

August 2021



# Design Statement

## Site C4

Midtown Macquarie Park





## PROJECT INFORMATION

Discipline	Representation
Architect	COX Architecture
Planner	Ethos Urban
Landscape Architect	Hassell
Structure/Civil	Robert Bird Group
ESD	Integral Group
Building Services	DSC
BCA	AED Consulting
Fire Engineer	Affinity
Acoustic	Acoustic Logic
Waste	SLR
Traffic	Ason Group
Civil	ADW Johnson
Wind	SLR
Geotechnical Engineer	Douglas Partners
Accessibility	Morris Goding
Surveyor	Beveridge Williams

## DOCUMENT REGISTER

ISSUE	AMENDMENT	DATE	CHECKED
A	DRAFT ISSUE	25/06/2021	RJ
B	FINAL ISSUE	03/08/2021	RJ

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# Statement of Intent

## Introduction

This Design Report has been prepared by Cox Architecture for Frasers Properties, and forms part of a Development Application to the NSW Department of Planning and Environment.

It describes the proposed design and architectural response for the site known as Lot C4 within Stage 2 of Masterplan State Significant Development Application (SSD8707). It is to be read in conjunction with a separate document prepared by Hassell Studio - Landscape & Public Domain Report, under which application for relevant roads and public domain around the site are also proposed. This proposal has been developed with careful consideration to the building envelope and Design Guidelines defined in the Ivanhoe Estate Masterplan State Significant Development Application.

In summary the development proposes;

- A 'Social Tower' consisting of 17 storeys of residential floors and 216 social units,
- A 'Market Tower' consisting of 24 storeys of residential floor, with 268 units,
- 4 'Market Townhouses' that are 3 storeys each,
- Central courtyard ('The Grove') and the Shrimpton's Creek open space which account for the communal open space provision of the proposal,
- 3 levels of underground basement car parking.

We confirm that Ramin Jahromi of Cox Architecture directed the design of the enclosed development application, which is represented by drawings A-DA-0100 to A-DA-9004 and that Ramin Jahromi is registered as an architect in accordance with the NSW Architects Act 2003. (ARB 10,000)



Artist's Impression of the Ivanhoe Macquarie Park



C O X

2.0 CONNECTION TO COUNTRY



# 2.1 Approach to Indigenous Culture and Heritage

## Response to GA NSW's Connecting with Country

GA NSW's Connecting with Country Draft Framework is an invitation to the property industry to rethink, re-imagine and reshape its practice.

It's a call to developers, architects and built environment professionals to take seriously the call by First Nations Australians to embrace the possibilities for design innovation by putting Country at the forefront of design thinking.

Considering Country need not be mysterious or faced with trepidation. It requires a genuine willingness to listen thoughtfully and respectfully. It requires an embrace of complexity and community, rather than its simplification and integration into a business as usual process.

The Connecting with Country design principles and spatial opportunities offered at the Ivanhoe Estate in Macquarie Park are as plentiful as the design team and client aspire and allow them to be.

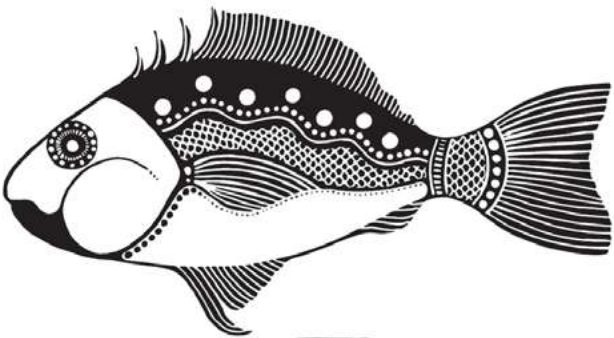
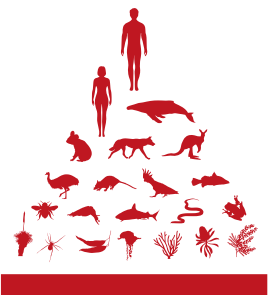
In developing our response to the Ivanhoe Masterplan and the Connecting With Country framework, we have identified several preliminary key design principles, a number of spatial opportunities, and importantly a process of discovery and knowledge sharing with First Nations peoples as the project unfolds beyond this point.

We acknowledge that, to date, the sensing of Country at Macquarie Park, and the imagination that genuine consideration of this Country can generate has not yet been fully explored by the project team.

Like society at large, the design and built environment professions are (belatedly) realising the opportunities of genuine, authentic exchange and the positive benefits that healthy Country and connected inclusive communities with First Nations voices being heard can bring to practice and projects.

The Framework challenges built-environment professionals to embed genuine Indigenous Australian influence and agency into the design process, so the aspirations described in Connecting to Country are considered not merely as a 'value add', but as the very foundation upon which Frasers' process of delivering capital works will rest.

For further information please refer to the report titled 'Connecting with Country Strategy' prepared by the Fulcrum Agency which forms part of the DA submission.





# 2.1 Approach to Indigenous Culture and Heritage

## Design Principles Considering Country



### Whose Country is it?

The Traditional Custodians of the area are the Wallumedegal clan, derived from wallumai, the snapper fish, part of the larger Dharug language group. The snapper fish and the site location between the Lane Cove and Parramatta Rivers tell us of the importance of water.

### The landscape

The site was once comprised of Turpentine-Ironbark forest (remnants can be found at Wallumatta Reserve in East Ryde), including White Stringybark, Red Mahogany, Grey Ironbark, Wianamatta Shale soils described by undulating clay soils over Hawkesbury Sandstone describe the ground.

A key opportunity of the storyline for the site is the restoration or adaptation of landscape elements to respond to this critically endangered forest typology.

### Site Stories and Narratives

The area is rich in Aboriginal history, from pre and post contact to contemporary ongoing relationships with the land. Some of these stories are shared, some joyful, others sorrowful. Some initial stories found include:

- Bennelong features prominently, and is buried in the James Squire orchard at Kissing Point.
- The Field of Mars land grant was originally a Koori camping area.
- The Aboriginal Protection Board was established in 1883 and located at the Field of Mars. The Board removed Aboriginal children from their families and moved Aboriginal people onto reserves.
- The last known fluent speaker of Guringai language died in Ryde in 1928.

### 1. Agency

Ensure a genuine engagement process for First Nations voices throughout design and delivery process.



### 2. Dialogue and Restoration

A dialogue between western knowledge systems and indigenous knowledge systems to restore Country.



### 3. Care

Design opportunities in public spaces for gathering, inclusive areas for large family spaces, and places to foster cultural and knowledge exchange.



### 4. Sharing Language

Ensuring that place naming, project naming and design language used references and celebrates the opportunities of Language.



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## 3.0 SITE AND CONTEXT



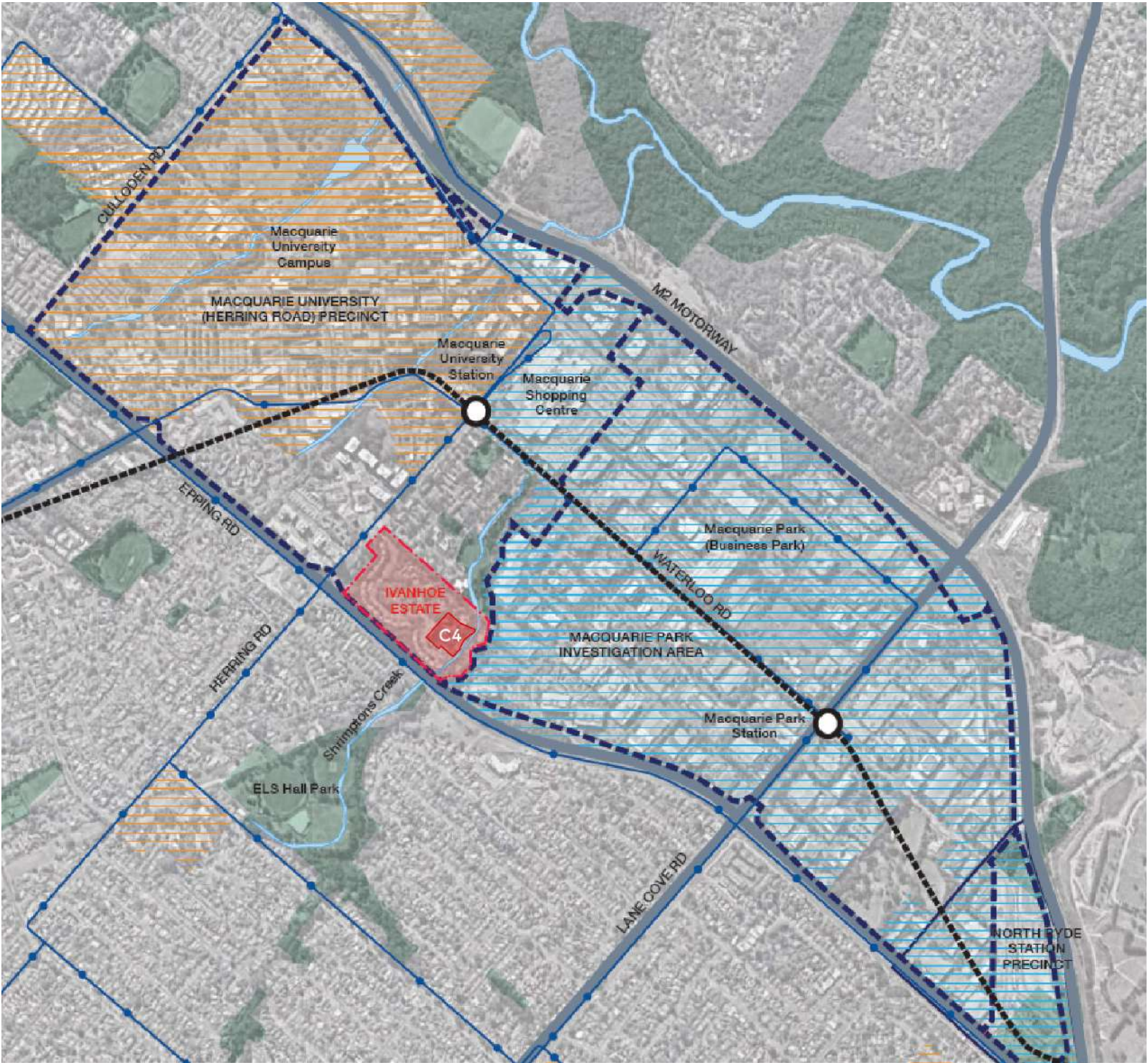
### 3.1 Site Location

The Ivanhoe Estate is located in Macquarie Park near the corner of Epping Road and Herring Road within the Ryde Local Government Area. The site is approximately 8.2 hectares in area and is earmarked for development under the Ivanhoe Estate Masterplan, which will deliver the Midtown Precinct with a range of residential dwellings and supporting recreation and community facilities, delivered over several stages.

The Midtown Precinct is located to significant infrastructure such as the Macquarie Park metro Station, Macquarie shopping centre and Macquarie university all located to the north. It is also well serviced by public open spaces accessible via the Shrimpton's riparian corridor such as ELS Hall Park to the south and Wilga Park to the North.

The Midtown Precinct is divided into 15 development blocks, within 4 precincts, that establish the framework for future buildings, infrastructure and public domain within the Estate.

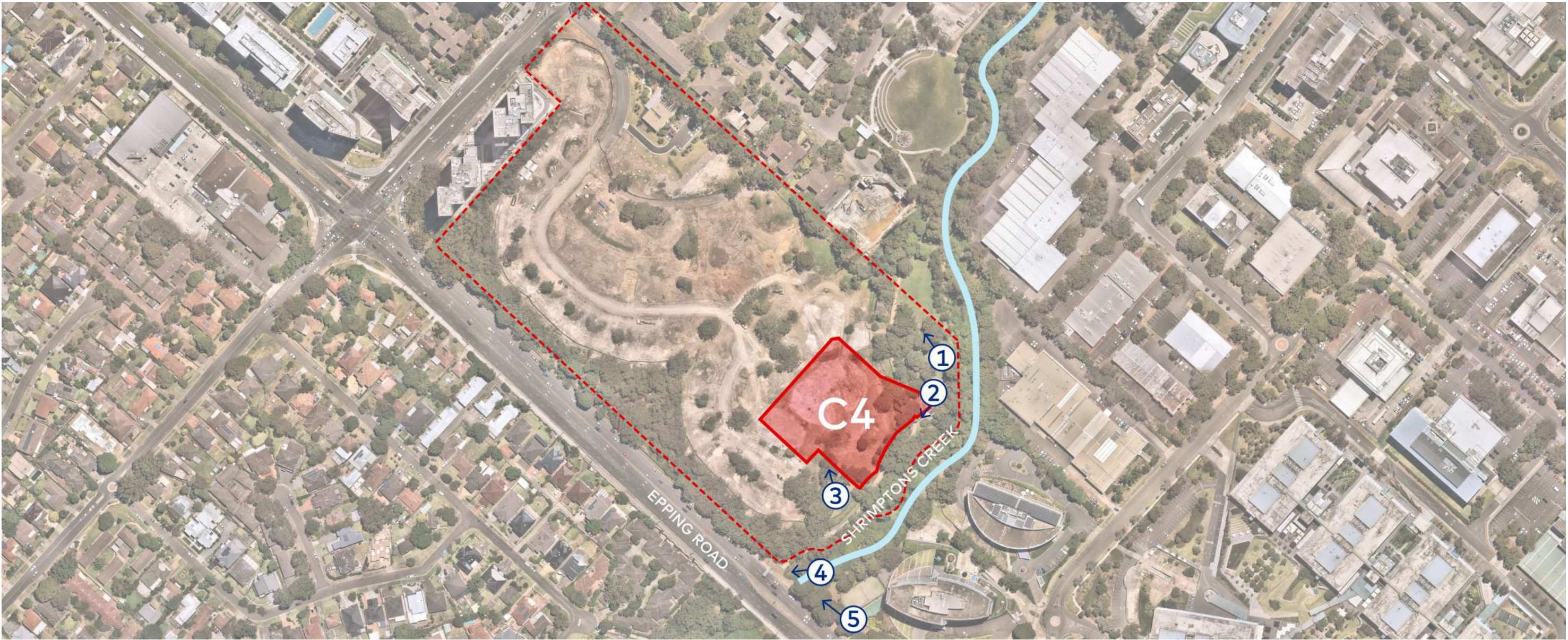
- Existing education uses
- Existing commercial / business uses
- Existing open space
- Existing train station
- Existing bus route
- Major arterial road
- Ivanhoe Estate



Location Context Plan



3.2 Existing Surrounding Site Context



Site Plan



1.



2.



3.



4.



5.



### 3.3 The Site and Future Context

Site C4 is located within Precinct C of the Ivanhoe Midtown Masterplan at Macquarie Park. The Masterplan proposes an urban design framework which enhances the existing character of the site, linking the established bushland corridor with a series of high quality public open space. A new main street is activated by community and retail uses, alongside a soft-landscaped village green and a green-roofed community recreation centre.

Architecturally Site C4 plays an important role transitioning from the urban Midtown precinct to the natural Shrimpton's Creek nature corridor. Tenures are evenly distributed within a simple staging framework ensuring a development which is truly tenure blind.

- Precinct A accommodates three building lots on the north western edge of the Estate'
- Precinct B accommodates four building lots along the north eastern edge of the Estate;
- Precinct C runs through the centre of the site and accommodates three building lots; and
- Precinct D fronts Epping Road and also accommodates four building lots.



Legend

- Masterplan boundary
- Site C4



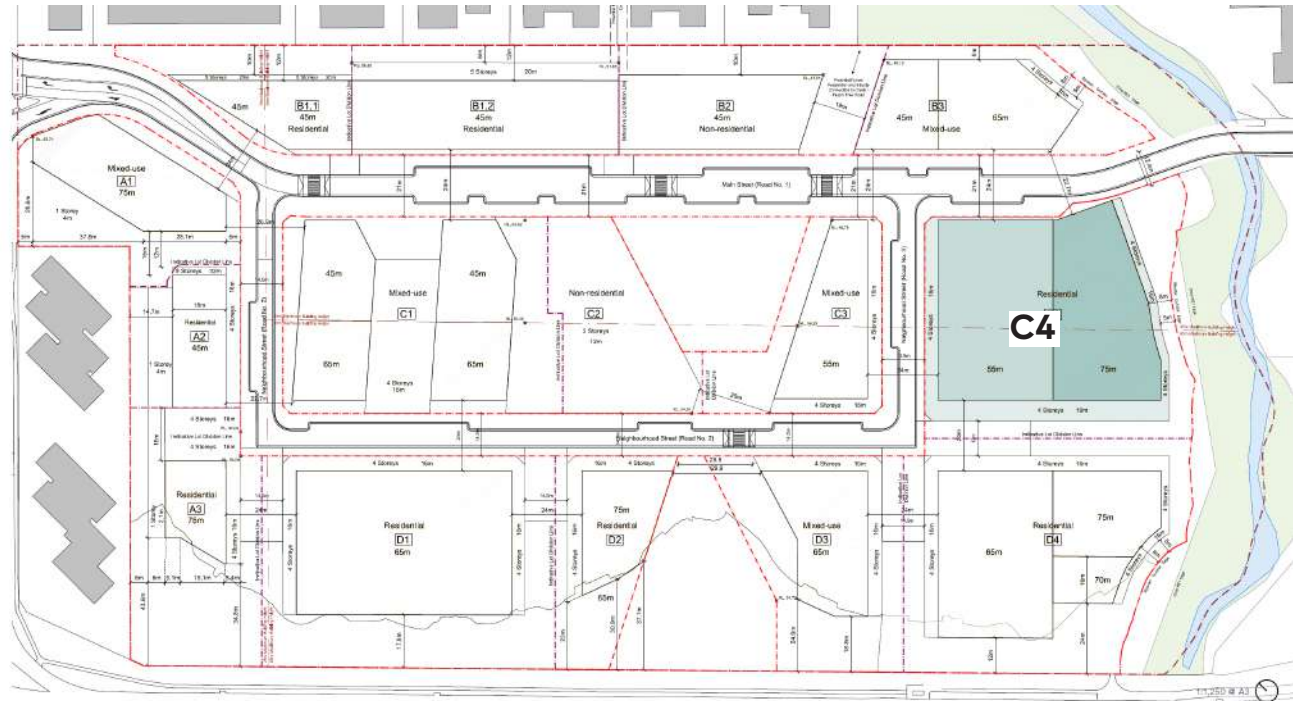
### 3.4 Masterplan Envelopes

Building heights are in accordance with the approved envelope control plan drawing DA01.MP.100 (Rev 9) in Development Consent SSD 8707 issued by the Department of Planning, Industry and Environment.

The building heights generally increase in height towards the intersection of Epping and Herring Roads, and alongside Shrimptons Creek.

The extent of massing alongside the endangered ecological community corridor has been reduced, with additional building height in locations which create no shadowing beyond the approved height planes. Building C4.1 (Market Building) rises to a maximum of 24 storeys, with building C4.2 (Social Building) in a 17 storey height zone.

1. Approved Masterplan: Massing, approved 30-04-2020



2. Building Heights Diagram from Ivanhoe Masterplan





3.5 Site Analysis Diagrams



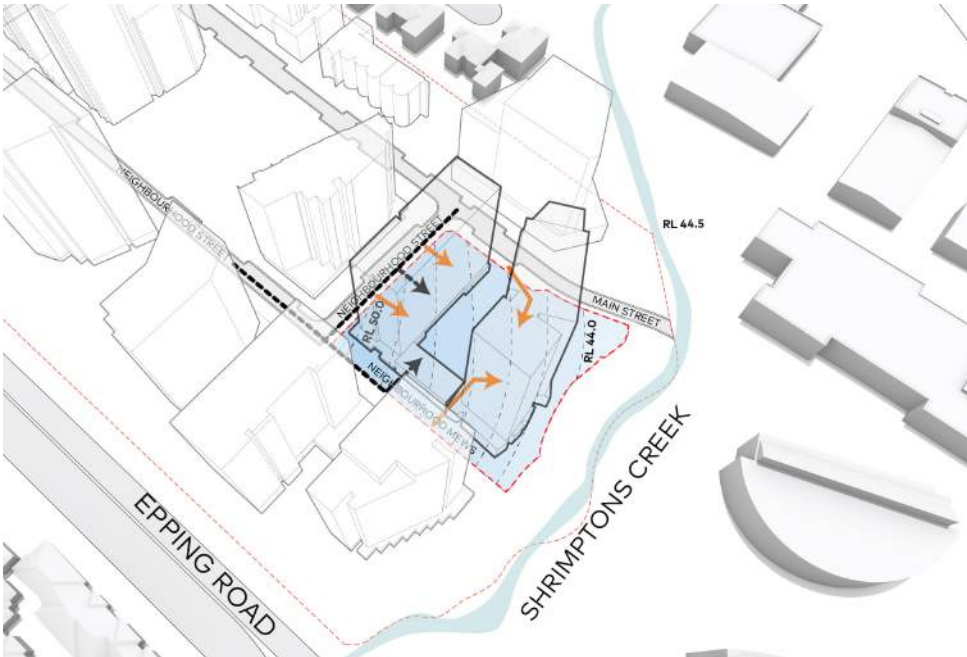
1. Solar Access



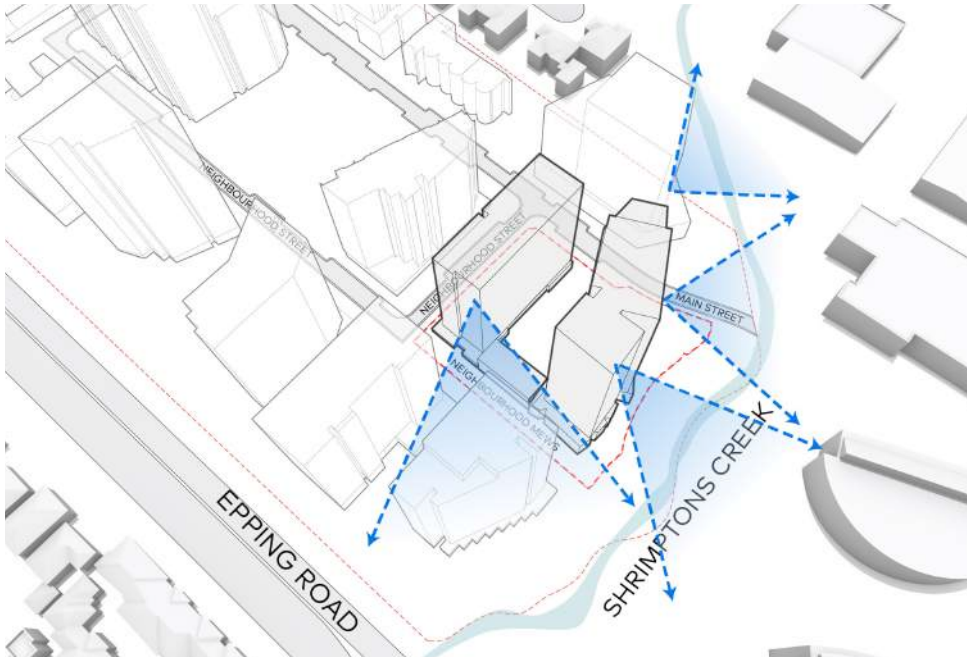
2. Open Space



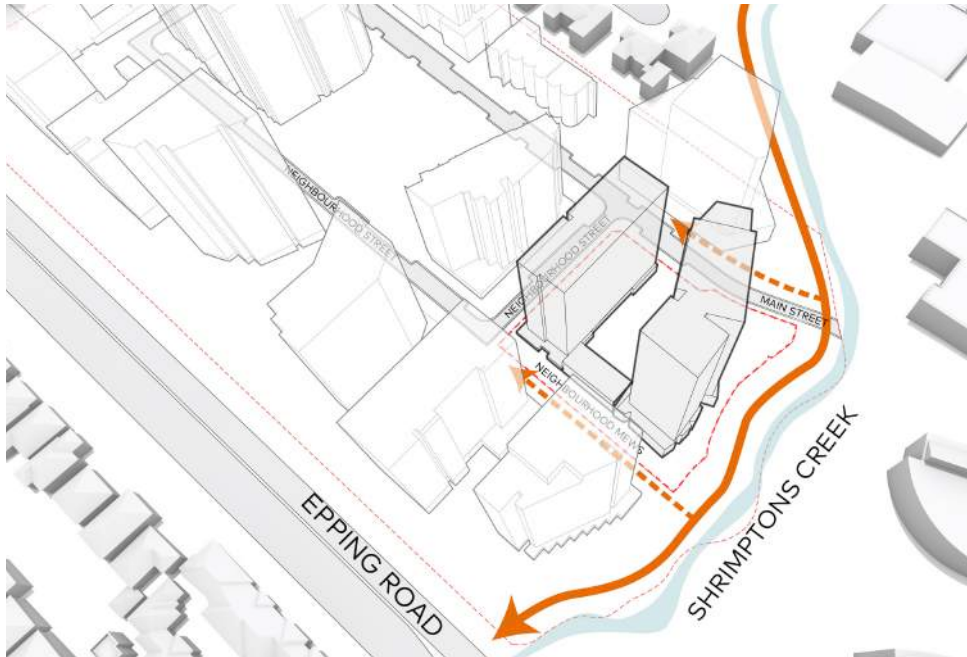
3. Neighbourhood Streets & Green Link



4. Lobbies & Vehicular Entries



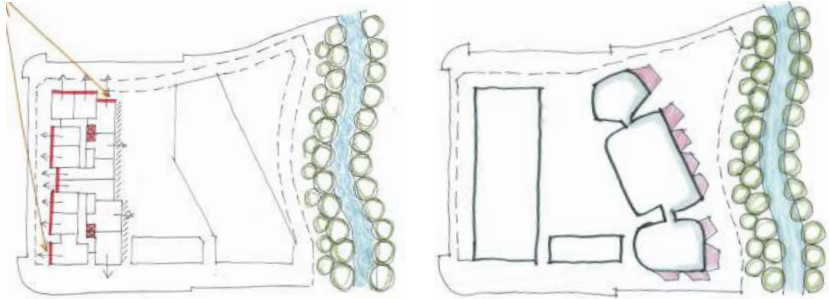
5. Views



6. Pedestrian & Cycle Access





3.6 Response to Planning Secretary's Environmental Assessment Requirements

<p><b>Key issues to be addressed</b></p> <p>3. Built Form and Urban Design</p>	<p><b>Provisions</b></p> <p>Demonstrate how the proposed building or building envelope form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.</p>		<p><b>Response</b></p> <p>Following on from the site analysis established in Section 3.5 above, we have developed the massing managed the bulk/ height and scale of the proposed design in 2 significant moves.</p> <p>The first move is ensuring that the design of the podium massing has been carefully crafted to address a human scale. The second move is the careful crafting of the taller massing to have a regular expression to the neighbourhood street and a fragmented expression to Shrimptons Creek. Refer to Section 4.0 for further details.</p>
<p>3. Built Form and Urban Design</p>	<p><b>Provisions:</b></p> <p>Demonstrate how the detailed building design will deliver a high-quality development, including consideration of façade design, articulation, activation, roof design, materials, finishes, colours and integration of services.</p>		<p><b>Response</b></p> <p>After developing the massing as indicated above, we have crafted the facade design of all buildings. In Section 5.0 we have indicated how each building's facade has been considered with a strong material and craftsmanship narrative.</p> <p>In summary the social building has a crafted brick expression which is atypical on social buildings which enforces blind tenure design. The market building has a considered pre-cast concrete expression.</p>
<p>3. Built Form and Urban Design</p>	<p><b>Provisions</b></p> <p>Demonstrate how the proposed built form would result in appropriate scale and minimise visual bulk and long facades.</p>		<p><b>Response</b></p> <p>In Section 5.0 of this report we have indicated how the taller building massing has been broken up to manage visual bulk along long façades.</p> <p>The social building does this by carefully protruding and recessing various facade elements to ensure the facade expression does not feel overly long.</p> <p>The market building has fragmented the podium towards the creek extensively and also fragmented the taller component into 3 distinct forms to manage facade length.</p>



3.6 Response to Planning Secretary's Environmental Assessment Requirements

<p><b>Key issues to be addressed</b></p> <p>3. Built Form and Urban Design</p>	<p><b>Provisions</b></p> <p>Demonstrate the proposed built form appropriately addressed the change in levels across the site and avoids/minimises protruding basements and blank ground floor facades.</p>		<p><b>Response</b></p> <p>The existing site has a 4m drop between the neighbourhood street and Shrimpton's Creek. The proposed design manages this drop through the careful positioning of all ground floor apartments being either level with the street or a maximum of 1.5m above the street level.</p> <p>No part of the basement protrudes from below into the public domain. We also sleeved apartments around the entire perimeter of all ground floor massing. Refer to Section 4.0 for various public/ private interface drawings.</p>
<p>3. Built Form and Urban Design</p>	<p><b>Provisions:</b></p> <p>Include tables identifying the proposed land uses, including tables identifying gross floor area (GFA)/floor space ratio (FSR) for each building, including a floor by floor breakdown, and total GFA and FSR.</p>		<p><b>Response</b></p> <p>Please refer to the DA drawings for the GFA diagrams and schedules that clearly denote the GFA allocated to each building.</p>



## 4.0 PROJECT DESCRIPTION



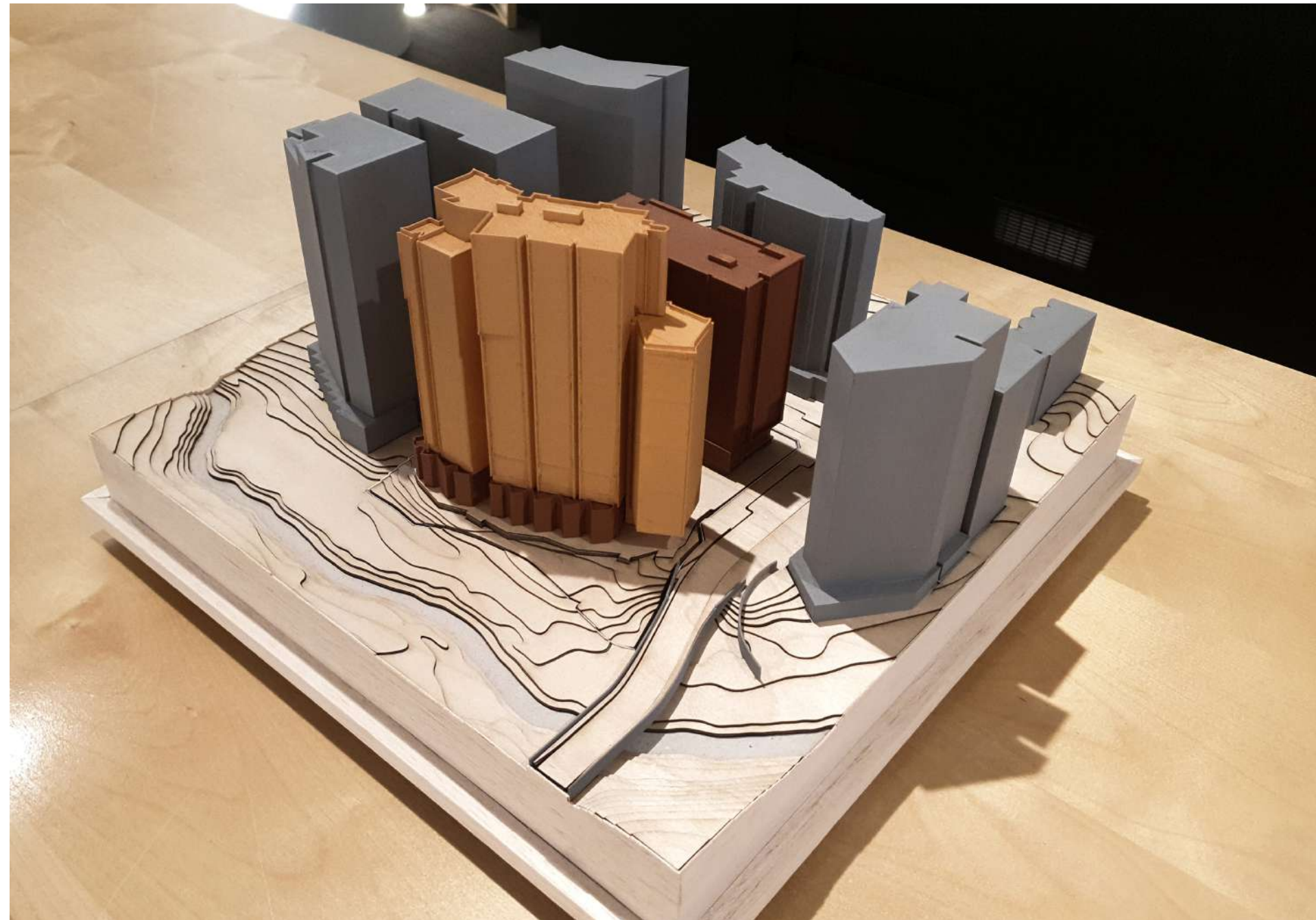
## 4.1 Overview

The approved masterplan divided the site in two, with building massing steps across the site, allowing for a taller massing adjacent Shrimptons Creek.

This massing is divided into two north-east/south-west orientated towers separated by a communal open space. Low scale terrace houses are added along the Neighbourhood Mews to create a human scale along the pedestrian route to the creek.

The Tower massing has been crafted to respond to two separate conditions, the north-western most tower responds to its more urban context and is more orthogonal in nature, while the south-eastern tower responds to Shrimptons Creek and is more organic in nature.

Although the two towers offer differing architectural approaches, they are connected through a unified podium approach.





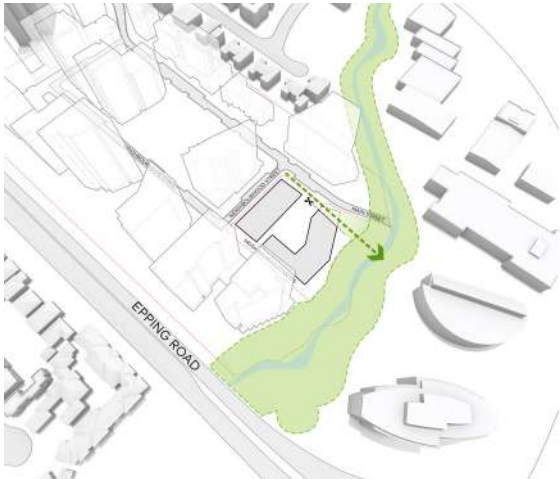
4.2 Design Principles



1. Reinforce Shrimptons Creek

Nature

The site borders on one side by vegetation of the riparian corridor of Shrimpton Creek, with the other side bordering on the new neighbourhood of active streets. The site offers opportunity to connect the urban grid at entry points to the forested edges of the creek corridor through the proposed Green Link and carefully located vegetation integrated throughout the podium of the development.



