

REMODELLING AGED LIVING TO REDUCE STIGMA

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ABSTRACT

This thesis investigates whether community-based architectural strategies can be used in aged care facility design to reduce the stigma of social isolation. New Zealand has a growing population, with an increasing number of people needing assistance from aged care facilities. However, the elderly resist moving into aged care facilities because of fears of marginalisation, social isolation and associated stigma. Stigma creates outcomes of discrimination towards marginalised individuals, resulting in negative projections on these people and consequent social exclusion.

There are two main aims of this research. The first aim was to understand the relationship between stigma and architecture and stigma and aged care facilities. To achieve this aim, stigma and various strategies for addressing that stigma in aged care facilities were defined based on contemporary literature on this subject and analyses of relevant built precedents.

The second aim was to develop, a contemporary aged care facility that demonstrates potential strategies for reducing stigma. This aim was achieved by developing criteria that respond to iterative design exercises and contemporary research in the fields of aged care facilities, architecture and stigma. An iterative design process, continually tested these criteria against literature and precedent reviews, was carried out to arrive at a coherent design and more refined set of criteria.

Research conclusions showed that community-based architectural strategies can be used to reduce the stigma of social isolation in aged care facility design. This resulted in the outcome of a community-based model and criteria that can be applied to the design of aged care facilities and will resultantly provide residents with a purposive role and inclusion within society.

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CHAPTER 1.

AIMS AND SCOPE OF RESEARCH

This thesis investigated whether community-based architectural strategies can be used to reduce the stigma of social isolation associated with aged care facilities. The stigma associated with aged care facilities is a major issue. Stigma starts with marginalising individuals, which results in inflicted negative projections on these people and as result discrimination towards them and consequently social exclusion. Social exclusion is detrimental to the well-being of individuals, where they may feel unappreciated and not part of society, consequently creating fear and resistance towards entering aged care facilities. Having this fear means that individuals who require help from assisted living are resisting help and not getting the help that they need (Crocker, Major, & Steele, as cited in Zimmerman et al., 2016).

With the world's growing population, it is evident that the stigma associated with aged care facilities is a growing issue. It has been estimated that by 2050, the number of people over 65 will increase to 25% of our population (Figure 3). This will lead to 5-6% of housing in New Zealand being aged care facilities and an increase of 14% in residential care between 2006 and 2013. The numbers will increase and more people will require assistance. It will become a key societal issue that we will need to tackle to improve the residents and our elderly population's well-being.

Throughout this thesis, the literature on what stigma is, the relationship between stigma and architecture, and aged care

facility design in particular and community/urban literature was reviewed. It was found that there was limited literature on the relationship between architecture and stigma.

Negative projections target their mental and physical capability, their place in society and their identity. All of which cause alienation of these individuals, resulting in social exclusion and rejection. With isolation being key to this thesis, community benefits were investigated. To ensure that the issue is addressed in full, the scope of the project is limited to a 50-200-unit retirement village and the client is aimed at the "Baby Boomer" generation (those born between 1946-1964). This means that this thesis will consider the needs and values of that generation. Limiting this thesis to retirement villages means that more intensive care facilities such as dementia units or other conditions requiring specialist support will not be the focus of this project, but further research on stigma and aged care facilities could investigate these areas. Although, this project will be capable of aiding the elderly at any time when required, and health clinics will also be available to the residents on the site.

Currently, aged care facilities are often gated "communities" that are isolated away from main city hot spots and have facilities just for the residents to use, with organised visitors, instead of being open to the surrounding communities. As a result of this, it means that the residents form mobility-related isolation too because

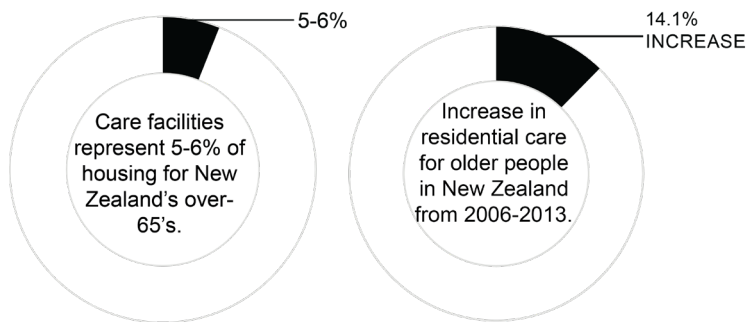


Fig.1. Care facility housing statistics (Welby, 2017).

Fig.2. Residential care statistics (Statistics New Zealand, 2013).

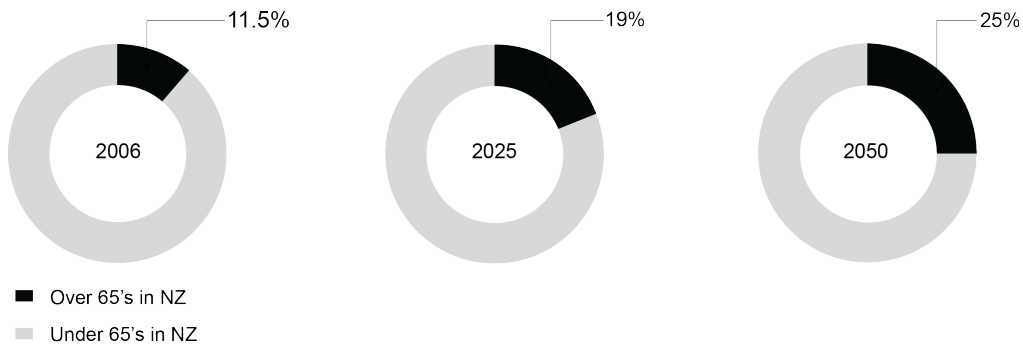


Fig.3. New Zealand over 65's statistics (Grant, 2006).

they are too far away from basic services outside of the facility such as shops, libraries, and cafés, where interaction within the community can often occur. Also, facilities are often considered “cookie-cut” designs that reflect the qualities of institutions and organisations, whose main purpose is to just monopolise the land and make a profit from the elderly community, rather than considering their needs and incorporating home-like features, freedom of choice and individualisation.

Overall, to achieve a facility that will reduce stigma, the aims and objectives of this thesis are as follows: -

Aim one

- To understand the relationship between stigma and architecture and stigma and aged care facilities.

Objectives

- Understand definitions of stigma and strategies for addressing that stigma, as they apply to aged care facilities.
- Identify and evaluate architectural strategies employed to reduce the effects of stigma, both generally and more specifically, where applicable, to aged care facility models.

Aim two

- To develop and test through design a model of a contemporary aged care facility that would reduce isolation stigma of its residents.

Objectives

- To develop criteria that respond to iterative design exercises and

contemporary research in the fields of aged care facilities, architecture and stigma.

- To undertake an iterative design process continually developed and tested against criteria, literature and precedent reviews.

It is hypothesised that by bringing a sense of community to the facility through a community based architectural model, the residents will feel more integrated into society and the outer community and will begin to feel a sense of importance and value. Thus, helping to eliminate social exclusion and isolation currently felt by the residents.

CHAPTER 2.

METHODOLOGY

The research methodology consisted of a research for design approach and an iterative research through design approach.

Literature Review

The initial phase of this research involved a literature review as shown in figure 4 and had the output of criteria based on stigma and architecture, a matrix comparing the benefits of community planning with stigma issues and then criteria based on these urban/community findings. Based on these three fields of research investigated, initial overall criteria were formed that considered the interrelationship between stigma and architecture, community benefits and third place.

These criteria were then refined with preliminary design exercises and case studies related to the literature findings.

The Site and Programme Analysis

“Site and programme research” was then undertaken as shown in figure 4. To determine the best site, a set of criteria were formed based on the initial criteria set. Then with the use of these criteria and iteratively testing the programme, the overall criteria were refined to suit the site selection criteria.

Design

The main design stage then started as shown in figure 4. These designs helped refine the criteria further. The areas that the designs were successful were evaluated and used to make the design criteria more specific and robust.

Following this, case studies, as shown in figure 4 were used to make the criteria more robust, and the successful approaches and design decisions the case studies made were then applied to the criteria.

After this, a concept design was created and iteratively tested against itself and the criteria to make both the criteria and the design more robust.

Finally, an outcome that met the criteria was created as an example of what would pass the criteria.

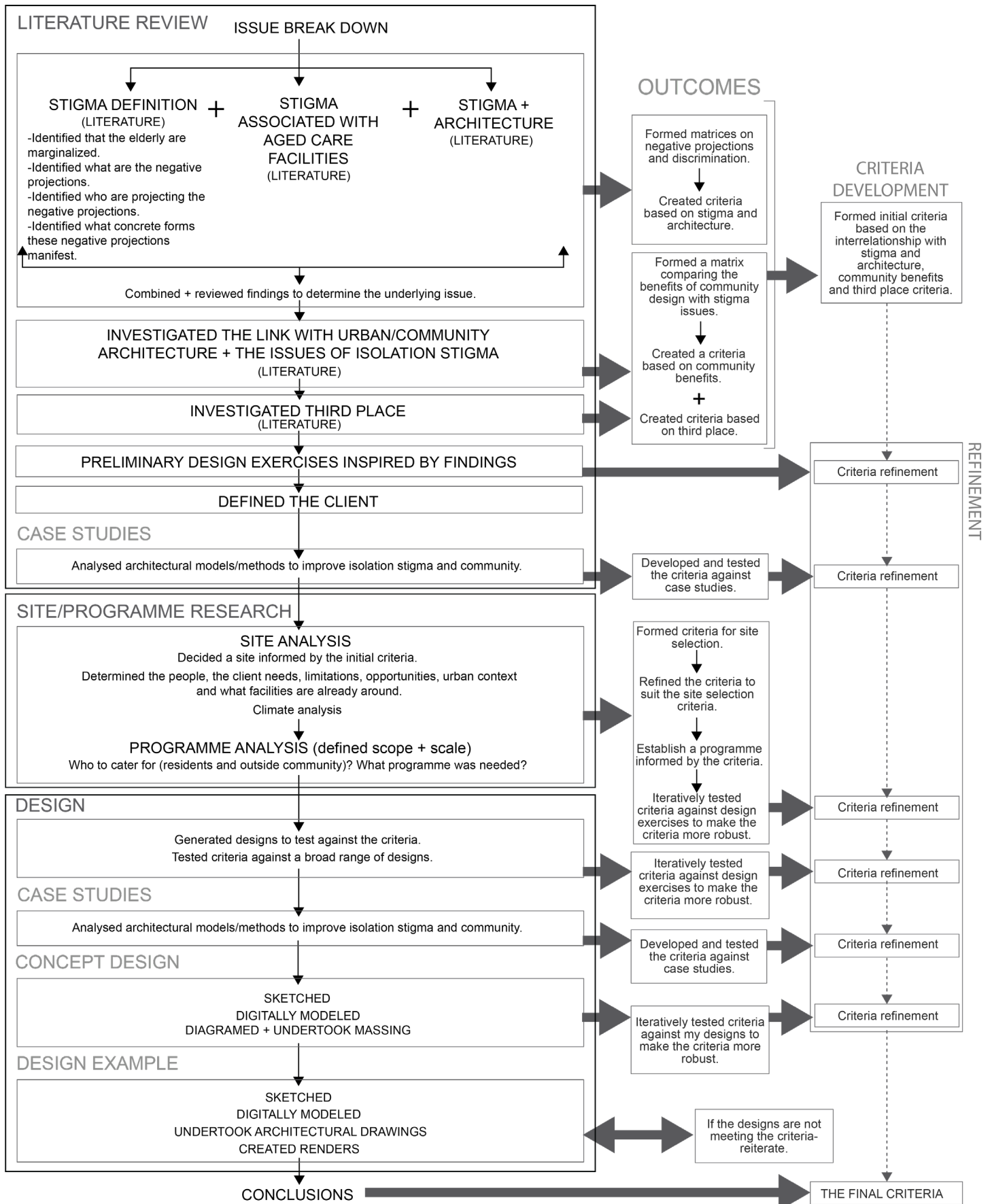


Fig.4. Methodology Diagram.

CHAPTER 3.

DEFINING STIGMA AND MARGINALISATION

Stigma

This chapter discussed stigma in relation to what stigma is, what causes stigma and what outcomes stigma creates. Stigma is a preconceived judgement towards individuals within society who are 'different'. Society creates expectations of what is 'normal' and those individuals who are not 'normal' are isolated away from society (Link & Phelan as cited in Zimmerman et al., 2016).

Link and Phelan in their influential sociological research "Conceptualizing Stigma" identified four steps that lead to stigmatisation. Firstly, human differences are labelled by others, secondly, cultural beliefs cause those who are labelled to have devalued characteristics assigned to them resulting in negative stereotypes, thirdly, segregation between those stigmatised and those who are stigmatising is formed, and finally, those who are labelled experience discrimination and status loss resulting in unfair outcomes. All of this is contingent upon economic, social and political power, which generates differentness, stereotyping and categorising those who are labelled into a distinct category (Link & Phelan, 2001).

Marginalisation

Understanding how the elderly are stigmatised will help determine which architectural strategies will help reduce this stigma. As well as gaining the knowledge that those who stigmatise often do not stigmatise those they know is critical in knowing that community-based strategies

might be the solution to getting the community to 'know' the elderly. Therefore, this study will tackle the issue of stigma against the elderly, and particularly elderly in aged care facilities, from a society/community point of view. This will mean the design outcome will be based on creating a community-based model.

The marginalisation of the elderly is present in modern-day society. Dobbs et al described the prevalence of elderly marginalisation in contemporary society. They write: "The sad truth is that, in our society, older adults are stigmatised because of myths and stereotypes associated with the very fact of being old." (Dobbs et al., 2008). Their claim is supported by research data collected from 309 participants which included residents, family and staff.

The act of marginalisation inflicts social distancing and negative projections onto the elderly. Similarly, Zimmerman et al, state that stigma causes marginalisation and create "perceptions of "us" versus "them" (Zimmerman et al, 2016), resulting in the exclusion of those who are stereotyped (Leary & Schreindorfer & Major & Eccleston, cited in Major & O'Brien, 2006). Some of the main reoccurring projections identified in the literature include frailty, little power/respect in society, incompetence, limited mobility, loss of identity, being unable to capably perform tasks, poor mental acuity, increased dependence on others and being devalued (Chasteen & Cary, 2015; Fiske et al., 2002 as cited in Chasteen &

Cary 2015; Nelson, 2010; Kite & Wagner, 2002 as cited in Nelson, 2010; Wilson & Neville, 2008; Nelson, 2002 as cited in Nelson, 2010; Fineman, 1990; Dobbs et al., 2008; Zimmerman et al., 2016; Grant 2006; Hrybrk, 2012; Gamliel & Hazan, 2006; Roth et al., 2006; Shippee, 2009). Although isolation was not found to be a reoccurring projection throughout the articles, Fisher who undertook an interview-style data collection of 166 individuals found that "[r]elocating to the facility, in their eyes, entails a lessening of independence, conceding one's lowered capability, and being isolated from outside community life." (Fisher, 1990). Therefore, consideration of isolation is also critical.

These negative projections are projected by a range of members of society, but predominantly it comes from younger adults (Fineman, 2011). Pasupathi, Lockenhoff, Troll and Schlossberg say, "[c]ounselors, educators, and other health professionals are just as likely to be prejudiced against older people as other individuals" (Pasupathi & Lockenhoff, 2002 & Troll & Schlossberg, 1971 as cited in Nelson, 2002). Although when someone is asked to review an elderly person they know, they are less likely to say negative age-related stereotypes, they instead tend to be positive (Crockett & Hummert, 1987 as cited in Nelson, 2010). Therefore, getting the elderly and all other generations to mix will make stigma less likely.

These negative projections, cause the

elderly to experience discrimination. The most reoccurring results of discrimination include social exclusion, feeling devalued, fear of being moved, hiding conditions, social rejection, and diminishing of self-worth (Chasteen & Cary, 2015; Pasupathi & Lockenhoff, 2002 as cited in Chasteen & Cary 2015; Nelson, 2010; Dobbs et al., 2008; Zimmerman et al., 2016; Hrybyk, 2012; Gamliel & Hazan, 2006; Roth et al., 2016). All these themes are detrimental to someone's well-being. As suggested by the literature, "[s]tigma has been linked to poor mental health [and] physical illness..." (Allison 1998, Braddock & McPartland 1987, Clark et al. 1999, Yinger 1994 as cited in Major & O'Brien 2006). Having the elderly feel this way is particularly concerning as they should feel comfortable to seek help from others if required.

Therefore, it is evident that the elderly are marginalised in societies around the western world by all types of people although, people are less likely to stigmatise those they know. It was found, some of the negative projections that occur include frailty, little power/respect in society, incompetence, limited mobility and loss of identity. The stigma attached to the elderly exists and it is a problem for our older generation's physical and mental well-being.

LITERATURE REVIEW- STIGMA AND ARCHITECTURE

One of the aims of this thesis is to understand the relationship between stigma and architecture and stigma and aged care facilities. Aged care facilities are an architectural typology that is commonly stigmatised (Hrybyk et al., 2012). The stigma associated with aged care facilities can result in generalisations being placed on residents of them. As a result of these generalisations, individuals often feel a fear of relocation which leads to residents declining health and hiding their conditions (Crocker, Major, & Steele, as cited in Zimmerman et al., 2016). Therefore, it is important to reduce the stigma attached to this architecture to minimise these negative generalisations.

To achieve this aim, articles on stigmatised architecture were analysed. It was found there were limited articles on preventing stigma with architecture, and there were particularly limited articles specific to New Zealand. From these articles, criteria were identified and noted down when they were applicable to aged care facilities (based on the stigmas found in chapter 3).

The article "Stigma and architecture" (Robinson & Thompson, 1999) provided a general overview of stigma and architecture with a particular interest in institutions and home-like residences. The article discusses how architecture can reinforce divergent behaviour and status, which results in stigmatisation. Ways this is done is through using non-home-like characteristics and isolating people away from society. Although, the article also states that architecture can change

people's attitudes. To back up the points made, the research is supplemented with quantitative data that looks at the difference between the effects of the perceived character of a setting and the physical characteristics of the setting. Allowing for the identification of the features that affect the perception and attitudes of the occupants.

The key findings suggest architecture can reduce stigma by having home-like characteristics instead of looking like an institution, not isolating the facility away from society but instead bringing the building users back into society and giving them a valued place in society and finally, allowing for the residents to be exposed to what everyone else is exposed to (i.e. avoiding placing ramps out the back when everyone else can access from the front) (Robinson & Thompson, 1999).

The following articles looked at a range of stigmatised typologies from the USA, Poland, the UK, Australia and Denmark.

Public/Social Housing

A key reoccurring strategy to reduce stigma was to ensure that the residents are not socially excluded from the wider community (Cision, 2016). "The relationship between stigma, ignorance and isolation needs to be broken" (Hastings & Dean, 2003). Therefore, it is important to encourage visitors of the wider community to pass through the sites (Hastings & Dean, 2003) to encourage interaction between the residents and community (Palmer et al., 2004;). One

key architectural strategy is to avoid cul-de-sacs as it creates isolation (Dean & Hastings, 2000).

To further encourage socialising and community integration, it is important to improve the community's and the local economy's outlook on the facility (Hastings, 2004; Australian Housing and Urban Research Institute, 2012), by ensuring the facility benefits the wider community (Hastings & Dean, 2003) and creating similarities between the wider city and the facility. In terms of architecture, a programme that enables amenities, services and events should be included to allow for the residents to participate in community events and to attract the community to the facility (Palmer, Ziersch, Arthurson, & Baum, 2004; Hastings & Dean, 2003).

Palmer et al believe that an improvement in the physical infrastructure and avoidance of underinvestment is important to reduce stigma (Palmer, Ziersch, Arthurson, & Baum, 2004). The facility should be easy to maintain as a quality building (Australian Housing and Urban Research Institute, 2012; Hastings & Dean, 2003). Physical ways in which architectural strategies could improve stigma included being fence free (Cision, 2016), avoiding towers (Hastings, 2004), metal shutters, railings, hard landscaping, obvious security features (Hastings & Dean, 2003) and generic, grey static and colossal buildings surrounded with empty lawns, concrete and parking lots (Cision, 2016). Incorporating these strategies

will make the facility more inviting to the surrounding community as it will appear to be a safe place to be, it will not be isolated and it will give the users a sense of value. When creating these positive changes, it is important to make the physical changes visibly clear to the outer community/ passers-by as it shows the facility is different to other facilities (Hastings & Dean, 2003; Dean & Hastings, 2000).

Overall, the facility should allow for personalisation/individuality (Cision, 2016), a sense of ownership (Hastings, 2004) and belonging while being safe, in a tolerant community and free of new stigmas being formed (McCormick, Joseph & Chaskin, 2012).

Mental Health Units

Bil's article, "Stigma and architecture of mental health facilities" (2016) recommends designing to accommodate people by considering local and cultural issues to reduce stigma with architecture. As well as maintaining the patient's dignity, privacy and security to ensure safety and to avoid low-quality buildings (Bil, 2016).

Homeless Shelter

Sharoff's article, "Social Improvement with Architecture" (2006) recommends creating a facility that boosts the user's self-esteem, gives them value and a place within society. Examples include providing views of the city to show that the users have value, or by providing the users' work or facilities that allow the user to learn new skills (e.g. with a greenhouse complex for them to work on).

CRITERIA FROM STIGMA AND ARCHITECTURE LITERATURE

It was found that across the stigmatized architecture research, it is important to tackle the community's outlook on the facility while still considering the needs of the residents. Therefore, stigma could be reduced by bringing the residents back into society, through attracting the community to visit with providing interaction opportunities between the residents and community, including public amenities that benefit them, creating similarities between the facility and the community and giving the residents value. This could be achieved through creating home-like features instead of institutional characteristics, personalisation, security, giving choice, soft landscaping and providing for a programme that the community use while interacting with the residents. These changes would confound the unsubstantiated ideas of stigma (such as being incapable of socialisation) and the result would improve the image of the facility, whilst also providing the residents with a valuable place in society, a sense of normality to their previous life and overall a decrease in isolation.

ELDERLY AND COMMUNITY

It has been found that stigmatization causes the wider community to devalue the elderly (Fineman, 2011) and thus a loss of community. This issue can be tackled with community-based architecture.

As stated by Fisher, relocation results in "...being isolated from outside community life" (Fisher, 1990) and it is "...that loss of community that's the hardest" (Fisher, 1990). As a result, and as an influencer of the loss of community, the elderly feel they have "...less value to the broader community." (Fisher, 1990).

According to Kellaheer and Grant, "the salience of the home and community increase with age" (Kellaheer, et al., 2004 as cited in Grant, 2006) and "many [elderly] find solace living in a community..." (Grant, 2006). Prieto-Flores, Forjaz, Fernandez-Mayoralas, Rojo-Perez, and Martinez-Martin say, "[i]t is of great importance... to facilitate the maintenance of relationships with the community" (Prieto-Flores et al., 2011). Fortunately, "...retirement villages can engender a feeling of community..." (Folts and Muir 2002, Graham and Tuffin 2004, Peace and Holland 2001 as cited in Grant, 2006). By creating a sense of community through architecture, in these aged care facilities, the elderly will be helped. As Crockett and Hummert stated, "[w]hen one is asked to evaluate a specific older person (co-worker, boss, friend, for example), fewer examples of old-age related stereotypes come to mind, and the attitude is much more likely to be positive..." (Crockett & Hummert, 1987,

cited in Nelson, 2010). Therefore, a community-based facility will help create connections and relationships between the elderly and the wider society. This means community-based strategies will create positive exposure and encourage engagement enabling unsubstantiated views to be reduced while also reducing the isolation caused by stigmatisation. By allowing the elderly to feel a sense of community in aged care facilities, their mental well-being is improved and their willingness to enter aged care facilities will be increased. Resultantly, this will reduce the stigma of being in the facility.

Ways in which architecture can help implement a sense of community have been suggested by the literature. Theorists suggest that "...cohousing, shared housing, Greenhouses, the Village movement, pocket-style community design..." (Brune, 2011; Chapin, 2011; Greenfield et al, 2012; Perkins et al., 2004 as cited in Roth et al. 2016) are models that can help improve the community in an aged care facility.

On a more detailed level, van Den Berg et al suggests "...neighbourhood walkability and access to facilities have also emerged as an important theme in studies on local social interaction and community liveability" (e.g., du Toit et al., 2007; Wood et al., 2008; Hanibuchi et al., 2012 as cited in van Den Berg, Kemperman, de Kleijn & Borgers, 2016).

LITERATURE REVIEW-URBAN STRATEGIES

CHAPTER 8.1. COMMUNITY BENEFITS

Community-based design and third place are both design concepts that can help create a sense of community within architecture. The benefits of community planning were analysed against forms of discrimination and negative projections to test whether community-based architecture as a strategy for reducing stigma. It was found that, in theory, all areas of discrimination can at least partially be reduced by the benefits of community planning and the act of exposing/engaging the community with the residents helps remove unsubstantiated negative projections. Therefore, this analysis confirmed that community planning can be a way forward in tackling isolation stigmas (refer to appendix A for matrix).

Third places are informal gathering places (Urbanski, 2018) that come after the home (first place) and work (second places) (Zamiri & Zamiri, 2016). These places often possess home-like qualities as they provide a sense of belonging, although, they are available to the public. The public aspect of them allows them to be inclusive and welcoming to all, no matter the social statuses, age, or ethnicity of the occupants. They promote social interaction (Dolley & Bosman, 2019) between both individuals who know each other and people spontaneously meeting there (Oldenburg, 1999 as cited in Dolley & Bosman, 2019). Typically, third places are known to be parks, libraries, cafés, malls and bookshops.

The third place is important to the well-being and psychological health of the public in general (Alidoust & Bosman, 2019), particularly by easing levels of anxiety and loneliness (Hollis 2013; Jacobs 1996; Firth et al. 2011; Putnam 2000 as cited in Dolley & Bosman, 2019). Third place does this by being spaces that promote inclusion, revive social life in our cities (Zamiri & Zamiri, 2016), help improve relationships between people in the community and create a sense of place and belonging (Oldenburg 1999; Thompson and Maggin 2012; Galdini 2016; Vincent et al. 2016 as cited in Dolley & Bosman, 2019).

Third place is important and relevant to people in general but has also been identified as being specifically important to the elderly. According to Lawton, the

less able the individual is, the greater the impact the built environment has on their behaviour (Lawton, 1974 as cited in Campbell & Campbell, 2017). It was found that third place characteristics are more liked spaces and thus more used (Campbell & Campbell, 2017), resulting in more interactions both with the community and other residents. These interactions allow for people of different ages to interact (Alidoust et al. 2014, 2015; Hickman 2013; Lawson 2004; Matthews et al. 2000; Rosenbaum et al. 2007 as cited in Alidoust & Bosman, 2019), an enhanced social life, an escape from their normal lives (Urbanski, 2018), more opportunities to meet new people (Alidoust & Bosman, 2019), a sense of community (Oldenburg, 1999 as cited in Campbell, 2017) and opportunities to keep in touch with others (Oldenburg 1997 as cited in Alidoust & Bosman, 2019). These interaction benefits mean that the elderly's overall health is improved. With health-related issues such as stress, detachment from a place, a loss of identity (Campbell, 2017), depression (Campbell & Campbell, 2017), self-worth, loneliness and alienation can be reduced (Alidoust & Bosman, 2019).

This is relevant to the project as it confirms that third places can bring a community of people, who are from different backgrounds, together and can promote interaction.

Based on these benefits, it can be concluded that third place would benefit the well-being of the residents in aged care facilities. Therefore, incorporating

third place strategies will be highly advantageous in the design of aged care facilities.

CHAPTER 8.2. CRITERIA FROM THIRD PLACE AND COMMUNITY BENEFITS

Both community-based design and third place share the belief that to reduce stigma it is important to both cater to the residents and the outer community. It was found that to cater for the outer community the facility should fit in with the wider city (Jacobs, 1916 as cited in "Theoretical Context", p. 84) , provide activities (Project for Public Spaces, 2011 as cited in "Theoretical Context", p. 88) for the community, be inclusive/ accessible (Oldenburg, 1989 as cited in Dolley & Bosman, 2019, p. 2), welcoming (Jacobs, 1961 as cited in "Theoretical Context", p. 84) and enhance the navigation of the surrounding context ("Theoretical Context", p. 90) with creating permeability ("Theoretical Context", p. 95) and wonderment (Thwaites, 2010 as cited in "Theoretical Context", p. 94) . By providing these benefits for the wider community, the public perception will be improved (JusticeAction, 2020) and it will provide similarities between the community and facility (Moore, 2010). By improving the public's perception and encouraging the community to visit the facility, the residents will have an opportunity to interact with the outside community which will help break down prejudices and thus help reduce the stigma of isolation. Whereas to further cater and benefit the residents, common trends suggested

creating safety ("Theoretical Context", n.d.), self-governance (Birk) and normalisation (Birk) with homely spaces (Campbell, 2017, p. 170), ownership ("Theoretical Context", p. 92) and personalisation ("Theoretical Context", p. 95) to reduce stigmas felt by the residents. By providing the residents with the criteria, it will help breakdown the stigmas associated with losing independence, value and being taken and isolated away from what they know.

LITERATURE REVIEW-SUMMARY

Stigma is a physiological response to devalued members of society. Unfortunately, elderly residents in aged living are subject to this stigma. The elderly are marginalised resulting in negative projections on them, then discriminated against and finally experience a loss of community. This is an issue because community is what many of the elderly residents' desire.

However, research suggests people are less likely to stigmatise those they know and that architecture can represent status. Therefore, bringing the residents into society, providing interaction opportunities, giving the residents value and improving the community outlook were found to be key community-based goals that could inform architecture, reduce stigma and have been incorporated into the design criteria for further exploration in this research.

CHAPTER 4.

DEFINING THE CLIENT

Defining the client

This thesis involves two clients, the elderly/ residents and the city. This chapter will define the client scope which will include the definition of the clients, their needs and the strategies being taken to fulfil those needs.

Residents

The residents that this thesis is targeted at is those that are over 65, of all genders and both couples and singles. Some will have physical disabilities (requiring mobility scooters/wheelchairs/walkers), most will be mentally able and the baby boomer generation (1946-1964). Although, this research and subsequent design exploration do not include special requirements needed for elderly with highly developed dementia or conditions requiring specialist support.

To accommodate couples there needs to be the option for the residents to live with their partner (e.g. apartments with double rooms). To accommodate poor physical or mental acuity, good wayfinding and visibility are needed. For an inclusive environment, a fully accessible facility, a feeling that they have what people outside of the facility have and the option to have physical assistance from others if needed. Also, these physical limitations can be helped by incorporating ramps, handrails, storage spaces for scooters/wheelchairs/walkers. Whereas, mental limitations can be helped with mentally stimulating spaces such as a library, not obviously simplifying/dumbing down things for them, providing spaces for 24/7 wardens/nurses

and having mental and physical wellbeing rooms (e.g. nurses offices).

Whereas, to accommodate the needs and values of the baby boomer generation, it was found that they would need; equal rights and opportunities, connection to their children, involvement, teamwork, collaboration, to be valued and to have a connection to the community (Generational Values, 2013). To achieve the needs of this generation, they can be given what others have in the city, spaces for family members to come and visit, spaces for them to interact with the community and other residents (e.g. games rooms and event spaces), spaces for group events and meetings to take place (e.g. cafés), a sense of independence (e.g. with apartments) and the opportunity for them to contribute back to the community (e.g. with a community garden).

Finally, additional needs include an environment where they can walk around safely, which can be enabled by allowing for the facility to be closed off at night and have connections between buildings to allow for safe walkability at this time. A need to feel a sense of inclusion in society can be achieved by catering for community events and drawing the community in with inviting openings and community green spaces. Walkability can be achieved with shortcuts around and through the site to key parts of the site, ramps and lifts where there are stairs. A sense of community, accessibility, inclusion with other residents in the facility, a sense of belonging/ownership achieved through



Image removed for copyright reasons

Fig.5. Wellington Culture (PIVOT Photography).

giving the residents their own spaces (own apartments) to allow for them to feel like it is their space. This space should also cater for all their needs and there should be optional communal spaces. Also, there should be the right to privacy through having spaces that allow for people to look out, while not being easily looked into (i.e. balconies), and having the resident's bedrooms on upper floors. There should be places where they can maintain autonomy such as providing laundry spaces, transport options such as car parks and personal and semi-private outdoor spaces.

The City

The city/community that this thesis is targeted at is Te Aro, Wellington, New

Zealand. The median age of the people in the area is 37.2, there is mainly NZ European, then NZ Maori (equal to) Asian, Pacific and then Middle Eastern/Latin American/African. Most of these people have private cars/trucks/vans and a few walk or use public transport.

Te Aro is located in the city centre where the streets have a mixture of multiple lane roads and one-way streets. These streets are lined with tall apartment buildings, shops, churches, a university, war memorial and cafés. Along the street edges, there is mainly hard landscaping with very few moments of soft landscaping and trees.

Based on the definition of the city/

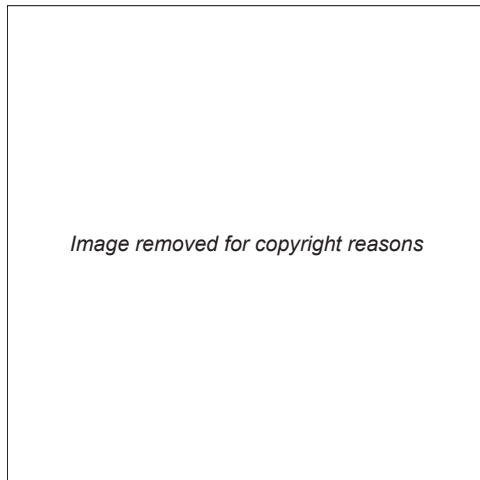


Fig.6. Wellington inclusivity (Radio NZ).

