression of their own identity, akin to a front yard.[31] These two facts are important in understanding the significance of balconies as they simultaneously demonstrate that balconies are a space of mental reprieve but also of belonging where residents have an opportunity to express themselves.[31, 32] It is important to note that according to the literature, residents place significance in private balconies, but see shared balconies as less favourable.[32]

In order for seniors to remain active and engage in activities, structures and services need to adapt to climate and extreme weather.[33] This is true at both the neighbourhood and building level. As it pertains to a building, this could include having semi-enclosed shelters in courtyards or covered gazebos where residents can stand and enjoy nature in the event that it is raining or snowing.[11,33]

block out city noises

thermal barrier

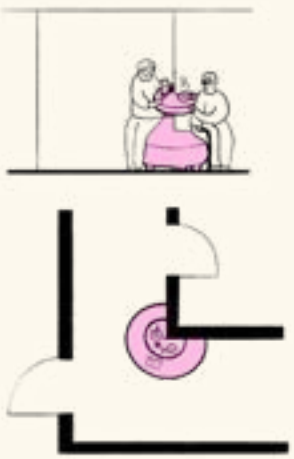


C Seating Near Doorways And In Hallways

Doorways have been shown to be key areas for random encounters in buildings.[27,28] These are known as threshold spaces, which often define the intersection of two different parts of a living quarter (i.e. from the home to the hallway, from the lobby to the outside community, etc.).[27–29] In these threshold spaces, it is not uncommon for residents to bump into each other and interact, thus they can be strategic areas for the placement of chairs where residents can sit and chat.[27,28,30]

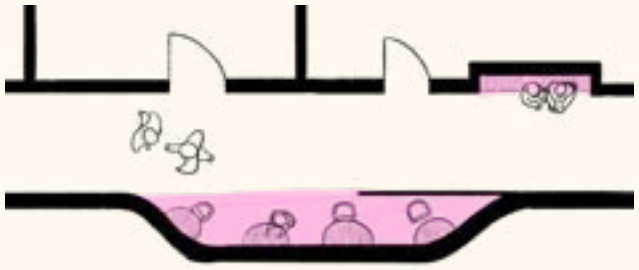
In addition to creating these alcoves throughout a building, simply providing seating in hallways can create areas where random social interactions can also occur.[11,35] In addition to seating, it is suggested in the literature that having tables and art or other activities in hallways will further encourage social interaction, creating spaces known as “social corridors”.[11,35]

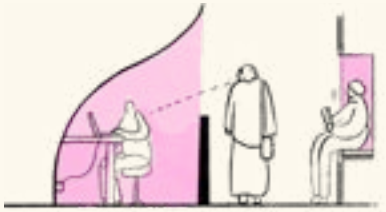
Standing sofa



3/4 Table

Reading nook



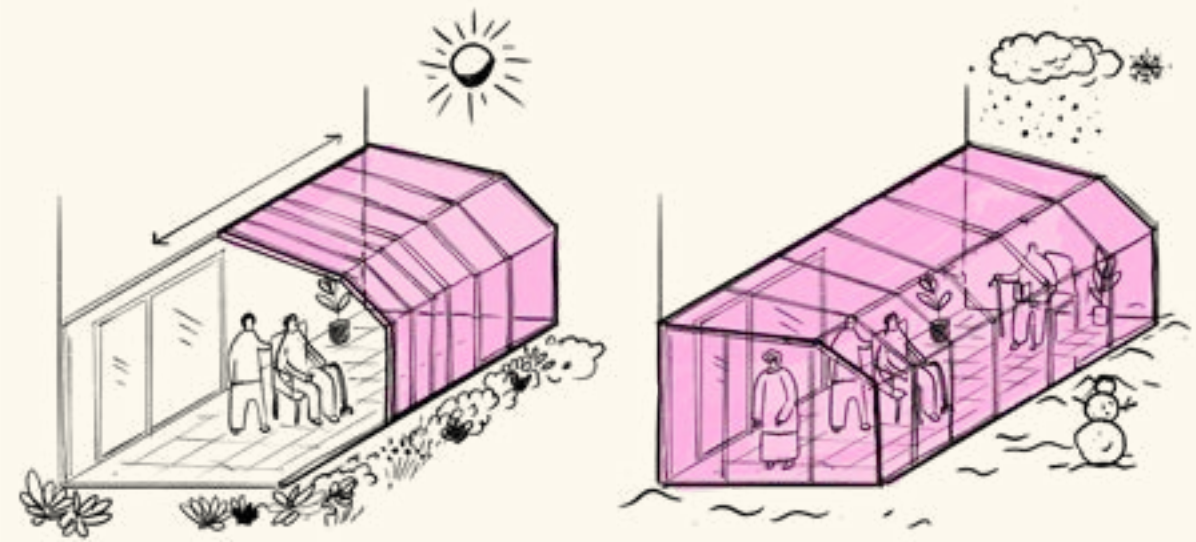


D Outdoor Spaces That Adapt To Seasons

Creating outdoor social spaces is a simple but effective way to stimulate random social encounters, as it builds off of residents natural inclination to commune with nature.[35] In particular, placing social spaces at the end of a walkway or wherever an external walkway has a deadend is an effective way to not only maximize space, but build an outdoor, semi-private space for socializing.[36]

In addition to promoting social interactions among residents, having outdoor social spaces at the end of a walkway can also invite members of the surrounding community to sit and interact with residents, enabling them to expand their social circle beyond those who live in the same building.[9,11,14,25,27]

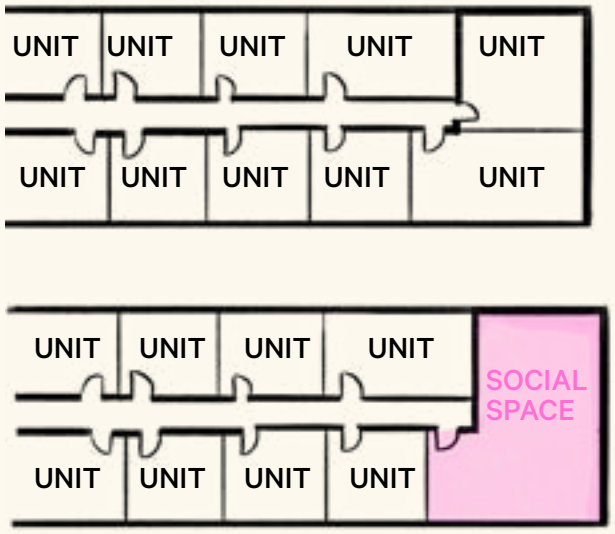
Although the literature discusses greenspace as a place where residents can get to know each other, it should be noted that even if residents don't have increased social contacts, simply being in green spaces causes residents to perceive that they have better social lives.[23] Though this initial study was published in 1980, studies published in 2019 demonstrate that greenspace does promote social cohesion.[37]



E End Of Hallway Social Spaces

Social spaces in buildings often go underused because of where they are placed—green spaces and party rooms on roofs are out of the line of sight of most residents, thus they go unnoticed and unused.[10,17]

According to Hassan et al, one strategy for overcoming this lack of use is to place social spaces along the path of movement or near threshold spaces where residents are more likely to see them, such as near stairwells or elevators.[24] Having these informal social spaces scattered throughout a building are important as they offer residents a respite from walking and enable them to randomly encounter and interact with neighbours who are also travelling to another destination.[15,24,38]



F Multipurpose Space

Spaces that offer shared activities enable residents to casually interact while also providing context for the interaction, which is a key facilitator in relationship forming.[32,40] This serves as an excellent space for random social encounters for residents with similar interests.[32,40]