2. Visual Links to Shrimptons Creek

View

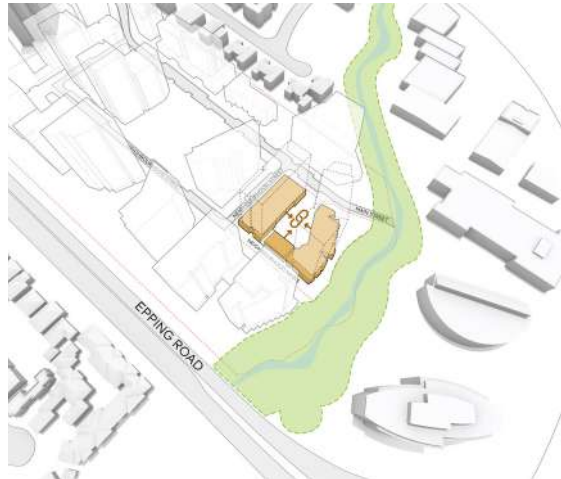
In the investigations provided by our partner The Fulcrum Agency we have discovered the importance of connections towards Shrimpton's Creek from the surrounding streets/ neighbourhoods. Having an east west connection on the site will continue the idea of an ongoing blue and green connection along properties that are able to do so.



3. Permeable Landscape

Porosity

Permeable and visual integration of landscape and public domain design. Given that C4 is the built form connecting main street to Shrimpton's creek, it has the opportunity to allow the public to descend into the riparian corridor in a legible manner.



5. Podium Connects Buildings

Connection

We have carefully considered how the proposed podium design/ expression can be designed in a such a way that dignifies the ground plane. The podium elements of each building have been considered as a family of forms that relate to each other to ensure the ground plane connection and navigation is optimised.



6/7. Orthogonal & Organic Building Forms

Sculpting

Along the edge of Shrimpton Creek, building forms are broken down to provide a sense of smaller floor plates with a less formal arrangement than the urban grid, responding to the alignment of the riparian corridor.

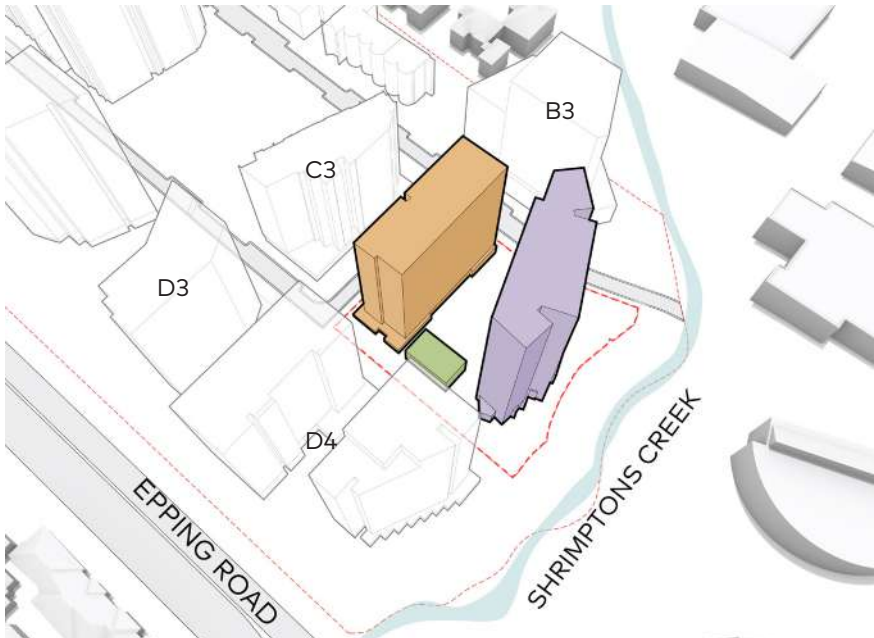




4.3 Massing Development



1. Approved Masterplan Massing



2. Masterplan Massing



3. Preliminary Massing Approach



4. Crafted Massing



5. Proposed Massing Approach

- Social Building
- Market Townhouses
- Market Building



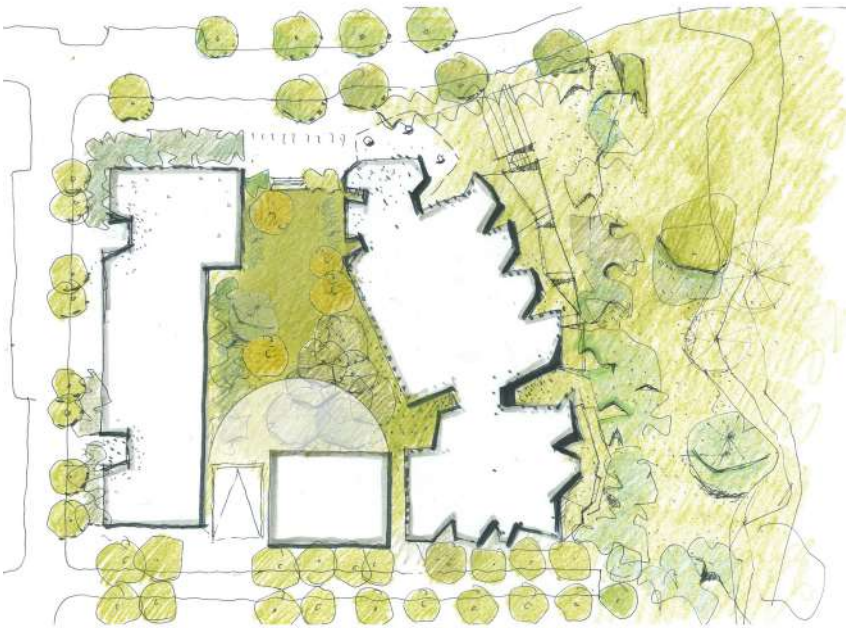
# 4.4 Podium Design

## Ground Floor Plan

Shrimptons Creek and the Shrimptons Creek Parklands are of high importance in the design approach to Midtown. The parklands, comprised of seven parks that sit adjacent to Shrimptons Creek, are significant because they provide a continuous connection through the local government area from north to south. It is a connected recreational and environmental spine that serves the Ryde community.

While the C4 Development Application sits outside the boundaries of the parkland network, our intent is to support the strategic planning and sustainable management framework of the parklands - to conserve the parks natural, cultural and indigenous resources while promoting public recreation and leisure.

For further information please refer to the 'Landscape architecture development application design report' prepared by Hassell



Podium concept sketch



Landscape Materplan prepared by Hassell



4.4 Podium Design



Main Street



Neighbourhood Mews



Market Building Terraces



Market Building Terraces viewed from Main Street



Site C4 Shrimptons Creek Interface



Visible/Safe Entry Points



Equitable Access



Privacy Landscaping



Integrated Landscaping



Secure Entry from the Public Domain



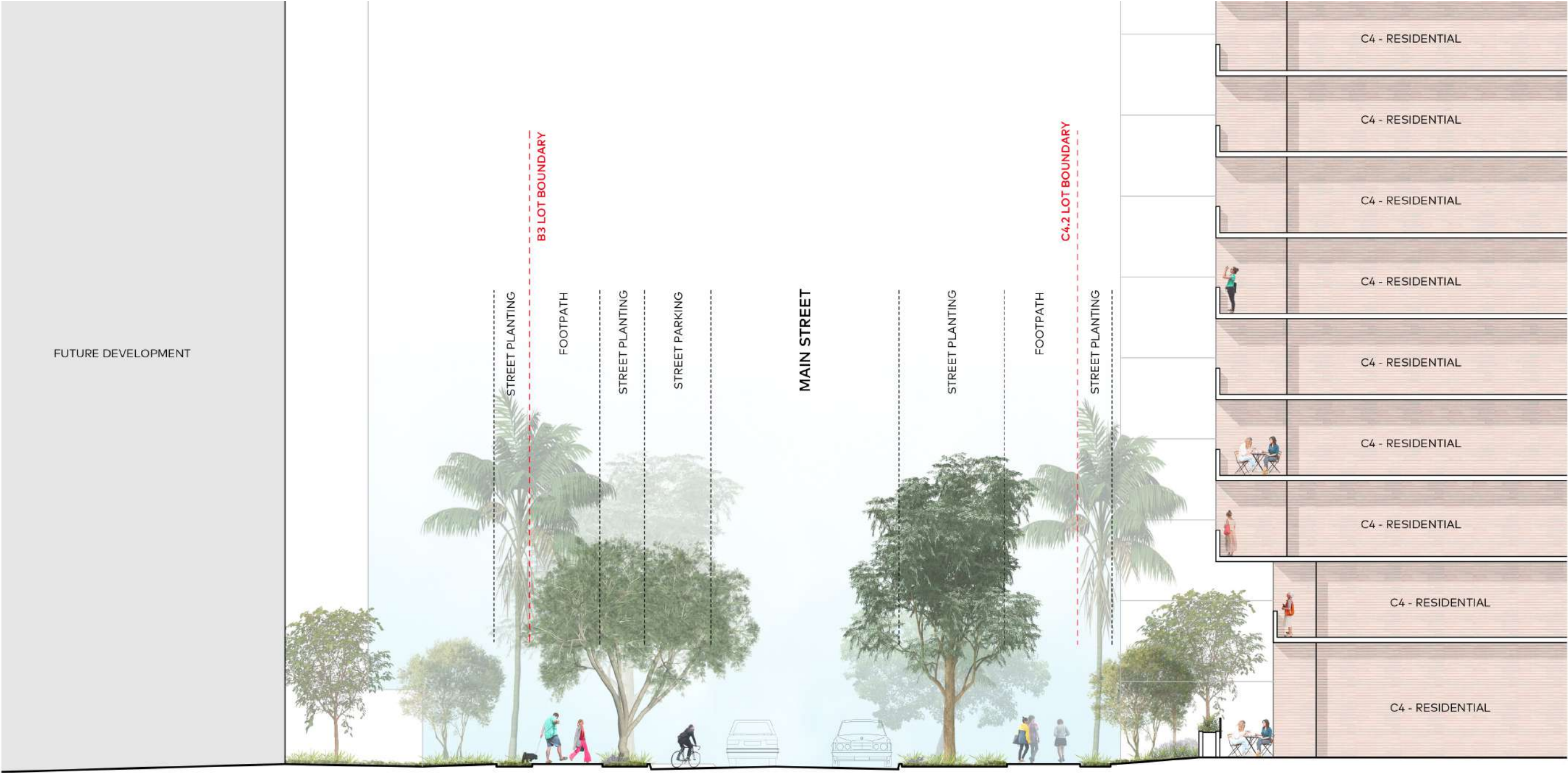
4.5 Public Interface



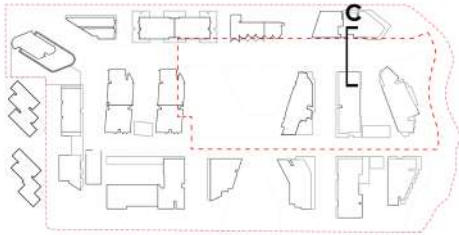
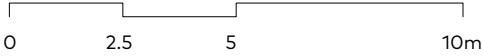
Section 6



4.5 Public Interface

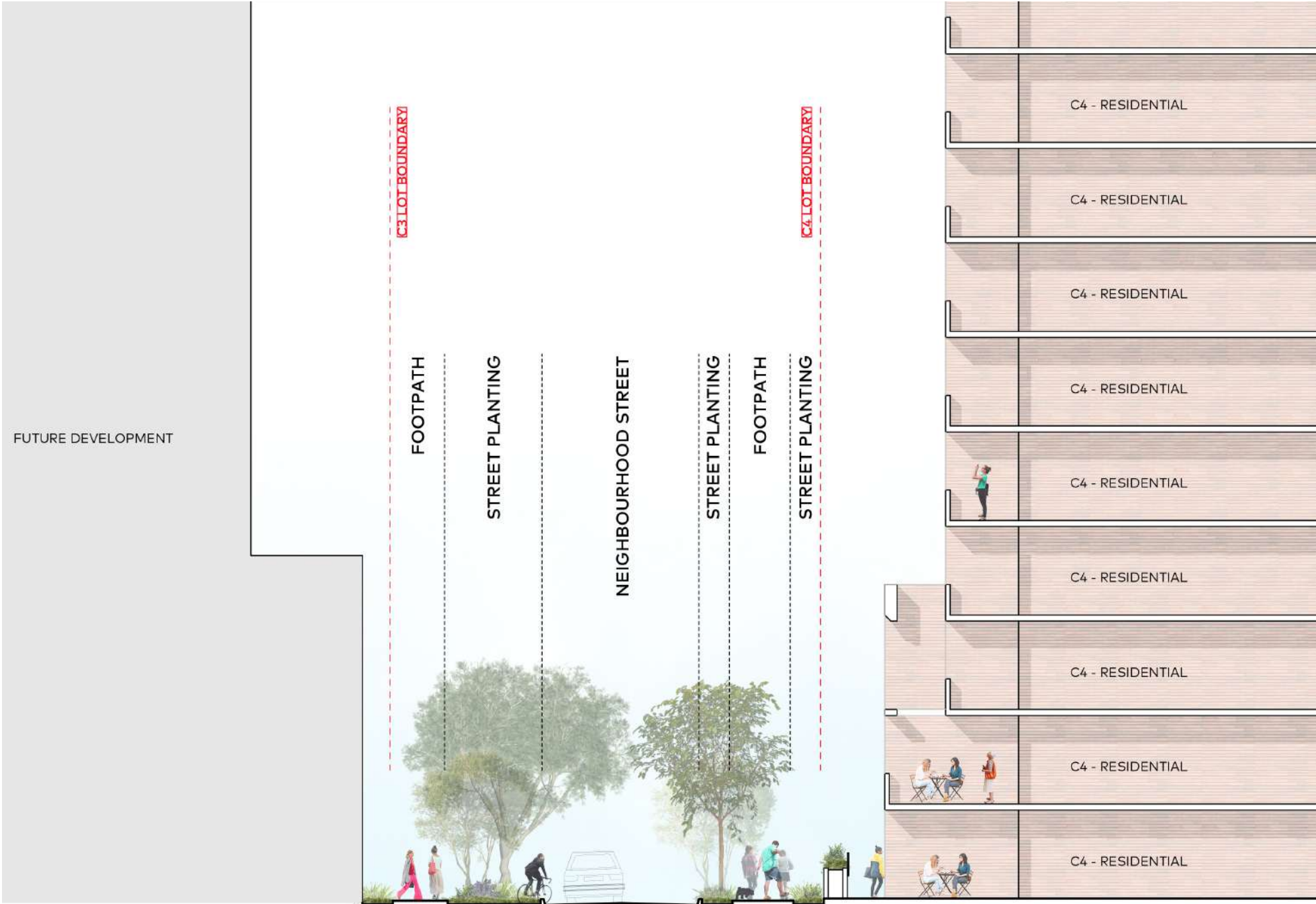


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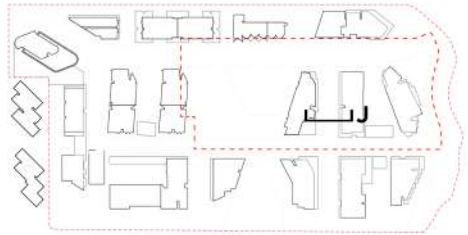
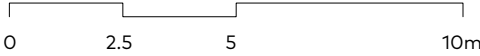




4.5 Public Interface



Section J

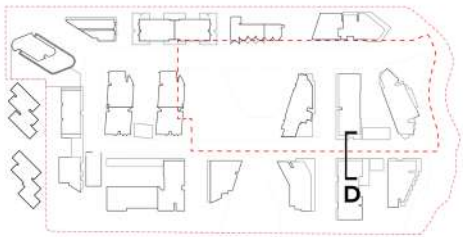
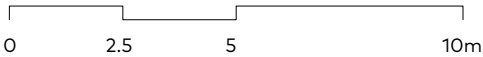




4.5 Public Interface

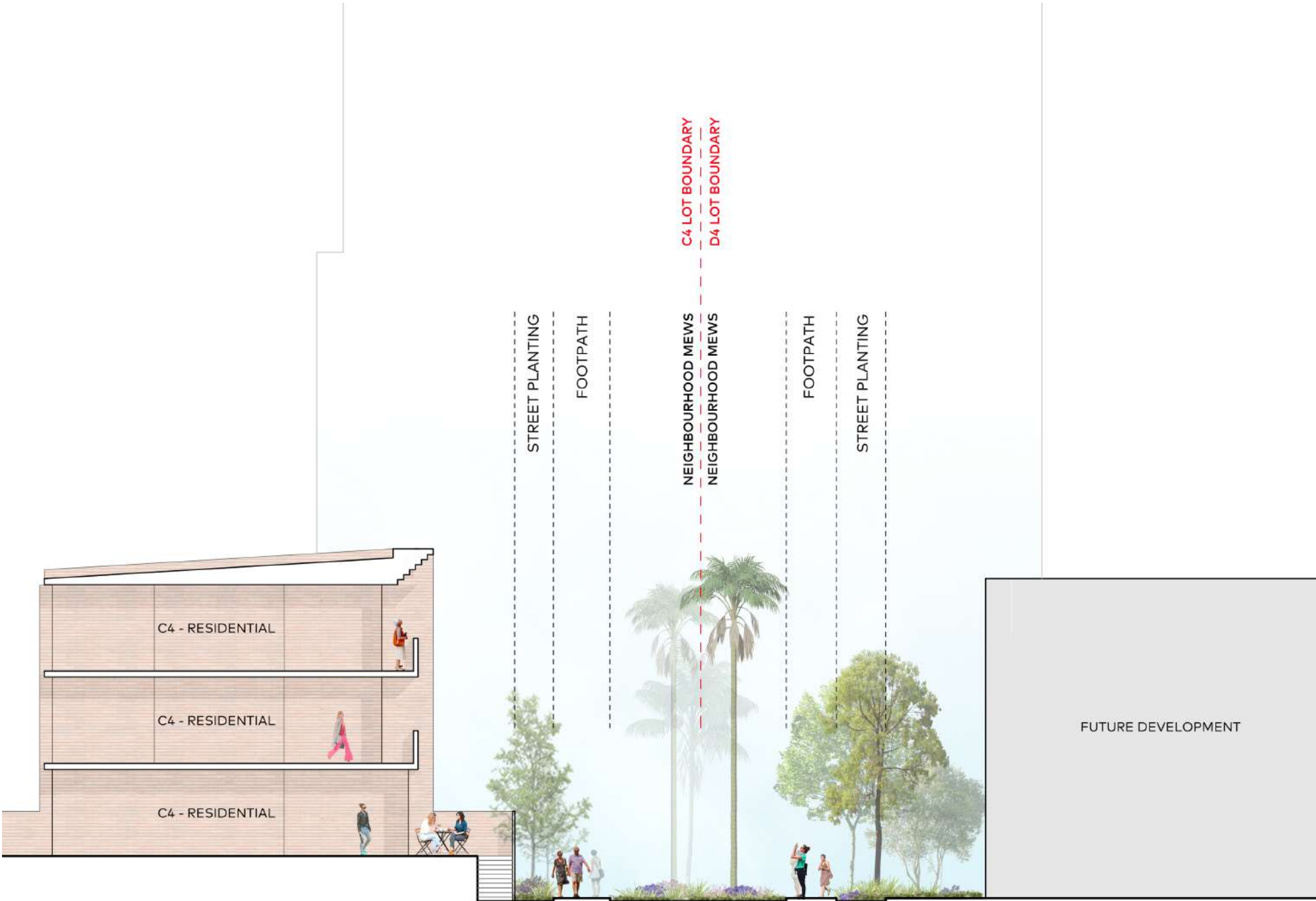


Section D

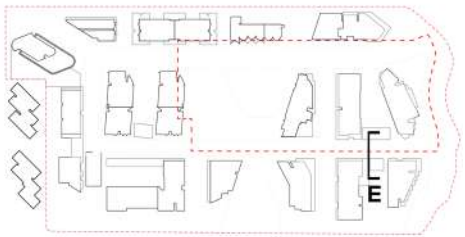
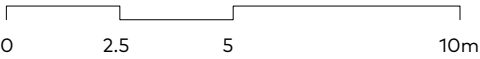




4.5 Public Interface



Section E

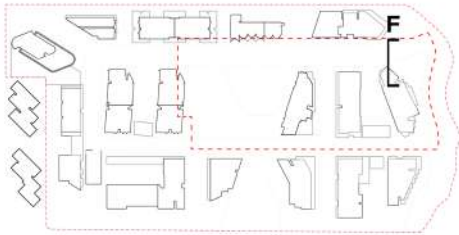
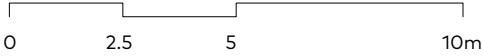




4.5 Public Interface

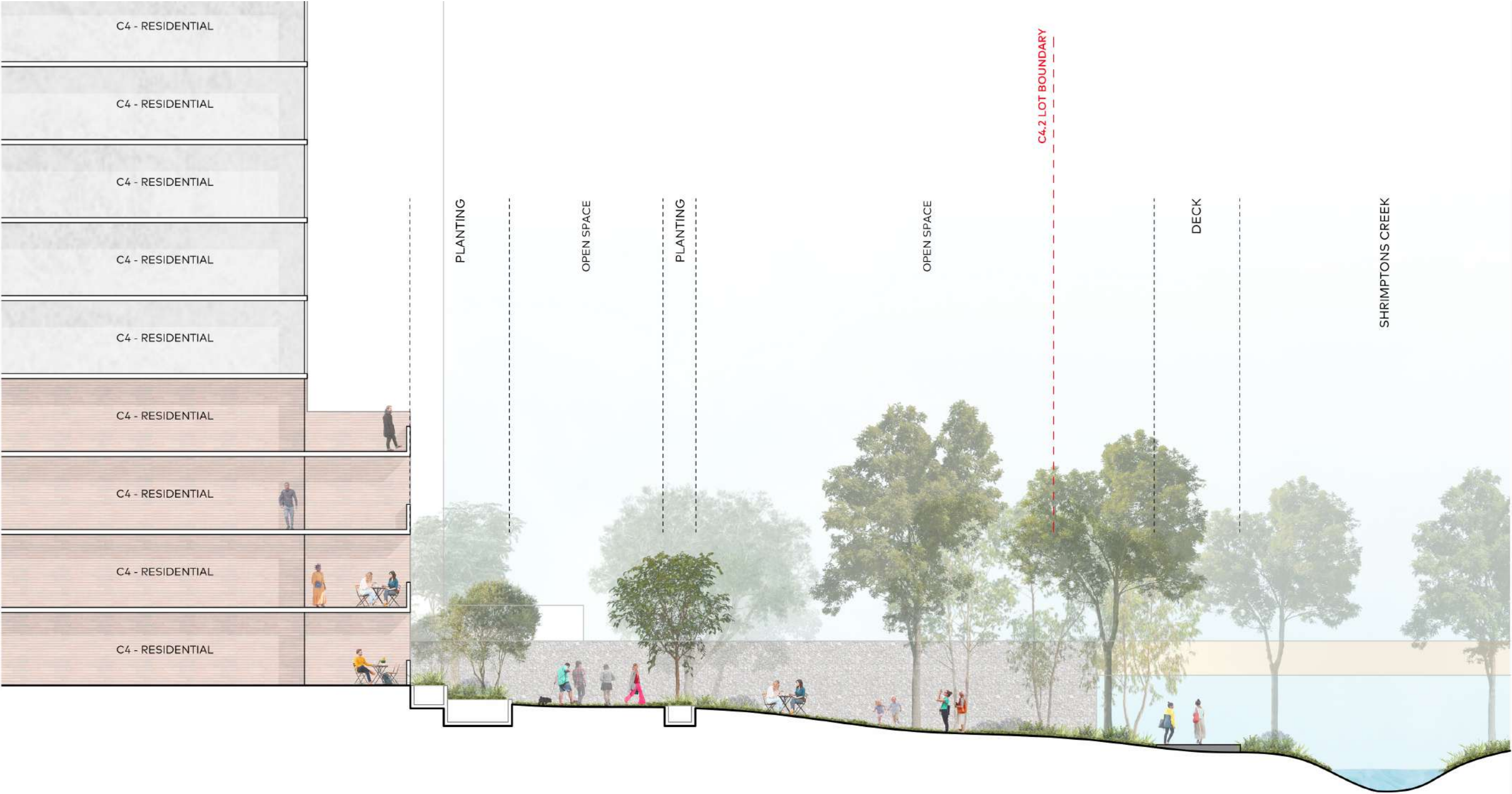


Section F

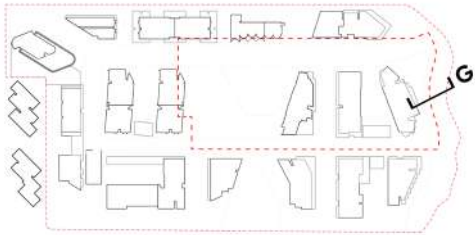
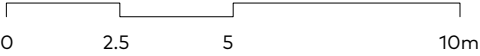




4.5 Public Interface



Section G





C O X

5.0 DESIGN CONCEPT

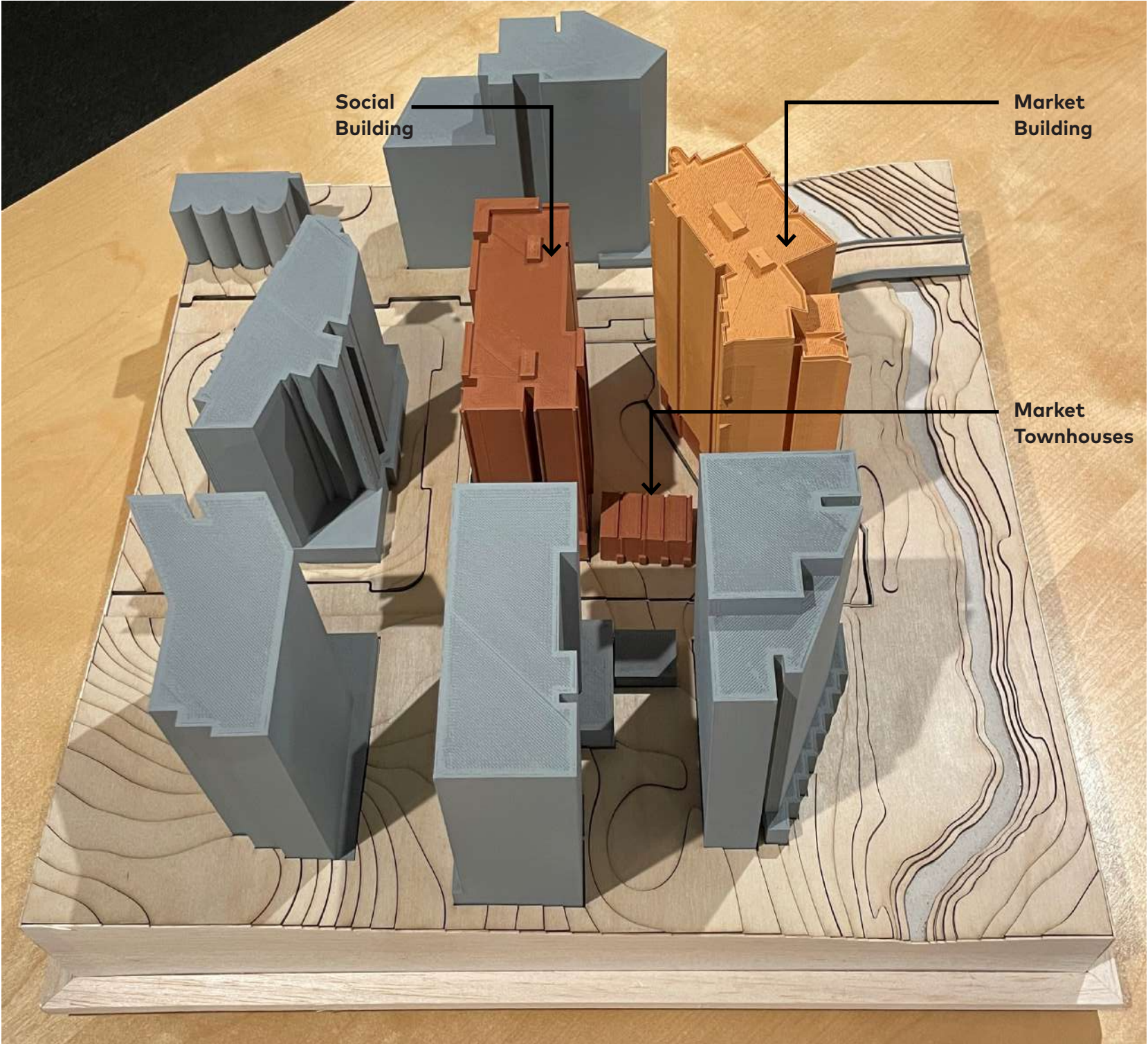
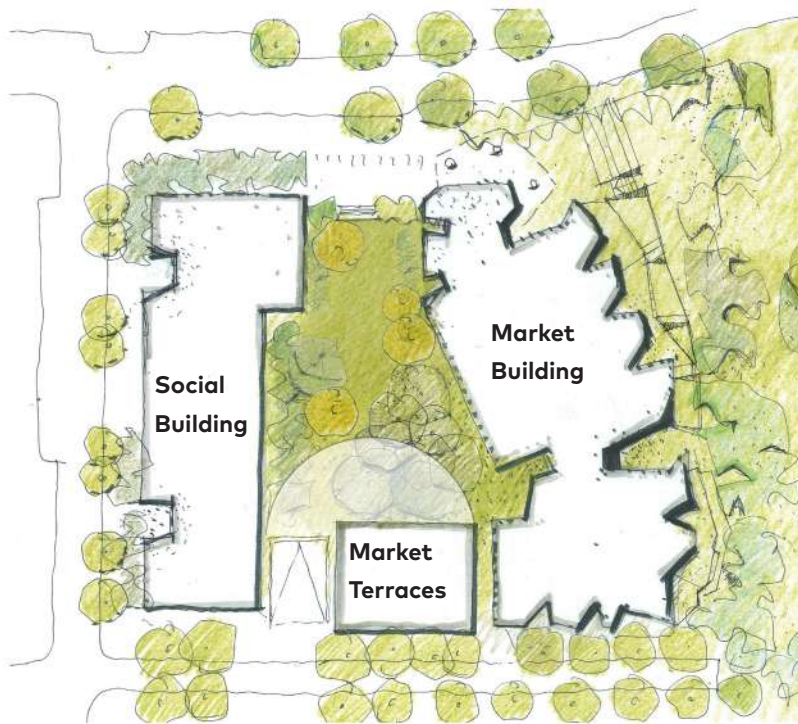


# 5.1 Design Concept

## Building Design Concept

The design concept for the entire C4 site was developed in the design principles identified in Section 4 of this report. The ground plane concept set the principle that the building forms should start as being more rectilinear and order to the neighbourhood street to the west and slowly begin to fragment as we move closer to Shrimptons Creek.

The folloiwng section will step through the design concept for each individual building in the C4 lot and explain how to will attempt to forge the design principles establised earlier into all buildings.

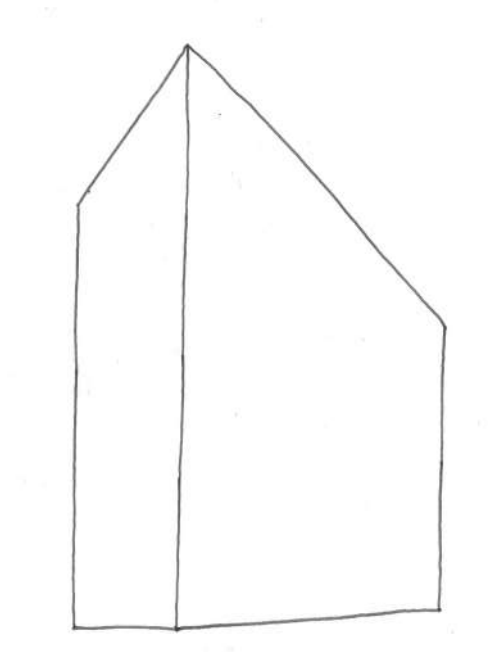




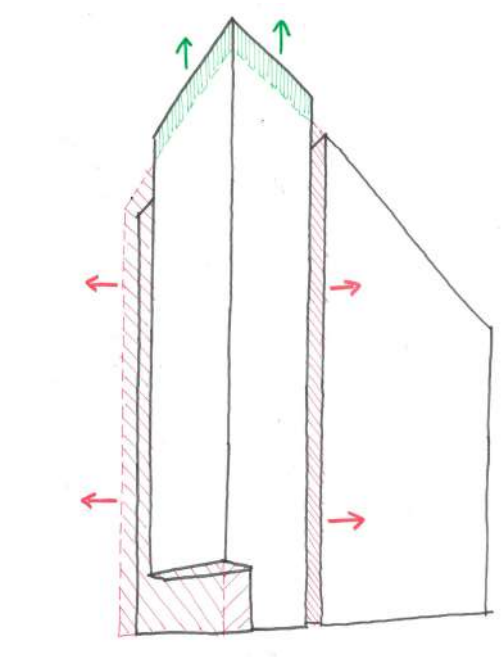
5.2 Social Building - Massing Development



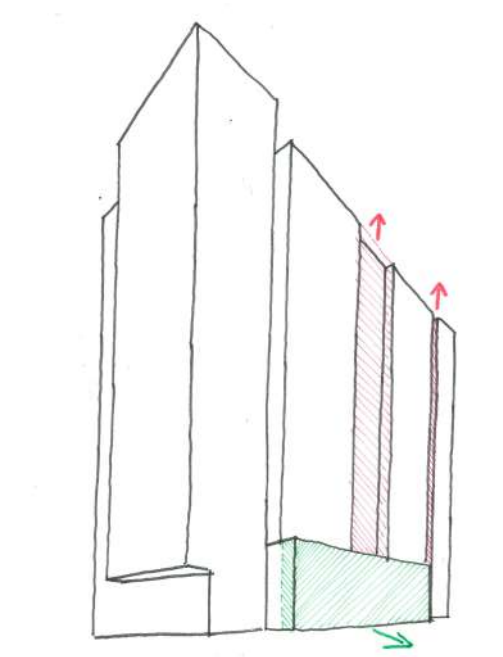
Urban reveal



Approved envelope



Articulated main corner



Extended podium



Vertical slots

Scale

Orthogonal urban form that responds to the urban grid on the western edge of the building, with extended podium to create human scale.