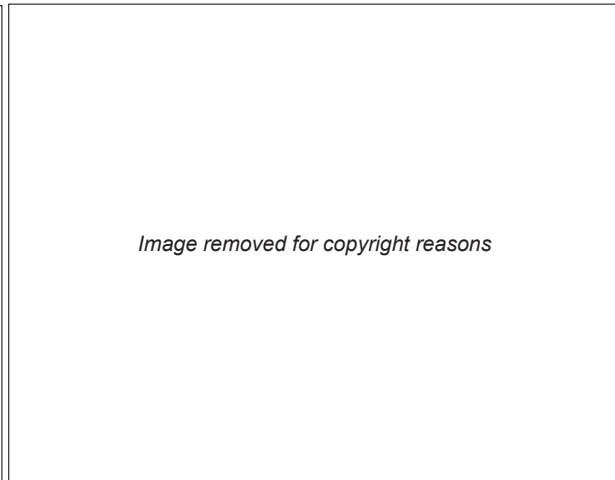


Fig.7. Wellington Vibrancy (Urban List Writers, 2020).

community, the facility needs to house a large number of people therefore requires large open plan spaces. The city also needs a development that is easy to walk through, therefore a permeable facility with short-cut/pathways through it will be added, gathering spaces, therefore, green spaces, event areas, cafés and other third places that these communities could spill out into. Based on the "Planning for Growth: What People said" (Wellington City Council, 2020) survey video summary, it was found Te Aro Residents want community, vibrancy, green spaces, walkability (Wellington City Council, 2020), therefore green spaces, pathways through the site, colour and flexible spaces to house events will be included. The space

needs to be safe, therefore, CPTED and natural surveillance will be included. Then finally, additional needs include needing; a reflection of the identity of the city which will be achieved with materiality and city precedents, entrepreneurship (Vaughan) which will be achieved with businesses, diversity of ages, uses and cultures (Vaughan) which will be achieved with a mixture of uses on the site to allow for a diverse range of people to visit.

CHAPTER 5.

CRITERIA DEVELOPMENT

Based on the literature review in chapters 3-4, 13 initial criteria were developed and further refined through simple exploratory design exercises.

These initial 13 criteria (see table 1) were further tested and refined in precedent analyses and the design phase of this project.

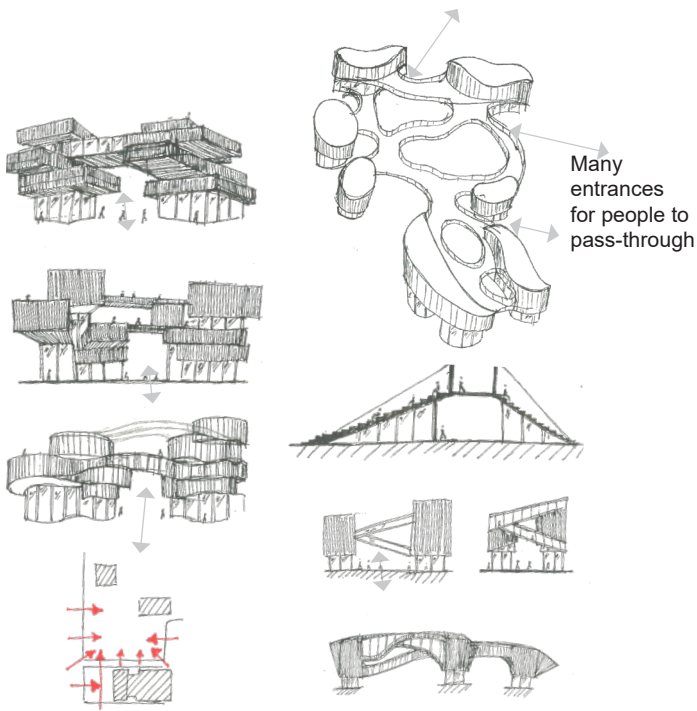


Fig. 8. Permeability

Incorporating permeability on all levels (e.g. with bridges and openings).

CRITERIA EXPLORATION 1.2.1.1/1.2.1 + 1.2.2 (refer to page 133-135 for final criteria)

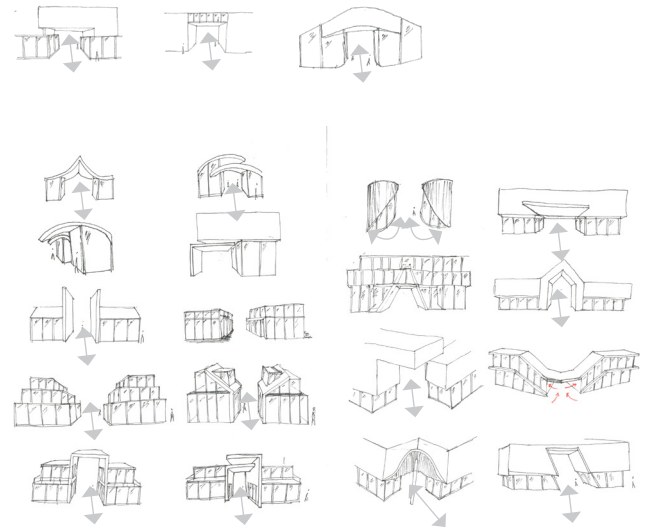


Fig. 9. Welcoming

Welcoming entrances exploration- guiding people into the facility.

CRITERIA EXPLORATION 2.1.2/2.1.3 + 2.1

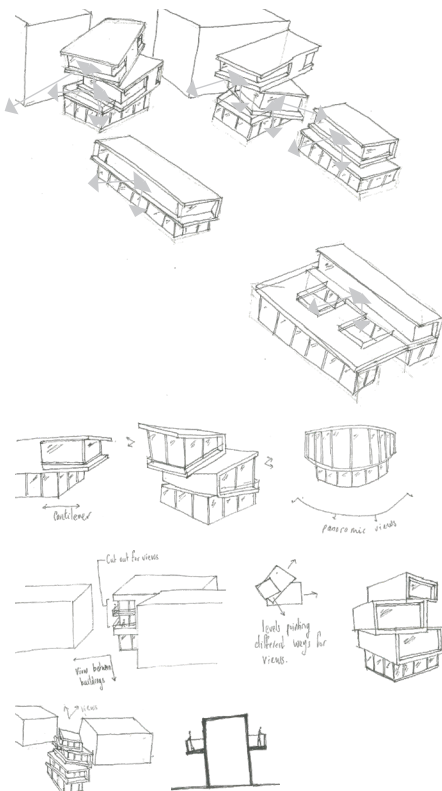
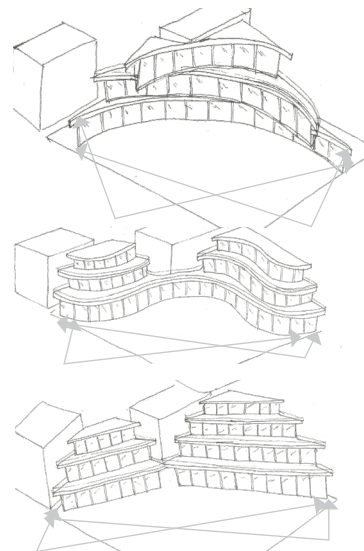


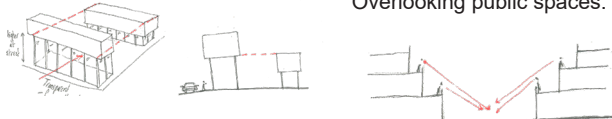
Fig. 10. For views

Orientating to display views.

CRITERIA EXPLORATION 3.1.1 + 3.1.2



Overlooking public spaces.



Having a transparent lower floor to see within the facility.

Fig. 11. High visibility from the street

Positioning buildings to see positive parts of it from the street.

CRITERIA EXPLORATION 4.1

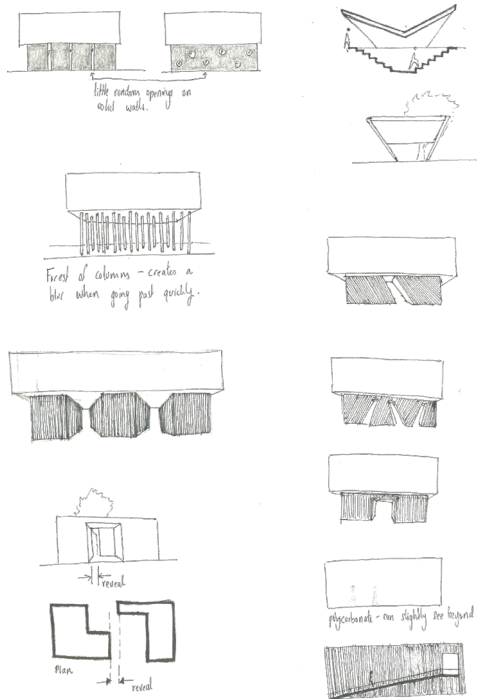


Fig. 12. Stimulate intrigue

Using openings and partially perforated walls to expose a clue about what is inside.

CRITERIA EXPLORATION 5.1

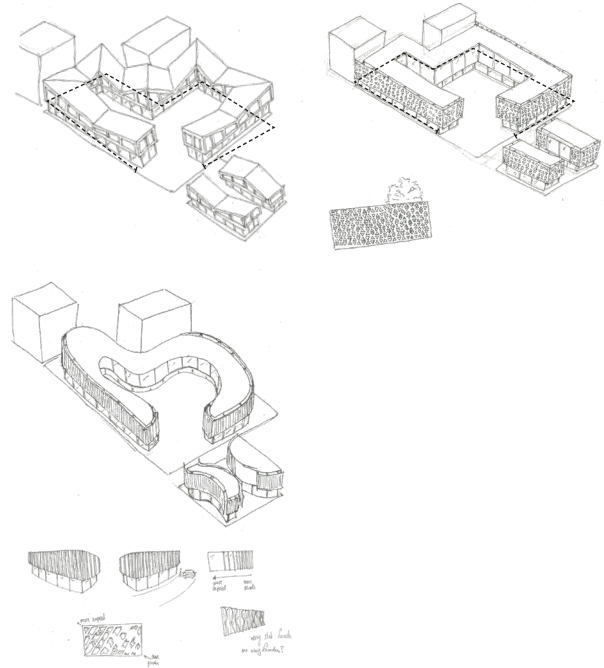


Fig. 13. Secure and private

Implying a sense of sectioning off the space by having the building around the perimeter and limiting visibility into the facility.

CRITERIA EXPLORATION 6.1, 6.2 + 6.2.1

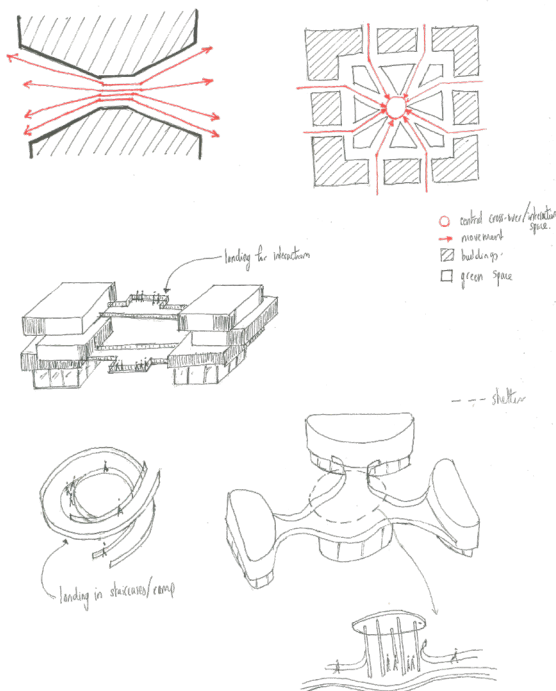


Fig. 14. Interactions

Creating moments between/along pathways for interaction and spaces specifically for interacting in.

CRITERIA EXPLORATION 7.1.2/7.1.1.2 + 7.1.2.1/7.1.1.1.1

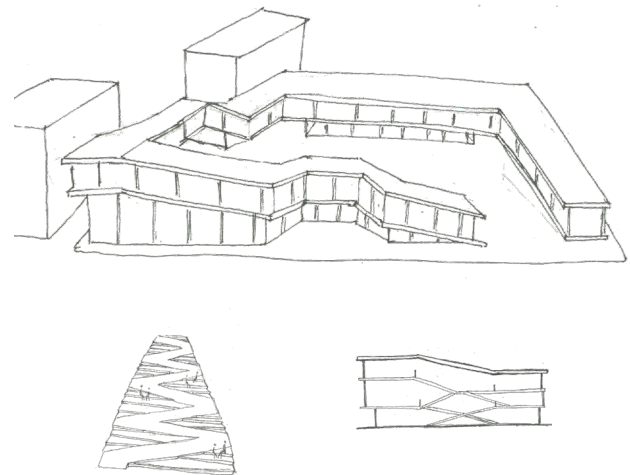


Fig. 15. Accessibility

Ensuring that there is an accessible option for users throughout the facility.

CRITERIA EXPLORATION 8.1

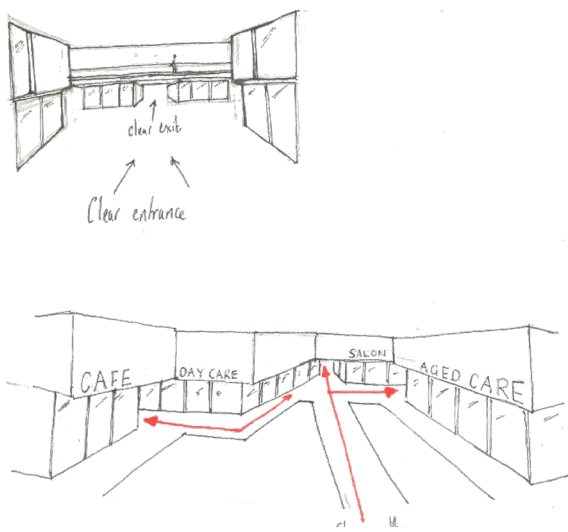


Fig. 16. Wayfinding

Ensure that the different facility uses/programmes are visible from main circulation areas.

CRITERIA EXPLORATION 9.1/9.2

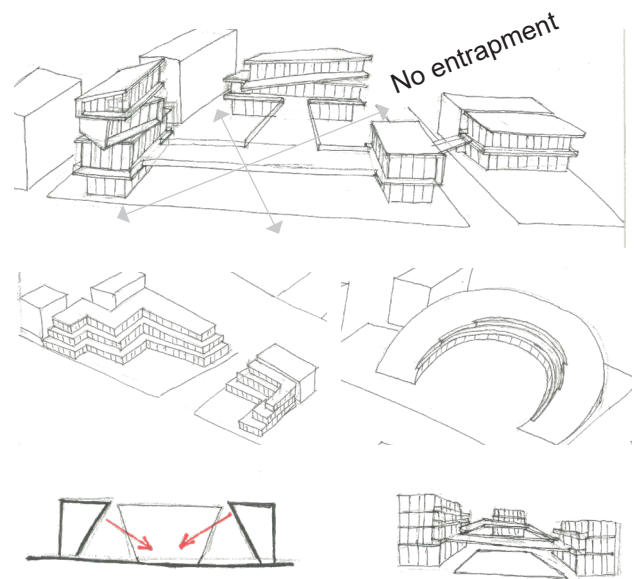


Fig. 17. Natural surveillance

Ensure that the buildings overlook public spaces.

CRITERIA EXPLORATION 12.1 + 12.2

Ideas extracted from this design exercise helped inform the initial criteria (refer to page 29-30 for initial criteria).

The initial criteria based on the literature and initial design exercises are as follows;

☒ Achieved
☒ Partially Achieved
☐ Not Achieved

| OBJECTIVE | ITERATION | ✓, ▢, □ | CRITERIA | SUMMARY |
|----------------------------|-----------|---------|---|---------|
| 1- Permeability | | | <input type="checkbox"/> 1.1- The facility should enhance the navigation of the surrounding neighbourhood. | |
| | | | <input type="checkbox"/> 1.2- Ensure the site enhances navigation of the wider city network. | |
| | | | <input type="checkbox"/> 1.2.1- Allow for many people to pass through the site. | |
| | | | <input type="checkbox"/> 1.2.1.1- Create many pathways through the site. | |
| | | | <input type="checkbox"/> 1.2.1.2- Ensure that the site creates shortcuts for the city surrounds. | |
| | | | <input type="checkbox"/> 1.2.1.3- Avoid cul-de-sacs. | |
| 2- Welcoming | | | <input type="checkbox"/> 2.1- Encourage movement into the space. | |
| | | | <input type="checkbox"/> 2.1.1- Be inclusive of all social positions - Create a neutral ground (third place). | |
| | | | <input type="checkbox"/> 2.1.2- Make entrances clear to the public. | |
| 3- For Views | | | <input type="checkbox"/> 3.1- Provide the residents with sort after views. | |
| | | | <input type="checkbox"/> 3.1.1- Position the windows to frame and display views. | |
| | | | <input type="checkbox"/> 3.1.2- Position balconies to display views. | |
| 4- High Visibility | | | <input type="checkbox"/> 4.1- Position buildings to see within positive part of the facility. | |
| | | | <input type="checkbox"/> 4.2- Consider using courtyards where the whole facility is visible from them. | |
| | | | <input type="checkbox"/> 4.2.1- Ensure that the facility is visible for both walker passer-by's and cars. | |
| 5- Stimulate intrigue | | | <input type="checkbox"/> 5.1- Have moments of reveal (e.g. with narrowed openings, perforated facades and slats). | |
| | | | <input type="checkbox"/> 5.2- Create elements that are different from other aged care facilities. | |
| 6- Secure/Private elements | | | <input type="checkbox"/> 6.1- Create some separate spaces for the residents from the general public. | |
| | | | <input type="checkbox"/> 6.2- Imply a sense of sectioning off of a space (e.g. by having the building around the perimeter). | |
| | | | <input type="checkbox"/> 6.2.1- Use perforations or solid walls where privacy is needed. | |
| 7- Interactions | | | <input type="checkbox"/> 7.1- Create spaces that encourage the residents and outsiders to interact. | |
| | | | <input type="checkbox"/> 7.1.1- Create spaces for people to interact with others for longer periods of time with programme (e.g. cafes, event spaces). | |
| | | | <input type="checkbox"/> 7.1.2- Create spontaneous interaction opportunities (e.g. with landings, bridges or pathways around the building that cross over with other pathways). | |
| | | | <input type="checkbox"/> 7.1.2.1- Create meeting spaces (e.g. breakout areas along circulation pathways). | |
| | | | <input type="checkbox"/> 7.1.2.2- Cluster commercial, social and amenity spaces at key intersections to create chance encounters. | |
| | | | <input type="checkbox"/> 7.1.2.3- Have plenty of seating areas. | |
| | | | <input type="checkbox"/> 7.1.2.4- Facilitate for both active and sedentary activities (e.g. playground areas, event areas, quiet small meeting areas such as cafes). | |
| 8- Accessible | | | <input type="checkbox"/> 8.1- Ensure that there is an accessible option to access/use all parts of the facility. | |

| | | | | |
|-------------------------------------|--|--|---|--|
| 9-Wayfinding | | | <input type="checkbox"/> 9.1- Ensure that the different facility uses/programmes are visible from main circulation areas (at a minimum, the main necessary uses are easy to find e.g. toilets). | |
| 10-Home-like features/normalisation | | | <input type="checkbox"/> 10.1- Create a sense of ownership. | |
| | | | <input type="checkbox"/> 10.2- Create a sense of identity/individuality. | |
| | | | <input type="checkbox"/> 10.3- Create some comfortable and peaceful spaces (e.g. with interior spaces using soft furnishings). <input type="checkbox"/> 10.3.1- Do not look institutional. <input type="checkbox"/> 10.3.2- Have high quality features. | |
| 11- Improve public perception | | | <input type="checkbox"/> 11.1- Ensure the facility fits in by enhancing and complimenting the surrounding community with the needs of the community in mind. | |
| | | | <input type="checkbox"/> 11.2- Create spaces/programme that contribute back to the community/economy (e.g. providing the residents work such as with community gardens, cafes and third places such as libraries). | |
| | | | <input type="checkbox"/> 11.2.1- Have programme that allows for the community to participate within the facility (e.g. event areas or cafes). | |
| | | | <input type="checkbox"/> 11.2.2- Create a good street relationship (e.g. by enhancing the aesthetics with trees or visually pleasing buildings that complement the area). | |
| 12- Natural surveillance | | | <input type="checkbox"/> 12.1- Ensure that the buildings overlook public spaces. | |
| | | | <input type="checkbox"/> 12.2- Avoid entrapment areas. | |
| 13-Site Location | | | <input type="checkbox"/> 13.1- Do not isolate the facility away from the city. | |
| | | | <input type="checkbox"/> 13.1.1- Be an extension of the surrounding neighbourhood. | |

Table.1. Initial Criteria

CHAPTER 6.

CASE STUDIES

This chapter analyses a selection of aged care facilities around the world. In selecting case studies to analyse, the facilities were required to fulfil the following criteria; being from a developed country, a medium to large scale and must include some apartments. For an understanding of the current state of facilities in New Zealand, an average Wellington-based facility was selected first which was then compared against international case studies. These international case studies were selected based on their stigma reducing aims which have been proved to be effective in this thesis's previous chapters. These aims included either being integrated into the community, minimizing isolation, or giving the residents value in the community. These case studies were tested against the draft criteria and the findings helped to contribute to the criteria to make it more robust.

WOBURN

Company: Masonic Villages Limited

Location: New Zealand

Date: unknown

Woburn apartments is a Wellington, New Zealand based aged care facility that has few articles written on it therefore, this case study was analysed through its plan. As part of a chain of rest homes in New Zealand, this facility is indicative of contemporary developments in this country.

The design's performance against the criteria has been evaluated as limited. The attracting community-based criteria were limited because the facility was not highly permeable, the entrances were not clear and welcoming, the facility did not tactically reveal some spaces and the design did not improve the public perception of providing for the community.

Also, the visibility-based criteria were limited as the rooms are positioned to allow for viewing outside but they did not seem to be a priority.

Along with limited visibility, the criteria related to engagement and ease of use within was limited. Pathways have been created that would allow for some spontaneous interactions but, it was also found that the private rooms were clustered together and so were the communal areas with little/no public accessible and permeable routes through the building. Also, wayfinding has been partly considered with having a central entrance in one of the wings and the

rooms are mainly on the ground floor allowing for accessibility.

On the other hand, the resident's comfort-related criteria and the site location have mostly been fulfilled. The privacy and security have been successfully incorporated (when not considering the other criteria), home-like features have been incorporated with having a sense of ownership with providing individual rooms, the facility does not provide natural surveillance through overlooking communal spaces very well and the site is not isolated away.

Therefore, the privacy of the residents was considered but creating permeability and social engagement with the community was not a priority of the facility.

Limitations

This precedent analysis was based on floor plans alone and not literature on the facility which means there was no explanation of the spaces in detail.

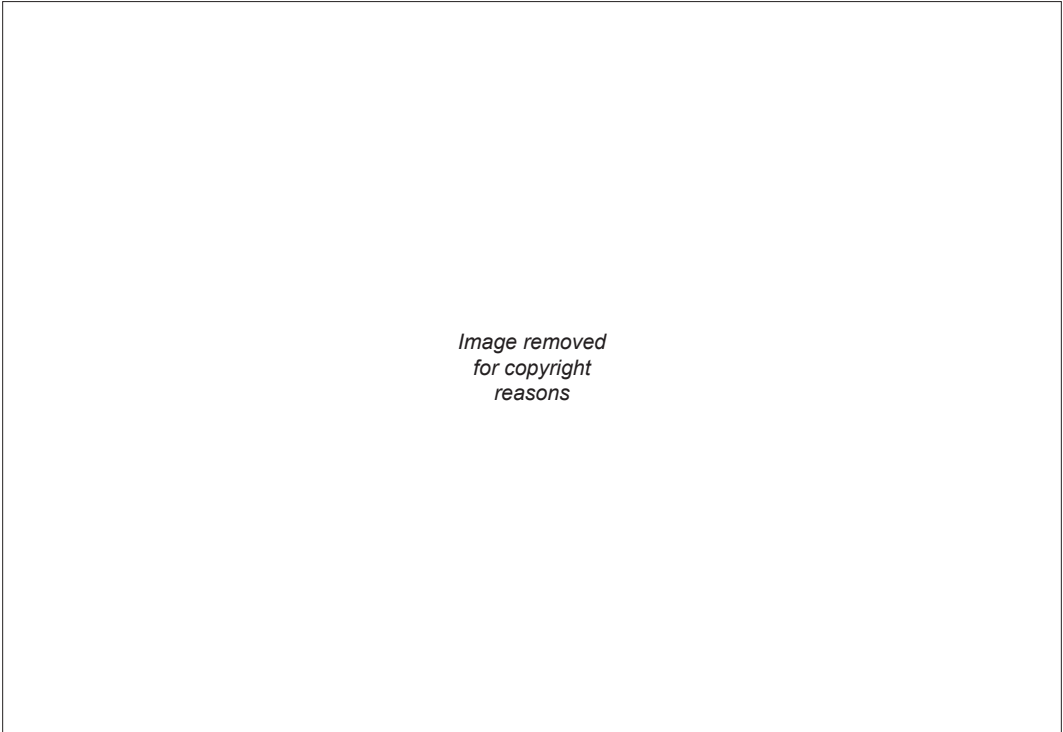


Fig.18. Woburn Apartments (Apartment directoy).

ØRESTAD NURSING HOME

Designer: JJW Architects

Location: Copenhagen (Denmark)

Date: 2012

Ørestad Nursing Home is a senior housing facility in Copenhagen, Denmark within an area of rapid development (Prip, 2015). The overall aim of the facility is to assist with the well-being, equity and security of the residents and to provide support for the residents to continue to live their lives. This is achieved by providing activities and allowing for independence to be maintained for as long as possible (Prip, 2015). Ørestad Nursing Home aged care facility is also conceived as a 'village' and community through the architecture which is highly relevant to this research topic.

The attracting community-based criterion was achieved because the facility was highly permeable with paths cutting through the site. The entrances were clear and welcoming with easy access from the street. As well as the facility creating a sense of reveal with narrow paths leading to a courtyard and the design improved the public perception by providing for the community. By providing them with additional facilities including hairdressers, dentists, cafés, and shops which are found on the 5m tall ground floor (Prip, 2015).

Also, the visibility-based criteria were achieved as the rooms are positioned to allow for viewing outside with them being on the upper floors and having balconies.

Along with successful visibility, the criteria related to engagement and ease of use

was successful. Pathways have been created beside the additional facilities which would allow for spontaneous interactions to occur between the residents and community. Also, wayfinding has been partly considered with having a glazed lower floor although, the transition between the lower floor and the upper floors is not as clear as there does not appear to be one main entrance where the facilities are easily locatable.

Whereas, the resident's comfort-related criteria and the site location have mostly been fulfilled. Privacy and security have been successfully incorporated by having the apartments on the upper floors, home-like features have been incorporated by providing individual apartments that residents can furnish that have flexible walls that all allow for individuality and ownership. Also, furnishings and art that reflect what the residents would have had in their homes have been included along with interior themes that reflect the 40ties, 50ties and 60ties which are the eras that the residents are from (Peters & Farrelly, 2014), allowing for a personal link to what the patients know. Also, the facility provides some natural surveillance by overlooking the central courtyard and the site it not isolated away from the city.

Key findings applied to the criteria

The key findings that apply to making the criteria more robust are: creating a

community, attracting the wider community to the facility and providing more home-like features. Specifically, the use of having a higher ground level and providing additional facilities such as cafés and shops are key examples of attracting the wider community to visit and interact with the residents. Whereas, the incorporation of home-like features with a key consideration of the client's background and what they had in their homes before entering the facilities helps with making the residents feel like they can maintain their identity and not feel isolated away from their previous life.

Limitations

Although Ørestad is a key example of an aged care facility that deals with creating a sense of community and identity, it is not a facility in New Zealand, therefore, the specific amenities used and the specific furnishings are not all directly applicable to New Zealand aged care facilities. Therefore, when deciding on these amenities and furnishings, New Zealand culture and the New Zealand client needs to be the influencer on what amenities and furnishings to use. Also, this thesis is aimed at the "boomer" generation therefore, the influential decades will be later than the forties.

In addition to these limitations, the arrangement of the facility limits the connection between the residents and the

wider community. This model separates the resident's spaces from the community spaces by having a community level on the ground floor and just residential areas of the upper floors. Although this does provide a good sense of security/privacy and attracts the wider community to part of the facility, the design might be more successful to have semi-public spaces above the ground floor too to help break down this level segregation.

CRITERIA EXPLORATION 4.3

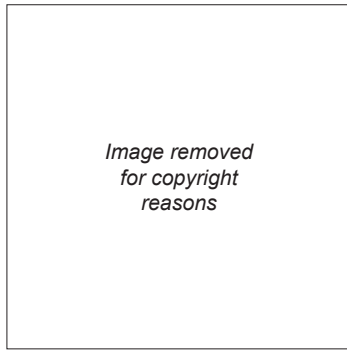


Fig.19. Ørestad Nursing Home (Pawringfoto, 2019).



Fig.20. Houses in Nyboder, Copenhagen (Provolenti, 2019).

The colours were inspired by the plastered old houses in Nyboder, Copenhagen but they were adapted to suit the new urban environment of Ørestad.



Fig.21. Ørestad Nursing Home (Lingskov, 2019).

The 5m tall glass ground floor enables more street activity by incorporating cafes, hairdressers and a dentist.

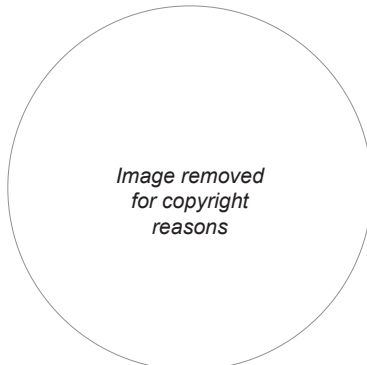


Fig.22. Eight House (Grote, 2018).

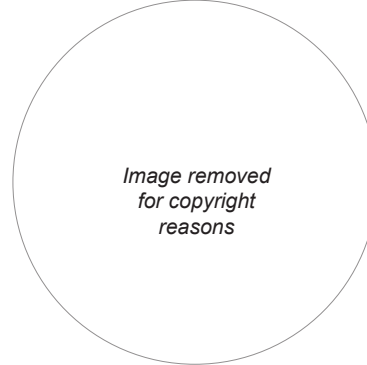


Fig.23. Ørestad Nursing Home (Aydin, 2013).

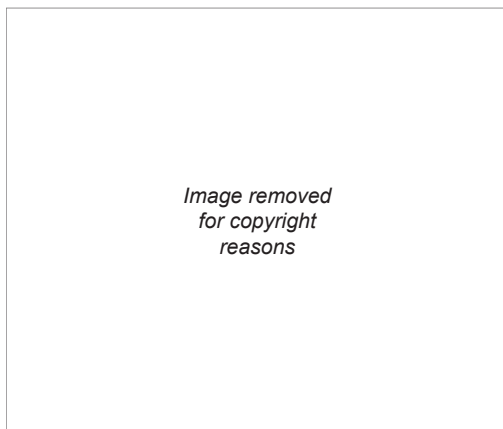


Fig.24. Ørestad Nursing Home Plan (JJW ARKITEKTER, 2009).

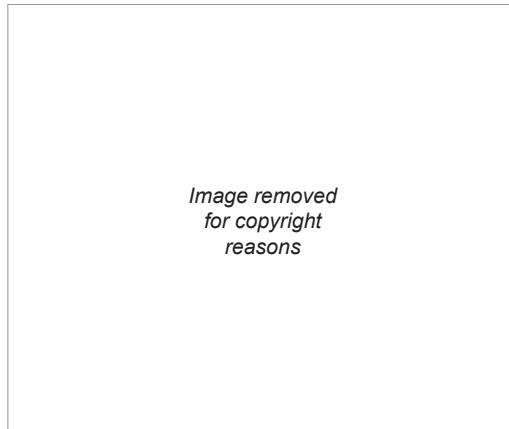


Fig. 25. Ørestad Nursing Home Plan (JJW ARKITEKTER, 2009).

SØLUND RETIREMENT COMMUNITY (WINNER) (CONCEPTUAL) "HOUSE OF GENERATIONS"

Designer: Spark Architects

Location: Singapore

Date: -

This aged care facility was the winner of the competition to design the future Sølund Retirement Community. Sølund Retirement Community is integrated into the context, aims to create an intergenerational community, considers the resident's identity and provides for interaction opportunities for the residents and community. As stated by Overstreet, "Whether the elderly spend most of their time in the home, or explore the surrounding areas on the site, they will always belong to a large community." (Overstreet, 2016).

The attracting community-based criteria were achieved because the facility was permeable with paths entering in and out of the site, the main entrances were very clear and welcoming from the street, the facility creates some moments of reveal with paths leading to the positive exposure of the courtyard and the design improved the public perception by providing a multi-generational community. This multi-generational community is planned to be created by having care homes, youth homes, senior dwellings, daycare, cafés, shops, workshop areas and parking facilities.

Also, the visibility-based criteria were achieved through having apartments on the upper floors allowing for views of the courtyard and surrounds through windows and balconies.

Along with successful visibility, the criteria

related to engagement and ease of use was successful. Pathways and community inspired additional facilities have allowed for spontaneous and longer interactions to occur between a range of generations within the community. Also, wayfinding has been considered with having a glazed lower floor.

Whereas, the resident's comfort-related criteria and the site location have mostly been fulfilled. Privacy and security have been successfully incorporated by having the aged care facility on the upper floors, home-like features have been incorporated allowing for the residents to personalise their room allowing for consideration of the resident's identity and a link to their previous home life (Overstreet, 2016). Also, the facility provides some natural surveillance by overlooking the central courtyard and the site it not isolated away from the city. Sølund Retirement Community is intended to be integrated into the context of it's Copenhagen neighbourhood with the use of Sortedam Lake as its "backyard" and Norrebo district as its street front.

Key findings applied to the criteria

The key findings that apply to making the criteria more robust are: making the facility fit into the community and complimenting the surrounding context, creating a facility that is intergenerational such as the use of day-care, cafés and shops, creating a space for meetings and

interaction between the residents and guests (in this case the main courtyard) and considering the resident's identity with the opportunity for personalisation of the resident's rooms. Through using these design strategies to help attract an intergenerational community and through giving the residents the choice of personalisation, the residents will feel less isolated away from the wider community, the community will have respect for the facility's consideration of them and through the option of personalisation, the residents will feel less isolated.