Art Therapy

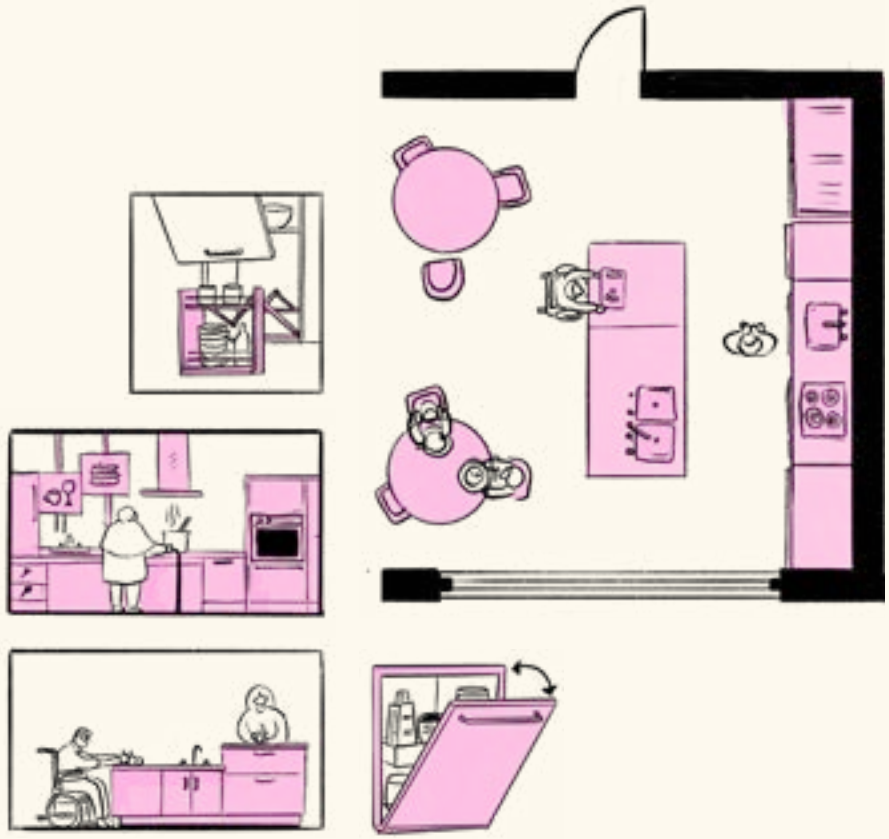
Card Games

Potlucks

Social Spaces

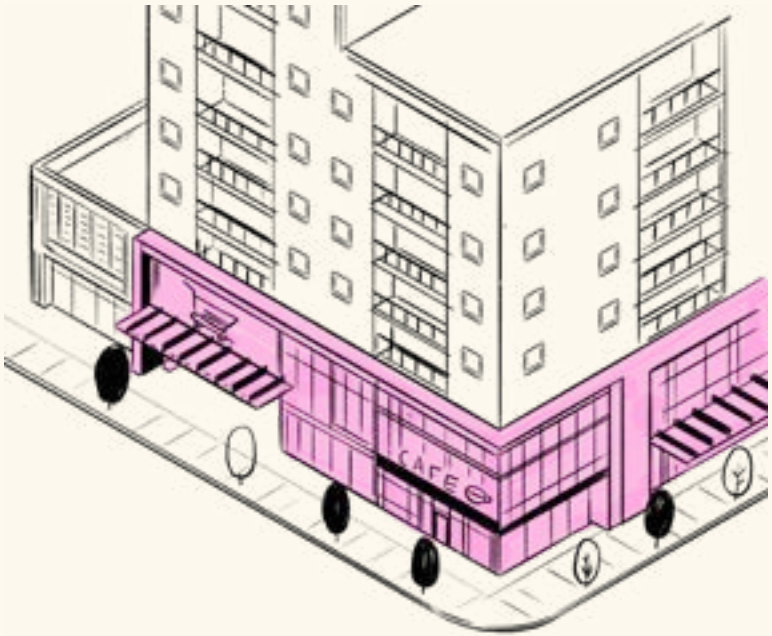
G Communal Cooking

Spaces that have sitting and dining areas allow residents to congregate for communal meals, which can be regular forms of socializing.[15] Although time and resource intensive, food is often a great excuse for random social interactions as sharing a meal is invariably something that everyone has in common.[15]



H Base Level Commercial

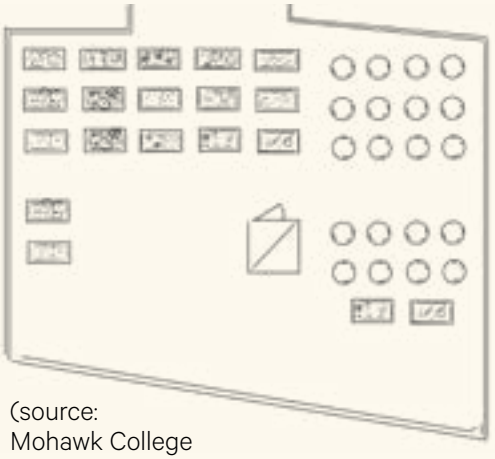
Having commercial space in the base of a building is not only good for socialization among residents, but also for socialization between residents and the community at large.[21,23,33,39,41] This enables residents to expand their social networks and helps bring them into external social spaces.[23,30,33,34,39]



Social Spaces

I Community Garden

Buildings with activities such as community gardens often generate other tenant driven initiatives, such as cooking classes.[13,37] It should be noted that community gardens in particular are seen favourably among senior residents.[25]

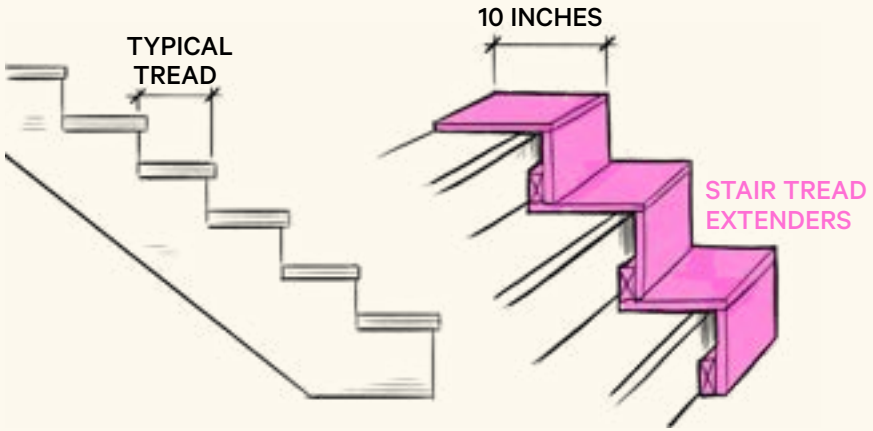


(source:
Mohawk College
Community Garden)

Accessibility

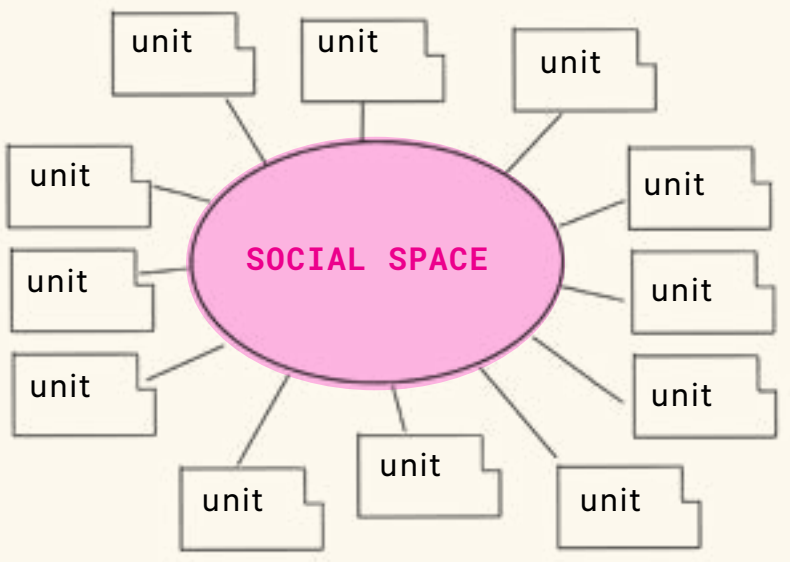
J Longer Tread Stairs

As individuals age, a major concern is the risk of falling as this can have many major health implications for seniors. In buildings, stairs are a target area insofar as reducing fall risk is concerned.[24] One of the reasons that seniors often slip and fall on stairs is because of the tread length; however, this can be abated simply by increasing the tread length of stairs to 10 inches.[24]



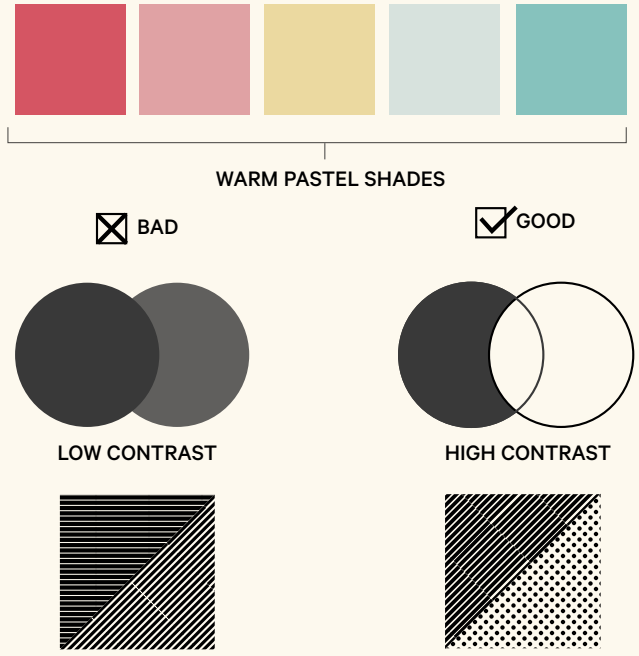
K Decrease Distance To Social Space And Cluster For 8-12 Units

According to Loring et al, as the distance to a social space increases, the number of friends and social interaction decreases.[35] Thus, in order to maximize social interactions it is important to design social spaces that are relatively equidistant to units.[24,35] A strategy for overcoming this barrier is to consider apartments in clusters of 8-12 units.[20] By planning social spaces for these clusters, not only will you optimize distance, but you also create micro-communities that are often closer, more intimate, and more likely to flourish.[9,11,25,31,39]



L Colour + High Contrast Design

Having a colour that evokes the appropriate emotion in a given space is key in ensuring that a space is used for the intended design.[15,25] It is also important to consider the changes in vision that alter a seniors ability to perceive colour.[15] In general, it is important to use high-saturation colours to ensure that the true colour is perceived through aging eyes.[15,25] Additionally, seniors usually find warm pastel colours comforting; however, Ivy et al emphasizes that this is not always the case and it is important to ask the seniors in a given building what they prefer.[15,18,28,42] By using the right colours in social spaces, it will attract residents to spend more time there.

