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Bridging Communities. A community centre to encourage and facilitate intergenerational connections in Johannesburg

Lachman, Kaylene

2024

University of the Witwatersrand, Johannesburg

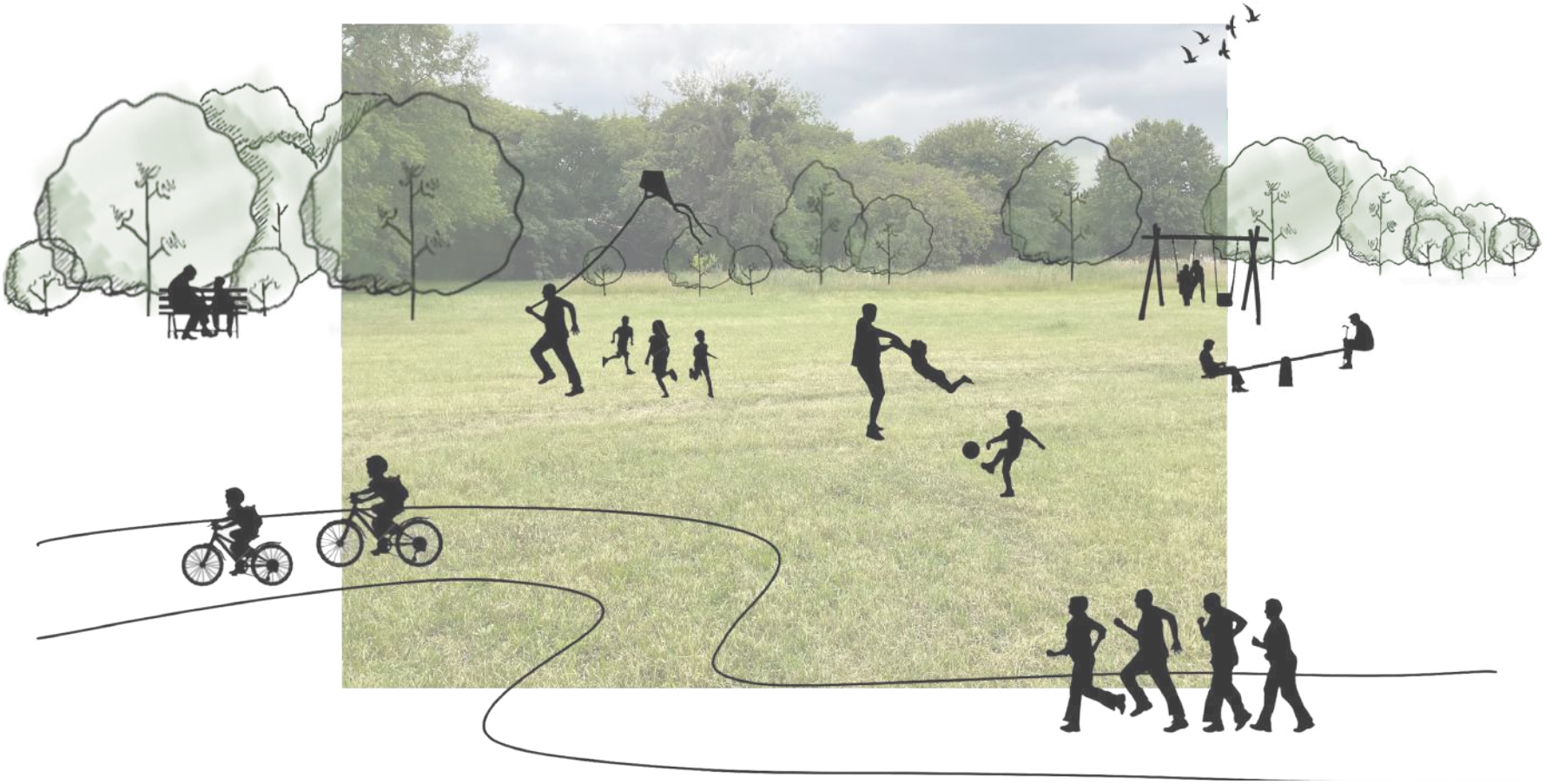
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BRIDGING COMMUNITIES

A community centre to encourage and facilitate intergenerational connections in Johannesburg.



Kaylene Lachman | 1836113

BRIDGING COMMUNITIES

A community centre to encourage and facilitate intergenerational connections in Johannesburg.

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Date: 27 February 2025

This document is submitted in partial fulfillment for the degree: Master of Architecture (Professional) at the University of the Witwatersrand, Johannesburg, South Africa, 2024.



Figure 0.1: What a park should be (Author, 2024)

DECLARATION

I, Kaylene Lachman (1836113) am a student registered for the course Master of Architecture (Professional) in the year 2025. I hereby declare the following:

I am aware that plagiarism [the use of someone else's work without permission and/or without acknowledging the original sources] is wrong. I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise. I have followed the required conventions in referencing thoughts, ideas, and visual materials of others. For this purpose, I have referred to the Graduate School of Engineering and the Built Environment style guide.

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Kaylene Lachman
27 February 2025

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I would like to thank my family for their continuous support during my architecture journey. Without your endless love, support and encouragement I would not have been able to come this far. I truly appreciate all that you have done for me.

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I would like to thank my supervisor, Brendan Hart, for his guidance, support and encouragement during this project. I am incredibly grateful for all your patience, wisdom, and insightful suggestions throughout the year.

ABSTRACT

The aim of this project is to create a safe space to facilitate and encourage intergenerational connections between the elderly and children whilst revitalising an underused park. The safe space will be a community centre that acts as a social hub where children and the elderly are able to work cohesively alongside each other, allowing for more meaningful interactions and mutual learning between the generations. The connections created through these interactions can foster more trust and empathy in the community.

These shared spaces will allow the opportunity for the different generations to mutually benefit from each other. Some of these benefits include skill development, cultural preservation, mentorship programs and the improvement of mental and physical wellbeing of both generations. The intergenerational connections formed in this community centre can combat social isolation amongst the elderly. It can provide an enlightening and educational experience for the children.

The revitalisation of the neglected urban space will create an enriching experience for the community as bridging the generational gaps will create deeper community bonds and improve the quality of life for all within the community.



Figure 0.2: Intergenerational Connections, (Author, 2024)

“Architecture is the thoughtful making of space”

- Louis Kahn



Figure 0.3: A child planting flowers (Author, 2024)

TABLE OF CONTENTS

01
INTRODUCTION
PAGE 14 - 21

BACKGROUND
INTERGENERATIONAL CONNECTIONS
THE PARK
A SAFE SPACE
METHODOLOGY
AGE RANGE

02
THE ELDERLY
PAGE 22 - 41

INTRODUCTION
URBANISATION AND THE AGEING SOCIETY
ELDERLY WELLBEING
INTERGENERATIONAL CONNECTIONS
SPACES FOR THE ELDERLY
PUBLIC AND OUTDOOR SPACES
A SENSE OF SECURITY
ELDERLY SPACE REIMAGINED

03
THE CHILDREN
PAGE 42 - 55

INTRODUCTION
SPACES FOR CHILDREN
THE ROLE OF PLAY IN CHILDREN DEVELOPMENT
A SENSE OF SECUIRTY
DESIGN CONSIDERATIONS
IMPACT OF DIGITAL AGE
INTERGENERATIONAL CONNECTIONS

04
CONNECTIONS
PAGE 56 - 61

INTRODUCTION
IMPORTANCE OF SPACE
A SENSE OF BELONGING
DESIGN STRATEGIES
COMFORT, SAFETY AND STIMULATION
INTERGENERATIONAL CONNECTIONS
SOCIAL INTERACTION
IMPACT ON WELLBEING
OTHER SIMILARITIES
CONCLUSION

05
THE PARK AND PUBLIC SPACES
PAGE 62 - 75

INTRODUCTION
DEVELOPMENT OF THE PARK
TEXTURES OF THE PARK
COMMUNITY WELLBEING
DESIGN CONSIDERATIONS
SENSE OF SECURITY
INTERGENERATIONAL CONNECTIONS

06
THE SITE
PAGE 76 - 99

INTRODUCTION
CHOSEN SITE
SITE INFORMATION
SITE OBSERVATIONS
SITE ANALYSIS
SITE VIEWS

07
CASE STUDIES
PAGE 100 - 117

HABITAT 67
AUCKLAND PARK PREPARATORY SCHOOL: STEAM CENTRE
JOHN MORDEN CENTRE
SONGZHUANG MICRO COMMUNITY PARK

08
DESIGN BRIEF
PAGE 118 - 131

PROJECT OVERVIEW
ELEMENTS OF THE PROJECT
NARRATIVES
LINKING PROGRAMMING AND PROJECT ELEMENTS
PROGRAMMING



Figure 0.4: Trees (Author, 2024)

09

DESIGN DEVELOPMENT

PAGE 132 - 157

INTRODUCTION

CHARRETTE

PRELIMINARY BUILDING DESIGN

TECHNICAL EXPLORATIONS

10

WHAT COMES NEXT...

PAGE 158 - 165

WHAT COMES NEXT...

FROM RESEARCH TO DESIGN

11

FINAL DRAWINGS

PAGE 166 - 195

CONTEXT PLAN

SITE PLAN

BASEMENT FLOOR PLAN

GROUND FLOOR PLAN

FIRST FLOOR PLAN

SECOND FLOOR PLAN

ELEVATIONS

SECTIONS

PERSPECTIVES

12

TECHNICAL DRAWINGS

PAGE 196 - 199

PERIMETER SECTION

CALLOUT DETAIL

13

APPENDIX

PAGE 200 - 211

VIABILITY REPORT

.

ETHICS

PAGE 212 - 213

.

LIST OF FIGURES

PAGE 214 - 217

.

LIST OF REFERENCES

PAGE 218 - 223

01
INTRODUCTION



Figure 1.1: The park is nature's playground (Author, 2024)

INTRODUCTION

BACKGROUND

Johannesburg is a vibrant city filled with a rich culture and history. The city is divided into different neighbourhoods and suburbs, each containing its own unique culture and history within its communities.
In a community we have a diverse range of people, each having their own unique characteristics and traits that are used to enrich and develop the community. This diversity can be seen through the different age groups, genders and races of individuals with different backgrounds coming together to form the community. “According to Merriam-Webster’s Collegiate Dictionary, tenth edition, community is “an interacting population of various kinds of individuals (as species) in a common location” or “a group of people with a common characteristic or interest living together within a larger society”” (Hall & Porterfield, 2001, p. 5).

The suburbs of Linden, Risidale, and Northcliff are amongst the older suburbs in Johannesburg (Anon., 2019). Within this community, the residents have a wide age range, ranging from children going to school, young adults and parents going to work and the elderly living in retirement villages. More specifically, this community has a large elderly and children population. This is evident from the number of retirement villages and schools found within the area. The issue is that due to urban development, there is not a lot of spaces for the elderly and children to engage with the community (Younes, et al., 2024).

But why are they important to the community?

In a community, the role of the elderly generation is very important as they contain information regarding the community’s history, culture and traditions. However, due to the lack of spaces for the elderly, they have become isolated from the rest of the community (Younes, et al., 2024). This poses a risk for the community as a community could lose this knowledge regarding their history, culture and traditions. In other words, a community could be at risk of losing its identity and who are we without our identity?

Children are important as they are regarded as the future of the community. It is important for them to learn about their community’s history, culture and traditions so that they may maintain their community’s identity in the future (Cockrell, 2022).

Creating a space that encourages and facilitate intergenerational connections between the elderly and children will provide benefits for both generations and the community. Through these intergenerational connections, a community can thrive, and their identity maintained (Younes, et al., 2024).

INTERGENERATIONAL CONNECTIONS

‘Intergenerational connections’ is a term used to describe the relationship between people from different generations. The connections created in these relationships are meant to **bridge the gap** between the different age groups (Heiser, 2022). These connections allow both generations to mutually benefit from each other. It will also help provide benefits for the overall community. For instance, it provides the opportunity for the younger generation to learn and develop special skills under the guidance from the elderly generation. The elderly generation are able to provide mentorship and a develop a sense of purpose and belonging. The elderly will also receive some mental and physical health benefits as interacting with the younger generation keeps them active and engaged (Barysheva, 2020).

These intergenerational connections can also ensure that the history, culture and traditions of the community are passed down to the younger generations. This allows the opportunity for the younger generation to feel a connection to the past and to preserve the community’s identity (Cockrell, 2022). This transfer of inf ormation can also create a deeper connection between the different age groups and thus creating a deeper sense of community and belonging (Cockrell, 2022). To create strong intergenerational connections, respect, responsibility, reciprocity and resiliency need to form the bases of these bonds (Brubaker & Brubaker, 1999).



Figure 1.2: Intergenerational Connections Concept Diagram (Author, 2024)



Figure 1.3: The elderly helping children with homwork (Senior Helpers, n.d.)

THE PARK

Parks are an important part of the urban city. They provide a green open public space where communities are still able to interact with nature (Goodner, 2023). However, a park is more than just a green open public space. A park can provide multiple benefits to a community.

For instance, a park provides a space where communities are able to take a break from their busy urban lives. A park is a space that promotes recreation and relaxation by providing a natural environment where people can go for a walk, a run or riding their bicycles (Roe & McCay, 2021). A park also offers a space to encourages social interaction as it provides a location where people can meet with friends and family for a picnic or to go running and riding their bicycles together (Goodner, 2023).

By getting more people to interact and engage with a park it allows people to form connections with nature (Goodner, 2023). Studies show that interaction with nature can reduce stress and anxiety and can be used to improve the physical and mental wellbeing of the community. (Miracle Recreation, n.d.). A park can also provide cultural and educational enrichment to a community by providing a space for different events and opportunities such as an outdoor educational space, urban agriculture and for concerts and flea markets (Goodner, 2023).

A SAFE SPACE

The aim of this project is to create a safe space where the elderly and children are able to cohesively work together. A space that provides the opportunity for the two generations to create connections and mutually benefit from each other. A space that fosters comfort, trust, inclusivity and a sense of community.

But what is a safe space?

A safe space is defined as “a place that provides a physically and emotionally safe environment for a person or group of people, especially a place where people can freely express themselves without fear of prejudice, negative judgment, etc” (Oxford Dictionary, n.d.) When analysing a safe space, there are different factors that we need to consider. We need to consider how the physical space is being used and who is using the space (OIED Staff, 2020). “A safe space is typically meant for marginalized populations to have a space that is conducive to their physical well-being” (OIED Staff, 2020).

To achieve this safe space, this project will explore designing a community centre that fosters comfort, trust, inclusivity and a sense of community. The target audience for this community centre will be the elderly and children within this community. This community centre will aim to create a space that fosters and facilitates intergenerational connections and thus improving the quality of life for these members of the community.

In this project, the site is an underused park that currently does not feel like a safe space. Therefore, part of this project will be exploring the adaptive reuse and revitalisation of the underused park to create a safe space.

METHODOLOGY

There are three main factors that influence this project. Those factors are the elderly, the children and the park.

This project aims to understand the spaces and needs of these three factors through research. The goal of this project is to create a space that is inclusive and accessible for everyone of all ages in the community. The project also aims as using this space as an opportunity to revitalise an unused park.

Research for this project will have a qualitative approach where primary and secondary data will be analysed. Primary data will be conducted in the form of interviews with professionals and through observations, site analysis and through case studies. Secondary data will be collected in the form of research articles, theoretical readings, research books and any other published literature that relates to the project.

The themes explored in the research are intergenerational connections, public spaces, green spaces, community, understanding the needs of the elderly and children, accessibility and inclusive designs and sustainability.

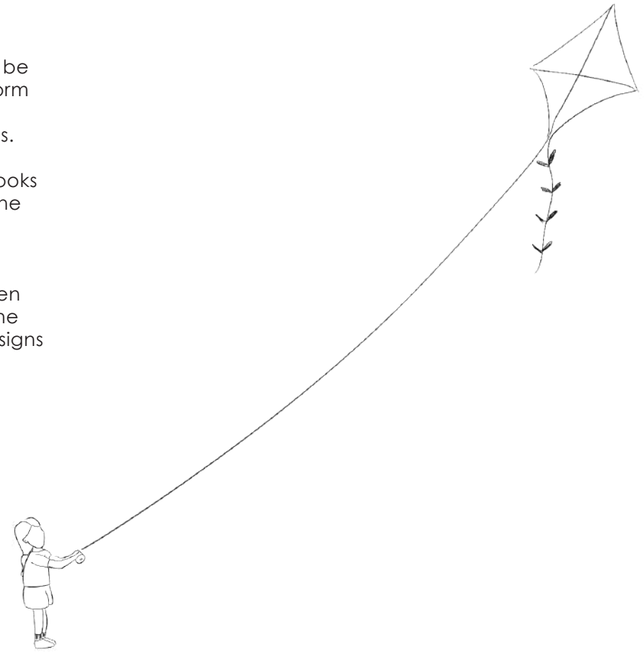


Figure 1.4: Girl playing with kite (Author, 2024)

AGE RANGE

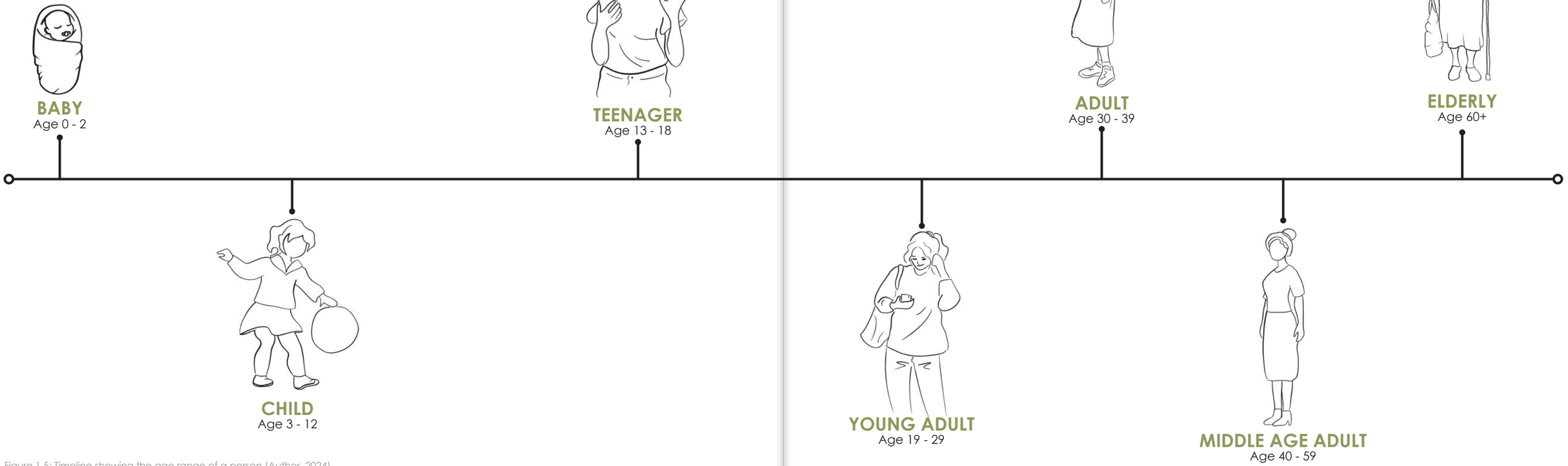


Figure 1.5: Timeline showing the age range of a person (Author, 2024)

02
THE ELDERLY



Figure 2.1: Retirement Village in Linden (Author, 2024)

Crabbit Old Women

- Phyllis McCormack

What do you see nurse, what do you see?
What are you thinking when you're looking at me?
A crabbit old woman, not very wise,
Uncertain of habit, with faraway eyes?

Who dribbles her food and makes no reply,
When you say in a loud voice, 'I do wish you'd try! '
Who seems not to notice, the things that you do,
And forever is losing a stocking or shoe.

Who resisting or not, lets you do as you will,
With bathing and feeding, the long day to fill.
Is that what you're thinking? Is that what you see?
Then open your eyes nurse, you're not looking at me.

I'll tell you who I am, as I sit here so still,
As I do at your bidding, as I eat at your will.
I'm a small child of ten, with a father and mother,
And brothers and sisters, who love one and other.

A young girl of sixteen, with wings on her feet,
Dreaming that soon now, a lover she'll meet.
A bride soon at twenty, my heart gives a leap,
Remembering the vows that I promised to keep.

At twenty five now, I have young of my own,
Who need me to guide and a secure happy home.
A woman of thirty, my young grown so fast,
Bound to each other, with ties that should last.

At forty, my young sons have grown and are gone,
But my man's beside me to see I don't mourn.
At fifty, once more, babies play round my knee,
Again we know children, my loved one and me.

Dark days are upon me, my husband is dead,
I look at the future, I shudder with dread.
For my young are all rearing young of their own,
And I think of the years and the love that I've known.

I'm an old woman now...and nature is cruel,
Tis jest to make old age look like a fool.
The body, it crumbles, grace and vigour depart,
There is now a stone, where I once had a heart.

But inside this old carcass, a young girl still dwells,
And now and again, my battered heart swells.
I remember the joys, I remember the pain,
And I'm loving and giving life all over again.

I think of the years, all too few gone too fast,
And accept the stark fact, that nothing can last.
So open your eyes, nurses, open and see,
Not a crabbit old woman, look closer - see ME!

Figure 2.2: A poem from the perspective of an elderly person (Protasia & Torkington, 2000)

THE ELDERLY

INTRODUCTION

In a community, the role of the elderly generation is very important as they contain information regarding the community's history, culture and traditions. However, due to urbanisation and the development of modern society, the immediate family structure consisting of two parents and their children have been prioritised. For this reason, there has been a lack of spaces for the elderly and as a result, the elderly have become isolated from the rest of the community (Younes, et al., 2024).

As architects, it is our responsibility to design spaces for the elderly that are suited to accommodate their needs and which will be able to provide them with a good and dignified life (Venkatesh, n.d.). However, in order to design these spaces, we first need to understand the needs and capabilities of an elderly person and how they use their space (Lawton, et al., 1976). As the aging population increases, spaces for the elderly become more important. It is our responsibility as architects to create spaces for the elderly that are comfortable, safe, inclusive and stimulating. These spaces should help improve the mental and physical wellbeing of the elderly and help them to contribute to the community.



Figure 2.3: Walking Stick (Author, 2024)

URBANISATION AND THE AGEING SOCIETY

Over the years there has been an increase in urbanisation, modernisation and urban development which has contributed to the breakdown of traditional multigenerational families. With urbanisation there has also been an increase in the development of medicine and technology which allows people to now live longer lives. As a result of these developments, there has been an increase in the amount of elderly people in the population (Younes, et al., 2024). We now have what is referred to as an 'ageing population'. According to Ismail, et al the term 'aging population' is referred to the "increase in number and percentage of older population aged 60 years and above' (Ismail, et al., 2021, pp. 2361-2615).

Younes, et al describes that as a person ages, they experience a gradual decline in their capabilities. Due to this, the elderly are no longer able to contribute to the community and economy like they used to (Younes, et al., 2024). "Community as a concept can be interpreted as a sense of belonging, a way of life, and diversity with a common purpose" (Hall & Porterfield, 2001, p. 9). Lawton, et al explains that due to the development of urbanisation, the elderly are not seen as very important members of the community anymore. "The elder's loss of status, role and function in society and family is an unplanned by-product of industrialization and urbanization" (Lawton, et al., 1976). Lawton explains that due to feeling like they are not contributing to community, the elderly have become distant from the rest of the community. However, Younes, et al argues that the elderly are still an important part of the community, and that they should still be included in the community. Younes, et al's argument is that there is still an opportunity to gain and learn much from the elderly which can help the community grow and develop. "To take advantage of the potential of older people for continuous human growth, cities must secure their inclusion and provide full access to urban areas, structures, and services" (Younes, et al., 2024, p. 1).



Figure 2.4: Retirement Village in Linden (Author, 2024)

Younes, et al further discusses that public spaces are not designed with the elderly in mind. Foyatiet agrees stating that "currently, most cities are not prepared or designed to accommodate the physical limitations of older adults" (Foyatiet, 2021). He further explains that the reason for this is that during the urban development designs, the active participation of the elderly was unintentionally excluded. This is seen through the lack of well-lit spaces, ramps and adequate accessibility for the elderly in public spaces which has contributed to the elderly's lack of inclusion in the community (Foyatiet, 2021). To have a successful urban development and community, it is important that buildings and public spaces are inclusive for all ages (World Health Organisation, n.d.).

One of the risks of excluding the elderly from the community is that we risk losing the community's foundation and breaking the social and cultural network of the community (Hall & Porterfield, 2001). The elderly are a well of knowledge that contain information on the community's traditions, culture and history. They also contain knowledge about sparse skills. By excluding them from the community, we risk losing this information and the opportunity to pass it down to the younger generations.

Barysheva gives the example in which the elderly are able to be included in and contribute to the community and economy is by working in a vegetable garden. "After retirement the circle of contacts gradually narrows, previous social roles disappear; the economic activity is significantly reduced" (Barysheva, 2020, p. 3). Barysheva explains that by working in a vegetable garden to the best of their ability, the elderly are able to produce something that includes them in a social community activity whilst still producing something that the community can use and benefit from (Barysheva, 2020, pp 1-7). "Accommodating for the elderly will improve the social wellbeing of cities and quality of life for the elderly and other members of the community. (Younes, et al., 2024, p. 7).



Figure 2.5: The elderly working in vegetable garden (Author, 2024)

ELDERLY WELLBEING

As we age, we unfortunately encounter a new set of challenges both physically and mentally. One of the most common physical challenges that the elderly face, is that they are more prone to mobility issues, such as falls, that could result in a more serious injury (Rodriguez, 2022). Tarkett describes that falls are the most common injury in the elderly, and it is due to their limited poor eyesight and muscle weakness (Tarkett, n.d.). The other challenge that elderly people face is regarding their mental wellbeing. Due to their limitations, the elderly can feel isolated from the rest of the community (Homecare, 2020). This feeling of isolation leads to the elderly feeling very lonely, depressed and as if they have lost their sense of purpose (Rodriguez, 2022). Maintaining the elderly's physical and mental health is crucial for improving their wellbeing and quality of life (Younes, et al., 2024).

For their physical health, one of the simplest and effective ways for the elderly to maintain their health is by walking (Tarkett, n.d.). Creating spaces that are suitable and accommodating for the elderly will help maintain their physical health. These spaces can also be used to encourage leisure opportunities and positive social interactions with the community (Younes, et al., 2024). These spaces that are 'age-friendly' will improve the social wellbeing of cities and quality of life for the elderly and other members of the community (Younes, et al., 2024).

Younes, et al argues that the elderly should engage in 'active ageing'. Active ageing is "the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age" (Younes, et al., 2024, p. 6). The concept is used to encourage the elderly to have a more positive attitude regarding ageing as well to encourage them to engage in social activities to create connections with other people in their community (Younes, et al., 2024). A lot of elderly do not engage in physical activities and instead spend their time doing passive activities like reading, gardening, watching television or knitting (Younes, et al., 2024). Younes, et al states that "A recent review concluded that safe, walkable, and visually pleasant neighbourhoods with access to general and specialised destinations and services increased older people's physical activity engagement favourably" (Younes, et al., 2024,p. 6).

Venkatesh agrees, stating that it is important to reduce social isolation in the elderly by getting them to engage with nature and the outside world (Venkatesh, n.d.). Ma, et al states that the elderly are more likely to engage in a space where there is sunshine therefore open spaces like parks can be used to encourage physical activity in the elderly (Ma, et al., 2021). Exposure to natural lighting can also provide benefits to the mental wellness of the elderly. Some benefits include a reduced feeling of depression as the exposure to natural sunlight increase serotonin production (Family Resource, n.d.). Natural lighting is important as adequate good lighting can be used to evoke positive moods in the elderly whereas inadequate poor lighting could evoke feelings of depression, isolation and confusion. (Family Resource, n.d.). Studies show that green communal spaces can encourage and facilitate the social inclusion of the elderly with their community and also aid in creating a sense of community. this would also improve the quality of life for the elderly (Younes, et al., 2024). Access to green spaces and nature can also improve the physical and mental wellbeing of the elderly (Ma, et al., 2021).



Figure 2.6: The elderly engaging in social interaction (Author, 2024)

Barysheva describes that one reason that the elderly feel isolated and depressed is due to feeling as if they have lost their sense of purpose after retiring. Therefore, Barysheva describes that creating and maintaining intergenerational relationships will be beneficial for the elderly as it will give them a sense of purpose during the 'after retirement' period of their life. This will in turn improve their mental wellbeing and quality of life (Barysheva, 2020). Barysheva also encourages social interaction as the "high social activity of the elderly contributes to the prevention of aging" (Barysheva, 2020, p. 3).

To improve their mental wellbeing, the elderly could explore other hobbies and learn new things. When considering the mental abilities of elderly people, people often assume that due to their old age they are unable to learn new things. Lawton argues that this is in fact untrue. "There is little evidence of a change in learning ability with increasing age. Other age changes may simulate loss in learning ability" (Lawton, et al., 1976, p. 28). Lawton argues that an elderly person is still able to learn new things, however it is just that their process to learn is now slower. Lawton states that the reason people presume that the elderly are unable to learn new things is due to studies forcing fast results. "…there is a pressure for speed, and anxiety blocks learning for older people" (Lawton, et al., 1976, p. 28). If an elderly person feels stressed or anxious they will be unable to learn new things. That is why it is important to create a comfortable environment where they are able to learn things at their own pace.

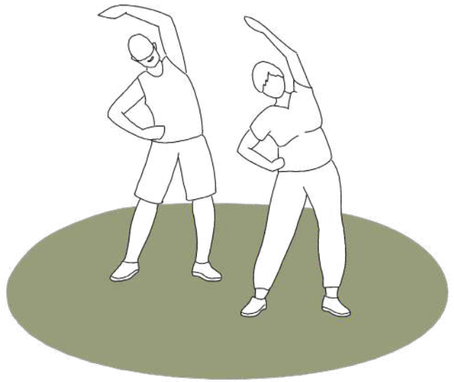


Figure 2.7: The elderly engaging in physical activity (Author, 2024)

INTERGENERATIONAL CONNECTIONS

The relationship between the elderly and children is a very important element that contributes to the wellbeing of the community (Younes, et al., 2024). However, Younes, et al describes that the relationship between the two generations has not been thoroughly explored in public spaces. They further discusses that the social interactions between the two generations can have a positive influence and increase the "liveliness and vibrancy of public spaces" (Younes, et al., 2024).

"A great part of the success of city neighbourhoods depended on the overlapping and interweaving of activities and areas and that urban areas were traditionally characterised by their mix of users" (Oc & Tiesdell, 1994, p. 9). Oc and Tiesdell describe studies have shown that in order for a community to be considered successful, the spaces that make the community successful need to accommodate a mixed range of users (Oc & Tiesdell, 1994). Within these spaces there could be programming that encourages and facilitates intergenerational connections.

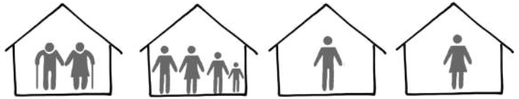
Barysheva discusses that one reason that there is a lack of interaction between the two generations today is that younger people see the effects of aging when they look at the elderly, and this makes them feel scared and anxious. These effects of aging are the possible physical disability, weakness, and health issues. To avoid feeling scared and anxious about what will happen to them in the future, the younger generations tend to limit their time with and avoid the elderly (Barysheva, 2020). However, Barysheva also describes studies that showed that through an increased interaction with the elderly, these feelings in the younger generations reduced and as a result they started to spend more time with the elderly (Barysheva, 2020).

Ginsburg describes that another reason why there is a lack of interaction between the elderly and children is due to many households no longer being multigenerational. As illustrated in figure 2.8, grandparents live separately from their children and grandchildren. Due to this, the elderly are not able to interact with their grandchildren as frequently as they would have in a multigenerational home and as a result, the opportunity for the elderly and children to learn from each other is severely reduced and limited (Ginsburg, 2007).