Limitations

Like Ørestad, Sølund is in Copenhagen, therefore, decisions made in a New Zealand based aged care facility would need to be based on the New Zealand culture and the New Zealand client. Also, this case study is limited as it was part of a competition, therefore, as it has not been built the ideas have not been tested, although, some of the ideas such as creating additional facilities for the community have been tested in Ørestad, which has proved to be successful.

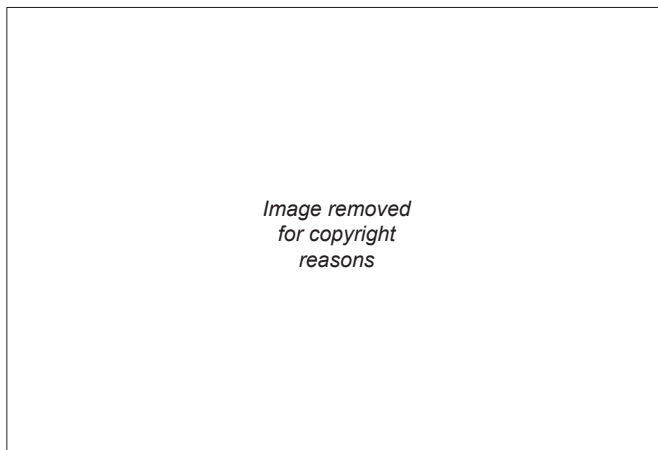


Fig.26. Sølund Retirement Community (C.F. Møller Architects and Tredje Natur).



Fig.27. Sølund Retirement Community (C.F. Møller Architects and Tredje Natur).



Fig.28. Sølund Retirement Community (C.F. Møller Architects and Tredje Natur).

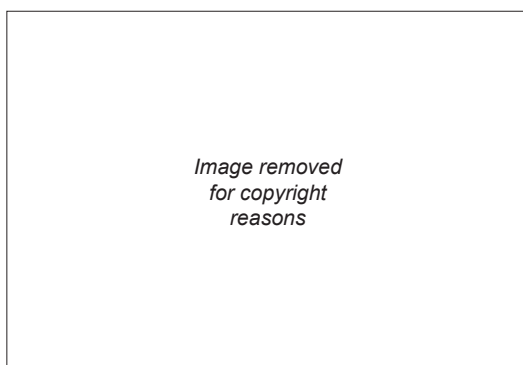


Fig.29. Sølund Retirement Community Plan (C.F. Møller Architects and Tredje Natur).



Fig.30. Sølund Retirement Community Plan (C.F. Møller Architects and Tredje Natur).



Fig.31. Sølund Retirement Community Plan (C.F. Møller Architects and Tredje Natur).



Fig.32. Sølund Retirement Community Plan (C.F. Møller Architects and Tredje Natur).

CHAPTER 7.

DESIGN EXPLORATION

The following chapter displays design exercises that contribute to making the criteria more robust through exploring community-based architectural strategies that can help reduce the isolation stigma associated with aged care facilities.

STRATEGIES

ARCHITECTURE

ADDITIONAL FACILITIES/ FUNCTIONALITY

- Add cafes, event and green spaces for interaction opportunities and community engagement.
- Have multi-functional spaces.

IMPROVE AESTHETICS

- Have high quality and durable features to ensure that a new image is maintained.
- Have home-like features such as having rooms with their individuality.
- Make visually pleasing to the community and residents.
- Create a sense of mystery and intrigue. This creates a desire to enter.

IMPROVED PUBLIC PERCEPTION

- Make the facility visible from the streets for passersby to notice. This will require that the facility does not look like a typical facility- it will look like what the community want.
- Allow for the residents to be exposed to what others are exposed to e.g. if others have apartments, give them apartments.

CREATE A SAFE ENVIRONMENT

- Have natural surveillance, where the buildings large windows are used to watch over other spaces, not having closed off cul-de-sac style streets, guiding people around the site with landscaping and lighting.

RESIDENTS WELLBEING

IMPROVE PHYSICAL AND MENTAL WELLBEING

- Create a peaceful environment (e.g. take influence from nature and use soft, welcoming and homely features).
- Create both individual and group spaces.
- Stimulate wonderment- this can be achieved by providing spaces that are new and different from what is expected.
- Have spaces where people can develop new skills (e.g. community garden).
- Enable sort after views and incorporate a programme that enhances them.
- Make the facility physically and visually accessible.

CREATE NORMALISATION

- Do not make the space look institutional.
- Have home-like features (through materiality and individuality).

COMMUNITY

CREATE A SENSE OF COMMUNITY

- Create spaces for people to gain knowledge e.g. a library.
- Have plenty of seating.
- Cluster commercial and social spaces at key intersections to provide for interaction opportunities.
- Have inclusive meeting spaces.

URBAN

REJUVENATE THE NEIGHBOURHOOD

- Enhance the navigation of the surrounding context- this will involve looking at what connections around the site are required.
- Have a good street relationship- e.g. with trees/greenery.

DEFINE THE URBAN FORM

- Have many pathways through the site to encourage a flow of people.
- The site should create shortcuts for the wider community.
- Have a mixed-use development.
- Ensure that the positive parts of the site are visible from the street.

INTERRELATE PHYSICAL, SOCIAL, ECONOMIC AND CULTURAL DIMENSIONS

- Include culturally sensitive features.

ENHANCE PUBLIC EXPERIENCE

- Create a programme where the residents can contribute to the community (e.g. community gardens).
- Allow for all generations to use the site e.g. include a day-care centre for both youth and elderly as well as third places.

CRITERIA EXPLORATION 11.2.2 + 7.1.1.1.3

PROGRAMME

This programme is a 50-200 unit residential care home that will aid the elderly at any time when required but it will not be for the elderly with dementia or conditions requiring specialist support.

Determining factors for deciding on the additional programme:

- If these facilities are already nearby.
- If the additional facilities allow people to stay a longer time.
- If the uses attract community (predominantly- not just tourists).
- If the programme encourages interaction between people.

The programme is used to ensure that the facility feels home-like and attracts the community. This is achieved by not being too big and having a programme that the community will want to use.

In determining programme layouts, New Zealand regulations and documents were referred to. These resources included "Accommodation in Old People's Homes" (Department of Health Wellington, 1991), "Case study: aged care regulation" ("Case study: aged care regulation"), "Health and Disability Services (General) Standard (NZS 8134.0:2008)" (Ministry of Health, 2008) and "Facility design and upgrading" (ACC). In addition, the "Metric Handbook" (Littlefield, 2007) and "Architects' data" (Neufert, 2012) was used.

CIRCULATION:

Residents entrance (36m²)

Main lobby/foyer/entrance (300m² max)

MISC (PRIVATE):

guest room (60m²)

URBAN:

Basement car parks (to eliminate the issue that people don't want to visit as there is not enough parking)
(17.5m² per park)

MEDICAL RELATED:

Extra care facilities

Medical facilities- including social services, waiting room, exam room, doctors room

Physical therapy (10m²)

Consulting and treatment room (10m²)

Wheel-chair and trolley spaces

Vocational therapy (10m²)

STAFF/ADMIN:

Wardens room/wardens house (60m²)

Wardens office (11m²)

Reception

Staff room/lounge (12m²)

Staff kitchen (6m²)

Administration (10m²)

Offices (15m² roughly)

Storage (8m²)

Sluice rooms (20m²)

**APARTMENTS (SELF-GOVERNED) (HOME-LIKE)
(60m² Neufert):**

Apartments/apartments for married couples:

One/two-room flat with bedroom

Kitchenette/small kitchen

Own bathroom

Storage

Terrace/balcony

SERVICES:

Laundry/ironing room (20m²)

Boiler room (25.3m²)

Lift (5.75m² roughly)

Linen storage (8m²)

Maintenance room (10m²)

Cleaners room (4m²)

Garbage disposal room (16m²)

Services (25.3m²)

The industrial kitchen needs a large preparation space, freezer storage, meter cupboard, dry storage, vegetable storage (42.5m² for food preparation and cooking, 12.15m² for the larder and dry store and 15m² for washing up).

COMMUNAL AREAS:

Common rooms (2.3m² per person)

Tea kitchen (12m²)

Quiet room/ Reading room/sitting alcove

Crafts/hobbies room/painting studio (15m²)

Mail lounge/recreation room (2.3m² per person)

Waiting rooms (30m²)

Games room (double with normal)/ Billard room (private) (2.3m² per person)

Sitting room/lounge (2.3m² per person)

Sun terraces/roof terrace (some private) (350m² max)

Dining spaces/breakfast room (1.5m² per person)

Exercise room (25-100m²)

Hairdresser room (10m²)

Toilets (8.8m²)

Visitors room (10m²)

Garden Storage (10m²)

EXTRAS (FOR COMMUNITY):

Hairdresser (140m² max)

Greenspace/playground/community garden

Cafe (350m² max)

Daycare centre (300m² max)

Interactive library/craft studios/relaxing spaces (350m² roughly total)

Games facilities/boardgame cafe (350m² max)

Green houses/winter garden (300m² max)

Roof terraces/roof gardens (optional m²)

Indicated below are suggested connections between programmes but overall, everything should be near everything else.

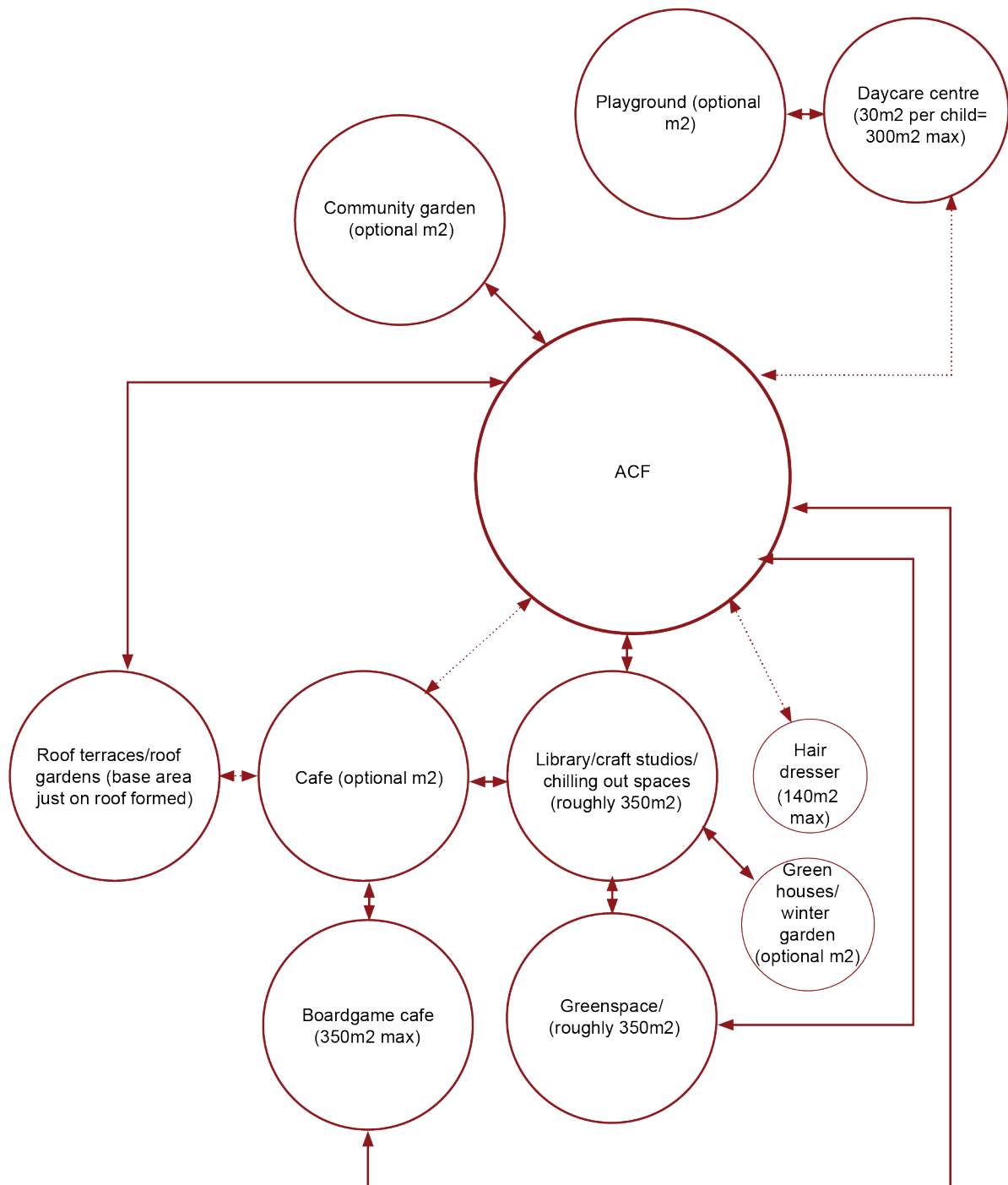


Fig.33. Programme connections.

Note: currently the ACF is for 50 people- this can be extended but as Kuboshima states, more than 200 units eliminates a sense of homeliness (Kuboshima, 2020).

SITE SELECTION

The site location was in Wellington, New Zealand. The reason for this was because Wellington is a major city, there is a good sense of community and had the potential for the site selection criteria to be fulfilled. When selecting a specific site in Wellington, the criteria were used as a checklist.


Firstly, the Wellington area was reviewed to determine what amenities already exist in the different parts of Wellington. This was to determine how the facility could benefit the area.

CRITERIA FOR DECIDING A SITE

The following criteria were used in this theses site selection. It is important to ensure that the site is reasonably flat, should be easy to access and adheres to accessibility requirements to allow for the site to be inclusive and accessible to the residents, family and friends. By ensuring the site selected is inclusive, it will attract more people to come and visit the residents helping to break unsubstantiated views. To further attract people to the site, the site location and the potential for what the site can facilitate are key. Therefore, the site should be located in a highly visited part of a city, such as in or near the city centre. This will help fulfil the other key criteria which include having a site that has good public transport options.

The site should also have an identity that the design can build on/fit in with, positive exposure to the community, and a site with high visibility for both passers-by on foot and in cars which would also mean high permeability through the site. In terms of site amenity, the site should be in a location that will benefit the local economy therefore it should have enough space for future growth and space for both the community and residents which means the site should have space for extra facilities for the public.

Overall, the site should be safe with passive surveillance in a location with little crime or vandalism.



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for copyright
reasons*

Fig.34. Site seletection map. Adapted from Google Earth Pro, by Google, n.d., Retrieved March 9, 2021 from <https://earth.google.com/>.

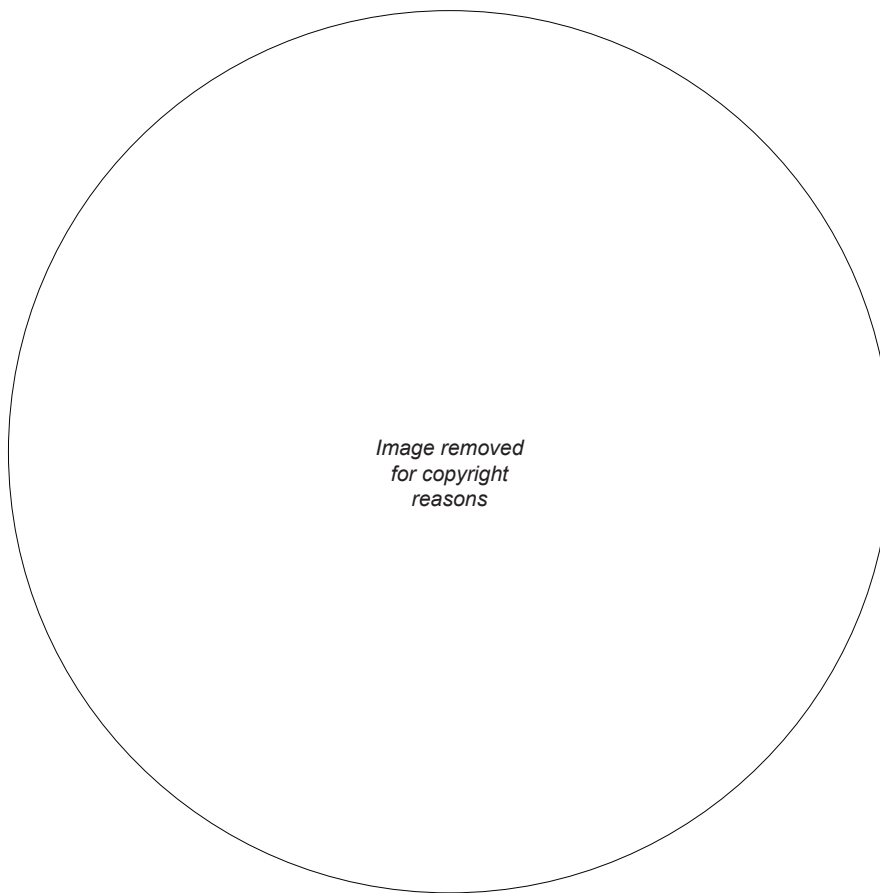
SITE SELECTION

Amenities were then looked into on a more detailed scale to determine both where to put the site and what more amenities the facility could provide to enhance the area.

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for copyright
reasons*

Fig.35. Site Selection. Adapted from Google Earth Pro, by Google, n.d., Retrieved July 8, 2020 from <https://earth.google.com/>.

SITE OPTIONS



1. Site is too touristy.
2. Selected Site (refer to page 50 for justification).
3. The main people going past are fast traffic making it hard for people to visit.
4. Too busy and far from the CBD.
5. Not flat enough.
6. Not flat enough.

Fig.36. Site Options. Adapted from Google Earth Pro, by Google, n.d., Retrieved July 8, 2020 from <https://earth.google.com/>.

HERITAGE/IMPORTANT BUILDINGS

To narrow down the site boundary, the heritage buildings in the area were identified to determine which buildings should be maintained around the area. Maintaining key buildings in the area was important to ensure that the community respected buildings were not removed resulting in resentment towards the facility.

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for copyright
reasons*

Fig.37. Heritage/important Buildings. Adapted from Google Earth Pro, by Google, n.d., Retrieved July 8, 2020 from <https://earth.google.com/>.

SELECTED SITE REASONS

ACCESSIBLE/FLAT

- The site is flat.

HIGHLY VISITED LOCATION WITH GOOD TRANSPORT OPTIONS AND EASY ACCESS

- Opportunity for city workers, school kids, churchgoers and university students to visit.
- Close to the Pukeahu National War Memorial Park for walks.
- Close to a range of retail amenity, including supermarkets and department stores.
- A direct route to the waterfront for walks.
- Right in the city centre with many people around who can get drawn to the site.
- In the city- not excluded to the outskirts.
- Not dominated by tourist activity. There are communities there instead that can help create and build on reoccurring visits and thus stronger connections to the people and communities, not just tourists that visit once.

AN IDENTITY TO BUILD OFF

- Centred around already formed communities (a school, church, war memorial and university) which provides for an intergenerational community opportunity.

HIGH VISIBILITY FOR PASSERS-BY

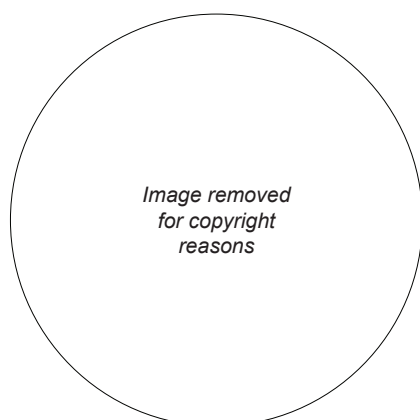
- Beside main streets, therefore it has lots of positive exposure from passers-by.

BENEFITS THE LOCAL ECONOMY/SPACE FOR GROWTH

- There are few green spaces in the location therefore provides the opportunity to rejuvenate the area with greenery.
- The site has been a car yard and this underutilises the urban land.
- The site requires rejuvenating as there is not much currently going on there.
- The business growth was analysed and it was found that the area was an up and coming area which highlights the potential for more visitors and thus interactions with the community in the future too.

NATURAL SURVEILLANCE

- Potential to have private (hidden spaces) and public (exposed to main streets).



Therefore, this site achieved the site selection criteria but it also helped make the criteria more robust by providing new criteria to add. The site selection process highlighted the importance of having a site with both private and public potential, the benefits of selecting a site that can be rejuvenated/or is in an up and coming location and not being in an area that is focused on tourists. This is because a balance of private and public spaces is key to maintain autonomy, enhancing an area provides a positive outlook on the facility and tourist visits do not enable reoccurring visits which are key to forming stronger community connections.

Fig.38. Selected Site on the corner of Jessie/Vivian and Taranaki Street. Adapted from Google Earth Pro, by Google, n.d., Retrieved July 8, 2020 from <https://earth.google.com/>.

SITE ANALYSIS- SUN SHADING

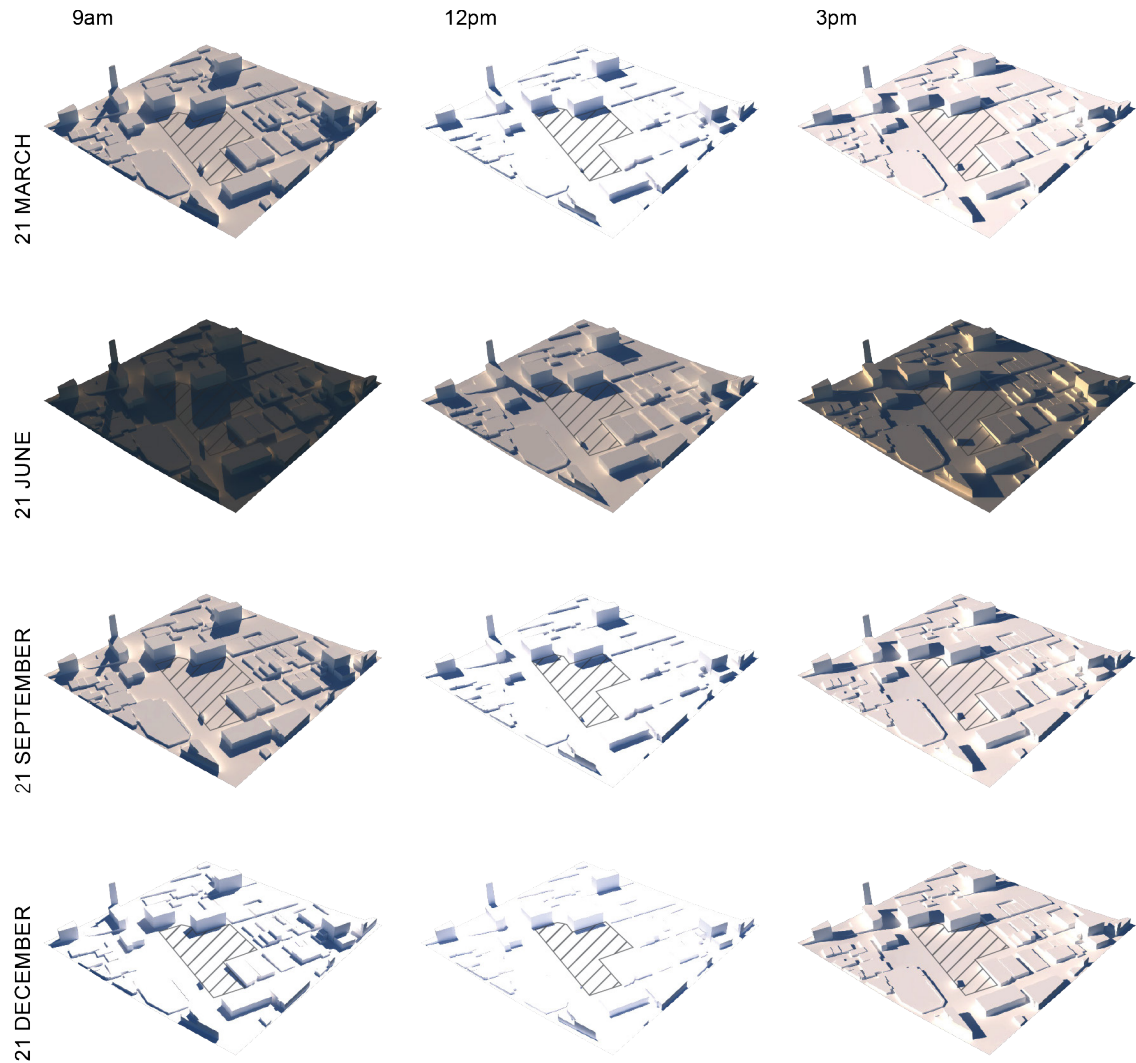


Fig.39. Shading

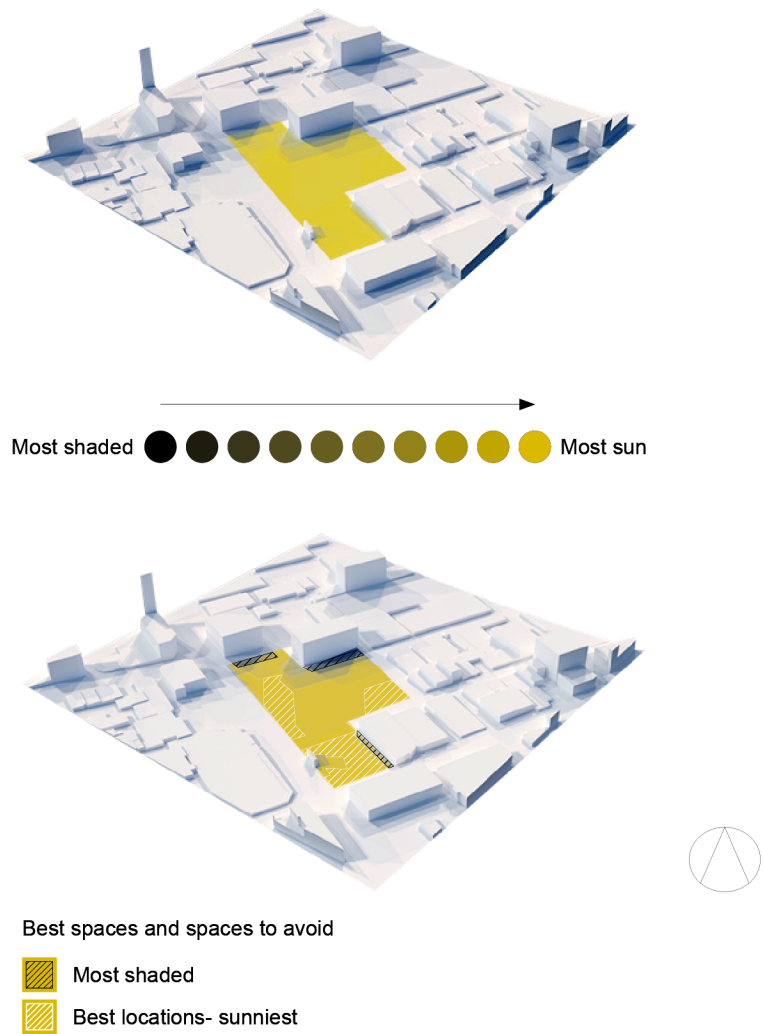


Fig.40. Shading

To attract the community, the courtyard needs to be pleasant to be in. Therefore, the sun and shading need to be considered.

SITE ANALYSIS

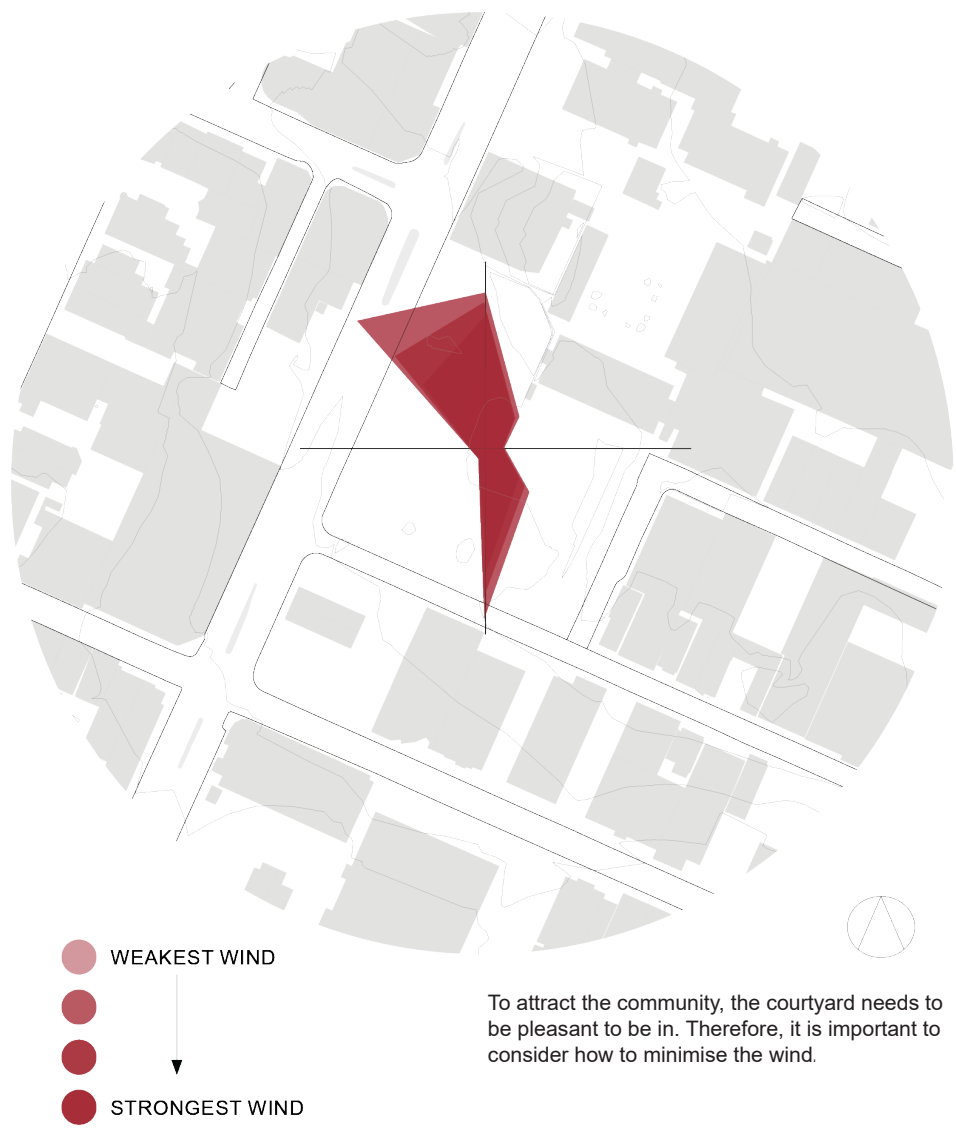




Fig.41. Prevailing wind diagram.

SITE ANALYSIS- PREVAILING WINDS X SHADING

-  Good sun/wind locations
-  Less desirable (dark) locations

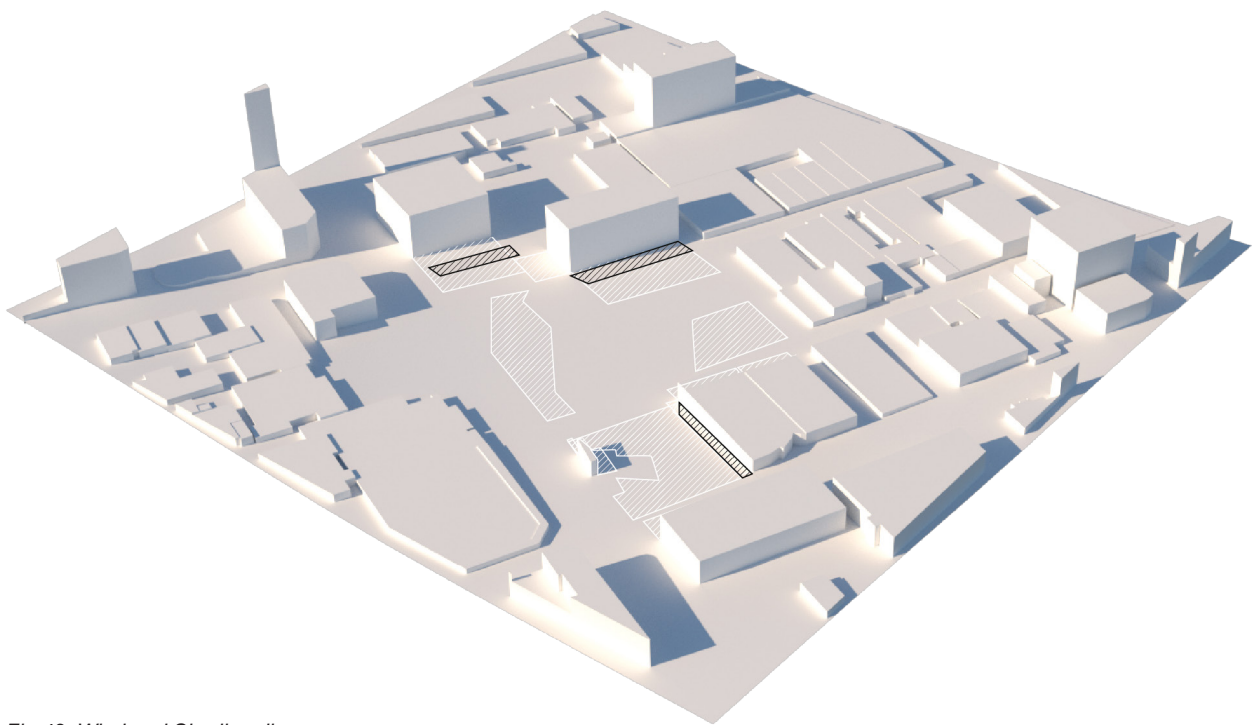


Fig.42. Wind and Shading diagram.