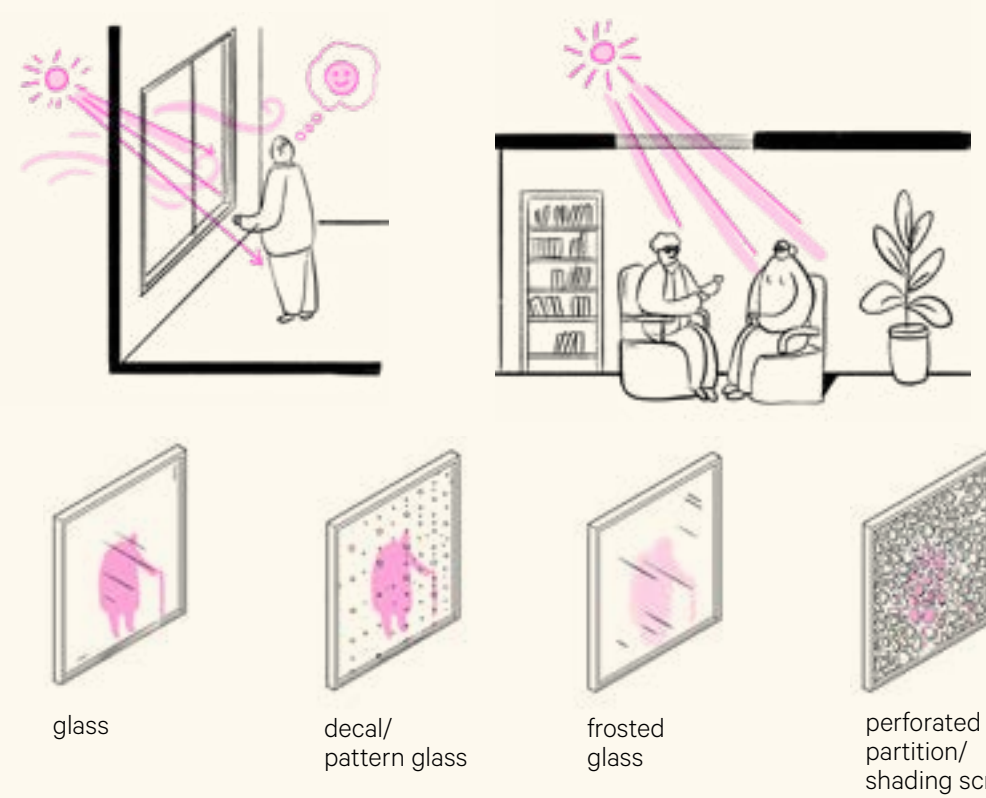


M Large Windows With Varied Light

Mental stress and sociability are inversely proportional: as you reduce stress, residents are more likely to want to socialize.[12,22] Windows play a large role in reducing stress and promoting mental well-being in building residents.[15] Not only does daylight have a strong positive effect on the psychological wellbeing of a resident, but fresh air and views of nature have also been shown to affect this as well.[15]

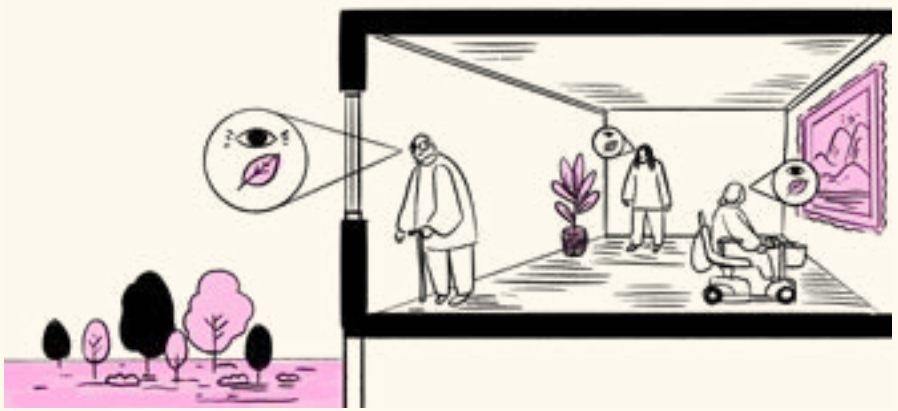
Considering the impact that nature and large windows have on stress, it can be said that if common areas have windows and access to nature, then it's more likely that residents will choose to relax in common spaces. As residents spend more time in common areas, there is a higher likelihood that random social interactions can occur, which may develop into meaningful relationships with neighbours.[11,15,25]

In addition to windows, overhead lighting can be used to create visual interest and make social spaces more appealing. By using pools of light instead of uniform overhead lighting, visual depth is created making spaces more interesting and appealing to residents.[25] It should be noted though that features that affect the senses should be monitored carefully as our senses change as we age, thus what may appear to be visually stimulating to some may actually be quite deterring for a senior with age-related vision problems.[26]



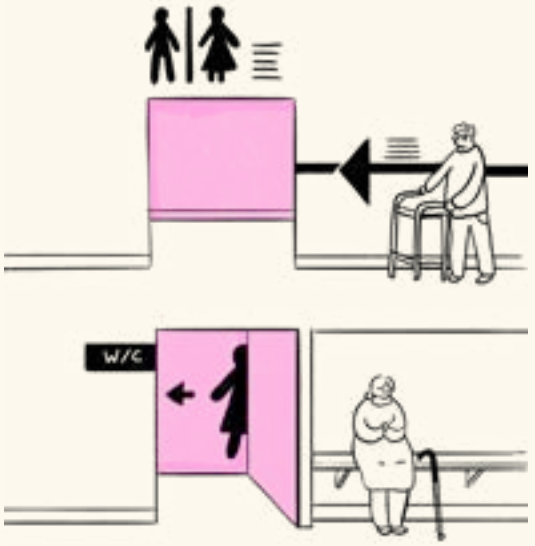
N Access To Real And Artificial Green Space

Greenspace is important in reducing mental stress and improving mood, as stated above.[10] In areas where there is no greenspace, it has been shown that access to artificial greenspace, whether digital or through art, has a similar stress reducing effect.[34]



O Increase Washroom Count In Common Areas

Frequent urination is often a barrier for seniors to participating in public social events. For seniors that experience this, it is important to know where washrooms are and to be able to easily navigate to them.[33] Some strategies to abate these concerns include having clear signage for washrooms in social spaces, ensuring that the path to washrooms are unobstructed, and publishing the location of washrooms in a place where seniors can access that information.[33]



P Incorporate Therapeutic Elements And Materials In Common Spaces

Incorporating natural building materials in space design creates a feeling of being in nature and simulates the same positive aspects as being in a garden.[21] In addition to natural materials, there are specific naturescapes that are considered 'therapeutic landscapes' and have been shown to have a positive effect on mental stress, such as mountains, gardens, water, and parks.[34] Additionally, images of pets and children have been shown to have a therapeutic effect and attract individuals.[34] By utilizing these landscapes in common areas with seating, it is likely to attract residents to common spaces, thus promoting random social encounters.[15,21,24,34]

NATURAL BUILDING MATERIALS

THERAPEUTIC LANDSCAPES

PETS AND CHILDREN

Q Art In Hallways

Art in public spaces gives people the ability to experience complex emotions through observation and self reflection while sharing that experience with others.[15] According to the literature, this improves wellbeing and gives people a sense of belonging.[15] The presence of art is humanizing and having art in hallways and other public spaces creates a feeling of homeiness in public areas, making them more attractive for residents.[25]

R Reduce Noise

Noise is a deterrent to sitting and interacting in a given space.[15] It increases stress and causes mental exhaustion, decreasing someone's willingness to be social.[11,15,43] Noise in social spaces should be kept to a minimum to attract those who are sensitive to noise and, where applicable, architecture solutions to reduce noise should be implemented.