There are a few benefits with having the two generations interacting with each other. Barysheva describes that programs which facilitate intergenerational connections are shown to be effective in reducing loneliness in the elderly. (Barysheva, 2020). Interacting with children can also help keep the elderly active and keep their mind active and engaged. It can also provide the elderly with a sense of purpose as they take on a mentor role for some the children (Heiser, 2022). Generally, to gather information, the elderly use traditional media sources such as newspapers, magazines and the television (Obeidat, 2016). However, through these social interactions, it creates the opportunity for the elderly to develop technological skills (Barysheva, 2020, p1-7). The intergenerational connections created through these social interactions would be beneficial for both generations and improve the quality of life for themselves and for the rest of the community (Younes, et al., 2024).



VS



Extended Multigenerational Homes

These homes consists of grandparents, parents, children and sometimes aunts and uncles living in the same house

Generations Living Separately

These homes no longer have the different generations living together. These homes consists of the parents and children living separatley from the grandparents and aunts and uncles.

Figure 2.8: Change in family homes (Author, 2024)

SPACES FOR THE ELDERLY

When designing spaces for the elderly, there are three important components to consider. These components are safety, comfort, and stimulation (Tarkett, n.d.). For the elderly to comfortably enjoy and engage with a space, their senses need to be stimulated. However, due to their age it is common for the elderly to experience a decline in their sight, hearing, and cognitive function (Johnson & Franks, 2024). As a result, this decline in their senses can limit their capacity for certain things and it can affect the way in which the elderly now perceive their spaces (Tarkett, n.d.).

Keeping these limitations in mind, there are still a few design strategies that we can implement in a building to still appeal to the senses of an elderly person to ensure that they have a comfortable and joyful experience in a building. Johnson and Frank state that during this design process we need to "design with empathy in mind" (Johnson & Franks, 2024). In addition to this, creating a stimulating space for the elderly can aid in improving their cognitive function (Tarkett, n.d.).

Lighting

The first design strategy to consider is lighting. Obeidat states that lighting should be used to provide visual comfort in a space (Obeidat, 2016). Lighting is a tool that can be used to affect the atmosphere and mood of a space. Spaces for the elderly need to have a warm comfortable atmosphere which can be achieved through having a lot of natural lighting in the space (Tarkett, n.d.). According to Johnson and Franks, lighting is also an important factor in elderly spaces as a space with good lighting can be used to increase independence, reduce falls and promotes socialisation in the elderly. A well-lit space is also used to stimulate and improve mental and physical wellbeing in the elderly (Johnson & Franks, 2024).

Due to the limitations the elderly experience with their sight, spaces for the elderly need to be twice as bright as they usually are for spaces for younger people (Tarkett, n.d.). There are different types of lighting that can be used in a space. These are ambient lighting, task lighting, accent lighting and layered lighting. (Family Resource, n.d.). Ambient lighting is used to offer overall illumination of space. This lighting is usually used to create and encourage a relaxing and comfortable atmosphere. Task lighting is used to offer a more focused and direct lighting for activities such as reading and sewing as seen in figure 2.9. Task lighting is used to improve visibility and reduce eye strain (Family Resource, n.d.). This type of lighting can be used in workshop spaces that will be included in the programming of my community centre. Accent lighting is used to create visual interest and emphasises certain design elements and features. Layered lighting is used



Figure 2.9: Workshop spaces using task lighting (Stephenson, 2023)

to provide different types of lighting in a space that can be adjusted according to the needs of the people using the space at that time. The different types of lighting could also be used to encourage the elderly to engage and use the space more frequently. (Family Resource, n.d.) It is also important to limit shadows in these spaces as shadows can confuse and disorientate the elderly (Tarkett, n.d.).

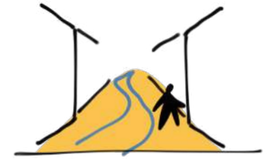
Colour

The second design strategy to consider is colour. Johnson and Franks state that "although vision may diminish as we age, there are many opportunities to use colour and design features to create safe and supportive environments" (Johnson & Franks, 2024). The type of colour that we use can affect the atmosphere and mood of a space. For instance, colours with warm tone such as yellows and orange can make a space feel very inviting and cosy whereas colours with cooler tones such as blue and whites can make a space feel very calming and relaxing. (Family Resource, n.d.). Using pastel or neutral colours in a room can make a space feel brighter and can also create a warmer and more soothing atmosphere. (Venkatesh, n.d.). Using earthy tones can make a space feel calm, therapeutic, and even healing (Johnson & Franks, 2024).

Johnson and Franks also describe that using visuals of nature and artwork can also be used in a space to help in creating a calming atmosphere and in some cases, studies show that it can even help with memory recall in some elderly (Johnson & Franks, 2024). Colour can be used in different elements and fixtures in a space such as on the walls or furniture. Person A, a professional that works in a retirement village, states that "The elderly love colour. That is why we have so many colourful things all around here" (Person A, 2024). Person A describes that in the retirement village, they use colour to get the elderly interested in a space so that they are more likely to engage with it. Tarkett also explains that colour can be used as a navigation tool to help the elderly orientate themselves and move through the building. As seen in figure 2.10, Tarkett suggest that using colour on the floors to act as a pathway will encourage the elderly to walk in the spaces more however sudden changes in colour or patterns should be avoided as it can cause confusion in elderly with limited cognitive function (Tarkett, n.d.).



Colour can be used on the ceiling



Colour can be used on the floor

Figure 2.10: Colour being used as a navigational tool to guide the elderly through the building (Author, 2024)

Materiality
Materiality of these spaces should also be considered. Materiality can also affect the atmosphere of a space. As mentioned, spaces for the elderly need to have a warm comfortable atmosphere which can be achieved using natural materials such as wooden surfaces (Tarkett, n.d.).

"Hearing loss is a common sensory challenge for older adults, but there are many ways to help design spaces that support acoustics" (Johnson & Franks, 2024). Due to the loss of hearing that the elderly experience, materiality with good acoustic properties should be considered. It is ideal to use materials that reduce sound exposure as it will make it easier for the elderly to communicate with each other in the space (Tarkett, n.d.). Materiality such as carpets are preferred over tiles as the carpet are able to absorb the sound waves, reducing the overall noise whereas the tiles reflect the sound waves and can contribute to the noise (Tarkett, n.d.).

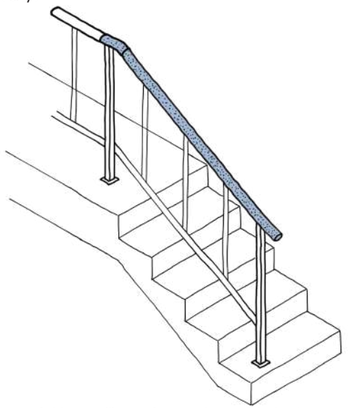


Figure 2.11: A railing using a change in texture and colour to assist as a navigation tool (Author, 2024)

The materiality used in the building should ideally have a matt finish to reduce any glare. Reducing glare in a space for the elderly is important and considered safer as the glare can make it difficult to navigate through a building and could even contribute to incidents where the elderly fall (Family Resource, n.d.).

Touch
"As older adults age, use of their hands can decrease due to arthritis, thus dulling their sense of touch" (Johnson & Franks, 2024). As the elderly age, they generally need to use fixtures and elements such as handrails and walking sticks to provide them with some extra support to navigate through the building (Johnson & Franks, 2024). Due to this we could argue that the elderly can experience touch through these support fixtures in a building. This then allows the opportunity for us to use these support fixtures as an additional navigational tool to help direct the elderly through the building. For instance, handrails along the passageways or staircases could have different textures on them. Each texture could indicate a different programming in the building. This would then help the elderly to easily identify the different programming as they navigate through the building, and this will allow the elderly to experience the building through their sense of touch. Figure 2.11 shows handrailing with a change in texture and colour that could be used to indicate the change of programming.

Smell and Taste
As the elderly age, their sense of smell can also become dulled, however scents can be used to affect the atmosphere of a space (Johnson & Franks, 2024). "Designing with scents in mind can create a more positive, upbeat environment" (Johnson & Franks, 2024). Introducing different scents in a space can evoke different emotions in the elderly. For instance, scents like lavender can have a calming effect whereas the scent of coffee can evoke feelings of comfort or more energetic (Johnson & Franks, 2024).

The scents in a space could also be linked to the elderly's sense of taste. More specifically, this sense of comfort can associate with smells can also be associated with food. "The elderly mostly rely on home delivery for food, groceries, and other essentials" (Venkatesh, n.d.). By relying on deliveries for food, the elderly miss the opportunity to experience the comfort of sitting and enjoying a meal where you can smell the meal being prepared. For this reason, spaces like the restaurant in my community centre would be ideal as it allows the opportunity for the elderly to engage in the comfort with food that they might not be able to do at home. Engaging in their sense of taste can also improve their quality of life (Younes, et al., 2024). This sense of taste could even be linked to the communal vegetable garden where the efforts of the elderly have helped in some way for the preparation of the meals. This could also then give the elderly a sense of pride and accomplishment whilst they are engaging with their sense of smell and taste in the restaurant.

Design Strategies
There are three additional very important design strategies to consider when designing spaces for the elderly. These strategies are visibility, accessibility, and the attractiveness of a space. These strategies are needed to consider a space as successful (Obeidat, 2016). Obeidat describes that to keep the elderly engaged, different spaces should have different aesthetics. The reason for this is so that the elderly are being constantly being stimulated by something different and this prevents them from getting bored in the building (Obeidat, 2016).

Accessibility is crucial when considering the design strategies of a space for the elderly. Accessibility is important as it effects the way in which the elderly can access, move around, and interact with the space (Watermeyer, et al., 2006, pp. 14-50). The first thing to consider regarding accessibility is movement through the building. The pathways throughout and around the building need to ensure that an elderly person can easily access all the spaces. In addition to this, Obeidat explains that the pathways through the building should also have interesting features along them so that the elderly will be interested in other spaces along the paths and want to go interact with those spaces as well. The pathways should appear like a continuous loop to encourage the elderly to keep walking and enjoying the space (Obeidat, 2016). "Pathways should be created that are continuous and have social or visual interest areas along them and a destination (without being a dead end) to encourage resident walking instead of wandering" (Obeidat, 2016). Along these pathways and within these spaces, there should be a lot of rest places for the elderly to make it easier for them to engage with the building (World Health Organisation, n.d.).

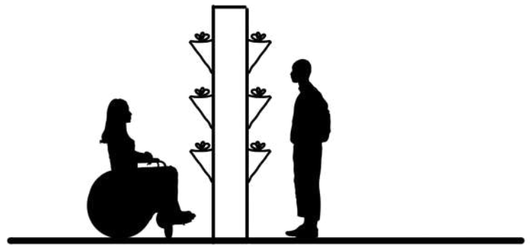


Figure 2.12: Vertical gardens used to make activity more easily accessible for the elderly to participate (Author, 2024)

In spaces for the elderly, ideally level changes should be avoided. However, if the change in levels is unavoidable, any level change should be clearly indicated. This change in level could easily be indicated using different colours, materials or textures. (Venkatesh, n.d.). Obeidat argues that levels changes should not be avoided completely and instead could be used to provide a variety of spaces for the elderly (Obeidat, 2016). Obeidat describes that it is the responsibility of the designer to create different spaces for the elderly. Each space should stimulate the elderly in a different way, some should be quiet and some noisy. In addition to this, by providing a variety of spaces creates the opportunity for the elderly to have a choice in which space they would like to be in. By giving the elderly a choice, it encourages them to want to keep using a space. The choice gives them a sense of control at a stage of their life where they feel like they cannot control a lot of things anymore. (Obeidat, 2016)

When designing spaces for the elderly, by considering and using these design strategies and components will help reduce the effects of the limitations the elderly experience. This will then also have a positive effect on the quality of life for the elderly (Tarkett, n.d.).



Figure 2.13: The elderly in communal eating area (Author, 2024)

PUBLIC AND OUTDOOR SPACES

Due to the effects of urbanisation mentioned before, the elderly are not considered when designing public and outdoor spaces. “Public outdoor spaces are designed with younger people in mind” (Younes, et al., 2024, p. 2). They further explain that this is another reason why it is important for us as architects and designers to consider how these spaces would work for the elderly. They describes that by having outdoor spaces that accommodate the elderly will improve the social wellbeing of cities and quality of life for the elderly and other members of the community. (Younes, et al., 2024).

“In modern cities, public open spaces are designed without considering the needs of older people. For the economic viability and sustainability of cities, it is imperative that accessible and inclusive public spaces are provided to accommodate the needs of all generations and promote active ageing.” (Younes, et al., 2024, p. 11).

When designing public and outdoor spaces there are certain design elements that we need to consider for the elderly. The first being is that if there are any outdoor mobility barriers such as uneven and narrow pavements, the elderly will have difficulty engaging with the outdoor spaces on their own. They would need some form of assistance, like someone helping them. Younes, et al describes that the more an elderly person can independently use a space, the more likely that person will return to that space (Younes, et al., 2024).

It is important to consider how the elderly will be comfortable in these public and outdoor spaces. One issue with some of these spaces is that there are not enough rest areas where the elderly can comfortably relax when they get tired. This makes it difficult for the elderly to engage with public and outdoor spaces (World Health Organisation, n.d.). Venkatesh also describes that the ergonomics in these spaces should be taken into consideration to ensure elderly comfort. For instance, seating should be at a certain height so that it is easier for the elderly to sit down and get up. The seating should also have a backrest and armrest to provide the elderly with more support (Venkatesh, n.d.). Thermal comfort should also be considered; therefore, a good outdoor public space should provide shading in these rest areas (Ma, et al., 2021).

In order for the elderly to use these public and outdoor spaces regularly these spaces should be at a convenient location for the elderly to access. “Public facilities and shops located far away from where seniors live would deter seniors from using these facilities” (World Health Organisation, n.d.). Therefore, a public space like the community centre I am proposing will be ideal in the area as its location is near the retirement villages, making it easier and more convenient to access.

A SENSE OF SECURITY

Security is a very important factor to consider when looking at spaces for the elderly and for the community. “A community will not be cohesive and integrated if residents feel unsafe.” (World Health Organisation, n.d.). This statement is particularly true for the elderly. If the elderly do not feel safe in a space, it can discourage them from going out which in turn will have a negative effect on their inclusion with their community (World Health Organisation, n.d.).

In their physical space, a sense of security can be achieved through the use of physical measures such as a well-designed public space with handrails and ramps. It can also be achieved by installing alarm systems and having emergency response systems in place However, a sense of security is also psychological. Regardless of the physical measures that provide security, the elderly still need to feel safe in order to engage and use a space (Oc & Tiesdell, 1994).

Unfortunately, studies have shown that “the elderly, regardless of race, are particularly vulnerable to the onslaughts of petty burglars and street vandals” (Lawton, et al., 1976). Due to this the elderly move to retirement villages where they can ensure a sense of security. However, the issue with this is that due to fear of the world outside, the elderly end up spending all their time in these retirement villages for the security. This could lead to a new form as segregation as the elderly keep themselves isolated and excluded from the rest of the community (Oc & Tiesdell, 1944). In their efforts to ensure a sense of security, the community could experience a decrease in the inclusion of the elderly. For this reason, it is important for public spaces to still provide that sense of security so that the elderly will feel comfortable engaging and interacting with the community in those spaces (Protasia & Torkington, 2000, p. 9-16)



Figure 2.14: Retirement Village in Linden (Author, 2024)

ELDERLY SPACE REIMAGINED

Based on my research, assumptions are often that the elderly prefer to be in quiet, serene spaces. However, during my interview with Person A, I learnt that this is not always the case. “They absolutely love being around kids. We have a lot of grandchildren that sometimes come and stay with their grandparents. The residents absolutely love it when they are here. They love the sound of children” (Person A, 2024). Person A describes that some elderly actually prefer being in a noisy environment like being surrounded by children. Obeidat describes that spaces for the elderly should contain a variety as the different options provided different stimulations (Obeidat, 2016).

We can agree that the elderly need quiet spaces, but can’t we consider that the elderly might also want to have some fun, exciting spaces as well? The elderly could engage in lively spaces, with colourful surroundings and noisy atmospheres. These could provide a different stimulation for the elderly who spend most of their time in the retirement villages. An elderly space reimagined could be a fun, enjoyable space similar to how a child finds a playground to be a fun, enjoyable space.



Figure 2.15: Trees (Author, 2024)

Figure 2.16 illustrates a playground for the elderly. The illustration explores the concept of creating a fun, enjoyable, playground-like space for the elderly. In a lively space such as this, the elderly could engage in more social interaction and physical activity which would improve their wellbeing. It would also serve as a mood booster, allowing them to enjoy themselves and improving their quality of life. A space like this would also allow them to interact with and form deeper bonds with their grandchildren and other children as this space would be more attractive to a child. A child is more likely to spend more time in a space like this compared to a retirement village. A space like this would also allow both generations to participate in more fun activities together, therefore allowing them to create intergenerational connections.



Figure 2.16: A playground for the elderly (Author, 2024)

03
THE CHILDREN



Figure 3.1: School (Author, 2024)

THE CHILDREN

INTRODUCTION

Children are an important part of the community as they represent the future. Due to this, it is important for us to understand the needs and wants of children to be able to successfully design a space that reflects them (Designing for typologies, n.d.). By understanding and meeting the needs of children, we are able to provide them with a space that improves their mental and physical development, improves their learning abilities and improves their overall wellbeing (Gutman & Clark, 2019). A space for children should foster a sense of comfort, joy and security whilst also encouraging children to play, interact, explore, be curious and develop important life skills (McGowan, et al., 2023, pp. 2021-2038).



Figure 3.2: Teddy bear (Author, 2024)

SPACES FOR CHILDREN

"Children's space" is a term often used to describe the physical environment which children occupy. Spaces for children are incredibly important as the space that a child is exposed to directly effects their childhood and development. The children's space is where they learn to interpret their surroundings, where they can learn, explore and be creative (Gutman & Clark, 2019).

Dudek describes the importance of having a space for children that reflects the needs of children. Since children have diverse needs as they grow and develop, they require different spaces that reflect and accommodate these diverse needs (Dudek, n.d.). "The quality of a space can have developmental benefits, stimulating young children on many different levels and playing a crucial role in their social development" (Dudek, n.d.). Dudek describes that these different spaces should stimulate children in different ways to ensure diverse physical and mental development.

Vertis agrees stating that in addition to these spaces providing different stimulations, these spaces should also ensure that the children feel comfortable and safe (Vertis, n.d.). These spaces are usually found in settings such as schools, childcare centres, playgrounds and community centres. As mentioned, each of these settings aid in the child's development as they each provide their own functionality and provide their own type of stimulation for children (McGowan, et al., 2023).



Figure 3.3: Children's bags outside classrooms (Author, 2024)

Educational Spaces
In an educational space like a school, the main objective is to focus on the child's educational development which is achieved through structured learning in the classroom and libraries. However, the school also provides the opportunity for unstructured learning through the playground and outdoor activities (McGowan, et al., 2023).

To ensure that children are learning in a comfortable environment, each classroom should have good lighting and ventilation, should be hazard free and safe for the children to use (Person B, 2024). Verti describes other elements that make the classroom more enjoyable for smaller children, such as using bright and colourful decorations to make the classroom more attractive. All fixtures, furniture and fittings should be at an appropriate height for the age group that will be using the classroom (Vertis, n.d.). Dudek describes that in classrooms for smaller children, a lower hanging ceiling should be used. He argues that the reasoning for this is that by making the spaces feel a bit smaller, it feels more proportional to the child. It gives them a sense of belonging as it makes them feel as if the space is designed for them whereas a space with a high-level ceiling can make them feel out of place (Dudek, n.d.).

Person B, a principal at a school, states that we also need to consider how the space changes as the children get older. For instance, in the classrooms for the younger children, the spaces usually have a lot of colourful and fun elements, as mentioned, to keep them stimulated and engaged in the space, whereas in the classroom for the older children, the spaces usually have less colourful and fun elements that can distract them from their studies (Person B, 2024). Schools should foster a calming environment so that the children are able to focus on their education.

Playgrounds
Playgrounds stimulate children in a different way as these spaces are often loud and noisy (McGowan, et al., 2023). A playground promotes more active stimulation for children whereas a classroom promotes more calm stimulation. The playground provides children with the opportunity to engage and interact with other children their age. Through this, children are able to learn and develop social skills, learn how to work in a team, learn empathy and communication skills (McGowan, et al., 2023). The playground allows children to engage with outdoor spaces and nature. The exposure to natural lighting and the natural elements can provide a visual and sensory connection to nature which can create a sense of calmness and encourage creativity (Designing for typologies, n.d.).

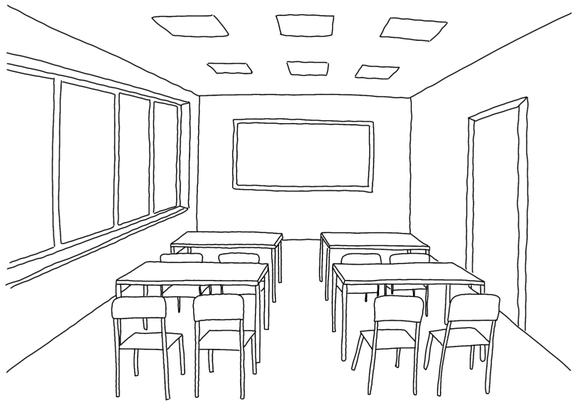
In today's community, the children's role is to be a student and to learn as much as possible. Due to the focus on children's academics, children now experience less play time as schools would rather children spend the time in the classrooms then on break (Ginsburg, 2007, pp. 182-191). Ginsburg argues that children should still be able to have their longer break times as children need an outlet to just have fun. Children need various spaces that provide various stimulations to cater to their various psychological and physical needs. Ginsburg further argues that by having this outlet, children will be more focused and motivated on their studies (Ginsburg, 2007, pp. 182-191).

Quiet Spaces
If a child feels too overwhelmed and overstimulated in the open, noisy spaces, a quiet space acts as a safe space where the child is able to regulate and get a sense of calmness and peace (Department of Early Education and Care, n.d.).

A quiet space is often located on the side of a busier area where children can have a bit more privacy (Deaton, 2023). To encourage calmness and peace, the space is often a little darker than the open busier area, and more subtle colours are used (Designing for typologies, n.d.).

A quiet space provides that child with a space where they are able to rest and reflect. It also supports observations and exploration within the child as these spaces often still look out onto the open busier areas (Department of Early Education and Care, n.d.).


Figure 3.4: A school with some spaces for strudents to relax during break time. (Author, 2024)


Figure 3.5: Classroom that provides a space for structured learning (Author, 2024)

THE ROLE OF PLAY IN CHILDREN DEVELOPMENT

A playground is usually the first thing people consider when thinking about a space for children to play in an urban public space (Dodd & Lester, 2021). As mentioned, playgrounds and outdoor spaces provide the opportunity for unstructured learning for children (McGowan, et al., 2023). However, children do not need just a playground to play. Children can play anywhere, in a playground, in a park, at school, at home. It is estimated that a child can spend about 20% of their time engaged in physical play (Dodd & Lester, 2021, pp. 164-181).

In order for children to play in a space, that space needs to be attractive for the children. It needs to have elements and features that are inviting and encourage children to engage with the space (Gill, 2022, pp. 1-5). "Play affordances" is a term used to describe physical features in a space that are used to encourage children to interact with and play in a space (Gill, 2022). Dudek describes that these 'play affordances' could be as simple as using smooth, flat surfaces on areas where you want to encourage walking, running or riding a bicycle and using a softer spongey surface in areas where you want people to be comfortable and relax like in a playground (Dudek, n.d.). As part of the early childhood development, these children's spaces should have elements that encourage sensory exploration in children. This could be through the use of loose materials such as sand and water for touch and sound, different plants and flowers for smell and the use of colour for visual stimulation (Roe & McCay, 2021).

Another factor to consider when designing children's spaces is that children like a little bit of a "risky play" or "adventurous play" in their spaces as the fear and challenge makes them curious and keep wanting to interact and engage with the space more (Sandseter, 2009). According to Dodd and Lester "adventurous play" can be defined as "child-led play where children experience subjective feelings of excitement, thrill and fear; often this occurs in the context of age-appropriate risk-taking" (Dodd & Lester, 2021, pp. 164-181). Some activities that are considered "adventurous play" are usually outdoor activities such as climbing trees, or children riding their bicycles very fast down a hill or going on a big slide. It is usually the activities that give the children a bit of adrenaline. The children realise that they like the sensation and then begin to seek that sensation again (Dodd & Lester, 2021). Some child psychologists even go as far as to argue that these "adventurous play" could be beneficial to children as they grow older as they would have become familiar with these feelings and thus reducing anxiety and panic in the child when they are older (Dodd & Lester, 2021).

Safety is an important factor to consider when looking at children's spaces. "Safety is often prioritised over children's developmental needs, and that 'surplus safety' restricts children's opportunities for adventurous play" (Dodd & Lester, 2021). Dodd and Lester further explain that due to the increased need for safety in children's spaces, parents have reduced the amount or stopped completely taking their children to outdoor natural urban spaces due to the limited access of a safe space. The parents would much rather stay at home and have their children play indoors where their safety can be ensured. Due to this, children now a days do not play outside as much anymore compared to in the past (Dodd & Lester, 2021).

This is an unfortunate outcome for the community as outdoor activities provide benefits for both the children and the parents. For children, being able to play outside positively impacts the child's wellbeing and it

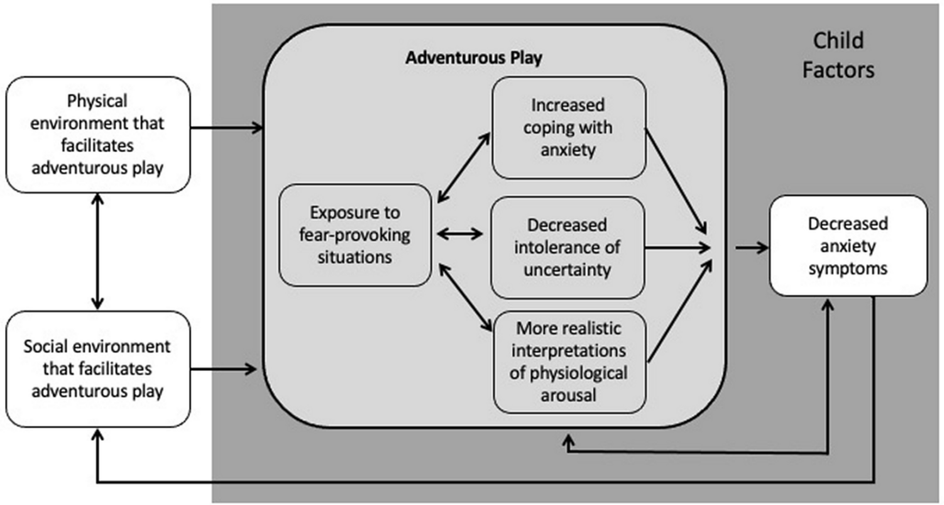


Figure 3.6: A diagram showing how children's adventurous play is affected by environmental and social factors (Dodd & Lester, 2021)

encourages healthy growth and development (Ginsburg, 2007). Outdoor natural urban spaces like a park, where there is a lot of nature can also provide a space where children are able to socialise and explore. A park can provide children with a lot of 'sensory-rich' experiences that will keep them curious and engaged in the space (Designing for typologies, n.d.). For the parents, these outdoor natural urban spaces can also improve the wellbeing of the parents by aiding in relaxation and leisure (Roe & McCay, 2021).

Dodd and Lester describe a study where a traditional playground was compared to a naturally designed playground. In the natural playground, natural materials such as rope and wood were used. The study showed that children seemed to prefer the natural playground as it provided more challenges whereas on the traditional playground, the children seemed to spend more time "wandering and standing still" (Dodd & Lester, 2021). In a different study children described the traditional playground to be more boring whereas they were more enthusiastic about the natural playground (Sandseter, 2009). Due to this, children should be encouraged to start playing outdoor more and engaging with natural spaces again.

Play is also important for children to have healthy brain development. "Play allows children to use their creativity while developing their imagination, dexterity, and physical, cognitive, and emotional strength" (Ginsburg, 2007). Children can explore and learn about their world through play. Play also helps creates deeper bonds in families. By playing with children, parents and grandparents are able to understand and communicate with them. It allows the opportunity for the parents and grandparents to see a different side of the children and learn new things about them. Through these interactions, deeper bonds are formed between the different generations (Ginsburg, 2007).

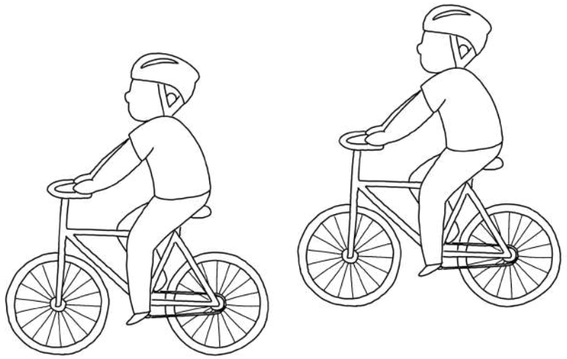


Figure 3.7: Children riding bicycles, a form of "adventurous play" (Author, 2024)



Figure 3.8: Colourful classroom to keep children engaged (Author, 2024)

A SENSE OF SECUIRTY

As mentioned, a playground is usually the first thing people consider when thinking about a space for children to play in an urban public space (Dodd & Lester, 2021). The issue is that some of these urban public spaces do not feel safe enough, so parents do not feel comfortable to let their children play there. "Parents may want their kids to play, but actually let them play only when it is comfortable for them to stay around to supervise" (Gill, 2022, p. 1). Gill describes a pattern identified in behavioural studies research which shows that more children play in areas and centres that have designated spaces for parents to comfortably watch their children. Parents want their children to be able to play in these urban public spaces, however parents only feel comfortable letting their children play in a space where they are clearly visible, and where their parents can ensure that their children are safe (Gill, 2022).



Figure 3.9: Parents watching children play (Author, 2024)

Steeves and Jones argue that "surveillance as care is a necessary condition of nurturing and educating children and young people" (Steeves & Jones, 2010, p. 187). Steeves and Jones describe that this aspect of having adult surveillance can be seen in other spaces for children. For instance, in the classrooms, teachers are constantly monitoring the children to make sure that they are focusing and working. In the library, the librarian is situated so that they have a good view of the space to easily monitor the children. Even on the playgrounds, there is a teacher on duty to keep an eye on the children while they play (Designing for typologies, n.d.). Steeves and Jones argue that with the development of technology, there is greater need and want for surveillance over spaces for children. This can be seen in many public spaces and schools having security cameras installed to easily monitor these spaces. In some nurseries and preschools, there is even live surveillance technology so that parents are still able to monitor their children from work (Steeves & Jones, 2010).

DESIGN CONSIDERATIONS

When designing a space for children, there are certain design strategies to consider and to apply to ensure that children feel comfortable and safe in the space, as well as to encourage children to play in the space.

The first and most important strategy to consider is safety. As mentioned, parents are more likely to take their children to a space where they can ensure the children's safety (Dodd & Lester, 2021). One way to do this is by using the second design strategy, which is to consider the visibility within these spaces. Parents only feel comfortable in a space when they feel like they are able to safely watch their children play. Parents also prefer public spaces that are slightly busier as it means that there are more people who can watch over the children (Designing for typologies, n.d.). In a public setting, it is more ideal to position a space for children near the entrance and exit points and near to the main movement routes. The reason for this is to increase the visibility and to optimise surveillance of the children's space (Department of Human Settlements, 2019).

Another thing to consider is that spaces for children need to be accessible for children (Designing for typologies, n.d.). "The design of a child-friendly space is advised to be such that the child can move and interact through it without the intervention of a supervisor" (Designing for typologies, n.d.). Dudek describes that by having fixtures and furniture at an appropriate height for the children, makes it easier for them to access and work in the space. It also ensures that children feel comfortable in the space and encourages a sense of belonging (Dudek, n.d.).

As mentioned, children also need to find these spaces attractive. This can be achieved by using 'play affordances' to make a space more inviting and exciting for children (Gill, 2022). Softer materials and finishes on surfaces should ideally be used to create a more inviting and comfortable environment (Designing for typologies, n.d.). Different lighting, colour and textures should also be used in different spaces to ensure that these spaces are providing the children with different types of stimulation to keep interested and engaged with the space (Roe & McCay, 2021). Other elements can also be introduced to a children's space to engage their different senses such as the use of loose materials such as sand and water for touch and sound, different plants and flowers for smell and the use of colour for visual stimulation (Roe & McCay, 2021).