SITE ANALYSIS- PEDESTRIAN MOVEMENT

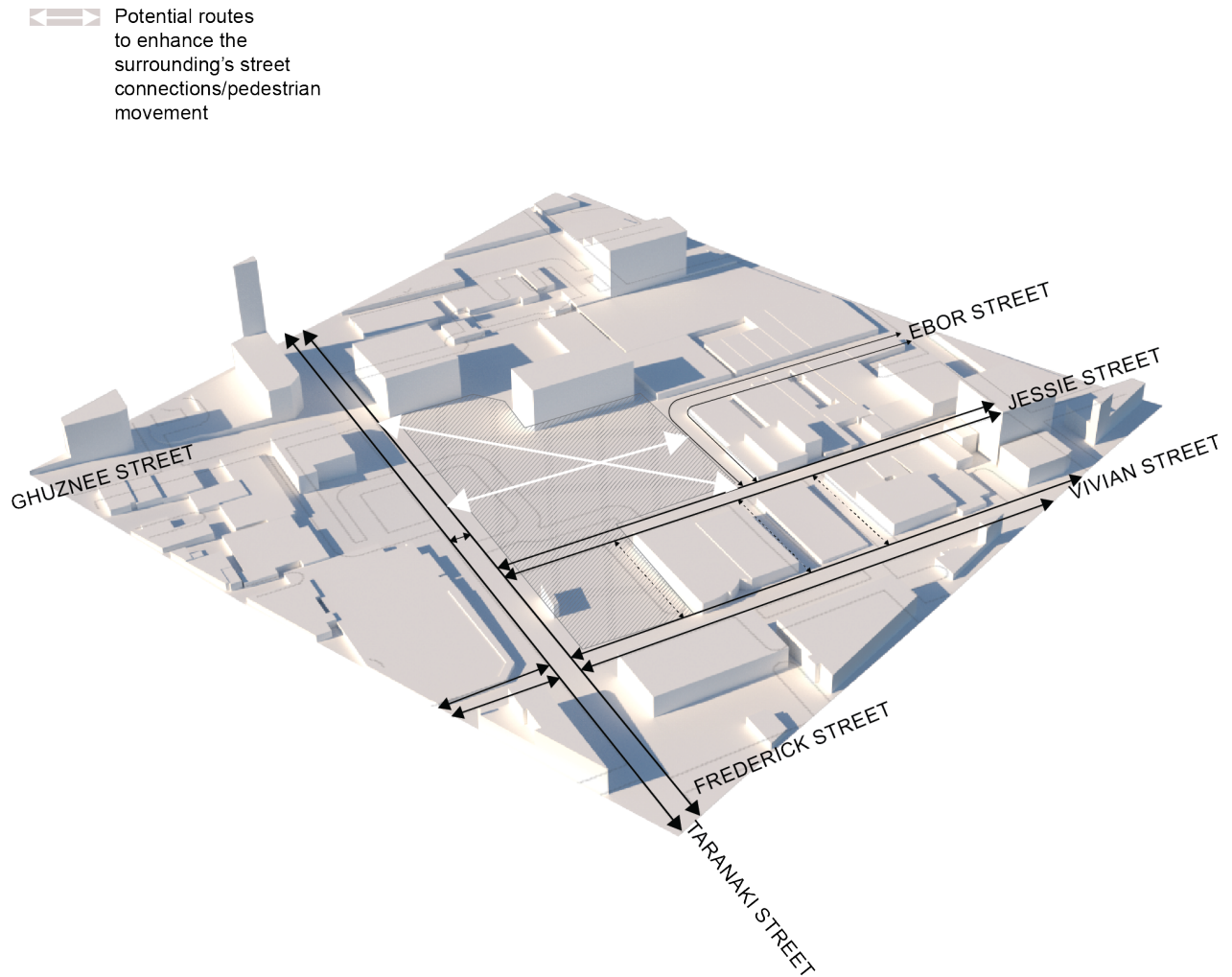








Fig.43. Pedestrian Movement diagram.

To attract the community, how the community moves around the site is important to help encourage the community to move through the site to encourage community and resident interaction which will reduce unsubstantiated stigmas.

SITE ANALYSIS- PREVAILING WINDS X SHADING X PEDESTRIAN MOVEMENT

-  Good sun/wind locations
-  Less desirable (dark) locations
-  Potential routes to enhance the surrounding's street connections/ pedestrian movement
-  Connections to connect sites
-  Best areas for buildings/ green spaces
-  Second best areas for buildings/ green spaces

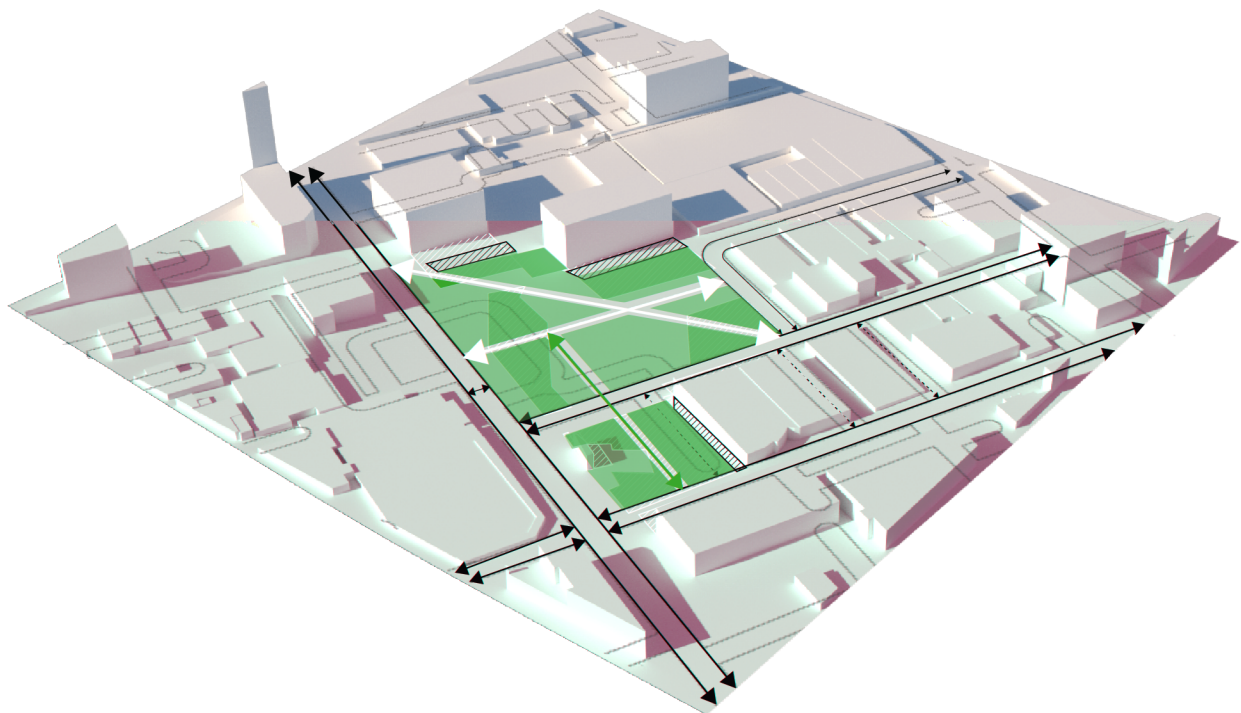


Fig.44. Wind, shading and pedestrian movement diagram.

DESIGN EXPLORATION

The following design explorations looked into, resident autonomy and community, massing and aesthetics. Within these themes, precedent analysis, design investigation and design iterations were explored to refine the criteria.

RESIDENTS AUTONOMY + COMMUNITY

PRECEDENT ANALYSIS

The resident's autonomy' and community precedent analysis targeted features of precedents that contribute to the refinement of the design and criteria. These precedents informed the criteria by providing methods for incorporating these features. The precedents included, Pavilion in Parque Santa Clara, a range of precedents from Auckland Design manual, Collaborative Cloud, Peach Hut Community Center, a heavily referenced natural surveillance diagram and Qatar Integrated Railway Project. These projects looked into design strategies based on permeability, privacy, interaction, improving public perception, natural surveillance and wayfinding.

Pavilion in Parque Santa Clara contributed to the criteria the importance of allowing for many pedestrians to pass through the site (criteria 1.2.1). Auckland design manual precedents contributed ways to create privacy (refer to 6.2.2). Collaborative cloud's interactive design contributed having "open and flexible spaces for interactions to occur at the centre/highly walked through parts of the site/building. Then more solitary programmes/spaces can be put around the perimeter." (criteria 7.1.1). Peach Hut Community Centre is a design that focuses on improving the lives of the community therefore, it contributed by considering the colours or forms of the surroundings or considering what the community needs (criteria 11.1) and providing the residents work such as with community gardens, cafes, third places such as libraries or programme that the community needs such as more educational resources/ information access (González,2020) (criteria 11.2). The natural surveillance diagram contributed methods to create natural surveillance (criteria 12.1). Finally, Qatar Integrated Railway Project contributed using different colours/materiality/literal meaning signage/having urban interventions or vegetation in urban attractor points (Ma et al.) (criteria 9.2).

CRITERIA STUDIES

Pavilion in Parque Santa Clara / Estudio Frolik



Fig.45. Pavilion in Parque Santa Clara (Pinilla).



Fig.46. Pavilion in Parque Santa Clara (Pinilla).



Fig.47. Pavilion in Parque Santa Plan (Estudio Frolik).



Fig.48. Pavilion in Parque Santa (Pinilla).



Fig.49. Pavilion in Parque Santa (Pinilla).



Fig.50. Pavilion in Parque Santa (Pinilla).

DESIGN STRATEGY

Designing permeability

CRITERIA EXPLORATION 1.2.1

CRITERIA STUDIES



Fig. 51. Privacy precedent (Auckland Design manual, 2020).

Architect: Andre Hodgkinson



Fig. 52. Privacy precedent (Auckland Design manual, 2020).



Fig. 53. Privacy precedent (Auckland Design manual, 2020).

Architect: Architectus



Fig. 54. Privacy precedent (Auckland Design manual, 2020).

Architect: Moller Architects

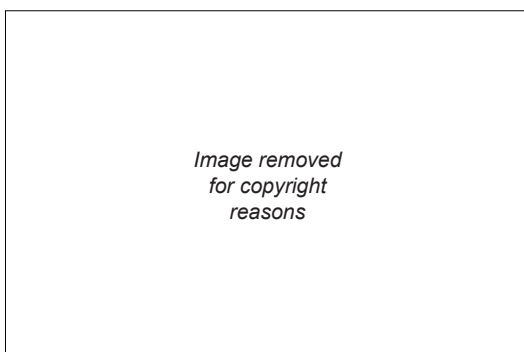


Fig. 55. Privacy precedent (Auckland Design manual, 2020).

Architect: Moller Architects

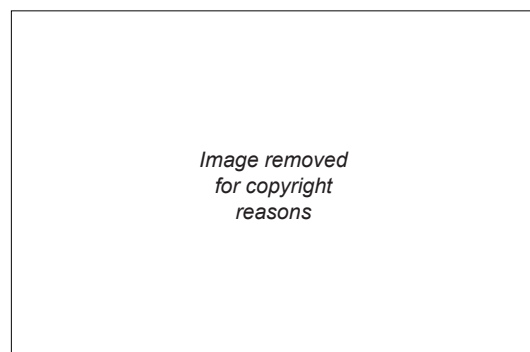


Fig. 56. Privacy precedent (Auckland Design manual, 2020).

Architect: Ian Moore

DESIGN STRATEGY

Designing privacy

CRITERIA EXPLORATION 6.2.2

CRITERIA STUDIES

Collaborative Cloud



Fig.57. Collaborative Cloud (Ole Scheeren, 2013).



Fig.58. Collaborative Cloud (Ole Scheeren, 2013).



Fig.59. Collaborative Cloud (Ole Scheeren, 2013).

DESIGN STRATEGY

Designing interaction.

CRITERIA EXPLORATION 7.1.1

CRITERIA STUDIES

Peach Hut Community Center



Fig.60. Peach Hut Community Center
(Chao).

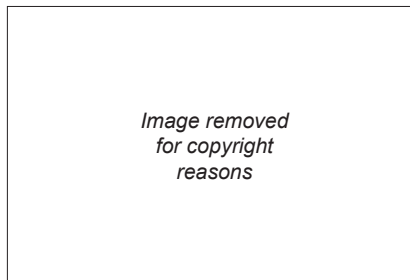


Fig.61. Peach Hut Community Center
(Chao).



Fig.62. Peach Hut
Community Center
(Chao).



Fig.63. Peach Hut Community Center
(Chao).



Fig.64. Peach Hut Community Center
(Chao).

DESIGN STRATEGY

Designing for improved public perception.

CRITERIA EXPLORATION 11.1 + 11.2

CRITERIA STUDIES

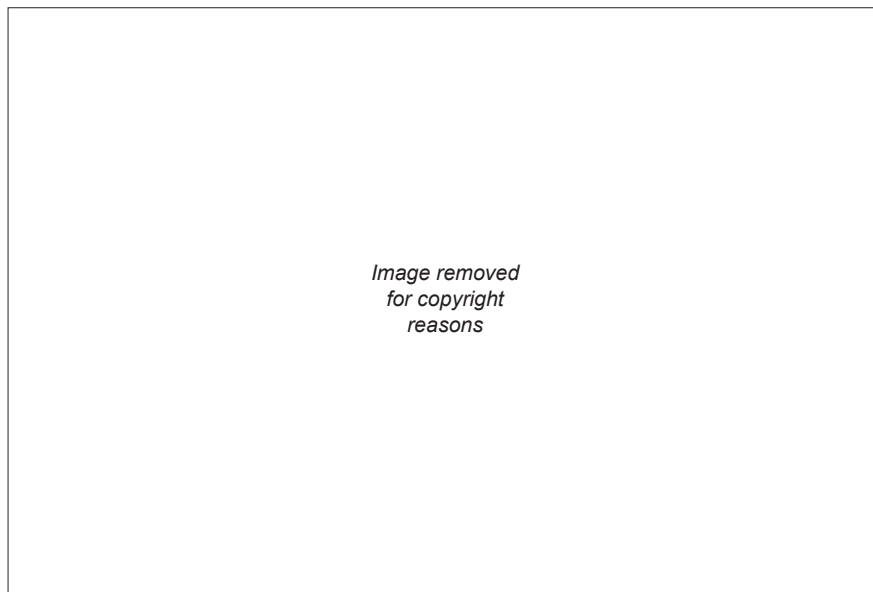


Fig.65. Natural surveillance precedent (Reiman).

DESIGN STRATEGY

Natural surveillance

CRITERIA EXPLORATION 12.1

CRITERIA STUDIES

Qatar Integrated Railway Project



Fig.66. Qatar Integrated Railway (UNStudio).



Fig.67. Qatar Integrated Railway (UNStudio).



Fig.68. Qatar Integrated Railway (UNStudio).

DESIGN STRATEGY

Wayfinding

CRITERIA EXPLORATION 9.2

RESIDENTS AUTONOMY + COMMUNITY

DESIGN INVESTIGATION

The resident's autonomy and community design investigation undertook a set of design exercises targeted at the criteria in general and areas of the criteria. These exercises looked at an intentionally bad overall design study, being welcoming, high visibility, stimulating intrigue and accessibility.

In general, it was found that successful design strategies that these designs incorporated included having open entrances and not gating off the facility, ensuring all floors are accessible leading to upper floors, having large glass ground floors to see within and expose positive parts of the facility, creating some narrow and tactically placed openings to create wonderment and having an accessible option (e.g. a ramp/lifts) throughout the building with a key location being at entrance points.

These design exercises contributed criteria 4.1, 2.1.4, 2.1.5, 4.3.1, 5 and 8.1. These criteria additions included positioning the building to see within positive parts of the facility, not including gates/fencing that implies the facility is restricted, ensuring the floors are all accessible, ensuring that the facility is visible for both walker passer-by's and cars (create openings and windows to see within positive parts of the facility e.g. with the use of glass), stimulate intrigue, ensure that there is an accessible option to access/use all parts of the facility (i.e the main entrance for the public should have an accessible route. Which could be partially achieved by optimising the ground floor as much as possible). The resident's autonomy and community-based additions were added when a design exercise positively introduced the idea or it lacked the idea and required that idea to make it fulfil the specific area of the criteria.

CRITERIA STUDIES- OVERALL STUDY (INTENTIONALLY BAD DESIGN)

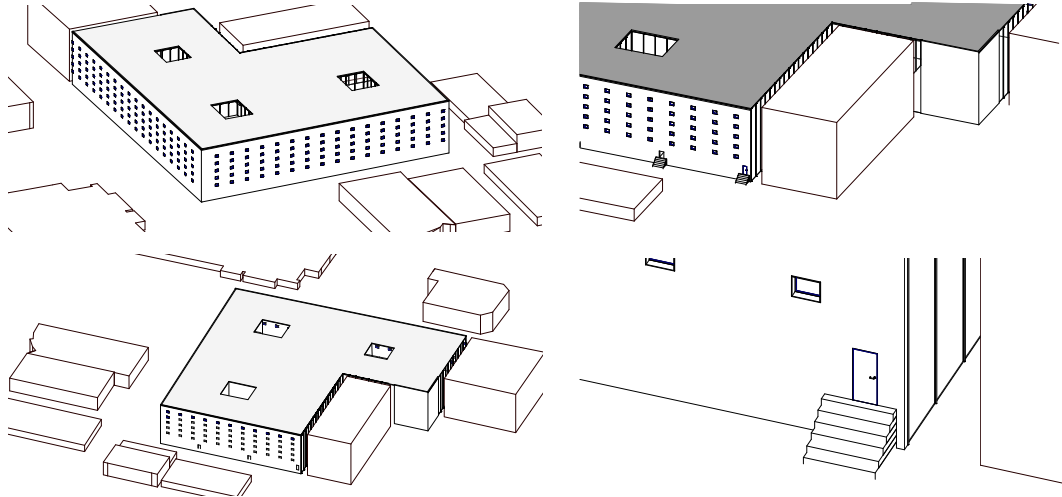


Fig.69. Bad Design.

DESIGN DESCRIPTION

This design was intentionally bad to ensure the criteria would rule out a bad design. The design took inspiration from a prison.

CRITERIA EXPLORATION 4.1

CRITERIA STUDIES

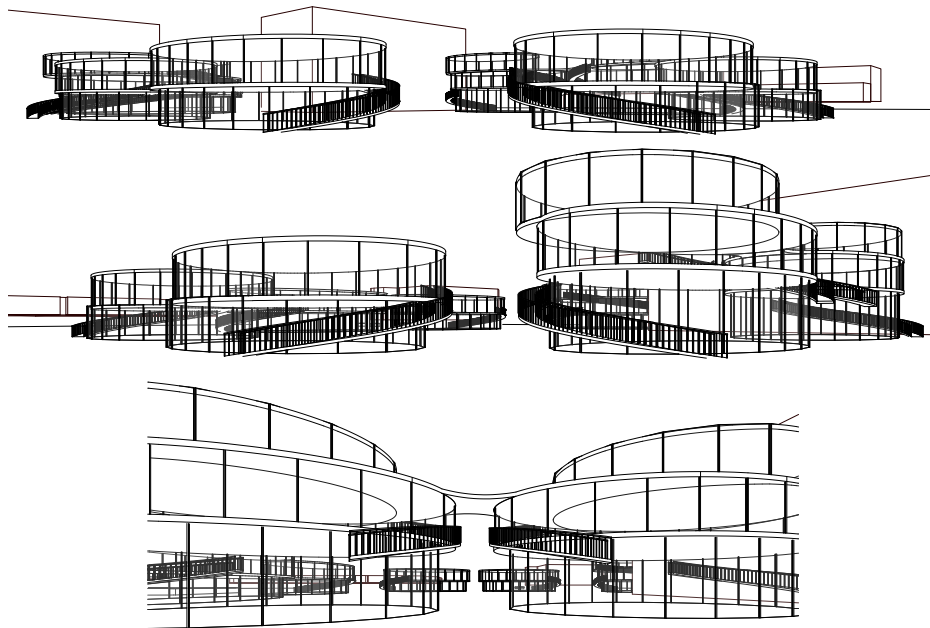


Fig.70. Wayfinding design.

DESIGN STRATEGY

Welcoming

SIGNIFICANT FINDINGS

Having open entrances and not gating off the facility and ensuring all floors are accessible with ramps leading to upper floors.

CRITERIA EXPLORATION 2.1.4 + 2.1.5

CRITERIA STUDIES

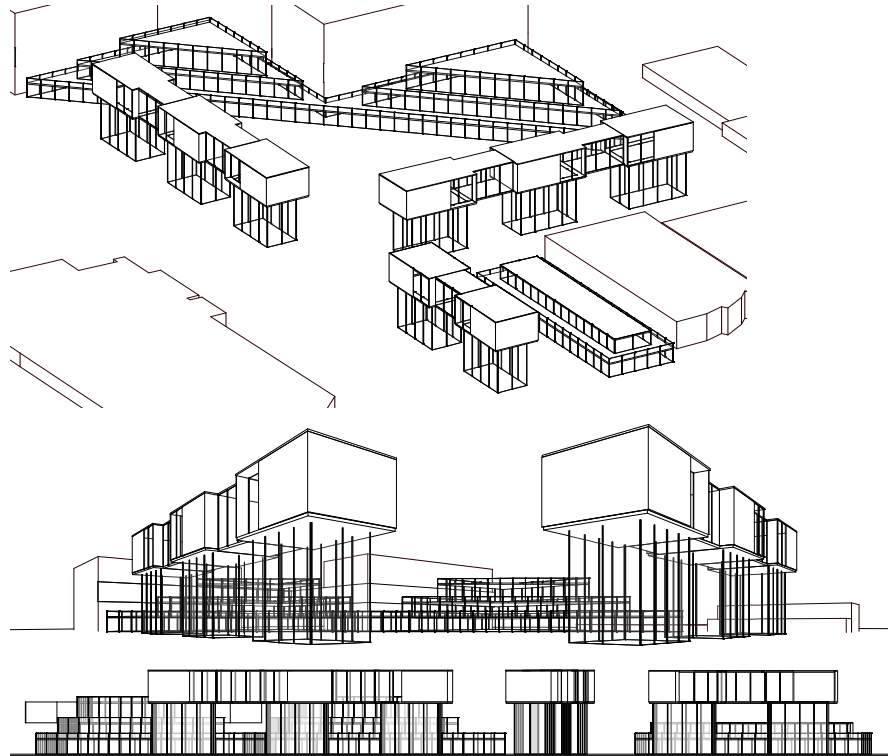


Fig.71. High visibility.

DESIGN STRATEGY

High visibility

SIGNIFICANT FINDINGS

Large glass ground floors to see within and expose positive parts of the facility.

CRITERIA EXPLORATION 4.3.1

CRITERIA STUDIES

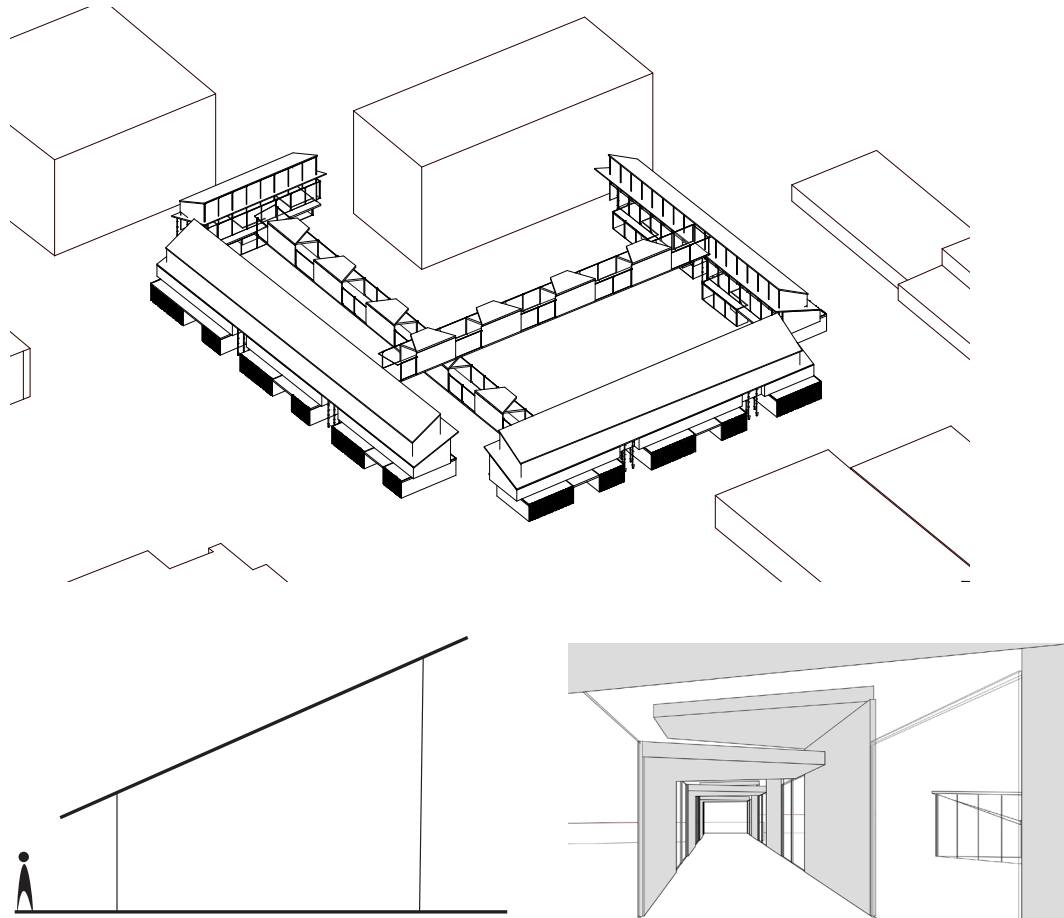


Fig.72. Stimulating intrigue.

DESIGN STRATEGY

Stimulate intrigue

SIGNIFICANT FINDINGS

Creating some narrow and tactically placed openings to create wonderment.

CRITERIA EXPLORATION 5

CRITERIA STUDIES

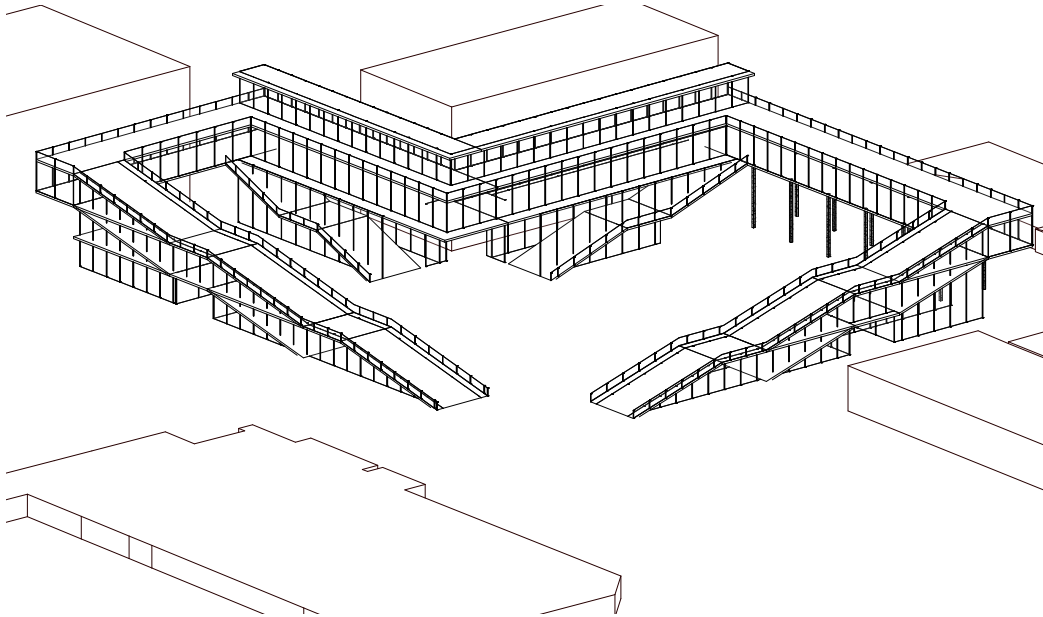


Fig. 73. Accessible design.

DESIGN STRATEGY

Accessibility

SIGNIFICANT FINDINGS

Having an accessible option (a ramp) throughout the building with a key location being at entrance points.

CRITERIA EXPLORATION 8.1

MASSING

PRECEDENT ANALYSIS

The massing precedent analysis targeted features of precedents that could positively contribute to the refinement of the criteria and design. These precedents included Mosha House, a range of aged care facilities and a range of randomly selected floor plans from a range of New Zealand design companies. These precedents looked into how architecture can highlight views and what New Zealand floor plans possess when designing a home.

Mosha House informed the criteria by contributing criteria 3.1.3 and 3.1.4 to the criteria list. These criteria included “allow for the residents to observe what is happening outside/observe people outside of the building” and “orientate the building to observe views”. Whereas the home-like criteria contributed by showing that New Zealand homes have a clear separation between living/dining/kitchen and sleeping spaces, they have surplus storage for personal belongings, there is space for more than just the people who live there and an outdoor place is provided. Most of the time these home features were not included in the aged care facilities.

CRITERIA STUDIES

Mosha House / New Wave Architecture



Fig.74. Mosha House Plan (New Wave Architecture).

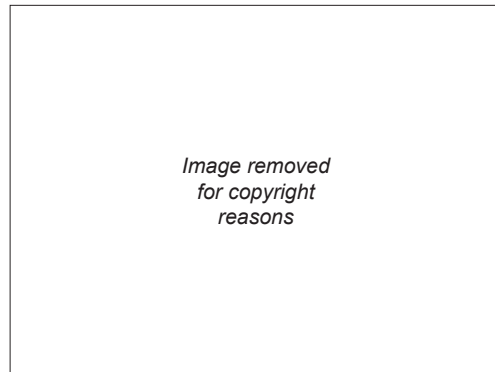


Fig.75. Mosha House (Taghioff).



Fig.76. Mosha House (Taghioff)..

DESIGN STRATEGY

Designing for views

CRITERIA EXPLORATION 3.1.3 + 3.1.4

AGED CARE FACILITIES COMPARED WITH THE HOME

AGED CARE FACILITIES

KEY

- Bedroom and living space separation
- Living
- Sleeping
- Storage
- Toilets
- Kitchen



Fig.77. Ørestad Nursing Home Plan (JJW ARKITEKTER, 2009).

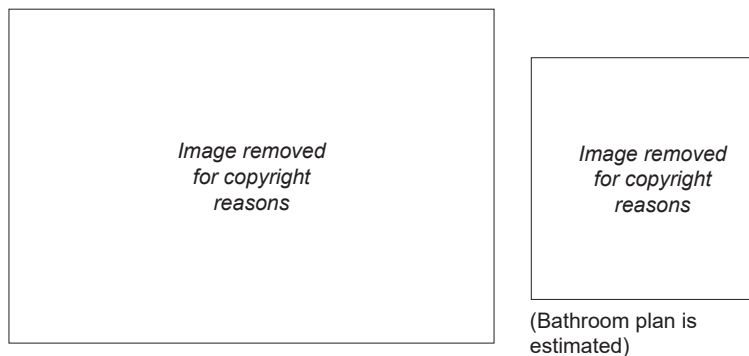


Fig.78. Sølund Retirement Community (competition) Plan (Henning Larsen Architects).

HOMES

Randomly selected one storey NZ floor plans from landmark, Sentinel and Jennian homes, below 200m2.



Fig. 79. Landmark Homes Plan (Landmark Homes).



Fig. 80. Landmark Homes Plan (Landmark Homes).



Fig. 81. Sentinel Homes Plan (Sentinel Homes).

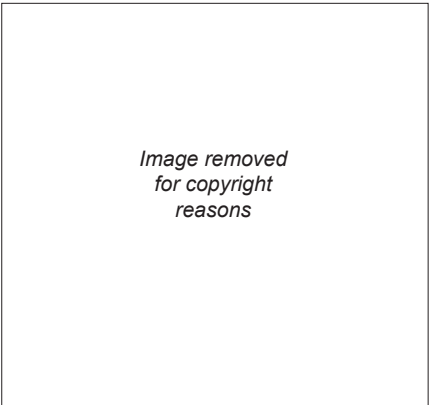


Fig. 82. Sentinel Homes Plan (Sentinel Homes).



Fig. 83. Jennian Homes Plan (Jennian Homes).



Fig. 84. Jennian Homes Plan (Jennian Homes).

DESIGN STRATEGY

Designing homeliness

MASSING

DESIGN INVESTIGATION

The massing design investigation undertook two design exercises that played two ideas against the criteria and in one of these cases, the exercise added to the criteria. These exercises undertook an organic design approach and an approach that overlooked the courtyard thus creating natural surveillance.

In general, it was found that successful design strategies that these designs incorporated included creating shortcuts for the wider community, positioning buildings to display views, having a courtyard for high visibility and natural surveillance, having bridges for more accessibility on the upper floors, not looking institutional and with the natural surveillance design, having a separation between the public and private spaces with the ground floor being more open.

These design exercises contributed to criteria 2.1.2 and 9.1. These criteria additions included having wide entrances that encourage people to enter the space and making public and private spaces clear to differentiate between. These criteria additions were found to be important because the organic design exercise lacked these features making the design not very welcoming or successful in terms of wayfinding.

CRITERIA STUDIES- OVERALL STUDY

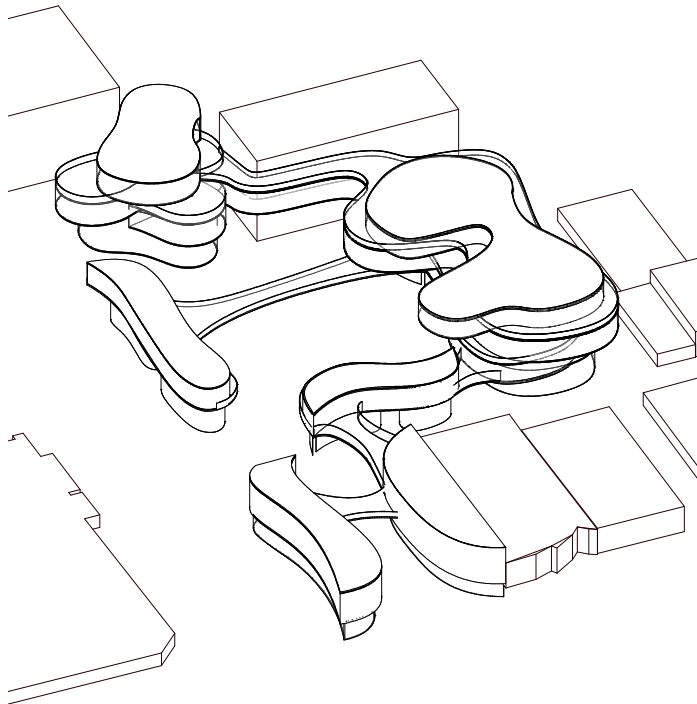


Fig.85. Criteria study.