Community

Green open spaces that are visually connected to the forested edges of Shrimpton Creek.

Anchor

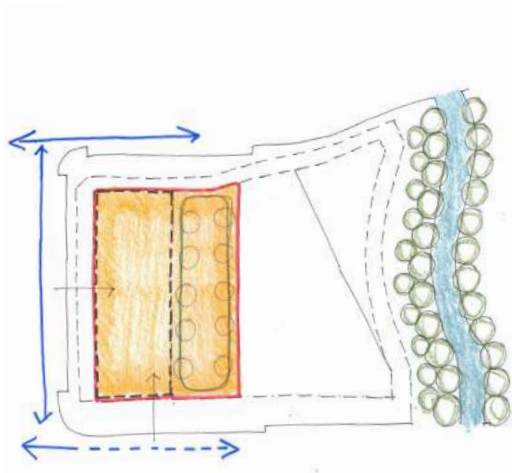
Articulated volumes at the corners of the building, offset by deep recessed slot. The building reveals itself through balconies and veiled brickwork.

Porosity

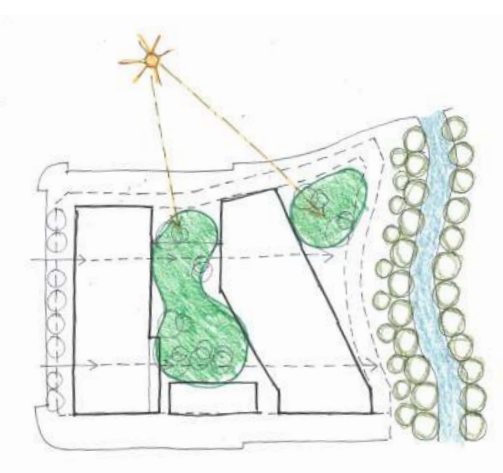
The lobbies of the social buildings have been startegically placed to open up to the neighbourhood street and connect to the central courtyard through the base of the building.

Edges

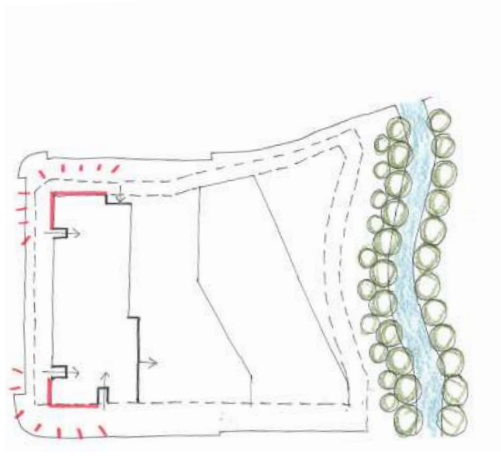
The building reveals itself through balconies and veiled brickwork. These elements add the final layering of craft to the facade.



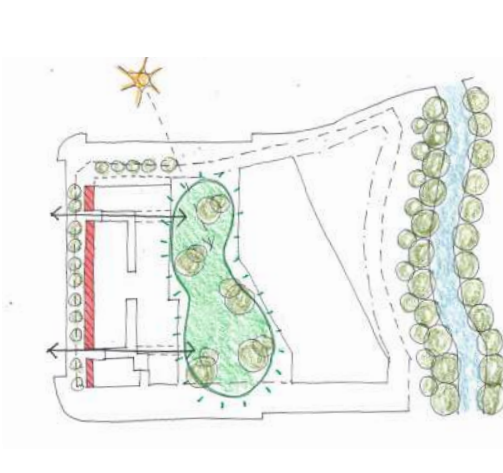
Massing Envelope



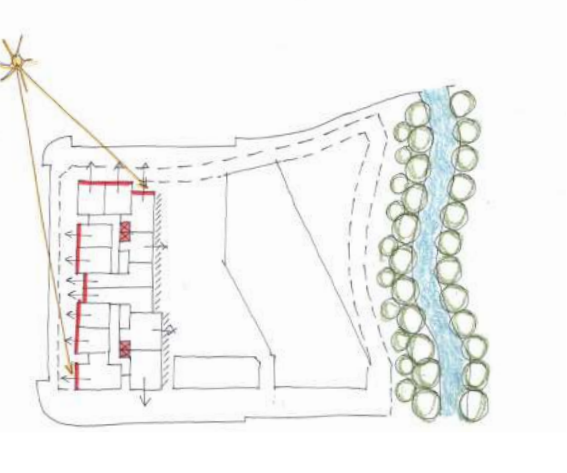
Communal Open Space



Articulated Corners



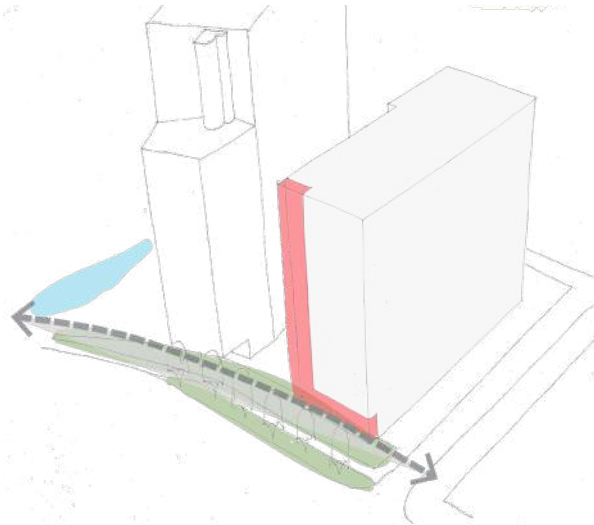
Permeability and connections



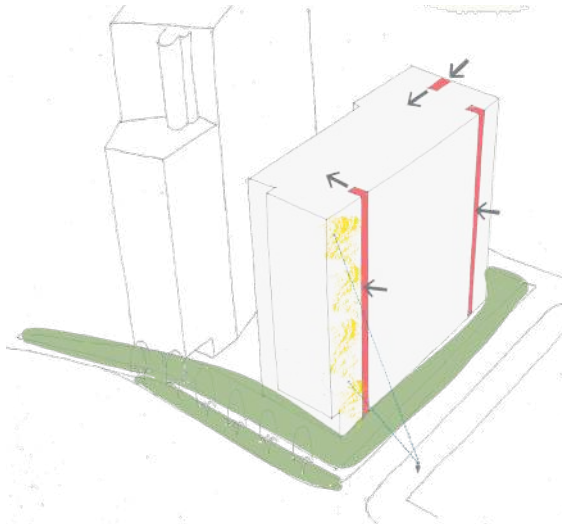
Unit Configuration



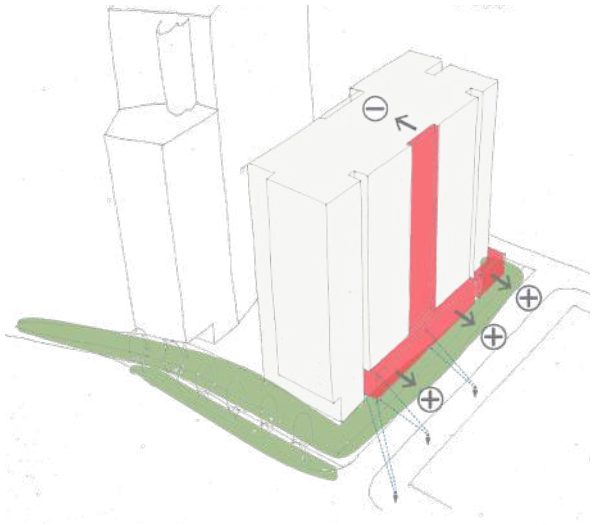
5.2 Social Building - Facade Development



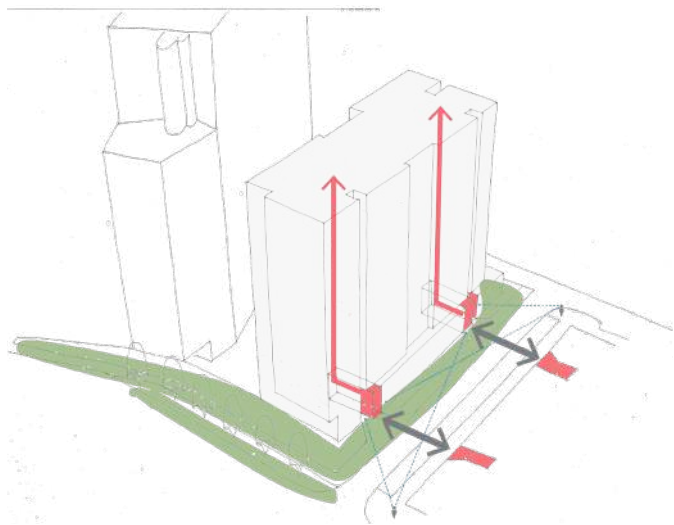
- 1.
- Articulate main corner facade
  - Improve visibility to creek



- 2.
- Break down facade with slots
  - Create feature wall



- 3.
- Engage street with podium - human scale
  - Further articulate facade

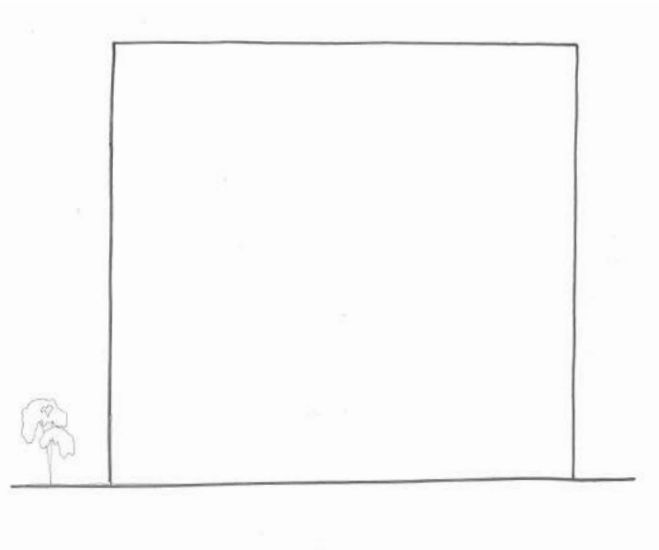


- 4.
- Align entries with C3
  - Activate neighbourhood street
  - Equity to entrances

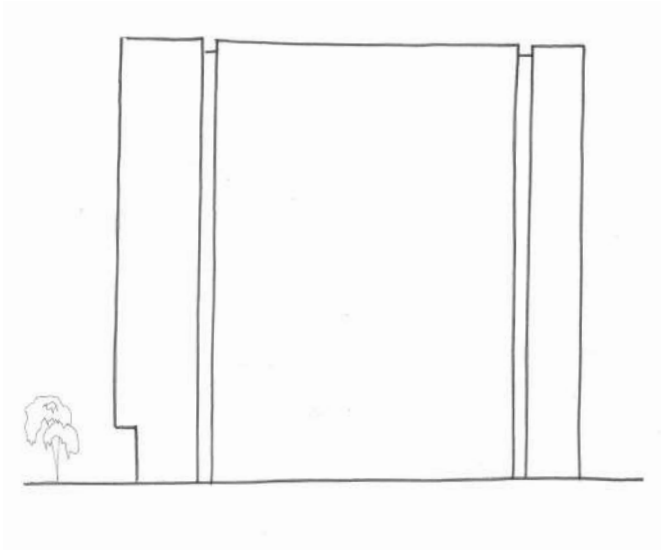




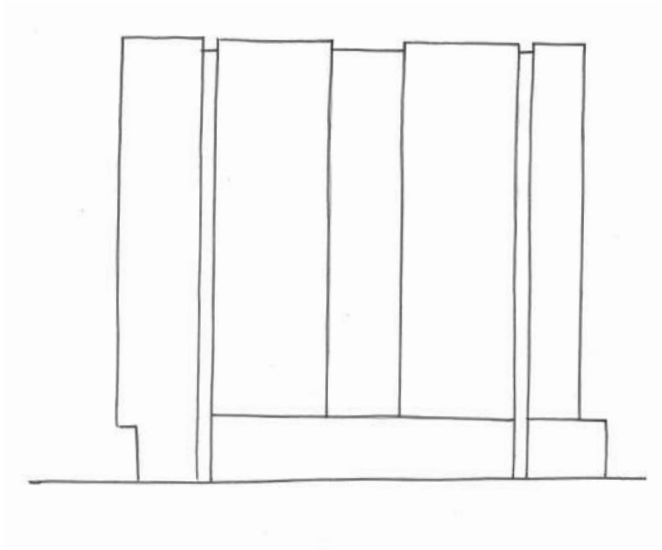
5.2 Social Building - Facade Development



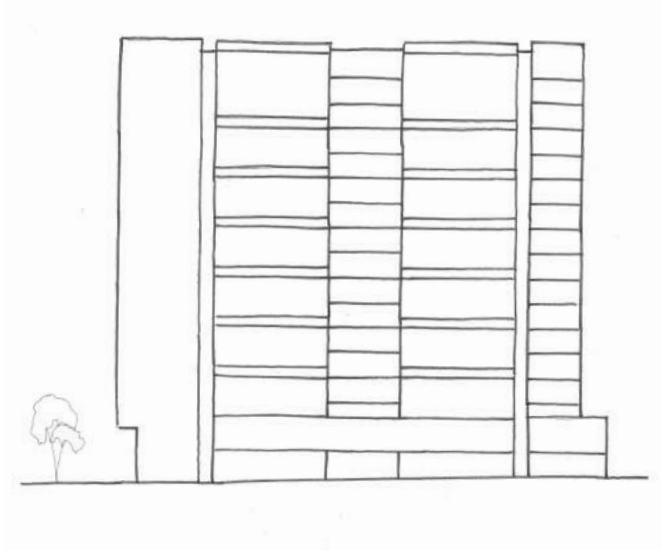
1. Baseline Massing



2. Breakdown facade with slots



3. Engage street - human scale



4. Modular fragments 3/2/1



5. Secondary modulation



6. Details



7. Shadows/Depth



8. Current elevation



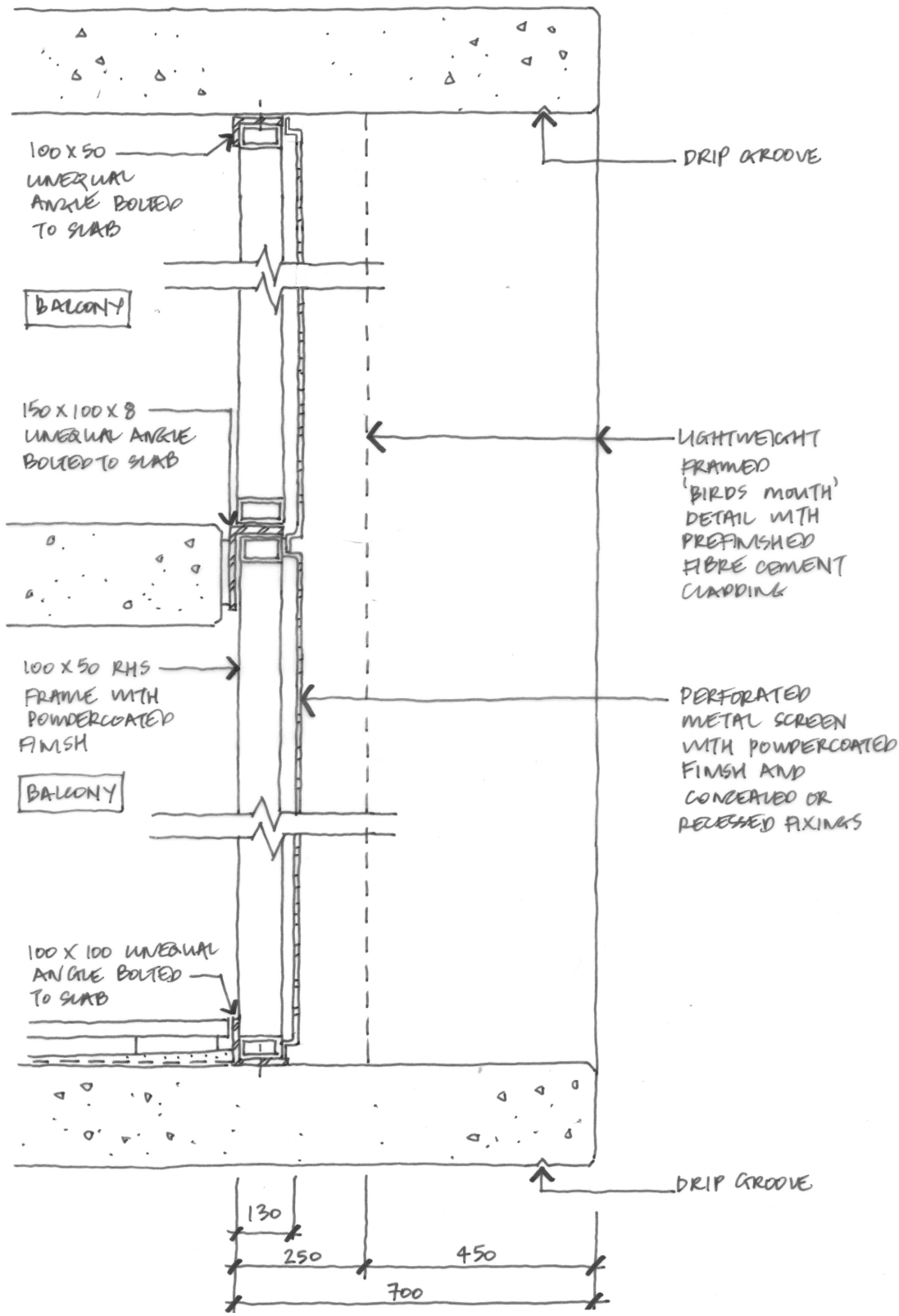
5.2 Social Building - Facade Details



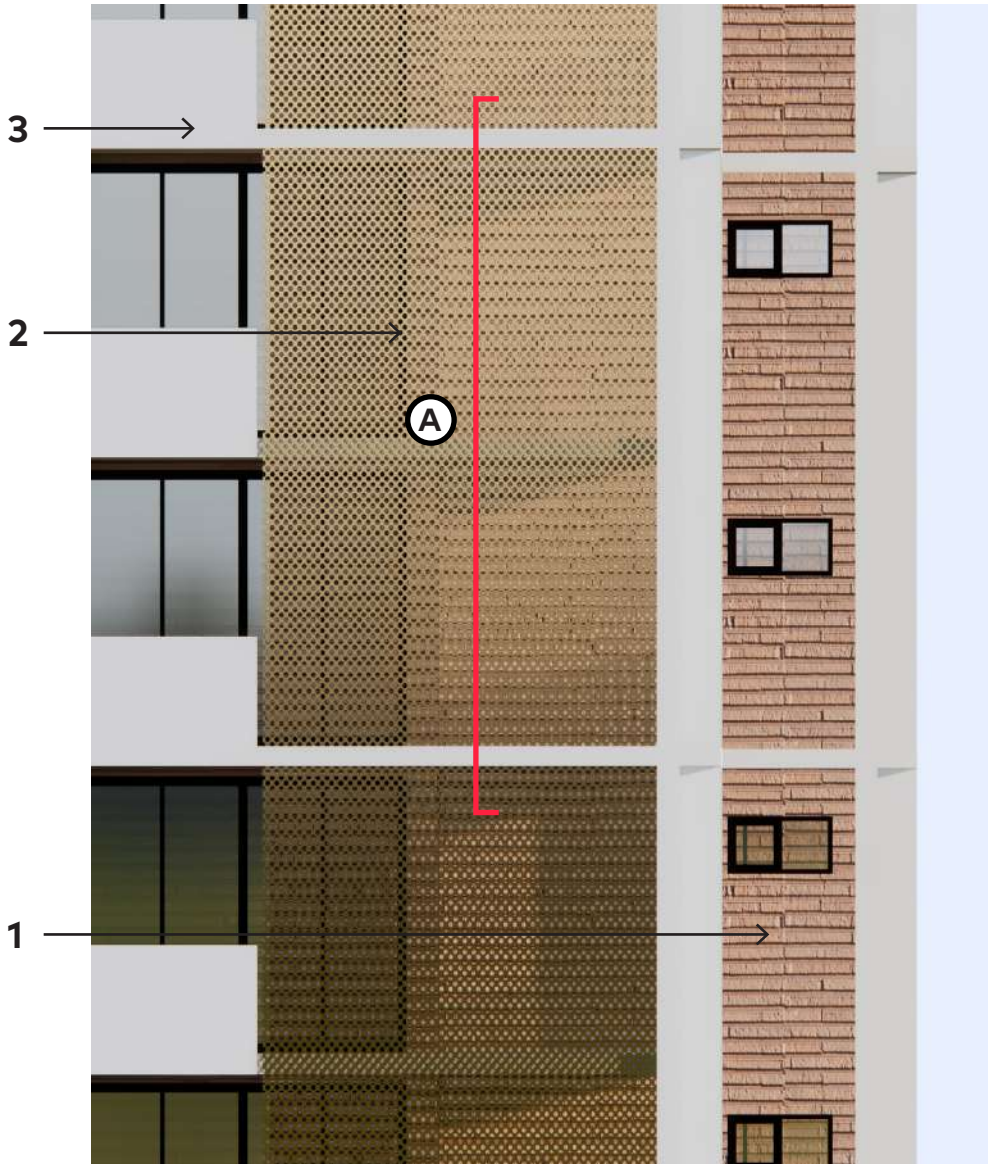
West Elevation - Key Plan



Physical Model



Facade Detail A



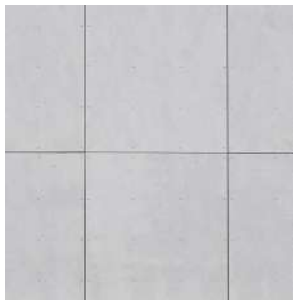
Perspective View



1. Face bricks



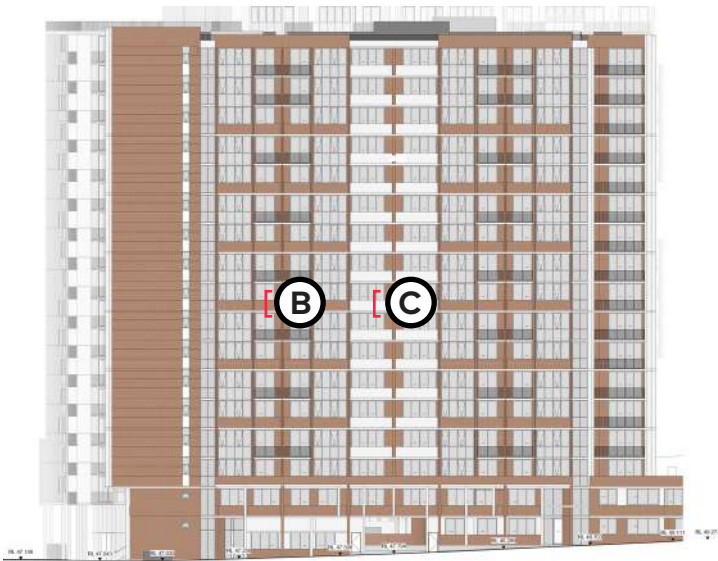
2. Hit & miss



3. Concrete- off-form



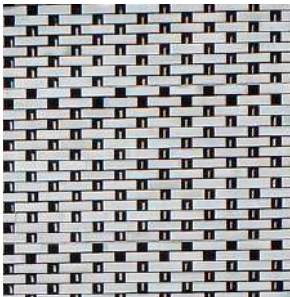
# 5.2 Social Building - Facade Details



West Elevation - Key Plan



1. Face bricks



2. Hit & miss



3. Concrete- off-form



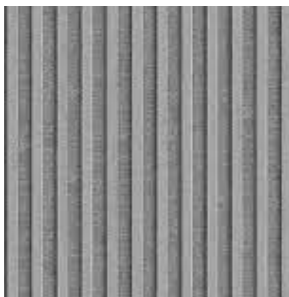
4. Perforated metal blades



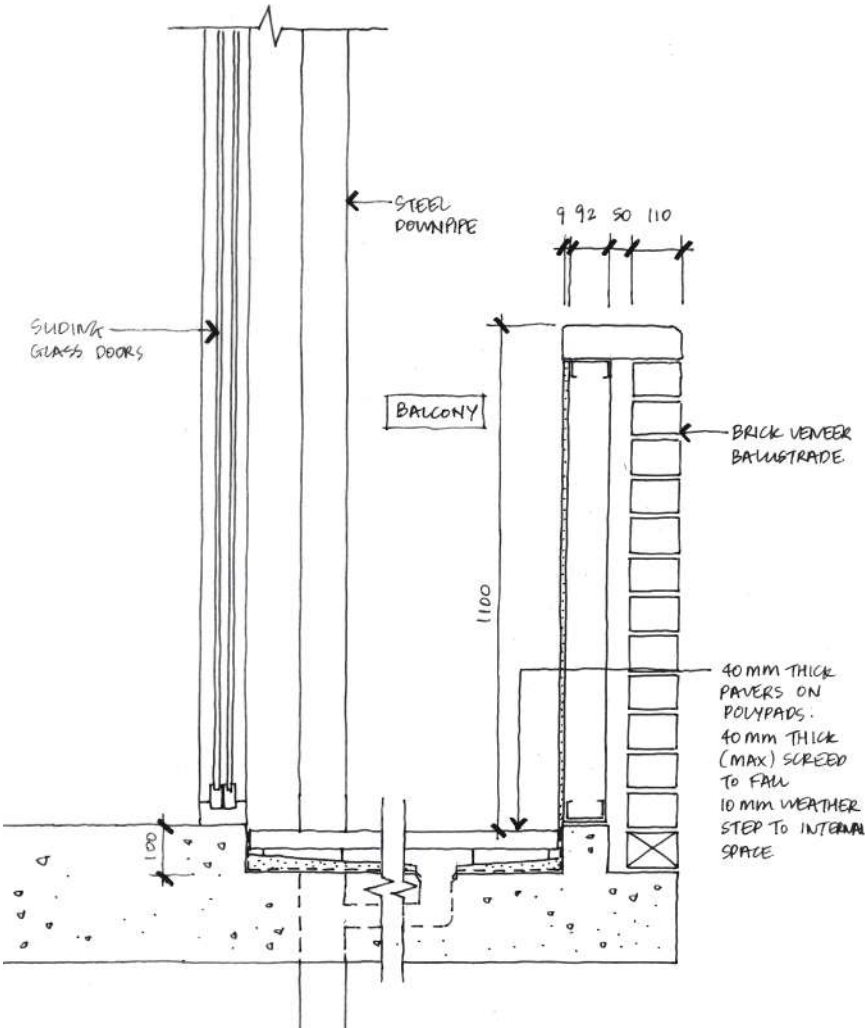
5. Metal palisade balustrades



6. Projecting brick



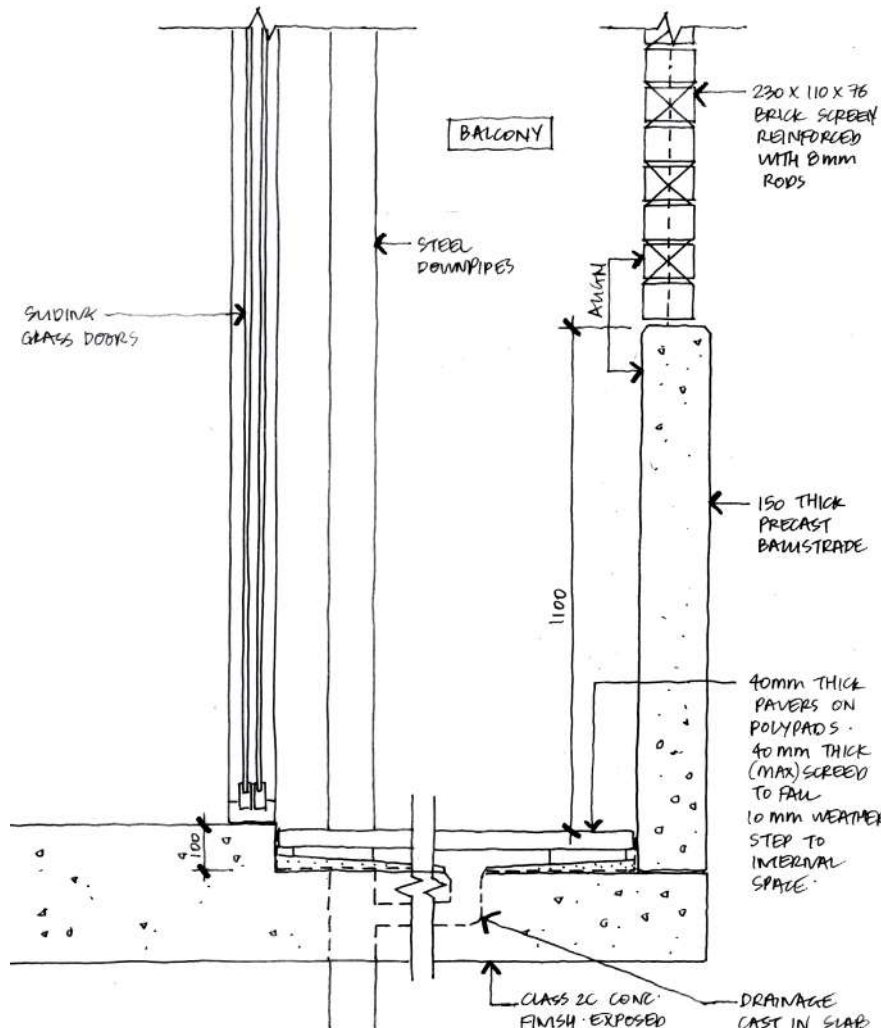
7. CFC cladding



Facade Detail B



Perspective View



Facade Detail C



Perspective View



5.2 Social Building - Facade Details



Partial Physical Model



Partial Facade View 01



Partial Facade View 02



5.2 Social Building - Artist Impression



View from Main Street looking South



5.3 Market Building - Massing Development



Jamie North "Terraforms"



Initial Massing



Vertical Seams



Facade Splays



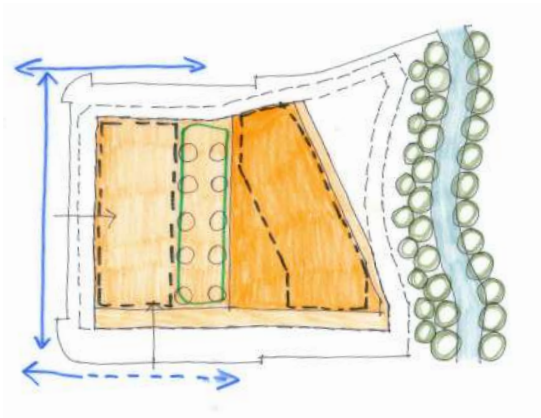
Precast Concrete elements to seams and notches



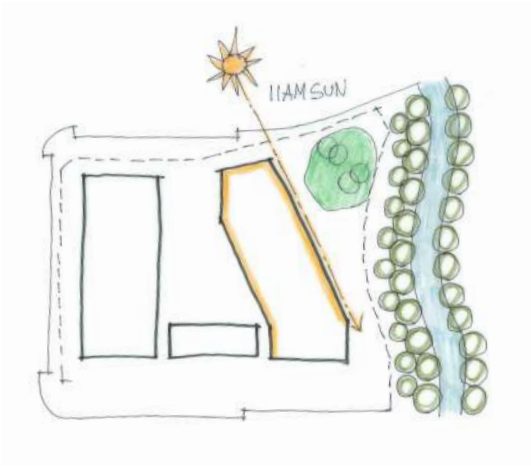
Defined gaps and horizontal proportion to base

**Organic Fragmentation.**

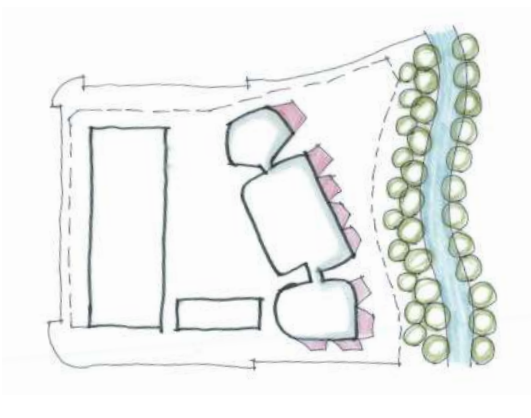
Organic approach to an architecture that responds to the landscaped context of Shrimptons Creek. Solid blades hold a fractured glass and landscaped facade.