S Tactile Design

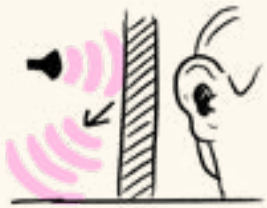
As we age, our sensory receptors change shape and our ability to perceive the world through multiple dimensions diminishes.[26] As such, architecture and interior design can be adapted to compensate for the loss in eyesight, hearing, touch, smell, and perhaps even taste to create a more comfortable living environment that enables seniors to interact in spaces beyond their apartment.[26] Some considerations, broken down by sense, are outlined in the figures to the right.

Appealing to these diminished senses will not only help seniors feel more welcome, but they have even been shown to have a therapeutic effect.[25] Thus, considering these sensory changes will have a net positive effect on the willingness of a senior to utilize a public or shared space.

Sight: full-spectrum lighting, surface articulation, furniture layout psychology, biodynamic illumination, period light intensity, sensor-responsive light-emitting handrails, colour contrast, and articulation

Smell: ODE, a fragrance-release system that emits food smells three times a day, smart wall and ceiling finishes that have photo-catalytic effects, absorbing confounding noxious smells, and scent emitters

Taste: having visual reminders of food helps combat the decrease in appetite associated with aging, such as see through walls/cut outs that create a visual sightline into a kitchen or shared/common eating spaces



Sound: white/pink noise, noise-cancellation speaker induction loops, and new sound absorbing fabrics finishes

Touch: Varied, contrasting, and richly articulated fabrics and finishes

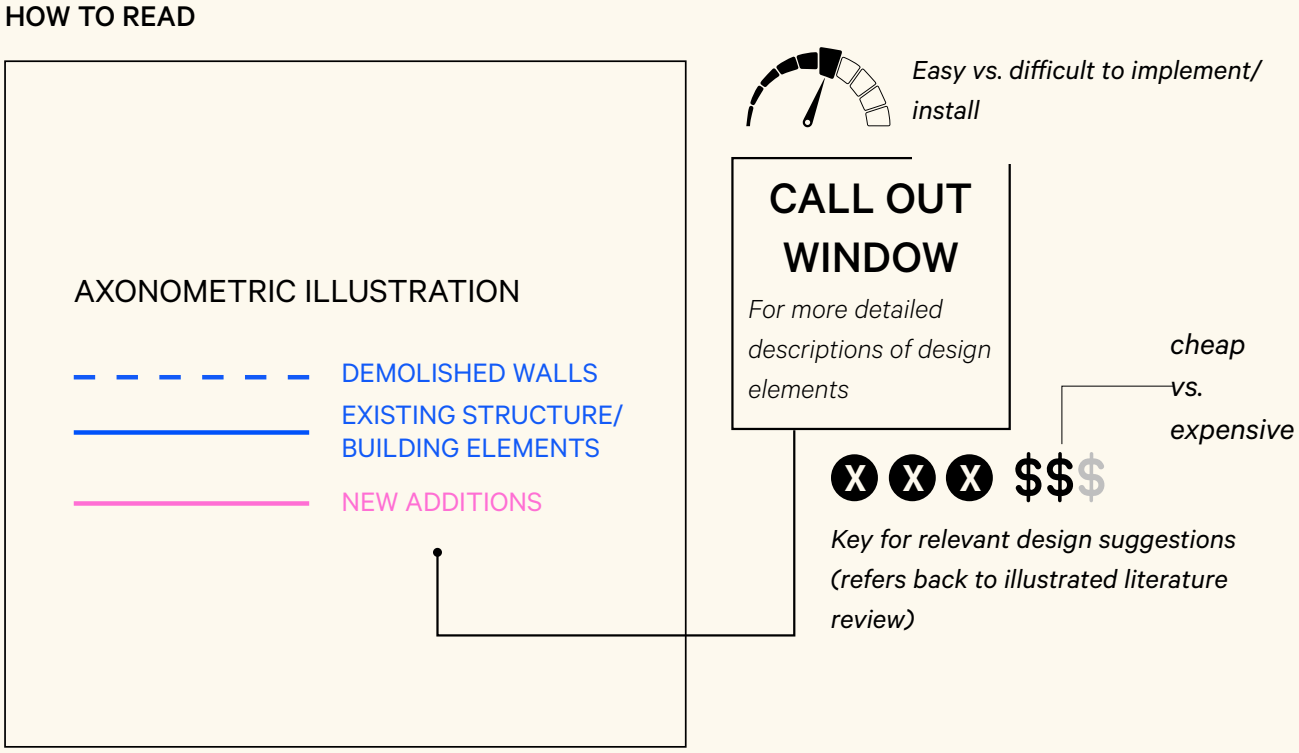
Imagined Configurations

Methodology

In order to further expand on some of the ideas mentioned in the illustrated literature review, this section imagines a selection of spaces within a generic NORC and how they could be designed to better facilitate social interaction amongst seniors. The selection of these spaces were based on evidence-based findings from the literature review as well as pain points observed during in-person site visits of Toronto apartments.

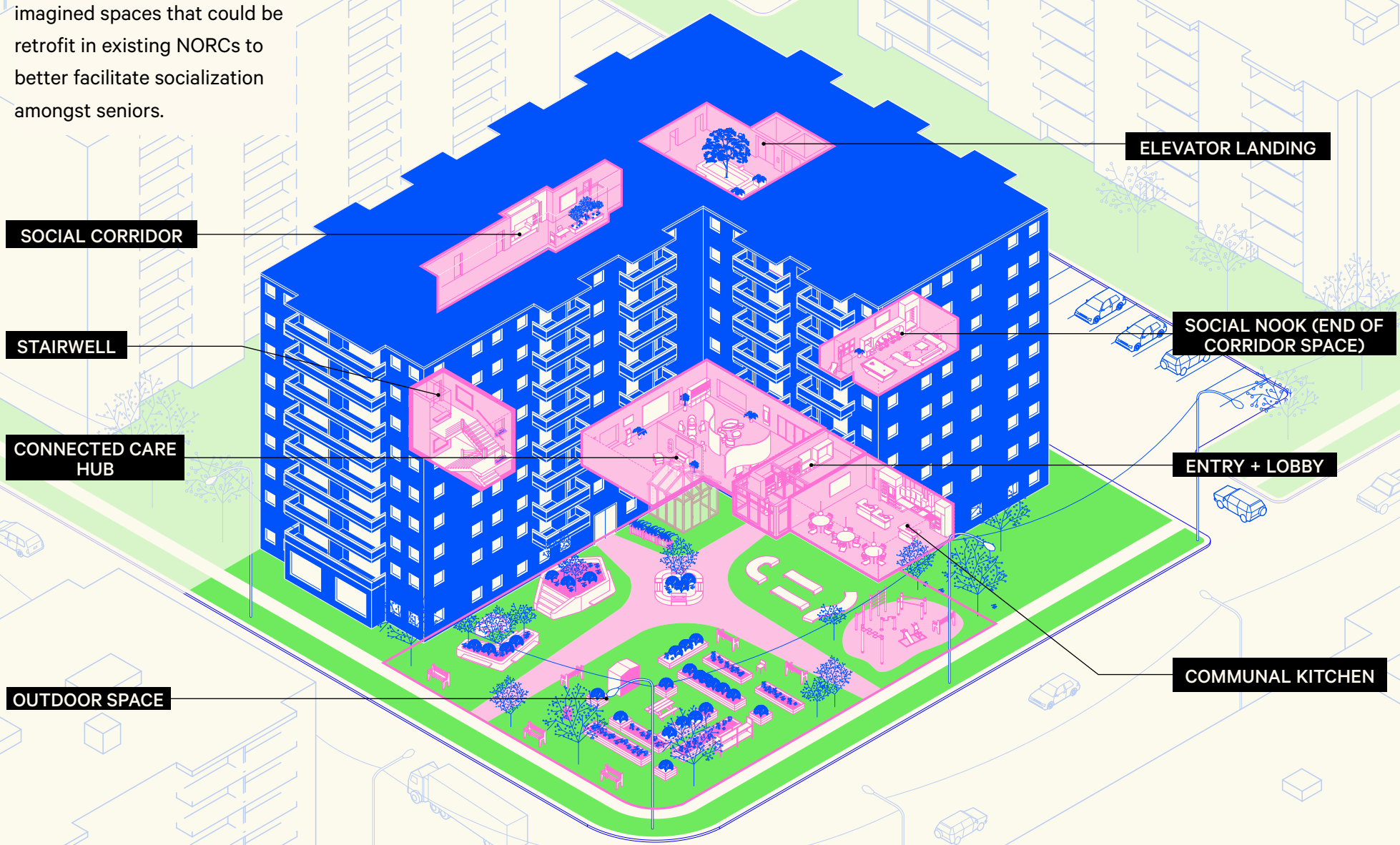
The 8 spaces illustrated include:

- OUTDOOR SPACE
- ENTRY + LOBBY
- COMMUNAL KITCHEN
- COMMUNITY HEALTH HUB: LOUNGE + VIRTUAL CLINIC
- SOCIAL CORRIDOR
- ELEVATOR LANDING SPACE
- SOCIAL NOOK (END OF CORRIDOR SPACE)
- STAIRWELL



Overall Building

This diagram highlights the imagined spaces that could be retrofit in existing NORCs to better facilitate socialization amongst seniors.