DESIGN DESCRIPTION

This design took a more organic approach with glazed walls allowing for panoramic views.

SIGNIFICANT FINDINGS

The design lacked a clear difference between public and private spaces, thus limiting privacy.

CRITERIA EXPLORATION 2.1.2 + 9.1

CRITERIA STUDIES- OVERALL STUDY

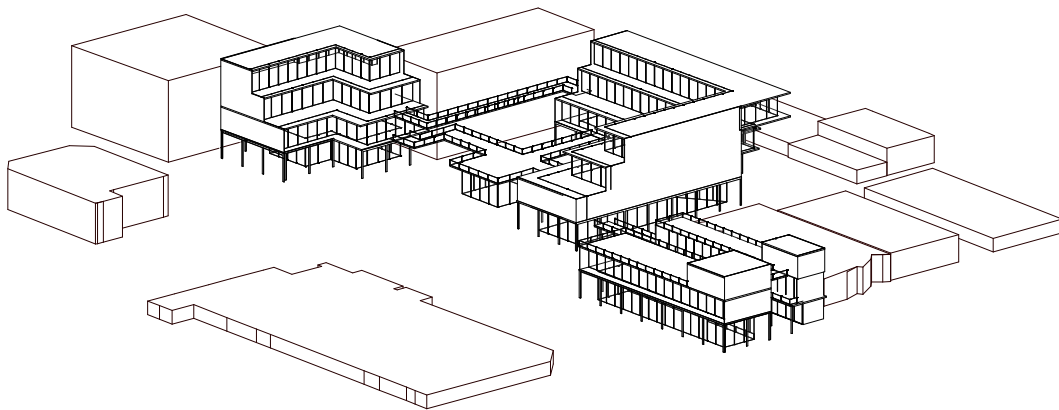


Fig.86. Criteria study.

DESIGN DESCRIPTION

This design took a staggering approach to allow for the residents to overlook and observe the happenings in the courtyard.

SIGNIFICANT FINDINGS

The design showed that having a glazed ground floor and then solid walls on the upper floors helps create a division between public and private spaces.

DESIGN ITERATIONS

The massing design iterations was a process taken to establish new findings and to refine the criteria. This was done by finding new ways to improve each design iteration and then adding these strategies to the criteria when applicable. The massing iteration process involved creating 3D massing and 2D plans that were studied against the criteria.

As a whole, the significant findings of the massing iterations included strategies that fall under the categories of permeability/interactions, visibility, intrigue, privacy/security, wayfinding, views, natural surveillance, resident's wellbeing in general, accessibility and improving public perception.

Results of this work included the following:

Permeability and Interaction

Spreading out buildings on the site, adding bridges for connectivity and spontaneous interactions on upper floors, having wide and welcoming entrances from multiple directions on the site on highly used streets, creating shortcuts through the site for the community, providing shelter along pathways and having social spaces beside circulation areas to provide interaction opportunities.

Visibility

Wide openings as well as glazed ground floors (where privacy is not jeopardized) on street fronts to allow for the positive aspects of the facility to be exposed to the community. Intrigue strategies include having narrow openings that reveal a moment of surprise, in this case, the nature oasis.

Privacy and security

Buildings around the parameter to create a sense of sectioning off, bedrooms on the upper floors and stepping back of windows.

Wayfinding strategy

Allowing for visibility of most of the facility from the courtyard and connecting key programmes with bridges.

Views

Lowering the street edge buildings to allow for the foreground building occupants to see views.

The Natural Surveillance

Creating a courtyard to overlook and bridges to assist with overlooking spaces.

The Accessibility

Creating ramps between floors, optimising the ground floor area and creating direct paths.

Improving Public Perception

Incorporating amenities, public seating, playgrounds, shading, and green spaces. All of which contributes back to the community and encourages residents to use the facilities with outsiders, thus making the community feel like the facility benefits them and thus

improves their perception.

Other General Strategies

Giving the residents enough space and grouping the non-primary aged care facility programmes and then grouping the primary-aged care facility programmes in another location to separate residents from the negative stigmas associated with the higher care amenities.

The massing exercises undertaken contributed to criterion 7.1. The criteria addition included creating spaces for both residents and outsiders. This criterion was added because it was found to be a successful method for helping to enable interaction opportunities in the facility.

MASSING- MASSING MOVES BASED ON STRATEGIES

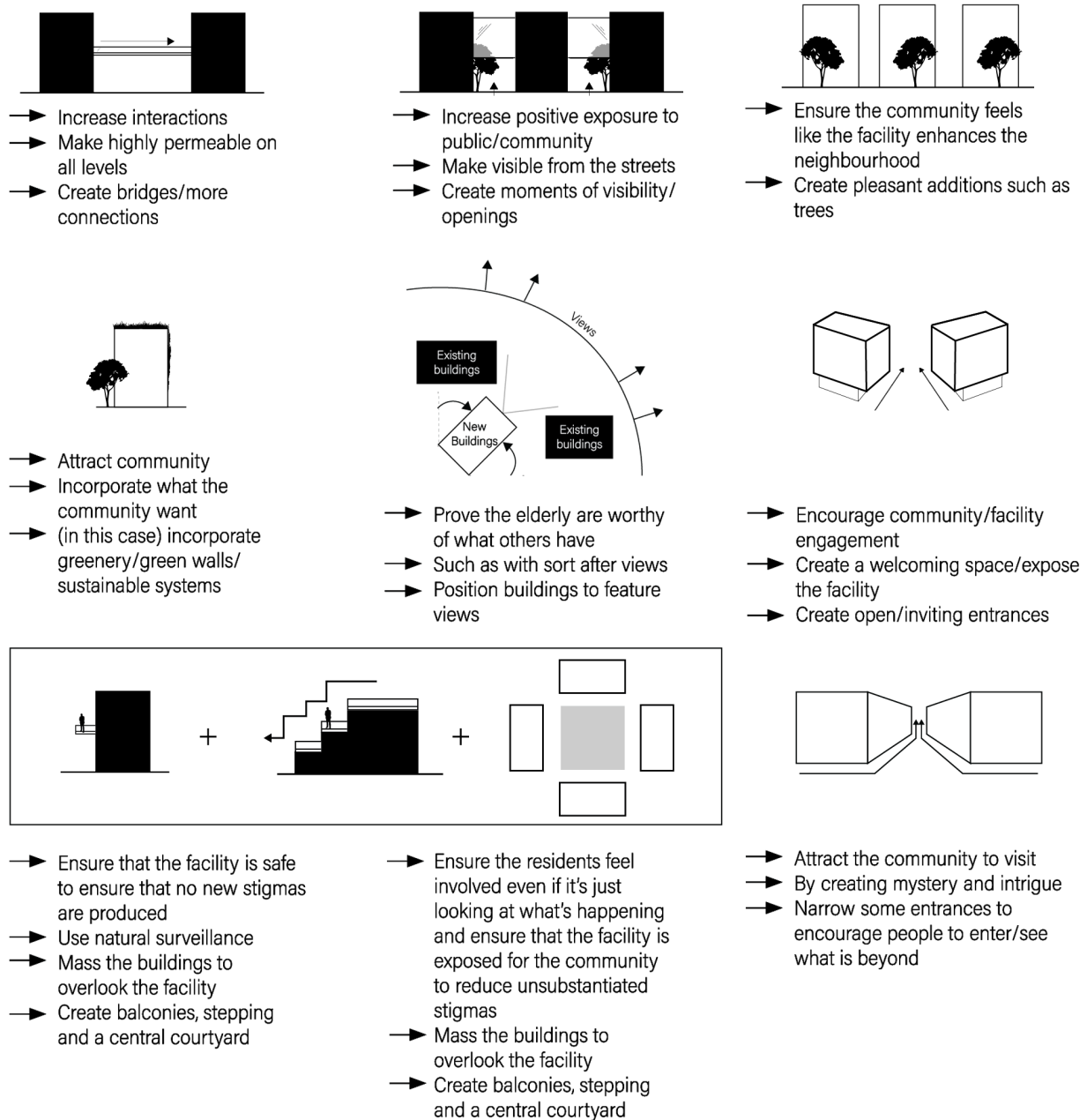


Fig. 87. Massing Moves.

MASSING- AGED CARE FACILITY SIZES

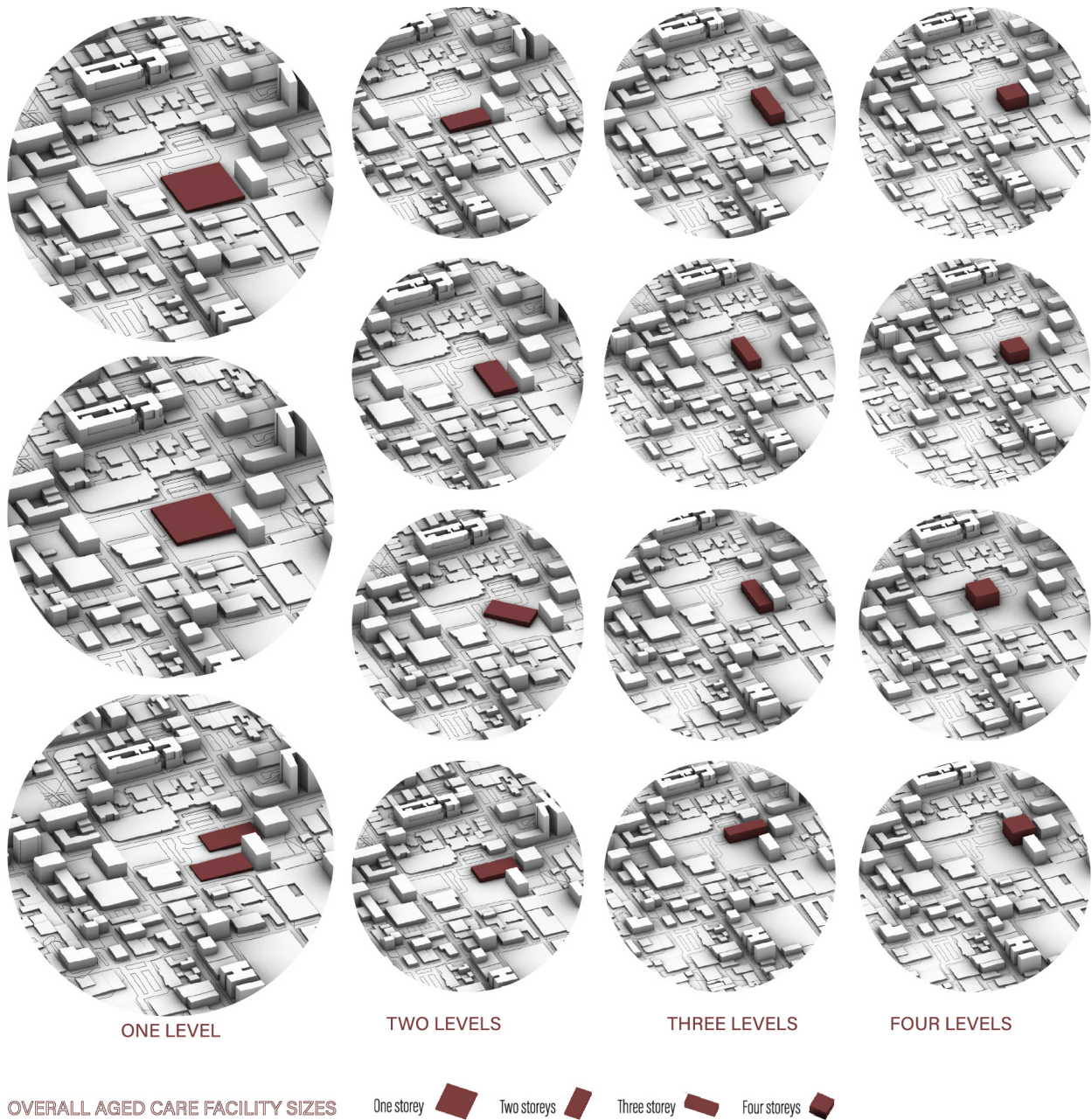


Fig.88. Massing explorations.

MASSING- PROGRAMME

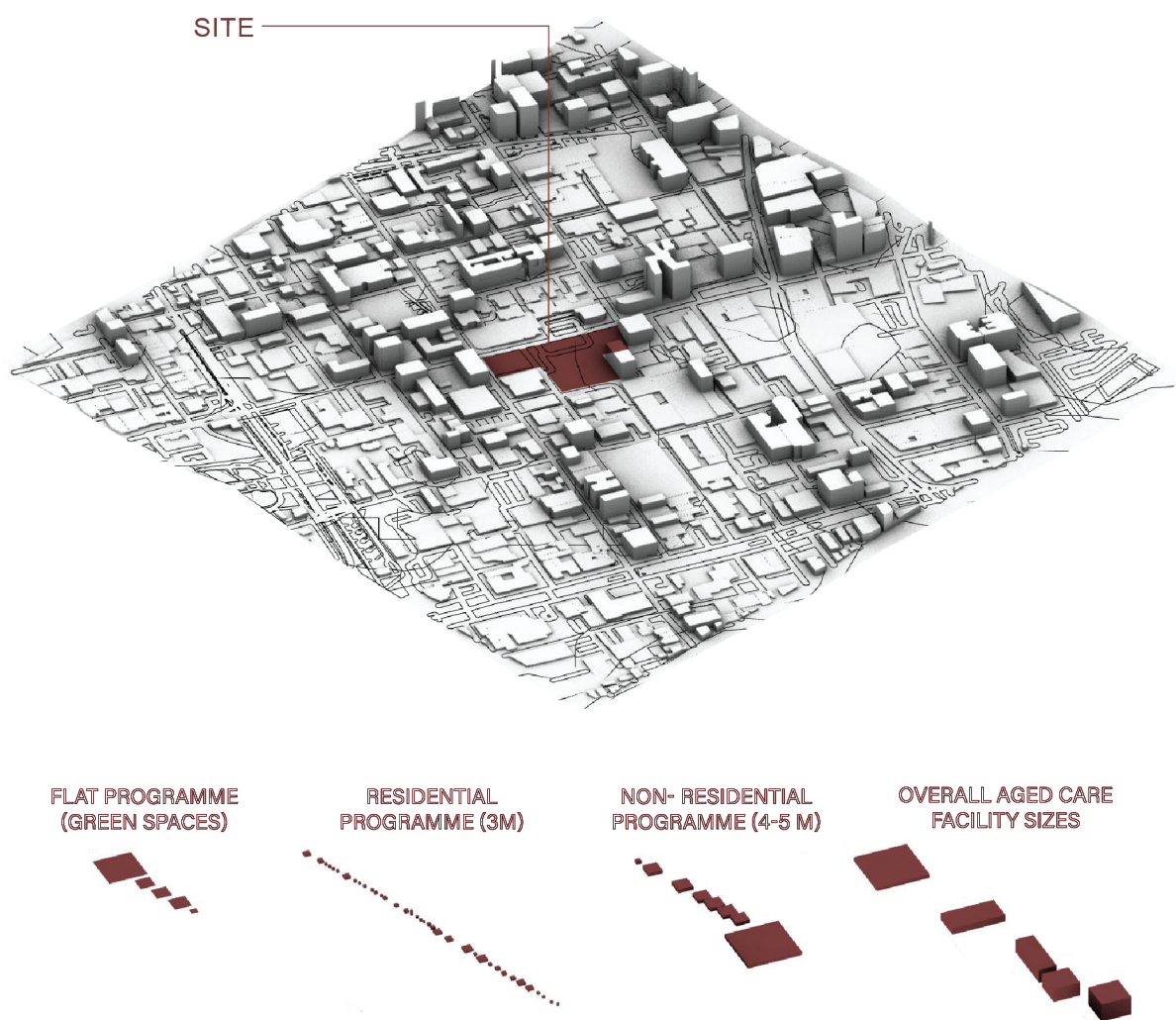


Fig.89. Programme massing.

MASSING- EXPLORATORY MASSING ON SITE

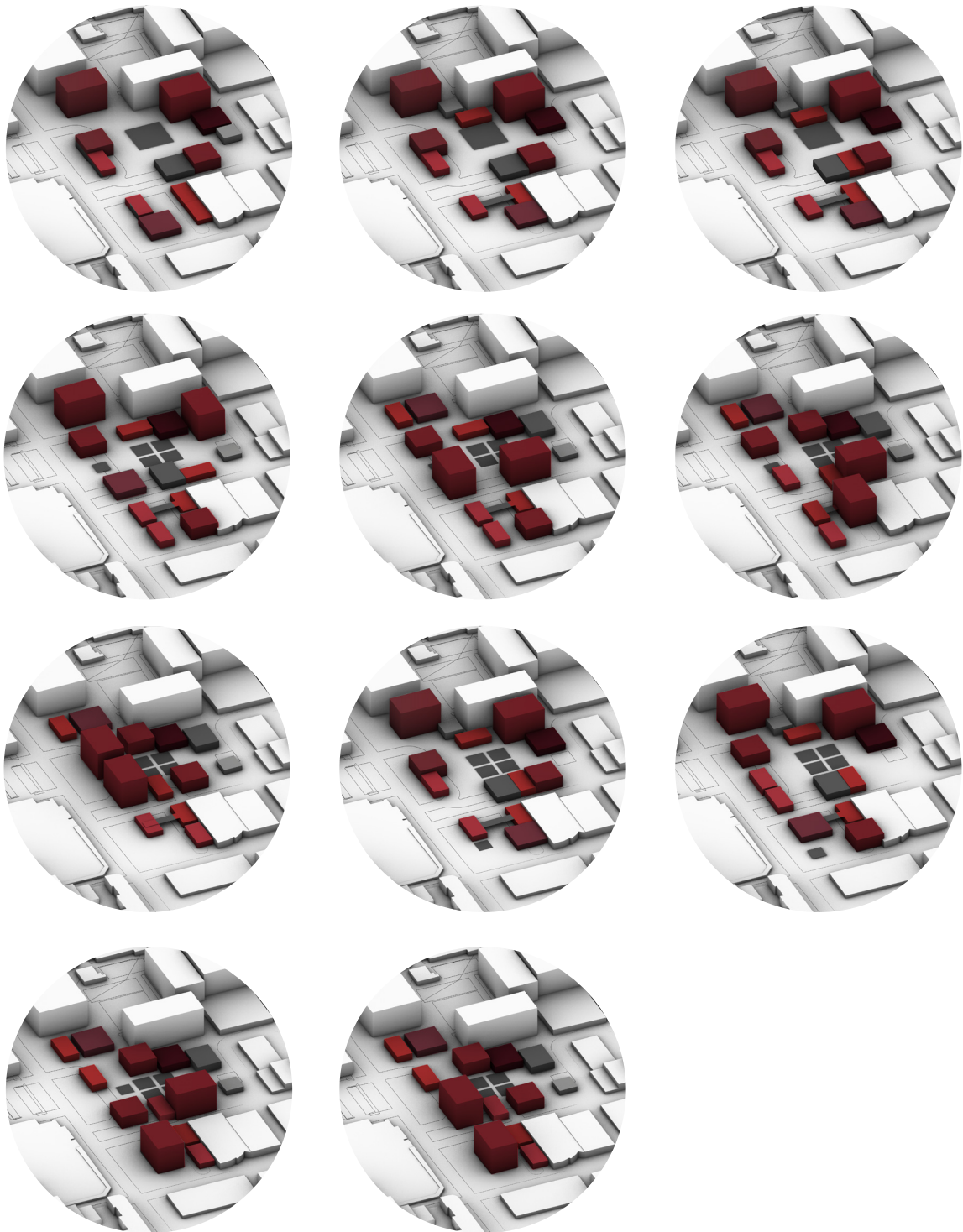
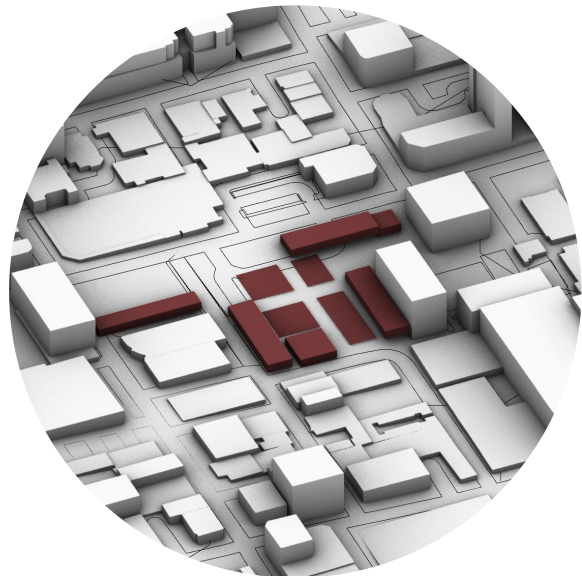
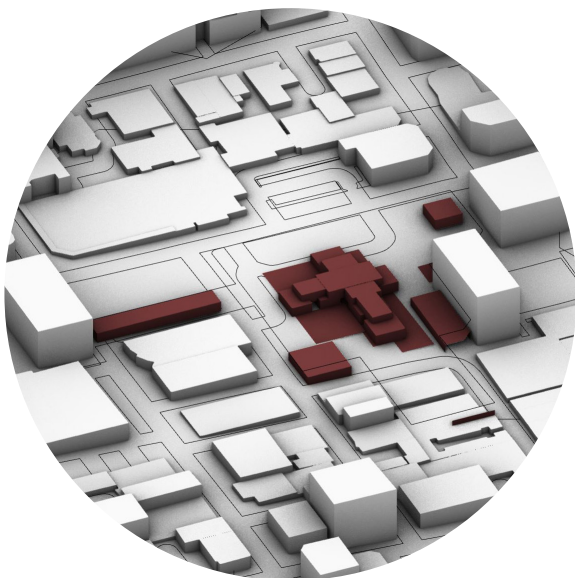
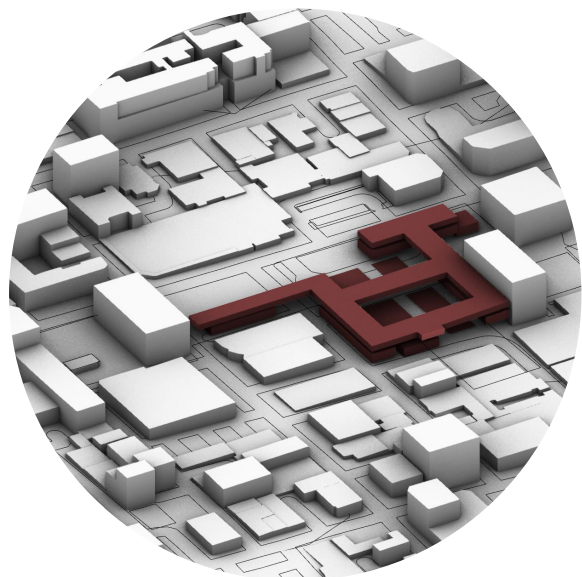


Fig.90. Massing explorations.

MASSING- OVERALL MASSING INITIAL EXPLORATION



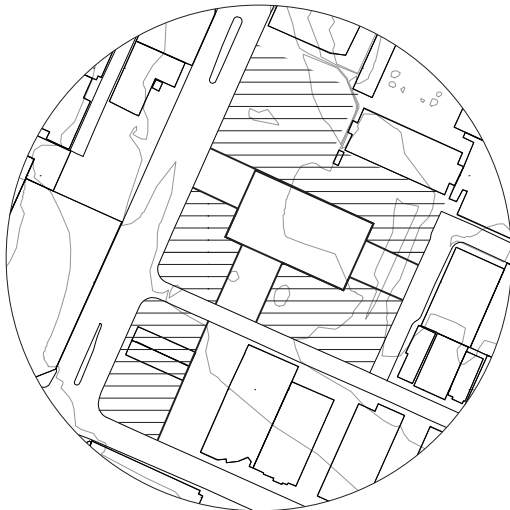
Spreading out the buildings allow for visitors to walk through the site and for spontaneous interaction to occur as the user's cross each other's paths.



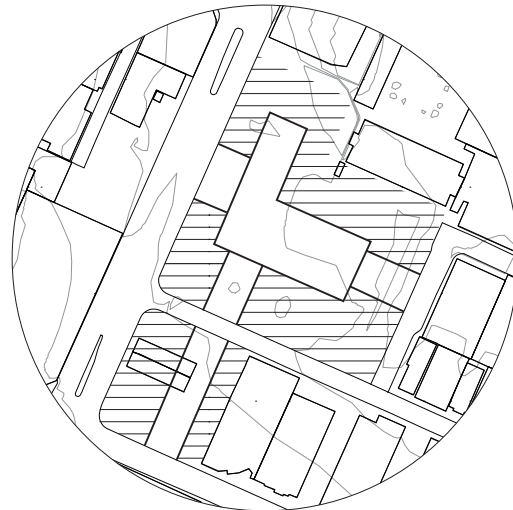
Adding bridges for connectivity on the upper floors.

Fig.91. Massing explorations.

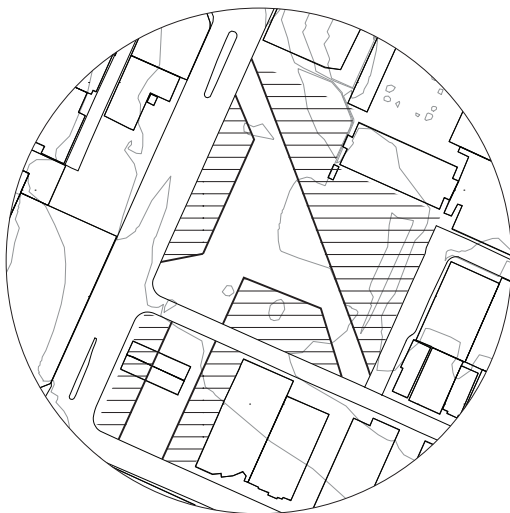
MASSING- SPATIAL OPTIONS- MASTER PLANNING



Enabled access from multiple directions.



Placed entrances on highly used streets.



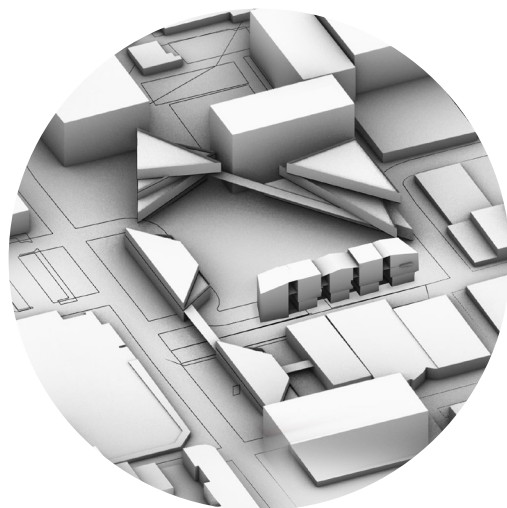
Created shortcuts through the site.

Fig.92. Massing explorations.

MASSING- OVERALL MASSING INITIAL EXPLORATION



Created wide welcoming entrances.



Added buildings along the parameter to
create security and privacy.

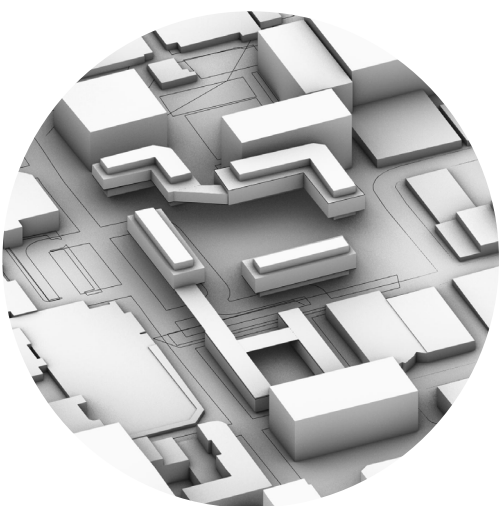


Fig.93. Massing explorations.



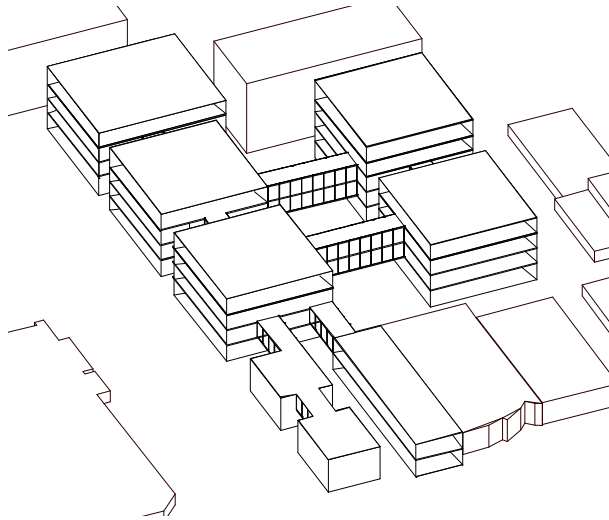
The wide openings allowed for high visibility and the bridge created interaction opportunities.



The low rise buildings on the street edges gave more of a home-like feel.

Fig.94. Massing explorations.

MODEL ITERATIONS

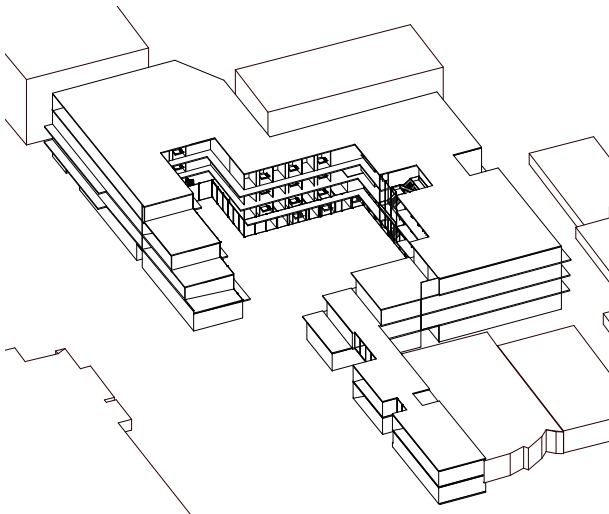


1

Permeability is achieved with some direct paths/short-cuts through the site for the wider community.

Narrow openings created a moment of reveal/intrigue in the courtyard.

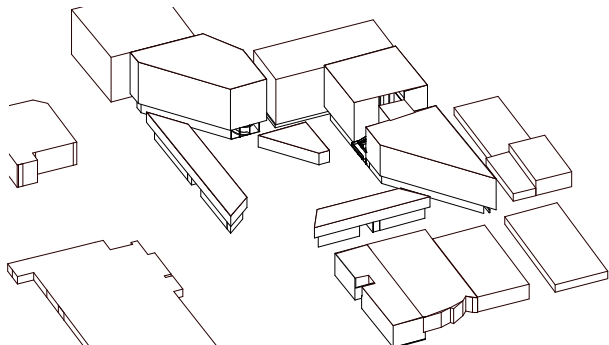
Buildings around the perimeter allowed for an idea of sectioning off and thus privacy/security.



2

Stepping back of windows allowed for more privacy.

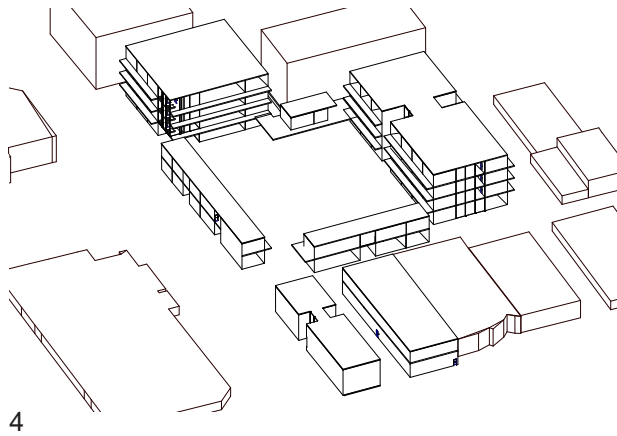
The courtyard allowed for wayfinding/visibility of most parts of the facility.



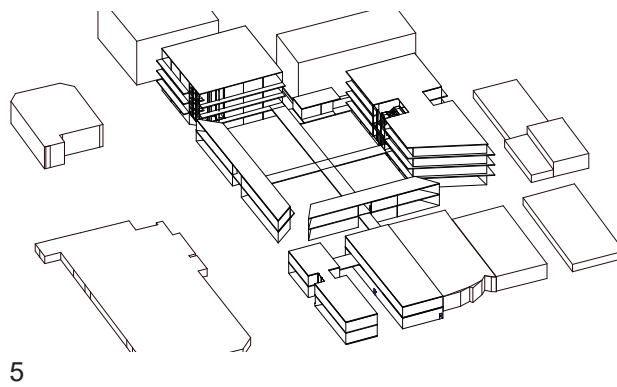
3

The lower buildings on the street edge allowed for views from the buildings behind.

Fig.95. Massing iterations.

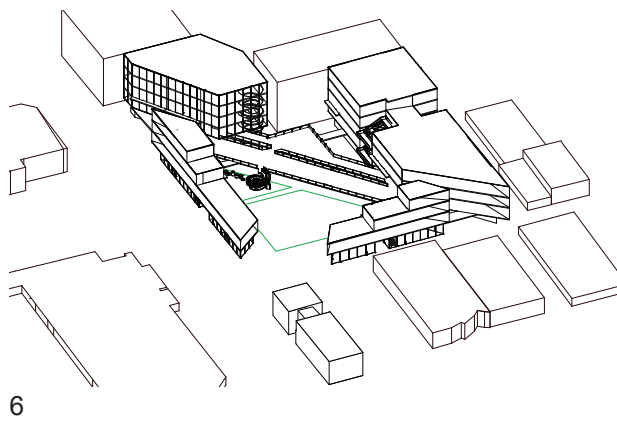


The balconies provided privacy.



The bridges helped facilitate accessibility on the upper floors and spontaneous interactions when people cross at the intersection and stop at the edges.

The balconies overlook the courtyard enabling natural surveillance.