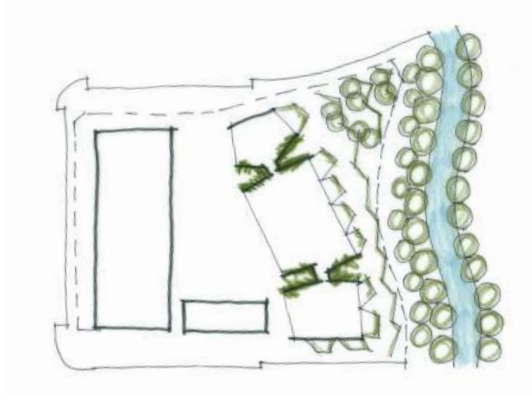
Massing Envelope



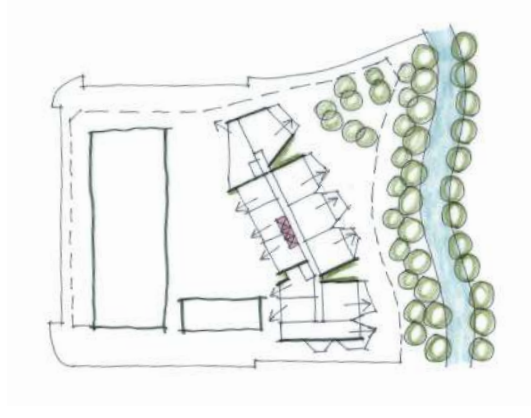
Sunlight Access



Chiselled Tower Form with Fragmented Podium



Green Gaps



Unit Configuration



5.3 Market Building - Massing Development



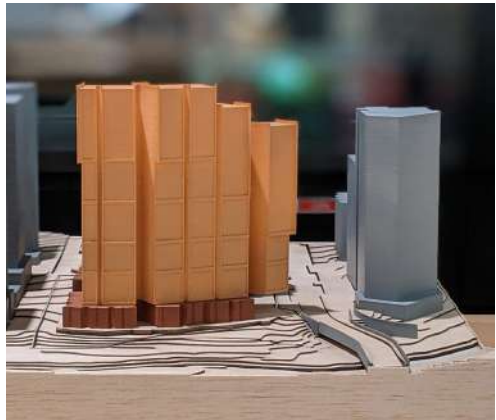
Massing Option 01



Massing Option 02



Massing Option 03



Massing Option 04



Massing Option 05



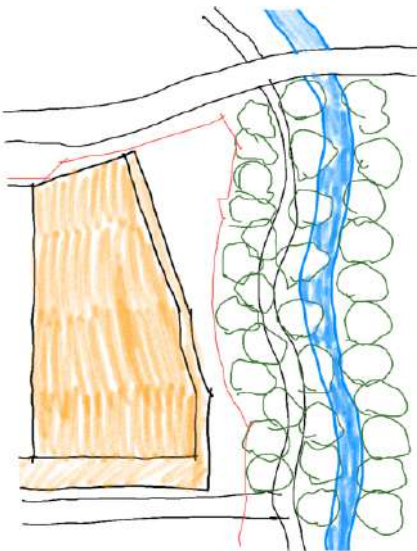
Massing Option Development



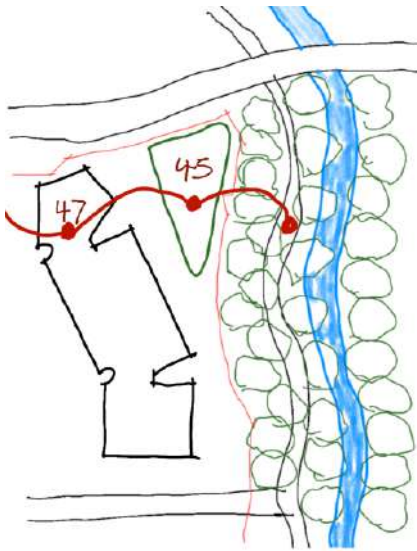
Proposed Massing



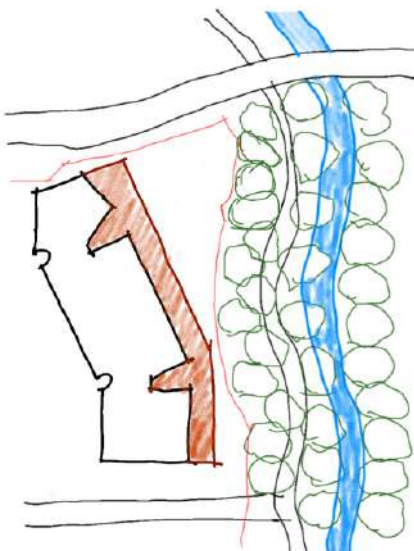
5.3 Market Building - Podium Development



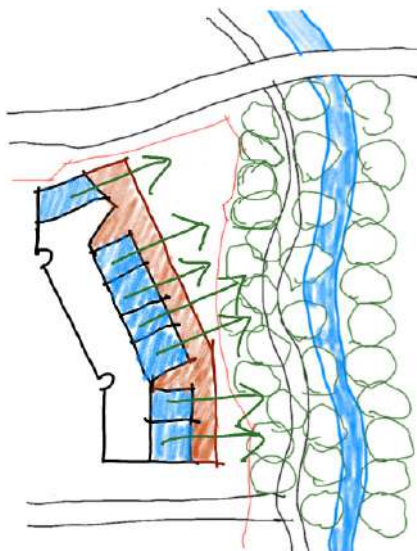
Envelope



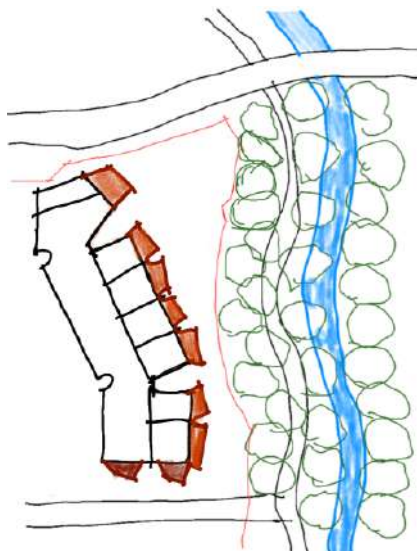
Level Change



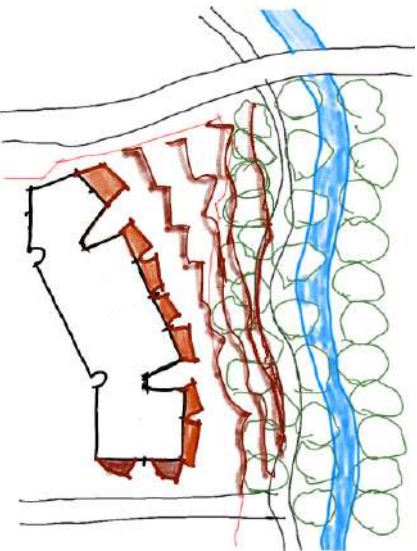
Envelope to Creek



Terrace Apartments to Creek



Fine Fragmented Expression



Benched Fractured Landscape

- Legend
- 1. Sculpted brick facade
  - 2. Staggered brick pattern
  - 3. Crafted shape contrast with tower above
  - 4. Palisade wall/balustrade & expressed concrete slab



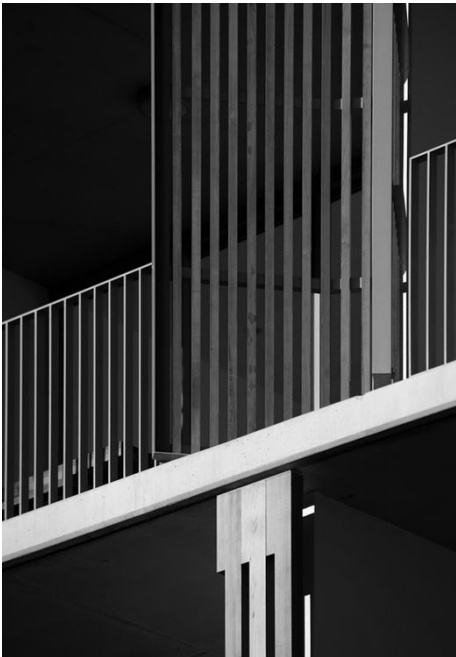
1.



2.



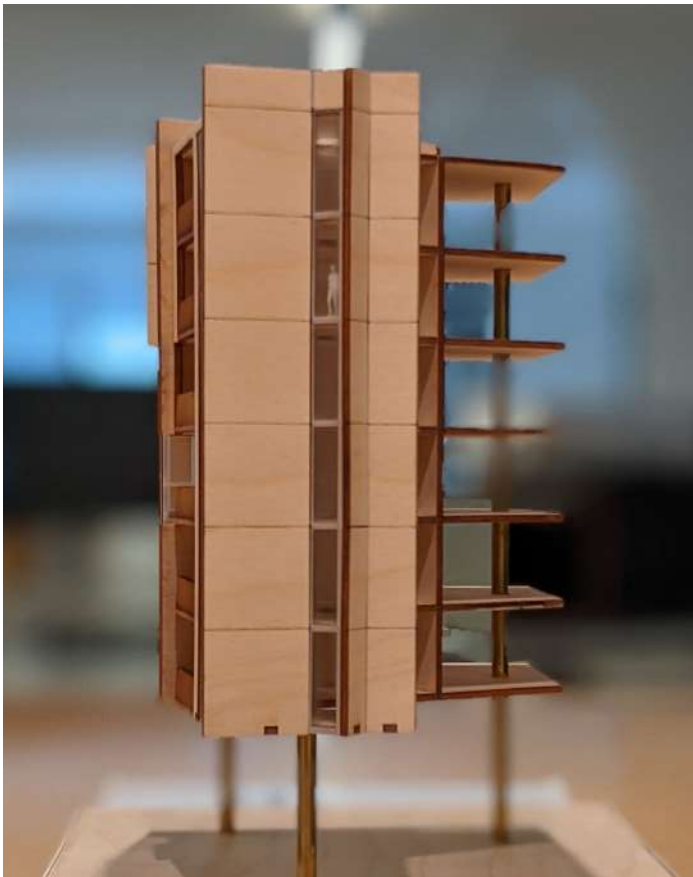
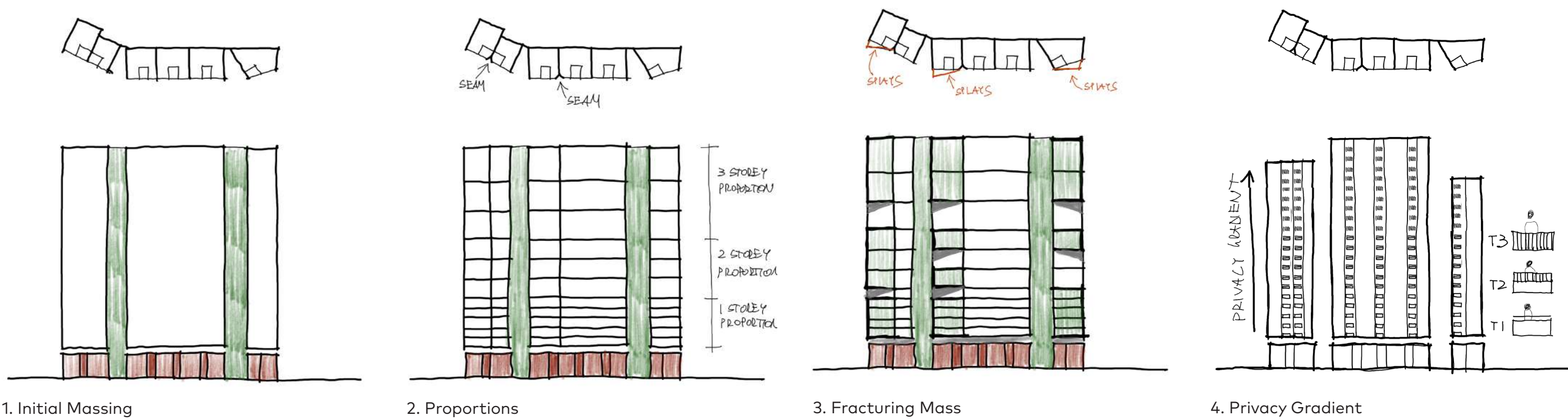
3.



4.



5.3 Market Building - Facade Concept



Sectional Model - View from Main Road



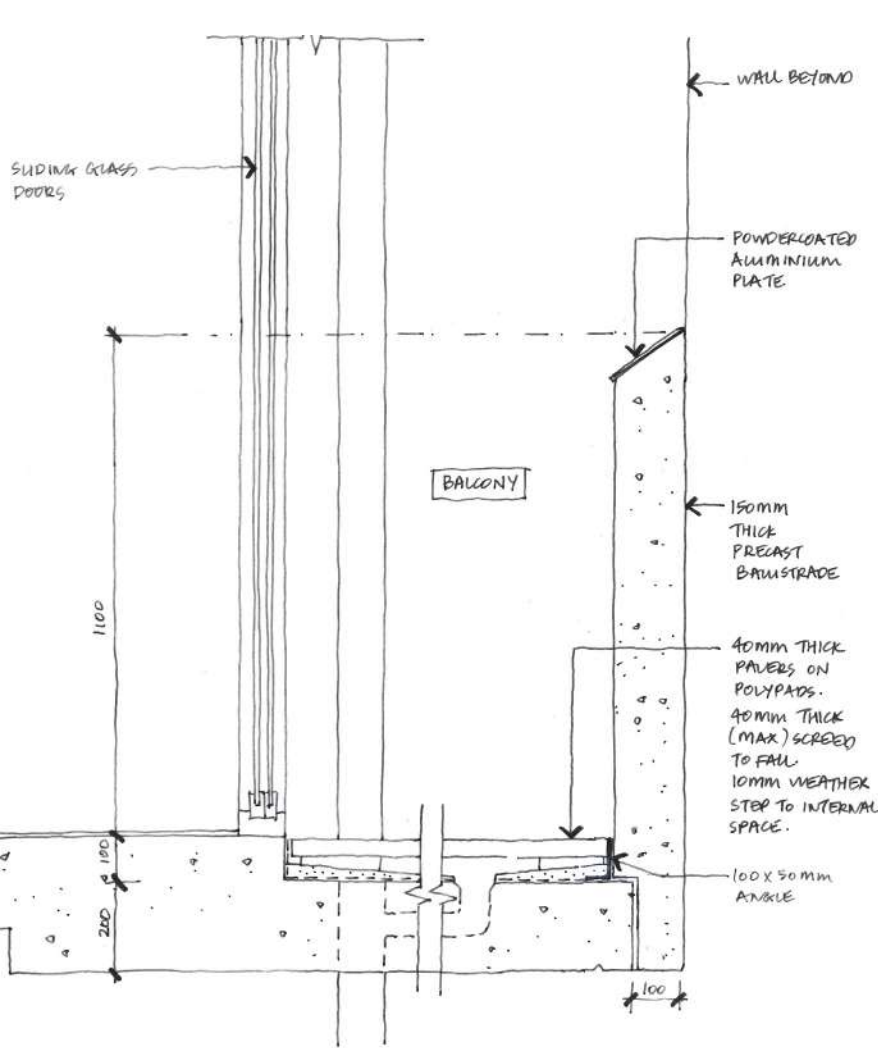
Sectional Facade Model - View from Shrimptons Creek



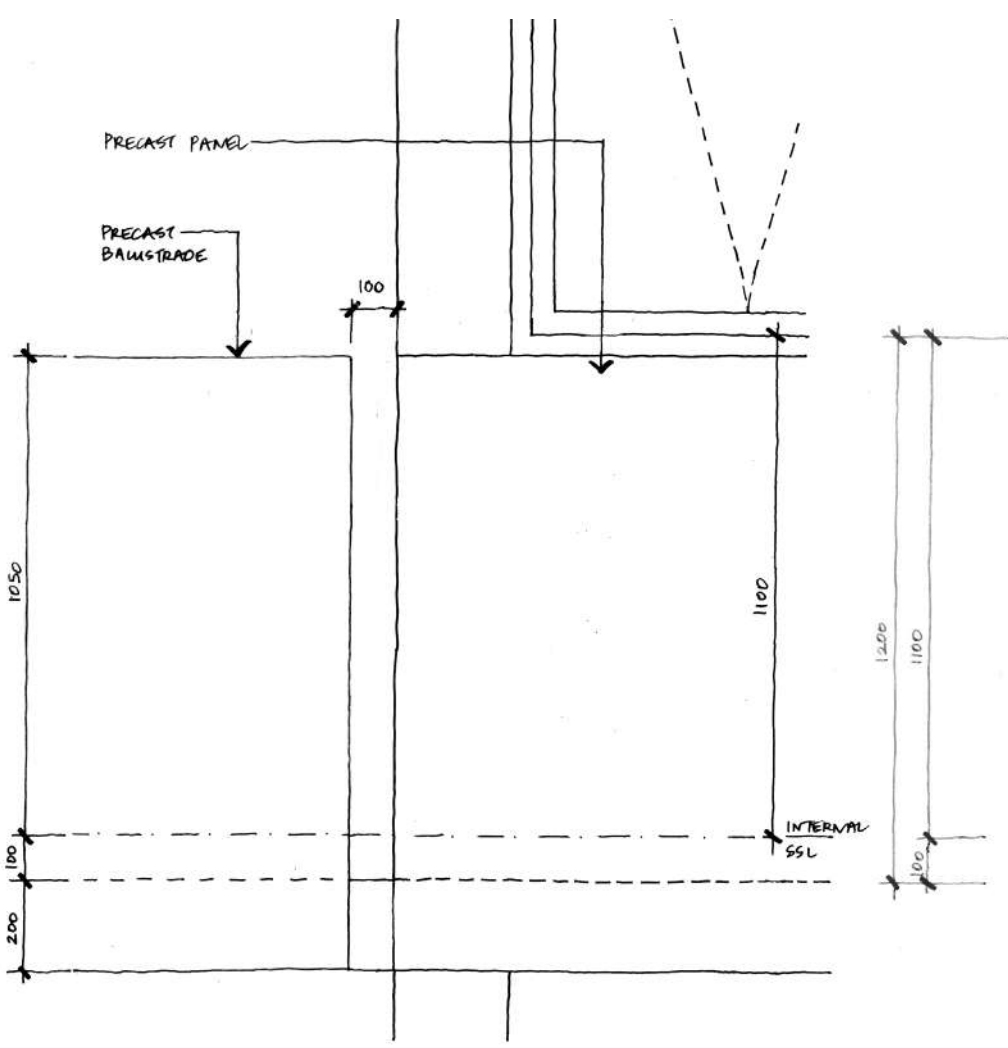
Sectional Facade Model - View from Shrimptons Creek



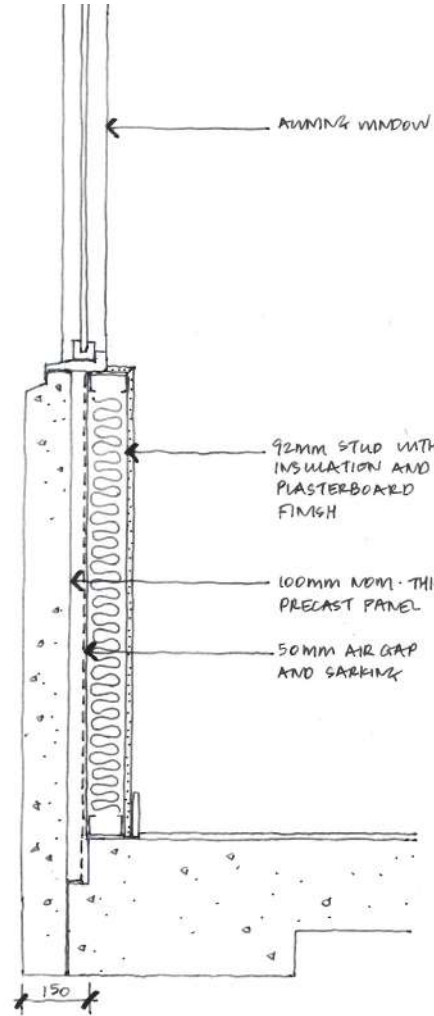
5.3 Market Building - Facade Details



Facade Detail A



Facade Detail B



Facade Detail C



Perspective View



1. Concrete, Off-form, white



2. Precast Concrete Panel - Reckli, Light Grey



3. Precast Concrete - Dark Grey



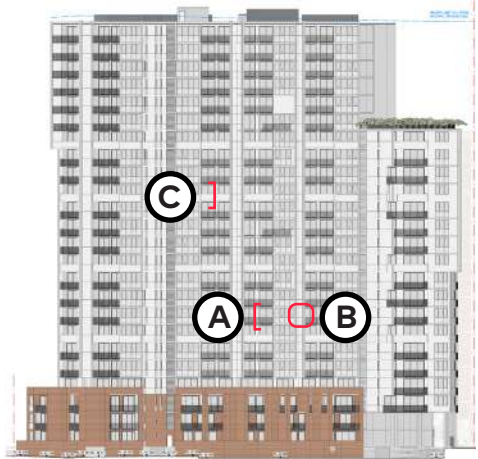
4. Precast Concrete - Colour Control



5. Precast Concrete Panel - Reckli, Dark Grey



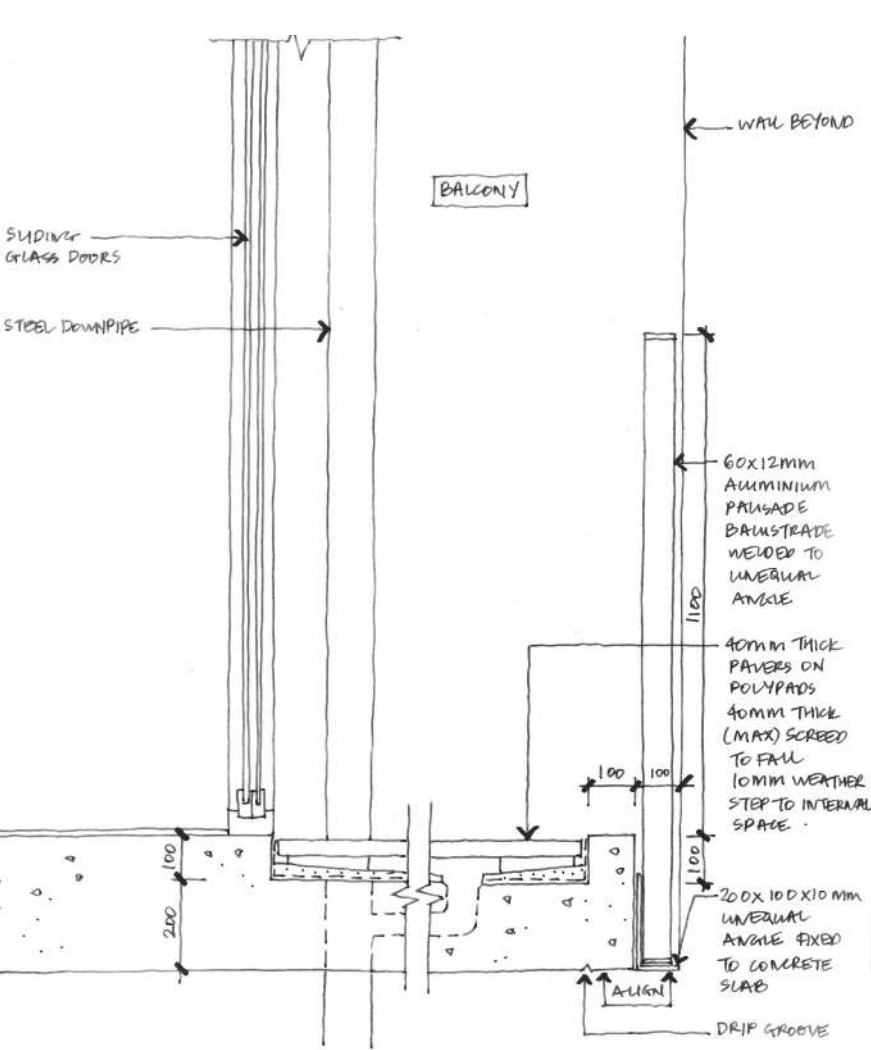
6. Aluminium Frames - Dulux Basalt



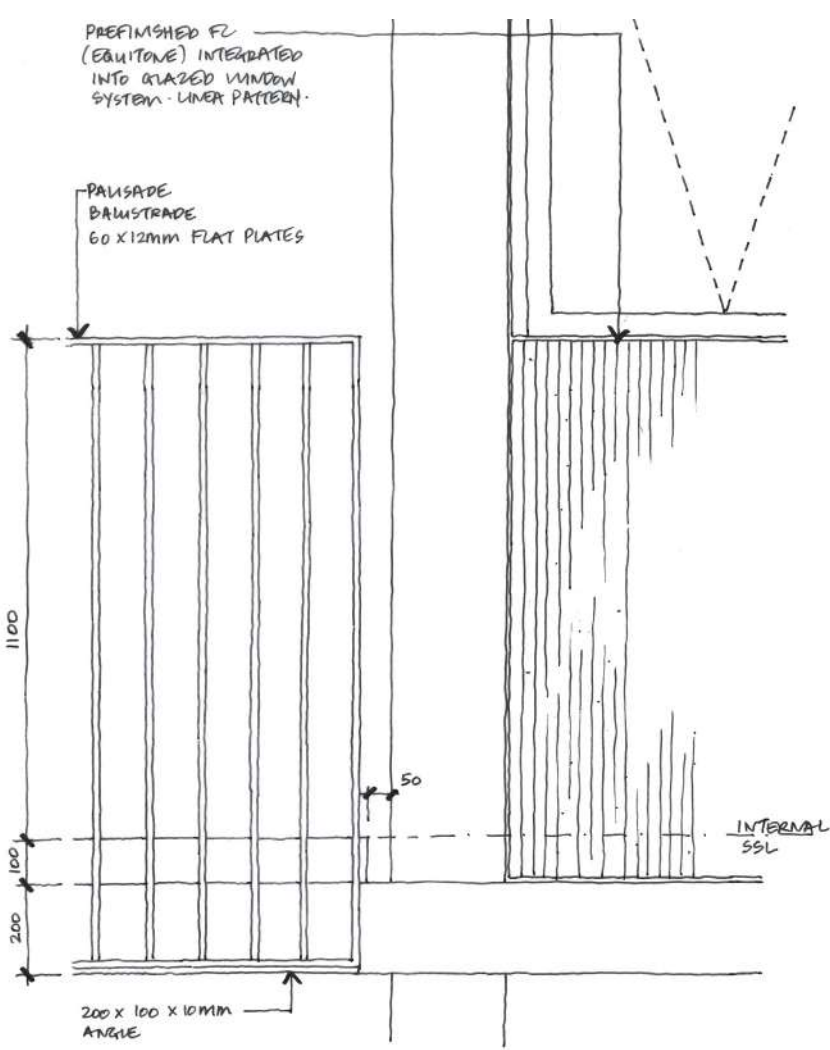
East Elevation - Key Plan



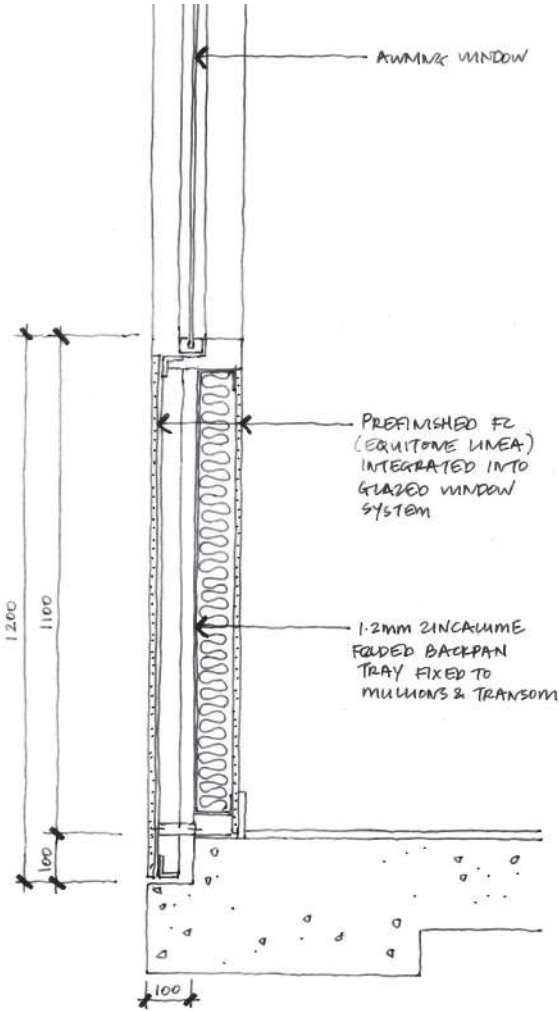
5.3 Market Building - Facade Details



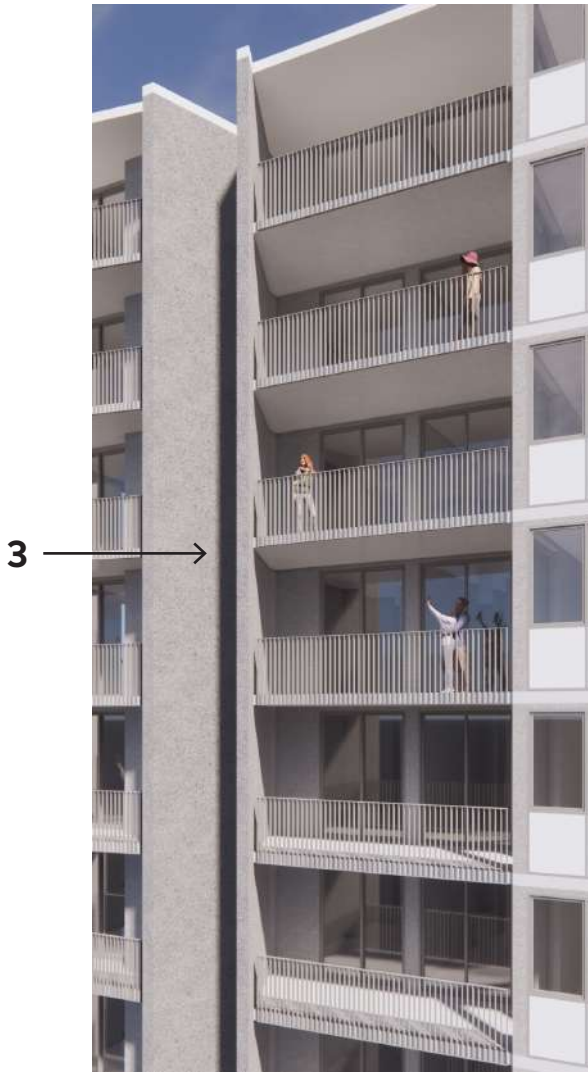
Facade Detail D



Facade Detail E



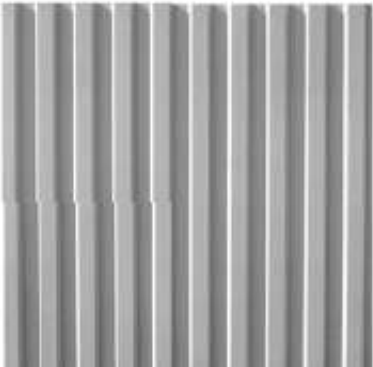
Facade Detail F



Perspective View



1. Concrete, Off-form, white



2. Precast Concrete Panel - Reckli, Light Grey



3. Precast Concrete - Dark Grey



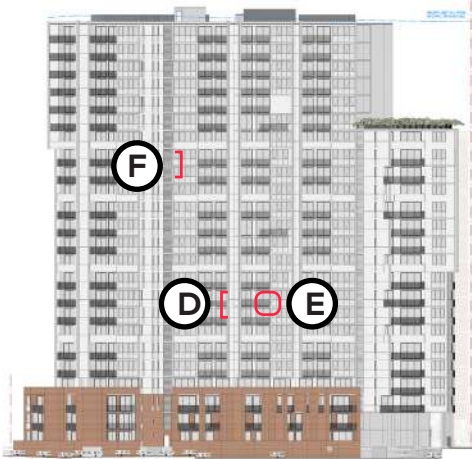
4. Precast Concrete - Colour Control



5. Precast Concrete Panel - Reckli, Dark Grey



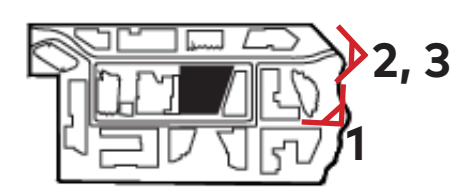
6. Aluminium Frames - Dulux Basalt



East Elevation - Key Plan



5.3 Market Building - Facade Details



1. Partial Facade View - Podium East Elevation



2. Partial Facade View - East Elevation



3. Partial Facade View - East Elevation



5.3 Market Building - Artist Impression



View from Main Street looking West



5.4 Townhouses - Facade Development



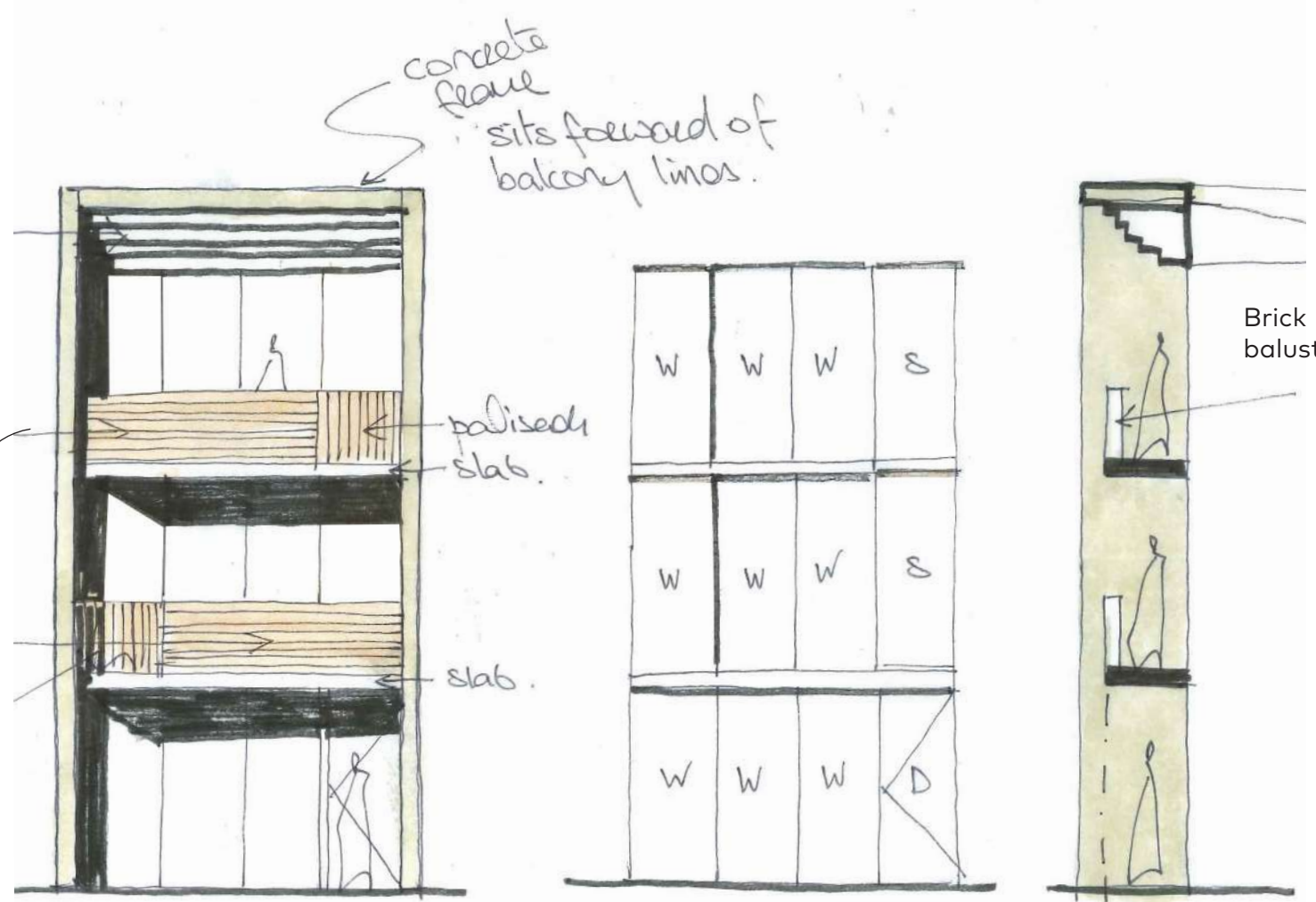
Stepped  
concrete soffit

Brick

Palisade  
balustrade

Brick  
balustrade

Brick  
balustrade





5.4 Townhouses - Artist Impression



View of townhouses from Neighbourhood Mews



C O X

6.0 FLOOR PLANS



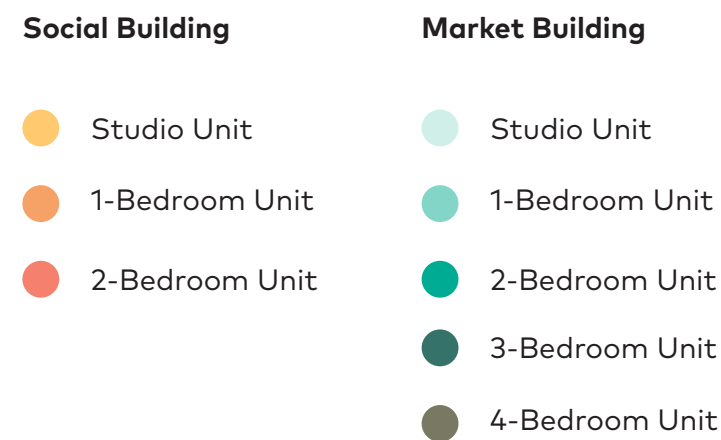
## 6.1 Ground Level Interface

The Social and Market towers are located on the threshold between urban context and Shrimptons Creek. Both buildings address Main Street through setback in the Social Building massing and introduction of double-height lobby at Market Building, allowing sight-line from Main Street through the base of the buildings to the greenery at Shrimptons Creek.