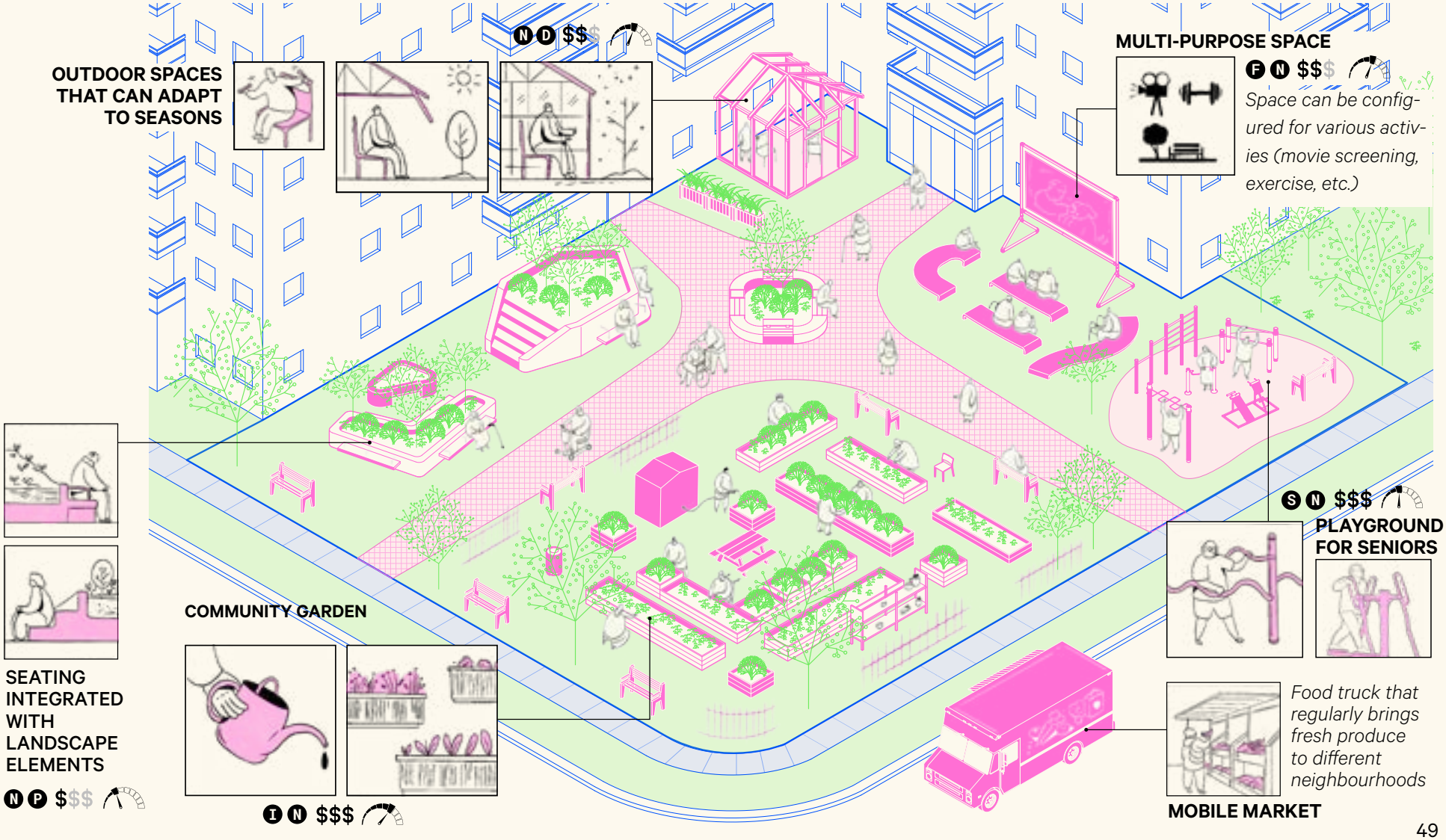


Outdoor Space

From the previous phases of research, access to nature is an important feature for both physical and mental well being. Based on the sites visited, as well as observations made during the general building audit, many of these outdoor spaces appear to be underutilized.

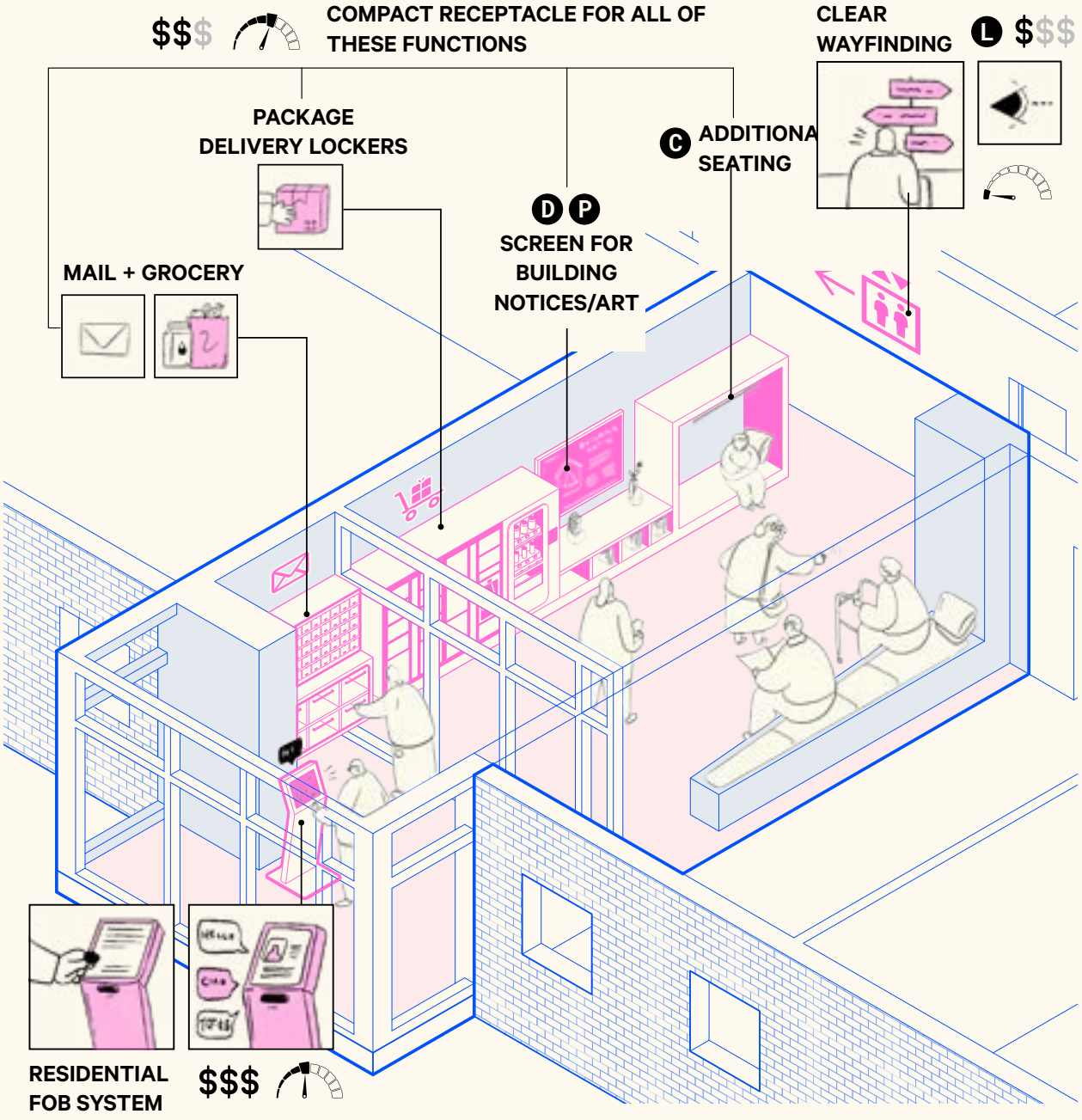
Outdoor spaces should include a combination of flexible unprogrammed space for various scales of gatherings to take place, but there are also specific programmed spaces, such as playgrounds and community gardens, which are effective for promoting socialization amongst seniors.

Enclosures that can adapt to different seasons would also be useful in a city such as Toronto.