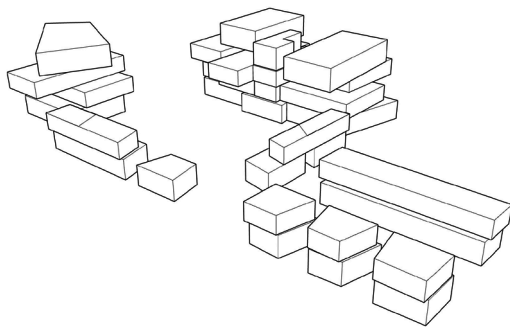
The building provided pathways with shelter for the users enabling permeability.

The glazed ground floor allowed for visibility from the street into the facility.

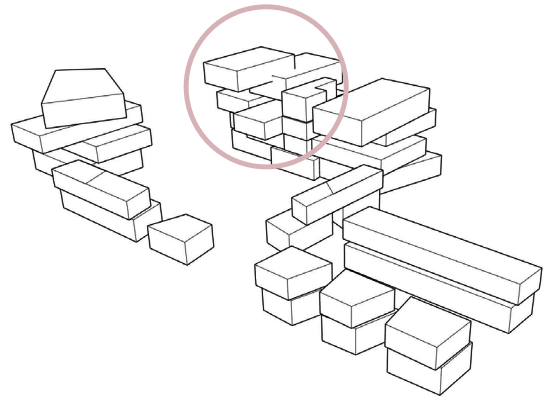
Natural surveillance is enabled with the bridge.

Fig.96. Massing iterations.

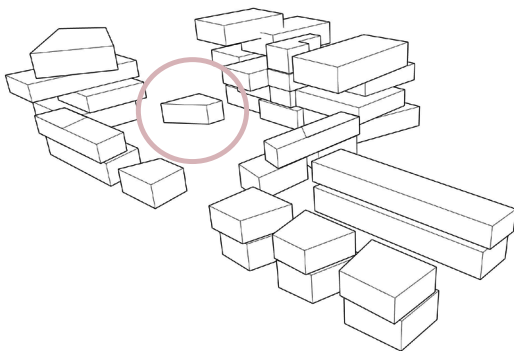
MASSING- IN DETAIL



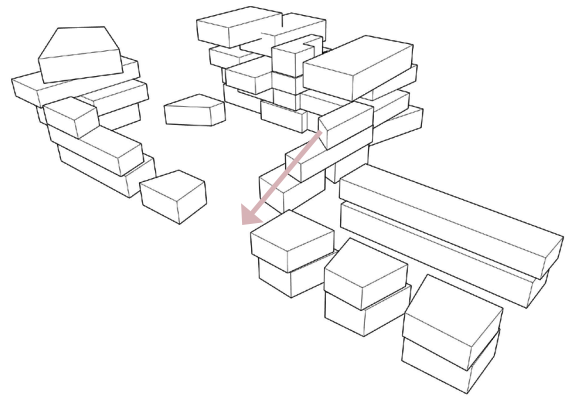
- 1
Added clear circulation for **wayfinding**.



- 2
Added another storey to fit more while ensuring the residents have enough space.

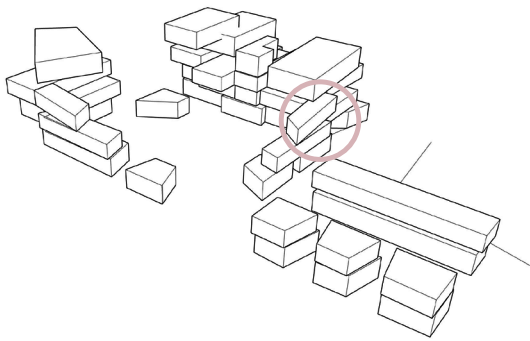


- 3
Added another building alongside the courtyard where the main circulation path is to encourage spontaneous **interactions**.



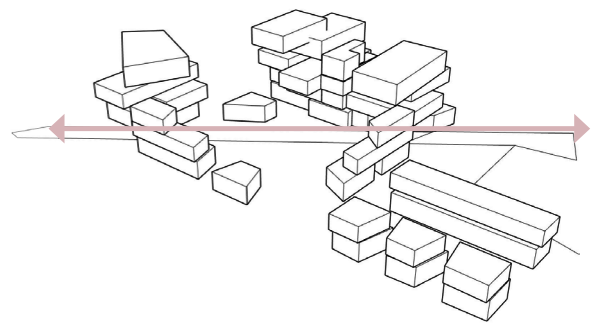
- 4
Stepped down buildings to allow for **visibility** and to create a more **welcoming** design.

Fig.97. Massing iterations.



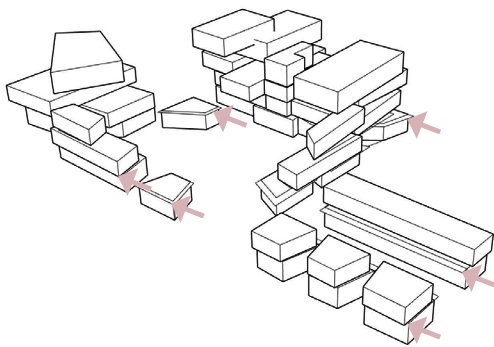
6

Created a bridge across the south building to the main building for **permeability**.



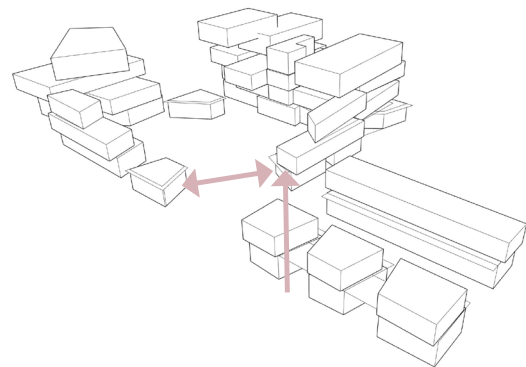
5

Angled the buildings to create a shortcut on the ground floor for **permeability**.



7

Added overhangs for street edges to help/improve community **perception** by providing shelter.



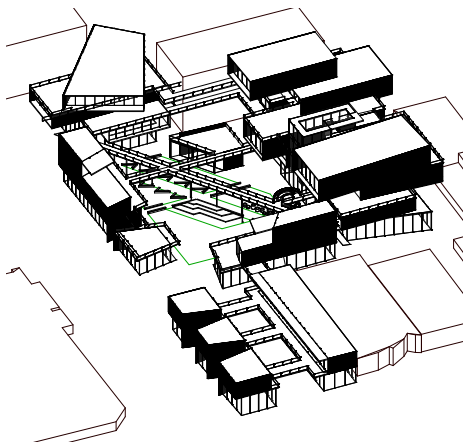
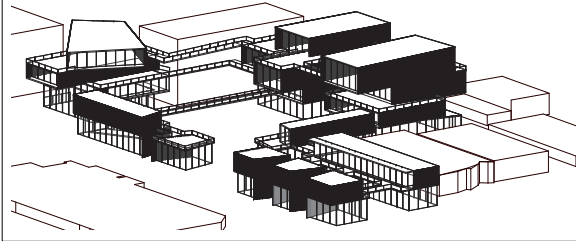
8

Stepped back this building to see the aged care facility building (for **wayfinding**) and opened up this entrance to see the main circulation space for **wayfinding**.

Fig.98. Massing iterations.

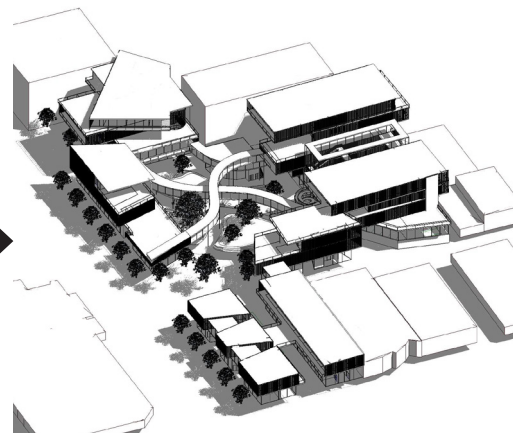
MODEL ITERATIONS

Applied stack idea from a criteria study (refer to page 111)



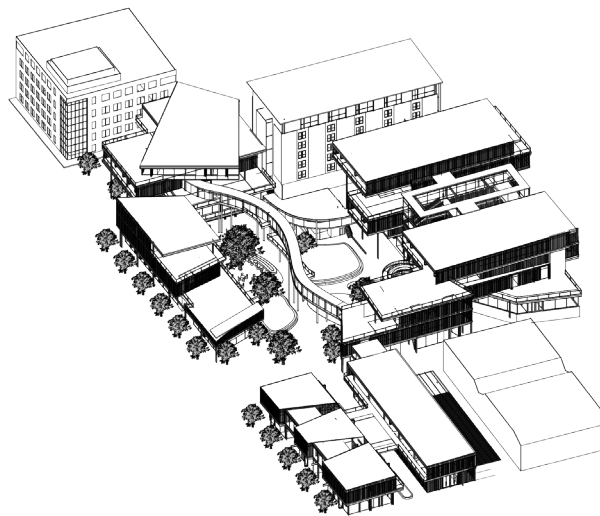
Floors were directed towards key views to enable visibility.

The facility does not look institutional- it looks more like an apartment block.



The contrast between the building's straight lines and the courtyard's organic language made the courtyard an intriguing/surprise oasis.

The ramp between floors makes accessibility easier.



Refer to chapter 8 for the assessment of the final model.

Fig.99. Massing iterations.

PLAN ITERATIONS- FINDINGS

- Grouping the non-primary aged care facility programmes and then grouping the primary-aged care facility programmes in another location helps to separate residents from the negative stigmas associated with higher care amenities.
- Having some visibility from the street allows for the positive aspects of the facility to be exposed to the community.
- Having social spaces beside circulation areas helps provide interaction opportunities.
- Incorporating cafes and a library contributes back to the community and encourages the residents to use the facilities with outsiders.
- Having the bedrooms on the floor above create privacy.
- There should be spaces for both residents and outsiders.
- The ground floor should be optimised for accessibility.
(Refer to appendix B for plan iterations)

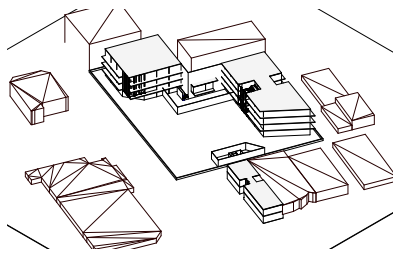
COURTYARD- INTENT

What is the function of the space?

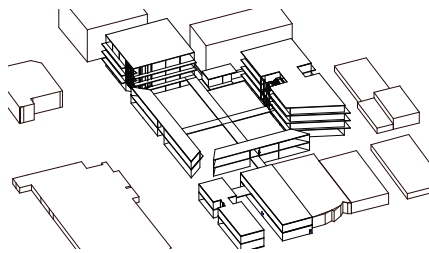
- To create a shortcut for the wider city network.
- To create some shelter for the community.
- A space for cafes to spill out to.
- A space that can be overlooked by buildings.
- A space that incorporates green space.
- A space with plenty of seating available.
- A space for events.
- A space with a children's playground.
- A community garden.

What is the space doing?

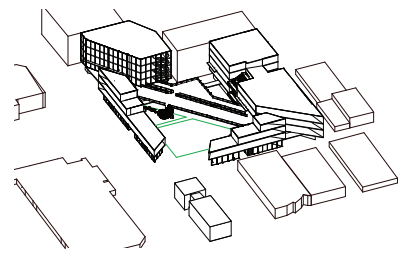
- Encouraging people to interact with others (residents and community members together).
- Encouraging movement around the site.
- Dictating that people see the positive parts of the aged care facility.
- Enabling easy wayfinding.



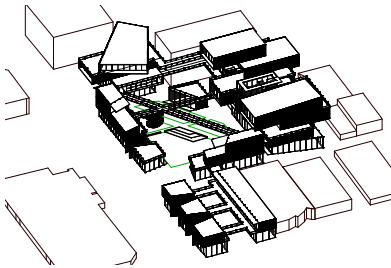
1



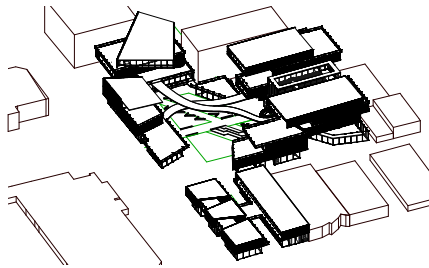
2
Added direct paths for mobility.



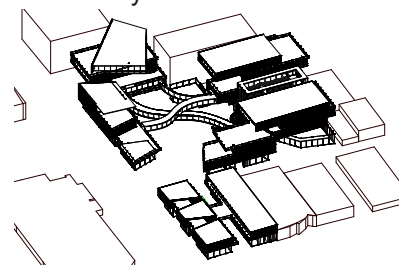
3
Added a path for sheltering the community.



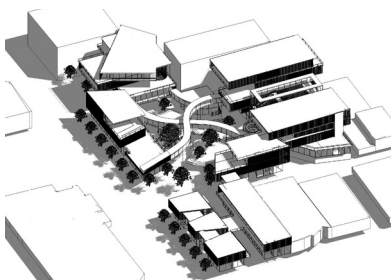
4
Added seating for the community, a ramp for accessibility and a playground to attract more ages.



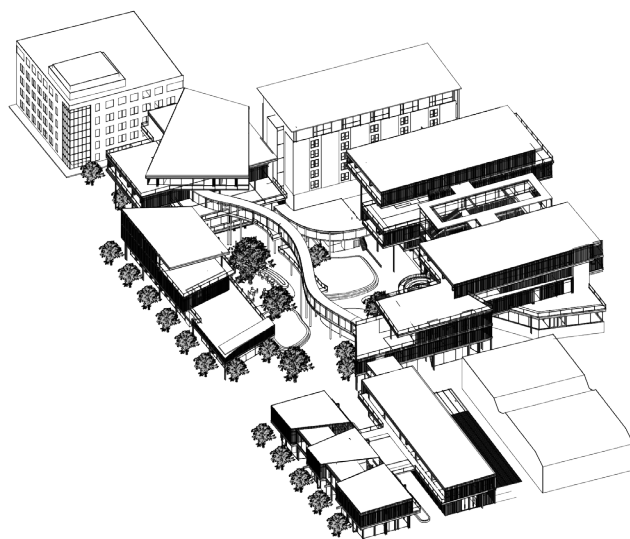
5
Added curved paths to create an oasis which will create a moment of reveal and moved the playground to connect to building uses and thus enhance wayfinding.



6
Adjusted paths for shading.



5
Added greenery to create a nature oasis.



Final courtyard
Minimised the shading with only one bridge

Fig.100. Courtyard iterations.

BRIDGE ITERATIONS

ITERATION 1

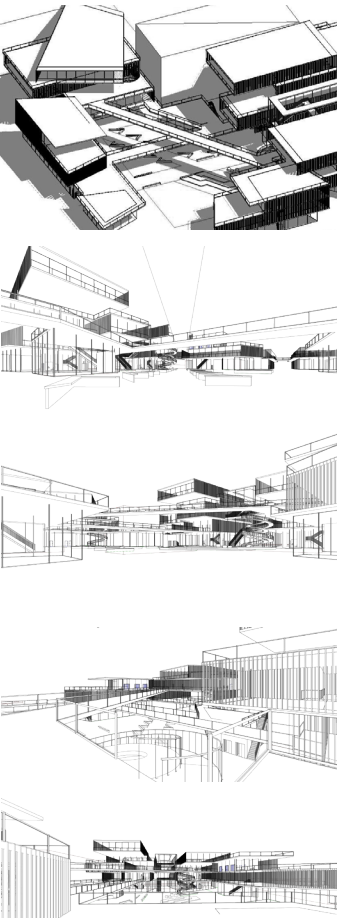
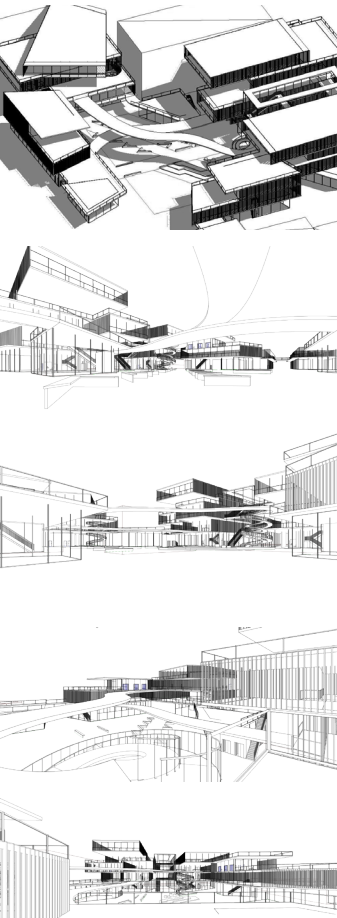


Fig.101. Bridge iterations.

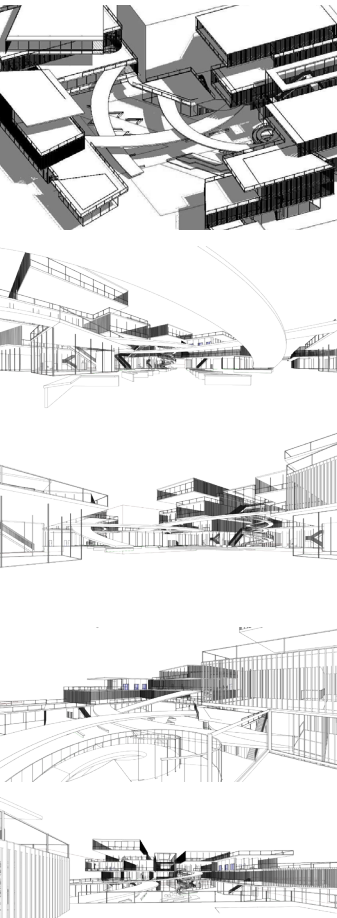
Added direct routes and shelter but the lines were too rigid.

ITERATION 2



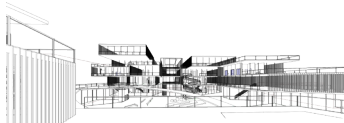
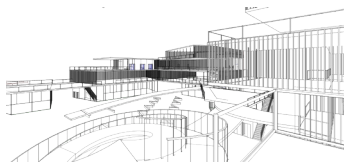
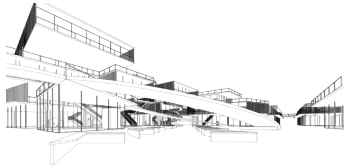
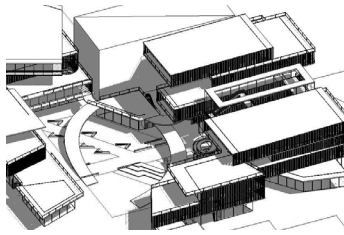
There was too much shade but the curve created an element of visual interest.

ITERATION 3

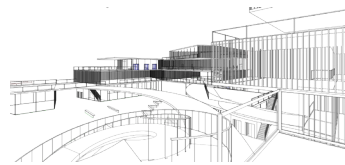
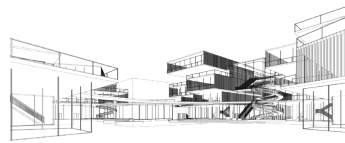
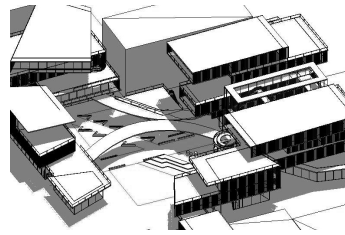


There was too much shade and the slope took up too much of the courtyard.

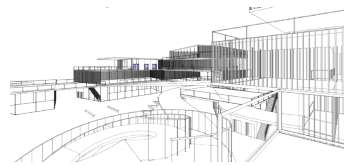
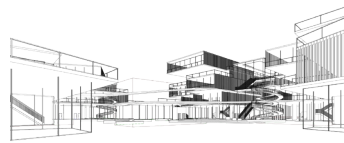
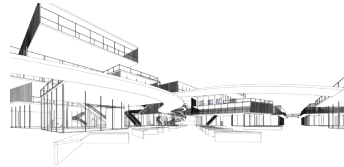
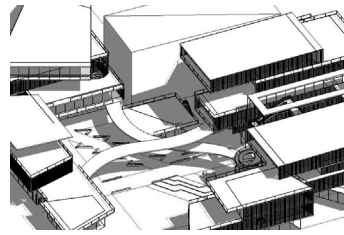
ITERATION 4



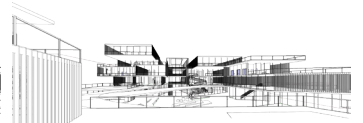
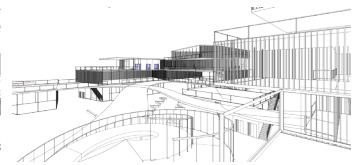
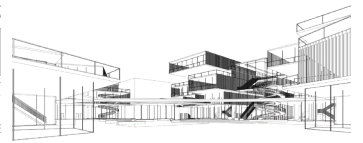
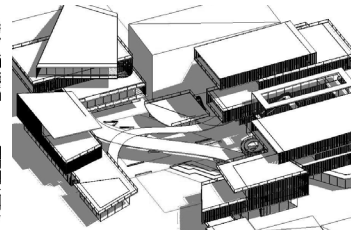
ITERATION 5



ITERATION 6



ITERATION 7

*Fig.102. Bridge iterations.*

The slopes cut out too much of the courtyard.

The bridge's programme connections were not key.

The slope to the floor above was not 1:12.

The bridges created too much shade over the cafe area.

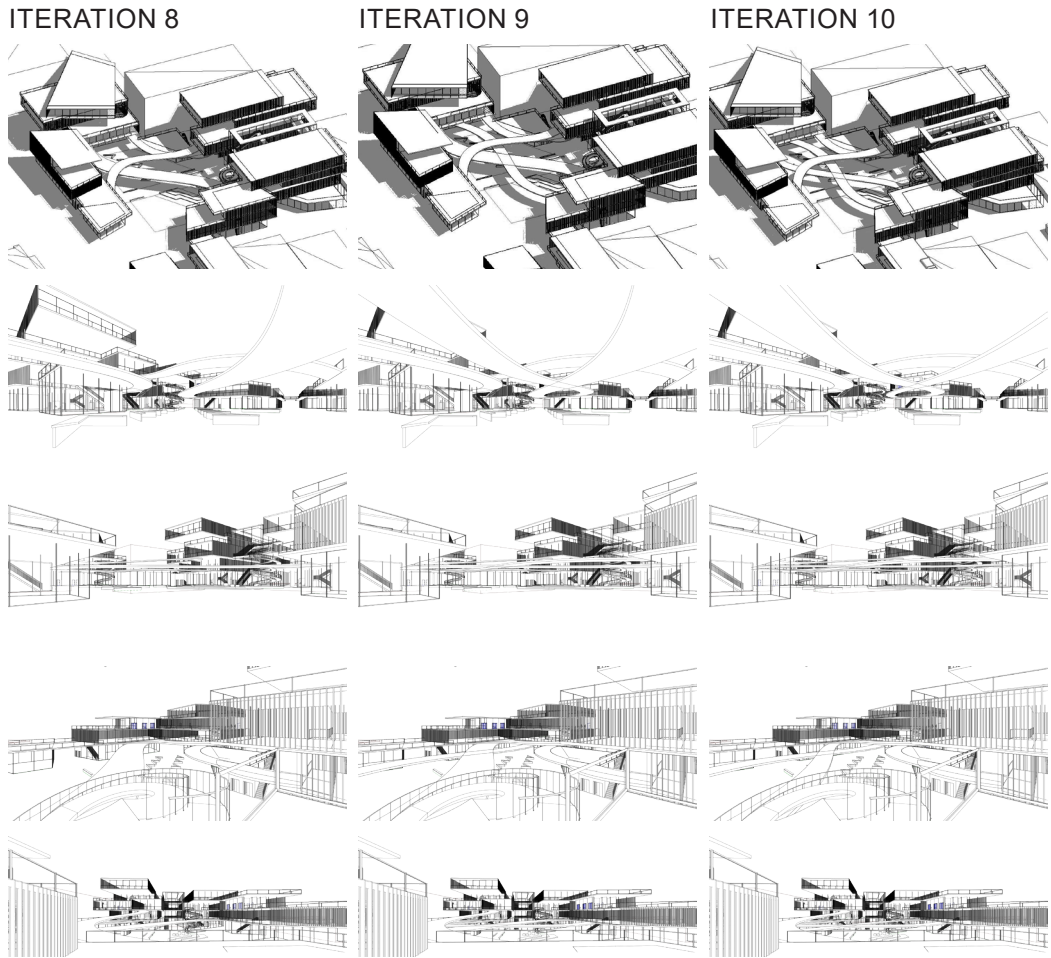


Fig.103. Bridge iterations.

The bridges created too much shade over the cafe area.

There was too much shade. There was too much shade.

FINAL ITERATION

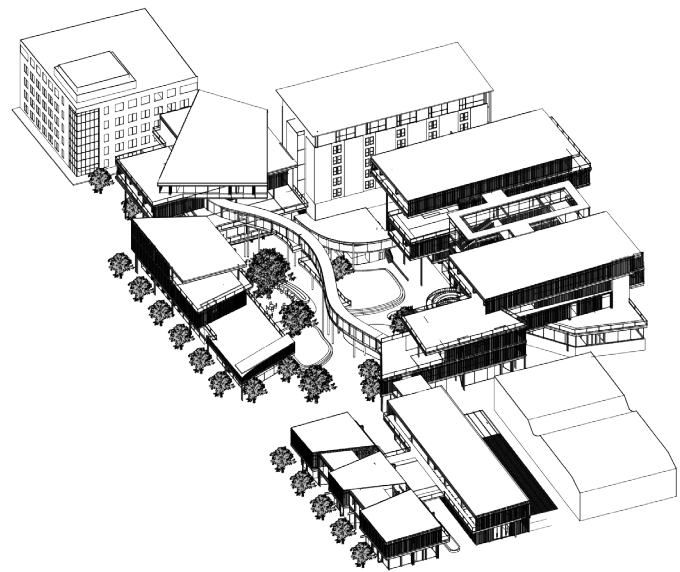






Fig.104. Final Iteration.

The single bridge did not create too much shade and it created a key connection between the aged care facility main operation building and the residents building furthest away.



AGED CARE FACILITIES COMPARED WITH THE HOME

KEY

-  Space separation
-  Storage
-  Balcony/outdoor space
-  Expand the living spaces to allow for more guests

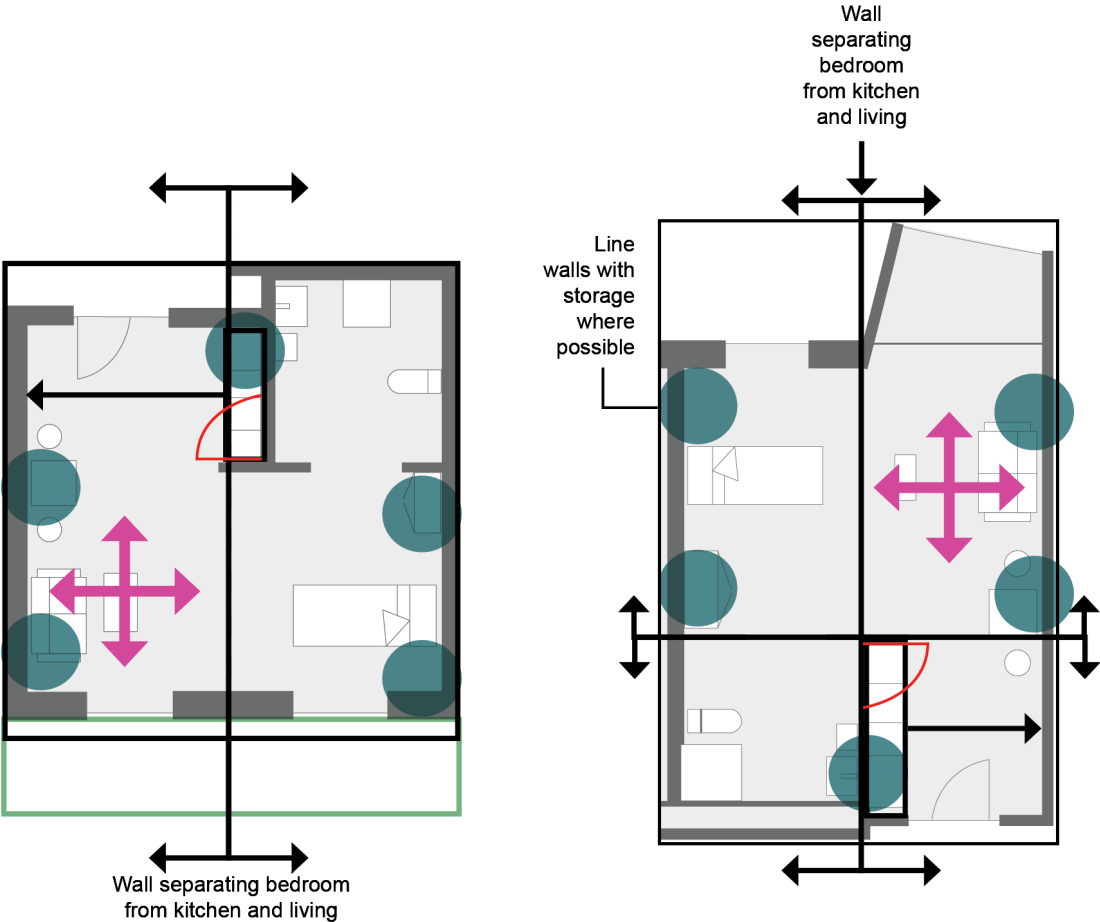


Fig. 105. Homely plan recommendations.



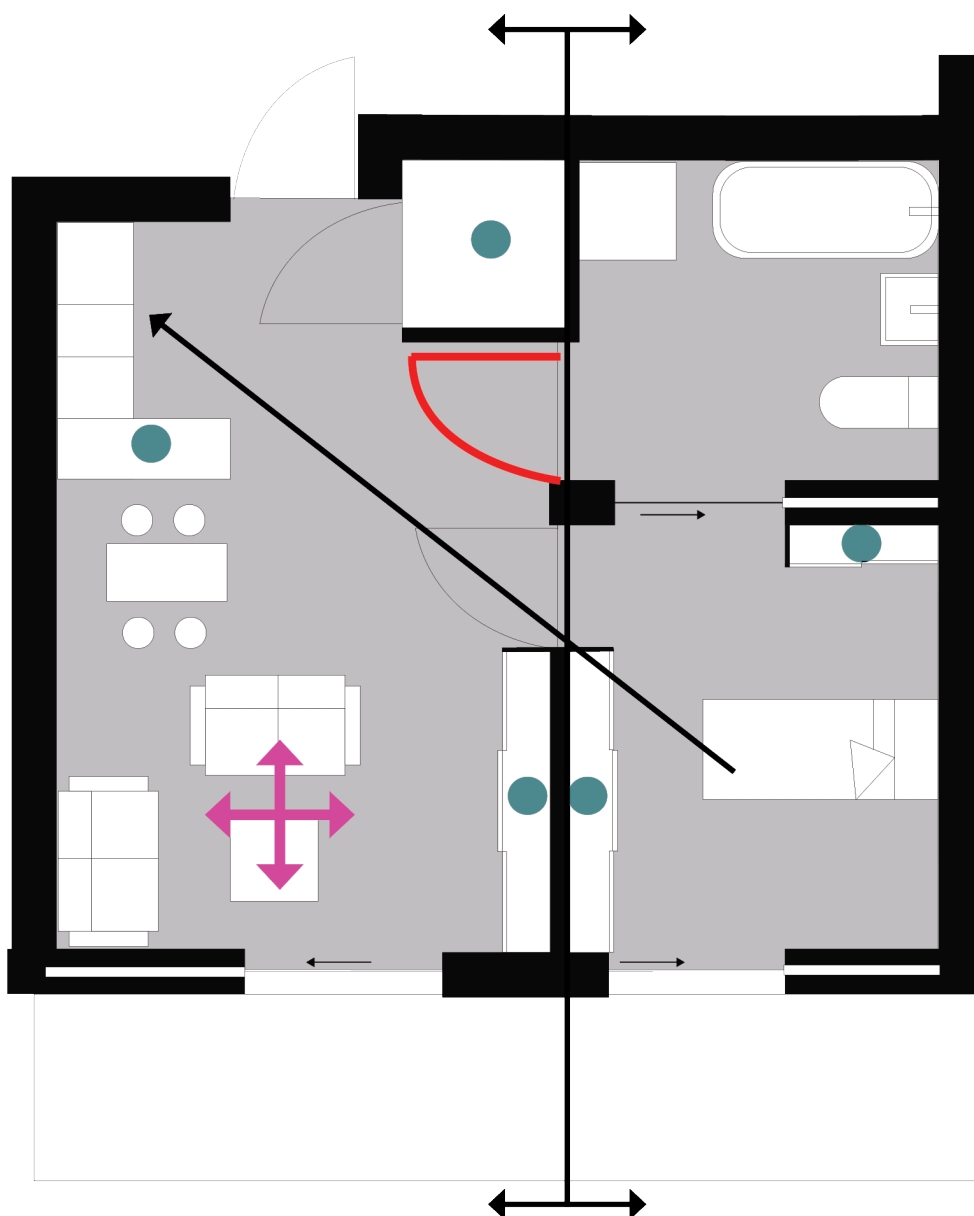
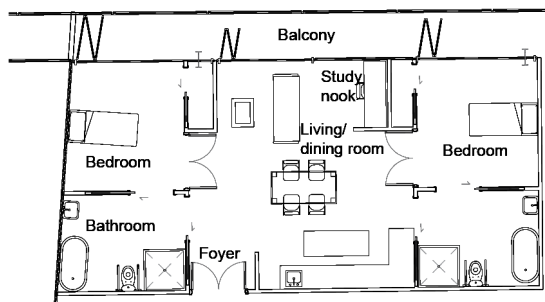
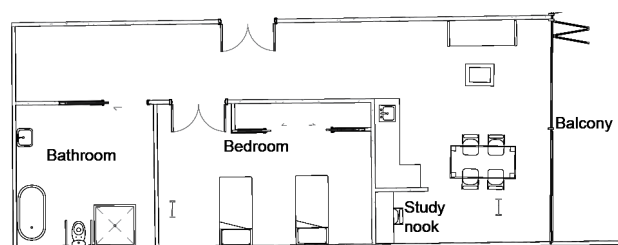


Fig. 106. Preliminary improved homely floor plan.