The Social Building entries are located on the more intimate Neighbourhood Street, with private terraces of the ground level apartment units creating a privacy buffer and passive surveillance to the two entrances on the north and south.

The Market Building entrance is setback from Main Street, angled towards the Shrimptons Creek recreational space. The ground floor units have direct access via private terraces to the green spaces at Shrimptons Creek, the private courtyard garden, or Neighbourhood Mews.

The Townhouses located on the south-west end of the site have direct access from Neighbourhood Mews, and rear access via private terrace to the private courtyard garden.





## 6.2 Social and Market Building - Level 1 Plan

## Social Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit

## Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit



Scale 1:200





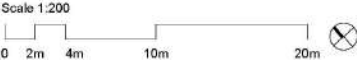
6.3 Social and Market Building - Level 2 Plan

Social Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit

Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





6.4 Social and Market Building - Level 3 Plan

Social Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit

Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





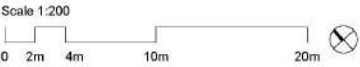
6.5 Social Building - Level 4 -16 Plan  
Market Building - Level 4 -17 Plan

Social Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit

Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





6.6 Market Building - Level 18 Plan

Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





6.7 Market Building - Level 22 Plan

Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





## 6.8 Market Building - Level 23 Plan

## Market Building

- Studio Unit
- 1-Bedroom Unit
- 2-Bedroom Unit
- 3-Bedroom Unit
- 4-Bedroom Unit





# 6.9 Social and Market Buildings - Roof Plan

The Social and Market towers both have green landscaped roofs to improve the amenity provision for the residents.

The Social tower roof top is a passive green space where 50% of the roof scape is landscaped.

The Market tower provides residents with a communal garden space at level 18 with covered and uncovered spaces to cater for a range of activities. Residents can also view a rooftop landscaped area on Level 22.





## 6.10 Basement Level 1

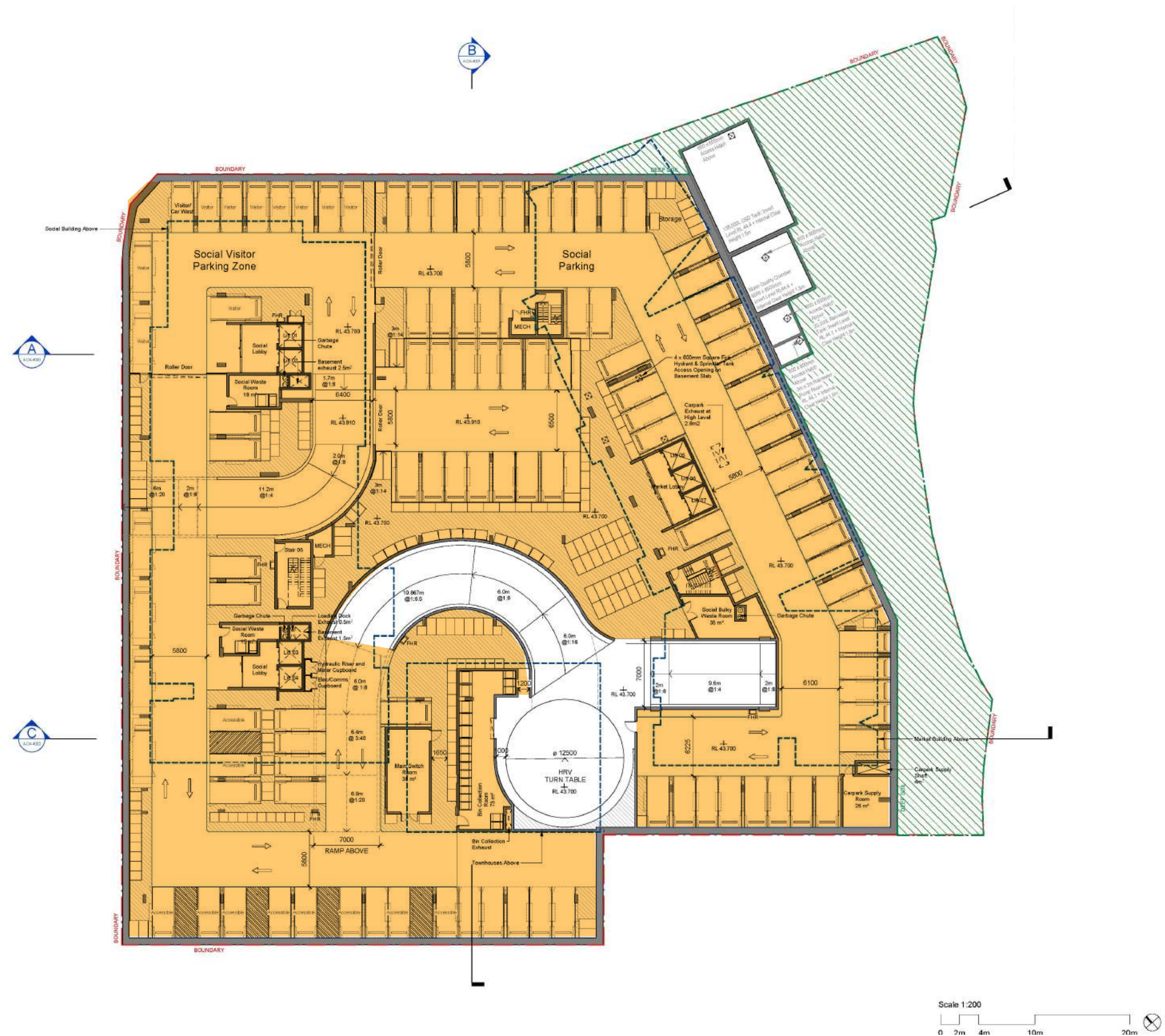
The Social and Market towers have separate car park entrances, where the Social tower car park entrance is located on Neighbourhood Street to the North-west of the site, and the Market tower car park entrance is combined with HRV vehicle entrance, and located on Neighbourhood Mews at the Southern end of the site.

## Social Building

- Social Building Basement

## Market Building

- Market Building Basement





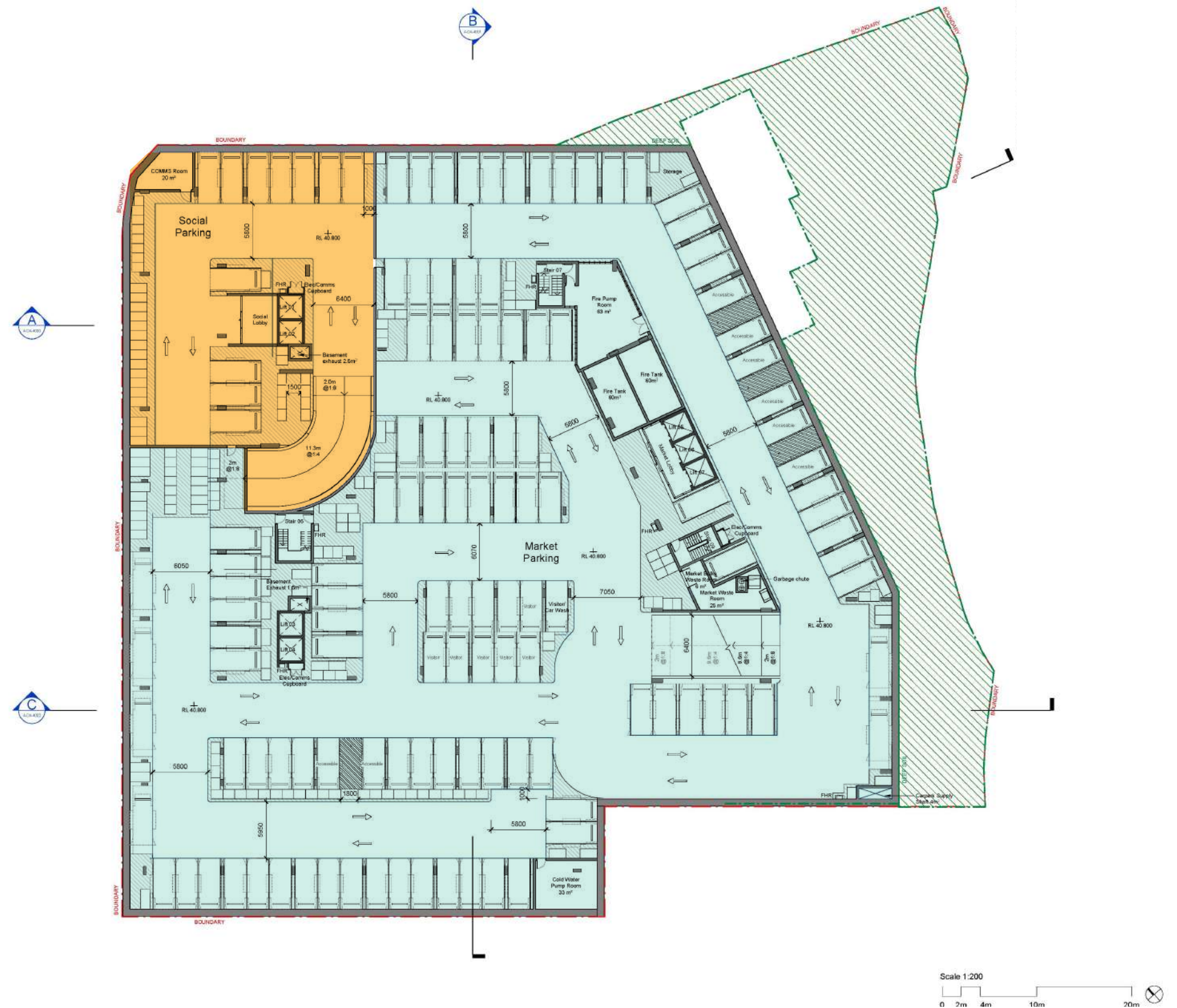
## 6.10 Basement Level 2

## Social Building

● Social Building Basement

## Market Building

● Market Building Basement





## 7.0 RESPONSE TO DESIGN GUIDELINES

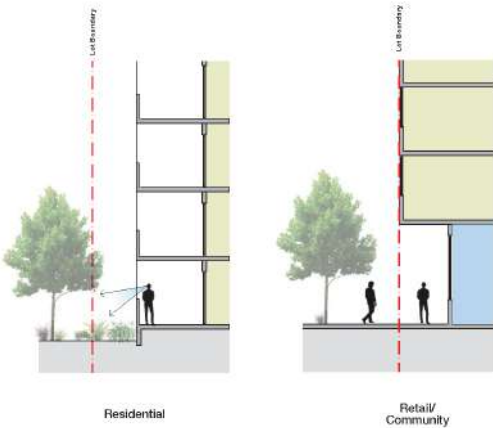




# 7.1 Response to Design Guidelines

<p><b>01. North East Development Lots (B1-B2)</b></p> <p><b>Objectives:</b></p> <p>A. To allow for a future pedestrian and cycle connection from Main Street to Peach Tree Avenue.</p> <p>B. To Provide opportunities for solar access to Main Street.</p> <p>C. To balance privacy and visual amenity to neighbouring sites.</p>	<p><b>Provisions</b></p> <p>1. Lot B1/B2 should be separated into three discrete buildings.</p> <p>2. Building separation should be of sufficient width to provide a pedestrian and cycle connection to Peach Tree Avenue.</p> <p>3. Avoid blank walls facing neighbouring sites.</p> <p>4. Where windows are proposed within 7m of the boundary, provide screening to mitigate overlooking of neighbouring sites.</p>		<p><b>Response</b></p> <p>Lot C4 is not impacted by this control. The proposed design of Lot C4 does not restrict future lots from complying with this control.</p>
<p><b>02. Public and Communal Open Space</b></p> <p><b>Objectives:</b></p> <p>A. To retain and enhance the existing publicly accessible open space along Shrimptons Creek corridor.</p> <p>B. To connect new public spaces to the existing open space network.</p> <p>C. To provide an adequate area of communal open space to enhance residential amenity and to provide opportunities for landscaping.</p>	<p><b>Provisions:</b></p> <p>1. The Shrimptons Creek Corridor is to be embellished and dedicated to Council as public open space.</p> <p>2. A Village Green should be provided between C1 and C3. A minimum of 3,300sqm should be usable area. The remainder should be landscaped roof to building C2.</p> <p>3. A Forest Playground of 3,900sqm usable area should be provided between Lots D2 and D3.</p> <p>4. Publicly accessible open spaces should connect Shrimptons Creek, the Village Green, Town Square, and Epping Road landscape corridor.</p> <p>5. Each lot should provide a mix of public and communal open space with a combine minimum area equal to 25% of the lot area, except Lot A1 which is not required to provide public or communal open space if it provides a childcare facility at ground level.</p>		<p><b>Response</b></p> <p>1. Shrimptons Creek Corridor is proposed to contain passive and active open space, with connections to the recreational spine, and small bird habitat corridor and habitat havens.</p> <p>2. Lot C4 is not impacted by this control.</p> <p>3. Lot C4 is not impacted by this control.</p> <p>4. Shrimptons Creek publicly accessible open space is connected via Neighbourhood Mews to the Village Green.</p> <p>5. Lot C4 provides a mix public and communal open space with a combined minimum area over 25%.</p>
<p><b>03. Deep Soil Zones</b></p> <p><b>Objectives</b></p> <p>A. To retain existing mature trees and to support healthy tree growth.</p> <p>B. To provide passive recreation opportunities.</p> <p>C. To promote management of water and air quality.</p>	<p><b>Provisions</b></p> <p>1. The area of deep soil within site, excluding RE1 zoned land, should be no less than 20% of the site area.</p> <p>2. Deep soil zones should have a minimum dimension of 6m.</p>		<p><b>Response</b></p> <p>1. Lot C4 provides deep soil over 20% of the site area..</p> <p>2. The deep soil zones have minimum dimension of 6m.</p>

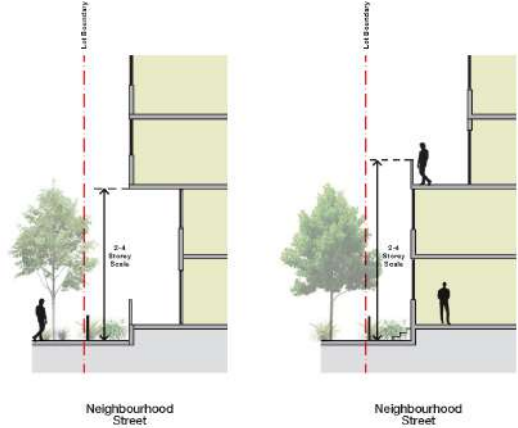



7.1 Response to Design Guidelines

<p><b>04. Public Domain Interface</b></p> <p><b>Objectives</b></p> <p>A. To transition between private and public domain without compromising safety and security.</p> <p>B. To retain and enhance the amenity of the Shrimptons creek corridor.</p> <p>C. To maximise the amenity of new streets and public open spaces.</p>	<p><b>Provisions</b></p> <p>1. Apartments, balconies and courtyards fronting Public Open Space such as Shrimptons Creek landscape corridor, Epping Road landscape corridor, Village Green and Forest playground should be provided with a landscaped buffer to separately define public and private space but maintain passive surveillance.</p> <p>2. Community and retail uses should provide an active frontage to the Village Green.</p> <p>3. Communal open space should be clearly defined and separate from the public domain.</p>	 <p>The diagram illustrates two building types: Residential and Retail/Community. Both are shown with setbacks from a dashed red line representing the 'Lot Boundary'. Landscaping, including trees and shrubs, is shown in the setback areas. The Residential building is a multi-story structure, while the Retail/Community building is shorter and wider. A person is shown walking on the sidewalk in front of the Retail/Community building.</p>	<p><b>Response</b></p> <p>1. Both Social and Market building provides setbacks to street frontage with a landscape buffer. The apartments and courtyards fronting Shrimptons Creek are provided with a landscape buffer to define public and private space. Refer to landscape plans from Hassell for details on landscape design.</p> <p>2. Lot C4 is not impacted by this control.</p> <p>3. The community open space between Social and Market building are communal open spaces accessible to residents of both Social and Market Buildings.</p>
<p><b>05. Active Frontages</b></p> <p><b>Objectives</b></p> <p>A. To provide active frontages with a distinctive civic character to Main Street.</p> <p>B. To ensure that public spaces and streets are activated along their edges.</p> <p>C. To maximise street frontage activity where ground floor apartments are located.</p> <p>D. To deliver amenity and safety for residents when designing ground floor apartments.</p>	<p><b>Provisions</b></p> <p>1. Buildings A1 and B2 should accommodate a childcare centre at ground level</p> <p>2. Buildings B1.2, C1, C2, C3 should accommodate retail and / or communal uses at ground level fronting Main Street and the Village Green</p> <p>3. Building D3 should provide ground level office space for the community housing provider.</p> <p>4. Direct street access should be provided to ground floor apartments</p> <p>5. 2-4 storey residential typologies should be considered on street frontages of apartment buildings fronting neighbourhood streets.</p> <p>6. Basement carpark are not be visible above ground level.</p>	 <p>The site plan shows a layout of buildings labeled A1, A2, A3, B1.1, B1.2, B2, B3, C1, C2, C3, C4, D1, D2, D3, and D4. It includes Main Street, Village Green, and Forest Playground. A legend indicates: Yellow for Childcare, Orange for Community, Blue for Retail, and Green for CHP Office. The buildings are arranged around a central area with streets and open spaces.</p>	<p><b>Response</b></p> <p>1. Lot C4 is not impacted by this control.</p> <p>2. Lot C4 is not impacted by this control.</p> <p>3. Lot C4 is not impacted by this control.</p> <p>4. Both Social and Market Building ground level apartments are provided with direct street access.</p> <p>5. Both Social and Market Buildings have 3-level residential podiums that provide human-scale and street frontage to address the intimate nature of Neighbourhood Street and Neighbourhood Mews.</p> <p>6. Lot C4 basement carpark are not visible above ground level.</p>
<p><b>06. Pedestrian and Vehicular Entry Locations</b></p> <p><b>Objectives</b></p> <p>A. To provide building entries and pedestrian access that connects to and addresses the public domain.</p> <p>B. To provide accessible and easily identifiable building entries and pathways.</p> <p>C. To minimise conflicts between vehicles and pedestrians</p> <p>D. To create high quality streetscapes</p>	<p><b>Provisions</b></p> <p>1. Primary building entries should address the street.</p> <p>2. Vehicle entries should avoid Main St where possible.</p> <p>3. Internal loading docks will be shared wherever possible to limit the amount of driveways to improve public amenity and streetscapes.</p> <p>4. Ensure loading docks are capable of accommodating vehicles for both garbage collection and move ins / move outs.</p> <p>5. Where internal dedicated loading docks are not possible, on-street loading zones will be discretely located near building entries.</p>	 <p>The diagram shows a site plan with red triangles indicating 'Pedestrian Entry' and blue triangles indicating 'Vehicular Entry'. The entries are distributed across the site, with some buildings having multiple entries. The diagram shows the layout of buildings and streets, with entries marked at various points.</p>	<p><b>Response</b></p> <p>1. Lot C4 building entries address the street. Market Building address Main Street, while Social Building entries address the Neighbourhood Street</p> <p>2. Vehicle entries for both C4 Market and Social Buildings are not on the Main Street.</p> <p>3. Internal loading docks are shared between Social and Market Buildings.</p> <p>4. Lot C4 loading docks are capable of accommodating vehicles for both garbage collection and move ins/outs.</p> <p>5. Lot C4 has internal dedicated loading docks.</p>

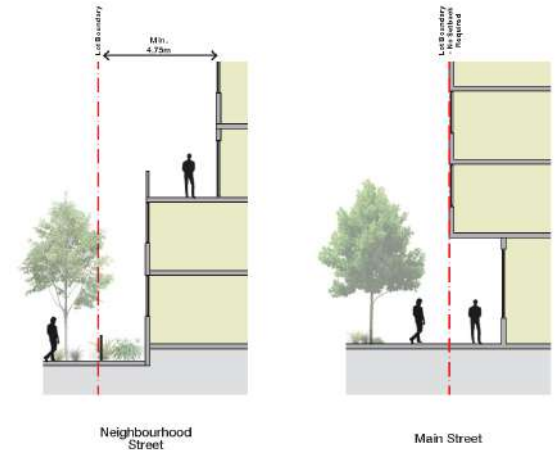
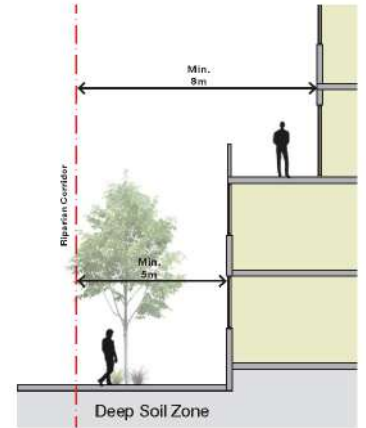


7.1 Response to Design Guidelines

<p><b>07. Street Wall Height</b></p> <p><b>Objectives</b></p> <p>A. To provide buildings that positively contribute to the physical definition of the public domain.</p> <p>B. To reduce the scale of buildings as perceived from the public domain.</p>	<p><b>Provisions</b></p> <p>1. On neighbourhood streets, buildings should express a 2-4 storey scale on the lowest levels of the building.</p>		<p><b>Response</b></p> <p>1. Both Social and Market Buildings have 3-level residential podium that provides human-scale and street frontage to address the intimate nature of Neighbourhood Street and Neighbourhood Mews.</p>
<p><b>08. Ground Level Street Setbacks</b></p> <p><b>Objectives</b></p> <p>A. To provide buildings that positively contribute to the physical definition of the public domain</p> <p>B. To transition between private and public domain without compromising safety and security</p> <p>C. To provide a landscape design which contributes to the streetscape and residential amenity</p>	<p><b>Provisions</b></p> <p>1. On neighbourhood streets, the lower levels of buildings should be set back a minimum of 2m from the lot boundary.</p> <p>2. On main street, the lower levels of buildings should have an average set back of 2m from the lot boundary.</p> <p>3. On neighbourhood streets, setback zones should be landscaped to balance street activation and residential amenity.</p>		<p><b>Response</b></p> <p>1. Lot C4 complies with minimum setback requirement on Neighbourhood Street.</p> <p>2. Lot C4 complies with minimum setback requirement on Main Street.</p> <p>3. Setback zones of Lot C4 on Neighbourhood Street is landscaped.</p>



# 7.1 Response to Design Guidelines

<p><b>09. Upper Level Setbacks</b></p> <p><b>Objectives</b></p> <p>A. To reduce the scale of buildings as perceived from the public domain.</p> <p>B. To minimise the adverse wind impact of down drafts from tall buildings</p>	<p><b>Provisions</b></p> <p>1. On neighbourhood streets, upper floors of buildings should be set back a minimum of 4.75m from the lot boundary.</p> <p>2. On Main Street, upper levels of buildings can be built to the lot boundary, subject to building separation requirements of SEPP65.</p>		<p><b>Response</b></p> <p>1. Lot C4 complies with minimum setback requirement on Neighbourhood Street.</p> <p>2. Upper levels of Lot C4 buildings are built to lot boundary, with building separation requirements compliant with ADG and SEPP 65.</p>
<p><b>10. Setback to Shrimptons Creek</b></p> <p><b>Objectives</b></p> <p>A. To provide buildings that positively contribute to the physical definition of the public domain.</p> <p>B. To reduce the scale of buildings as perceived from the public domain.</p> <p>C. To minimise the adverse wind impact of down drafts from tall buildings</p>	<p><b>Provisions</b></p> <p>1. Buildings fronting Shrimptons Creek should be set back a minimum of 5m from the edge of the Riparian Corridor.</p> <p>2. Buildings fronting Shrimptons Creek should express a 2-4 storey scale on the lowest levels of the building.</p> <p>3. Fronting Shrimptons Creek, upper levels of buildings should be set back a minimum of 8m from the edge of the Riparian Corridor.</p> <p>4. Buildings fronting Shrimptons Creek should be articulated into multiple parts so that unbroken façades are no longer than 30m.</p> <p>5. Refer to design guideline 4 regarding the interface of public and private space.</p>		<p><b>Response</b></p> <p>1. Lot C4 complies with minimum setback requirement of 5m from the edge of Riparian Corridor.</p> <p>2. Lot C4 Market Building fronts Shrimptons Creek, and have 3-level residential podium that provides a human-scale to address the natural habitat at the edge of the Riparian Corridor.</p> <p>3. Setback of Lot C4 Market Building upper levels fronting Shrimptons Creek is setback 8m from the edge of the Riparian Corridor.</p> <p>4. The facade of Market Building fronting Shrimptons Creek has introduction of vertical building notches with green planting elements to break the facade length to less than 30m.</p> <p>5. Lot C4 complies with Guideline 4.</p>
<p><b>11. Rooftops</b></p> <p><b>Objectives</b></p> <p>A. To maximise opportunities to use roof space for residential accommodation and open space.</p> <p>B. To incorporate sustainability features into the roof design.</p> <p>C. To minimise the visual impact of roof plant.</p>	<p><b>Provisions</b></p> <p>1. Private and communal roof terraces should be provided where possible.</p> <p>2. Roofs that are overlooked by other buildings should provide either communal open space or landscape planting.</p> <p>3. Plant areas should be screened from view.</p> <p>4. Upper level roofs should accommodate solar panels.</p> <p>5. Roof levels are to provide interesting silhouettes with no residential accommodation allowed above the maximum approved height.</p>		<p><b>Response</b></p> <p>1. Lot C4 provides passive green roof at Social building, and a sky garden at level 18 of the Market Building.</p> <p>2. Lot C4 Social Building has landscaped rooftop to provide amenity to the outlook of the surrounding taller buildings.</p> <p>3. Lot C4 roof plants are screened from view.</p> <p>4. PV array panels are provided on rooftops at area not landscape or occupied by plant equipment.</p> <p>5. Lot C4 articulates the building massing (refer to Chapter 5 of Architecture Design Report) and is within the maximum approved building height.</p>



7.1 Response to Design Guidelines

<p><b>12. Facade Expression and Materials</b></p> <p><b>Objectives</b></p> <p>A. To define and reinforce a distinctive character within the masterplan precinct.</p> <p>B. To express building functions.</p> <p>C. To create buildings which will improve with age.</p>	<p><b>Provisions</b></p> <p>1. The lower levels of residential buildings should use masonry as the predominant facade material.</p> <p>2. Render should be avoided as the primary facade material.</p> <p>3. Façade materials should be self-finished, durable and low maintenance.</p> <p>4. Use of colour in building façades should focus on warm, naturally occurring hues.</p>		<p><b>Response</b></p> <p>1. Lot C4 uses brick as the predominant facade material at podium levels. Refer to Chapter 5 of the Architectural Design Report for details.</p> <p>2. Lot C4 does not propose any render as facade finish.</p> <p>3. Lot C4 proposes off-form concrete, brick and CFC as the main facade materials due to the durability and low-maintenance nature of these materials.</p> <p>4. Both Social and Market Buildings of C4 utilise the natural colour of brick and concrete for its colour palette.</p>
<p><b>13. Design Excellence</b></p> <p><b>Objectives</b></p> <p>A. To ensure architectural diversity is achieved.</p> <p>B. To achieve a high standard of architectural and urban design, materials and detailing appropriate to the building type and location.</p> <p>C. To ensure the form and external appearance of the buildings improve the quality and amenity of the public domain.</p> <p>D. To ensure buildings meet sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency.</p>	<p><b>Provisions</b></p> <p>1. Buildings should be designed in accordance with the Ivanhoe Masterplan design excellence strategy prepared by Ethos Urban.</p>		<p><b>Response</b></p> <p>1. Lot C4 design proposal has been developed in accordance with the principles outlined within the Ivanhoe Masterplan Design Excellence Strategy prepared by Ethos Urban.</p>
<p><b>14. Universal Design</b></p> <p><b>Objectives</b></p> <p>A. Universal design features are included in apartment design to promote flexible housing for all community members.</p> <p>B. A variety of apartments with adaptable designs are provided.</p>	<p><b>Provisions</b></p> <p>1. 100% of social dwellings should incorporate the Liveable Housing Guideline's silver level universal design features</p> <p>2. 5% of market and affordable dwellings should be wheelchair adaptable to meet the requirements of AS4299 Class C.</p>		<p><b>Response</b></p> <p>1. 100% of apartments within the Social Building has incorporated the Liveable Housing Guideline's silver level universal design features.</p> <p>2. Lot C4 Market building provides 5% of its apartment mix to be wheelchair adaptable to meet the requirements of AS4299 Class C.</p>



## 8.0 ENVIRONMENTALLY SENSITIVE DESIGN



## 8.1 Environmentally Sensitive Design

The precinct is achieving the planning requirements through a series of strategies, which are captured in the summary matrix below.

PLANNING REQUIREMENT	PRECINCT PROJECT RESPONSE
Identify how ESD principles will be incorporated into the design, construction and ongoing operation of the proposed development	Incorporated through: <ul style="list-style-type: none"> <li>• Architectural design</li> <li>• Building systems design and renewable energy</li> <li>• Materials and procurement</li> <li>• Landscape and site water systems</li> <li>• Offsite opportunities</li> <li>• Transport and mobility.</li> </ul>
Demonstrate how the development will achieve the commitments identified in the approved concept plan:	
• 5-star Green Star Design and As-Built v1.3;	Committed to 5 stars GS D&AB v1.3. Refer to targeted pathway in Section 9
• 6-star Green Star Communities v1.1;	Committed to 6 stars GS Communities v1.1. Refer to Section 9
• Precinct wide averaged Basix 40 Energy target;	Passive design strategies, On-site renewable energy generation, efficient systems
• Precinct wide averaged Basix 45 Water target;	Water efficient fixtures/fittings, rainwater tank and reuse for landscape irrigation
• 6 Stars NatHERS commitment with 7 stars aspiration;	Passive design strategies
• NABERS 5-star water for all commercial components;	Water efficient fixtures/fittings, rainwater tank and reuse for landscape irrigation
• Carbon Neutral in operations;	<ul style="list-style-type: none"> <li>• Green power procurement</li> <li>• 1.5 MW Solar PV System precinct-wide</li> <li>• Reduction in Embodied carbon</li> <li>• Integrated utilities infrastructure</li> </ul>
• Materials sustainability & Waste reduction	Achieved through Green Star certification
• Sustainable transport and mobility	Achieved through Green Star certification
Demonstrate how future buildings will meet or exceed the relevant industry recognised building sustainability and environmental performance standards, including any green accreditation;	Committed to 5 stars Green Star D&AB v1.3 and 6 stars Green Star Communities
Demonstrate how the proposal incorporates measures to minimize carbon emissions from both construction/waste materials and in built, embodied design; reflecting the Government's goal of net zero emissions by 2050, and the consumption of resources, water (including through water sensitive design principles and water re-use) and energy.	<ul style="list-style-type: none"> <li>• Achieved through commitment to carbon zero operations;</li> <li>• Green Star certifications; and</li> <li>• Integrated utilities infrastructure</li> </ul>



C O X

9.0 DENSITY + YIELD



9.1 Density

"SEPP 65 Principle 3: Density

Good Design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment."

The C4 design proposal forms part of the broader Ivanhoe Masterplan development with maximum GFA, height and uses established at masterplan stage.

The masterplan site is restricted by three maximum height restrictions: 45m, 65m and 75m (with the taller building height allowance located along the southern half of the masterplan fronting Epping Road to minimise the overshadowing and visual impact to neighbours).

The masterplan site is noted as having a floor space ratio of 2.90:1, while surrounding sites range from 2.90.1 to 4.50.1 to the north and west of the masterplan.

The proposal is consistent with the approved height, use and floor space ratio described in the masterplan design guidelines.

9.2 Dwelling Size and Mix

The mix proposed a range of unit sizes and types to meet the needs of a diverse range of future mixed-tenure residents.

Tenure	Dwelling Type	Number	Mix
Social	Studio	24	11%
	1 Bed	97	45%
	2 Bed	95	44%
Total		216	
Market	Studio	0	0%
	1 Bed 1 bath	61	22%
	1 Bed 1 bath + study	72	26%
	2 Bed 1 bath	0	0%
	2 Bed 2 bath	5	2%
	2 Bed 2 bath + study	87	32%
	3 Bed 2 bath	20	7%
	3 Bed 2 bath + study	19	7%
	3 Bed 3 bath	0	0%
	3 Bed 3 bath + study	4	1%
	4 Bed 3 bath townhouses	4	1%
Total		272	

9.3 Parking

All parking is provided within the basement of the proposed development with no at grade parking contained within this application.

Social Building is provided with 119 car parking spaces, inclusive of 5% accessible parking spaces and 5% visitor's parking (1 per 20 units).