Figure 3.10: A child engaging with their space (Author, 2024)

IMPACT OF DIGITAL AGE

In the present day, technology has become an important part of our daily lives, helping us function, communicate and interact with the world around us (Barr, 2019). Barr describes that technology can have a positive effect on children's development as it provides them with direct access to information and allows them to connect and interact with the online world (Barr, 2019). However, Schleicher discusses that some of the negative effects of this increased technology use is that children can be at risk of becoming disconnected with their surroundings and offline community around them (Schleicher, 2023).

The school is where children often experience the most social interaction and creativity. However, with the new digital age, professionals within the schools have noticed a decrease in social interaction and creativity amongst children (Person B, 2024). "It's this new digital age. It's like the creativity in children is being lost" (Person B, 2024). Person B, a principal at a school describes that within their school they have noticed that there has been a recent lack of social interaction between students. Since children now have digital devices, the students would rather sit by themselves and be on their cellphones instead of talking to their peers around them (Person B, 2024). Person B also describes how they also see the lack of creativity during the break, fun activities and academic activities as children want to rather be using their cellphones (Person B, 2024).

Schleicher discusses that due to this, it is important to teach children to disconnect from their screens at a young age and encourage them to reconnect with their offline world and community (Schleicher, 2023). However, since technology is such a crucial part of the modern world, it is important not to cut it out completely. Barr argues that technology can actually be used as a feature in spaces to promote social interaction (Barr, 2019). For example, gaming cafes provide a space where children are able to meet with their friends and play video games together (Sun, 2017). Sun describes that these cafés encourage offline social interaction as children are encouraged to bring their friends with them. These cafes can also help children interact with others in the space that enjoy similar games and thus growing their community circle. Through activities such as this, children are able to still interact with their offline and online communities simultaneously (Sun, 2017).



Figure 3.11: Children engaging in social interaction using digital devices (Author, 2024)

INTERGENERATIONAL CONNECTIONS

As previously mentioned, the relationship between the elderly and children is a very important element that contributes to the wellbeing of the community (Younes, et al., 2024). Cockrell describes that the relationship between the elderly and children is important as it allows for the transfer of knowledge and traditions from one generation to the next (Cockrell, 2022). Through these interactions, children are able to understand their community's traditions, culture, and identity. By understanding their cultural heritage, children can develop a sense of belonging and identity (Cockrell, 2022). These interactions can also encourage and allow stronger bonds between the elderly and children to develop which will improve the overall wellness for each generation and the community (Cockrell, 2022). Through these interactions children can also develop a sense of empathy, trust and comfort toward the elderly (Barysheva, 2020). Due to this sense of trust and comfort, the elderly will be able to have a mentor role in the children's life and provide them with guidance as they grow (Barysheva, 2020).

However, in many communities today, the bonds between the generations seem to lack its richness due to many households no longer being multigenerational. Grandparents live separately from their children and grandchildren. Due to this, grandparents and extended families are less likely to be able to watch over the children. Children in a household with a single parent or two working parents often find themselves having to go to a childcare centre or other type of setting where the children can be supervised and monitored by adults while they wait for their parents (Ginsburg, 2007). Due to this loss, it is important to have spaces that facilitate and encourage these intergenerational connections to maintain a community's identity and culture. These connections will also help maintain and improve the overall wellbeing of children and the elderly in the community.



Figure 3.12: Children interacting with the elderly (Author, 2024)

04
CONNECTIONS



Figure 4.1 : A view through the leaves (Author, 2024)

CONNECTIONS

INTRODUCTION

In this chapter, we will identify and discuss the overlapping themes and concepts that can be found in spaces for children as well as in spaces for the elderly. By identifying these recurring themes, we are able to gain a deep understanding of both spaces and discovering the shared needs and characteristics that define them. This process will act as a guide in the design development process to incorporates these recurring themes and concepts in a space to facilitate and encourage intergenerational connections to bridge the gap between children and the elderly.

A SENSE OF BELONGING

These spaces should encourage and create a sense of belonging and community. By doing so, it can help improve social interaction, improve overall wellbeing and improve the quality of life for children and the elderly. One way to create a sense of belonging is to encourage the elderly and children to interact with and support each other.

For instance, the elderly can watch over the children, or they can act as a mentor for children. This will provide a sense of security for the children as well as providing an opportunity for them to experience personal growth and development through the mentorship. This interaction can provide an enriching and stimulating activity for the elderly whilst also giving them a sense of purpose and belonging

IMPORTANCE OF SPACE

It is important that spaces for the elderly and for children reflect and respond to their specific needs and challenges. However, it is important to understand that these needs are not specific to either generation.
In fact, many of these needs and challenges are common amongst both the elderly and children. These spaces should accommodate and help improve their physical, emotional and social needs. These spaces can also be used to enhance their quality of life.

DESIGN STRATEGIES

Similar design strategies are applied to spaces for both children and the elderly such as accessibility, visibility and the use of colour and materials to stimulate the children and elderly. The way these strategies are applied in a space can improve the legibility through and in these spaces.

COMFORT, SAFETY AND STIMULATION

The three main components that define the spaces for children and the elderly are comfort, safety, and stimulation. These spaces had to have a sense of comfort and security for the elderly and children to use the space. Accessibility and visibility are key concepts used to ensure a sense of comfort and security is created in these spaces. Surveillance in these spaces is also important to be able to monitor the elderly and children.

These spaces also had to be stimulating so that children and the elderly would be interested in the space and would want to actually use and interact with the space. A range of design elements and strategies, such as the use of colour, lighting and materiality, were used to achieve these components in the spaces.

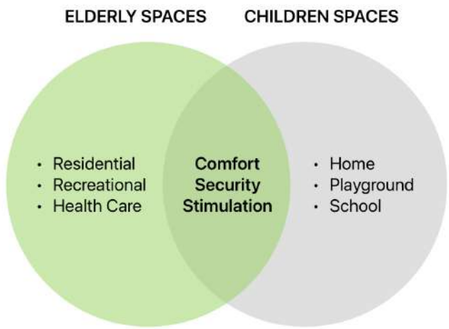


Figure 4.2: Diagram showing the main components in spaces for children and the elderly (Author, 2024)

INTERGENERATIONAL CONNECTIONS

These connections between the generations provide benefits and improve the wellbeing of both the elderly and children as well as the community. These interactions can provide the elderly with a sense of purpose whilst fostering empathy and appreciation for culture and history in children

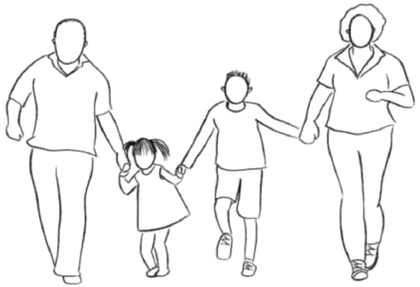


Figure 4.3: Intergenerational Connections, (Author, 2024)

SOCIAL INTERACTION

Social interaction amongst the elderly and children is important to improve their wellbeing. Social interaction has benefits for both generations as it can prevent loneliness and isolation in the elderly whilst promoting communication, teamwork and social skills in children. Spaces for the elderly and children should have design elements that encourage social interaction.

The importance of social interaction amongst their own age group, as well as with the rest of the community is discussed in both chapters for the elderly and children. Social interaction can be encouraged in a space using design strategies that meet the needs of the generations.

IMPACT ON WELLBEING

The spaces for the elderly and children can directly impact their wellbeing. For this reason, it is important that these spaces use design strategies that can help encourage and improve the physical and mental wellbeing of the elderly and children. By doing so, these spaces can help improve their quality of life.

These spaces are important as they can help improve and maintain the physical and mental wellbeing of the elderly and children. This can be achieved through using various design strategies.

OTHER SIMILARITIES

Both children and the elderly require a lot of care and patience when dealing with them.

CONCLUSION

As discussed, the overlapping themes and concepts to consider in spaces for the elderly and children are the importance of safety, comfort, stimulation and social interaction.

By recognising and understanding these shared themes and concepts I will be able to better incorporate design strategies that cater to the needs and challenges of the elderly and children to create a safe space that encourages intergenerational connections.

Programming and design strategies that create a sense of belonging, as well as improving the wellbeing and quality of life for the elderly and children can be incorporated into the project. Some programming derived from this analysis is spaces such as workshops, libraries and restaurants where the elderly and children can interact and learn from each other.

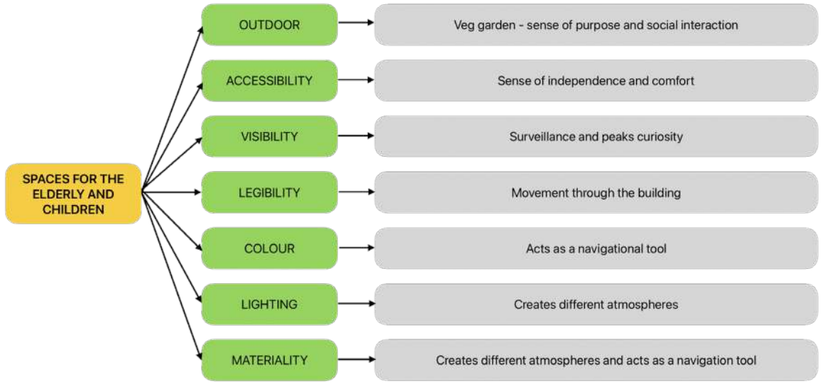


Figure 4.4: Diagram showing the design strategies and programming applied to spaces for children and the elderly (Author, 2024)

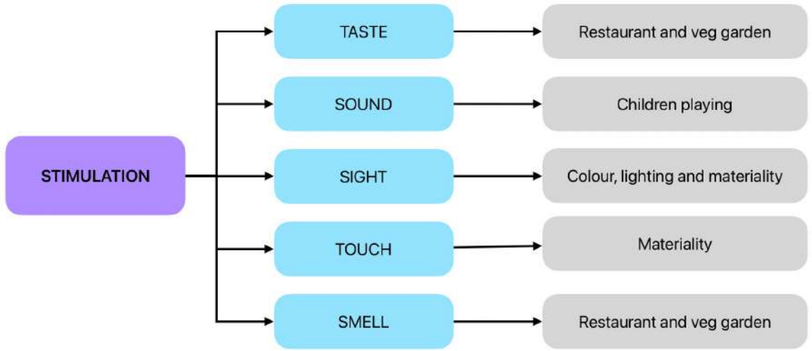


Figure 4.5: Diagram showing the design strategies and programming used to stimulate children and the elderly in the building (Author, 2024)

05
THE PARK AND PUBLIC SPACES



Figure 5.1: Texture of the park (Author, 2024)

THE PARK AND PUBLIC SPACES

INTRODUCTION

For a long time, parks have been an important part of the community by providing communal spaces from ancient times to the modern urban development now. The park is more then just a green open public space. The park provides a space where users are able to take a break from their busy urban lives. The park encourages recreation and relaxation. It also offers a space to encourages social interaction encourages users to form connections with nature.

In this chapter, we will discuss the development of parks and the benefits that the park provides for the community. By understanding these aspects, we will be able to appreciate the park spaces more and use it to enhance our community.

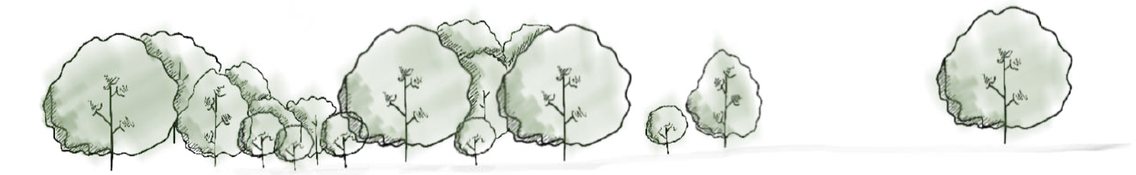


Figure 5.2: A row of trees (Author, 2024)

DEVELOPMENT OF THE PARK

In the past, the concept of a park was a bit different to how we view parks today. The earliest parks were previously used as hunting grounds by Persian Kings. In ancient Athens, parks were formed as an open-air space where the public could meet and socialise. These spaces were also used as an exercising ground where athletes could train. During the renaissance times, the park could even be considered as the woods between villages (Nicholas, 2024). However, the idea of a modern park today is something simpler. According to Cambridge dictionary a park is “a large area of land with grass and trees, usually surrounded by fences or walls, and specially arranged so that people can walk in it for pleasure or children can play in it” (Cambridge Dictionary, n.d.).

A park is referred to as an ‘open public space’. The term ‘open public space’ is used to refer to land, either publicly or privately owned, that is open for the public to use (Department of Human Settlements, 2019). For a park or any public space to be successful, it needs to be accessible to all members of the public (Department of Human Settlements, 2019). “Public open spaces support a broad spectrum of activities and take on various forms. Open space performs important environmental functions and plays a key role in improving the health of communities.” (Department of Human Settlements, 2019, p. 2).

Parks are found all over the world but the way in which the parks are designed will differ according to the needs and wants of that country. A country’s climate, social habits, cultural attitudes and pastimes effects the design of a park (Nicholas, 2024). The purpose of a park is to provide a space for recreation and relaxation in the busy urban environment. The second purpose of a park is to bring nature into the built environment (Nicholas, 2024).



Figure 5.3: Low level fence used to define the boundary of the park (Author, 2024)

TEXTURES OF THE PARK



Figure 5.4: Grass Texture (Author, 2024)



Figure 5.5: Tree Trunk Texture (Author, 2024)



Figure 5.6: Tree Trunk Texture (Author, 2024)



Figure 5.7: Leaf Texture (Author, 2024)



Figure 5.8: Seed Texture (Author, 2024)



Figure 5.9: Leaf Texture (Author, 2024)

COMMUNITY WELLBEING

Parks can provide a variety of benefits to the community as studies show that parks can improve the wellbeing of community members both physically and mentally (Miracle Recreation, n.d.). Parks provide a space where people can go for walks, running and for riding their bicycles. It provides a space where people are able to be active. Studies show that being in a park space can help with mental wellbeing as engaging with nature helps reduce stress, depression and anxiety in people (Miracle Recreation, n.d.).

Another benefit of the park is that it provides a space which creates the opportunity for people to form meaningful connections with others. It provides a space where people can meet and interact with friends and family and other people from their community. This promotes and improves socialisation amongst the community members and thus creating and improving the sense of the community and belonging (Goodner, 2023). This sense of community also helps decrease feelings of isolation and depression in some people such as the elderly (Hall & Porterfield, 2001). In regard to children, being in a park encourages the children to be active and play with others which also helps develop a child's social skills (McGowan, et al., 2023).

Another functionality of park spaces is that it allows the opportunity for urban agriculture. The park can provide a space for a community garden. The fruit and vegetables harvested in this garden can be distributed amongst the community members through the community centre. The community members can aid in maintaining the garden. This interaction will also aid in creating a sense of community (Department of Human Settlements, 2019).

A park can also provide economic benefits to the community. Park spaces increase the property value of houses in the area. If more people from neighbouring areas come to visit the park, it can improve the local economics. The park can also create job opportunities for positions such as a park management and positions for park maintenance (Goodner, 2023). Parks can also provide cultural and educational enrichment to the community as the park provides a space where a range of events and activities could be hosted such as educational programs, festivals and concerts. It can create a space that provides the opportunity for learning (Goodner, 2023).



Figure 5.10: Seeds in a park (Author, 2024)

Taking care of the parks...

DESIGN CONSIDERATIONS

For a park space to be successful it also needs to be easily accessible to people. "Access distance refers to the distance that people have to travel (usually from where they stay) to reach an open space" (Department of Human Settlements, 2019, p. 26). Parks should ideally be positioned near to their target audience to reduce access distance and walkability. This would allow access to the park to be more convenient and therefore increase the likelihood of people using the park (Department of Human Settlements, 2019). The boundary of a public space should be clearly defined to indicate a change of land. As seen in figure 5.3, this could be in a form of a small fence, a change in surface materiality, or even just a row of bollards (Department of Human Settlements, 2019). Park spaces are also becoming limited in the urban areas, this is due to developers taking over the natural land and using it construct buildings and parking spaces (Nicholas, 2024).

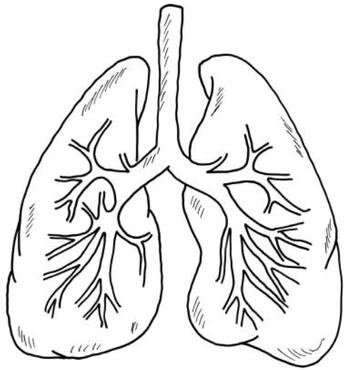


Figure 5.11: Human's Lungs (Author, 2024)

... is taking care of ourselves.

Nicholas argues that one reason why parks are not used as frequently anymore is due to how busy the modern urban life is. Nicholas argues that if parks were to remain as just an open-air space, they will remain unused. Now a days, in order for a park to be intensively used and be consider successful, a park needs to have a multifunctional purpose. People need to have many different things that they are able to do on the site for the space to be regularly used. Some examples of spaces that the park could contain is an area for sports, an outdoor theatre or a designated area for exercise (Nicholas, 2024).

It is important that each these spaces are adequately designed so that it meets the needs and requirements of the users. For instance, in the children's space like a playground, visibility and surveillance are important. A playground should not be designed near a busy road and the playground should be designed and planned in a way that ensures the security of the children in the space. However, in a space for the shops and traders, they would need a form of shelter and storage (Department of Human Settlements, 2019)

In some communities, parks are the only space where people are able to engage with nature and be active (Miracle Recreation, n.d.). Parks can also provide the opportunity to plant indigenous and native plants in the area. Having these green spaces in the urban environment are beneficial as the natural materials reduce the impact of climate change and heat gain in the area. They can also help improve the air quality and help reduce flash floods (Goodner, 2023).

TEXTURES OF THE PARK



Figure 5.12: Plant Texture (Author, 2024)



Figure 5.13: Tree Trunk Texture (Author, 2024)



Figure 5.14: Grass Texture (Author, 2024)



Figure 5.15: Leaf Texture (Author, 2024)



Figure 5.16: Leaf Texture (Author, 2024)



Figure 5.17: Fallen Tree Trunk Texture (Author, 2024)

SENSE OF SECURITY

An important requirement for a successful park is that people need to feel safe and comfortable in a park. Part of this comfort could be achieved through some form of protection from the natural elements, as seen in figure 5.19, so that people can have some degree of comfort while in the space. In order for people to feel safe in a park, a sense of security can be achieved by using design elements to create a sense of enclosure around some of the spaces (Department of Human Settlements, 2019).

As mentioned, the way that spaces within a park are organised are also very important to ensure that an adequate sense of security is created. Spaces like the children's playground need to ensure that there is adequate visibility and surveillance over the space to ensure a sense of security (Steeves & Jones, 2010).

Parks also need to be well maintained to achieve this sense of security. If parks are not maintained, it could lead to parks feeling very unsafe. If people start to feel unsafe, they will stop using the parks. This could eventually lead to the park being used for unintended purposes and crime (Department of Human Settlements, 2019).



Figure 5.18: Trees (Author, 2024)

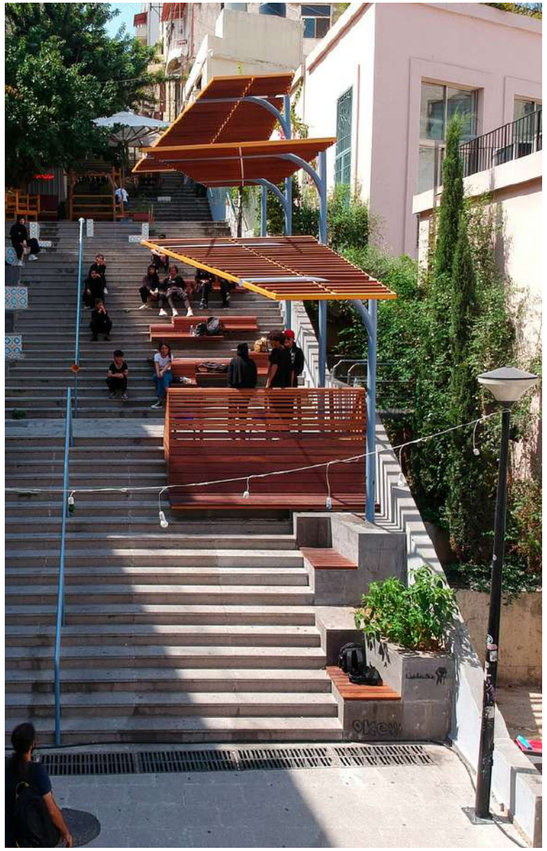


Figure 5.19: Public spaces need shelter from the elements (Harrouk, 2024)

INTERGENERATIONAL CONNECTIONS

A park should be inclusive of everyone. A community park should "serve the needs of the people living within walking distance of the park" (Department of Human Settlements, 2019, p. 18). As mentioned, the purpose of a park is to provide the opportunity for people to experience relaxation and recreation. This is achieved through various activities and facilities found within the park (Department of Human Settlements, 2019). These spaces are meant to keep people of different ages interacting and engaging with the park.

Generally, parks are marketed towards the younger generation. A study that looked into the ages of park users described the results as "adults ages 60 and up made up only 4 percent of park-goers, even though they're 20 percent of the population. Thirty-eight percent of park users were children and 13 percent teens" (PlayCore, 2023). A well-designed park should provide benefits for all generations (PlayCore, 2023). "One of the most important aspects in creating intergenerational relationships is paying attention to how the physical environment plays a role in promoting or inhibiting intergenerational engagement" (PlayCore, 2023). It is important to understand how the different generations use their physical space in order to have a well-designed intergenerational space. Inclusivity for all age groups can be achieved by including facilities where each generation will be able to participate. Inclusivity can also be achieved through observation of other generation's spaces. The elderly can watch the children's space from benches on the side. There may be occasions where the different generations would prefer to engage with only their generation. Therefore, flexibility and providing a choice will be important in these spaces (Gill, 2022, pp. 35-39).

Park spaces can be used to promote intergeneration connections through the social engagement between the generations. Some elderly members also feel very passionate about nature and the space they leave behind for future generations. This love and passion could be used as an opportunity to create intergenerational connections as the elderly can teach the younger generation what they have learned and pass down their love and passion down to the younger generations (Miracle Recreation, n.d.). Park spaces bring people of different age and backgrounds together. Through these interactions in the park, the community can combat generational issues such as generational segregation and prejudice against the elderly and children (Goodner, 2023).

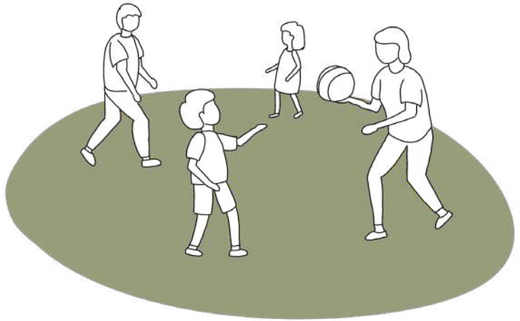


Figure 5.20: The elderly and children playing in the park (Author, 2024)

TEXTURES OF THE PARK



Figure 5.21: Fallen Tree Trunk Texture
(Author, 2024)



Figure 5.22: Cut Tree Branch Texture
(Author, 2024)



Figure 5.23: Fallen Tree Trunk Texture
(Author, 2024)



Figure 5.24: Tree Branch Texture
(Author, 2024)

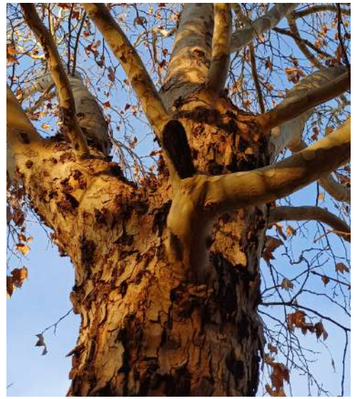


Figure 5.25: Tree Trunk Texture
(Author, 2024)



Figure 5.26: Rock Texture
(Author, 2024)

06
THE SITE



Figure 6.1: The Site (Author, 2024)

THE SITE

INTRODUCTION

Johannesburg is a vibrant city filled with a rich, diverse culture and history. Within the city there are many regions, each having its own unique culture and history within its communities. The suburbs of Linden, Risidale, and Northcliff are amongst the older suburbs in Johannesburg (Anon., 2019). The community within this suburb has a wide age range, ranging from little kids going to school, to parents going to work, and the elderly living in retirement villages. “According to Merriam-Webster’s Collegiate Dictionary, tenth edition, community is “an interacting population of various kinds of individuals (as species) in a common location” or “a group of people with a common characteristic or interest living together within a larger society”” (Hall & Porterfield, 2001)

In the 1930’s this area consisted of residential and farming land (Davie, 2018). The soil was very fertile, due to the acidic clay which was ideal for peach and cherry orchards (Davie, 2018). There were about three hundred to four hundred families living in the area, each with their own borehole water supply. However, in the early 1950’s the farms started to gradually disappear. By the late 1950’s the area was considered to be a “fully developed urban suburb” (Davie, 2018).

Today, these suburbs of Linden, Risidale and Northcliff are known for being pretty suburb with a variety of programming such as a lot of trendy coffee shops, antique shops, schools, retirement villages, homes and more. Majority of these programming in the area are directed towards the young adult to middle aged adult generation.



Figure 6.2: Locality Drawings (Author, 2024)

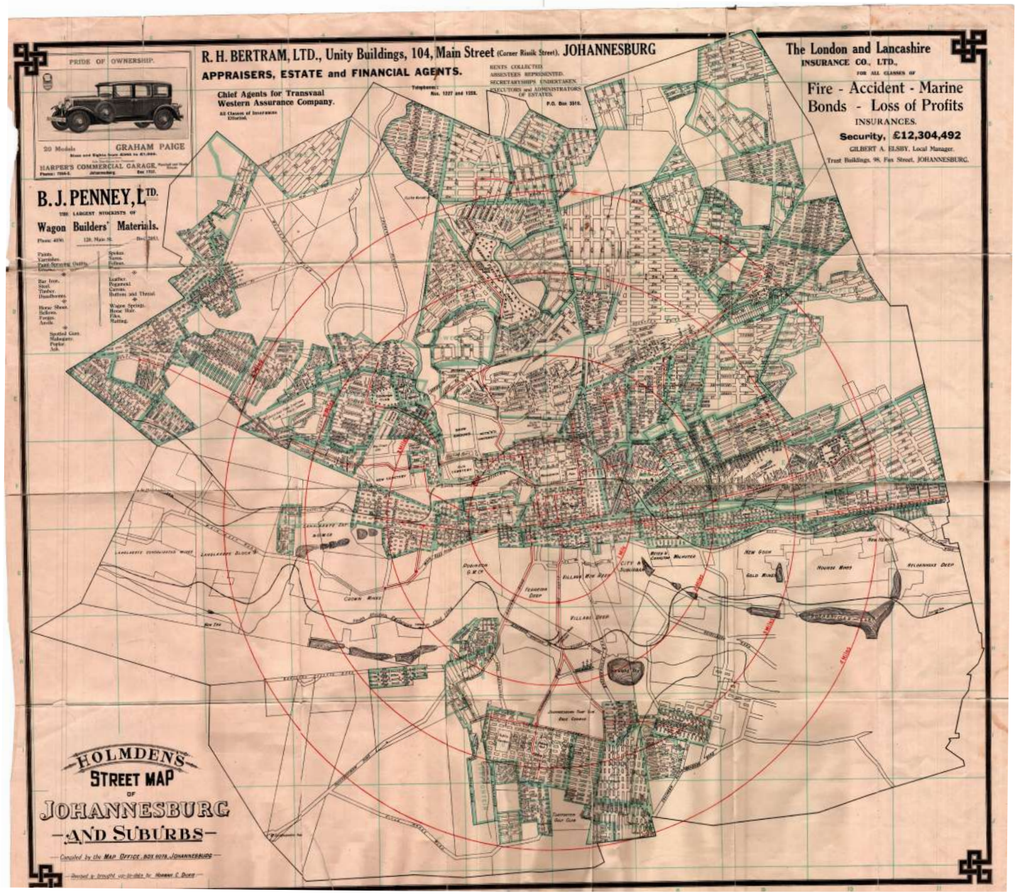


Figure 6.3: Johannesburg Historical Map (Latilla, 2015)

CHOSEN SITE

The chosen site for this community centre is an underused park situated in Risidale. Currently the site is a neglected, open urban space which people use as a shortcut to cross to the other side. 'Recyclables collectors' and some homeless people occupy the park during the day and night. The park is currently underused due to people feeling unsafe and uncomfortable in it.

The site is situated between the new Johannesburg Surgical Hospital and Darrenwood Retirement Village. Within a 1.5km radius from the site, there are four retirement villages and thirteen schools, with more still on the outskirts of this radius. There are also many commercial and residential buildings within this radius.

Based on this, the site is an ideal location for this community centre as it is easily accessible to all generations using the different facilities in the area. Students from the nearby schools, occupants from the retirement villages and individuals working or living in the area will be able to get to the community centre easily and conveniently.

The community centre will have a health and wellness centre which will be ideal for the elderly and children who do not want to go to a bigger hospital due to being viewed as high-risk patients. The proximity of the site to the hospital is beneficial for the health and wellness centre within the community centre as doctors can easily and quickly transfer patients to the larger hospital should they require more advanced care. The accessibility to medical care also ensures that healthcare services will be readily available to the community.



Figure 6.4: Old Shop in Linden (Davie, 2018)



Figure 6.5: Risidale SG Diagram (GeoLis, 2024)

SITE INFORMATION

Park Name: Mushroom Park
Site Address: 12 Cecilla Avenue, Risidale
Site Area: 12137m2 + 17924m2 = 30 061m2
Erven: Erven 164 and Erven 165
Zoning: Erven 164 – Educational
Erven 165 – Public Open Space
Height Zone: A
Height Restrictions: 3 Storeys
Coverage: 50%
FAR: 2.1
Building Lines Restriction: 3m Building Line,
1,5m Street Boundary

NOTE:
The Community centre will be on positioned on the portion of the park that is erven 164, zoned as educational.



Figure 6.6: Chosen Site (Author. 2024)

SITE OBSERVATIONS

During the year I have made numerous visits to the site. To get a proper understanding of the site and the extent of its uses, I visited the site on different days and at different times. For the majority of my visits, the park remained empty. Occasionally there were some people walking across the park, using it as a shortcut to get to the other side. There were often 'waste-pickers' or 'recyclables collectors' or more informally known as the 'trolley guys' who were gathered on the one side of the park. There were also a few times where homeless people could be seen sleeping and occupying the park. Throughout the whole year, I have only seen two children playing on the playground during the one Sunday afternoon.

Through these observations I came to an understanding that this park is underused by the surrounding community. With the presence of the homeless people and the 'recyclables collectors' in the park, a person does not feel safe enough to be in the park alone. These observations have led me to believe that the park is underused due to the lack of a sense of security.