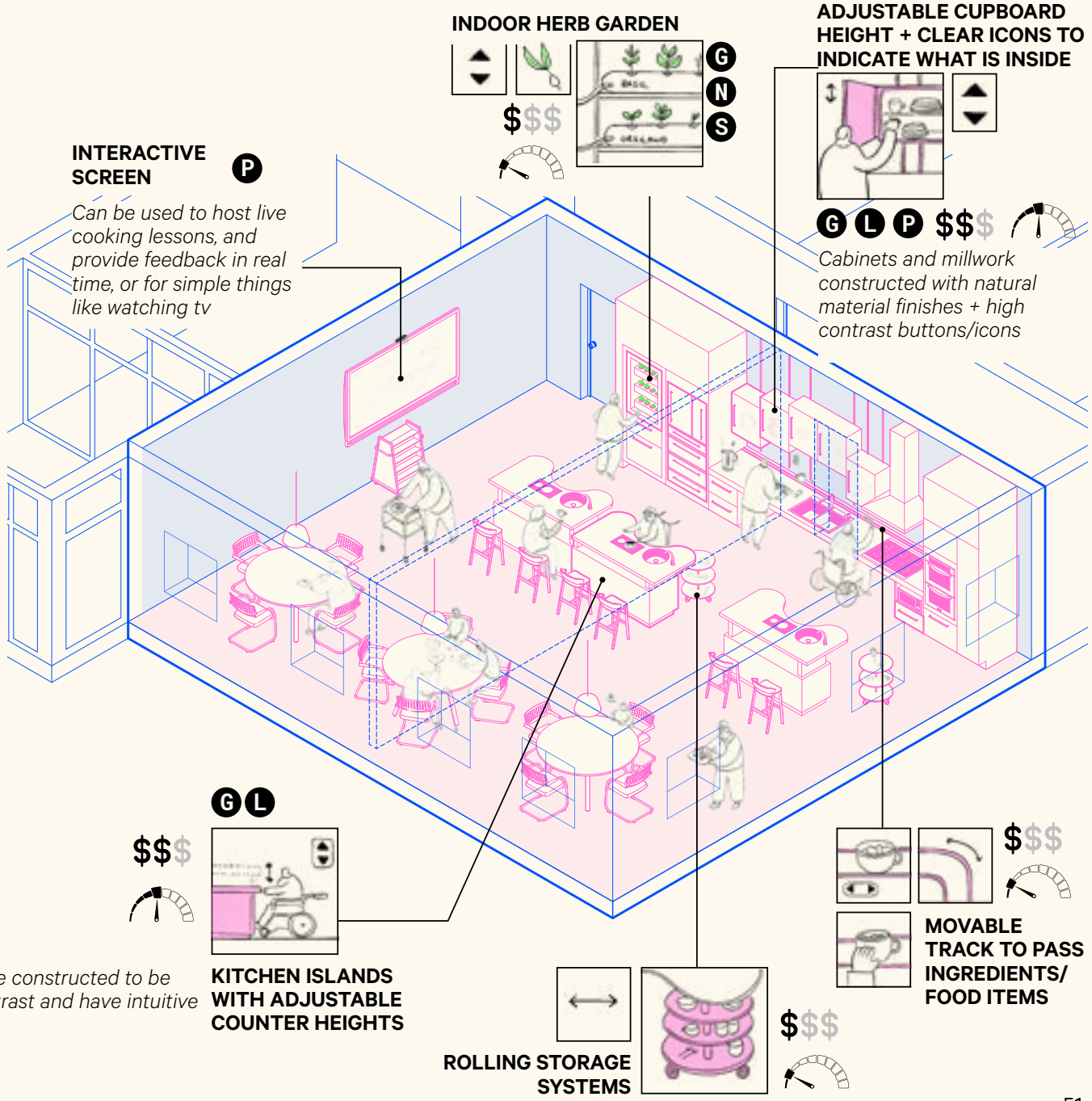
Entry + Lobby

This scheme was modelled based on the scale and quality of space observed in Site A: South Parkdale in PART II. Entrances could be improved by introducing a digital assistant that would greet tenants upon entry and notify them of any mail or packages available for pickup. An efficient receptacle could be designed to house easily accessible mail, package, and grocery deliveries, as well as more places for seniors to sit.



Communal Kitchen

Based on the literature review, a communal kitchen was identified as a recommended social space for senior social interaction. The goal of this diagram is to show how 2 apartment units could be converted into a communal kitchen and the ways it could be outfitted to be more accessible for seniors, focussing on mobility and ways to make the space more flexible and able to cater to different needs.

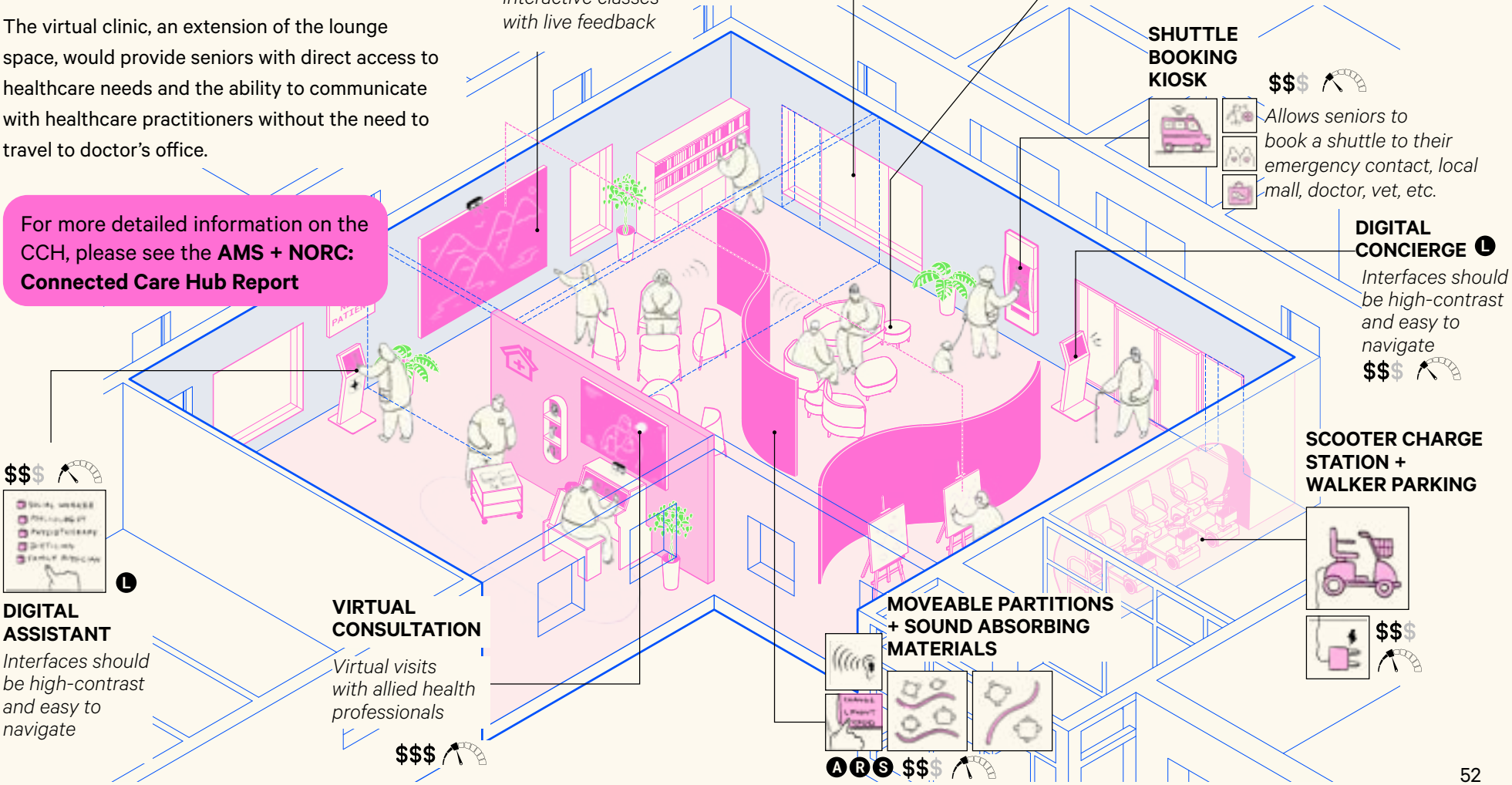


Connected Care Hub

The Connected Care Hub is a designated social space which many NORCs in Toronto do not have. However, a lounge would provide multi-purpose space for many different types of gatherings to occur as well as house a number of services that influence the health and wellbeing of senior tenants.

The virtual clinic, an extension of the lounge space, would provide seniors with direct access to healthcare needs and the ability to communicate with healthcare practitioners without the need to travel to doctor's office.

For more detailed information on the CCH, please see the **AMS + NORC: Connected Care Hub Report**



MULTIPURPOSE + INTERACTIVE SCREEN
Can be used to project artwork created by seniors, soothing images, or interactive classes with live feedback
P N F

VISUAL ACCESS FROM OTHER SPACES
S $$$

FLEXIBILE SEATING
F $$$
Seating that can easily be moved around and configured for various activities and group sizes

SHUTTLE BOOKING KIOSK
$$$
Allows seniors to book a shuttle to their emergency contact, local mall, doctor, vet, etc.