Market Building is provided with 278 car parking spaces, inclusive of 5% accessible parking and 5% visitor's parking spaces (1 per 20 units).

A total of 396 parking spaces are provided within the basement, in compliance with the maximum rate described within the Ryde DCP. Further detail can be found in the accompanying traffic report.

9.4 Apartment Mix and Affordability

The proposal will provide an increase in the residential housing available in the Ryde Local Government Area, consistent with the vision set out by the Department of Planning for the Macquarie University Station (Herring Road) Priority Precinct and Ivanhoe Masterplan. Both the Social and Market buildings will provide a broad range of apartment types and sizes, with quality architectural finishes to create tenure-blind development and create a diverse community.



C O X

10.0 APPENDICES



10.1 SEPP65 PRINCIPLES RESPONSE +  
ADG COMPLIANCE TABLE



# 10.1 SEPP 65 COMPLIANCE

## Design Principle 1: Context and Neighbourhood Character

*"Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.*

*Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.*

*Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change."*

The development is located on the South-eastern corner of the site, adjacent to Shrimptons Creek, linking the forest to the urban neighbourhood. The site is bound by the Main Street linking Herring Road via a new bridge over Shrimptons Creek to Lyonpark Road, and Neighbourhood Mews, where public "backyard rooms" are created for the development.

The site is approximately 7,015m<sup>2</sup>, with a cross fall of over 2m. The proposal consists of two tower forms over a podium and 4 3-storey terraces facing the Neighbourhood Mews. The towers are stepped with the 'Social' Tower at 17 storeys and the 'Market' Tower at 24 storeys with stepped landscaped terraces facing Shrimptons Creek, and a raised internal courtyard, as well as a communal green garden, the 'Grove'.

Refer to landscape documents by Hassell for further details of the communal open space.



Figure 1. Proposed Ground Floor Plan



# 10.1 SEPP 65 COMPLIANCE

## Design Principle 2: Built Form and Scale

*"Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.*

*Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.*

*Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook."*

The building massing responds directly to the height limits and solar access available to the development. The 'sculpting' of the two tower forms and orientation ensures that 2 hours of direct sunlight (between 9am-11am) are available to the Northern and Eastern facades at midwinter. Solar analysis has been based on the current indicative design of the Ivanhoe Masterplan. Proposed setbacks from boundaries ensure compliance with ADG separation to neighbouring developments.

The building height is driven by the building height limits of 55m (Social Building) and 75m (Market Building). The 3-storey terraces located between the towers responds to the townhouses proposed in adjacent site facing the Neighbourhood Mews, and enhance the stepped podium of the Market tower, activating the "Backyard Rooms' within the Neighbourhood Mews.



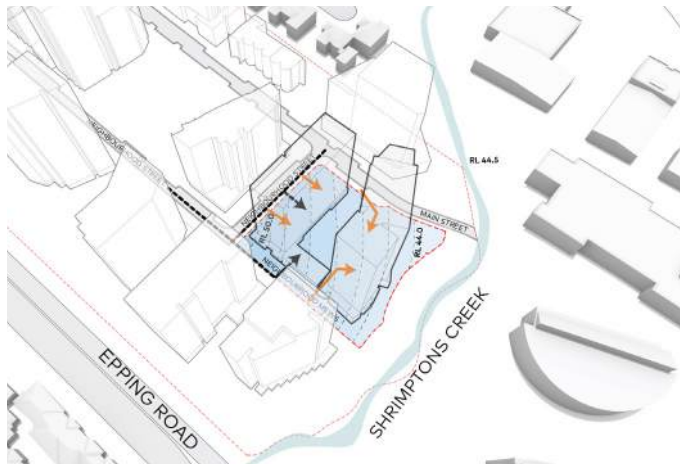
1. Solar Access



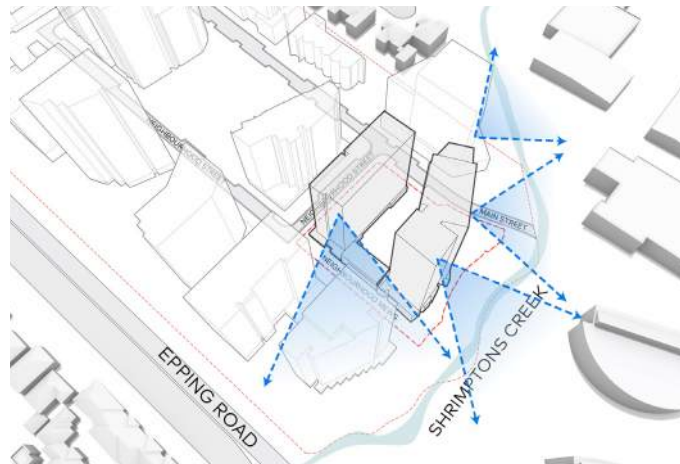
2. Open Space



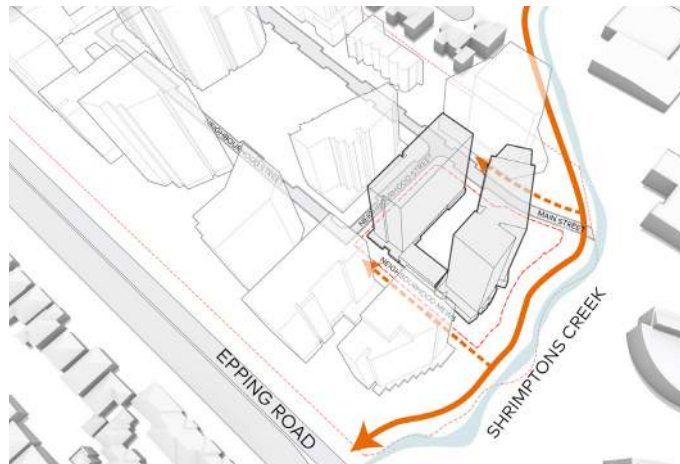
3. Neighbourhood Streets & Green Link



4. Lobbies & Vehicular Entries



5. Views



6. Pedestrian & Cycle Access

Figure 2. Diagram indicating proposed built form, setbacks and site controls



10.1 SEPP 65 COMPLIANCE  
Design Principle 3: Density

"Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context."

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment."

The proposed development consists of 2 residential towers providing a total of 216 social apartments and 272 market apartments (including 4 standalone terraces) over 17 and 24 storeys respectively. The total gross floor area proposed is 37,847 m<sup>2</sup>, which results in a density consistent with the overall Ivanhoe Masterplan.

The proposal seeks to ensure that the increase in scale and density on the site achieves a positive outcome for the precinct, and provides a human scale at street level. This aligns with the desired future character of the Ivanhoe Estate.

Refer to Principle No. 6 for further information regarding amenity.

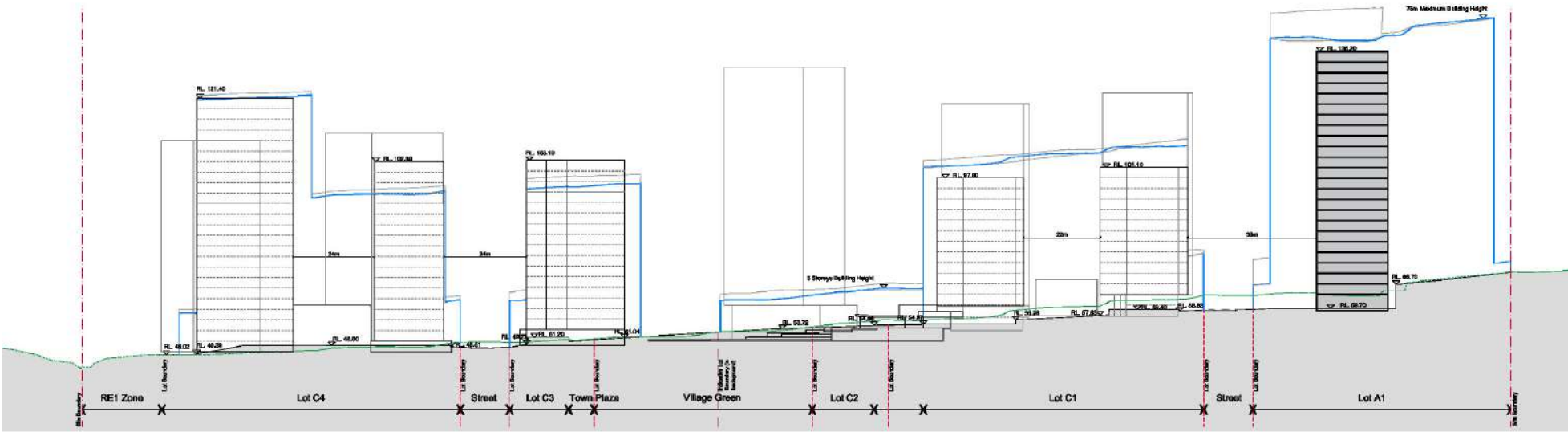


Figure 3. Main Street elevation prepared by Bates Smart

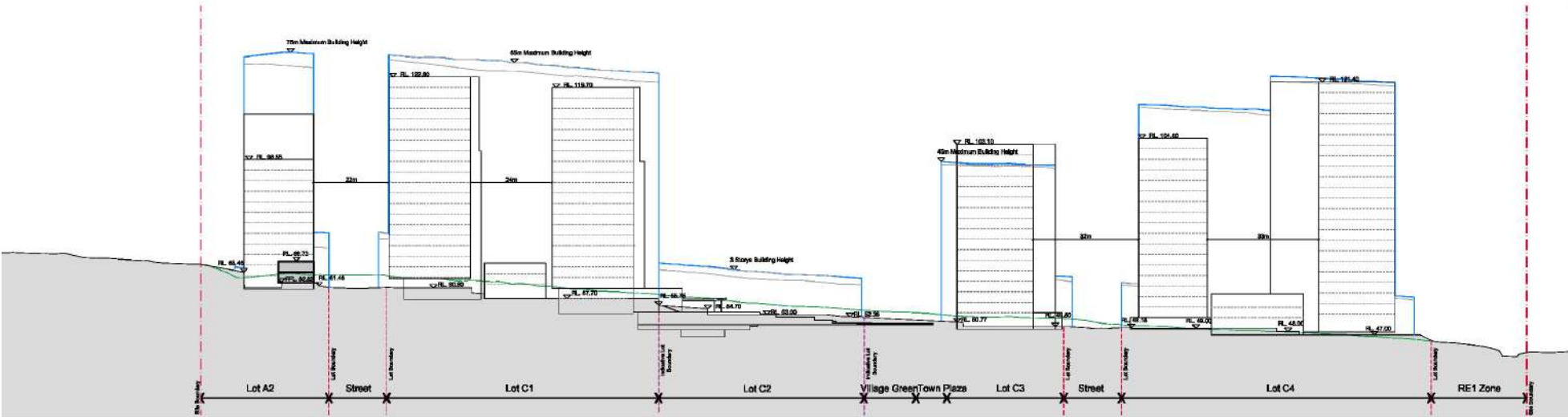


Figure 4. Neighbourhood Street elevation prepared by Bates Smart

Figure 5. Building Height and Massing, from Masterplan SSDA Design Report prepared by Bates Smart + Hassell



# 10.1 SEPP 65 COMPLIANCE

## Design Principle 4: Sustainability

"Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation."

The proposed development includes numerous initiatives that contribute to the efficient use of resources, through sustainable design measure and actively managed systems. These can be summarised as follows:

- Orientation of the tower forms to maximise solar access to the development.
- 65% (315/48) of apartments receiving 2 hours of direct sunlight to the main living spaces at midwinter.
- 67% (145/216 over first 9 storeys) of apartments receive natural cross ventilation to main living spaces.
- Operable glazing to allow natural ventilation and reduce heating and cooling requirements.
- Screened elements and deep recesses on the facade to reduce excessive solar gain and moderate occupancy privacy, whilst also allowing for natural ventilation and daylight to the adjacent living space.
- Selection of low maintenance materials.

The proposal meets the targets setout in Building & Sustainability Index (BASIX), as documented in the Environment Report prepared by Integral Group.



Figure 5. Ground Floor Amenity Summary



Figure 6. Typical Plan Amenity Summary

SOLAR ACCESS LEGEND	
<span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span>	MORE THAN 2 HRS
<span style="display: inline-block; width: 15px; height: 15px; background-color: blue; border: 1px solid black;"></span>	1 - 2 HRS
<span style="display: inline-block; width: 15px; height: 15px; background-color: green; border: 1px solid black;"></span>	NO LIGHT



10.1 SEPP 65 COMPLIANCE

Design Principle 5: Landscape

*"Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.*

*Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.*

*Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management."*

The proposal includes a number of areas dedicated to landscaping, which have been integrated into the overall building design.

The central communal open space between the towers provides a generous offering to the residents. The structured raised courtyard, the green 'Grove' zones provides diverse activity zone within the communal open space. The development is framed on the Southern edges by the Recreational Space adjacent to Shrimptons Creek, on the North and East by the Neighbourhood Garden, in the West by the 'backyard rooms' of the Neighbourhood Mews. The verticality of the towers are also softened by the layering of green wall between facade recesses, creating visual relief through integration of biophilic elements throughout the buildings.

Refer to associated documentation by Hassell for further landscaping details.



Figure 8. Landscape Diagram by Hassell



10.1 SEPP 65 COMPLIANCE  
Design Principle 6: Amenity

*"Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.*

*Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degree of mobility."*

Residential apartments within the proposed development have been planned to maximise amenity. This has been considered in relation to solar access, visual privacy, cross ventilation and outlook, and ensures consistency with ADG requirements.

The overall building massing and orientation on the site has been largely driven by opportunity for solar access. 65% (315/484) dwellings receive 2 hours of direct sunlight to living spaces in midwinter. Whilst this is below the minimum 70% requirement under the ADG, 65% compliance was foreshadowed for C4 in the approved masterplan.

The use of balconies ensures the private open space offered is usable, particularly within a tower form where additional protection from surrounding environment should be considered.

The facade utilises facade fins, deep reveals and balconies to shelter the units from excessive solar gain and prevent overlooking,

at the same time allowing natural daylight penetration. The careful sculpting and introduction of green walls consider the quality of the space offered. Refer to Principle No. 9 for further details on facade strategy.

The entrance to basement carpark designated for both towers are off the Neighbourhood mews (see Figure 1). The basement levels provides 118 carparking spaces for the Social Building, and 278 carparking spaces for the Market Building, including shared car spaces. A total of 396 underground car parking spaces are provided in the development.

488 number of bicycle spaces are provided throughout the basement levels (1 per dwelling). This is achieved through a combination of designated bicycle storage areas, and storage cages located directly adjacent to car spaces which are able to accommodate bicycles.

Waste chutes for both garbage and recycling are provided at each residential level, and are conveniently located adjacent to lift cores. Temporary waste rooms are located at the base of each chute and adjacent to the loading dock for garbage collection. Refer to Waste Strategy report by SLR for details.



Figure 9. Solar Access Diagram



## 10.1 SEPP 65 COMPLIANCE

### Design Principle 7: Safety

*"Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety."*

*A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose."*

The design proposes the following security measures to restrict and control communal access in and around the proposed development:

- Residential entry points and circulation areas are clearly identified and secure.
- Ground floor units with street frontages have private front gardens and direct access into their units. This offers passive surveillance of the adjoining public domain as shown in Figure 9.
- Central location of the communal open space allows passive surveillance from neighbouring towers. Access is controlled via gates at entry points from the public domain.
- Screened windows at lower levels offer privacy whilst allowing for passive surveillance.
- High quality architectural lighting proposed throughout the development will assist in securing the area at night.
- Refer to CPTED report prepared by Ethos Urban for further details.



Figure 11. Proposed Ground Level Plan



# 10.1 SEPP 65 COMPLIANCE

## Design Principle 8: Housing Diversity and Social Interaction

"Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents."

The development provides social housing in one tower, and market housing in the other, with 4 3-storey market terraces between the two towers. The proposal follows the Ivanhoe Masterplan for providing mixed tenures with a focus on achieving 'tenure blindness'. The design ensures the same amenity is offered to residents across all housing types, enabling a diverse range of occupants to utilise these amenities equally.

The apartment planning for both Social and Market apartments has been carefully considered throughout the development, to ensure layouts remain universal and flexible to provide for a range of occupants. Access to natural light is key to the layout of the apartment planning, with both the living room and bedrooms provided with access to deep balconies, allowing flexible use of the external space as well as shelter from solar heat gain.

Internal apartment areas and room sizes have been designed in accordance with ADG requirements.

All social apartments incorporate the Livable Housing Guideline's silver level universal design features, and 5% of market apartments are designed to be adaptable to AS4299.

A variety of housing types are also offered within the development, including terraces and double-storey apartments. This provides a choice to appeal to varying demographics, and ensure future demands of the area are met.

Typical apartment types for are shown in Figure 12.

The mix proposed a range of unit sizes and types to meet the needs of a diverse range of future mixed-tenure residents.

Tenure	Dwelling Type	Number	Mix
Social	Studio	24	11%
	1 Bed	97	45%
	2 Bed	95	44%
Total		216	
Market	Studio	0	0%
	1 Bed 1 bath	61	22%
	1 Bed 1 bath + study	72	26%
	2 Bed 1 bath	0	0%
	2 Bed 2 bath	5	2%
	2 Bed 2 bath + study	87	32%
	3 Bed 2 bath	20	7%
	3 Bed 2 bath + study	19	7%
	3 Bed 3 bath	0	0%
	3 Bed 3 bath + study	4	1%
	4 Bed 3 bath townhouses	4	1%
Total		272	

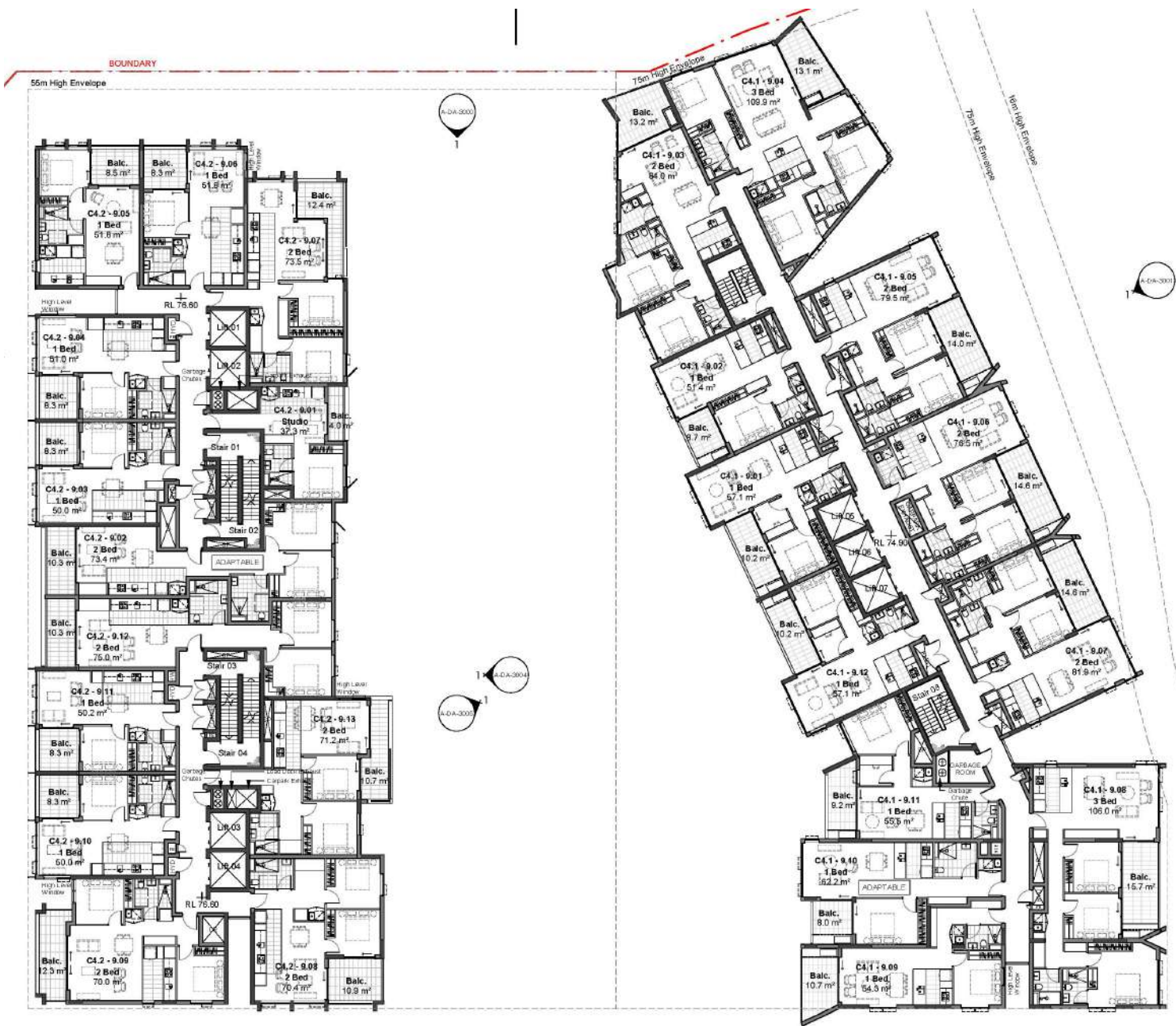


Figure 12. Proposed Typical Floor Plan



# 10.1 SEPP 65 COMPLIANCE

## Design Principle 9: Aesthetics

"Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape."

The massing of the development is divided into two north-east/south-west orientated towers separated by a communal open space. Low scale terrace houses are added along the Neighbourhood Mews to create a human scale along the pedestrian route to the creek.

The tower massing has been crafted to respond to two separate conditions, the north-western most tower responds to its more urban context and is more orthogonal in nature, while the south-eastern tower responds to Shrimptons Creek and is more organic in nature. The two towers are connected through a unified podium with sculpted facade plane to stagger the massing and break up the volume of the built form.

Refer to Chapter 03 and Chapter 04 of this report for detailed description of the development concept, facades and material selection.

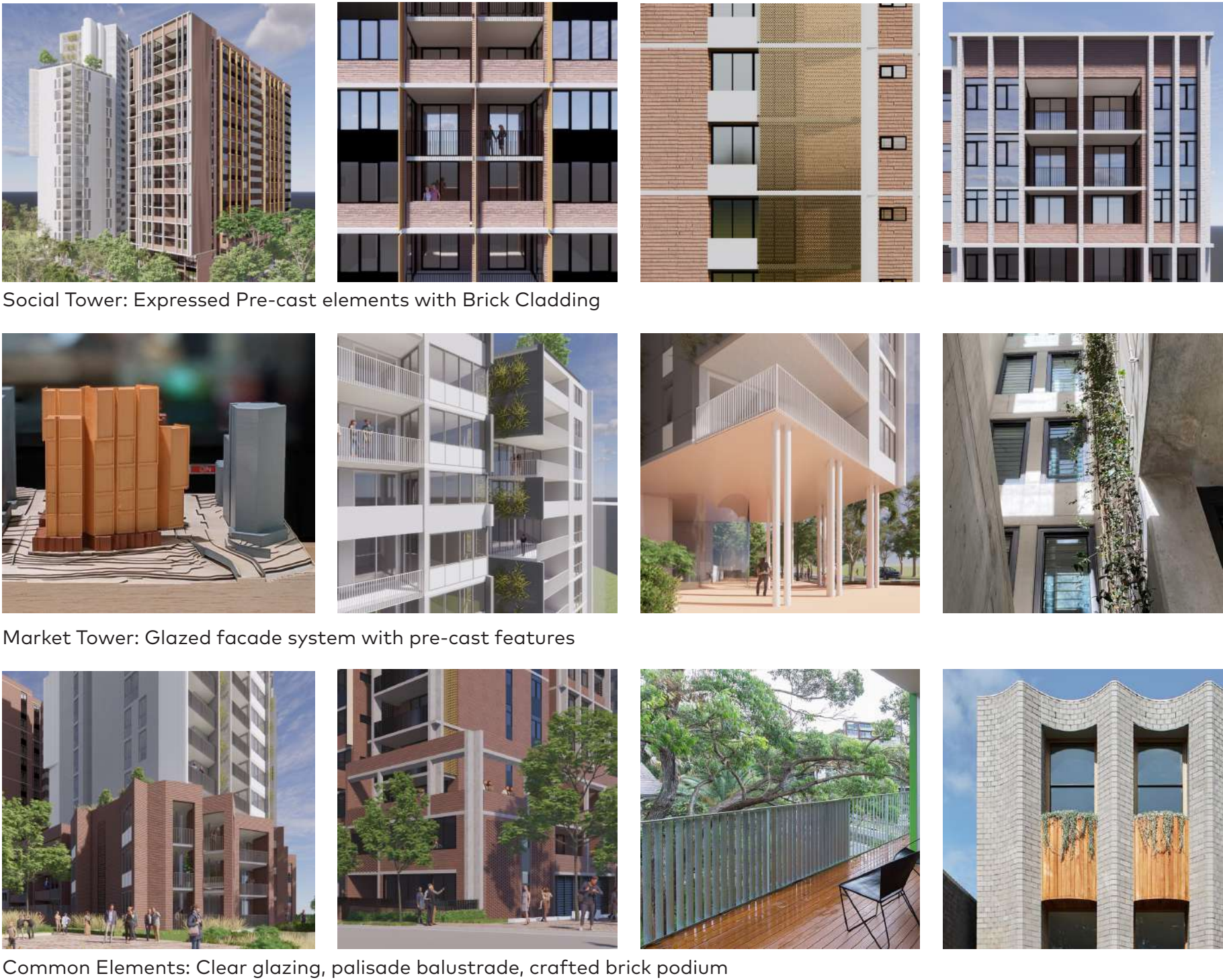


Figure 13. Material Selection



ADG Ref.	Item Description	Notes	Compliance
<b>PART 3</b>	<b>SITING THE DEVELOPMENT</b>		
<b>3A</b>	<b>SITE ANALYSIS</b>		
<b>3A-1</b>	<b>Objective:</b> Site Analysis illustrates that design decisions have been based on opportunities & constraints of the site conditions & their relationship to the surrounding context.		✓
	<b>Design Guidance</b>		
	Each element in the Site Analysis Checklist is addressed.	Refer to section 3.0 of the design statement for further information	YES
<b>3B</b>	<b>ORIENTATION</b>		
<b>3B-1</b>	<b>Objective:</b> Building types & layouts respond to the streetscape & site while optimising solar access within the development		✓
	<b>Design Guidance</b>		
	Buildings along the street frontage define the street by facing it & incorporating direct access from the street	Refer to section 4.0 of the design statement for further information	YES
	Where the street frontage is to the east or west, rear buildings are orientated to the north	Refer to section 3.0 of the design statement for further information	YES
	Where the street frontage is to the north or south, over-shadowing to the south is minimised & buildings behind the street frontage are orientated to the east & west	Buildings have been sited to minimise overshadowing to buildings within the precinct masterplan	YES
<b>3B-2</b>	<b>Objective:</b> Overshadowing of neighbouring properties is minimised during mid winter.		✓
	<b>Design Guidance</b>		
	Living areas, private open space & communal open space receive solar access in accordance with section 3D Communal & Public Open Space and section 4A Solar & Daylight Access		YES
	Solar access to living rooms, balconies & private open spaces of neighbours are considered	The overshadowing to future masterplan has been considered in proposed design.	YES
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%		N/A



State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	If the proposal will reduce the solar access of neighbours, building separation is increased beyond minimums contained in 3F Visual Privacy		N/A
	Overshadowing is minimised to the south or downhill by increased upper level setbacks		YES
	Buildings are orientated at 90 deg to the boundary with neighbouring properties to minimise overshadowing & privacy impacts, particularly where minimum setbacks are used & where buildings are higher than the adjoining development		N/A
	A minimum of 4 hours of solar access is retained to solar collectors on neighbouring buildings		N/A
<b>3C</b>	<b>PUBLIC DOMAIN INTERFACE</b>		
<b>3C-1</b>	<b>Objective:</b> Transition between private & public domain is achieved without compromising safety & security.		✓
	<b>Design Guidance</b>		
	Terraces, balconies and courtyard apartments have direct street entry, where appropriate	Refer to section 4.0 of the design statement for further information	YES
	Changes in level between private terraces, front gardens & dwelling entries above the street level provide surveillance & improve visual privacy for ground level dwellings	Refer to section 4.0 of the design statement for further information	YES
	Upper level balconies & windows overlook the public domain	Refer to section 4.0 of the design statement for further information	YES
	Front fences & walls along street frontages use visually permeable materials & treatments. Height of solid fences or walls is limited to 1m	Refer to section 4.0 of the design statement for further information	YES
	Length of solid walls is limited along street frontages		YES
	Opportunities for casual interaction between residents & the public domain is provided for. Design solutions may include seating at building entries, near letter boxes & in private courtyards adjacent to streets		YES



ADG Ref.	Item Description	Notes	Compliance
	<p>In developments with multiple buildings and/or entries, pedestrian entries &amp; spaces associated with individual buildings/entries are differentiated to improve legibility for residents, using the following design solutions:</p> <ul style="list-style-type: none"> <li>• Architectural detailing</li> <li>• Changes in materials</li> <li>• Plant Species</li> <li>• Colours</li> <li>• Opportunities for people to be concealed are minimised</li> </ul>		YES
<b>3C-2</b>	<b>Objective:</b> Amenity of the public domain is retained & enhanced.		✓
	<b>Design Guidance</b>		
	Planting is used to soften the edges of any raised terraces to the street, for example above sub-basement car parking.	Refer to section 4.0 of the design statement for further information	YES
	Mail boxes are located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided		YES
	The visual prominence of underground car park vents is minimised & located at a low level where possible	All parking underground.	YES
	Substations, pump rooms, garbage storage areas & other service requirements are located in basement car parks or out of view		YES
	Ramping for accessibility is minimised by building entry location & setting ground floor levels in relation to footpath levels		YES
	Durable, graffiti resistant & easily cleanable materials are used		YES
	<p>Where development adjoins public parks, open space or bushland, the design positively addresses this interface &amp; uses the following design solutions:</p> <ul style="list-style-type: none"> <li>• Street access, pedestrian paths &amp; building entries are clearly defined</li> <li>• Paths, low fences &amp; planting are clearly delineate between communal/private open space &amp; the adjoining public open space</li> <li>• Minimal use of blank walls, fences &amp; ground level parking</li> </ul>	Refer to section 4.0 of the design statement for further information	YES
	On sloping sites protrusion of car parking above ground level is minimised by using split levels to step underground car parking		YES
	<b>COMMUNAL &amp; PUBLIC OPEN SPACE</b>		



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
3D-1	<b>Objective:</b> An adequate area of communal open space is provided to enhance residential amenity & to provide opportunities for landscaping.		✓
	<b>Design Criteria</b>		
1	Communal open space has a minimum area equal to 25% of the site	A total of 2231m2 of communal open space is provided. This equates to 31.8% of the site area, above the minimum 25% of site area.	✓
2	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)		✓
	<b>Design Guidance</b>		
	Communal open space is consolidated into a well designed, easily identified & usable area		YES
	Communal open space have a minimum dimension of 3m. Larger developments should consider greater dimensions		YES
	Communal open space are co-located with deep soil areas		YES
	Direct, equitable access are provided to communal open space areas from common circulation areas, entries & lobbies		YES
	Where communal open space cannot be provided at ground level, it is provided on a podium or roof	Communal open space is provided at ground, podium and roof.	YES
	Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they need to: <ul style="list-style-type: none"> <li>• Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room</li> <li>• Provide larger balconies or increased private open space for apartments</li> <li>• Demonstrate good proximity to public open space &amp; facilities and/or provide contributions to public open space</li> </ul>		N/A
3D-2	<b>Objective:</b> Communal open space is designed to allow for a range of activities, respond to site conditions & be attractive and inviting		✓
	<b>Design Guidance</b>		



ADG Ref.	Item Description	Notes	Compliance
	Facilities are provided within communal open spaces & common spaces for a range of age groups (see 4F Common Circulation & Spaces), incorporating the following: <ul style="list-style-type: none"> <li>• Seating for individuals or groups</li> <li>• Barbeque areas</li> <li>• Play equipment or play areas</li> <li>• Swimming pools, gyms, tennis courts or common rooms</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES
	Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts	Refer to Landscape Design prepared by Hassell.	YES
	Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks		YES
<b>3D-3</b>	<b>Objective:</b> Communal open space is designed to maximise safety.		✓
	<b>Design Guidance</b>		
	Communal open space & public domain should be readily visible from habitable rooms & private open space areas while maintaining visual privacy. Design solutions include: <ul style="list-style-type: none"> <li>• Bay windows</li> <li>• Corner windows</li> <li>• Balconies</li> </ul>		YES
	Communal open space is well lit		YES
	Communal open space/facilities that are provided for children & young people are safe and contained		YES
<b>3D-4</b>	<b>Objective:</b> Public open space, where provided, responds to the existing pattern & uses of the neighbourhood		✓
	<b>Design Guidance</b>		
	Public open space is well connected with public streets along at least one edge	Refer to section 3.0 and 4.0 of the design statement for further information	YES
	POS is connected with nearby parks & other landscape elements	Refer to section 3.0 and 4.0 of the design statement for further information	YES
	POS is linked through view lines, pedestrian desire paths, termination points & the wider street grid	Refer to section 3.0 and 4.0 of the design statement for further information	YES



State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance												
	Solar access is provided year round along with protection from strong winds		YES												
	Opportunities for a range of recreational activities is provided for people of all ages		YES												
	Positive street address & active street frontages are provided adjacent to POS	Refer to section 3.0 and 4.0 of the design statement for further information	YES												
	Boundaries are clearly defined between POS & private areas	Refer to section 3.0 and 4.0 of the design statement for further information	YES												
3E	DEEP SOIL ZONES														
3E-1	Objective: Deep soil zones are suitable for healthy plant& tree growth, improve residential amenity and promote management of water and air quality.		✓												
	Design Criteria														
1	<div>Deep soil zones are to meet the following minimum requirements:</div> <table><tr><th>Site Area (sqm)</th><th>Minimum Dim. (m)</th><th>Deep Soil Zone (% of site area)</th></tr><tr><td>Less than 650</td><td>-</td><td rowspan="4">7</td></tr><tr><td>650-1500</td><td>3</td></tr><tr><td>Greater than 1500</td><td>6</td></tr><tr><td>Greater than 1500 with significant existing tree cover</td><td>6</td></tr></table>	Site Area (sqm)	Minimum Dim. (m)	Deep Soil Zone (% of site area)	Less than 650	-	7	650-1500	3	Greater than 1500	6	Greater than 1500 with significant existing tree cover	6	Deep soil area indicated in the approved masterplan for lot C4 is 993m2. We have provided 1,041m2 of deep soil which 14% of the site area.	✓
Site Area (sqm)	Minimum Dim. (m)	Deep Soil Zone (% of site area)													
Less than 650	-	7													
650-1500	3														
Greater than 1500	6														
Greater than 1500 with significant existing tree cover	6														
	Design Guidance														
	<div>On some sites it may be possible to provide larger deep soil zones, depending on the site area &amp; context:</div> <ul style="list-style-type: none"><li>10% of the site as deep soil on sites with an area of 650sqm -1,500sqm</li><li>15% of the site as deep soil on sites greater than 1,500sqm</li></ul>		N/A												