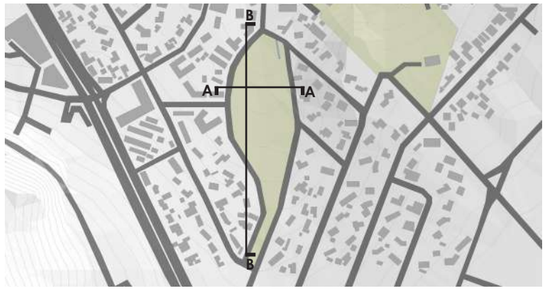
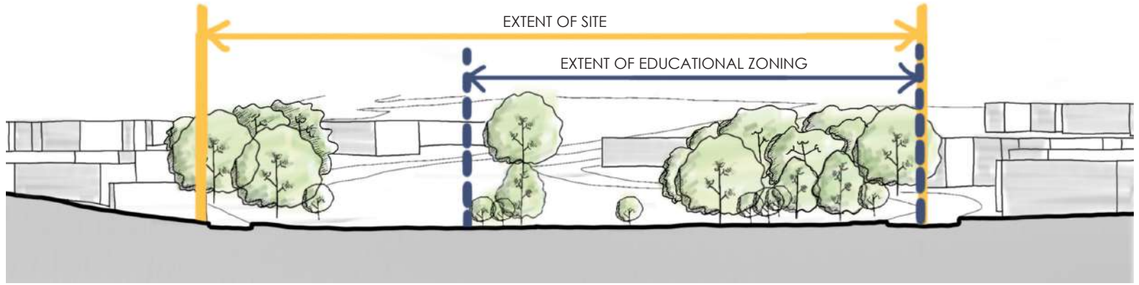
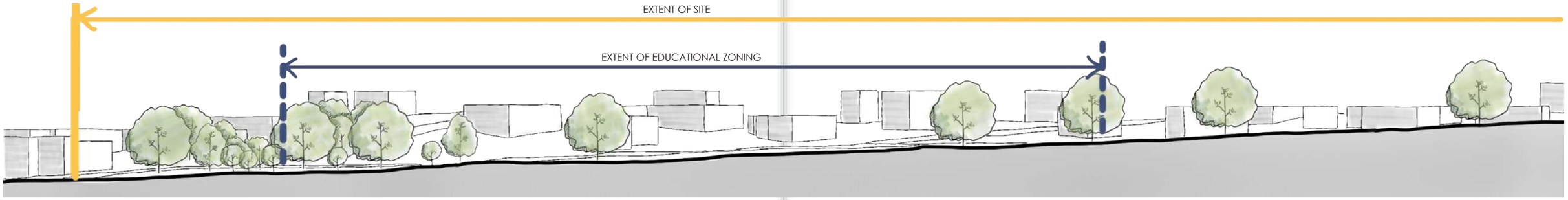


Figure 6.7: Reference Plan (Author. 2024)



Section AA

Figure 6.8: Section through site (Author. 2024)



Section BB

Figure 6.9: Section through site(Author. 2024)

SITE ANALYSIS

POINTS OF INTEREST

The Point of Interest for this project are the retirement villages and schools within the surrounding area. As mentioned, within a 1.5km radius from the site, there are three retirement villages and thirteen schools, with more still found on the outskirts of this radius.

There are also many commercial and residential buildings within this radius.

The proximity of the site to these points of interest is beneficial as it makes the project more accessible to its target audience.

KEY:

- Retirement Villages - The Elderly
- Schools - Children
- Site

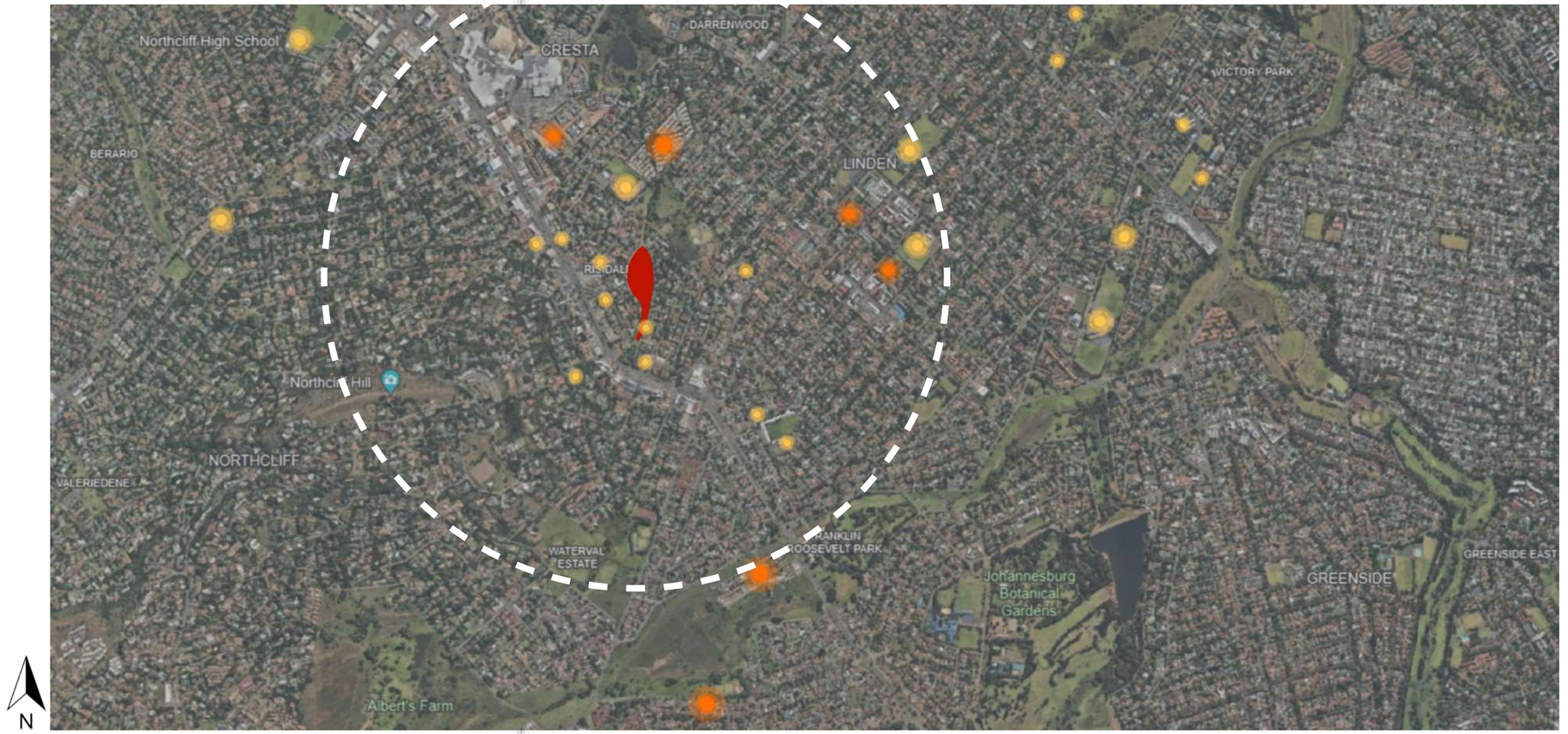


Figure 6.10: Points of Interest (Author, 2024)

ZONING

The site is divided into two erven – erven 164 and 165. Each erven has a different zoning.

Erven 164 is zoned as educational. Erven 165 is zoned as public open space.

The community centre will be positioned on erven 164, the portion of the park that is currently zoned for educational.



Figure 6.11: Zoning (Author, 2024)

KEY:

- Erven 164 - Educational Zoning
- Erven 165 - Public Open Space Zoning
- Site Boundary

DESIRE LINES

As mentioned, the park is currently mostly used as a shortcut to get to the other side. This can be clearly identified by the desire lines along the site.

For this project, the building will be placed along these desire lines to encourage people to interact with the building.



Figure 6.12: Desire Lines on site (Author, 2024)

KEY:

- Site Boundary
- Desire Lines



Figure 6.13: Desire Lines (Author, 2024)

PROGRAMMING

Withing the surrounding area of the site, the following programming can be found:
- Retirement Villages
- Schools
- Commercial
- Residential
- Medical Facilities
- Religious Facilities

KEY:

- Site
- Retirement Village - The Elderly
- School - Children
- Residential
- Commercial
- Medical Facilities
- Religious Facilities

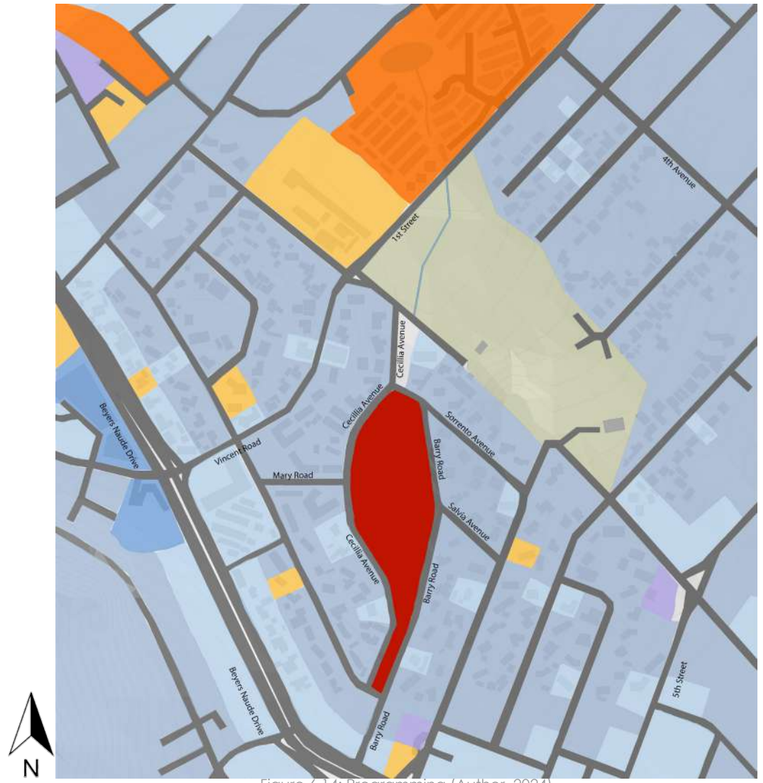


Figure 6.14: Programming (Author, 2024)

WALKING DISTANCE

Surrounding the site, a couple of the points of interest are within walking distance from the site, making it more easily accessible to the target audience. Within this immediate context, the furthest retirement village is a 750m walk away and the closest school is a 160m walk away from the site.

KEY:

- Site
- Retirement Village - The Elderly
- School - Children
- Walking Distance



Figure 6.15: Walking Distance (Author, 2024)

ELDERLY PEDESTRIAN ROUTES

This map depicts the routes that some of the elderly residents in the retirement village take during the day. Sometimes they like to walk around the neighbourhood to get out of the retirement village for a while.

Along this route, some stop at the local stores or bowling club. Some even walk to the nearby schools to pick up their grandchildren.



Figure 6.16: Elderly Pedestrian Routes (Author, 2024)

KEY:

- Retirement Village - The Elderly
- School - Children
- The Elderly Movement

CHILDREN PEDESTRIAN ROUTES

This map depicts the routes that children from the nearby school usually take after school. Some children take a walk to go visit their grandparents in the neighbouring retirement village. Whilst some children take a walk to the nearby local stores for snacks and some walk across the site to get to their extra tuition classes which is situated on the other side of the park.



Figure 6.17: Children Pedestrian Routes (Author, 2024)

KEY:

- Retirement Village - The Elderly
- School - Children
- Children Movement

VEHICULAR ROUTES

The site is situated near two main vehicular routes. The main primary route is found along Beyers Naudé Drive whilst the main secondary route is found along Vincent Road going into 1st Street. This route runs pass a retirement village and primary school that are near the site.

There is a bus system that runs in the area, with a few bus stops situated a short walking distance from the site.



Figure 6.18: Vehicular Routes (Author, 2024)

KEY:

- Bus Stops
- Bus Routes
- Vehicular Movement
- Site

NOISE LEVELS

Due to it being the main primary route in the area, most of the noise near the site can be found along Beyers Naudé Drive. The main secondary route is usually noisy in the early mornings when people are going to work and with parents dropping their children off at school. This route is noisy again in the afternoon during school pick up times and people returning home, however during the day the noise levels are relatively low. The noise levels around the site are usually relatively low.



Figure 6.19: Noise Levels (Author, 2024)

KEY:

- High Noise Level
- Low Noise Level
- Site

POSSIBLE BUILDING POSITION

As seen in figure X, there are a couple trees on the site. The eastern side of the park has larger, denser trees compared to the western side of the park which has smaller trees that are more scattered. The central portion of the park has very small to no trees.

Due to the placement of the trees, an ideal position for the building for this project would be near the trees on the western side of the park. This position, marked in red, would still allow the building to be within the educational zoning and along the desire lines. It would also be an ideal position as the building will easily be seen from the roads leading to the park.

KEY:

- Retirement Village - The Elderly
- School - Children
- Children Movement
- The Elderly Movement
- Possible Building Position
- Desire Lines



Figure 6.20: Possible Building Position (Author, 2024)

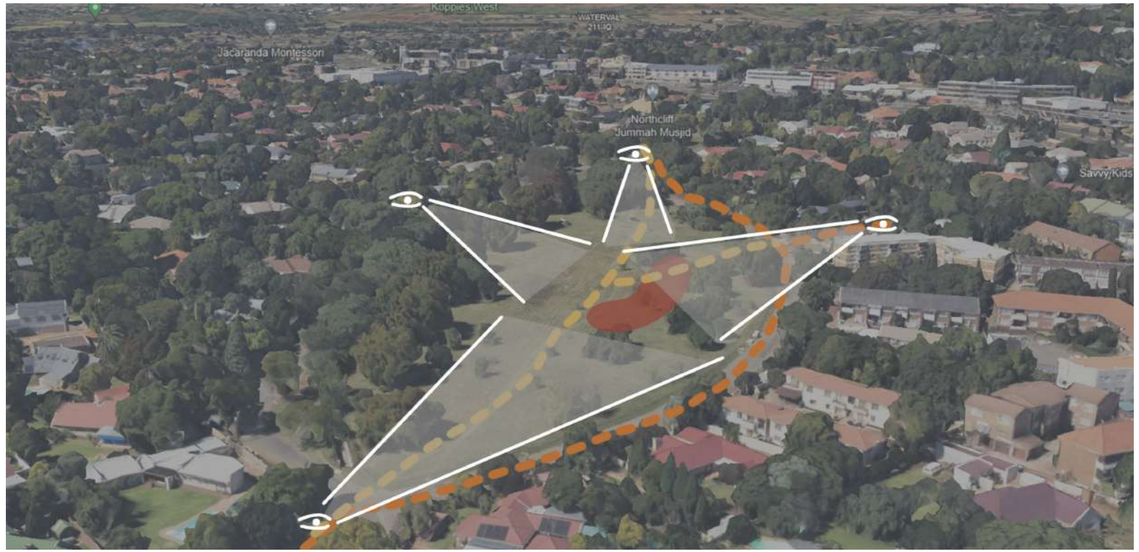


Figure 6.21: Sight Lines (Author, 2024)

SITE VIEWS



Figure 6.22: Plan showing the direction of site views (Author, 2024)



View 1 Figure 6.23: View 1 of the park (Author, 2024)



View 4 Figure 6.26: View 4 of the park (Author, 2024)



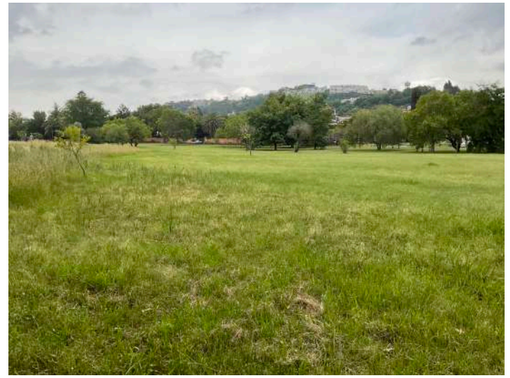
View 2 Figure 6.24: View 2 of the park (Author, 2024)



View 3 Figure 6.25: View 3 of the park (Author, 2024)



View 5 Figure 6.27: View 5 of the park (Author, 2024)



View 6 Figure 6.28: View 6 of the park (Author, 2024)

07
CASE STUDIES



Figure 7.1: A space where learning meets play (Meshworks Architects, n.d.)

CASE STUDIES

01 HABITAT 67

Habitat 67 was designed by Israeli-Canadian architect Moshe Safdie. The project located in Montreal, Canada was built for Expo 67 (Desson, 2019). The aim of the project was to develop a new way of thinking about apartment buildings. Safdie's goal during this project was to ensure that everyone had access to private outdoor spaces and still being able to maintain a sense of community in a dense urban environment (Desson, 2019).

Safdie was able to achieve this by stacking units on top of each other in a manner that allowed each unit to have their own terrace. He did this in a way so that the roof of one unit was the terrace of another. (Architects, n.d.) By doing this, he forced occupants to interact with each other since each terrace was visible to their surrounding neighbours. This forced interaction allowed a sense of community to be maintained.



Figure 7.2: Habitat 67 (Safdie Architects, n.d.)

The units are stacked on top of one another. The arrangement of the stacked units encourage interaction with neighbours, as each neighbour is clearly visible to the others from their garden terrace. This then helps to maintain a sense of community as occupants are forced to engage with one another.

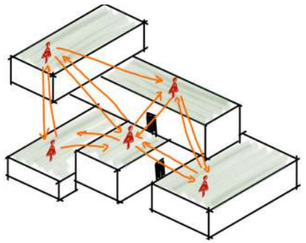


Figure 7.3: Unit Visibility (Author, 2024)



Figure 7.4: Habitat 67 (Safdie Architects, n.d.)



Figure 7.5: Section showing the visibility between units (Author, 2024)

In the design of Habitat 67, Safdie also included a lot of plaza spaces in the middle of the complex, with units facing the central plaza. This was done to create a visual connection between occupants and force them to interact with each other in the central plaza.

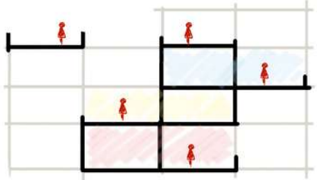


Figure 7.6: Forced Social Interaction (Author, 2024)

The units are designed so that the roof of one unit is the garden terrace of another unit. This is another tool Safdie uses to maintain a sense of community.

KEY CONCEPTS

- COMMUNITY ENGAGEMENT

Encouraging the occupants within the complex to engage with one another was a crucial element to ensure the success of Habitat 67.

- VISIBILITY

Visibility is a key feature that ensures the success of Habitat 67. This is evident as it is the visibility of the different spaces to the occupants that allow them to create these visual connections and maintain the sense of community. The placement and levels of these spaces were also crucial to ensure the visual connections achieved.

APPLY TO DESIGN

The placement of the programming within my building is very important. the program needs to be placed in a way that everything is clearly visible to each other. The visibility connections between my programming will be important as it will help draw people from one programming to the other.

Along the circulation routes between the different programming, there should be some form of element that force social interaction between occupants and this will help create the sense of community within by building.

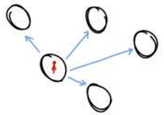


Figure 7.7: Visibility Connections (Author, 2024)

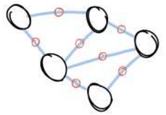


Figure 7.8: Forced Social Interaction Placement (Author, 2024)

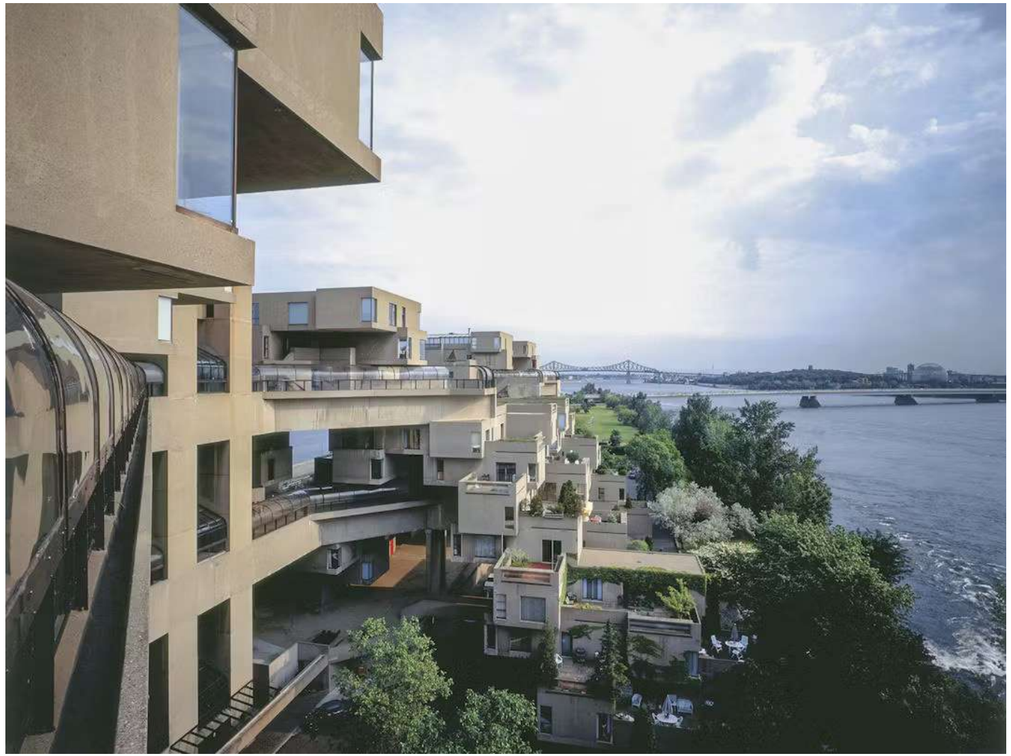


Figure 7.9: Habitat 67 (Safdie Architects, n.d.)



Figure 7.10: Habitat 67 (Safdie Architects, n.d.)

02 AUCKLAND PARK PREPARATORY SCHOOL: STEAM CENTRE

The Auckland Park Preparatory School's new STEAM Centre is located in Johannesburg, South Africa. The STEAM Centre was designed by Meshworks Architecture + Urbanism, an architecture studio headed by Guy Trangos and Catherine de Souza. (Smith, 2024)

The STEAM Centre is a new addition to the existing library. The design of the space focuses on creating various spaces to meet the diverse needs of children (Urbanism, n.d.). The spaces within the Centre vary from noisy workshops to quiet pods and reading nooks.



Figure 7.12: STEAM Centre (Meshworks Architects, n.d.)

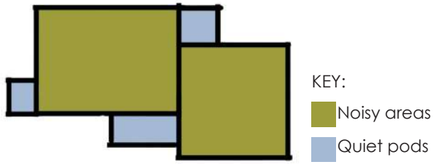


Figure 7.11: Noisy Area vs Quiet Pods (Author, 2024)

Within the Centre, the various spaces are linked together. The bigger, more central spaces are the noisy spaces where many students can work together and have loud, creative discussions and workshops. The smaller, quieter spaces branch off from these central spaces and provide a quite pod for students to study or read in peace.

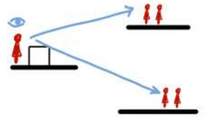
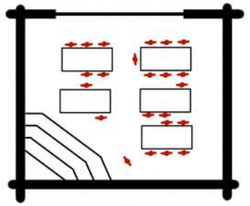


Figure 7.13: Librarian Visibility on Children (Author, 2024)

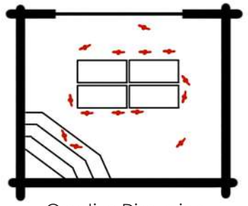
Visibility and security are key concepts in the design. This is seen as the librarian is positioned on the mezzanine level in the middle of the library so that they always have full visibility of the children, thus also ensuring the children's security.



Art Class



Choir Practice



Creative Discussion

Figure 7.14: Showing the versatility of space (Author, 2024)

The big, noisy spaces are also designed to host various types of workshops and activities. The aim is for the space to be easily adapted to fit the required needs of the occupants. One room can be used to host an art class, choir practice or even just a creative discussion.

Figure 7.14 shows how one space is easily adapted to fit the needs of the workshop or activity hosted in that space.



Figure 7.15: STEAM Centre (Meshworks Architects, n.d.)

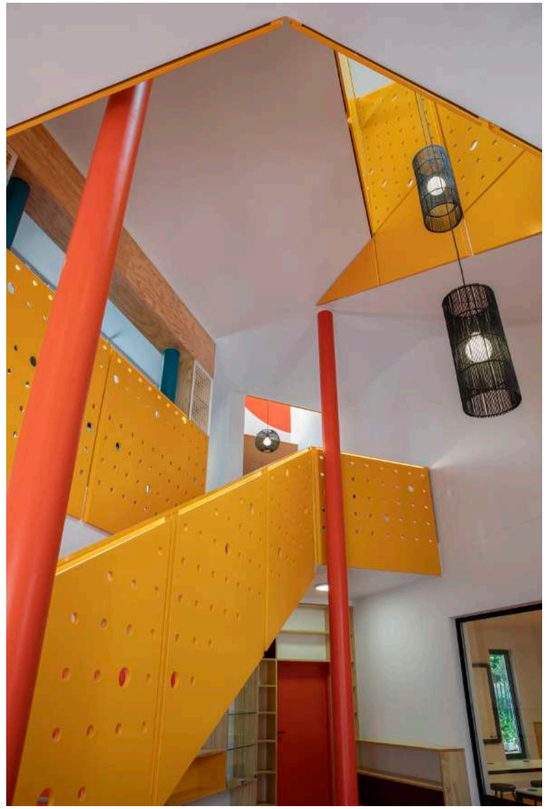


Figure 7.16: Vertical Circulation (Meshworks Architects, n.d.)

The use of colour is a powerful tool as it draws the students in and makes them want to interact with the space more. The colourful style is still taken into the staffroom however those spaces are combined with some neutral elements to appease the older generation.

Colour is also used to easily direct people through the building. This is seen with the stairs as all vertical circulation is in yellow.

KEY CONCEPTS:

- VERSATILITY OF SPACE
- USE OF COLOUR
- VISIBILITY
- SECURITY
- LEGIBILITY

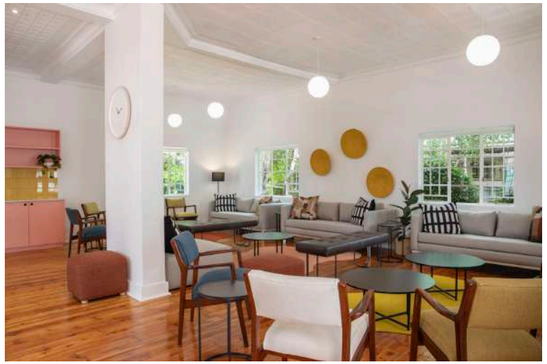


Figure 7.17: Staff room with some colourful elements and more neutral elements (Meshworks Architects, n.d.)



Figure 7.18: A colourful workshop to encourage students to interact with the space (Meshworks Architects, n.d.)

03 JOHN MORDEN CENTRE

The John Morden Centre located in Blackheath, London is a day care centre for elderly people. The Centre, designed by Mae Architects in 2019, is a recent addition to Morden College. Morden College is a charity that provides care and support for the elderly (College, 2023). One of the ways this charity provides support is by providing homes for the elderly.

The Centre consists of six buildings, with each building focusing on a specific social problem (Chi-Santorelli, 2019). The Centre is described as an "environment that positively impact people's mental and physical health" (Chi-Santorelli, 2019). The buildings themselves are described to be therapeutic and creating a sense of belonging (Chi-Santorelli, 2019)

To make movement through the building easier for the elderly, concealed handrails are used to provide subtle support and assistance.



Figure 7.19: John Morden Centre (Mae Architects, n.d.)



Figure 7.20: The Dining Area within John Morden Centre (Mae Architects, n.d.)

The design of the Centre focused on creating a warm, welcoming atmosphere. To achieve this a lot of natural materials and natural lighting are used within the building.

The aim of the Centre was to prevent isolation within the College. The Centre provides a space where the elderly can gather to do various activities and socialise together.



Figure 7.21: The Courtyard (Mae Architects, n.d.)

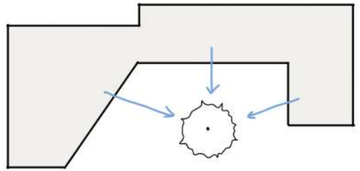


Figure 7.22: Tree used as a focal point (Author, 2024)

The building uses principles of biophilic design. To achieve the sense of a connection with nature, a tree in the outdoor courtyard is used as a focal point and spaces within the building are orientated so that they all have a view of that focal point.

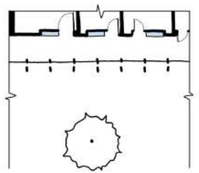


Figure 7.23: Pause Areas (Author, 2024)

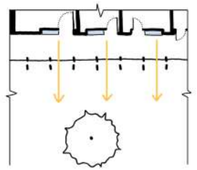


Figure 7.24: Pause Areas Orientated to maintain connection to nature (Author, 2024)

To create a sense of ease and comfort, benches are placed along the main circulation routes giving the elderly pause areas within the building.

To maintain a sense of a connection to nature, these benches which create the pause areas are orientated so that face the focal point, tree, in the outdoor courtyard.

KEY CONCEPTS:

- SENSE OF COMMUNITY
- CONNECTION TO NATURE
- ACCESSIBILITY
- COMFORT
- SUSTAINABILITY

KEY:

Benches / Pause Areas



Figure 7.25: Pause Areas Facing The Courtyard (Mae Architects, n.d.)

04 SONGZHUANG MICRO COMMUNITY PARK

The Songzhuang Micro Community Park was designed by Crossboundaries, an Architecture Firm in China (Asto, 2022). The project is located in Songzhuang, a small village in Beijing. The aim of the project was to rehabilitate an urban space to improve the quality of life for the people within the community. This project was supposed to act as a space where people could rest and take a break from their busy lives. To achieve this, Crossboundaries took an existing parking lot and transformed it into this interactive public space (Asto, 2022).

To achieve this, Crossboundaries introduced a new green space with several design strategies to encourage people to interact with the space. The green space provides people with a sense of calm and peace whilst within the urban city. To maintain this calm environment, the park uses natural elements to create a natural buffer between the park and the rest of the parking lot and city (Shuangyu, 2021).



Figure 7.26: Axonometric View of the park (Shuangyu, 2021)

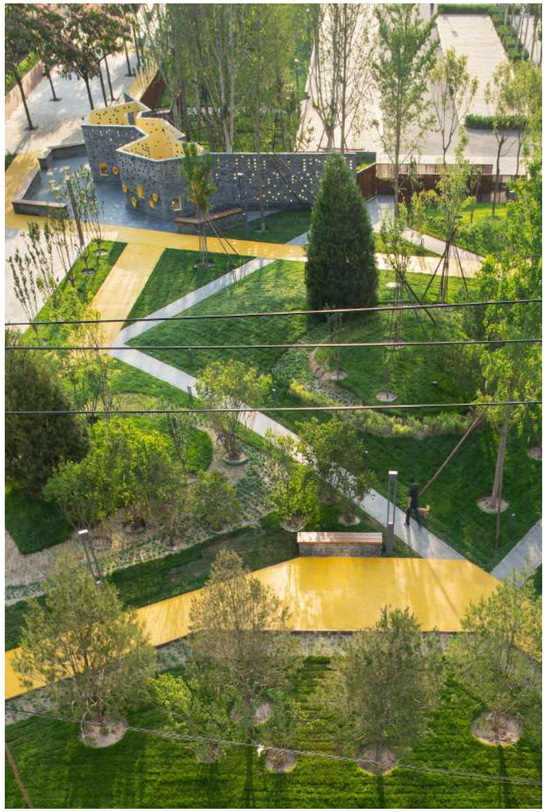


Figure 7.27: Songzhuang Micro Community Park (Shuangyu, 2021)

The park consists of 'outdoor rooms'. Each room is meant to provide a different functionality for the community. Each 'room' is also designed differently to provide users with a sense of different stimulations. For instance, in the 'Welcome Room', materiality is used to attract users to the space. The use of a mirror like material peaks users' attention and allows them to interact with the space (Shuangyu, 2021).

In the 'Social Room' a lot of seating is provided for the elderly to sit and rest. This 'room' is meant to encourage social activities such as chess (Asto, 2022).

The 'Play Room' provides a more intimate set up where perforated walls are used to encourage children to play and interact with the space. There is also seating around the walls so that parents are able to still monitor the children while they play (Asto, 2022).

Lastly the 'Exercising Room' is an open multipurpose space that allows various activities to occur in that space (Asto, 2022). Figure 7.28 depicts the layout of these 'outdoor spaces in this public space.