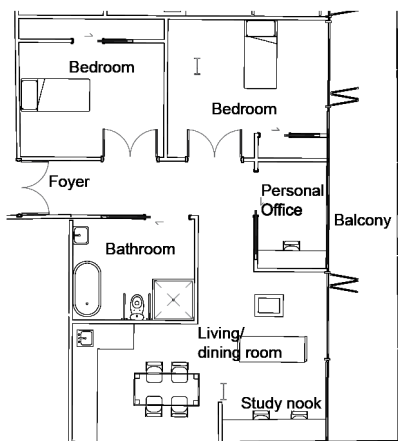
ONE

A foyer was added but it was created with a partition wall to reduce the number of doors required to be opened. The second bathroom for the second bedroom allowed for equality between the two residents.



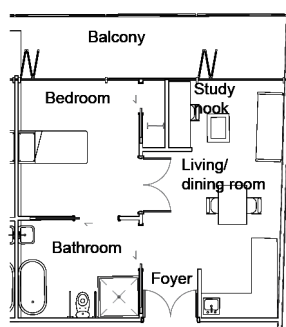
TWO

The separation between the kitchen and bedrooms was achieved with a corridor and allowed for two people to live together in the same bedroom.



THREE

This iteration considered how a home has a clear separation between bedrooms and living rooms, therefore the addition of a corridor allowed for this to make the apartment more home-like.



FOUR

This one-bedroom apartment iteration took inspiration from the previous iterations, by adding a foyer, study nook and larger kitchen to give them more of what others have to prove they have worth as well as making the apartment more home-like.

Fig.107. Apartment examples.

All plans 1:200 @ A4

AESTHETICS

AESTHETICS

PRECEDENT ANALYSIS

The aesthetic precedent analysis targeted snapshots of a range of precedents that had positive values that can contribute to the design refinement and criteria. These precedents looked at visual language in terms of both the exterior and interior treatment. The images of the precedents informed and confirmed some of the design and criteria findings and refinement ideas. These findings included creating green spaces, vibrancy, large glass windows, high-quality finishes (criteria 10.3), homelike features with comfortable, peaceful and soft interiors (criteria 10.3), outdoor spaces with the use of balconies (criteria 12.1) and wooden cladding.

By incorporating greenery, mall-like looks, large glass windows, high-quality finishes and natural material features, the facility is creating spaces that the community want. This creates a positive perception (criteria 11) from the community and helps bring the community to the site and consequently enables interaction opportunities (criteria 7).

Through creating homelike features, the residents feel like they have worth and are at home helping to remove the fear of the facility being different from what they are used to and provides home comforts.

VISUAL LANGUAGE

| | | | | | | | | | |
|-----------------------------------|---|-------------------------------------|--|--|--|-------------------------------------|--|-------------------------------------|--|
| WHAT THE COMMUNITY WANT | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Fig.108. Wellington Culture (PIVOT Photography). | | | Fig.109. Wellington Vibrancy (Smith). | | | Fig.110. Green building (Baldwin). | | |
| | Image removed for copyright reasons | Image removed for copyright reasons | | Image removed for copyright reasons | | Image removed for copyright reasons | | Image removed for copyright reasons | |
| BASED ON WHAT THE COMMUNITY WANT | Fig.111. Wellington Wellington Inclusivity (Radio NZ). Vibrancy (Revill, 2019). | | | Fig.112. Wellington Vibrancy (Radio NZ). | | | Fig.113. Vibrant fountain (Williams, 2018). | | |
| | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| OTHER ACFS | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Fig.116. Green Building (Designboom, 2018). | | | Fig.117. Green Building (Arch20). | | | Fig.118. Green Building (Arch20). | | |
| | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| WELLINGTON HIGH-END APARTMENTS | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Fig.120. Sølund Nursing Home 9 (C.F. Møller Architects and Tredje Natur). | | | Fig.121. Ørestad Retirement Home (Aydin, 2013). | | | Fig.122. Nursery Gardens (Architecture Now). | | |
| | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| INTERNATIONAL MULTI-USE COMPLEXES | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Fig.125. Apartments (Archaus). | | | Fig.126. Apartments (Archaus). | | | Fig.127. Multi-use complex (Dunton, 2017). | | |
| | Image removed for copyright reasons | | | Image removed for copyright reasons | | | Image removed for copyright reasons | | |
| | Fig.128. Multi-use complex (design camp moonpark dmpartners). | | | Fig.129. Multi-use complex (Sordo Madaleno Arquitectos). | | | | | |

AESTHETICS- VISUAL LANGUAGE-
COMFORTABLE AND PEACEFUL (SOFT
FURNISHINGS) FOR INTERACTIONS



Fig.130. Comfortable interior (Officelovin).

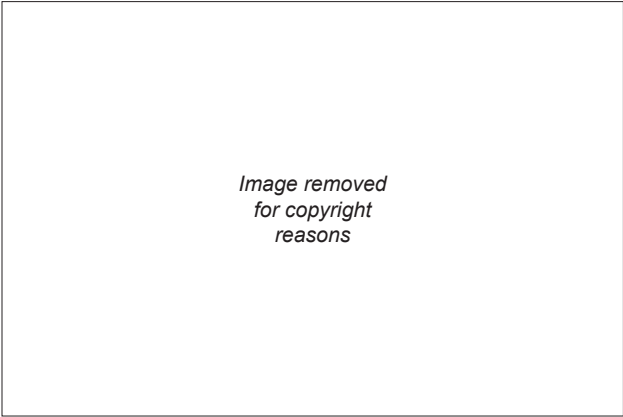


Fig.131. Comfortable interior (Officelovin).



Fig.132. Comfortable interior (Livingly Media, Inc).



Fig.133. Comfortable interior (TI Media Limited).

MATERIAL EXPLORATION

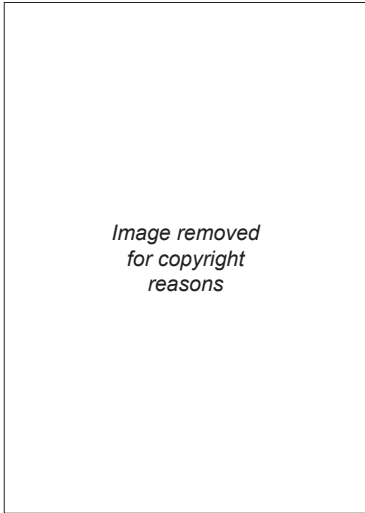


Fig.134. Material precedent (aarhus arkitekterne).

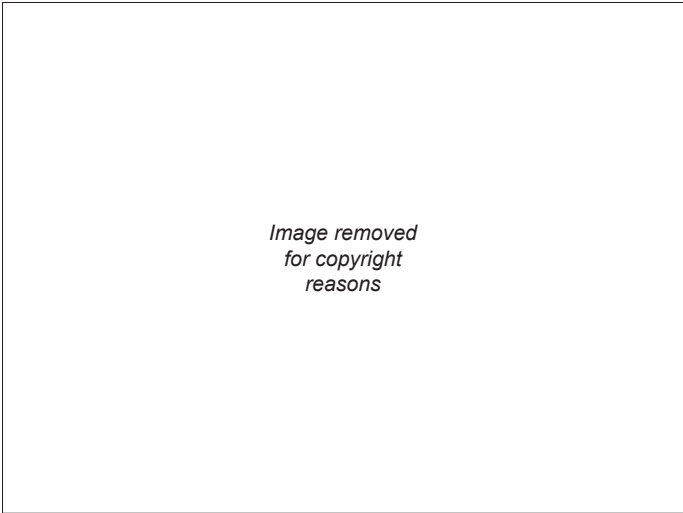


Fig.135. Material precedent (NL Architects).

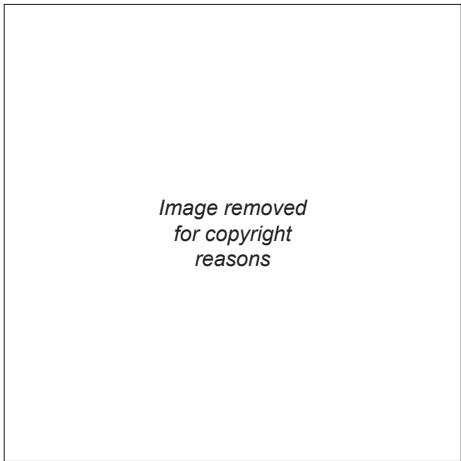


Fig.136. Material precedent (Mikou Design Studio, 2019).

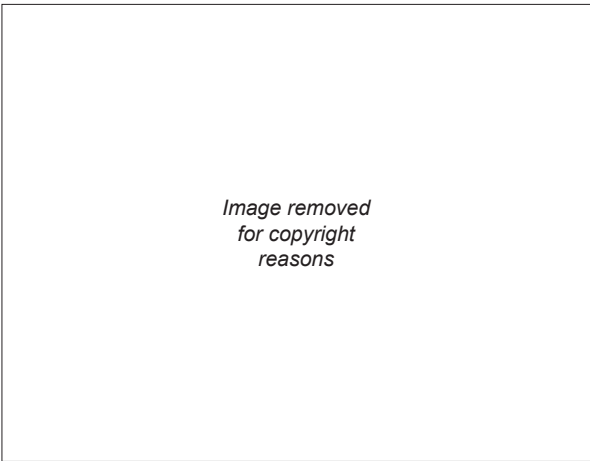


Fig.137. Material precedent (NL Architects).



Fig.138. Material precedent (Herzog & de Meuron).



Fig.139. Material precedent (3D Studio Prins).

DESIGN INVESTIGATION

The aesthetic design investigation undertook a set of design exercises that targeted the criteria in general and in specific areas of the criteria. These exercises looked at homely features and an overall design with a focus on views and façade treatment.

In general, it was found that successful design strategies that these designs incorporated included having features that reflect what the residents would have had in their previous home (soft furnishings), a division between public and private spaces to show ownership (with glass contrasted with more solid materials), the option of personalisation, facades that the community want, having high-quality finishes and mixed-uses.

These design exercises contributed/confirmed criteria 10.1, 10.2 and 13.1.1. These criteria additions included creating a sense of ownership (e.g. having the public and private spaces clear with personal bedrooms being able to be made private/sectioned off), creating a sense of identity/individuality (e.g. each room having different furnishings from the next and providing the residents with the opportunity for them to personalise their spaces), and being an extension of the surrounding neighbourhood (i.e. the facility should complement the surroundings such as with aesthetics or the values of the community). These homely criteria additions were found to be important because they were successful in the design exercise, whereas, the 'considering values' addition was found to be important as the design lacked this feature.

CRITERIA STUDIES- OVERALL STUDY

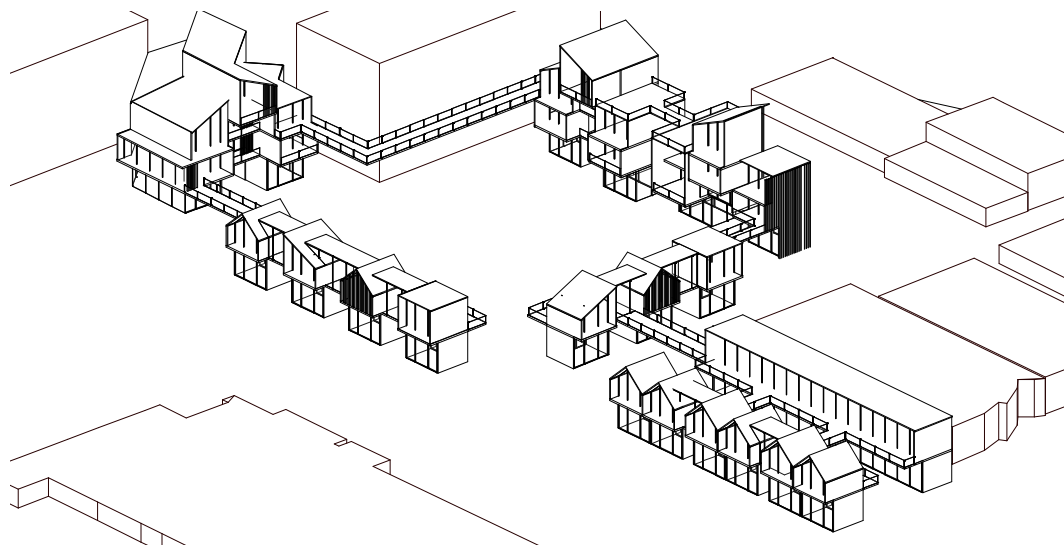


Fig.140. Overall study.

DESIGN DESCRIPTION

This design has a focus on taking the form of the home.

SIGNIFICANT FINDINGS

Having features that reflect what the residents would have had in their previous home.

CRITERIA STUDIES- HOMELY

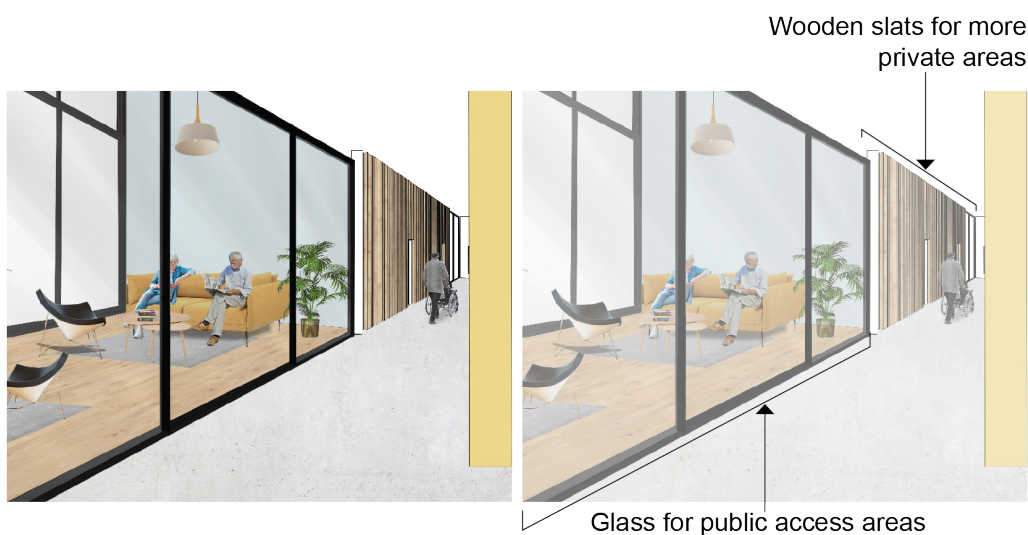


Fig. 141. The common room looks like a living room.

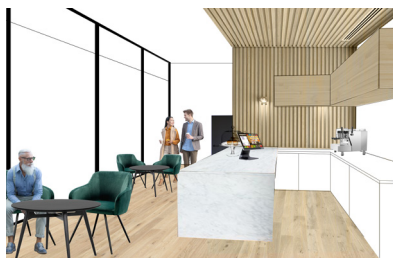


Fig. 142. The cafe that looks like a kitchen.



Fig. 143. Variety in apartment fittings.

DESIGN STRATEGY

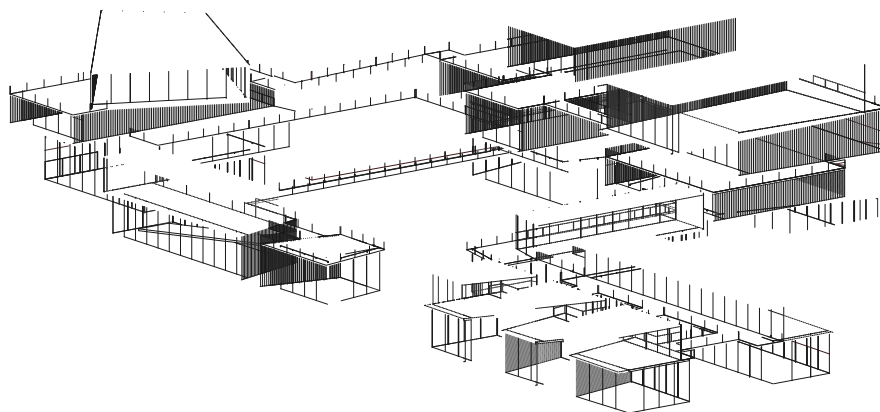
Homeliness

DESIGN DESCRIPTION

These renders were used to test and refine the criteria section called “home-like features/normalisation”.

SIGNIFICANT FINDINGS

(refer to annotations)



DESIGN ITERATIONS

The aesthetic design iterations process was a process taken to find new findings and to refine the criteria. This was done by finding new ways to improve each design iteration and then adding these strategies to the criteria when applicable. The aesthetic iteration process involved rendering and testing different cladding materials.

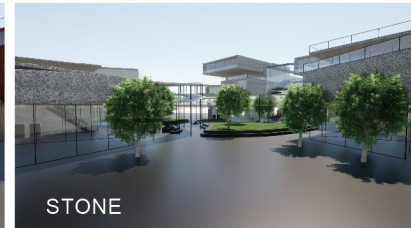
When iterating the cladding materials, the main criteria being considered was the “improving public perception”, “site location”, “high visibility”, “home-like” and “welcoming” criteria’s which all involved creating an aesthetic that the residents and community will appreciate, want to visit and will highlight positive features of the facility. It was found that red cladding, stone and concrete stood out as being too different from the surroundings and it was cold and not welcoming and brick did not consider that Wellington is earthquake-prone. Whereas, black cladding, made the facility seem modern and thus positively different from other facilities and wooden slats and green walls provide the community with a nature-inspired design which is what the community want.



Not ideal as Wellington is earthquake prone.



Too cold and not welcoming.



Too much different from the surroundings.



It is modern looking making the facility different from other facilities.



Gives the community nature which is what they want.



Gives the community the element of nature that they want.

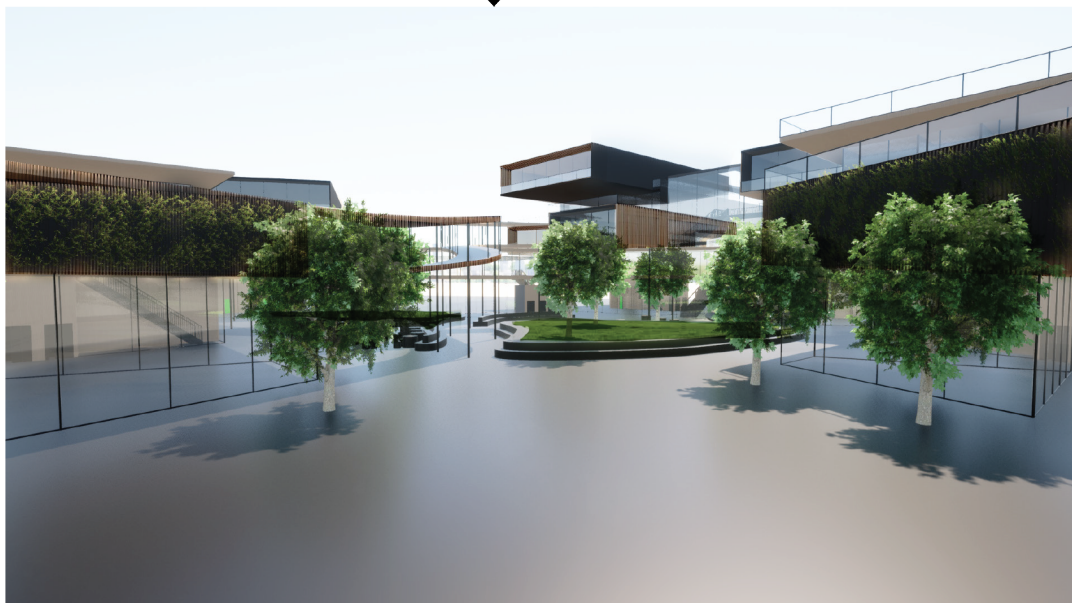


Fig. 145. Aesthetic iterations.

CHAPTER 8.

DESIGN EXAMPLE BASED ON CRITERIA



Fig. 146. Final Render.



Fig. 147. Key.



Fig. 148. Elevation A- Taranaki St 1:1000 @ A4



Fig. 149. Elevation B- Jessie St 1:1000 @ A4

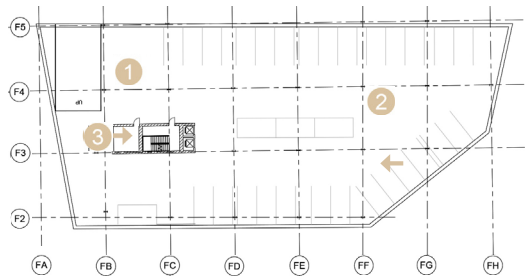


Fig.150. Basement 1:1000 @ A4

- 1 Garbage disposal area
- 2 Basement carpark
- 3 Services



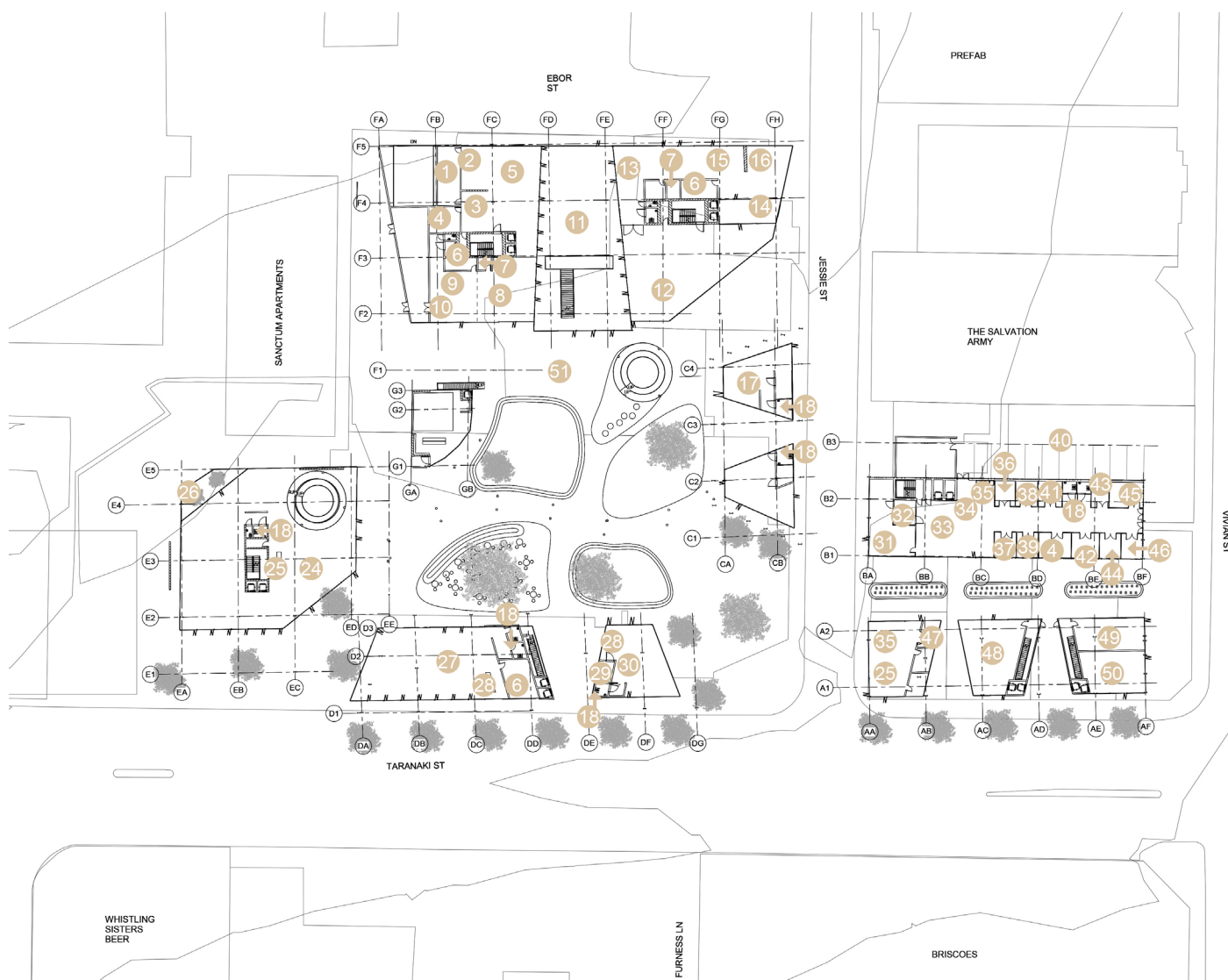


Fig.151. Ground floor 1:1000 @ A4

- | | | | |
|--|----------------------------|-----------------------------------|----------------------|
| 1 Mailroom | 17 Hairdresser | 34 Wheelchair and trolley space | 51 Pōwhiri flat area |
| 2 Waiting room | 18 WC | 35 Waiting room | 52 Community garden |
| 3 Mail lounge | 19 Public craft studio | 36 Private Office | |
| 4 Offices | 20 Playground | 37 Administration | |
| 5 Residents entry | 21 Greenspace (indicative) | 38 Vocational Therapy room | |
| 6 Kitchen | 22 Courtyard (indicative) | 39 Drug storage | |
| 7 Storage | 23 Mini indoor lawn bowls | 40 Parking | |
| 8 Living space | 24 Interactive library | 41 Doctors office | |
| 9 Dining space | 25 Reception | 42 Counselling and treatment room | |
| 10 3rd place for visitors and transition daycare space | 26 Winter garden | 43 Social services | |
| 11 Main lobby | 27 Game cafe | 44 Physical therapy | |
| 12 Daycare area | 28 Counter area | 45 Sluice room | |
| 13 Daycare entry | 29 Food prep | 46 Exam room | |
| 14 Additional Residents entry | 30 Cafe | 47 Warden's office | |
| 15 Open plan area | 31 Staffroom and kitchen | 48 Gardening storage | |
| 16 Daycare reading area | 32 Staff showers and WC | 49 Garbage disposal | |
| | 33 Medical entry | 50 Maintenance room | |

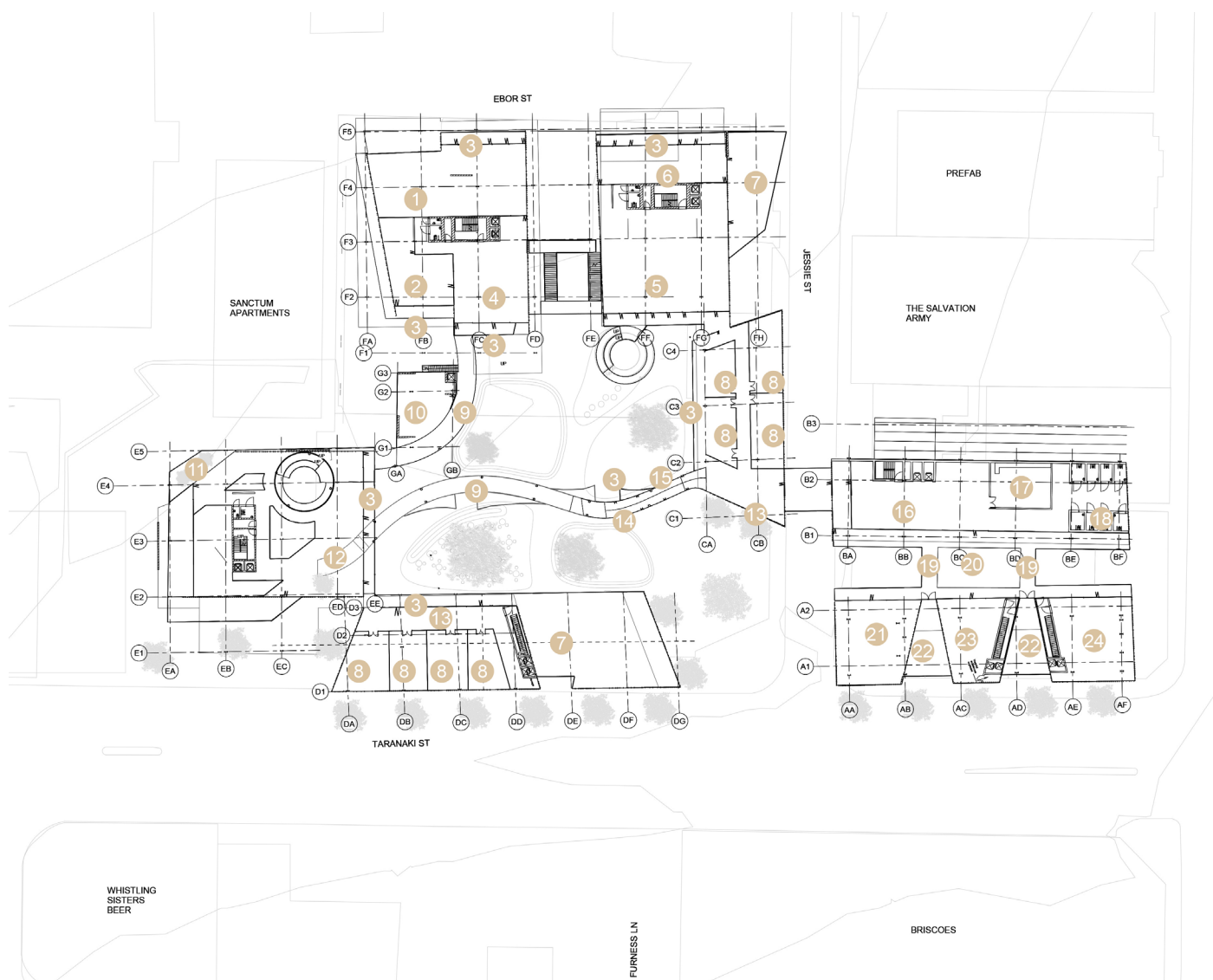


Fig.152. Level 1 1:1000 @ A4

- | | |
|--|---------------------------------|
| 1 Gym/exercise room | 13 Breakout space |
| 2 Quiet room | 14 Walking route |
| 3 Balcony | 15 Observing lane |
| 4 Semi-public common area/ recreation room for crafts | 16 Multi-functional/dining room |
| 5 Semi-public common are (billard/ games room) | 17 Industrial kitchen |
| 6 Function/events room | 18 WC |
| 7 Roof terrace | 19 Walkway |
| 8 Residents apartment (1 bed) | 20 Outdoor dining area |
| 9 Bridge | 21 Storage (including linen) |
| 10 Rooftop area | 22 Observing bridge |
| 11 Winter garden | 23 Cleaners room |
| 12 Interactive library mezzanine | 24 Maintenance room |

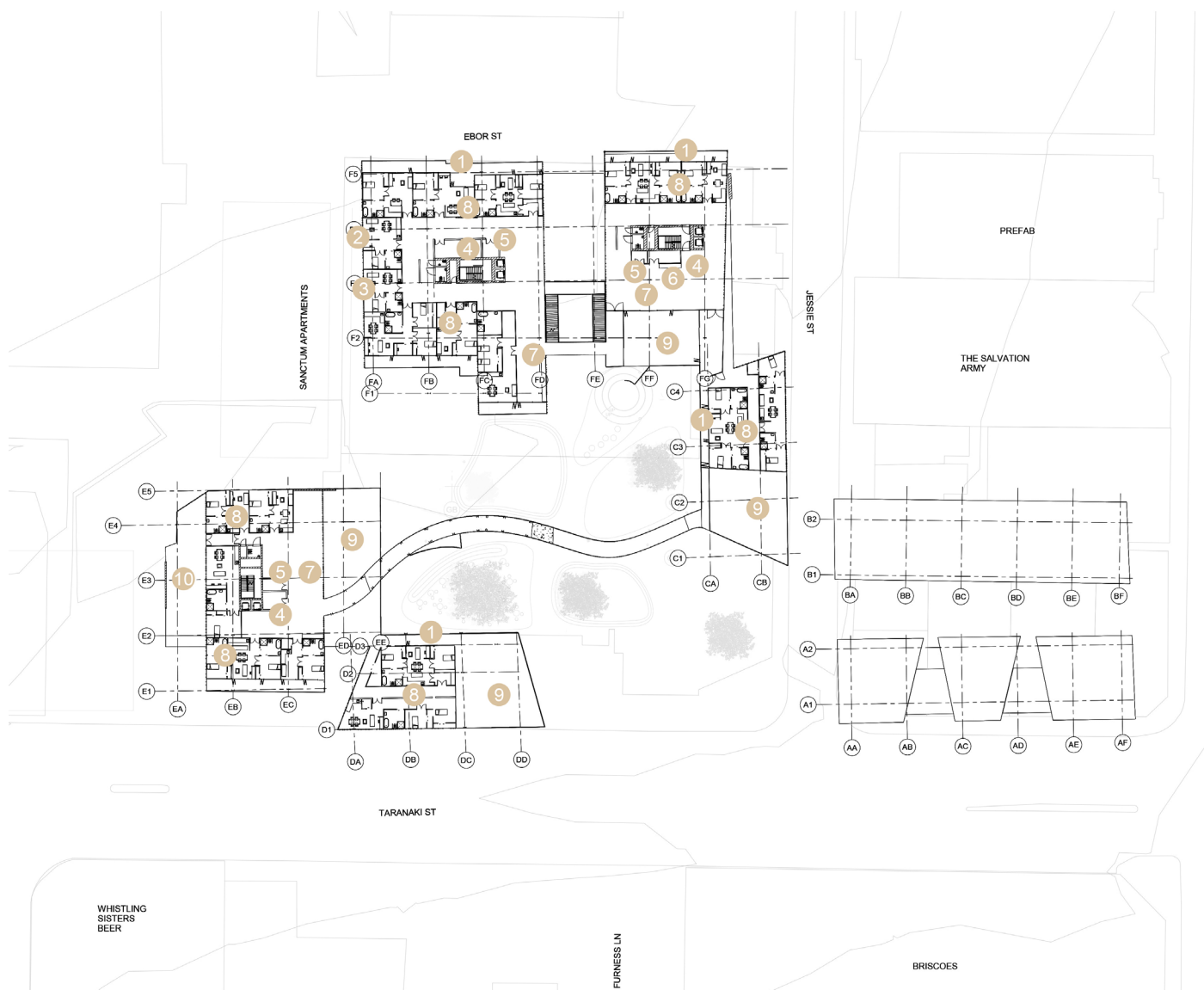


Fig.153.Level 2 1:1000 @ A4



- 1 Balcony
- 2 Warden's apartment
- 3 Visitor's apartment
- 4 Laundry room
- 5 Laundry drop off
- 6 Kitchenette
- 7 Resident's common room
- 8 Resident's apartments
- 9 Rooftop terrace
- 10 Greenroof (restricted access)

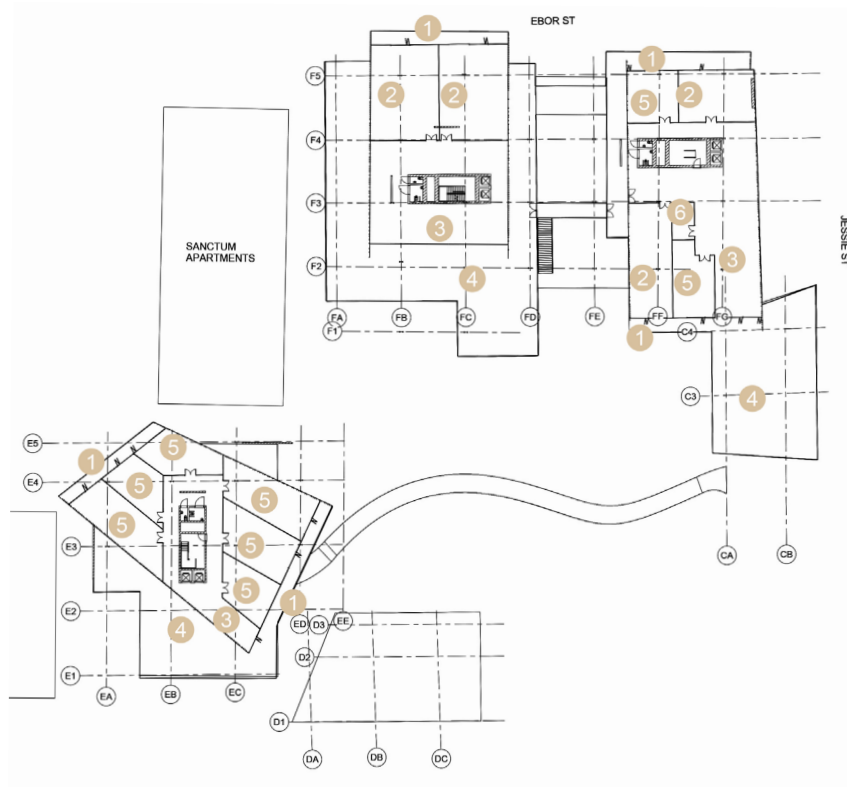


Fig.154. Level 3 1:1000 @ A4



- 1 Balcony
- 2 Resident's apartment (2 bed)
- 3 Resident's common room
- 4 Resident's roof terrace
- 5 Resident's apartment (1 bed)
- 6 Laundry room

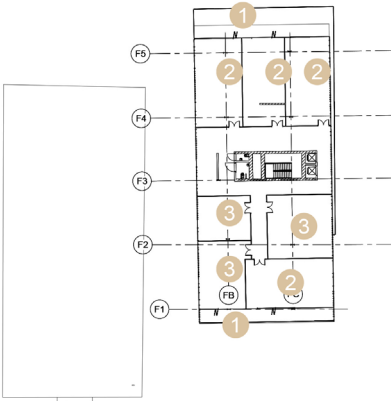


Fig. 155. Level 4 1:1000 @ A4

- 1
- 2
- 3



Fig.156. Site plan 1:2500 @ A4



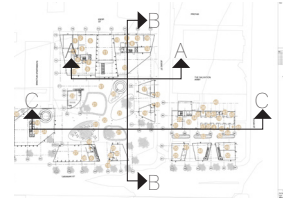


Fig. 157. Key.