ADG Ref.	Item Description	Notes	Compliance												
	<p>Deep soil zones are located to retain existing significant trees &amp; to allow for the development of healthy root systems, providing anchorage &amp; stability for mature trees. Design solutions may include:</p> <ul style="list-style-type: none"><li>Basement &amp; sub-basement car park design that is consolidated beneath building footprints</li><li>Use of increased front &amp; side setbacks</li><li>Adequate clearance around trees to ensure long term health</li><li>Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil</li></ul>		YES												
	<p>Achieving the design criteria may not be possible on some sites including where:</p> <ul style="list-style-type: none"><li>location &amp; building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)</li><li>there is 100% site coverage or non-residential uses at ground floor level</li></ul> <p>Where a proposal does not achieve deep soil requirements, acceptable stormwater management is achieved &amp; alternative forms of planting provided</p>		N/A												
3F	VISUAL PRIVACY														
3F-1	<b>Objective:</b> Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external & internal visual privacy.		✓												
	Design Criteria														
1	<p>Separation between windows &amp; balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side &amp; rear boundaries are as follows:</p> <table><tr><th>Building Height (m)</th><th>Habitable Rooms &amp; Balconies (m)</th><th>Non-Habitable Rooms (m)</th></tr><tr><td>Up to 12 (4 storeys)</td><td>6</td><td>3</td></tr><tr><td>Up to 25 (5-8 storeys)</td><td>9</td><td>4.5</td></tr><tr><td>Over 25 (9+ storeys)</td><td>12</td><td>6</td></tr></table> <p>Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room.</p> <p>Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.</p>	Building Height (m)	Habitable Rooms & Balconies (m)	Non-Habitable Rooms (m)	Up to 12 (4 storeys)	6	3	Up to 25 (5-8 storeys)	9	4.5	Over 25 (9+ storeys)	12	6		✓
Building Height (m)	Habitable Rooms & Balconies (m)	Non-Habitable Rooms (m)													
Up to 12 (4 storeys)	6	3													
Up to 25 (5-8 storeys)	9	4.5													
Over 25 (9+ storeys)	12	6													
	Design Guidance														



ADG Ref.	Item Description	Notes	Compliance
	Generally as the height increases, one step in the built form is desirable due to building separations. Any additional steps do not cause a 'ziggurat' appearance	One step in built form is proposed to the market building.	YES
	For residential buildings next to commercial buildings, separation distances are measured as follows: <ul style="list-style-type: none"> <li>Retail, office spaces &amp; commercial balconies use the habitable room distances</li> <li>Service &amp; plant areas use the non-habitable room distances</li> </ul>		N/A
	New development are located & oriented to maximise visual privacy between buildings on site & for neighbouring buildings. Design solutions include: <ul style="list-style-type: none"> <li>site layout &amp; building are orientated to minimise privacy impacts (see 3B Orientation)</li> <li>on sloping sites, apartments on different levels have appropriate visual separation distances (see pg 63 figure 3F.4)</li> </ul>		YES
	Apartment buildings have an increased separation distance of 3m (in addition to 3F-1 Design Criteria) when adjacent to a different zone that permits lower density residential development, to provide for a transition in scale & increased landscaping (pg 63 figure 3F.5)		N/A
	Direct lines of sight are avoided for windows & balconies across corners		YES
	No separation is required between blank walls		N/A
<b>3F-2</b>	<b>Objective:</b> Site & building design elements increase privacy without compromising access to light & air and balance outlook & views from habitable rooms & private open space.		✓
	<b>Design Guidance</b>		
	Communal open space, common areas & access paths are separated from private open space & windows to apartments, particularly habitable room windows. Design solutions include: <ul style="list-style-type: none"> <li>setbacks</li> <li>solid or partially solid balustrades on balconies at lower levels</li> <li>fencing and/or trees and vegetation to separate spaces</li> <li>screening devices</li> <li>bay windows or pop out windows to provide privacy in one direction &amp; outlook in another</li> <li>raising apartments or private open space above the public domain or communal open space</li> <li>planter boxes incorporated into walls &amp; balustrades to increase visual separation</li> <li>pergolas or shading devices to limit overlooking of lower apartments or private open space</li> <li>on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels on windows and/or balconies</li> </ul>		YES
	Bedrooms, living spaces & other habitable rooms are separated from gallery access & other open circulation space by the apartment's service areas		YES
	Balconies & private terraces are located in front of living rooms to increase internal privacy		YES

ADG Ref.	Item Description	Notes	Compliance
	Windows are offset from the windows of adjacent buildings		YES
	Recessed balconies and/or vertical fins are used between adjacent balconies		YES
<b>3G</b>	<b>PEDESTRIAN ACCESS &amp; ENTRIES</b>		
<b>3G-1</b>	<b>Objective:</b> Building entries & pedestrian access connects to and addresses the public domain.		✓
	<b>Design Guidance</b>		
	Multiple entries (including communal building entries & individual ground floor entries) activate the street edge	Refer to section 4.0 of the design statement for further information	YES
	Entry locations relate to the street & subdivision pattern, and the existing pedestrian network	Refer to section 4.0 of the design statement for further information	YES
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	Refer to section 4.0 of the design statement for further information	YES
	Where street frontage is limited, a primary street address should be provided with clear sight lines and pathways to secondary building entries	Refer to section 4.0 of the design statement for further information	YES
<b>3G-2</b>	<b>Objective:</b> Access, entries & pathways are accessible & easy to identify.		✓
	<b>Design Guidance</b>		
	Building access areas including lift lobbies, stairwells & hallways are clearly visible from the public domain & communal spaces	Refer to section 4.0 of the design statement for further information	YES
	The design of ground floors & underground car parks minimise level changes along pathways & entries		YES
	Steps & ramps are integrated into the overall building & landscape design		YES
	For large developments 'way finding' maps are provided to assist visitors & residents		YES
	For large developments electronic access & audio/video intercom are provided to manage access		YES
<b>3G-3</b>	<b>Objective:</b> Large sites provide pedestrian links for access to streets & connection to destinations.		✓
	<b>Design Guidance</b>		
	Pedestrian links through sites facilitate direct connections to open space, main streets, centres & public transport	Refer to section 4.0 of the design statement for further information	YES
	Pedestrian links are direct, have clear sight lines, are overlooked by habitable rooms or private open spaces of dwellings, are well lit & contain active uses, where appropriate	Refer to section 4.0 of the design statement for further information	YES



ADG Ref.	Item Description	Notes	Compliance
<b>3H</b>	<b>VEHICLE ACCESS</b>		
<b>3H-1</b>	<b>Objective:</b> Vehicle access points are designed & located to achieve safety, minimise conflicts between pedestrians & vehicles and create high quality streetscapes.		✓
	<b>Design Guidance</b>		
	Design solutions include: <ul style="list-style-type: none"> <li>materials &amp; colour palette minimise visibility from street</li> <li>security doors/gates minimise voids in the facade</li> <li>where doors are not provided, visible interiors reflect façade design, and building services, pipes &amp; ducts are concealed</li> </ul>		YES
	Car park entries are located behind the building line		YES
	Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation & impacts on the building form and layout		YES
	Car park entry & access are located on secondary streets or lanes where available		YES
	Vehicle standing areas that increase driveway width & encroach into setbacks are avoided		YES
	Access point is located to avoid headlight glare to habitable rooms		YES
	Adequate separation distances are provided between vehicle entries & street intersections		YES
	The width & number of vehicle access points are limited to the minimum		YES
	Visual impact of long driveways is minimised through changing alignments & screen planting		N/A
	The need for large vehicles to enter or turn around within the site is avoided	Turntables for Garbage Trucks and Removalists trucks used in basement 1	YES
	Garbage collection, loading & servicing areas are screened	Located in Basement	YES
	Clear sight lines are provided at pedestrian & vehicle crossings		YES
	Traffic calming devices, such as changes in paving material or textures, are used where appropriate		YES
	Pedestrian & vehicle access are separated & distinguishable. Design solutions include: <ul style="list-style-type: none"> <li>Changes in surface materials</li> <li>Level changes</li> <li>Landscaping for separation</li> </ul>		YES
<b>3J</b>	<b>BICYCLE &amp; CAR PARKING</b>		

ADG Ref.	Item Description	Notes	Compliance
3J-1	<b>Objective:</b> Car parking is provided based on proximity to public transport in metropolitan Sydney & centres in regional areas.		✓
	<b>Design Criteria</b>		
1	<p>For development in the following locations:</p> <ul style="list-style-type: none"> <li>on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or</li> <li>on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre</li> </ul> <p>the minimum car parking requirement for residents &amp; visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.</p> <p>The car parking needs for a development must be provided off street.</p>	Carparking to meet Ryde DCP requirements.	✓
	<b>Design Guidance</b>		
	Where a car share scheme operates locally, car share parking spaces are provided within the development.		Yes
	Where less car parking is provided in a development, council do not provide on street resident parking permits		N/A
3J-2	<b>Objective:</b> Parking & facilities are provided for other modes of transport.		✓
	<b>Design Guidance</b>		
	Conveniently located & sufficient numbers of parking spaces are provided for motorbikes & scooters		YES
	Secure undercover bicycle parking is provided & easily accessible from both public domain & common areas		YES
	Conveniently located charging stations are provided for electric vehicles, where desirable		N/A
3J-3	<b>Objective:</b> Car park design & access is safe and secure		✓
	<b>Design Guidance</b>		
	Supporting facilities within car parks, including garbage, plant & switch rooms, storage areas & car wash bays can be accessed without crossing car parking spaces		YES
	Direct, clearly visible & well lit access is provided into common circulation areas		YES
	Clearly defined & visible lobby or waiting area is provided to lifts & stairs		YES



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	For larger car parks, safe pedestrian access is clearly defined & circulation areas have good lighting, colour, line marking and/or bollards		YES
3J-4	<b>Objective:</b> Visual & environmental impacts of underground car parking are minimised.		
	<b>Design Guidance</b>		
	Excavation minimised through efficient car park layouts & ramp design		YES
	Car parking layout is well organised, using a logical, efficient structural grid & double loaded aisles		YES
	Protrusion of car parks do not exceed 1m above ground level. Solution include stepping car park levels or using split levels on sloping sites	Parking provided in basements	YES
	Natural ventilation is provided to basement & sub-basement car parking	Mechanical Ventilation is provided as basement parking is fully underground which is a superior urban design outcome	NO
	Ventilation grills or screening devices for car parking openings are integrated into the facade & landscape design		YES
3J-5	<b>Objective:</b> Visual & environmental impacts of on-grade car parking are minimised.		✓
	<b>Design Guidance</b>		
	On-grade car parking is avoided	None proposed	YES
	Where on-grade car parking is unavoidable, the following design solutions are used: <ul style="list-style-type: none"> <li>• Parking is located on the side or rear of the lot away from the primary street frontage</li> <li>• Cars are screened from view of streets, buildings, communal &amp; private open space areas</li> <li>• Safe &amp; direct access to building entry points is provided</li> <li>• Parking is incorporated into the landscape design, by extending planting &amp; materials into the car park space</li> <li>• Stormwater run-off is managed appropriately from car parking surfaces</li> <li>• Bio-swailes, rain gardens or on site detention tanks are provided, where appropriate</li> <li>• Light coloured paving materials or permeable paving systems are used. Shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures to large areas of paving</li> </ul>		N/A
3J-6	<b>Objective:</b> Visual & environmental impacts of above ground enclosed car parking are minimised.		✓
	<b>Design Guidance</b>		

State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	Exposed parking is not located along primary street frontages		N/A
	Screening, landscaping & other design elements including public art are used to integrate the above ground car parking with the facade. Design solutions include: <ul style="list-style-type: none"> <li>Car parking that is concealed behind facade, with windows integrated into the overall facade design (limited to developments where larger floor plate podium is suitable at lower levels)</li> <li>Car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage</li> </ul>		N/A
	Positive street address & active frontages are provided at ground level		YES

ADG Ref.	Item Description	Notes	Compliance
<b>PART 4</b>	<b>DESIGNING THE BUILDING</b>		
<b>4A</b>	<b>SOLAR &amp; DAYLIGHT ACCESS</b>		
<b>4A-1</b>	<b>Objective:</b> To optimise number of apartments receiving sunlight to habitable rooms, primary windows & private open space.		
	<b>Design Criteria</b>		
<b>1</b>	Living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 2 hrs direct sunlight between 9am - 3pm at mid winter in Sydney Metropolitan Area and in Newcastle and Wollongong local government areas	The approved masterplan envisaged that 65% of all apartments in lot C4 would comply with this design criteria due to the configuration of building shapes in the masterplan. Other buildings in the masterplan achieve well over the minimum 70% requirement such as C3.	NO



ADG Ref.	Item Description	Notes	Compliance
2	In all other areas, living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 3 hrs direct sunlight between 9 am - 3 pm at mid winter		N/A
3	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter		YES
	<b>Design Guidance</b>		
	The design maximises north aspect. The number of single aspect south facing apartments is minimised	Capable of complying.	YES
	Single aspect, single storey apartments have a northerly or easterly aspect		N/A
	Living areas are located to the north and service areas to the south & west of apartments		YES
	To optimise direct sunlight to habitable rooms & balconies a number of the following design features are used: <ul style="list-style-type: none"> <li>• Dual aspect apartments</li> <li>• Shallow apartment layouts</li> <li>• Two storey &amp; mezzanine level apartments</li> <li>• Bay windows</li> </ul>		YES
	To maximise the benefit to residents of direct sunlight within living rooms & private open spaces, a minimum of 1sqm of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes		YES
	Achieving the design criteria may not be possible where: <ul style="list-style-type: none"> <li>• greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source</li> <li>• on south facing sloping sites</li> <li>• significant views are oriented away from the desired aspect for direct sunlight</li> </ul> Design drawings need to demonstrate how site constraints & orientation preclude meeting Design Criteria & how the development meets the objective.		N/A
4A-2	<b>Objective:</b> Daylight access is maximised where sunlight is limited.		✓
	<b>Design Guidance</b>		
	Courtyards, skylights & high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms		N/A

ADG Ref.	Item Description	Notes	Compliance
	Where courtyards are used: <ul style="list-style-type: none"> <li>• Use is restricted to kitchens, bathrooms &amp; service areas</li> <li>• Building services are concealed with appropriate detailing &amp; materials to visible walls</li> <li>• Courtyards are fully open to the sky</li> <li>• Access is provided to the light well from communal area for cleaning &amp; maintenance</li> <li>• Acoustic privacy, fire safety &amp; minimum privacy separation distances (see 3F Visual Privacy) are achieved</li> </ul>		N/A
	Opportunities for reflected light into apartments are optimised through: <ul style="list-style-type: none"> <li>• Reflective exterior surfaces on buildings opposite south facing windows</li> <li>• Positioning windows to face other buildings or surfaces (on neighbouring sites or within site) that will reflect light</li> <li>• Integrating light shelves into the design</li> <li>• Light coloured internal finishes</li> </ul>		YES
4A-3	<b>Objective:</b> Design incorporates shading & glare control, particularly for warmer months.		✓
	<b>Design Guidance</b>		
	A number of the following design features are used: <ul style="list-style-type: none"> <li>• Balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas</li> <li>• Shading devices such as eaves, awnings, balconies, pergolas, external louvres &amp; planting</li> <li>• Horizontal shading to north facing windows</li> <li>• Vertical shading to east &amp; particularly west facing windows</li> <li>• Operable shading to allow adjustment &amp; choice</li> <li>• High performance glass that minimises external glare off windows, with consideration given to reduce tint glass or glass with a reflectance level below 20% (reflective films are avoided)</li> </ul>		YES
4B	<b>NATURAL VENTILATION</b>		
4B-1	<b>Objective:</b> All habitable rooms are naturally ventilated		✓
	<b>Design Guidance</b>		
	The building's orientation maximises capture & use of prevailing breezes for natural ventilation in habitable rooms		YES
	Depths of habitable rooms support natural ventilation		YES
	The area of unobstructed window openings should be equal to at least 5% of the floor area served		YES



ADG Ref.	Item Description	Notes	Compliance
	Light wells are not the primary air source for habitable rooms		YES
	Doors & openable windows maximise natural ventilation opportunities by using the following design solutions: <ul style="list-style-type: none"> <li>Adjustable windows with large effective openable areas</li> <li>Variety of window types that provide safety &amp; flexibility such as awnings &amp; louvres</li> <li>Windows that occupants can reconfigure to funnel breezes into apartment, such as vertical louvres, casement windows &amp; externally opening doors</li> </ul>		YES
4B-2	<b>Objective:</b> The layout & design of single aspect apartments maximises natural ventilation.		✓
	<b>Design Guidance</b>		
	Apartment depths limited to maximise ventilation & airflow		YES
	Natural ventilation to single aspect apartments is achieved with the following design solutions: <ul style="list-style-type: none"> <li>Primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation)</li> <li>Stack effect ventilation, solar chimneys or similar used to naturally ventilate internal building areas or rooms such as bathrooms &amp; laundries</li> <li>Courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation &amp; avoid trapped smells</li> </ul>		N/A
4B-3	<b>Objective:</b> Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.		✓
	<b>Design Criteria</b>		
1	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	68% (145/216) achieve cross ventilation	YES
2	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line		YES
	<b>Design Guidance</b>		
	The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths		YES
	In cross-through apartments, external window & door opening sizes/ areas on one side of an apartment (inlet side) are approximately equal to the external window & door opening sizes/areas on the other side of the apartment (outlet side)		YES

ADG Ref.	Item Description	Notes	Compliance	
	Apartments are designed to minimise the number of corners, doors & rooms that might obstruct airflow		YES	
	Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation & airflow		YES	
4C	CEILING HEIGHTS			
4C-1	Objective: Ceiling height achieves sufficient natural ventilation & daylight access.		✓	
	Design Criteria			
1	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:		YES	
	Minimum Ceiling Height for apt and mixed-used buildings (m)			
	Habitable rooms			2.7
	Non-habitable rooms			2.4
	For 2 storey apts			2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area
	Attic spaces			1.8 at edge of room with 30deg minimum ceiling slope
	If located in mixed-use areas			3.3 for ground and first floor to promote future flexibility of use
	These minimums do not preclude higher ceilings if desired			
	Design Guidance			
	Ceiling height accommodates use of ceiling fans for cooling & heat distribution		YES	
4C-2	Objective: Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.		✓	
	Design Guidance			



ADG Ref.	Item Description	Notes	Compliance
	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"><li>• Hierarchy of rooms in apartment is defined using changes in ceiling heights &amp; alternatives such as raked or curved ceilings, or double height spaces</li><li>• Well proportioned rooms are provided, for example, smaller rooms feel larger &amp; more spacious with higher ceilings</li><li>• Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor &amp; coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist</li></ul>		YES
4C-3	<b>Objective:</b> Ceiling heights contribute to the flexibility of building use over the life of the building		✓
	<b>Design Guidance</b>		
	Ceiling heights of lower level apartments should be greater than the minimum required by Design Criteria allowing flexibility & conversion to non-residential uses	The masterplan does not envisage conversion to non-residential uses at ground floor.	N/A
4D	<b>APARTMENT SIZE &amp; LAYOUT</b>		
4D-1	<b>Objective:</b> The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.		✓
	<b>Design Criteria</b>		
1	Apartments have the following minimum internal areas:		YES
	Apartment Type	Minimum Internal Area (sqm)	
	Studio	35	
	1 Bedroom	50	
	2 Bedroom	70	
	3 Bedroom	90	
The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each. A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each			
2	Every habitable room has a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight & air is not borrowed from other rooms		YES

ADG Ref.	Item Description	Notes	Compliance
	<b>Design Guidance</b>		
	Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)		YES
	A window is visible from any point in a habitable room		YES
	Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.		N/A
<b>4D-2</b>	<b>Objective:</b>		✓
	<b>Design Criteria</b>		
<b>1</b>	Habitable room depths are limited to a maximum of 2.5 x the ceiling height		YES
<b>2</b>	In open plan layouts (living, dining & kitchen are combined) maximum habitable room depth is 8m from a window		YES
	<b>Design Guidance</b>		
	Greater than minimum ceiling heights allow for proportional increases in room depth up to the permitted max depths		N/A
	All living areas & bedrooms are located on the external face of building		YES
	Where possible: <ul style="list-style-type: none"> <li>bathrooms &amp; laundries have external openable window</li> <li>main living spaces are oriented toward the primary outlook &amp; aspect and away from noise sources</li> </ul>		YES
<b>4D-3</b>	<b>Objective:</b>		✓
	<b>Design Criteria</b>		
<b>1</b>	Master bedrooms have a minimum area of 10sqm & other bedrooms 9sqm (excluding wardrobe space)		YES
<b>2</b>	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)		YES
<b>3</b>	Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"> <li>3.6m for studio &amp; 1 bedroom apartments</li> <li>4m for 2 &amp; 3 bedroom apartments</li> </ul>		YES



State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
4	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts		YES
	<b>Design Guidance</b>		
	Access to bedrooms, bathrooms & laundries is separated from living areas minimising direct openings between living & service areas		YES
	All bedrooms allow a minimum length of 1.5m for robes		YES
	Main bedroom of apartment or studio apartment is provided with a wardrobe of minimum 1.8m L x 0.6m D x 2.1m H		YES
	<p>Apartment layouts allow flexibility over time, design solutions include:</p> <ul style="list-style-type: none"> <li>• Dimensions that facilitate a variety of furniture arrangements &amp; removal</li> <li>• Spaces for a range of activities &amp; privacy levels between different spaces within the apartment</li> <li>• Dual master apartments</li> <li>• Dual key apartments (Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the BCA &amp; for calculating mix of apartments)</li> <li>• Room sizes &amp; proportions or open plans (rectangular spaces 2:3 are more easily furnished than square spaces 1:1)</li> <li>• Efficient planning of circulation by stairs, corridors &amp; through rooms to maximise the amount of usable floor space in rooms</li> </ul>		YES
4E	<b>PRIVATE OPEN SPACE &amp; BALCONIES</b>		
4E-1	<b>Objective:</b> Apartments provide appropriately sized private open space & balconies to enhance residential amenity.	Capable of complying.	✓
	<b>Design Criteria</b>		

ADG Ref.	Item Description	Notes	Compliance															
1	All apartments are required to have primary balconies as follows:		YES															
	<table><tr><th>Apartment Type</th><th>Minimum Area (sqm)</th><th>Minimum Depth (m)</th></tr><tr><td>Studio</td><td>4</td><td>-</td></tr><tr><td>1 Bedroom</td><td>8</td><td>2</td></tr><tr><td>2 Bedroom</td><td>10</td><td>2</td></tr><tr><td>3 Bedroom</td><td>12</td><td>2.4</td></tr></table>			Apartment Type	Minimum Area (sqm)	Minimum Depth (m)	Studio	4	-	1 Bedroom	8	2	2 Bedroom	10	2	3 Bedroom	12	2.4
	Apartment Type			Minimum Area (sqm)	Minimum Depth (m)													
	Studio			4	-													
	1 Bedroom			8	2													
	2 Bedroom			10	2													
	3 Bedroom			12	2.4													
The minimum balcony depth to be counted as contributing to the balcony area is 1m																		
2	For apartments at ground level or on podium or similar, a private open space is provided instead of a balcony. It must have minimum area of 15sqm & minimum depth of 3m		YES															
	Design Guidance																	
	Increased communal open space are provided where the number or size of balconies are reduced			N/A														
	Storage areas on balconies is additional to the minimum balcony size			YES														
	Balcony use may be limited in some proposals where: <ul style="list-style-type: none"><li>consistently high wind speeds at 10 storeys &amp; above</li><li>close proximity to road, rail or other noise sources</li><li>exposure to significant levels of aircraft noise</li><li>heritage &amp; adaptive reuse of existing buildings</li></ul> In these situations, <ul style="list-style-type: none"><li>juliet balconies,</li><li>operable walls,</li><li>enclosed wintergardens</li><li>bay windows</li></ul> are appropriate. Other amenity benefits for occupants are provide in the apartments or in the development or both. Natural ventilation is also demonstrated		YES															
	4E-2 Objective: Primary private open space & balconies are appropriately located to enhance liveability for residents																	
	Design Guidance																	
	Primary open space & balconies are located adjacent to the living room, dining room or kitchen to extend the living space			YES														



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	POS & balconies predominantly face north, east or west		YES
	POS & balconies are orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms		YES
4E-3	<b>Objective:</b> Private open space & balcony design is integrated into & contributes to the overall architectural form & detail of the building		✓
	<b>Design Guidance</b>		
	Solid, partially solid or transparent fences & balustrades are selected to respond to the location. They are designed to allow views & passive surveillance of the street while maintaining visual privacy & allowing for a range of uses on the balcony. Solid & partially solid balustrades are preferred		YES
	Full width full height glass balustrades alone are generally not desirable		YES
	Projecting balconies are integrated into the building design. The design of soffits are considered		YES
	Operable screens, shutters, hoods & pergolas are used to control sunlight & wind		YES
	Balustrades are set back from the building or balcony edge where overlooking or where safety is an issue		YES
	Downpipes & balcony drainage are integrated with the overall façade & building design		YES
	Air-conditioning units are located on roofs, in basements, or fully integrated into the building design		YES
	Where clothes drying, storage or air conditioning units are located on balconies, they are screened & integrated in the building design		YES
	Ceilings of apartments below terraces are insulated to avoid heat loss		YES
	Water & gas outlets are provided for primary balconies & private open space		YES
4E-4	<b>Objective:</b> Private open space & balcony design maximises safety		✓
	<b>Design Guidance</b>		
	Changes in ground levels or landscaping are minimised		YES
	Balcony design & detailing avoids opportunities for climbing & falling		YES
4F	<b>COMMON CIRCULATION &amp; SPACES</b>		
4F-1	<b>Objective:</b> Common circulation spaces achieve good amenity & properly service the number of apartments	Capable of complying.	✓
	<b>Design Criteria</b>		

ADG Ref.	Item Description	Notes	Compliance
1	The maximum number of apartments off a circulation core on a single level is eight	On high rise levels some buildings provide up to 12 apartments per circulation core as allowed under the design guidance below.	NO
2	For buildings of 10 storeys & over, the maximum number of apartments sharing a single lift is 40	<p>Social Building (L1-L16) north – 112 units serviced by 2 lifts. No more than 7 apartments are provided off a circulation core on a single level.</p> <p>Social Building (L1-L16) south – 95 units serviced by 2 lifts. No more than 6 apartments are provided off a circulation core on a single level.</p> <p>Market Building (L1-L23) – 256 units serviced by 3 lifts. No more than 12 apartments are provided off a circulation core on a single level.</p>	YES
	<b>Design Guidance</b>		
	Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement & access particularly in entry lobbies, outside lifts & at apartment entry doors		YES
	Daylight & natural ventilation are provided to all common circulation spaces that are above ground		YES
	Windows are provided in common circulation spaces & are adjacent to the stair or lift core or at the ends of corridors		YES
	<p>Longer corridors greater than 12m in length from the lift core are articulated. Design solutions include:</p> <ul style="list-style-type: none"> <li>Series of foyer areas with windows &amp; spaces for seating</li> <li>Wider areas at apartment entry doors &amp; varied ceiling heights</li> </ul>	We have incorporated 3 separate window to market building to manage long corridor as requested by DRP.	YES
	Common circulation spaces maximise opportunities for dual aspect apartments, including multiple core apartment buildings & cross over apartments		YES



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	<p>Achieving Design Criteria for the number of apartments off a circulation core may not be possible. Where development is unable to achieve this, a high level of amenity for common lobbies, corridors &amp; apartments is demonstrated, including:</p> <ul style="list-style-type: none"> <li>• Sunlight &amp; natural cross ventilation in apartments</li> <li>• Access to ample daylight &amp; natural ventilation in common circulation spaces</li> <li>• Common areas for seating &amp; gathering</li> <li>• Generous corridors with greater than minimum ceiling heights</li> <li>• Other innovative design solutions that provide high levels of amenity</li> </ul>	We have incorporated 3 separate window to market building to manage long corridor as requested by DRP.	YES
	Where Design Criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level		YES
	Primary living room or bedroom windows do not open directly onto common circulation spaces, open or enclosed. Visual & acoustic privacy from common circulation spaces to any other rooms are carefully controlled		YES
4F-2	<b>Objective:</b> Common circulation spaces promote safety & provide for social interaction between residents		✓
	<b>Design Guidance</b>		
	Direct & legible access are provided between vertical circulation points & apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines		YES
	Tight corners & spaces are avoided		YES
	Circulation spaces are well lit at night		YES
	Legible signage are provided for apartment numbers, common areas & general wayfinding		YES
	Incidental spaces, eg space for seating in a corridor, at a stair landing, or near a window are provided		N/A
	In larger developments, community rooms for activities such as owners corporation meetings or resident use, are provided & are co-located with communal open space		N/A
	Where external galleries are provided, they are more open than closed above the balustrade along their length		N/A
4G	<b>STORAGE</b>		
4G-1	<b>Objective:</b> Adequate, well designed storage is provided in each apartment	Capable of complying	✓
	<b>Design Criteria</b>		

ADG Ref.	Item Description	Notes	Compliance										
1	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:		YES										
	<table><tr><th>Apartment Type</th><th>Storage Size Volume (cubic m)</th></tr><tr><td>Studio</td><td>4</td></tr><tr><td>1 Bedroom</td><td>6</td></tr><tr><td>2 Bedroom</td><td>8</td></tr><tr><td>3+ Bedroom</td><td>10</td></tr></table>			Apartment Type	Storage Size Volume (cubic m)	Studio	4	1 Bedroom	6	2 Bedroom	8	3+ Bedroom	10
	Apartment Type			Storage Size Volume (cubic m)									
	Studio			4									
	1 Bedroom			6									
	2 Bedroom			8									
	3+ Bedroom			10									
At least 50% of the required storage is to be located within the apartment													
Design Guidance													
Storage is accessible from either circulation or living areas		YES											
Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proofed & screened from view from the street		YES											
Left over space such as under stairs is used for storage		YES											
4G-2	Objective: Additional storage is conveniently located, accessible & nominated for individual apartments		✓										
Design Guidance													
	Storage not located in apartments is secure and clearly allocated to specific apartments		YES										
	Storage is provided for larger & less frequently accessed items		YES										
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages, such that allocated car parking remains accessible		YES										
	If communal storage rooms are provided they are accessible from common circulation areas of the building		YES										
	Storage not located in apartment is integrated into the overall building design & not visible from public domain		YES										
4H	ACOUSTIC PRIVACY												
4H-1	Objective: Noise transfer is minimised through the siting of buildings & building layout		✓										
Design Guidance													



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	Adequate building separation is provided within the development & from neighbouring buildings/adjacent uses (see 2F Building Separation & 3F Visual Privacy)		YES
	Window & door openings are orientated away from noise sources		YES
	Noisy areas within buildings including building entries & corridors are located next to or above each other while quieter areas are located next to or above quieter areas		YES
	Storage, circulation areas & non-habitable rooms are located to buffer noise from external sources		YES
	The number of party walls (shared with other apartments) are limited & are appropriately insulated		YES
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces & circulation areas should be located at least 3m away from bedrooms		YES
4H-2	<b>Objective:</b> Noise impacts are mitigated within apartments through layout & acoustic treatments		✓
	<b>Design Guidance</b>		
	Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: <ul style="list-style-type: none"> <li>• Rooms with similar noise requirements are grouped together</li> <li>• Doors separate different use zones</li> <li>• Wardrobes in bedrooms are co-located to act as sound buffers</li> </ul>		YES
	Where physical separation cannot be achieved, noise conflicts are resolved using the following design solutions: <ul style="list-style-type: none"> <li>• Double or acoustic glazing</li> <li>• Acoustic seals</li> <li>• Use of materials with low noise penetration properties</li> <li>• Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements</li> </ul>		YES
4J	<b>NOISE &amp; POLLUTION</b>		
4J-1	<b>Objective:</b> In noisy or hostile environments impacts of external noise & pollution are minimised through careful siting & layout		✓
	<b>Design Guidance</b>		

ADG Ref.	Item Description	Notes	Compliance
	<p>To minimise impacts the following design solutions are used:</p> <ul style="list-style-type: none"> <li>Physical separation between buildings &amp; the noise or pollution source</li> <li>Residential uses are located perpendicular to the noise source &amp; where possible buffered by other uses</li> <li>Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses &amp; communal open spaces</li> <li>Non-residential uses are located at lower levels vertically separating residential component from noise or pollution source. Setbacks to the underside of residential floor levels are increased, relative to traffic volumes &amp; other noise sources</li> <li>Buildings respond to both solar access &amp; noise. Where solar access is away from noise source, non-habitable rooms will provide a buffer</li> <li>Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferred</li> <li>Landscape design reduces the perception of noise &amp; acts as a filter for air pollution generated by traffic &amp; industry</li> </ul>		YES
	<p>Where developments are unable to achieve Design Criteria, alternatives are considered in the following areas:</p> <ul style="list-style-type: none"> <li>Solar &amp; daylight access</li> <li>Private open space &amp; balconies</li> <li>Natural cross ventilation</li> </ul>		N/A
4J-2	<b>Objective:</b> Appropriate noise shielding or attenuation techniques for building design, construction & choice of materials are used to mitigate noise transmission		✓
	<b>Design Guidance</b>		
	<p>Design solutions to mitigate noise include:</p> <ul style="list-style-type: none"> <li>Limiting the number &amp; size of openings facing noise sources</li> <li>Providing seals to prevent noise transfer through gaps</li> <li>Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)</li> <li>Using materials with mass and/or sound insulation or absorption properties eg solid balcony balustrades, external screens &amp; soffits</li> </ul>		YES
4K	<b>APARTMENT MIX</b>		
4K-1	<b>Objective:</b> A range of apartment types & sizes is provided to cater for different household types now & into the future		✓
	<b>Design Guidance</b>		
	A variety of apartment types is provided		YES