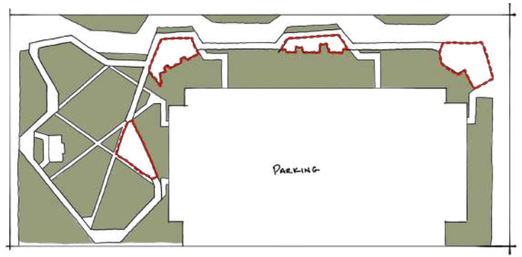


Figure 7.28: Layout of 'outdoor spaces' (Author, 2024)



Figure 7.29: The 'Welcome Room' with mirror like materiality to peak users curiosity (Shuangyu, 2021)



Figure 7.30: The 'Social Room' with mirror like lots of seating (Shuangyu, 2021)

The use of colour was a key element in this project. The colour yellow was used to create visual interest and peak users' interest in the space. The colour was also used as a navigation tool, connecting all the 'rooms' together and also leading people into the open green space. The colour also created visual links connecting the various spaces within e park together (Shuangyu, 2021).

Figure 7.31 shows how the colour yellow was used to guide users through the different spaces and loop them around the public space.

KEY CONCEPTS:

- URBAN DEVELOPMENT
- CREATIVE AND APPEALING
- MULTI USE COMMUNITY SPACE
- USE OF COLOUR
- INTERACTIVE SPACES

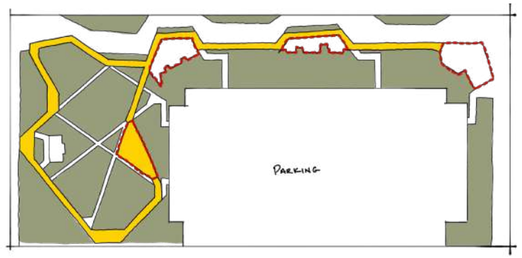


Figure 7.31: The Yellow Path (Author, 2024)



Figure 7.32: Colour used as a navigation tool (Shuangyu, 2021)



Figure 7.33: The 'Exercise Room' (Shuangyu, 2021)



Figure 7.34: Perforated walls to encourage play (Shuangyu, 2021)



Figure 7.35: The 'Play Room' (Shuangyu, 2021)

08
DESIGN BRIEF



Figure 8.1: Textures of the park (Author, 2024)

DESIGN BRIEF

PROJECT OVERVIEW

The proposed design for this project is a community centre that acts as a safe space to facilitate and encourage intergenerational connections between the elderly and children whilst revitalizing an underused park.

This community centre will act as a social hub where the elderly and children will be able to work cohesively alongside each other, allowing them to experience meaningful interactions and mutual learning between the generations. The connections created through these interactions can foster more trust and empathy in the community.

This community centre intends to create a safe, inclusive and accessible environment that promotes and fosters a sense of security, comfort, trust and belonging for the community, with a focus on the elderly and children. A crucial element to consider during the design of this project is that the elderly and children each face their own physical and mental challenges. It is therefore important to implement features that cater and will assist with these challenges. The project intends to create a building that is functional whilst still encompassing a sense of fun and excitement for the generations to engage with and enjoy being in the space.

The programming within this building will consist of facilities that encourage social interaction between the generations such as workshops, libraries and entertainment areas. The programming will also consist of facilities that cater to the needs and challenges of the generations such as a medical centre and an elderly gym.

The community centre will be situated on an underused park. Through this community centre the park will be given a new additional purpose, therefore allowing more people to visit and interact with the park spaces again.

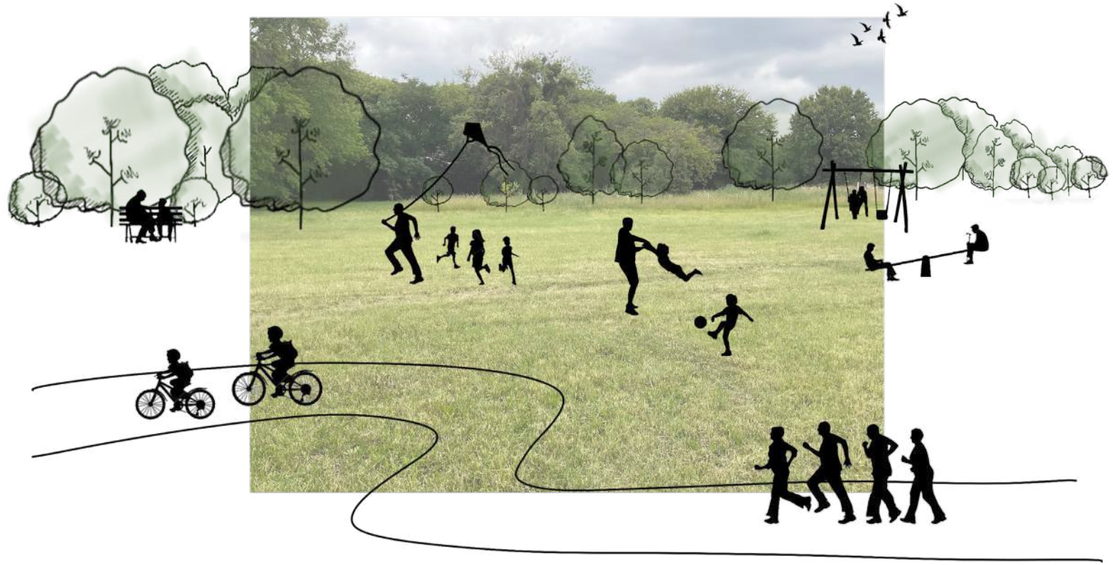


Figure 8.2: Interacting with the park (Author, 2024)

ELEMENTS OF THE PROJECT



Social Interaction



Mutal Learning &
Skills Development



Improve Wellbeing



Accessible Spaces



Encourage Park Usage



Sense of Community

Figure 8.3: Elements of the Project (Author, 2024)

NARRATIVES

NARRATIVE 1

Hello, I am Mrs Naidoo. I am an 85-year-old, Indian lady that lives at a retirement village. I have one son. Him and his family have moved to London, so I unfortunately am not able to see my grandchildren on a regular basis anymore. I used to be an art teacher.

I decide to have breakfast at the retirement village today. After breakfast I make my way to the main lobby with Marge, we are going to the community centre today. I decide to wait for the shuttle to come pick me up while Marge decides to take a stroll to the centre since it is down the road. The shuttle picks me up outside the lobby and drops me off at the community centre's shuttle station.

My first stop is the medical centre since I have a check-up with my doctor today. While waiting in the medical centre's reception, I watch the morning yoga group in the park. After my appointment, I go to the small pharmacy to pick up my monthly medication.

I then decide to grab a cup of coffee at the restaurant before heading to the workshops. Since I was an art teacher before I retired, I now volunteer at the centre to teach the little kids how to paint. I particularly enjoy this as the little kids remind me of my grandchildren and I can bond with these kids in a similar way. I enjoy telling them my stories and listening to their stories in return.

After my art class, I find Marge in the next room teaching her group how to knit. We decide to have lunch at the restaurant together. While eating, we enjoy watching the kids in the community centre. Some of the smaller kids are playing in the secured play area while some of the older kids are playing in the surrounding park or helping in the vegetable gardens.

Since there are a lot of art and crafts workshops at the centre, there is an exhibition space to show off everyone's work. My class is hosting their exhibition over the weekend for the parents to come and see their kids work. After my lunch with Marge. I go the exhibition hall to help with the preparations for this weekend.

Afterwards I quickly stop at the small convenience store to pick up a few essentials. On my way to the store, I admire the flower and vegetable gardens. Whilst looking for my items, I see some of the teenagers bringing in a fresh batch of veggies from the vegetable garden. I decide to also buy some of the veggies to use for dinner later. I finally walk back to the shuttle station where I wait in the shaded seating, while chatting to the security guard, for the shuttle to take me back to my retirement village.



Figure 8.4: Mrs Naidoo (Author, 2024)

PROGRAM DERIVED FROM NARRATIVE:



Figure 8.5: Program derived from narrative (Author, 2024)

NARRATIVE 2

Hello, my name is Melissa, I am a 12 year old child that goes to primary school. I have a single mum and an older brother studying at university.

Due to my mum's job, she is not able to come pick me up when school ends. So, after school I gather on the field with the other kids from my school whose parents can't pick them up early. Once everyone is gathered, my teachers walk with us to the nearby community centre where we can wait for our parents. Sometimes when it's raining, instead of walking, a shuttle comes to picks us up.

When we get to the community centre, the nice security guard greets all of us as we walk through the park entrance. Once inside, I leave my school bags in the secured locker units, so I don't have to carry them around with me. My friend Sam and I first decide to go play in the indoor play area. After a while I got hungry. I went to buy a sandwich from the restaurant and sat in the outdoor area with my friends. While I was eating, I was watching some of the kids and elderly people working in the gardens and some of the older kids playing in the park.

I remembered I had a lot of homework to do, so after we finished eating Sam and I went to the library to work. Some of the elderly people from the retirement village were also in the library. We were able to ask them for some help with our homework. Mr Kim was struggling to use the computers so I was able to help him and show him how to use the printers. Mr Kim loves music, after we were done with our homework, he was telling us about different types of music and instruments. He then took us to the music room next to the art and craft classrooms, where he showed us the different instruments they had, and we asked him to teach us how to play the guitar. Mr Kim invited us to come watch him and his friends play in the multipurpose hall on Friday since they were having a talent show.

After our guitar lessons, Sam and I wanted to go swimming. When we got to the change rooms, we saw the lifeguard Emma standing outside. She told us the pool is closed since it looks like it was going to rain. At that point my older brother Henry arrived at the centre. My brother took Sam and I back to the restaurant for some cake. After our cake, Sam and I went back to play in the indoor play area while Henry watched us from the restaurant. Henry did his university work while watching us.

Since it was now raining, our mum was waiting for us in the sheltered waiting area, and we walked through the covered walkway to get to the parking lot. Luckily our car was parked in a covered parking spot, so we didn't get wet when getting into the car.



Figure 8.6: Melissa (Author, 2024)

PROGRAM DERIVED FROM NARRATIVE:



Figure 8.7: Program derived from narrative (Author, 2024)

LINKING PROGRAMMING AND PROJECT ELEMENTS

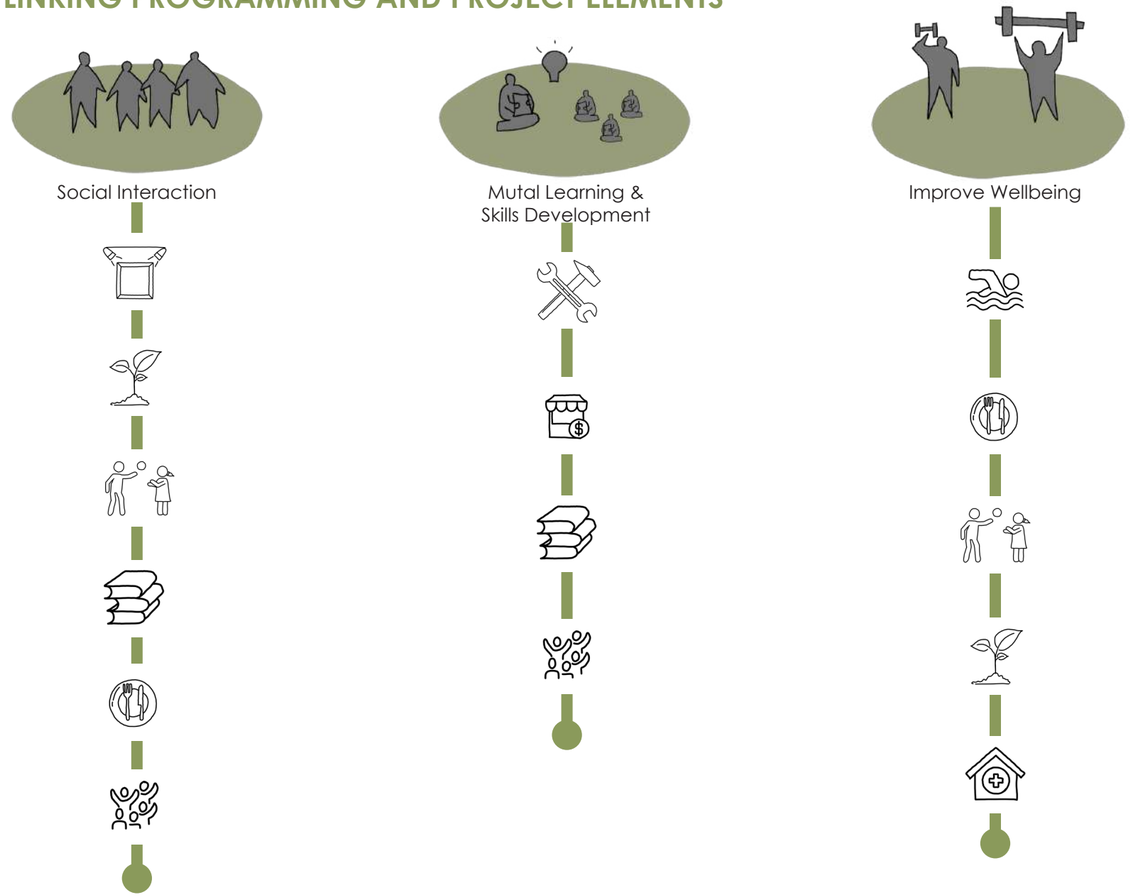


Figure 8.8: Linking programming and project elements (Author, 2024)

PROGRAMMING

1 x Shuttle Station, 1 x Parking
This would be a sheltered waiting area outside by the parking lot where people can wait for the shuttles to pick them up. It would need benches and a small room for the security guard to sit. Some bays within the parking would also be covered.

2 x Main Entrance Lobby
The main entrance would be a bright big space with some bright colour to attract people to the building's entrances.

1 x Exhibition
This space will be visible from the park, to attract people passing by to come into the building. The space will have a combination of bright and low lighting to accommodate for the various exhibits.

1 x Secured Locker Units
This would be placed near the entrances, allowing kids or anyone else to leave their belongings in lockers that can be locked. This space will have very few to no windows in it.

1 x Central Courtyard, 1 x Reception
The courtyard could act as main circulation in the building. All spaces will spill out into this courtyard space. The space would be large, with a lot of natural light. There would be a lot of windows to see the park outside. Natural materials and finishes could be used to enhance the feeling of being in a park space. The reception would ideally be placed in the centre for easy visibility and accessibility.

1 x Vegetable Garden, 1 x Garden Storage
Would need an indoor and outdoor section. Needs bright, natural light. Would need storage to keep garden supplies.

1 x Restaurant, 1 x Kitchen
The restaurant would need to have a clear view of the children's play area for parents to be able to keep an eye on their kids. Could also have an indoor and outdoor area. The restaurant would have some natural finishes and low lighting.
A small kitchen would be needed to prepare meals. The restaurant should be positioned so it is clearly visible from the outside park and inside courtyard.

2 x Ablutions, 1 x Refuse Room
Ablutions would be off the main circulation routes. The refuse room would be positioned near the kitchen.

4 x Classrooms, 2 x Workshops, 1 x Music Room, 1 x Storage Room
All these spaces, except for the storage room would have a lot of windows for views to the park. The workshop and music room would need some soundproofing.

1 x Library, 1 x Multipurpose Hall, 2 x Storage Rooms
These would be large spaces. Both these spaces would need to be temperature controlled to allow the space to remain comfortable while large groups use them during events.

1 x Medical Centre
In these spaces finishes that can be easily cleaned and sanitised will have to be used such as stainless steel. The medical centre should be a bight space with a lot of natural lighting and views of the park to make users feel more at ease.

1 x Pharmacy, 1 x Convenience Store, 1 x Beauty Salon
These spaces would be visible and easily accessible from the courtyard.

1 x Day Care Centre, 1 x Indoor Play Area, 1 x Outdoor Play Area
These spaces would be secured, bright and colourful for these kids. The outdoor section will allow the kids to still be able to play in the park but within a secured area.

1 x Pool, 2 x Change Rooms.
The pool would be easily visible from the courtyard. The change room would be slightly off the main circulation routes.

1 x Gym
The gym facilities would be joined with the pool and change room. The gym could have an outdoor section so that people are able to exercise surrounded by nature.

4 x Offices, 4 x Meeting Room / Study Rooms
Offices would be needed for the facility managers and admin staff.
The meeting rooms / study rooms will be situated between the offices and the library. This will allow anyone from the community to come and work, host meetings or study in those rooms.



Figure 8.9: Sketch of trees (Author, 2024)

09

DESIGN DEVELOPMENT



Figure 9.1: Design Development (Author, 2024)

DESIGN DEVELOPMENT

INTRODUCTION

This chapter provides insight on the various stages throughout the year where different themes and concepts were explored that contributed to the design development of this project. The initial process began with a charette exploring building forms, spaces, etc. The process eventually leads to a preliminary building design and technical explorations where aspects that seemed successful will be included in the final building design.

CHARRETTE

The charette was the first process during the design development. During the charette I was able to explore different concepts. During these explorations I was able to conceptualise different forms of the building. If the building would be sunken into the ground or be raised above the ground. How spaces within the building could conceptually work. How the roof of the building could fold into the landscape.

Part of these explorations included using clay and natural elements to explore forms and textures. Playdough was used to conceptualise some spaces for children.

Conceptual theory ideas were also explored in model forms. The ideal of creating intergenerational connections was explored using paper to represent the different generations. New, white paper was used to represent the children whilst old, slightly yellowed paper was wrinkled and stained with tea to represent the elderly generation. Figure 9.2 depicts preparing the paper to proceed with the model making.



Figure 9.2: Prepping the paper to represent the elderly in the concept models (Author, 2024)



EXPLORATION OF FORMS AND TEXTURES

Figure 9.3 depicts the exploration of natural textures and forms found in the park. These explorations formed the basis of the initial form development for the building later on.

Figure 9.3: Exploration of forms and texture (Author, 2024)

CONCEPTUALISING INTERGENERATIONAL CONNECTIONS AND SPACES

During these explorations I tried to depict how the elderly and children could come together. What sort of elements needs to be considered and how these spaces could conceptually work.

Figure 9.4 and 9.5 show concepts exploring how the elderly and children would have their own smaller spaces but could come together in a bigger communal space, using colour as a connecting element. The figures also consider safety and explore the visibility that the various spaces would potentially need. Using the forms derived from the clay explorations, the figures show further explorations on how the levels of security within these spaces would occur. For instance, the central spaces should have the most security and therefore has the biggest spaces for more visibility whereas the spaces on the outer edge would have the least security, therefore the spaces are smaller for less visibility.

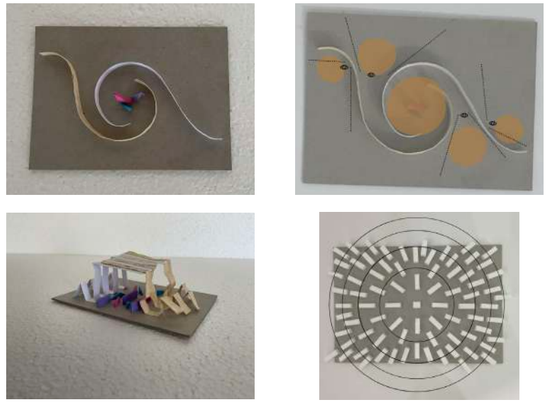


Figure 9.4: Models conceptualising intergenerational connections and spaces (Author, 2024)

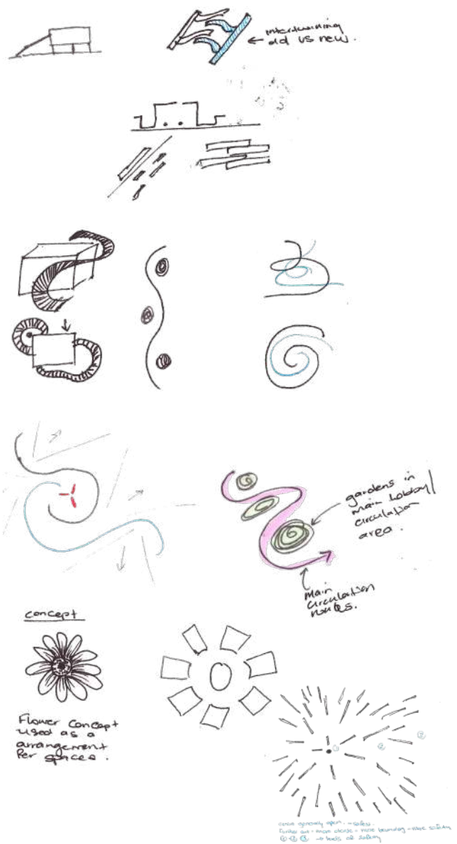


Figure 9.5: Sketches conceptualising intergenerational connections and spaces (Author, 2024)

CONCEPTUAL BUILDING FORMS

These included an exploration into various forms the building could take and how the building could merge with the park. An occurring theme that occurred in these explorations is maintaining visibility and access with the park whilst trying to integrate the building's form into the landscape. These concepts will be taken further into the final design for this project.

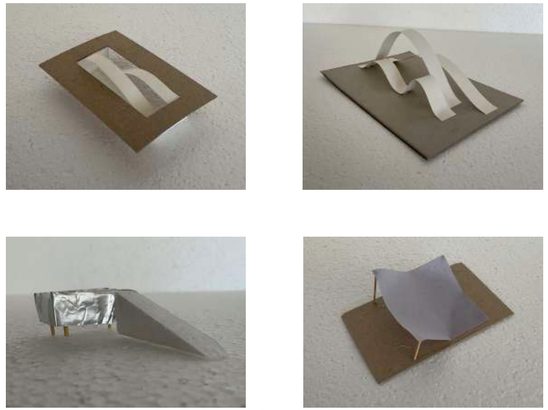


Figure 9.6:Models conceptualising building forms (Author, 2024)

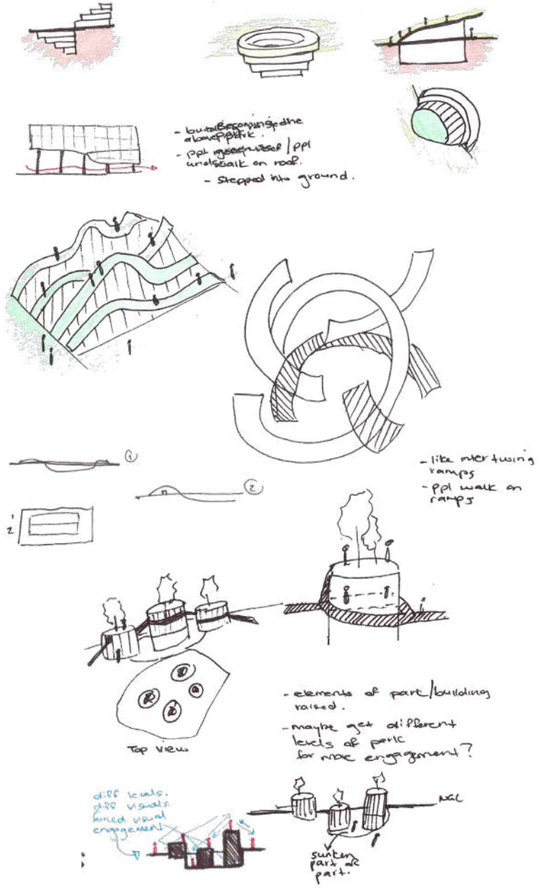


Figure 9.7:Sketches conceptualising building forms (Author, 2024)

SPATIAL PLANNING

During the development of the project and the design brief I was able to refine the programming within this building. These explorations depict the various spatial planning considered for the building. In each iteration I wanted there to be a central communal space that connects all users within the building and then having the smaller programming branch off from this central space. The current desire lines and access routs on the site were considered during these explorations.

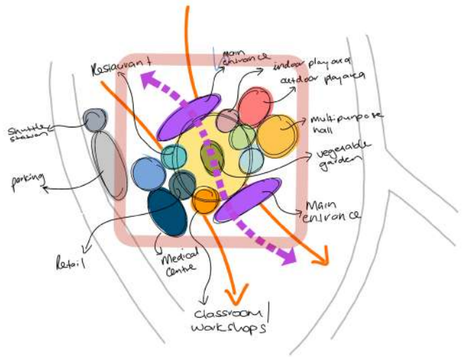


Figure 9.8: A sketch showing the organisation of programming (Author, 2024)

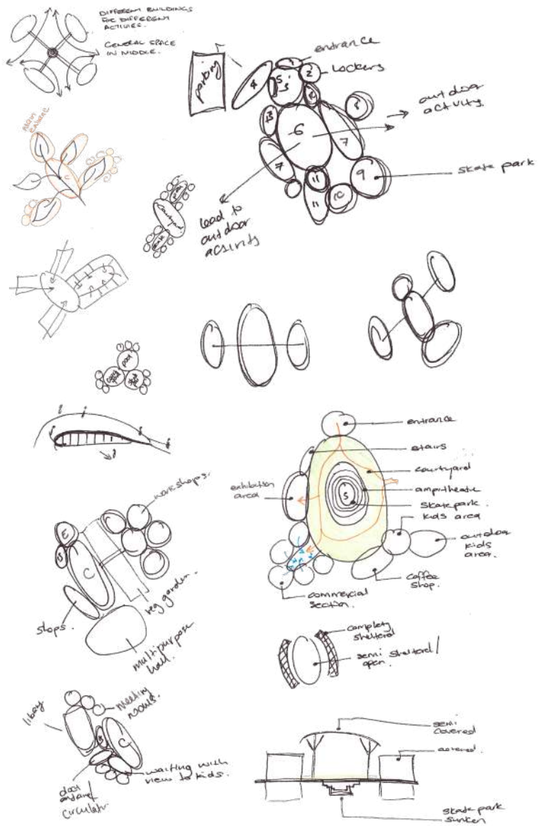


Figure 9.9: Sketches exploring spatial planning (Author, 2024)

EXPLORATION OF EXPERIENTIAL SPACES

These explorations considered how to create various sensory experiences in the building to make it more exciting. Figure 9.10 conceptually depicts the range of spaces for children. While figure 9.11 explores the concept in more detail, showing the various heights, forms and possible perforations the space could have. It also considered how visibility within these spaces would occur for children safety. Figure 9.12 depicts exploring vertical circulation options, combining play and function as well as providing another layer of forced interaction to encourage intergenerational connections.

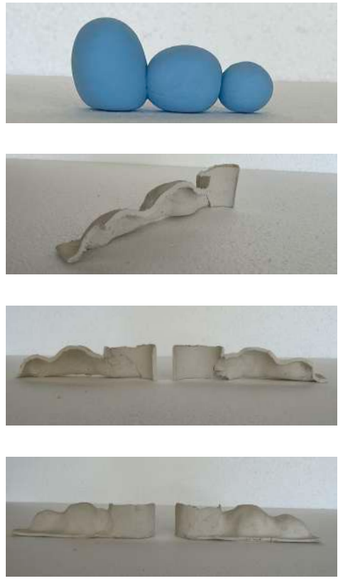


Figure 9.10: Models exploring experiential spaces (Author, 2024)

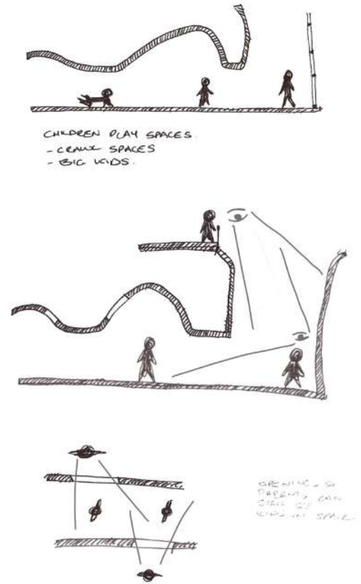


Figure 9.11: Sketches exploring experiential spaces

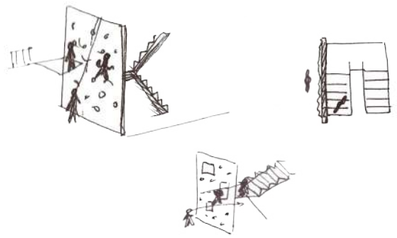


Figure 9.12: Sketches exploring vertical circulation (Author, 2024)

BUILDING DEVELOPMENT

Through these explorations I was able to further develop and refine the concepts derived from the previous explorations. For instance, figure 9.13 depicts the conceptual form derived from the charette. The concept of having the main central space with the other spaces branching off from it is taken into further development of the project.

Figure 9.14 and figure 9.15 depicts refined explorations on how the building could be integrated into the landscape and explores the spatial quality. These included explorations on how one portion of the building could have various spatial qualities such as having the roof of a space act as an amphitheatre integrated into the landscape and the room below could provide a different spatial quality and function.

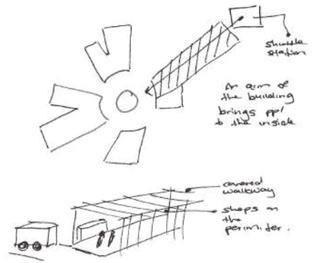


Figure 9.13: Conceptual building forms (Author, 2024)

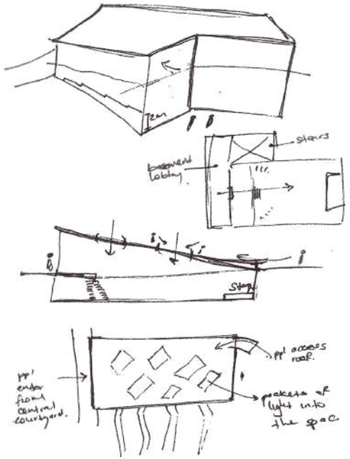


Figure 9.14: Exploring spatial quality and integrating building with landscape (Author, 2024)

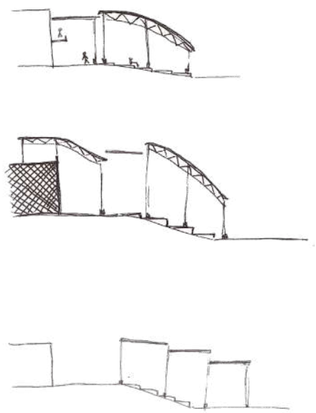


Figure 9.15: Exploring spatial quality and integrating building with landscape (Author, 2024)

Figure 9.16, figure 9.17 and figure 9.18 depicts a refined exploration on the spatial planning using the concepts from figure 9.13.

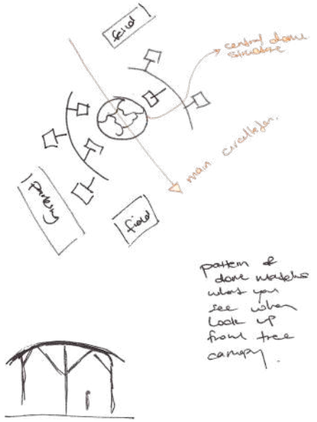


Figure 9.16: Refined spatial explorations (Author, 2024)

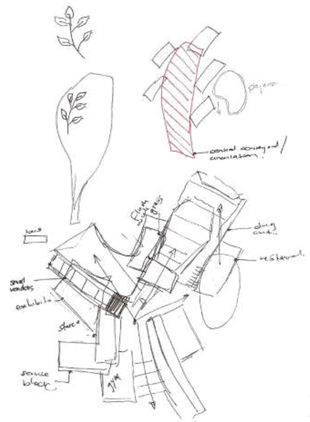


Figure 9.17: Refined spatial explorations (Author, 2024)

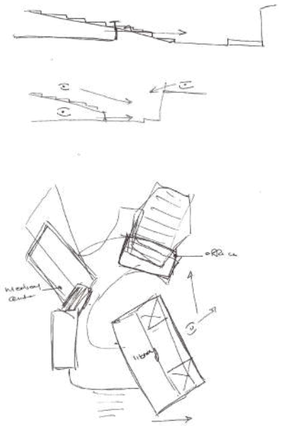


Figure 9.18: Refined spatial explorations (Author, 2024)

PRELIMINARY BUILDING DESIGN

SITE PLAN

Using and developing the previous explorations I was able to form the preliminary building design. As seen in figure 9.21, the building is situated within the educational zoning on the site, however due to the trees on the western side of the park, the building is positioned more centrally on the park. The building's position overlaps with the current desire lines and movement routes on the site to make it easier for people to use and engage with. The form of the building is derived from the initial form finding charette explorations. Visibility and accessibility were key concepts considered during the design process to maintain the connection to the park. This is seen through the many access points into the main central area, making the building more permeable.

The critique is that the building's central position could seem like it is taking away from the park instead of adding to it. The many access points into the central area, which is supposed to be a playground could pose as a security issue. To remedy this, in future iterations I will explore positioning the building closer to the western side of the park so that the building could acts as the park's edge. I will also explore how to better achieve a sense of security within the building.