DIGITAL CONCIERGE L
Interfaces should be high-contrast and easy to navigate
$$$

SCOOTER CHARGE STATION + WALKER PARKING
$$$

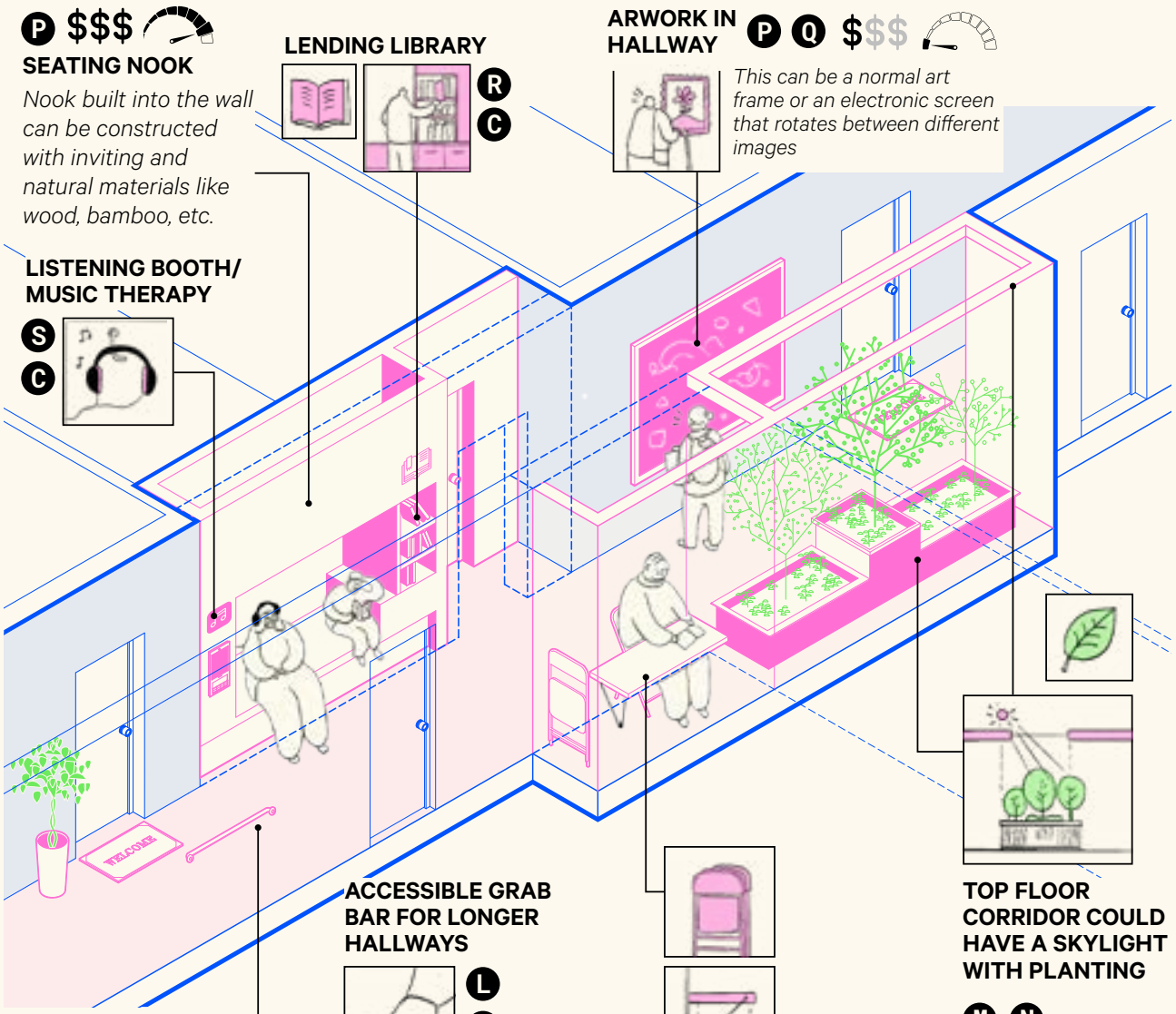
DIGITAL ASSISTANT
$$$ L
Interfaces should be high-contrast and easy to navigate

VIRTUAL CONSULTATION
Virtual visits with allied health professionals
$$$

MOVEABLE PARTITIONS + SOUND ABSORBING MATERIALS
A R S $$$

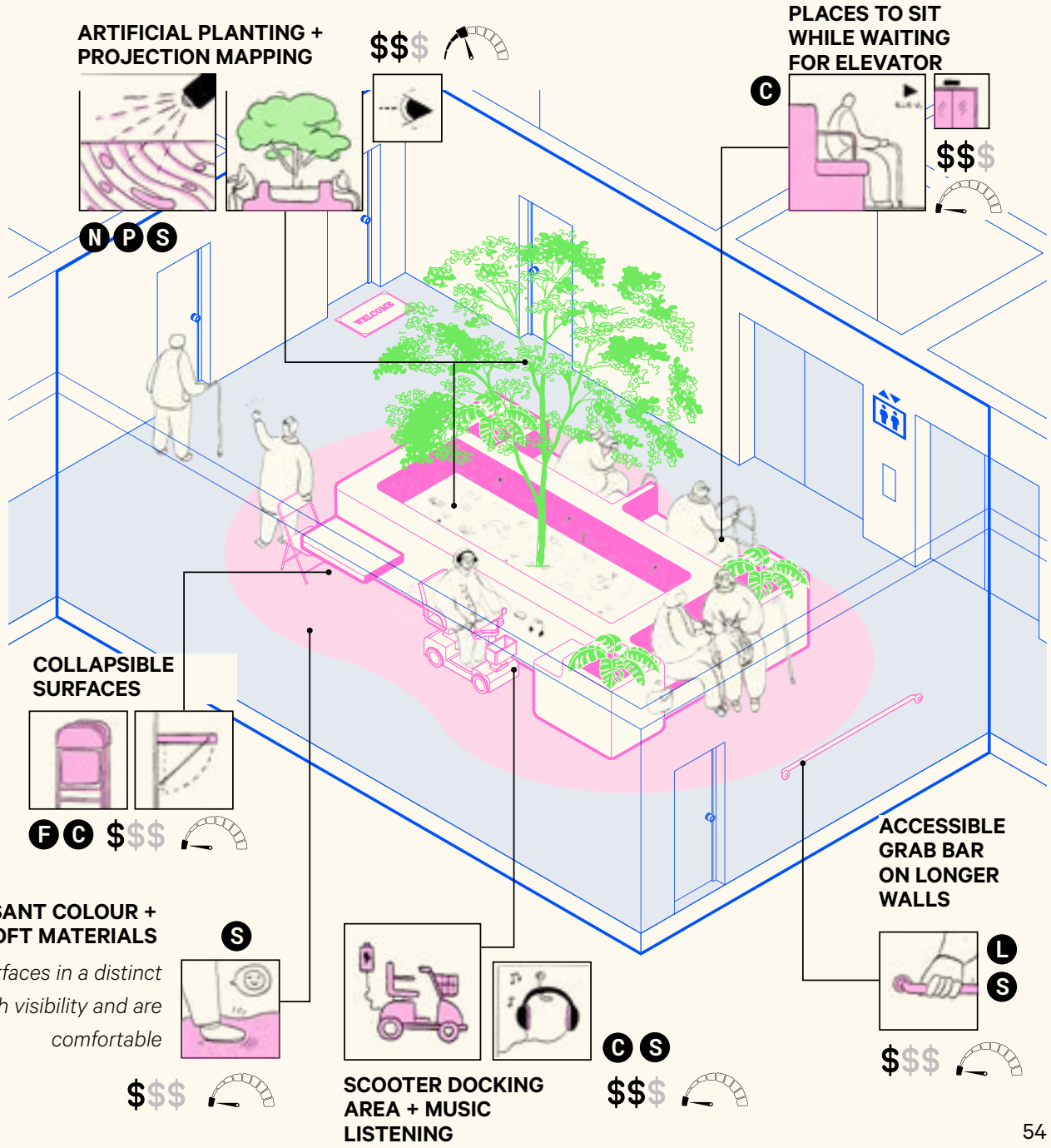
Social Corridor

Corridors are an essential circulation space that connects a tenant to their unit. In many buildings, corridors are not likely to be used for socializing and many would be considered unpleasant to hangout in for long periods of time. Strategies to make corridors more social could be to provide seating nooks and flexible gathering spaces for casual encounters and conversation. Corridors are often overlooked for their potential to become active spaces for interaction and getting to know one's neighbours.