Fig. 158. Section AA 1:1000 @ A4



Fig. 159. Section BB 1:1000 @ A4

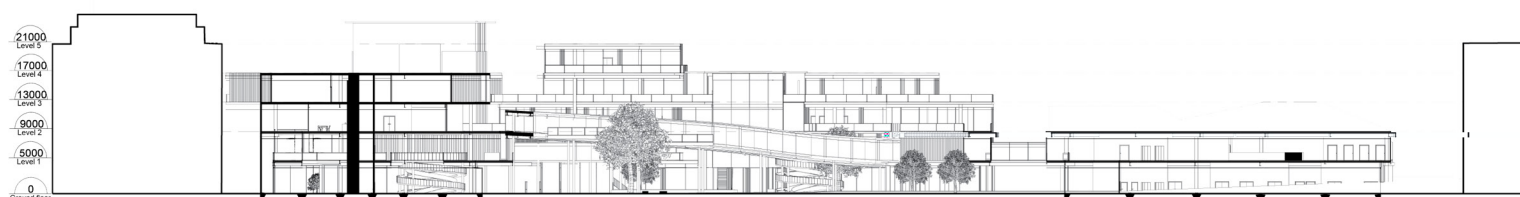


Fig. 160. Section CC 1:1000 @ A4

UNIQUE APARTMENTS

All apartments are unique and have the key aim of being homelike which is achieved with soft furnishings and/or features from the era/style the resident feels most at home.



Fig.161. More modern inspired interior.

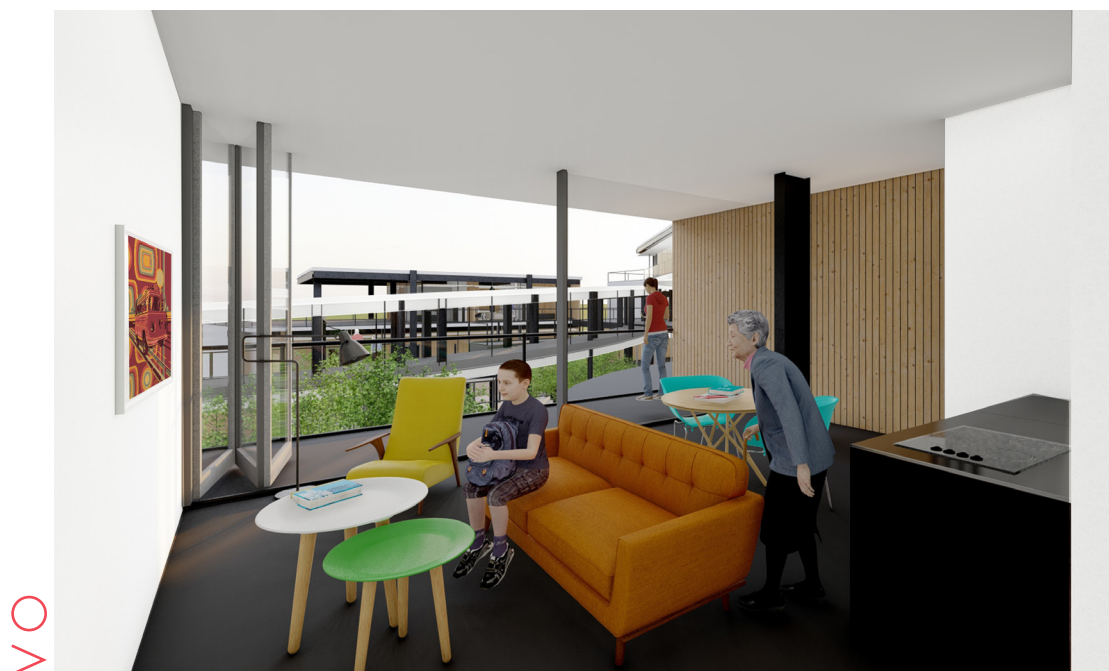


Fig.162. 70's inspired int



Fig.163. Community garden

The community garden helps give the residents a feeling of purpose within the community by allowing them to contribute to the community.



Fig.164. Interactive Library

The interactive library helps the residents maintain a place in an intergenerational society by allowing them to converse with visitors.



Fig.165. Final Render.



Fig.166. Final Render.

EVALUATION OF THE DESIGN EXAMPLE BASED ON CRITERIA

Through following the criteria as a guideline, the final design implements strategies to reduce the isolation stigma associated with aged living. The final design satisfied the needs of the criteria and reduced stigma as follows;

ARCHITECTURE

Criteria 4 (high visibility), 12 (natural surveillance), 5 (stimulate intrigue) and 11 (improve public perception) are architecture-related criteria that have been satisfied by this design. High visibility was achieved by creating a central courtyard for the building users to observe. The use of high glazed facades on the ground floor ensures that passers-by in cars and walkers can see into the public parts of the facility. This allows for maximum awareness of the positive aspects of the facility.

Natural surveillance has been achieved with balconies and roof decks that overlook the main public spaces. Creating a safe environment passively is important to ensure the space is not gated off, as this reflects the perception of isolation.

Intriguing moments are achieved with narrowed openings on the ground floor that open up to the 'reveal', in this case, the courtyard oasis. Creating intrigue makes people wonder what is inside which helps encourage people to enter the site, see the positive realities and breakdown

unsubstantiated opinions.

Improving the public's perception of aged care facilities has been achieved in the design by having a programme that gives back to the community and economy. This programme includes community gardens, cafés and a library. Improving the public amenity is important to ensure that the community respect the facility and feel like the facility is not a hindrance to the community. Through creating an appreciation towards the facility, outsiders breakdown their unsubstantiated stigmas and become more willing to interact with the facility making it less isolated from the community.

COMMUNITY

Criteria 2 (welcoming), 7 (interaction) and 8 (accessible) are community-related criteria that have been satisfied with this design. Being welcoming has been achieved by creating a clear entrance for the public, and being inclusive by enabling full accessibility. Welcoming features encourage visitors and break down the stigma that facilities are isolated and are not welcome to the public.

Interaction is achieved by creating spaces for both residents and the wider community. These spaces are cafés, libraries, balconies and landings. Cafés allow for longer interactions and conversations to happen between

residents and the community and balconies and landings encourage spontaneous interactions. Enabling conversations to occur helps to eliminate prejudices.

A fully accessible design is achieved with ramps or lifts near the stairs. Accessibility for the residents and wider community makes them feel considered, valued and capable of doing what others do and therefore feel like they fit in and are exposed to what everyone else is exposed to. This ensures the facility does not seem like it is giving the residents special/ different treatment from the public.

URBAN

Criteria 1 (permeability) and 13 (site location) are urban-related criteria that the design satisfies. Creating permeability has been achieved with many pathways and shortcuts through the site. This enhances navigation of the surrounding context thus allowing and encouraging many people to pass through the site. This means that the design is not a hindrance to the surrounding neighbourhood and allows for people to spontaneously visit and thus create interactions that can break down stigmas of isolation.

Additionally, the site location is achieved through having the site in the city centre instead of isolating it away and it is an extension of the neighbourhood by

providing a programme that enhances the area. By doing this, the stigma of being isolated is reduced.

RESIDENTS WELLBEING

Criteria 3 (for views), 6 (secure and private elements), 9 (wayfinding) and 10 (home-like features/normalisation) are resident well-being related criteria that the design satisfies. Creating views were achieved through the positioning of windows and balconies. This gives them worth through architecture but it also allows for the residents to observe what is occurring outside, enabling them to feel some involvement with the surroundings and community.

Generous circulation spaces and third place style rooms outside of their floors give residents worth too. These spaces ensure that the residents feel like they have not been crammed into small areas and provides generous breakout spaces just outside of their doors so they do not have to worry about travelling far to socialise in a large enough space for a group.

Security and privacy have been achieved through a separation between public and private spaces with solid walls where apartments face main circulation routes and guiding the public to balconies to overlook the courtyard rather than personal apartments. Security and privacy are

important to ensure that the residents feel safe and have a sense of ownership within the facility.

Wayfinding has been achieved by allowing visibility of all buildings from the central courtyard. Wayfinding ensures that people feel comfortable and use the space with ease making them want to visit again, but it is also important that the visitors access the parts of the facility targeted at them. By doing this, the residents do not get lost and thus associated with stigmas that they are incompetent.

Finally, Normality has been achieved through individuality with the furniture, having unique floor plans for each apartment and homely spaces with soft furnishing that relate to their taste. Through creating normality, the residents feel a sense of familiarity with the facility which allows them to feel at home and have a place within the facility to break down the idea that it is like an institution.

Overall, the design takes advantage of many strategies that together offer the best potential for reducing stigma.

CRITERIA REFLECTION

This thesis outcome was a set of criteria that can be applied to the design of aged care facilities. The set of criteria was mostly successful but it could be improved further. As alluded to in the previous chapter, the criteria simultaneously consider the resident's wellbeing, the community and the urban environment when seeking to reduce the isolation stigma associated with aged care facilities. A balance has been created between specific criterion too. For example, having high visibility is one criterion that could create privacy issues, therefore a privacy criterion is included to provide suggestions for achieving both criteria simultaneously.

One flaw in the criteria is criterion ten "home-like features/normalisation". Although the final design fits the criterion and creates homeliness/normality in the interior, the particular criterion carries through a contradiction arising from the various literature findings: the design does not appear to be what is traditionally considered homely from the exterior. Criteria eleven states "improve public perception" "ensure the facility fits in by enhancing or complementing the surrounding community with the needs of the community in mind" and "create spaces/programme that contributes back to the community/economy (e.g... cafés, third places...". This meant that the design from the outside was made to be a more contemporary design to attract the community in and feel like they are not intruding into someone's home, therefore

more commercial spaces were added making the facility seem less homely from the exterior. To further refine this criterion, research on what the residents consider homely and subsequently design research with iterations of façade treatments should be carried out.

Also, criteria seven "interactions" has limitations. Although the criteria can help bring people to the facility, the residents cannot be forced to socialise. Some examples that have been suggested expect residents to immerse themselves in the socialising process. Therefore, to cater for the majority of people who do want a sense of community and those who do not, the design has been created to provide options. For example, in this design, the residents are on the upper floors but they have easy access to the main social hubs. By doing this it provides the residents with a sense of autonomy while also providing the much-desired sense of community and reduction in isolation which are both negative outcomes of the stigma that the elderly face. Therefore, while incorporating all of these design ideas, it is important to ensure that the residents feel a sense of choice at the same time, choice should be provided while incorporating all of the strategies to reduce isolation and stigma.

Overall, the criteria suggest methods to reveal the positive realities of the aged care facility, creates a welcoming environment for visitors, gives choices, attract the community, benefits the local economy and provides the residents with a sense of value and normality.

All of which contributes to breaking down unsubstantiated stigmas through engagement, community involvement, giving value and gaining respect from the community.

The final criteria were the result of the initial criteria which was informed by chapters 3-4, and findings from iterative design exercises that focused on architectural strategies that can help reduce the isolation stigma associated with aged care facilities.

- ☒ Achieved
☒ Partially Achieved
☐ Not Achieved

| OBJECTIVE | ITERATION | <input checked="" type="checkbox"/> , <input checked="" type="checkbox"/> , <input type="checkbox"/> | CRITERIA BREAKDOWN + DEFINITION | Notes | SUMMARY |
|----------------------------|-----------|--|---|-------|---------|
| 1- Permeability | | | <input type="checkbox"/> 1.1- The facility should enhance the navigation of the surrounding neighbourhood. | | |
| | | | <input type="checkbox"/> 1.2- Ensure the site enhances navigation of the wider city network. | | |
| | | | <input type="checkbox"/> 1.2.1- Allow for many people (pedestrians) to pass through the site. | | |
| | | | <input type="checkbox"/> 1.2.2- Create many pathways through the site. | | |
| | | | <input type="checkbox"/> 1.2.3- Ensure that the site creates shortcuts for the city surrounds. | | |
| | | | <input type="checkbox"/> 1.2.4- Avoid cul-de-sacs. | | |
| 2-Welcoming | | | <input type="checkbox"/> 2.1- Encourage movement into the space. | | |
| | | | <input type="checkbox"/> 2.1.1- Be inclusive of all social positions. Creating a neutral ground (e.g. third place). | | |
| | | | <input type="checkbox"/> 2.1.2- Have wide entrances that encourage people to enter the space. | | |
| | | | <input type="checkbox"/> 2.1.3- Make entrances clear to the public. | | |
| | | | <input type="checkbox"/> 2.1.4- Don't include gates/fencing that implies the facility is private or has restricted access. | | |
| | | | <input type="checkbox"/> 2.1.5- Ensure that all floors are accessible. | | |
| 3-For Views | | | <input type="checkbox"/> 3.1- Provide the residents with sort after views. | | |
| | | | <input type="checkbox"/> 3.1.1- Position the windows to frame and display views. | | |
| | | | <input type="checkbox"/> 3.1.2- Position balconies to display views. | | |
| | | | <input type="checkbox"/> 3.1.3- Allow for the residents to observe what is happening outside/observe people outside of the building. | | |
| | | | <input type="checkbox"/> 3.1.4- Orientate the building to observe views. | | |
| 4- High Visibility | | | <input type="checkbox"/> 4.1- Position buildings to see within positive part of the facility. | | |
| | | | <input type="checkbox"/> 4.2- Make positive features of the facility highly visible from the street. | | |
| | | | <input type="checkbox"/> 4.3- Consider using courtyards where the whole facility is visible from them. | | |
| | | | <input type="checkbox"/> 4.3.1- Ensure that the facility is visible for both walker passer-by's and cars (create openings and windows to see within positive parts of the facility e.g. with the use of glass). | | |
| 5- Stimulate intrigue | | | <input type="checkbox"/> 5.1- Have moments of reveal (e.g. with narrowed openings, perforated facades, slats or openings that give small clues to what is inside). | | |
| | | | <input type="checkbox"/> 5.2- Create elements that are different from other aged care facilities. | | |
| 6- Secure/Private elements | | | <input type="checkbox"/> 6.1- Create some separate spaces for the residents from the general public. | | |
| | | | <input type="checkbox"/> 6.2- Imply a sense of sectioning off of a space (e.g. by having the building around the perimeter). | | |
| | | | <input type="checkbox"/> 6.2.1- Use perforations or solid walls where privacy is needed. | | |
| | | | <input type="checkbox"/> 6.2.2- Guide people in and out of the facility to experience parts of the facility they are meant to experience (e.g. by creating pathways that directly takes the users to the spaces the architect wants them to experience.). | | |

| | | | |
|----------------|--|--|--|
| | | <input type="checkbox"/> Limit visibility into the facility e.g. <ul style="list-style-type: none"> ● Offset windows or balconies on elevations that face each other. ● Recessed balconies and or vertical fins between adjacent balconies. ● Solid or semi-solid balustrades on balconies. Louvres or screen panels on windows and or balconies. ● Fencing. ● Vegetation as a screen between spaces. ● Planter boxes incorporated into walls or balustrades to increase the visual separation between areas. ● Using pergolas or shading devices to limit overlooking onto lower apartments and their private open space (Auckland Design Manual, 2020). | |
| 7-Interactions | | <input type="checkbox"/> 7.1- Create spaces for both the residents and outsiders. | |
| | | <input type="checkbox"/> 7.1.1- Create spaces that encourage the residents and outsiders to interact (e.g. have open and flexible spaces for interactions to occur at the centre/highly walked through parts of the site/building. Then more solitary programmes/spaces can be put around the perimeter.). | |
| | | <input type="checkbox"/> 7.1.1.1- Create spaces for people to interact with others for longer periods of time with programme (e.g. cafes, event spaces). | |
| | | <input type="checkbox"/> 7.1.1.2- Create spontaneous interaction opportunities (e.g. with landings, bridges or pathways around the building that cross over with other pathways). | |
| | | <input type="checkbox"/> 7.1.1.1.1- Create meeting spaces (e.g. breakout areas along circulation pathways). | |
| | | <input type="checkbox"/> 7.1.1.1.2- Cluster commercial, social and amenity spaces at key intersections to create chance encounters. | |
| | | <input type="checkbox"/> 7.1.1.1.3- Have plenty of seating areas. | |
| | | <input type="checkbox"/> 7.1.1.1.4- Facilitate for both active and sedentary activities (e.g. playground areas, event areas, quiet small meeting | |

| | | | | | |
|-------------------------------------|--|--|--|--|--|
| 8-Accessible | | | <input type="checkbox"/> 8.1- Ensure that there is an accessible option to access/use all parts of the facility (i.e the main entrance for the public should have an accessible route. Which could be partially achieved by optimizing the ground floor as much as possible). | | |
| 9-Wayfinding | | | <input type="checkbox"/> 9.1- Make the public and private spaces clear to differentiate between. | | |
| | | | <input type="checkbox"/> 9.2- Ensure that the different facility uses/programmes are visible from main circulation areas. (at a minimum, the main necessary uses are easy to find e.g. toilets, public vs private spaces). This could be achieved with the use of different colours/materiality/literal meaning signage/having urban interventions or vegetation in urban attractor points (Ma et al.). | | |
| 10-Home-like features/normalisation | | | <input type="checkbox"/> 10.1- Create a sense of ownership (e.g. have the public and private spaces clear with personal bedrooms being able to be made private/sectioned off). | | |
| | | | <input type="checkbox"/> 10.2- Create a sense of identity/individuality (e.g. each room has different furnishings from the next and provide the residents the opportunity for them to personalise their spaces). | | |
| | | | <input type="checkbox"/> 10.3- Create some comfortable and peaceful spaces (e.g. with interior spaces using soft furnishings). <input type="checkbox"/> 10.3.1 - Do not look institutional. <input type="checkbox"/> 10.3.2 - Have high quality features. | | |
| 11- Improve public perception | | | <input type="checkbox"/> 11.1- Ensure the facility fits in by enhancing and complimenting the surrounding community with the needs of the community in mind (e.g. by considering the colours or forms of the surroundings or considering what the community needs). | | |
| | | | <input type="checkbox"/> 11.2- Create spaces/programme that contribute back to the community/economy (e.g. providing the residents work such as with community gardens, cafes, third places such as libraries or programme that the community needs such as more educational resources/information access (González,2020)). | | |
| | | | <input type="checkbox"/> 11.2.1- Have programme that allows for the community to participate within the facility (e.g. event areas or cafes). | | |
| | | | <input type="checkbox"/> 11.2.2- Create a good street relationship (e.g. by enhancing the aesthetics with trees or visually pleasing buildings that complement the area). | | |
| 12- Natural surveillance | | | <input type="checkbox"/> 12.1- Ensure that the buildings overlook public spaces (e.g. with; <ul style="list-style-type: none"> ● Roof decks ● Balconies ● Bay windows ● Porches ● Having central public spaces to overlook. ● Have gathering or viewing areas at the edges of buildings that overlook public spaces to encourage and create the perception that there are a lot of witnesses to what people do in the public spaces). | | |
| | | | <input type="checkbox"/> 12.2- Avoid entrapment areas. | | |
| 13-Site Location | | | <input type="checkbox"/> 13.1- Do not isolate the facility away from the city. | | |
| | | | <input type="checkbox"/> 13.1.1- Be an extension of the surrounding neighbourhood (i.e. the facility should complement the surroundings such as with aesthetics or the values of the community). | | |

Table.2. The criteria.

CHAPTER 9.

THESIS REFLECTION

Overall, this research outlines what stigma is and suggests strategies to reduce the isolation stigma associated with aged care facilities. This research is important because stigma results in the exclusion of residents, giving rise to that fear and resistance about entering these systems which they require for their wellbeing.

It was found that stigma is a preconceived judgement toward individuals within society who are “different”, resulting in those who are “different” becoming isolated from society. This highlights that stigma is a societal issue influenced by differences resulting in isolation and it is an issue that needs to consider both the residents and the community. Interestingly, it was found that people do not inflict negative projections on people they know. Therefore, this suggests that by creating a relationship between the elderly and the community and creating similarity to the community, negative projections will not be inflicted on them and isolation will be reduced.

Fortunately, it was found that architecture can represent status, facilitate and enable interaction opportunities, and create similarities to the context it is in. Therefore, architectural strategies that facilitate these visits and create familiarity will help reduce prejudices and can also help to improve the isolation felt by the residents.

Alongside creating interaction opportunities, architecture can also represent value and can benefit the community it is in with third places. Through showing the value of the residents and contributing third places, the public/visitors can experience positive aspects of the facility which can help reduce unsubstantiated negative views.

Even though the literature and the breakdown of stigma suggest that architectural strategies can help reduce stigma, it is unlikely that they will eliminate it. This is because the stigma is an issue

that is reliant partially on people that are open to changing their views and wanting to participate.

Nevertheless, the exposure of these positive strategies and the forming of relationship with the older generation should in theory influence the perception of those of a younger age. This is because they are not yet ingrained with negative ideas of an aged care facility and the elderly. Therefore, this thesis's architectural strategies are long term moves towards removing stigma.

While considering the community's outlook, it is also important to maintain the wellbeing of the residents and implement ways to reduce their feeling of isolation internally. Therefore, it was found that maintaining a sense of normality, privacy and homely feature all contributed to architectural strategies that can help residents not feel isolated from their previous life/identity.

As a whole, the criteria help architects to consider all potential clients affected by stigma and creates a good balance between considering the perception of the community, while not forgetting residents' autonomy and self-worth. Although, it is recommended that future work on the topic could look into the costs as currently, costs were not considered making this facility potentially expensive to run and only available to a few people. Also, future work on the stigma associated with aged care facilities could have a focus on dementia or other higher functioning conditions.

Therefore, it can be suggested that architectural strategies can provide methods for reducing the isolation stigma associated with aged living. Through reducing this stigma, the fear of entering these systems is also reduced and resultantly residents are provided with a purposive role and inclusion within society.

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MATRIX COMPARING NEGATIVE PROJECTIONS AND COMMUNITY BENEFITS

Fig. 167. Matrix showing how community can reduce stigma (Chasteen & Cary, 2015; Shoemann & branscombe, 2011 as cited in Chasteen & Cary, 2015; Fiske et al., 2002 as cited in Chasteen & Cary, 2015; Nelson, 2010; Kite & Wagner, 2002 as cited in Nelson, 2010; Reyes-Ortiz, 1997 as cited in Nelson, 2010; Wilson & Neville, 2008; Nelson, 2002 cited in Nelson, 2010; Fineman, 2011; Fisher, 1990; Dobbs et al., 2008; Zimmerman et al., 2016; Grant, 2006; Hrybyk, 2012; Gamliel & Hazan, 2006; Roth et al., 2016; Shippee, 2009; Arch20.com, 2020; Architecture for an..., 2014; Dasgupta, 2018; Birk: Aqarwal, 2013; JusticeAction, 2020; Attiaet al., 2019; Johnson, 2015; Moore, 2010)

Note: this was one of a range of matrices developed to understand the negative stigmas associated with aged care facilities and whether community benefits can reduce it.

APPENDIX B PLAN ITERATIONS- ITERATION 1



Fig.168. Ground floor 1:1000

- 1 Interactive Library
- 2 Playground
- 3 Residents reception
- 4 Cafe
- 5 Daycare
- 6 Hairdresser
- 7 Staffroom
- 8 Restaurant
- 9 Medical centre



Fig.169. Level 1 1:1000

- N
- 1 Common room
 - 2 Residents room
 - 3 Dining
 - 4 Laundry
 - 5 Bridges
 - 6 Roof terrace



Fig.170. Level 2 1:1000

-  1 Common room
- 2 Resident's rooms
- 3 Bridge



Fig.171. Level 3 1:1000

- 1 Common room
 2 Resident's rooms
 3 Bridge



Fig.172. Level 4 1:1000

- 1 Common room
2 Resident's rooms

PLAN ITERATIONS- ITERATION 2
CRITERIA EXPLORATION 7.1



Fig.173. Ground floor 1:1000

- N
- 1 Interactive Library
 - 2 Playground/courtyard
 - 3 Residents reception
 - 4 Cafe
 - 5 Daycare
 - 6 Hairdresser
 - 7 Staff room
 - 8 Medical centre



Fig.174. Level 1 1:1000

- N
- 1 Common room
 - 2 Resident's rooms
 - 3 Dining
 - 4 Laundry
 - 5 Bridge
 - 6 Warden's apartment
 - 7 Industrial kitchen



Fig.175. Level 2 1:1000

- N

1

2
- Common room

Residents rooms



Fig.176. Level 3 1:1000

- N
1 Common room
2 Resident's rooms



Fig.177. Level 4 1:1000

- 1 Common room
2 Resident's rooms

PLAN ITERATIONS- ITERATION 3



Fig.178. Ground floor 1:1000

- 1 Interactive Library
- 2 Playground/courtyard
- 3 Resident's reception
- 4 Cafe
- 5 Daycare
- 6 Hairdresser
- 7 Staffroom
- 8 Medical centre
- 9 Winter garden
- 10 Resident's rooms



Fig.179. Level 1 1:1000

- 1 Common room
- 2 Resident's rooms
- 3 Bridge
- 4 Dining
- 5 Industrial Kitchen
- 6 Laundry



Fig.180. Level 2 1:1000



- 1 Common room
- 2 Resident's rooms



Fig.181. Level 3 1:1000

- N
1 Common room
2 Resident's rooms

PLAN ITERATIONS- ITERATION 4



Fig.182. Ground floor 1:1000

- N
- 1 Interactive Library
 - 2 Playground/courtyard
 - 3 Resident's reception
 - 4 Cafe
 - 5 Daycare
 - 6 Hairdresser
 - 7 Staffroom
 - 8 Medical centre
 - 9 Games cafe
 - 10 Winter garden



Fig.183. Level 1 1:1000

- 1 Common room
- 2 Resident's rooms
- 3 Warden's room
- 4 Roof terrace



Fig.184. Level 2 1:1000





- 
1 Common room
2 Resident's rooms



Fig.185. Level 3 1:1000

- 
 Common room
 Resident's rooms

PLAN ITERATIONS- ITERATION 5



Fig.186. Ground floor 1:1000

- | | |
|------------------------|------------------|
| 1 Interactive Library | 7 Staffroom |
| 2 Playground/courtyard | 8 Restaurant |
| 3 Resident's reception | 9 Medical centre |
| 4 Cafe | 10 Games cafe |
| 5 Daycare | 11 Winter garden |
| 6 Hairdresser | 12 Maintenance |



Fig.187. Level 1 1:1000

- 1 Common room
- 2 Resident's rooms
- 3 Dining
- 4 Industrial Kitchen
- 5 Restaurant



Fig.188. Level 2 1:1000

- N
1 Common room
2 Resident's rooms



Fig.189. Level 3 1:1000

- N

1

Common room
- 2

Resident's rooms

PLAN ITERATIONS- ITERATION 6



Fig.190. Ground floor 1:1000

- | | |
|------------------------|-----------------------|
| 1 Interactive Library | 8 Restaurant |
| 2 Playground/courtyard | 9 Medical centre |
| 3 Resident's reception | 10 Games cafe |
| 4 Cafe | 11 Winter garden |
| 5 Daycare | 12 Industrial Kitchen |
| 6 Hairdresser | 13 Maintenance |
| 7 Staffroom | |



Fig.191. Level 1 1:1000

- 1 Common room
- 2 Resident's rooms
- 3 Dining
- 4 Industrial Kitchen
- 5 Restaurant
- 6 Warden's room
- 7 Bridge



Fig.192. Level 2 1:1000


- 
1 Common room
2 Resident's rooms



Fig.193. Level 3 1:1000

- N

1

Common room
- 2

Resident's rooms

Refer to chapter 8 for the final plan iteration.

APPENDIX C

ON-SITE EXAMINATION

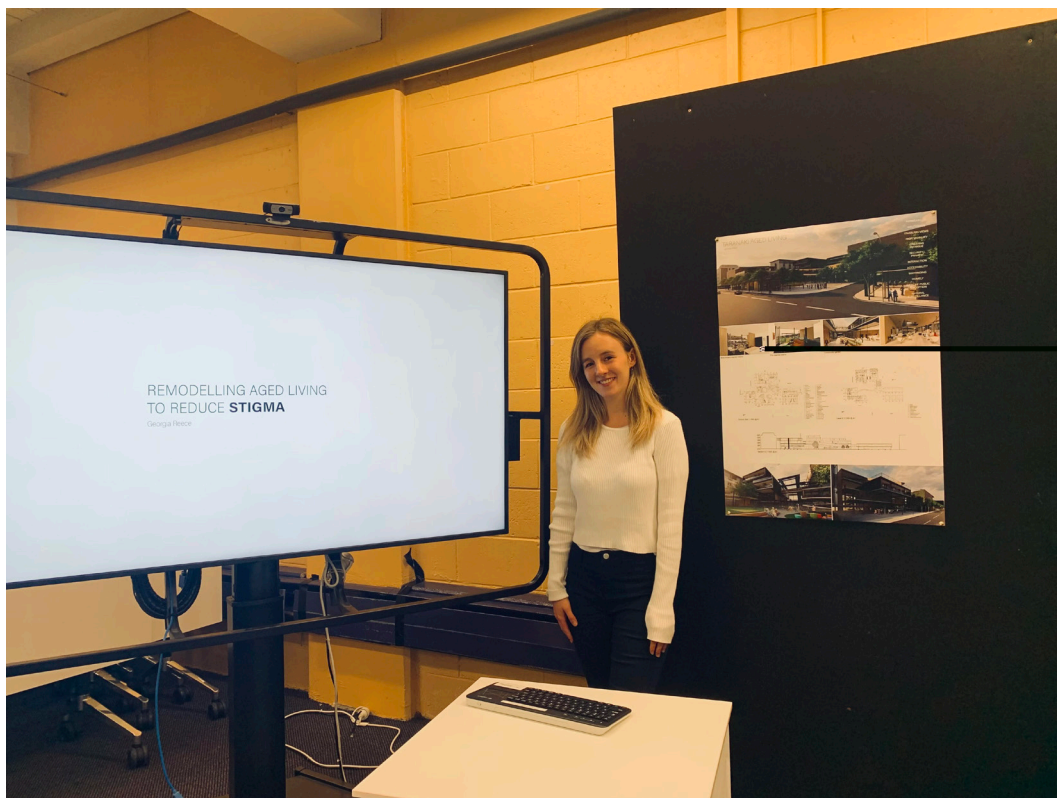


Fig. 194. Photograph recording the on-site examination.