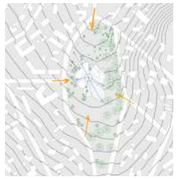


Figure 9.19: Visibility (Author, 2024)

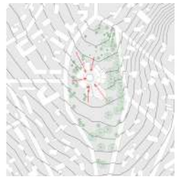


Figure 9.20: Accessibility (Author, 2024)



Figure 9.21: Site Plan (Author, 2024)

3D VIEW

Figure 9.22 depicts a 3D view of the building, where the outdoor seating is visible. The outdoor seating overlaps the current desire lines on the site. The intention is for the steps to act as a social element that allows visibility into various spaces within and surrounding the building. The steps also act as an element that integrates the building form into the landscape. This is an element of the building that I think works really well and I will explore further in future iterations.

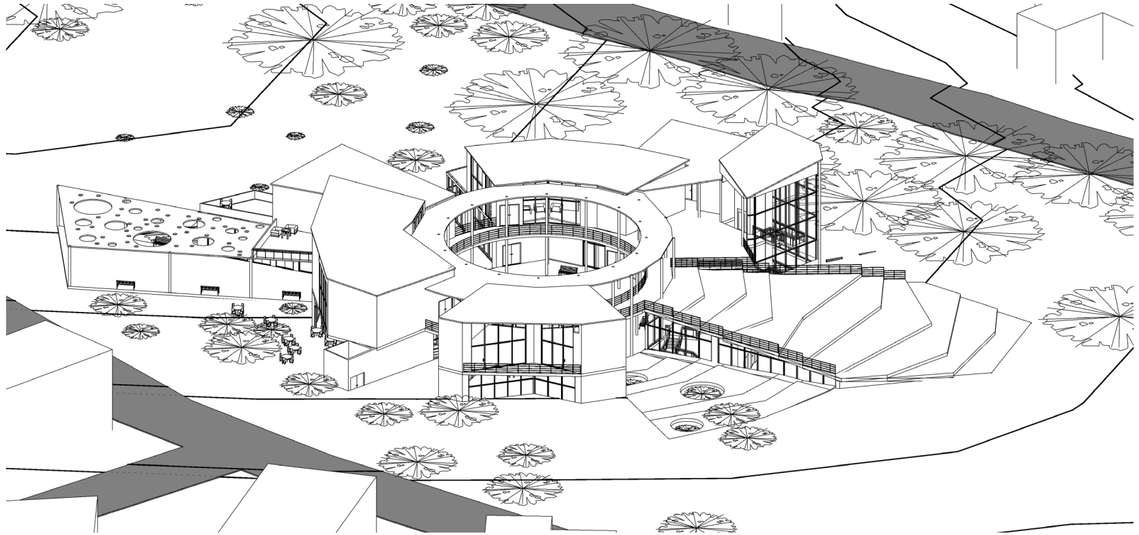


Figure 9.22: 3D View (Author, 2024)

PLANS

As seen in these plans, the spatial planning of the building consists of a main central space where the rest of the programming branches off from. All of the programming has a view of either the main central space, the park or both. To create an inviting atmosphere and encourage social interaction, most programming looks into various spaces to peak users' interest in the other spaces.

I think these iterations were partially successful as it created a permeable building that encouraged social interaction through these communal spaces. However, as mentioned considering that there will be more children in the space, I need to reconsider access and security. Another critique received, that will be explored in future iterations, is that the main central space being a perfect circle feels out of place in a park and a more organic shape should be considered.

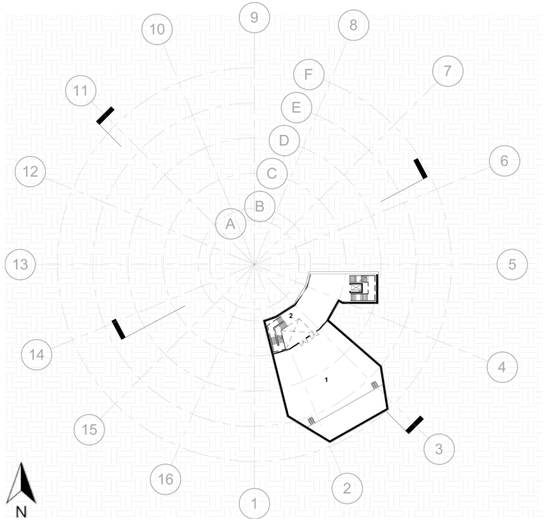


Figure 9.23: Basement Floor Plan (Author, 2024)

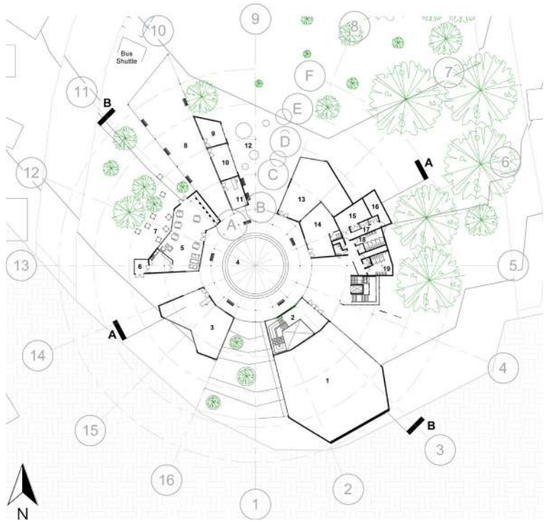


Figure 9.24: Ground Floor Plan (Author, 2024)

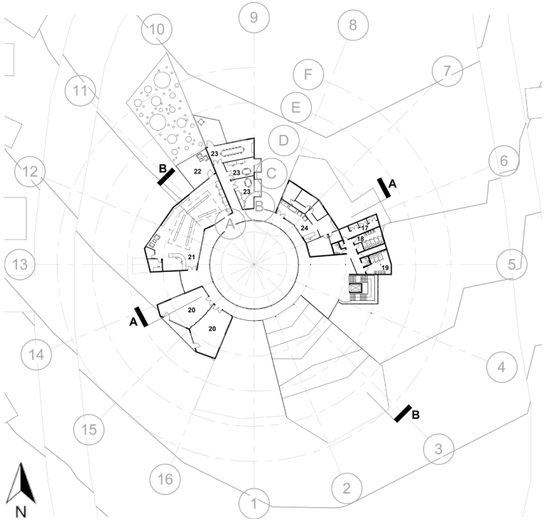


Figure 9.25: First Floor Plan (Author, 2024)

ELEVATIONS



Figure 9.26: North Elevation (Author, 2024)

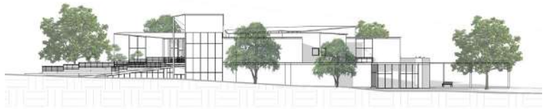


Figure 9.27: East Elevation (Author, 2024)



Figure 9.28: South Elevation (Author, 2024)



Figure 9.29: West Elevation (Author, 2024)

SECTIONS

To create a more interesting and fun building, different levels and heights are used. Figure 9.31 depicts the outdoor seating which integrates the building forms into the landscape. The steps depicted lead from the first floor to the park level, with the multipurpose hall below. The second set of steps, which is seen in figure 9.22, run from the ground floor to the park level and allow a view into the multipurpose hall.

In the sections you can see how the surrounding programming looks into the main central area, which I think was successful and will be explored in future iterations. However, I think incorporating more level changes so that the building steps with the slope of the site will create a more enriching building and therefore will be explored further.

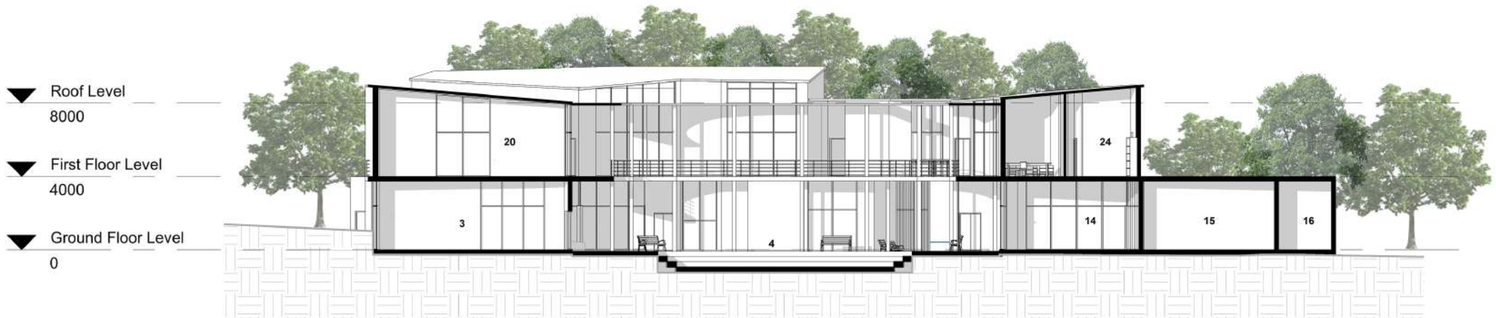


Figure 9.30: Section AA (Author, 2024)



Figure 9.31: Section BB (Author, 2024)

ANALYTICAL DRAWINGS

Figure 9.32 illustrates the movement routes through the building which I think was successful as it created a central connecting movement point that allowed for interaction within the building.

As previously mentioned, visibility within the building was an important element which I think was done well in these iterations and aspects of it should be taken into future iterations. Figure 9.33 illustrates the visibility links created within the building

1 - Multipurpose Hall
2 - Lobby
3 - Exhibition
4 - Play Place
5 - Restaurant
6 - Refuse Yard
7 - Outdoor Seating
8 - Entrance Walkway
9 - Store
10 - Store
11 - Reception
12 - Vegetable Garden
13 - Elderly Gym
14 - Day Care Centre
15 - HT/LT Room
16 - Generator
17 - Service Ducts
18 - Female Ablutions
19 - Male Ablutions
20 - Workshop
21 - Library
22 - Library Outdoor Area
23 - Office
24 - Medical Centre

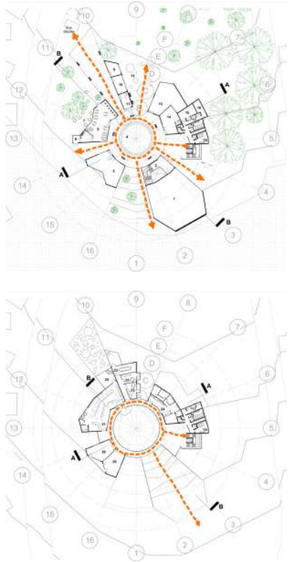


Figure 9.32: Movement and Access Routes (Author, 2024)

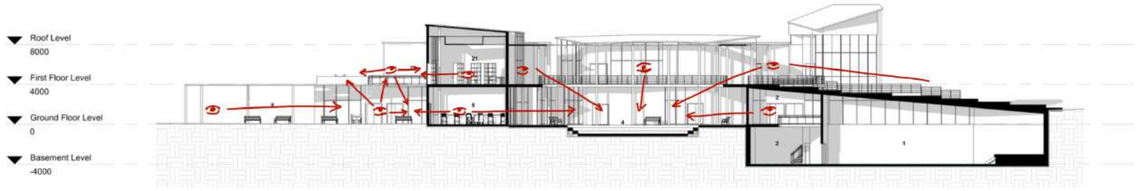


Figure 9.33: Section showing visibility (Author, 2024)

PERSPECTIVE DRAWINGS

As mentioned, the central playground depicted in figure 9.35, was successful as it allowed for a connecting visibility point that allowed for interaction within the building. However, as a children's space, the security aspects need to be reconsidered. The elements of the playground need to be reconsidered.

In future iterations I will explore how the playground becomes more integrated with the park and building. However, I do think these iterations were successful as these views show how the different programming looks into the other surrounding spaces, allowing for visual links and peaking user's interest in other spaces within the building to encourage users to explore the building more.



Figure 9.34: View of entrance and vegetable garden (Author, 2024)



Figure 9.35: View of playground (Author, 2024)

Figure 9.36 depicts the main entrance into the building from the bus stop. I think the elements in this interaction that were successful were the use of the shops to activate the outer edge of the building and the visibility between the different spaces as you are able to see into the restaurant space and the central space from this entrance. Future iterations will implement similar aspects into the design.





Figure 9.36: View of shop entrance, shops and restaurant (Author, 2024)

Figure 9.37 depicts the outdoor steps. As mentioned, the steps were meant to act as a connection element which integrates the building form into the landscape. I think these steps were successful as it allowed for various levels, interactions and experiences within the building. However future iterations should consider how security aspects could be applied to these steps.

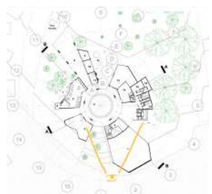




Figure 9.37: View of Green Roof (Author, 2024)

TECHNICAL EXPLORATIONS

During the technical workshop, the aspects of the outdoor steps and screening were considered and developed. The outdoor steps would act as a green roof with the multipurpose hall beneath it. These drawings depict the initial design development of the screening which conceptually should have an organic, fluid feel. To achieve this, custom steel columns were used to achieve the fluid form of the screening. In future iterations, various forms of the custom steel columns should be used to a achieve a more organic and fluid like feel.

Figure 9.43 and figure 9.44 depicts the various sketch explorations conducted during the technical workshop.



Figure 9.38: Model of screening (Author, 2024)

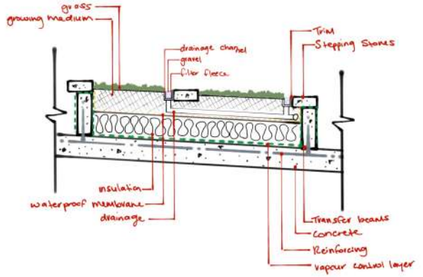


Figure 9.39: Green Roof Drainage Option (Author, 2024)

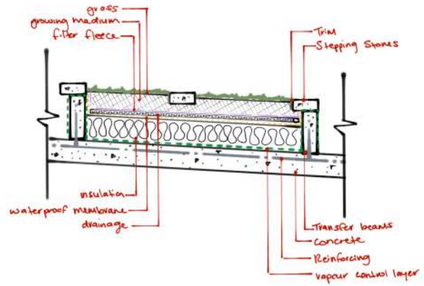


Figure 9.40: Green Roof Drainage Option (Author, 2024)

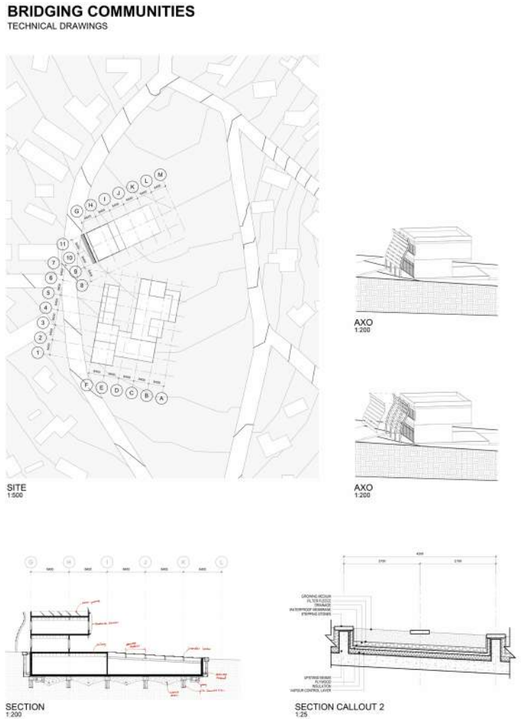


Figure 9.41: Technical Drawings Sheet (Author, 2024)

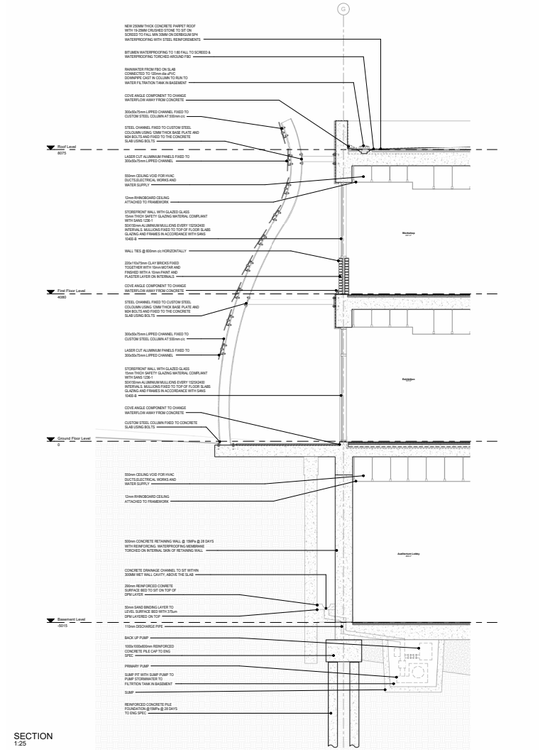


Figure 9.42: Technical Drawings Sheet (Author, 2024)

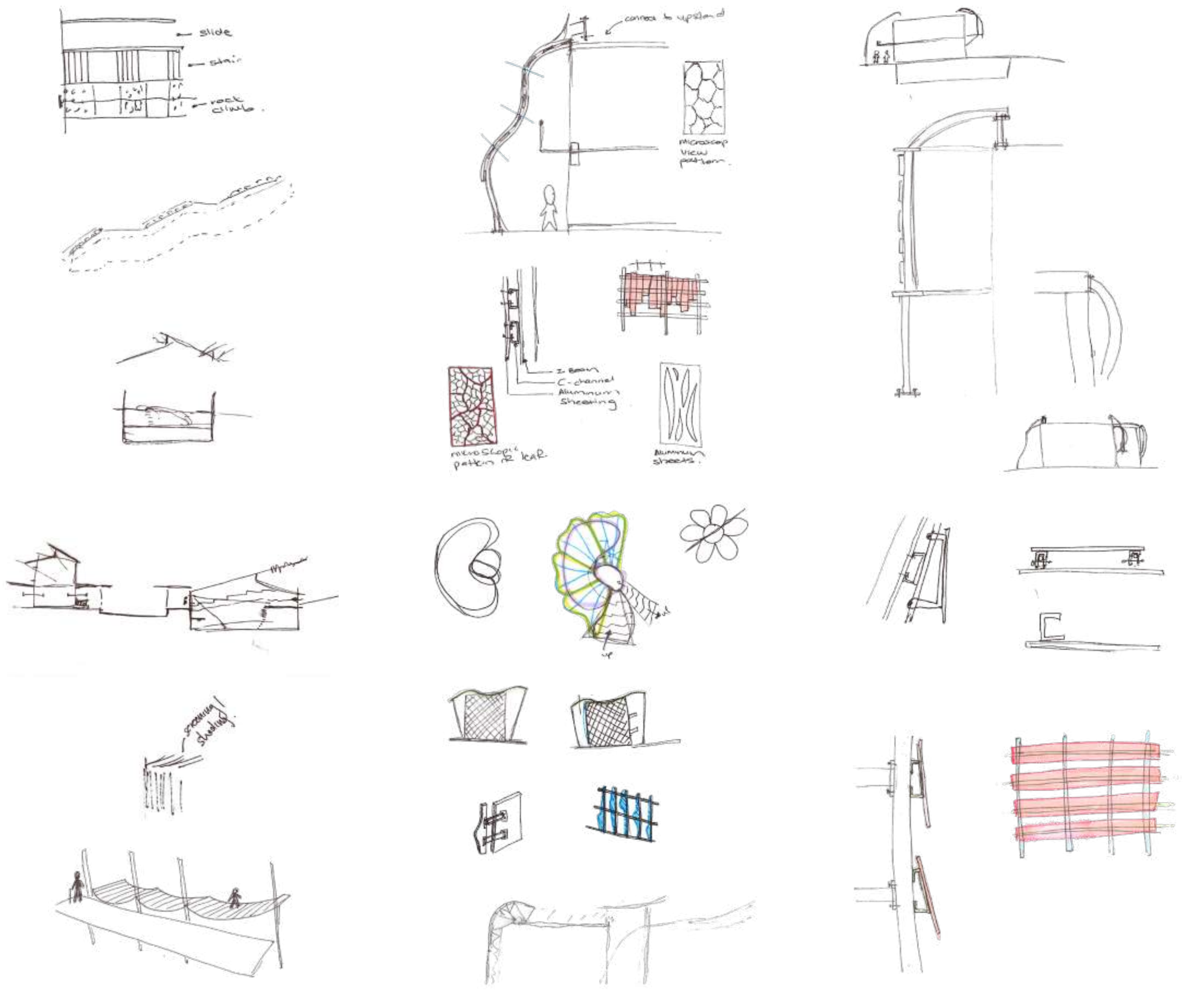


Figure 9.43: Sketches exploring building components (Author, 2024)

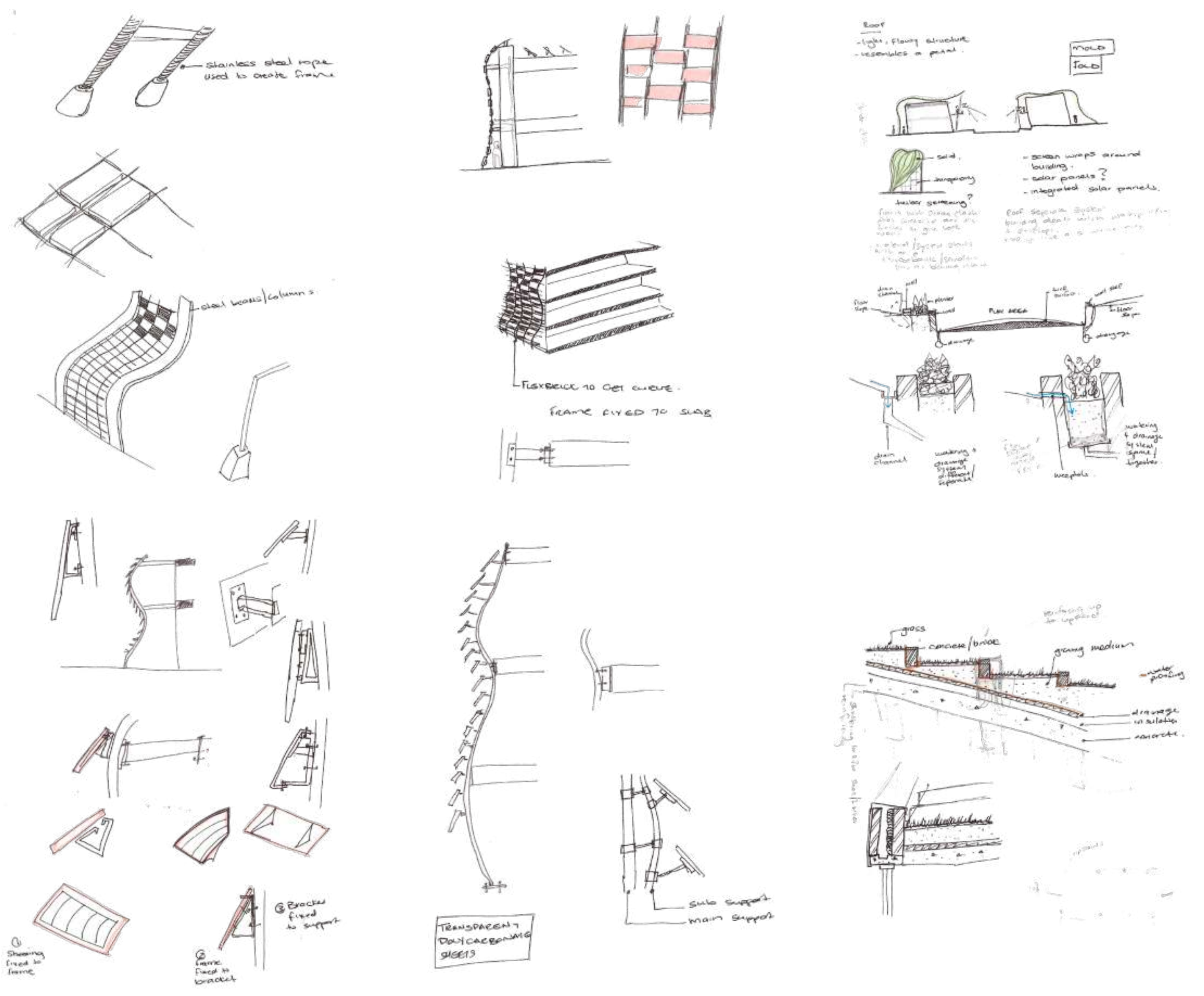


Figure 9.44: Sketches exploring building components (Author, 2024)

10
WHAT COMES NEXT...



Figure 10.1: A day amongst the trees (Author, 2024)

WHAT COMES NEXT...

The aim of this project is to create a safe space to facilitate and encourage intergenerational connections between the elderly and children whilst revitalising an underused park. As discussed, the safe space will be a community centre that acts as a social hub where children and the elderly are able to work cohesively alongside each other, allowing for more meaningful interactions and mutual learning between the generations.

As mentioned during the design development of this project there were various themes and concepts which were explored and considered. During this process there were a few successful elements which were achieved such as the main central connecting space, integration with the landscape, accessibility, visibility and a permeable building.

As the project progresses, there are a few more elements that need to be considered and explored as mentioned in the previous chapter such as using this building to reinforce the street edge along the park, maintaining and improving the connection with the park and integrating passive security boundaries.

This building will be a safe space where people can find comfort, joy, entertainment, a sense of purpose and a sense of community. The building will be used to encourage intergenerational connections and enrich the community. Future iterations of this building will explore how to achieve these elements whilst also exploring how to bridge the gap between 'functionality' and 'fun' in spaces for the elderly and children.

To encourage park usage, future iterations of this building will further expand on and explore how to integrate the building with the landscape and will explore multi-use flexible outdoor spaces where various events can occur to revitalise the park. These events could include outdoor performances, outdoor classroom, vegetable gardens as well as festivals and markets for the community. The revitalisation of the park will create an enriching experience for the community as bridging the generational gaps will create deeper community bonds and improve the quality of life for all within the community.



Figure 10.2: What comes next... (Author, 2024)

FROM RESEARCH TO DESIGN

MENTORSHIOP

As previously discussed, the opportunity for the elderly to have a mentorship role in the children's life will be beneficial for the community and will help in forming connections between the different generations. Children will be able to learn and develop special skills under the guidance of the elderly whilst the elderly will be able to develop a sense of purpose and belonging.

The final building design will provide different facilities for different activities. The building will consist of various workshops, seminar rooms, vegetable garden and library spaces where various activities, such as art classes, sewing classes, dance lessons and tutoring sessions, can take place in. Through these various activities the elderly can take on a mentorship role towards the children as they teach the children different skills. These various activities will also allow the opportunity for the elderly to be able to bond with and form connections with the children.

In some instances, the children can also take on a teaching role towards the elderly as some of these classes provided in the building can be hosted by older children. Older children will also be able to teach and help the elderly with certain things such as if they are struggling with their technical devices or if they need general assistance in the building.

PROGRAM DERIVED FROM RESEARCH:

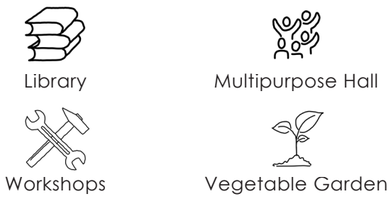


Figure 10.3: Program derived from research (Author, 2024)

HEALTH AND WELLBEING

The physical and mental heath of community members is very important for the overall wellbeing of the community. As discussed, it is important for all persons of all ages to maintain their physical and mental health through various means such as exercising, walking in the park, eating well or socialising with friends.

The final building design will have a focus on improving the overall wellness of the community by providing different means to encourage a healthy lifestyle. An elderly gym will be provided to encourage the elderly to participate in more physical activities. The building will also form a safe space with a lot of passive surveillance where people can feel safe and comfortable to go running, go for walks or ride their bicycles in the park. The building will also have a rock climbing wall to provide an adventurous play option to exercise so people can have more fun whilst maintaining their physical health.

Activities such as yoga classes in the elderly gym, outdoor gym area or courtyard space and art classes in the workshops can help with the mental wellness of the community members. Community members are also able to socialise through these various activities and facilities provided such as the cafe. A vegetable garden is provided to encourage healthy eating in the community and provides an activity that the elderly and children can work on together and feel as if they are contributing to the community.

A healthcare centre will be provided so that the elderly and children are able to easily and conveniently seek medical care if needed to ensure they are staying healthy. This centre also allows the elderly and children (who are high risk groups) to seek medical attention without having to go to a bigger medical facility where they might be more exposed to more contagious illnesses.

PROGRAM DERIVED FROM RESEARCH:



Figure 10.4: Program derived from research (Author, 2024)

SENSE OF SECURITY

As mentioned, it's important for people to feel safe and comfortable in a space in order for them to want to continuously use the space. Parents are more comfortable to let their children play in a space where they are able to have some sort of surveillance over their play.

In the final building design, safety and security are major components that will be taken into the design. The two important aspects of the design are "safety' and "visibility". The building will have a permeable design. This will be achieved through ensuring that every space within and surrounding the building will have some sort of visibility from the surrounding spaces. The constant visibility of these spaces allows for constant passive surveillance within the building and the surrounding spaces. Through the passive surveillance, a sense of security is achieved so people feel more comfortable in these spaces and will want to keep returning to and using the building's facilities.

The sense of security achieved will also allow the opportunity for more people to frequently use the surrounding park spaces more and will help to revitalise the forgotten park.

PROGRAM DERIVED FROM RESEARCH:



Play Area

Figure 10.5: Program derived from research (Author, 2024)

DEVELOPMENT AND STIMULATION

Spaces for the elderly and children need to cater to their respective needs. These spaces also need to provide some sort of stimulation so that the elderly and children find these spaces interesting and want to engage with the spaces more. Some ways to make spaces more interesting is to use colour and lighting.

In the final building, colour and lighting will be used to create interesting spaces for the elderly and children. Colour and lighting will be used in different ways in different spaces to create different types of stimulation. For instance, bright colours and lighting will be used in the play areas and some workshops to encourage fun and creativity, however more muted colours and softer lighting will be used in spaces such as the library and study pods to encourage calmness and focus. Different lighting is also used in the play area to cater to the different play stimulations in children. This is seen in the cave-like section of the play area which provides spaces with lower ceilings, surfaces with different textures and low lighting which contrast the rest of the play area which has bright colours and lighting and has big open spaces for children to play.

Colour is also used as a navigation tool in the building, so it is easier for children and the elderly to identify the movement routes through the building. Also using a different colour in certain areas like in the chess nook, makes these spaces appear more interesting and will draw users to it.

Different types of spaces and facilities are provided in the building. This gives the elderly and children a choice into which spaces they find interesting and would like to engage with. As previously discussed, by giving the elderly and children a choice, it makes them feel as if they have some control in their life during a period when they feel like they do not have a lot of control over certain things. By giving them a choice, it increases the chances of them wanting to keep returning to these spaces and to use the building.

PROGRAM DERIVED FROM RESEARCH:



Exhibition



Workshops



Play Area



Commercial

Figure 10.6: Program derived from research (Author, 2024)

11
FINAL DRAWINGS



Figure 11.1:Textures of the park (Author, 2024)

FINAL DRAWINGS



Figure 11.2: North Perspective (Author, 2024)



Figure 11.3: Reference Plan
(Author, 2024)



Figure 11.4: Zoning (Author, 2024)



Figure 11.5: Desire Lines (Author, 2024)



Figure 11.6: The Elderly and Children Movement Routes (Author, 2024)



Figure 11.7: Programming (Author, 2024)

KEY:

- Erven 164 - Educational Zoning
- Erven 165 - Public Open Space Zoning
- Site Boundary
- Desire Lines
- Site
- Retirement Village - The Elderly
- School - Children
- Residential
- Commercial
- Medical Facilities
- Religious Facilities
- The Elderly Movement
- Children Movement
- Access Point

CONTEXT PLAN

1:1000







Figure 11.8: Context Plan (Author, 2024)

The site is situated on an underused park in Risidale and is within walking distance of a few schools and retirement villages.