Elevator Landing Space

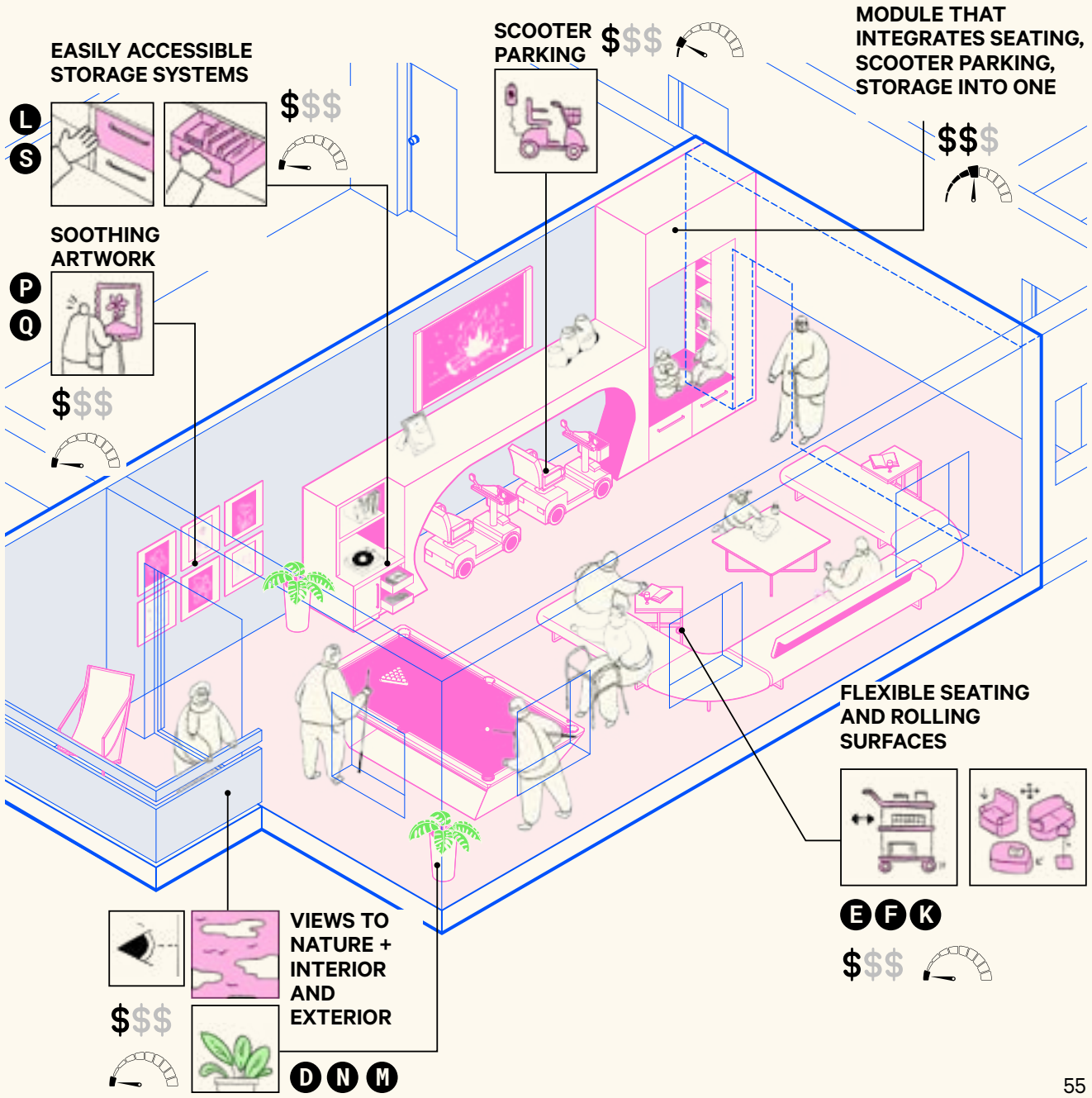
The goal of this diagram is to visualize how an underutilized elevator landing spaces, similar in scale to the one observed in Site C: Thorncliffe Park in PART II, might be activated. In this space, there could be an opportunity to create a more therapeutic environment through artificial planting, seating, softer textures, and colours. This could become a casual hangout space for seniors centralized around a key circulation space.



Social Nook (End of Corridor Space)

This diagram illustrates how a residential unit at the end of a hallway could be converted and designed to provide a social space.

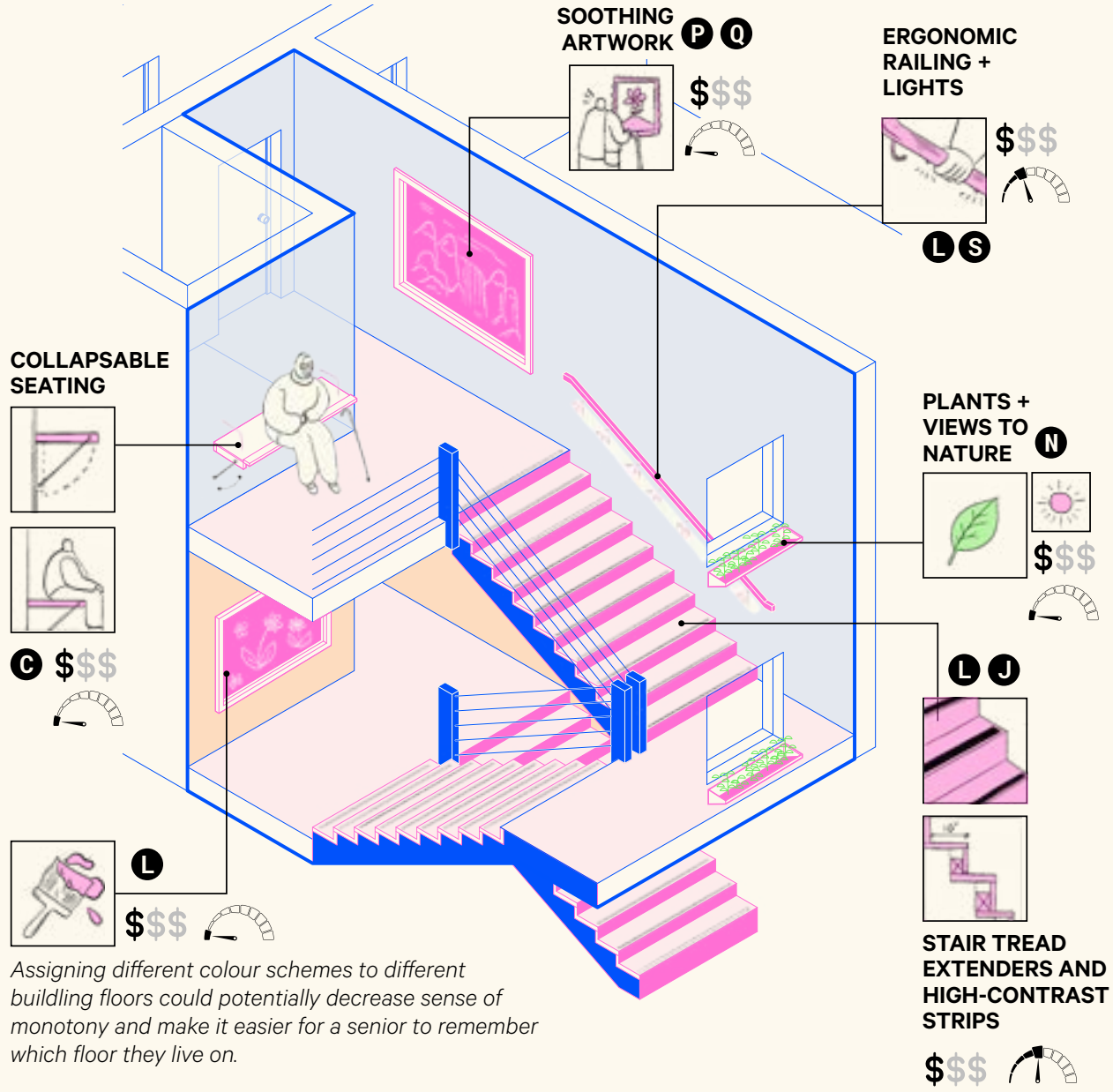
Based on the site visits conducted, the absence of social spaces on upper floors of the apartments were evident. Social spaces, if any, were mostly clustered on the ground floor. This scheme shows the “end of corridor” social space, which can be implemented throughout various levels of a building and both distributes and improves overall accessibility to social spaces.



Stairwell

This diagram illustrates how small interventions could allow a typical stairwell to be more accessible; and pleasant for seniors to use. While a stairwell is a means of egress and should not be overcrowded with activity, improving the overall ease of use could facilitate casual encounters.

Elements, like more ergonomic railings, high-contrast design elements, planting, and extending the tread of each step, would not only make the stairwell more enjoyable to use but also safer for seniors.



Assigning different colour schemes to different buildling floors could potentially decrease sense of monotony and make it easier for a senior to remember which floor they live on.

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