The building sits within the portion of the park that is currently zoned as educational and is situated along the current desire lines on the site. The building reinforces the street edge, creates passive boundaries and allows for passive security within the building and the park which encourages more people to use the park. Visibility and accessibility are key concepts considered in the building's design to maintain the connection to the park



Figure 11.9: Access Points (Author, 2024)



Figure 11.10: Site Drainage (Author, 2024)

KEY:

- Access Point

SITE PLAN

1:500







Figure 11.11: Site Plan (Author, 2024)

This plan focused on safe children's play, providing an indoor childcare centre for smaller children. The southern half of the courtyard acts the children play area consisting of a rock-climbing wall, open space to run around, a cave like section, small climbing elements and a slide to provide different types of experiential and adventurous play. The play space is also extended to the ground floor where there is a netting over the play area where people can walk across, play or sit and relax.

Parents and the elderly are able to watch over the children from various seating options around the play space such as in the restaurant, chess nook, benches and from the ground floor.

The sunken courtyard provides a safe flexible outdoor space where various outdoor events can occur such as markets and performances.



Figure 11.12: Access Points and Circulation (Author, 2024)



Figure 11.13: Services and Escape Routes (Author, 2024)

KEY:
- Access Point
- Children Movement
- The Elderly Movement
- Escape Route
- Fire Escape Staircase
- Wet Service Duct
- Data Duct
- Electrical Duct
- HVAC Duct

BASEMENT FLOOR PLAN

1:200

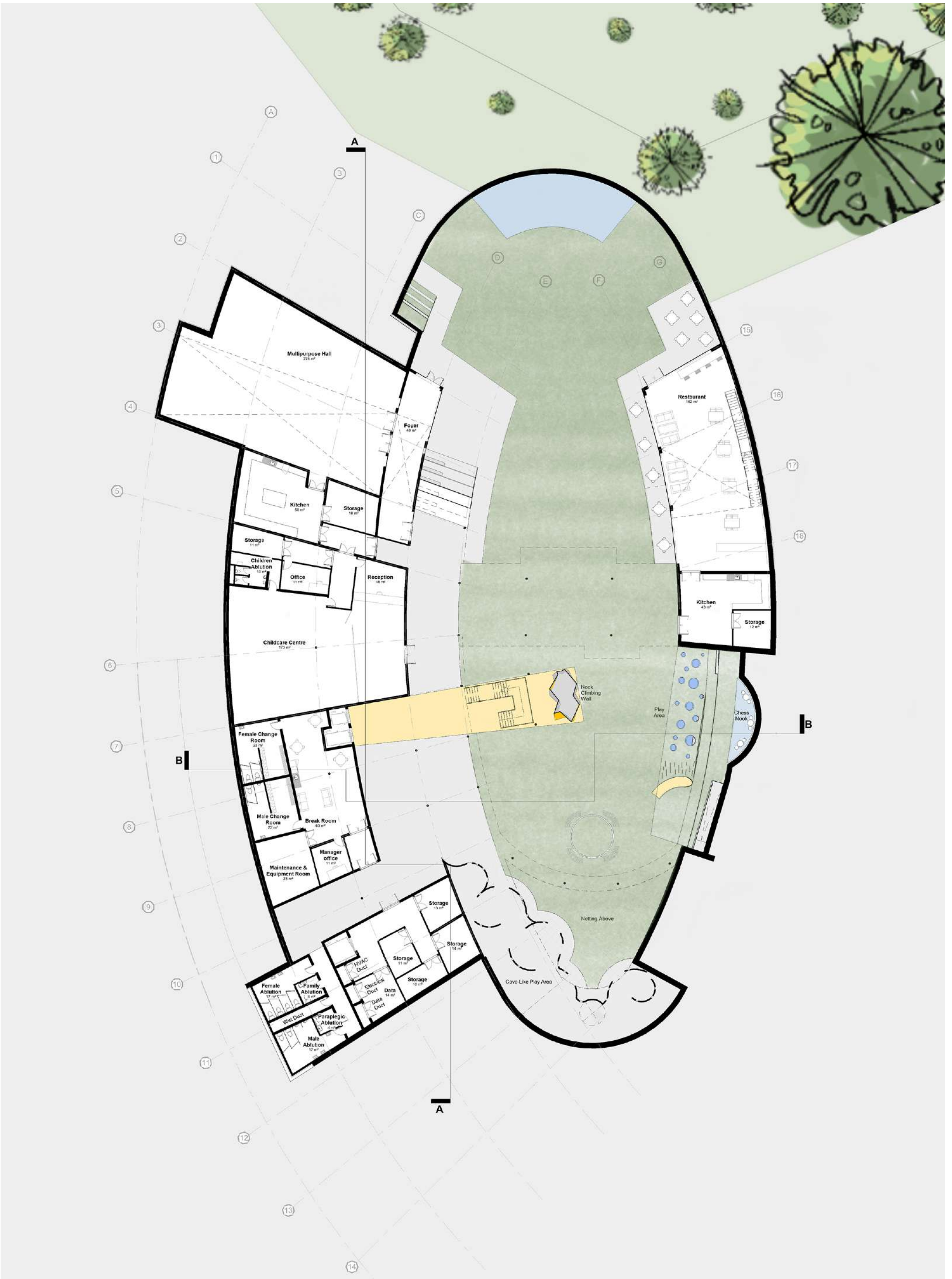


Figure 11.14: Basement Floor Plan (Author, 2024)

Colour is used to easily identify spaces and navigate through the building. Yellow is used to highlight points of vertical circulation whereas blue is used to indicate zones of activity. For instance, the blue area on the southern end of the plan indicates the outdoor spill out area for the elderly gym where the elderly can watch over the play area while exercising. The blue area on the eastern side indicates the chess nook where the elderly can play chess whilst sitting amongst the playing children. On the basement plan, the blue area on the northern end indicates a performance space.

The programming within the building is arranged so that there is always some sort of interaction between the generations to encourage interaction and the formation of intergenerational connections.



Figure 11.15: Access Points and Circulation (Author, 2024)



Figure 11.16: Services and Escape Routes (Author, 2024)

KEY:
- Access Point
- Children Movement
- The Elderly Movement
- Escape Route
- Fire Escape Staircase
- Wet Service Duct
- Data Duct
- Electrical Duct
- HVAC Duct

GROUND FLOOR PLAN

1:200



Figure 11.17: Ground Floor Plan (Author, 2024)

There are two different types of libraries to cater to children's different learning styles. In the library, the elderly and children can assist each other. The elderly can help the children with their homework or read stories to the little children whilst the older kids can assist the elderly with using the computers or anything else they require.

The elderly clubhouse provides a space where the elderly are able to interact and socialise with each other whilst still having a visual connection with the play area and the outdoor elderly gym. This visual connection allows the elderly to visually interact with the other people and children in these outdoor spaces whilst also encouraging them to go physically interact them.



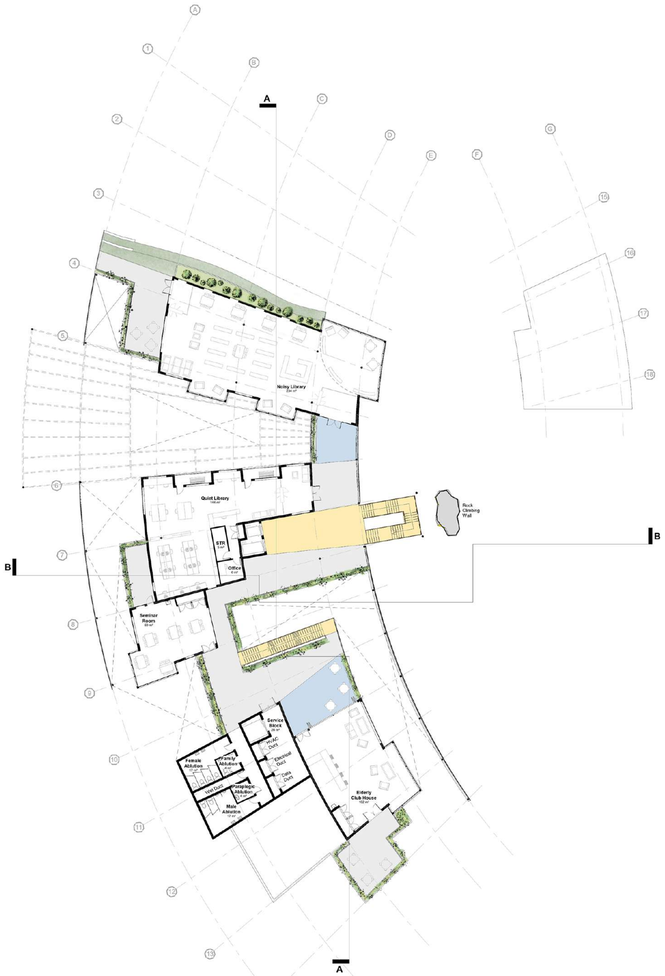
Figure 11.18: Access Points and Circulation (Author, 2024)



Figure 11.19: Services and Escape Routes (Author, 2024)

KEY:

- Access Point
- Children Movement
- The Elderly Movement
- Escape Route
- Fire Escape Staircase
- Wet Service Duct
- Data Duct
- Electrical Duct
- HVAC Duct



FIRST FLOOR PLAN

1:200



Figure 11.20: First Floor Plan (Author, 2024)

Seminar rooms can be used for various activities such as for meetings, as private learning pods or for various classes. In the seminar room the elderly can teach children different things by providing various classes such as art and sewing, pottery, general history discussions and mentorship programs. Things made from these classes can also be displayed in the exhibition hall on the ground floor plan. There are different seminar room sizes, some rooms sizes are adjustable, to allow for flexibility for the different activities.

A small medical centre is provided to allow the elderly and children (which are high risk groups) to receive medical attention without having to go to a bigger facility where they are more at risk of being exposed to other sickness.



Figure 11.21: Access Points and Circulation (Author, 2024)



Figure 11.22: Services and Escape Routes (Author, 2024)

KEY:

- Access Point
- Children Movement
- The Elderly Movement
- Escape Route
- Fire Escape Staircase
- Wet Service Duct
- Data Duct
- Electrical Duct
- HVAC Duct

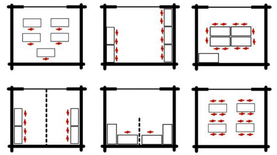


Figure 11.23: Seminar Room Flexibility (Author, 2024)



SECOND FLOOR PLAN

1:200



Figure 11.24: Second Floor Plan (Author, 2024)



Figure 11.25: Sunken Courtyard Perspective (Author, 2024)

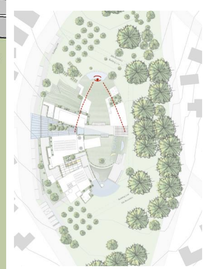


Figure 11.26: Reference Plan
(Author, 2024)

To reinforce the building's connection with the park, and to make the building appear more inviting and livelier, there are many planters situated on all levels of the building to bring natural elements within the building spaces.

The screening device used on the elevations is a perforated kinetic screen that can move when blown by the wind. This gives the appearance of a 'living structure' thus making the building more intriguing and inviting for more people to interact with it. The screening device further reinforces the building's connection with the park, since just like how the leaves on a tree blow in the wind, so does the screening on this building



Figure 11.27: East Sectional Elevation (Author, 2024)

EAST SECTIONAL ELEVATION

1:200

0 4 8 12 16 20

GRAPHIC SCALE: 1:200



RESTAURANT SECTIONAL ELEVATION

1:200

0 4 8 12 16 20

GRAPHIC SCALE: 1:200

Figure 11.28: Restaurant Sectional Elevation (Author, 2024)



WEST ELEVATION

1:200

0 4 8 12 16 20

GRAPHIC SCALE: 1:200

Figure 11.29: West Elevation (Author, 2024)



NORTH ELEVATION

1:200

0 4 8 12 16 20

GRAPHIC SCALE: 1:200

Figure 11.30: North Elevation (Author, 2024)



SOUTH ELEVATION

1:200

0 4 8 12 16 20

GRAPHIC SCALE: 1:200

Figure 11.31: South Elevation (Author, 2024)

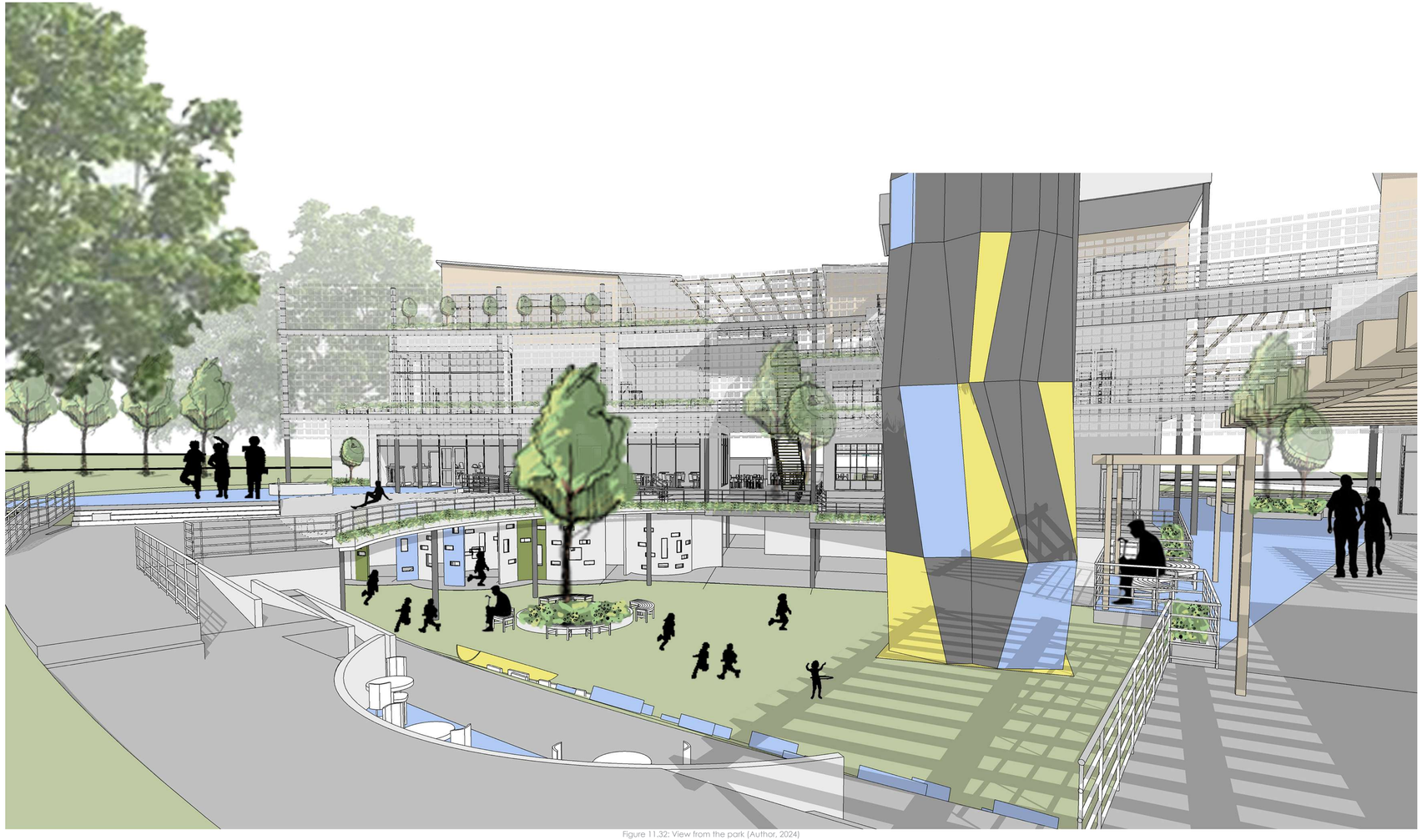


Figure 11.32: View from the park (Author, 2024)



Figure 11.33: Reference Plan (Author, 2024)

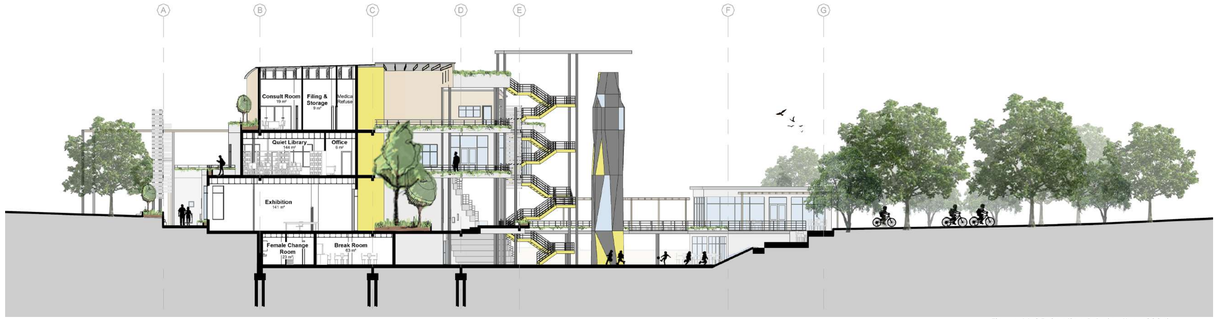


SECTION A-A

1:200

GRAPHIC SCALE: 1:200

Figure 11.34: Section A-A (Author, 2024)



SECTION B-B

1:200

GRAPHIC SCALE: 1:200

Figure 11.35: Section B-B (Author, 2024)

Accessibility and visibility are key elements considered in this building. The programming within the building is arranged so that users are constantly able to view into other spaces. This visibility provides passive surveillance, therefore allowing more people to use the spaces since they feel safe in it.

The accessibility and visibility within the building also encourage people to interact with other spaces within the building and to interact in the park spaces more.



Figure 11.36: Diagram showing visibility in Section A-A (Author, 2024)



Figure 11.37: Diagram showing natural lighting and ventilation in Section A-A (Author, 2024)

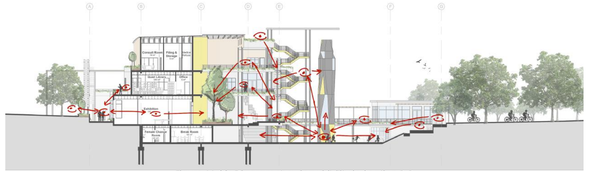


Figure 11.38: Diagram showing visibility in Section B-B (Author, 2024)

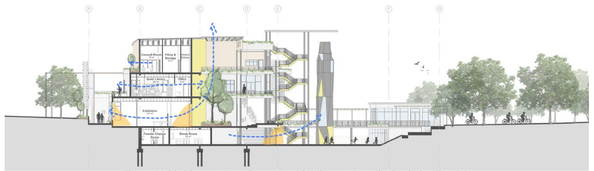


Figure 11.39: Diagram showing natural lighting and ventilation in Section B-B (Author, 2024)

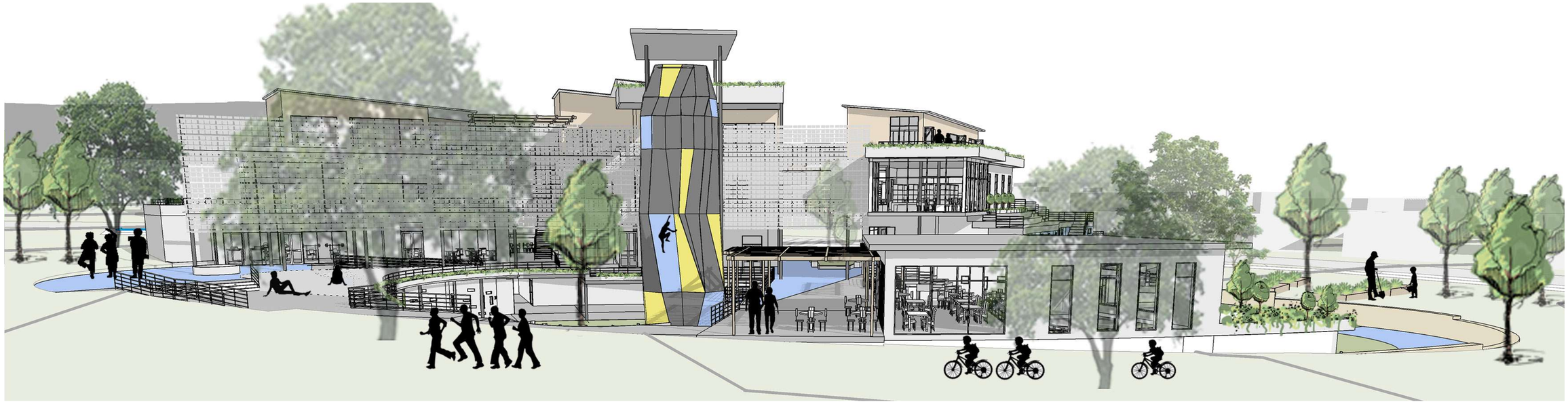


Figure 11.40: East Perspective (Author, 2024)



Figure 11.41: Reference Plan (Author, 2024)



Figure 11.42: View from bridge (Author, 2024)



Figure 11.43: Reference Plan
(Author, 2024)



Figure 11.44: Perspective of walkway in front of retail and exhibition (Author, 2024)



Figure 11.45: Reference Plan (Author, 2024)



Figure 11.46: Perspective of coffee kiosk (Author, 2024)



Figure 11.47: Reference Plan (Author, 2024)



Figure 11.48: Perspective of Indoor Courtyard and Elderly Clubhouse (Author, 2024)



Figure 11.49: Reference Plan (Author, 2024)



Figure 11.50: Perspective of Noisy Library (Author, 2024)



Figure 11.51: Reference Plan (Author, 2024)

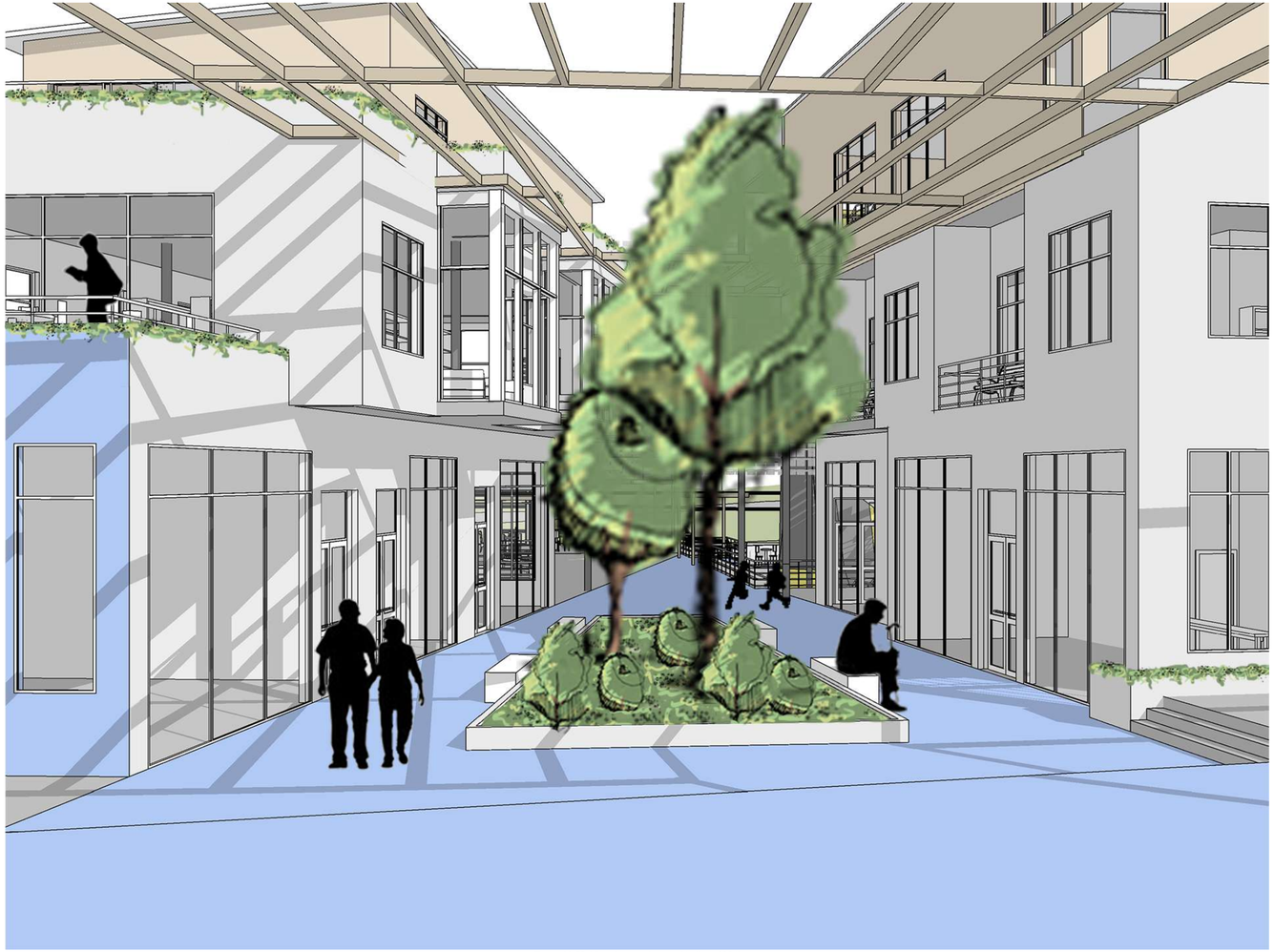


Figure 11.52: View from entrance (Author, 2024)



Figure 11.53: Reference Plan
(Author, 2024)

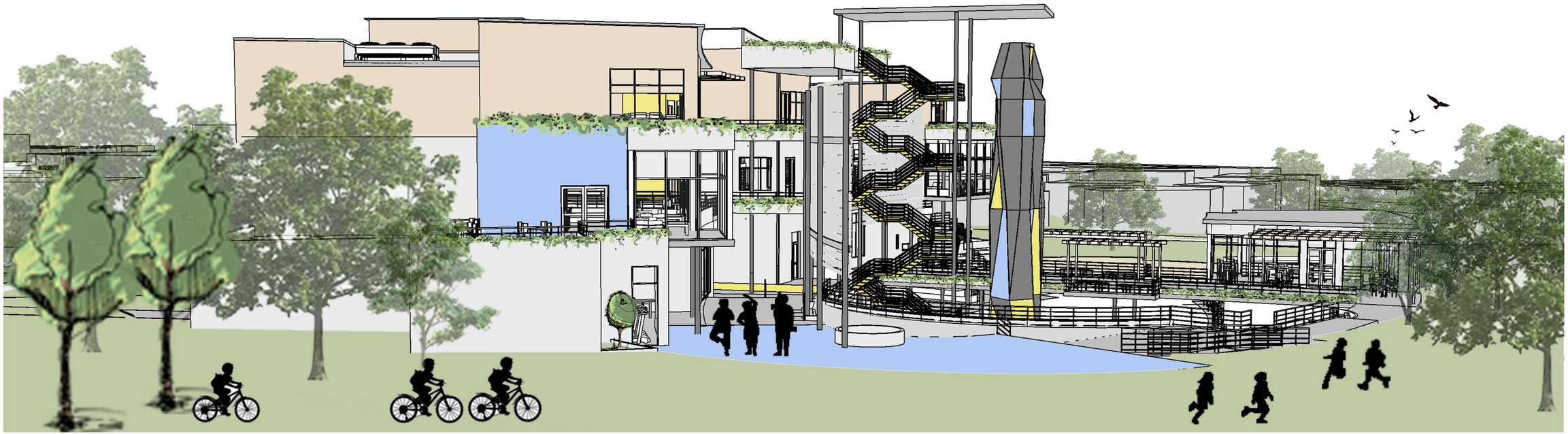


Figure 11.54: View from Park South Entrance (Author, 2024)

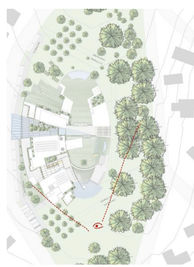


Figure 11.55: Reference Plan (Author, 2024)

12
TECHNICAL DRAWINGS



Figure 12.1:Textures of the park (Author, 2024)

TECHNICAL DRAWINGS

PERIMETER SECTION

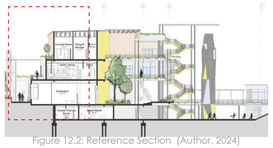


Figure 12.2: Reference Section (Author, 2024)

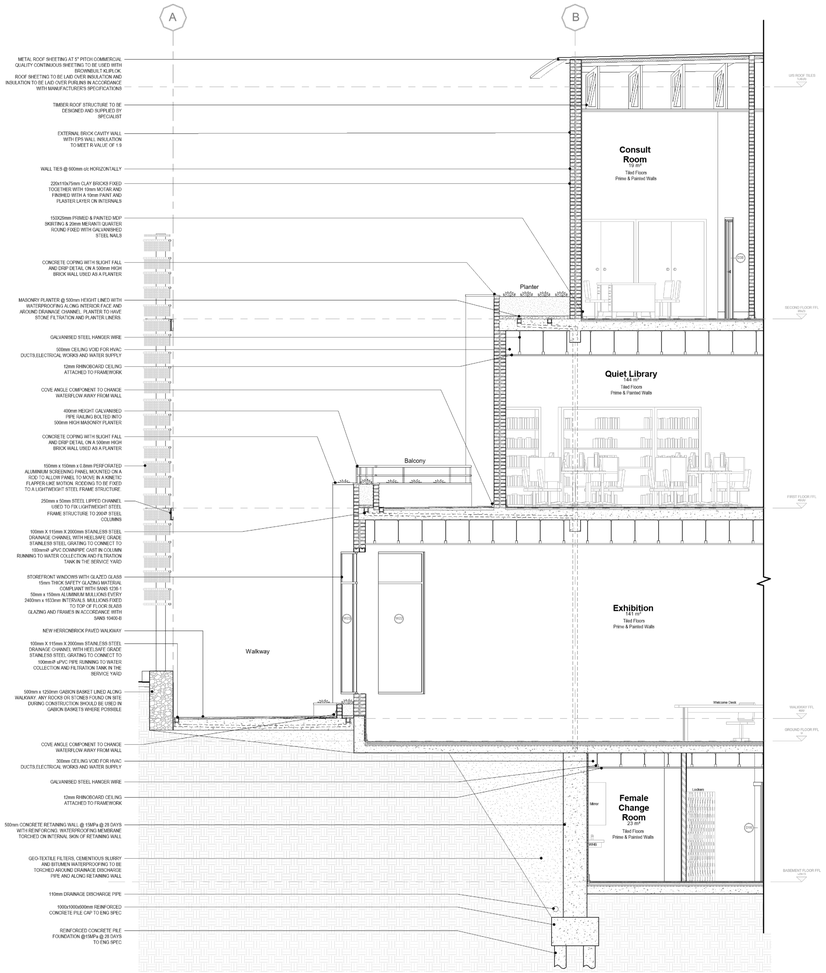


Figure 12.3: Perimeter Section (Author, 2024)

CALLOUT DETAIL

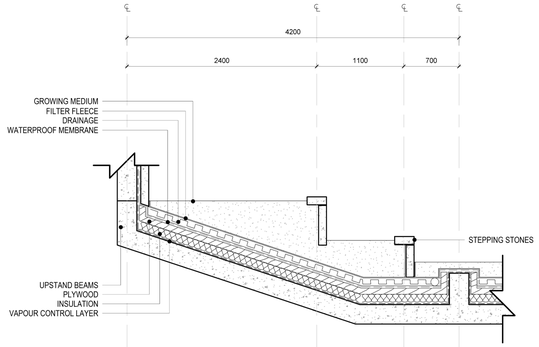


Figure 12.4: Callout Detail (Author, 2024)



Figure 12.5: Reference Section (Author, 2024)

13
APPENDIX



Figure 13.1 ;Outdoor elderly gym (Author, 2024)

APPENDIX

VIABILITY REPORT

Author's Note:
Kindly note that the viability report was conducted as a requirement for a different subject and provided the bases during the initial development stages of the project and some aspects of the project have developed and changed since.

THE PROJECT

What is a community?
"According to Merriam-Webster's Collegiate Dictionary, tenth edition, 'community' is "an interacting population of various kinds of individuals (as species) in a common location" or "a group of people with a common characteristic or interest living together within a larger society"" (Hall & Porterfield, 2001).

Community is a vital aspect of urban development. An area develops as the community develops. Unfortunately, as communities have developed, the elder generation has become forgotten. Instead of being a part of the community, they have been hidden away. This causes a range of issues both physically and mentally for the elderly. It also puts the community at risk of losing their traditions, culture, and history; as well as the vast bank of knowledge, skills, and experience that the elderly community have that is rarely found amongst the younger generations.

Due to this, this project will focus on creating intergenerational connections to bridge the gap between the communities. A community centre will be used as a space to facilitate these intergenerational connections. By connecting the elderly generation with the younger generation, it allows both generations to mutually benefit from each other. It also creates the opportunity for more urban development.
The chosen site for this project is an old park. Previously, parks were used as a device to draw people to the area and improve the urban environment. Unfortunately, this chosen park has become forgotten. The park is not maintained and no longer feels safe to use.

This project will act as a device to revitalize the park. By giving the park some new programming and a new function, it gives the park a new purpose and creates more opportunity for more people to start using the parks again.

THE BRIEF

The brief for this project is to create a community centre that acts as a device to encourage and facilitate intergenerational connections in Johannesburg. The community centre will also act as a device to revitalise forgotten and unused parks.

The community centre will consist of a range of programming directed at the different generations to promote intergenerational connections. The programming within this building will consist of health and wellness, educational, social, recreational, and commercial. Through the programming, the different generations will be able to interact and engage with one another. The different generations will be able to learn from each other.

TARGET MARKET

This project is directed at the elderly generation who have lost their sense of belonging and purpose. Those who have no more family and would like to be around children again. Or simply those who just feel a bit bored or lonely sometimes. The aim of this project is to give them a space where they can be comfortable and be integrated with their community.

This project is also directed to children. The aim is that children will come to the centre after school. If there are parents who are unable to take care of their children, those parents will be able to safely leave their children at the community centre where they will be taken care of. The elderly generation can also help take care of the children and they would probably end up treating the children like their own grandkids.

THE SITE

As previously mentioned, the site for this project is a forgotten, unused park in Risidale. Currently, people only use the park as a shortcut to get to the other side. During the day and night there are also squatters that used the park. The park is unused as people currently feel unsafe and uncomfortable in it.

The chosen site for this project is situated between the new Johannesburg Surgical Hospital and Darrenwood Retirement Village. There are three retirement villages and thirteen schools within a 1.5km radius from the site, with more still found on the outskirts of this radius. Many commercial and residential buildings can also be found within this radius.

The proximity of the site to these mentioned buildings is very advantageous as it will make the community centre easily accessible to the different generations. Students from the nearby schools, occupants from the retirement villages and individuals working or living in the area will be able to get to the community centre easily and conveniently.

The closeness of the site to the hospital is also beneficial for the health and wellness centre within the community centre. The close location allows doctors and patients to be quickly transferred to the hospital if advanced care is required. This also makes it more convenient for the doctor and patients as it allows them to still be within the area. The accessibility to medical care also ensures that healthcare services will be readily available to the community.

Site Address: 12 Cecilla Avenue, Risidale
Site Area: 12137m2 + 17924m2 = 30 061m2
Erven: Erven 164 and Erven 165
Zoning: Erven 164 – Educational
Erven 165 – Public Open Space
Height Zone: A
Height Restrictions: 3 Storeys
Coverage: 50%
FAR: 2.1
Building Lines Restriction: 3m Building Line, 1,5m Street Boundary

The Community centre will be on positioned on the portion of the park that is erven 164, zoned as educational.

THE CLIENT

Since this project is situated in a public park, the site is owned by the City of Johannesburg Metropolitan Municipality (COJ). However, the client for this project will be Johannesburg City Parks and Zoo (JCPZ), as they will be the operator for this project. JCPZ is a non-profit company that was formed as a Municipal Owned Entity (MOE). The purpose of this company was to ensure the development, maintenance, and conservation of the green open spaces, as well as the management of cemeteries and the Johannesburg Zoo. (Johannesburg City Parks and Zoo: 2021-22 FY Business Plan, 2021). This project will be seen as an attempt by the JCPZ to redevelop and maintain the existing park.

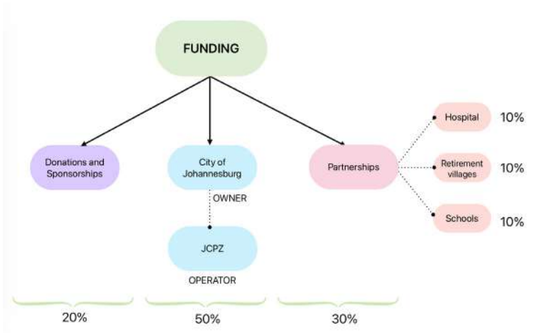


Figure 13.2: Funding Structure (Author, 2024)

FUNDING STRUCTURE

For this project, the JCPZ will form a partnership with the Johannesburg Surgical Hospital as well as the neighbouring retirement villages and schools in the area.

There are three components that will assist with the funding for this this project. As the owner of the site, the CoJ and the JCPZ are the main component that will be responsible for the majority of the costs associated with the project. Since the CoJ already owns the land, no funding will be needed to secure the property which is advantageous for the project's funding scheme.
The second component is funding obtained from the partnership with the hospital, retirement villages and schools. Lastly, the third component is funding obtained from sponsorships and donations.

The partnership between the hospital, retirement villages and schools are critical as these operations form of the foundation for the different generations and communities. They should also invest in this building as it is the community members within their operations that will benefit the most. Sponsorships and donations can be obtained by big brands to help with cost for operations and equipment. Big brands will benefit from the advertisement and exposure that they will gain from the building. Some of the big brands that could benefit from advertising in the building cold be Standard Bank, Telkom, Dischem, and many more.

Once the building is operational, operational cost will be split between the three components. To acquire funding through sponsorships and donations, the building could hold different fundraising events.

BUILDING COST

Within the building there will be different types of programming with a range of spaces from smaller private spaces to larger open public spaces. The table below is an estimate of the construction cost for each program.

NO.	ROOM	AREA (m2)	TOTAL AREA (m2)	COST/m2	TOTAL
INDOOR					
1	Coffee Shop	160	160	R9 100	R1 456 000
1	Pharmacy	50	50	R9 100	R455 000
1	Convenience Store	50	50	R9 100	R455 000
1	Beauty Salon	50	50	R9 100	R455 000
1	Day Care Centre	150	150	R8 000	R1 200 000
1	Indoor Play Area	80	80	R7 600	R608 000
4	Classroom	70	280	R8 000	R2 240 000
2	Workshop	80	160	R8 800	R1 408 000
1	Music Room	50	50	R8 800	R440 000
1	Medical Centre	200	200	R31 300	R6 260 000
1	Exhibition	100	100	R16 000	R1 600 000
4	Offices	10	40	R9 300	R372 000
4	Meeting/Study Rooms	20	80	R9 300	R744 000
1	Reception	20	20	R9 300	R186 000
2	Main Entrance Lobby	60	120	R10 000	R1 200 000
1	Secured Locker Units	10	10	R9 100	R91 000
1	Central Courtyard	500	500	R15 000	R7 500 000
2	Ablutions	25	50	R9 100	R455 000
3	Storage Room	15	45	R9 100	R409 500
1	Library	250	250	R12 000	R3 000 000
1	Multipurpose Hall	400	400	R18 000	R7 200 000
2	Change Rooms	25	50	R9 100	R455 000
1	Gym	200	200	R12 000	R2 400 000
				TOTAL	**R40 589 500**

INSTALLATIONS			
Electrical	3095	R2 000	R6 190 000
Electronic	3095	R1 200	R3 714 000
Air-conditioning	3095	R2 600	R8 047 000
Fire Protection	3095	R460	R1 423 700
		TOTAL	**R19 374 700**
		TOTAL INDOOR COST	**R59 964 200**

NO.	ROOM	AREA (m2)	TOTAL AREA (m2)	COST/m2	TOTAL
OUTDOOR					
1	Shuttle Station	10	10	R6 000	R60 000
1	Covered Parking	200	200	R8 000	R1 600 000
1	Uncovered Parking	1000	1000	R5 000	R5 000 000
1	Outdoor Play Area	100	100	R10 000	R1 000 000
1	Pool	100	100	R103 000	R10 300 000
1	Vegetable Garden	15	15	R10 000	R150 000
1	Refuse Room	25	25	R9 100	R227 500
1	Garden Storage	5	5	R4 600	R23 000
				TOTAL	**R18 360 500**

INSTALLATIONS			
Electrical	1455	R2 000	R2 910 000
Electronic	1455	R1 200	R1 746 000
		TOTAL	**R4 656 000**
		TOTAL OUTDOOR COST	**R23 016 500**

TOTAL BUILDING COST	
TOTAL INDOOR COST	R59 964 200
TOTAL OUTDOOR COST	R18 360 500
TOTAL excl. VAT	R78 324 700
VAT	R11 748 705
TOTAL incl. VAT	**R90 073 405**

Figure 13.3: Table showing Building Cost (Author, 2024)

PROFESSIONAL FEES

The professional fees for an architect are based on the project-based calculations from the SACAP Guideline Professional Fess, Guideline for Professional Fees. For these calculations, the architect is the principal agent.

ARCHITECT FEES: PRINCIPAL AGENT	
COMPLEXITY	HIGH COMPLEXITY
VALUE OF WORKS	R90 073 405
PRIMARY FEE	R5 230 998,63
SECONDARY FEE	(R90 073 405 - R40 000 001) x 12,33% = R50 073 404 x 12,33% = R6 174 050,71
PRIMARY FEE + SECONDARY FEE	R5 230 998,63 + R6 174 050,71 = R11 405 049,34
TOTAL	**R11 405 049,34**

Figure 13.4: Table showing Architect professional fee (Author, 2024)

INCOME

In this project there are several programming that generate income such as the coffee shop, membership fees for activities and programs, rental fees from the retail stores, rental fees for hiring out the multipurpose hall, income from the exhibition and workshops and many more. All programming is expected to generate sufficient income as all these spaces will be frequently used.

INCOME	
PROGRAMME	**YEARLY RATE**
Restaurant / Coffee Shop	R600 000
Library	R80 000
Exhibition sales	R300 000
Office Rentals	R500 000
Multipurpose Hall Rental	R800 000
Commercial Rental	R800 000
Workshop Rental and Sales	R100 000
Day Care Centre	R300 000
Medical Centre Rental	R400 000
Events Rental	R200 000
Fundraisers	R300 000
Activities and Programs Fees	R200 000
TOTAL	**R4 580 000**

Figure 13.5: Table showing annual income rate. (Author, 2024)

EXPENSES

In this project there will be several expenses such as maintenance cost and utilities cost. However, the goal of this project is to get multiple people from the community to volunteer. Since salaries is expected to be one of the biggest expenses, the use of volunteers is expected to decrease the overall cost of expenses.

EXPENSES	
EXPENDITURE	**YEARLY RATE**
Maintenance	R120 000
Rates and Taxes	R90 000
Security	R140 000
Utilities	R180 000
Equipment and Supplies	R80 000
Salaries	R1 400 000
Marketing	R60 000
TOTAL	R2 070 000

Figure 13.6: Table showing annual expense rates. (Author, 2024)

VIABILITY

As seen from the tables above, the annual income received for the project is greater than the annual expenses for the project. All expenses will be covered whilst still ensuring that there is extra income that can be used to host free workshops, events, and fundraisers. The extra income can also be put into a savings to ensure funding for greater maintenance or upgrades in the future. Therefore, this project is viable as it is able to serve its function and purpose to the community whilst still being able to cover its expenses.

IMPLEMENTATION

A traditional design-led competitive tender will be used for the procurement process.
As the principal agent, the architect needs to ensure that a contract between client and contractor has been signed. This is to settle any disputes that might arise later one.

There are three contracts involved for the project.

•The South African Institute of Architects Client-Architect Agreement (SAIA), which is used to protect the client-architect relationship.

•The Professional Consultants Services Agreement (PROCSA), which is used between the client and all consultants.

•Joint Building Contracts Committee (JBCC), which is the principle building agreement that needs to be signed by everyone in the project's scope.

It is also important to ensure that the entire building is compliant with SANS 10 400..

PROFESSSIONAL TEAM

Since this is a big and complex project, different professionals are required to assist with different aspects of the project. The professional team will consist of four divisions: legal, planning, design, and construction.

Project Manager
A project manager will be needed for the entire duration of the project to manage and supervise all parties involved in the project. The project manager needs to ensure that all parties are correctly co-ordinating with each other. They are also responsible for all the logistics regarding the project.

Legal Team:
Attorney
At the beginning of the project, an attorney is needed. The attorney will be responsible for ensuring that all documents regarding the ownership of the property are in order. The attorney will also be responsible for any alterations to the Title Deeds if needed.

Planning Team:
Land Surveyor
A land surveyor will be needed to identify the site boundary pegs on site. The land surveyor will also be required to provide information on the levels on site.

Design Team:
Architect
The architect appointed for this project will be appointed from the initial inception stage to the final close out stage. The architect will provide the final design drawings and their drawings should be co-ordinated with the other consultant's drawings.

Structural Engineer
The structural engineer will be responsible for the structural integrity of the building. They are to provide construction drawings.

Mechanical Engineer
The mechanical engineer is needed to ensure that the building is equipped with the necessary mechanical requirements needed such as HVAC ventilation and generators.

Electrical Engineer
The electrical engineer is needed to ensure that the building is equipped with the necessary electrical requirements needed.

Fire Consultant
A fire consultant is required to ensure that the building complies with fire regulations and that adequate fire escape routes are in place.

Quantity Surveyor
The quantity surveyor will be responsible for the budget of the project and are expected to provide a Bill of Quantities.

Landscape Architect
A landscape architect will be needed to design the open public spaces and the integration of the building with the park.

Construction Team:
The construction team will consist of a main contractor and a sub-contractor. The contractor will oversee the construction of the building.

MATERIALITY

A concrete structure will be used due to its low maintenance, making it ideal to use in a building that will be used frequently.

Natural materials and finishes will be used around the building to emphasize the link the building has with the park. Elements of old and new materials will also be incorporated into the design to emphasize the connection between the elderly generation and the younger generation.

SUSTAINABILITY

Since the site for this project is a park, sustainability will need to be a big component of the project. Due to the state of load shedding in Johannesburg, the building will have solar panels to always keep it operational. Efficient passive ventilation and lighting designs will need to be used to reduce the buildings reliance and usage of power. Rainwater harvesting and borehole harvesting will be used within the ablutions and irrigation systems. This is also an important alternative solution due to the increased water shortages that have been occurring more frequently in Johannesburg.

CONCLUSION

This project aims to create intergenerational connections in Johannesburg. The project is positioned so that it is within a convenient proximity from the target audience, retirement villages and schools. The proximity makes the project more accessible, increasing the frequency that people visit the building. As stated in this report, this project is a viable proposal to create a space to facilitate these intergenerational connections. These connections will improve and enhance the community, provide the opportunity to mutually learn from each other as well as preserving the community's culture and history. This project will also revitalize the forgotten, unused park, giving it a new function so that more people are able to use it frequently.

ETHICS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG | SCHOOL OF ARCHITECTURE PLANNING

20 August 2024

Kaylene Lachman

1836113

TO WHOM IT MAY CONCERN

RESEARCH ETHICS APPROVAL

Bridging Communities

This letter serves to confirm that the Ethics application for the above titled study has been approved. The researcher has been granted clearance to proceed with the research study or project.

Protocol/clearance number is: **SOAP05/03/2024**

Yours sincerely

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LIST OF FIGURES

Figure 0.1: What a park should be (Author, 2024)
Figure 0.2: Intergenerational Connections, (Author, 2024)
Figure 0.3: A child planting flowers (Author, 2024)
Figure 0.4: Trees (Author, 2024)

Figure 1.1: The park is nature's playground (Author, 2024)
Figure 1.2: Intergenerational Connections Concept Diagram (Author, 2024)
Figure 1.3: The elderly helping children with homwork (Senior Helpers, n.d.)
Figure 1.4: Girl playing with kite (Author, 2024)
Figure 1.5: Timeline showing the age range of a person (Author, 2024)

Figure 2.1: Retirement Village in Linden(Author, 2024)
Figure 2.2: A poem from the perspective of an elderly person (Protasia & Torkington, 2000)
Figure 2.3: Walking Stick (Author, 2024)
Figure 2.4: Retirement Village in Linden (Author, 2024)
Figure 2.5: The elderly working in vegetable garden (Author, 2024)
Figure 2.6: The elderly engaging in social interaction (Author, 2024)
Figure 2.7: The elderly engaging in physical activity (Author, 2024)
Figure 2.8: Change in family homes (Author, 2024)
Figure 2.9: Workshop spaces using task lighting (Stephenson, 2023)
Figure 2.10: Colour being used as a navigational tool to guide the elderly through the building (Author, 2024)
Figure 2.11: A railing using a change in texture and colour to assist as a navigation tool (Author, 2024)
Figure 2.12: Vertical gardens used to make activity more easily accessible for the elderly to participate (Author, 2024)
Figure 2.13: The elderly in communal eating area (Author, 2024)
Figure 2.14: Retirement Village in Linden (Author, 2024)
Figure 2.15: Trees (Author, 2024)
Figure 2.16: A playground for the elderly (Author, 2024)

Figure 3.1: School (Author, 2024)
Figure 3.2: Teddy bear (Author, 2024)
Figure 3.3: Children's bags outside classrooms (Author, 2024)
Figure 3.4: A school with some spaces for students to relax during break time. (Author, 2024)
Figure 3.5: Classroom that provides a space for structured learning (Author, 2024)
Figure 3.6: A diagram showing how children's adventurous play is affected by environmental and social factors (Dodd & Lester, 2021)
Figure 3.7: Children riding bicycles, a form of "adventurous play" (Author, 2024)
Figure 3.8: Colourful classroom to keep children engaged (Author, 2024)
Figure 3.9: Parents watching children play (Author, 2024)
Figure 3.10: A child engaging with their space (Author, 2024)
Figure 3.11: Children engaging in social interaction using digital devices (Author, 2024)
Figure 3.12: Children interacting with the elderly (Author, 2024)

Figure 4.1: A view through the leaves (Author, 2024)
Figure 4.2: Diagram showing the main components in spaces for children and the elderly (Author, 2024)
Figure 4.3: Intergenerational Connections, (Author, 2024)
Figure 4.4: Diagram showing the design strategies and programming applied to spaces for children and the elderly (Author, 2024)
Figure 4.5: Diagram showing the design strategies and programming used to stimulate children and the elderly in the building (Author, 2024)

Figure 5.1: Texture of the park (Author, 2024)
Figure 5.2: A row of trees (Author, 2024)
Figure 5.3: Low level fence used to define the boundary of the park (Author, 2024)
Figure 5.4: Grass Texture (Author, 2024)
Figure 5.5: Tree Trunk Texture (Author, 2024)
Figure 5.6: Tree Trunk Texture (Author, 2024)
Figure 5.7: Leaf Texture (Author, 2024)
Figure 5.8: Seed Texture (Author, 2024)
Figure 5.9: Leaf Texture (Author, 2024)
Figure 5.10: Seeds in a park (Author, 2024)
Figure 5.11: Human's Lungs (Author, 2024)
Figure 5.12: Plant Texture (Author, 2024)
Figure 5.13: Tree Trunk Texture (Author, 2024)
Figure 5.14: Grass Texture (Author, 2024)
Figure 5.15: Leaf Texture (Author, 2024)
Figure 5.16: Leaf Texture (Author, 2024)
Figure 5.17: Fallen Tree Trunk Texture (Author, 2024)
Figure 5.18: Trees (Author, 2024)
Figure 5.19: Public spaces need shelter from the elements (Harrouk, 2024)
Figure 5.20: The elderly and children playing in the park (Author, 2024)
Figure 5.21: Fallen Tree Trunk Texture (Author, 2024)
Figure 5.22: Cut Tree Branch Texture (Author, 2024)
Figure 5.23: Fallen Tree Trunk Texture (Author, 2024)
Figure 5.24: Tree Branch Texture (Author, 2024)
Figure 5.25: Tree Trunk Texture (Author, 2024)
Figure 5.26: Rock Texture (Author, 2024)

Figure 6.1: The Site(Author, 2024)
Figure 6.2: Locality Drawings (Author, 2024)
Figure 6.3: Johannesburg Historical Map (Latilla, 2015)
Figure 6.4: Old Shop in Linden (Davie, 2018)
Figure 6.5: Risidale SG Diagram (GeoLis, 2024)
Figure 6.6: Chosen Site (Author. 2024)
Figure 6.7: Reference Plan (Author. 2024)
Figure 6.8: Section through site (Author. 2024)
Figure 6.9: Section through site (Author. 2024)
Figure 6.10: Points of Interest (Author, 2024)
Figure 6.11: Zoning (Author, 2024)
Figure 6.12: Desire Lines on site (Author, 2024)
Figure 6.13: Desire Lines (Author, 2024)
Figure 6.14: Programming (Author, 2024)
Figure 6.15: Walking Distance (Author, 2024)
Figure 6.16: Elderly Pedestrian Routes (Author, 2024)
Figure 6.17: Children Pedestrian Routes (Author, 2024)
Figure 6.18: Vehicular Routes (Author, 2024)
Figure 6.19: Noise Levels (Author, 2024)
Figure 6.20: Possible Building Position (Author, 2024)
Figure 6.21: Sight Lines (Author, 2024)
Figure 6.22: Plan showing the direction of site views (Author, 2024)
Figure 6.23: View 1 of the park (Author, 2024)
Figure 6.24: View 2 of the park (Author, 2024)
Figure 6.25: View 3 of the park (Author, 2024)
Figure 6.26: View 4 of the park (Author, 2024)
Figure 6.27: View 5 of the park (Author, 2024)
Figure 6.28: View 6 of the park (Author, 2024)

Figure 7.1: A space where learning meets play (Meshworks Architects, n.d.)
Figure 7.2: Habitat 67 (Safdie Architects, n.d.)
Figure 7.3: Unit Visibility (Author, 2024)
Figure 7.4: Habitat 67 (Safdie Architects, n.d.)
Figure 7.5: Section showing the visibility between units (Author, 2024)
Figure 7.6: Forced Social Interaction (Author, 2024)
Figure 7.7: Visibility Connections (Author, 2024)
Figure 7.8: Forced Social Interaction Placement (Author, 2024)
Figure 7.9: Habitat 67 (Safdie Architects, n.d.)
Figure 7.10: Habitat 67 (Safdie Architects, n.d.)
Figure 7.11: Noisy Area vs Quiet Pods (Author, 2024)
Figure 7.12: STEAM Centre (Meshworks Architects, n.d.)
Figure 7.13: Librarian Visibility on Children (Author, 2024)
Figure 7.14: Showing the versatility of space (Author, 2024)
Figure 7.15: STEAM Centre (Meshworks Architects, n.d.)
Figure 7.16: Vertical Circulation (Meshworks Architects, n.d.)
Figure 7.17: Staff room with some colourful elements and more neutral elements (Meshworks Architects, n.d.)
Figure 7.18: A colourful workshop to encourage students to interact with the space (Meshworks Architects, n.d.)
Figure 7.19: John Morden Centre (Mae Architects, n.d.)
Figure 7.20: The Dining Area within John Morden Centre (Mae Architects, n.d.)
Figure 7.21: The Courtyard (Mae Architects, n.d.)
Figure 7.22: Tree used as a focal point (Author, 2024)
Figure 7.23: Pause Areas (Author, 2024)
Figure 7.24: Pause Areas Orientated to maintain connection to nature (Author, 2024)
Figure 7.25: Pause Areas Facing The Courtyard (Mae Architects, n.d.)
Figure 7.26: Axonometric View of the park (Shuangyu, 2021)
Figure 7.27: Songzhuang Micro Community Park (Shuangyu, 2021)
Figure 7.28: Layout of 'outdoor spaces' (Author, 2024)
Figure 7.29: The 'Welcome Room' with mirror like materiality to peak users curiosity (Shuangyu, 2021)
Figure 7.30: The 'Social Room' with mirror like lots of seating (Shuangyu, 2021)
Figure 7.31: The Yellow Path (Author, 2024)
Figure 7.32: Colour used as a navigation tool (Shuangyu, 2021)
Figure 7.33: The 'Exercise Room' (Shuangyu, 2021)
Figure 7.34: Perforated walls to encourage play (Shuangyu, 2021)
Figure 7.35: The 'Play Room' (Shuangyu, 2021)

Figure 8.1: Textures of the park (Author, 2024)
Figure 8.2: Interacting with the park (Author, 2024)
Figure 8.3: Elements of the Project (Author, 2024)
Figure 8.4: Mrs Naidoo (Author, 2024)
Figure 8.5: Program derived from narrative (Author, 2024)
Figure 8.6: Melissa (Author, 2024)
Figure 8.7: Program derived from narrative (Author, 2024)
Figure 8.8: Linking programming and project elements (Author, 2024)
Figure 8.9: Sketch of trees (Author, 2024)

Figure 9.1: Design Devlopment (Author, 2024)
Figure 9.2: Prepping the paper to represent the elderly in the concept models (Author, 2024)
Figure 9.3: Exploration of forms and texture (Author, 2024)
Figure 9.4: Models conceptualising intergenerational connections and spaces (Author, 2024)
Figure 9.5: Sketches conceptualising intergenerational connections and spaces (Author, 2024)
Figure 9.6:Models conceptualising building forms (Author, 2024)
Figure 9.7:Sketches conceptualising building forms (Author, 2024)
Figure 9.8: A sketch showing the organisation of programming (Author, 2024)
Figure 9.9: Sketches exploring spatial planning (Author, 2024)
Figure 9.10: Models exploring experiential spaces (Author, 2024)
Figure 9.11: Sketches exploring experiential spaces
Figure 9.12: Sketches exploring vertical circulation (Author, 2024)
Figure 9.13: Conceptual building forms (Author, 2024)
Figure 9.13: Conceptual building forms (Author, 2024)
Figure 9.14: Exploring spatial quality and integrating building with landscape (Author, 2024)
Figure 9.15: Exploring spatial quality and integrating building with landscape (Author, 2024)
Figure 9.16: Refined spatial explorations (Author, 2024)
Figure 9.17: Refined spatial explorations (Author, 2024)
Figure 9.18: Refined spatial explorations (Author, 2024)
Figure 9.19: Visibility (Author, 2024)
Figure 9.20: Accessibility (Author, 2024)
Figure 9.21: Site Plan (Author, 2024)
Figure 9.22: 3D View (Author, 2024)
Figure 9.23: Basement Floor Plan (Author, 2024)
Figure 9.24: Ground Floor Plan (Author, 2024)
Figure 9.25: First Floor Plan (Author, 2024)
Figure 9.26: North Elevation (Author, 2024)
Figure 9.27: East Elevation (Author, 2024)
Figure 9.28: South Elevation (Author, 2024)
Figure 9.29: West Elevation (Author, 2024)
Figure 9.30: Section AA (Author, 2024)
Figure 9.31: Section BB (Author, 2024)
Figure 9.32: Movement and Access Routes (Author, 2024)
Figure 9.33: Section showing visibility (Author, 2024)
Figure 9.34: View of entrance and vegetable garden (Author, 2024)
Figure 9.35: View of playground (Author, 2024)
Figure 9.36: View of shop entrance, shops and restaurant (Author, 2024)
Figure 9.37: View of Green Roof (Author, 2024)
Figure 9.38: Model of screening (Author, 2024)
Figure 9.39: Green Roof Drainage Option (Author, 2024)
Figure 9.40: Green Roof Drainage Option (Author, 2024)
Figure 9.41: Technical Drawings Sheet (Author, 2024)
Figure 9.42: Technical Drawings Sheet (Author, 2024)
Figure 9.43: Sketches exploring building components (Author, 2024)
Figure 9.44: Sketches exploring building components (Author, 2024)

Figure 10.1: A day amongst the trees (Author, 2024)
Figure 10.2: What comes next... (Author, 2024)
Figure 10.3: Program derived from research (Author, 2024)
Figure 10.4: Program derived from research (Author, 2024)
Figure 10.5: Program derived from research (Author, 2024)
Figure 10.6: Program derived from research (Author, 2024)

Figure 11.1: Textures of the park (Author, 2024)
Figure 11.2: North Perspective (Author, 2024)
Figure 11.3: Reference Plan (Author, 2024)
Figure 11.4: Zoning (Author, 2024)
Figure 11.5: Desire Lines (Author, 2024)
Figure 11.6: The Elderly and Children Movement Routes (Author, 2024)
Figure 11.7: Programming (Author, 2024)
Figure 11.8: Context Plan (Author, 2024)
Figure 11.9: Access Points (Author, 2024)
Figure 11.10: Site Drainage (Author, 2024)
Figure 11.11: Site Plan (Author, 2024)
Figure 11.12: Access Points and Circulation (Author, 2024)
Figure 11.13: Services and Escape Routes (Author, 2024)
Figure 11.14: Basement Floor Plan (Author, 2024)
Figure 11.15: Access Points and Circulation (Author, 2024)
Figure 11.16: Services and Escape Routes (Author, 2024)
Figure 11.17: Ground Floor Plan (Author, 2024)
Figure 11.18: Access Points and Circulation (Author, 2024)
Figure 11.19: Services and Escape Routes (Author, 2024)
Figure 11.20: First Floor Plan (Author, 2024)
Figure 11.21: Access Points and Circulation (Author, 2024)
Figure 11.22: Services and Escape Routes (Author, 2024)
Figure 11.23: Seminar Room Flexibility (Author, 2024)
Figure 11.24: Second Floor Plan (Author, 2024)
Figure 11.25: Sunken Courtyard Perspective (Author, 2024)
Figure 11.26: Reference Plan (Author, 2024)
Figure 11.27: East Sectional Elevation (Author, 2024)
Figure 11.28: Restaurant Sectional Elevation (Author, 2024)
Figure 11.29: West Elevation (Author, 2024)
Figure 11.30: North Elevation (Author, 2024)
Figure 11.31: South Elevation (Author, 2024)
Figure 11.32: View from the park (Author, 2024)
Figure 11.33: Reference Plan (Author, 2024)
Figure 11.34: Section A-A (Author, 2024)
Figure 11.35: Section B-B (Author, 2024)
Figure 11.36: Diagram showing visibility in Section A-A (Author, 2024)
Figure 11.37: Diagram showing natural lighting and ventilation in Section A-A (Author, 2024)
Figure 11.38: Diagram showing visibility in Section B-B (Author, 2024)
Figure 11.39: Diagram showing natural lighting and ventilation in Section B-B (Author, 2024)
Figure 11.40: East Perspective (Author, 2024)
Figure 11.41: Reference Plan (Author, 2024)
Figure 11.42: View from bridge (Author, 2024)
Figure 11.43: Reference Plan (Author, 2024)
Figure 11.44: Perspective of walkway in front of retail and exhibition (Author, 2024)
Figure 11.45: Reference Plan (Author, 2024)
Figure 11.46: Perspective of coffee kiosk (Author, 2024)
Figure 11.47: Reference Plan (Author, 2024)
Figure 11.48: Perspective of Indoor Courtyard and Elderly Clubhouse (Author, 2024)
Figure 11.49: Reference Plan (Author, 2024)
Figure 11.50: Perspective of Noisy Library (Author, 2024)
Figure 11.51: Reference Plan (Author, 2024)
Figure 11.52: View from entrance (Author, 2024)
Figure 11.53: Reference Plan (Author, 2024)
Figure 11.54: View from Park Souht Entrance (Author, 2024)
Figure 11.55: Reference Plan (Author, 2024)

Figure 12.1: Textures of the park (Author, 2024)
Figure 12.2: Reference Section (Author, 2024)
Figure 12.3: Perimeter Section (Author, 2024)
Figure 12.4: Callout Detail (Author, 2024)
Figure 12.5: Reference Section (Author, 2024)

Figure 13.1: Outdoor elderly gym (Author, 2024)
Figure 13.2: Funding Structure (Author, 2024)
Figure 13.3: Table showing Building Cost (Author, 2024)
Figure 13.4: Table showing Architect professional fee (Author, 2024)
Figure 13.5: Table showing annual income rate. (Author, 2024)
Figure 13.6: Table showing annual expense rates. (Author, 2024)

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