ADG Ref.	Item Description	Notes	Compliance
	<p>The apartment mix is appropriate, taking into consideration:</p> <ul style="list-style-type: none"> <li>Distance to public transport, employment &amp; education centres</li> <li>Current market demands &amp; projected future demographic trends</li> <li>Demand for social &amp; affordable housing</li> <li>Different cultural &amp; socioeconomic groups</li> </ul>		YES
	Flexible apartment configurations are provided to support diverse household types & stages of life including single person households, families, multi-generational families & group households		YES
4K-2	<b>Objective:</b> The apartment mix is distributed to suitable locations within the building		✓
	<b>Design Guidance</b>		
	Different apartment types are located to achieve successful façade composition & to optimise solar access		YES
	Larger apartment types are located on ground or roof level where there is potential for more open space, and on corners where more building frontage is available	3 Bedroom apartments have been primarily been located on ground floor	YES
4L	<b>GROUND FLOOR APARTMENTS</b>		
4L-1	<b>Objective:</b> Street frontage activity is maximised where ground floor apartments are located		✓
	<b>Design Guidance</b>		
	Direct street access are provided to ground floor apartments		YES
	<p>Activity is achieved through front gardens, terraces &amp; the facade of the building. Design solutions include:</p> <ul style="list-style-type: none"> <li>Both street, foyer &amp; other common internal circulation entrances to ground floor apartments</li> <li>Private open space is next to the street</li> <li>Doors &amp; windows face the street</li> </ul>		YES
	Retail or home office spaces are located along street frontages		N/A
	Ground floor apartment layouts support SOHO use & provide opportunities for future conversion into commercial or retail areas. In these cases higher floor to ceiling heights & easy conversion to ground floor amenities are provided.		N/A
4L-2	<b>Objective:</b> Design of ground floor apartments delivers amenity & safety for residents		✓
	<b>Design Guidance</b>		

ADG Ref.	Item Description	Notes	Compliance
	Privacy & safety are provided without obstructing casual surveillance. Design solutions include: <ul style="list-style-type: none"> <li>Elevating private gardens &amp; terraces above the street level by 1-1.5m</li> <li>Landscaping &amp; private courtyards</li> <li>Window sill heights minimise sight lines into apartments</li> <li>Integrating balustrades, safety bars or screens with exterior design</li> </ul>		YES
	Solar access is maximised through: <ul style="list-style-type: none"> <li>High ceilings &amp; tall windows</li> <li>Trees &amp; shrubs allow solar access in winter &amp; shade in summer</li> </ul>		YES
<b>4M</b>	<b>FACADES</b>		
<b>4M-1</b>	<b>Objective:</b> Building facades provide visual interest along the street while respecting the character of the local area		✓
	<b>Design Guidance</b>		
	Design solutions for front building facades include: <ul style="list-style-type: none"> <li>Composition of varied building elements</li> <li>Defined base, middle &amp; top of buildings</li> <li>Revealing &amp; concealing certain elements</li> </ul>		YES
	Building services are integrated within the overall facade		YES
	Building facades are well resolved with appropriate scale & proportion to streetscape & with consideration of human scale. Solutions include: <ul style="list-style-type: none"> <li>Well composed horizontal &amp; vertical elements</li> <li>Variation in floor heights to enhance the human scale</li> <li>Elements that are proportional &amp; arranged in patterns</li> <li>Public artwork or treatments to exterior blank walls</li> <li>Grouping of floors or elements such as balconies &amp; windows on taller buildings</li> </ul>		YES
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights		YES
	Shadow is created on the facade throughout the day with building articulation, balconies & deeper window reveals		YES
<b>4M-2</b>	<b>Objective:</b> Building functions are expressed by the facade		✓
	<b>Design Guidance</b>		
	Building entries are clearly defined		YES



ADG Ref.	Item Description	Notes	Compliance
	Important corners are given visual prominence through change in articulation, materials or colour, roof expression or changes in height		YES
	Apartment layout is expressed externally through facade features such as party walls & floor slabs		YES
<b>4N</b>	<b>ROOF DESIGN</b>		
<b>4N-1</b>	<b>Objective:</b> Roof treatments are integrated into the building design & positively respond to the street		✓
	<b>Design Guidance</b>		
	Roof design relates to the street. Design solutions include: <ul style="list-style-type: none"> <li>• Special roof features &amp; strong corners</li> <li>• Use of skillion or very low pitch hipped roofs</li> <li>• Breaking down the massing of the roof by using smaller elements to avoid bulk</li> <li>• Using materials or pitched form complementary to adjacent buildings</li> </ul>		YES
	Roof treatments are integrated with the building design. Design solutions include: <ul style="list-style-type: none"> <li>• Roof design is in proportion to the overall building size, scale &amp; form</li> <li>• Roof materials compliment the building</li> <li>• Service elements are integrated</li> </ul>		YES
<b>4N-2</b>	<b>Objective:</b> Opportunities to use roof space for residential accommodation & open space are maximised		✓
	<b>Design Guidance</b>		
	Habitable roof space are provided with good levels of amenity. Design solutions include: <ul style="list-style-type: none"> <li>• Penthouse apartments</li> <li>• Dormer or clerestory windows</li> <li>• Openable skylights</li> </ul>		YES
	Open space is provided on roof tops subject to acceptable visual & acoustic privacy, comfort levels, safety & security considerations		YES
<b>4N-3</b>	<b>Objective:</b> Roof design incorporates sustainability features		✓
	<b>Design Guidance</b>		
	Roof design maximises solar access to apartments during winter & provides shade during summer. Design solutions include: <ul style="list-style-type: none"> <li>• Roof lifts to the north</li> <li>• Eaves &amp; overhangs shade walls &amp; windows from summer sun</li> </ul>		YES

ADG Ref.	Item Description	Notes	Compliance
	Skylights & ventilation systems are integrated into the roof design		YES
<b>40</b>	<b>LANDSCAPE DESIGN</b>		
<b>40-1</b>	<b>Objective:</b> Landscape design is viable & sustainable		✓
	<b>Design Guidance</b>		
	Landscape design is environmentally sustainable & can enhance environmental performance by incorporating: <ul style="list-style-type: none"> <li>• Diverse &amp; appropriate planting</li> <li>• Bio-filtration gardens</li> <li>• Appropriately planted shading trees</li> <li>• Areas for residents to plant vegetables &amp; herbs</li> <li>• Composting</li> <li>• Green roofs or walls</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES
	Ongoing maintenance plans are prepared	Refer to Landscape Design prepared by Hassell.	YES
	Microclimate is enhanced by: <ul style="list-style-type: none"> <li>• Appropriately scaled trees near the eastern &amp; western elevations for shade</li> <li>• Balance of evergreen &amp; deciduous trees to provide shading in summer &amp; sunlight access in winter</li> <li>• Shade structures such as pergolas for balconies &amp; courtyards</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES
	Tree & shrub selection considers size at maturity & the potential for roots to compete.	Refer to Landscape Design prepared by Hassell.	YES
<b>40-2</b>	<b>Objective:</b> Landscape design contributes to streetscape & amenity		✓
	<b>Design Guidance</b>		
	Landscape design responds to the existing site conditions including: <ul style="list-style-type: none"> <li>• Changes of levels</li> <li>• Views</li> <li>• Significant landscape features including trees &amp; rock outcrops</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES
	Significant landscape features are protected by: <ul style="list-style-type: none"> <li>• Tree protection zones</li> <li>• Appropriate signage &amp; fencing during construction</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES



ADG Ref.	Item Description	Notes	Compliance								
	Plants selected are endemic to region & reflect local ecology Capable of complying.	Refer to Landscape Design prepared by Hassell.	YES								
4P	PLANTING ON STRUCTURES										
4P-1	Objective: Appropriate soil profiles are provided		✓								
	Design Guidance										
	Structures are reinforced for additional saturated soil weight	Refer to Landscape Design prepared by Hassell.	YES								
	Soil volume is appropriate for plant growth, including: <ul style="list-style-type: none"><li>• Modifying depths &amp; widths according to planting mix &amp; irrigation frequency</li><li>• Free draining &amp; long soil life span</li><li>• Tree anchorage</li></ul>	Refer to Landscape Design prepared by Hassell.	YES								
	Minimum soil standards for plant sizes should be provided in accordance with <table><tr><th>Site Area (sqm)</th><th>Recommended Tree Planting</th></tr><tr><td>Up to 850</td><td>1 medium tree per 50sqm of deep soil zone</td></tr><tr><td>850 – 1,500</td><td>1 large tree or 2 medium trees per 90sqm of deep soil zone</td></tr><tr><td>Greater than 1,500</td><td>1 large tree or 2 medium trees per 80sqm of deep soil zone</td></tr></table>	Site Area (sqm)	Recommended Tree Planting	Up to 850	1 medium tree per 50sqm of deep soil zone	850 – 1,500	1 large tree or 2 medium trees per 90sqm of deep soil zone	Greater than 1,500	1 large tree or 2 medium trees per 80sqm of deep soil zone	Refer to Landscape Design prepared by Hassell.	YES
Site Area (sqm)	Recommended Tree Planting										
Up to 850	1 medium tree per 50sqm of deep soil zone										
850 – 1,500	1 large tree or 2 medium trees per 90sqm of deep soil zone										
Greater than 1,500	1 large tree or 2 medium trees per 80sqm of deep soil zone										
4P-2	Objective: Plant growth is optimised with appropriate selection & maintenance		✓								
	Design Guidance										
	Plants are suited to site conditions, considerations include: <ul style="list-style-type: none"><li>• Drought &amp; wind tolerance</li><li>• Seasonal changes in solar access</li><li>• Modified substrate depths for a diverse range of plants</li><li>• Plant longevity</li></ul>	Refer to Landscape Design prepared by Hassell.	YES								
	A landscape maintenance plan is prepared	Refer to Landscape Design prepared by Hassell.	YES								

## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	Irrigation & drainage systems respond to: <ul style="list-style-type: none"> <li>Changing site conditions</li> <li>Soil profile &amp; planting regime</li> <li>Whether rainwater, stormwater or recycled grey water is used</li> </ul>	Refer to Landscape Design prepared by Hassell.	YES
4P-3	<b>Objective:</b> Planting on structures contributes to the quality & amenity of communal & public open spaces		✓
	<b>Design Guidance</b>		
	Building design incorporates opportunities for planting on structures. Design solutions include: <ul style="list-style-type: none"> <li>Green walls with specialised lighting for indoor green walls</li> <li>Wall design that incorporates planting</li> <li>Green roofs, particularly where roofs are visible from the public domain</li> <li>Planter boxes</li> </ul> Note: structures designed to accommodate green walls should be integrated into the building facade & consider the ability of the facade to change over time	Refer to Landscape Design prepared by Hassell.	YES
4Q	<b>UNIVERSAL DESIGN</b>		
4Q-1	<b>Objective:</b> Universal design features are included in apartment design to promote flexible housing for all community members		✓
	<b>Design Guidance</b>		
	Developments achieve a benchmark of 20% of the total apartments incorporating the Liveable Housing Guideline's silver level universal design features	100% of social tenure apartments will achieve Silver level. 5% of Market Apartments will be adaptable.	YES
4Q-2	<b>Objective:</b> A variety of apartments with adaptable designs are provided		✓
	<b>Design Guidance</b>		
	Adaptable housing should be provided in accordance with the relevant council policy	100% of social tenure apartments will achieve Silver level. 5% of Market Apartments will be adaptable.	YES



ADG Ref.	Item Description	Notes	Compliance
	Design solutions for adaptable apartments include: <ul style="list-style-type: none"> <li>• Convenient access to communal &amp; public areas</li> <li>• High level of solar access</li> <li>• Minimal structural change &amp; residential amenity loss when adapted</li> <li>• Larger car parking spaces for accessibility</li> <li>• Parking titled separately from apartments or shared car parking arrangements</li> </ul>		YES
4Q-3	<b>Objective:</b> Apartment layouts are flexible & accommodate a range of lifestyle needs		✓
	<b>Design Guidance</b>		
	Flexible design solutions include: <ul style="list-style-type: none"> <li>• Rooms with multiple functions</li> <li>• Dual master bedroom apartments with separate bathrooms</li> <li>• Larger apartments with various living space options</li> <li>• Open plan 'loft' style apartments</li> </ul>		YES
4R	<b>ADAPTIVE REUSE</b>		
4R-1	<b>Objective:</b> New additions to existing buildings are contemporary, complementary & enhance area's identity & sense of place		✓
	<b>Design Guidance</b>		
	Design solutions include: New elements align with the existing building Additions complement the existing character, siting, scale, proportion, pattern, form & detailing Contemporary & complementary materials, finishes, textures & colours		N/A
	Additions to heritage items are clearly identifiable from the original building		N/A
	New additions allow for interpretation & future evolution of the building		N/A
4R-2	<b>Objective:</b> Adapted buildings provide residential amenity but does not precluding future adaptive reuse		✓
	<b>Design Guidance</b>		
	Design features are incorporated sensitively to make up for any physical limitations, to ensure residential amenity. Design solutions include: <ul style="list-style-type: none"> <li>• Generously sized voids in deeper buildings</li> <li>• Alternative apartment types when orientation is poor</li> <li>• Additions to expand the existing building envelope</li> </ul>		N/A

ADG Ref.	Item Description	Notes	Compliance
	Where developments are unable to achieve Design Criteria, alternatives are considered in the following areas: <ul style="list-style-type: none"> <li>Where there are existing higher ceilings, depths of habitable rooms can increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar &amp; daylight access (see 4A &amp; 4B)</li> <li>Alternatives to providing deep soil where less than the minimum requirement is currently available on the site</li> <li>Building &amp; visual separation subject to demonstrating alternative design approaches to achieving privacy</li> <li>Common circulation</li> <li>Car parking</li> <li>Alternative approaches to private open space &amp; balconies</li> </ul>		N/A
<b>4S</b>	<b>MIXED USE</b>		
<b>4S-1</b>	<b>Objective:</b> Mixed use developments are provided in appropriate locations & provide active street frontages that encourage pedestrian movement.		✓
	<b>Design Guidance</b>		
	Mixed use development are concentrated around public transport & centres		N/A
	Mixed use developments positively contribute to the public domain. Design solutions include: <ul style="list-style-type: none"> <li>Development addresses the street</li> <li>Active frontages provided</li> <li>Diverse activities &amp; uses</li> <li>Avoiding blank walls at the ground level</li> <li>Live/work apartments on the ground floor level, rather than commercial</li> </ul>		N/A
<b>4S-2</b>	<b>Objective:</b> Residential levels of the building are integrated within the development. Safety & amenity is maximised		✓
	<b>Design Guidance</b>		
	Residential circulation areas are clearly defined. Solutions include: <ul style="list-style-type: none"> <li>Residential entries separated from commercial entries &amp; directly accessible from the street</li> <li>Commercial service areas separated from residential components</li> <li>Residential car parking &amp; communal facilities separated or secured</li> <li>Security at entries &amp; safe pedestrian routes are provided</li> <li>Concealment opportunities are avoided</li> </ul>		YES
	Landscaped communal open space are provided at podium or roof		YES



## State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
<b>4T</b>	<b>AWNING &amp; SIGNAGE</b>		
<b>4T-1</b>	<b>Objective:</b> Awnings are well located and complement & integrate with the building design.		✓
	<b>Design Guidance</b>		
	Awnings are located along streets with high pedestrian activity & active frontages	Awnings to all lobby entrances provided	YES
	A number of the following design solutions are used: <ul style="list-style-type: none"> <li>• Continuous awnings are maintained &amp; provided in areas with an existing pattern</li> <li>• Height, depth, material &amp; form complements existing street character</li> <li>• Protection from sun &amp; rain is provided</li> <li>• Awnings are wrapped around secondary frontages of corner sites</li> <li>• Awnings are retractable in areas without an established pattern</li> </ul>	Awnings to all lobby entrances provided	YES
	Awnings are located over building entries for building address & public domain amenity	Awnings to all lobby entrances provided	YES
	Awnings relate to residential windows, balconies, street tree planting, power poles & street infrastructure		YES
	Gutters & down pipes are integrated and concealed		YES
	Lighting under awnings is provided for pedestrian safety		YES
<b>4T-2</b>	<b>Objective:</b> Signage responds to context & desired streetscape character.		✓
	<b>Design Guidance</b>		
	Signage is integrated into building design & respond to scale, proportion & detailing of the development		YES
	Legible & discrete way finding is provided for larger developments		YES
	Signage is limited to being on & below awnings, and single façade sign on primary street frontages		YES
<b>4U</b>	<b>ENERGY EFFICIENCY</b>		
<b>4U-1</b>	<b>Objective:</b> Development incorporates passive environmental design.		✓
	<b>Design Guidance</b>		
	Adequate natural light is provided to habitable rooms (see 4A Solar & Daylight Access)		YES
	Well located, screened outdoor areas are provided for clothes drying		YES

ADG Ref.	Item Description	Notes	Compliance
4U-2	<b>Objective:</b> Passive solar design is incorporated to optimize heat storage in winter & reduce heat transfer in summer.		✓
	<b>Design Guidance</b>		
	A number of the following design solutions are used: <ul style="list-style-type: none"> <li>• Use of smart glass or other on north &amp; west elevations</li> <li>• Thermal mass maximised in floors &amp; walls of north facing rooms</li> <li>• Polished concrete floors, tiles or timber rather than carpet</li> <li>• Insulated roofs, walls &amp; floors. Seals on window &amp; door openings</li> <li>• Overhangs &amp; shading devices such as awnings, blinds &amp; screens</li> </ul>		YES
	Provision of consolidated heating & cooling infrastructure is located in a centralised location (eg basement)		YES
4U-3	<b>Objective:</b> Adequate natural ventilation to minimise the need for mechanical ventilation.		✓
	<b>Design Guidance</b>		
	A number of the following design solutions are used: <ul style="list-style-type: none"> <li>• Rooms with similar usage are grouped together</li> <li>• Natural cross ventilation for apartments is optimised</li> <li>• Natural ventilation is provided to all habitable rooms &amp; as many non-habitable rooms, common areas &amp; circulation spaces as possible</li> </ul>		YES
4V	<b>WATER MANAGEMENT &amp; CONSERVATION</b>		
4V-1	<b>Objective:</b> Potable water use is minimised		✓
	<b>Design Guidance</b>		
	Water efficient fittings, appliances & wastewater reuse are incorporated	Refer to BASIX report	YES
	Apartments are individually metered		YES
	Rainwater is collected, stored & reused on site	Refer to BASIX report	YES
	Drought tolerant, low water use plants are used within landscaped areas	Refer to Landscape report prepared by Hassell	YES
4V-2	<b>Objective:</b> Urban stormwater is treated on site before being discharged to receiving waters.		✓
	<b>Design Guidance</b>		



ADG Ref.	Item Description	Notes	Compliance
	Water sensitive urban design systems are designed by a suitably qualified professional		N/A
	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> <li>• Runoff is collected from roofs &amp; balconies in water tanks and plumbed into toilets, laundry &amp; irrigation</li> <li>• Porous &amp; open paving materials is maximised</li> <li>• On site stormwater &amp; infiltration, including bio-retention systems such as rain gardens or street tree pits</li> </ul>		YES
<b>4V-3</b>	<b>Objective:</b> Flood management systems are integrated into site.		✓
	<b>Design Guidance</b>		
	Detention tanks are located under paved areas, driveways or in basement car parks		YES
	On large sites, parks or open space to provide temporary on site detention basins		YES
<b>4W</b>	<b>WASTE MANAGEMENT</b>		
<b>4W-1</b>	<b>Objective:</b> Waste storage facilities are designed to minimise impacts on streetscape, building entry & amenity of residents.		✓
	<b>Design Guidance</b>		
	Adequately sized storage areas for rubbish bins are located discreetly away from the front of the development or in basement car park	All garbage is proposed to be collected off-site within basement parking areas.	YES
	Waste & recycling storage areas are well ventilated		YES
	Circulation design allows bins to be easily manoeuvred between storage & collection points		YES
	Temporary storage are provided for large bulk items such as mattresses		YES
	Waste management plan is prepared		YES
<b>4W-2</b>	<b>Objective:</b> Domestic waste is minimised by providing safe & convenient source separation & recycling.		✓
	<b>Design Guidance</b>		
	All dwellings have a waste & recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste & recycling		YES
	Communal waste & recycling rooms are in convenient & accessible locations related to each vertical core		YES

ADG Ref.	Item Description	Notes	Compliance
	For mixed use developments, residential waste & recycling storage areas & access is separate & secure from other uses		N/A
	Alternative waste disposal methods such as composting is provided		N/A
<b>4X</b>	<b>BUILDING MAINTENANCE</b>		
<b>4X-1</b>	<b>Objective:</b> Building design detail provides protection from weathering.		✓
	<b>Design Guidance</b>		
	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> <li>• Roof overhangs to protect walls</li> <li>• Hoods over windows &amp; doors to protect openings</li> <li>• Detailing horizontal edges with drip lines to avoid staining surfaces</li> <li>• Methods to eliminate or reduce planter box leaching</li> <li>• Appropriate design &amp; material selection for hostile locations</li> </ul>		YES
<b>4X-2</b>	<b>Objective:</b> Systems & access enable ease of maintenance		✓
	<b>Design Guidance</b>		
	Window design enables cleaning from the inside of the building		YES
	Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade		YES
	Design does not require external scaffolding for maintenance access		YES
	Manually operated systems such as blinds, sunshades & curtains are used in preference to mechanical systems		YES
	Centralised maintenance, services & storage are provided for communal open space areas within the building		YES
<b>4X-3</b>	<b>Objective:</b> Material selection reduces ongoing maintenance costs.		✓
	<b>Design Guidance</b>		



State Environmental Planning Policy No. 65– Apartment Design Guideline – Compliance Table

ADG Ref.	Item Description	Notes	Compliance
	<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> <li>• Sensors to control artificial lighting in common circulation &amp; spaces</li> <li>• Natural materials that weather well &amp; improve with time, such as face brickwork</li> <li>• Easily cleaned surfaces that are graffiti resistant</li> <li>• Robust &amp; durable materials &amp; finishes in locations which receive heavy wear &amp; tear such as common circulation areas &amp; lift interiors</li> </ul>		YES

*Further to the above ADG Compliance Table we confirm that we have directed the design of the residential flat development at the Hills Showground Station Precinct. The design has been prepared in accordance with the design quality principles and requirements set out in Schedule 1 of State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development and the objectives of the Apartment Design Guide.*

*Ramin Jahromi is registered as an architect in accordance with the NSW Architects Act 2003. Registration Number is 10,000.*

## 10.2 AREA SCHEDULE & UNIT MIX



9.3 Area Schedule and Unit Mix

	Market (including Townhouses)	Social	Townhouses
GFA (m²)	23,330	14,517	617

Overall C4 site	
GFA (m²)	37,847

C4 Market (including Townhouses)	Total	Studio	1BR	1BR + S	2BR + 1B	2BR + 2B	2BR + 2B + S	3BR + 2B	3BR + 2B + S	3BR + 3B	3BR + 3B + S	4BR + 3B Townhouses
Units	272	0	61	72	0	5	87	20	19	0	4	4

C4 Social	Total	Studio	1BR	2BD + 1B
Units	216	24	97	95

## 10.3 RESPONSE TO GA NSW SDRP





## MIDTOWN STAGE 2 SDRP 1<sup>ST</sup> OF APRIL 2021 – RESPONSES MATRIX

### *Client:*

Frasers Property (FP)

### *Consultant Teams:*

A1 – Bates Smart (BS)

C1 – Candalepas Associates (CA)

C2 – Chrofi + McGregor Coxall (C+MGC)

C3 – Fox Johnson (FJ)

C4 – COX

Landscape – Hassell (H)

ESD Consultant –Integral Group (IG)

Indigenous consultant – Fulcrum Agency (FA)

	GA NSW RECOMMENDATIONS 01/04/2021	RESPONSE	CONSULTANT
<b>1.0</b>	<b>Site planning – landscape, public domain and key interfaces</b>		
1.1	Community integration – physical connections for all residents;		
1.1.1	- Key interfaces across the public domain require further resolution to ensure equitable access – e.g. at the interface of the Village Green with Main Street where a level change of up to 2.8m is unlikely to promote inclusiveness.	Please see additional sections provided in the SDRP presentation to demonstrate human scale and inclusive ground plane that address the street frontage, provides passive surveillance, activates the interface between podium levels of the buildings and the street. Equitable access is provided, and demonstrated in chapter 3.3 of the SDRP presentation document, with the Pedestrian access diagram.	ALL
1.1.2	- Large building foot prints with limited permeability are a barrier to access across the site – a highly permeable and inclusive ground plane is required for all buildings, irrespective of tenure.	Please see additional sections provided in the SDRP presentation to demonstrate human scale and inclusive ground plane that address the street frontage, provides passive surveillance, activates the interface between podium levels of the buildings and the street.	ALL
1.1.3	- C4 Courtyard should be equally accessible for residents of both the Social and Market housing. Current configuration favours the Market Building.	The current proposal of C4 courtyard is lowered so it provides level access to Main Street, C4 Social and Market Buildings.	COX
1.2	C4 Social Building – key interfaces – improve connections, including:		

	GA NSW RECOMMENDATIONS 01/04/2021	RESPONSE	CONSULTANT
1.2.1	- More points of access to adjacent open space and through to the Village Green.	The current proposal allows 2 entrances to Neighbourhood Street facing vehicular access points of C3 building. This activates pedestrian access to this street, and promote thoroughfare from Main Street through to Forest Playground and Neighbourhood Mews.	COX
1.2.2	- Opportunities to engage with Main Street's public domain spaces (e.g. activation & passive surveillance to/from the lobby) and,	The street frontage of C4 Social building facing Main Street has façade setback in accordance with the Urban Design Guidelines. It maximises ground plane planting, provide additional privacy to ground floor units, ensure passive surveillance to the street, and allow maximum visual connection to Shrimptons Creek along Main Street.	COX
1.2.3	- Integration with the C4 Market Building. The raised courtyard is a significant physical barrier to these outcomes.	The current proposal of C4 courtyard is lowered so it provides level access to Main Street, C4 Social and Market Buildings.	COX
6.0	<b>C4.2 Social housing building</b> – generally well planned and capable of delivering good design outcomes. The following design issues are noted:		COX
6.1	Little exploration into opportunities for building articulation (particularly compared with C3 and C4.1 – the market developments). Further investigations required into vertical separations or other modelling to minimise scale and height impacts.	Additional information highlighting building articulation have been provided in the attached documentation. (Façade modulation/material selection and details)	COX
6.2	Main entries and access are confined to the side street. Explore opportunities to engage with Main Street's public domain spaces (e.g. activation & passive surveillance to/from the lobby).	Positioning the Social Building entrances at Neighbourhood Street activates the street frontage facing C3 building. The Social Building frontage to Main Street is setback to maximise visual connection to open space at Shrimptons Creek, with windows facing the street to allow passive surveillance as well as natural light into the internal space.	COX
6.3	Corridors – design development to further break-up the double-loaded corridor-providing opportunities for views, daylighting and cross ventilation.	Double-core building, natural light and ventilation have been provided to each core as per ADG requirement.	COX
6.4	Investigate impact of adjacent Market Building on solar access to units.	Impact of adjacent building (C3) has been reviewed, please see information provided in Chapter 6.4 SDRP Presentation document.	COX
7.0	<b>C4.1 Market housing building and townhouses</b>		
7.1	C4.1 built form and expression is generally supported, including articulation of the façade and built form.	Noted	COX
7.2	The single lift core to C4.1 is not supported. Split cores (as for C3 & C4.2 social housing) offer better functional and architectural outcomes, such as: - efficient circulation, - reducing the visual bulk and mass of the building	Single core with 12 units meets the requirements of the ADG, current provision improves the minimum requirements by:	COX



	GA NSW RECOMMENDATIONS 01/04/2021	RESPONSE	CONSULTANT
	- improving corridor amenity e.g. reduced length, external outlook, natural light and cross ventilation.	<ul style="list-style-type: none"> <li>- Introducing 3 external windows to the corridor which is above the minimum requirement of 1.</li> <li>- The corridor is naturally ventilated to improve the experience of the corridor.</li> <li>- Significant façade notches through these windows improves the massing of the building and ensures the corridor has access to various view aspects throughout.</li> </ul>	
7.3	Courtyard – minimise impacts of overshadowing.	<p>The courtyard is improved through lowering of the raised courtyard at ground floor. This improves the connection of the social lobbies to the central courtyard and allows seamless connection to Shrimptons Creek. Whilst the sunlight access to this central area is not as extensive as the principal communal open space adjacent to Shrimptons Creek, it nonetheless offers a significant passive communal open space that achieves sunlight access in the afternoon during the equinox summer months. Refer to views from the sun provided at these times.</p> <p>Additionally it should be note that the communal open space adjacent to Shrimptons Creek is the 'principal communal open space' as indicated in the ADG and achieves at least 2 hours of sunlight access in midwinter to its entire area. This space is equitably accessible to the residents of both the social and market tenure.</p>	COX
7.4	Scale and contextual fit of C4.4 townhouses – proximity to both C4 towers is incongruous and out of scale. Consider strategies for the townhouses to better integrate with adjacent podiums (e.g. through materials and architectural expression).	The townhouses at C4.4 aligns with the podium levels of the towers in the masterplan, where setbacks are provided to the tower massing. Please refer to the elevations and diagrams in the SDRP presentation.	COX

<b>Midtown Stage 2</b> <b>Response to SDRP Extended Session #2 – 17<sup>th</sup> June 2021</b>	
SDRP feedback	Midtown design team response
<b>Connecting with Country</b>	
<p>1. The approach to connecting with Country and resulting emerging initiatives are supported, including:</p> <ul style="list-style-type: none"> <li>• working with The Fulcrum Agency to guide engagement with the local Aboriginal community, to achieve both short and long-term goals</li> <li>• development of a corporate approach to connecting with Country</li> <li>• the aspiration of a community bush-tucker garden on the C2 pool roof – it is recommended the garden be developed in collaboration with local Aboriginal knowledge holders.</li> </ul>	<p>Noted. As advised in the SDRP session#2, correct and early stakeholder consultation and engagement is the key to truly connecting with country in a meaningful way. This very important as engagement can take many months to correctly undertake.</p> <p>Frasers have procured a Connecting with Country strategy document with a range of recommendations that we are now reviewing and implementing. This report has been included in the Development Application to allow the process to be conditioned in the consent.</p> <p>Our intention is to now seek cultural input into the relevance/importance/priority of the suggested opportunities and develop them further in consultation with Aboriginal stakeholders. To begin consultation with appropriate stakeholders, Urbis has compiled a list of Registered Aboriginal Parties as part of the Aboriginal heritage assessment process. We propose to contact these parties as well as the Metropolitan Local Aboriginal Land Council to begin testing these ideas.</p> <p>The outcome of this engagement will assist in informing the response and incorporation into the design prior to commencement of the relevant area or element.</p>
<b>Site planning and public domain</b>	
<p>2. The precinct's open space connections are to be optimised in terms of public accessibility, with a preference for maximising Ryde City Council (Council) dedication. Public access to include (but not limited to):</p> <ul style="list-style-type: none"> <li>• the covered pedestrian link to the Village Green adjacent to C3 retail spaces</li> <li>• the C2 walkway adjacent to the community facilities</li> <li>• links through the Forest Playground (between buildings D2 &amp; D3) and existing forest and onto Epping Road</li> <li>• the link adjacent to B2 School Garden connecting the existing residential area to the north</li> <li>• the two Garden Mews, including connections to the Shrimptons Creek public open space (the riparian corridor)</li> <li>• C4.1 open space next to the riparian corridor.</li> </ul>	<p>Noted.</p> <p>However, our dedication extents haven been agreed with DPIE and included into the Masterplan Consent</p>
<p>3. It is recommended that the project team works with Council to develop an optimal Dedication Plan that supports public access across the site's open space network, ensuring long-term connectivity within the precinct and surrounding neighbourhoods.</p>	<p>The dedication plan is included in the masterplan consent.</p>



4. Provide good public domain outcomes at the two Garden Mews (terminations of Main Street and Neighbourhood Street – Road 2) to enable connection to the riparian corridor, opportunities for gathering and good amenity generally. The precedent of Surry Hills, Sydney was cited – small parks at the end of the streets that provide pedestrian links.	Noted. Only one garden mews as presented to the SDRP is included in this application.
<b>Sustainable and resilient outcomes</b>	
5. It was noted Frasers Property would include green energy supply (aligned with their typical business model) as a key component of the strategy for carbon neutrality.	Agreed.
6. Further develop and provide greater detail on: <ul style="list-style-type: none"> <li>• Green Star initiatives associated with the Green Star pathway</li> <li>• other viable initiatives (exclusive of energy supply) to achieve carbon neutrality, e.g. waste recycling and low energy embodied materials</li> <li>• how social values are embedded within the project.</li> </ul>	Please refer to the sustainability report provided in the development application to be read in conjunction with the masterplan sustainability report.
7. Consider a site-wide approach to sandstone re-use.	Noted.
<b>C4.2 Social housing building</b>	
15. The following responses to SDRP 01 are supported: <ul style="list-style-type: none"> <li>• direct access to a lowered central courtyard (between C4.1 &amp; C4.2)</li> <li>• design development of brick detailing.</li> </ul>	Noted
16. Provide further opportunity for gathering and social interaction on the ground floor, including lobby and circulation spaces. Consider an option of one combined larger lobby with greater visual connection to the courtyard.	Noted. Please refer to the updated documents in the development application.
17. A ground floor concierge is supported – ensure adequate flexibility and spatial allocation.	Noted. Please refer to the updated documents in the development application.
18. The ground floor corner apartments are not supported – noting they do not optimise their dual frontages and street corner context. Reconsider the ground floor planning for alternatives, including flexible communal space in lieu of corner apartments.	Noted. Please refer to the updated documents in the development application.
19. Optimise the typical-level window slots to improve amenity at corridors and apartments – e.g. integration with corridor waiting/gathering spaces and optimising cross ventilation to apartments.	Noted. Please refer to the updated documents in the development application.
20. Improve the public domain interface of ground floor apartments – e.g. increasing privacy through raising floor levels (higher than the footpath) and/or providing individual entries to dwellings.	Noted. Please refer to the updated documents in the development application.
21. Further articulate the façade by taking cues from the suite of diagrams as presented – e.g. articulation of recessed window slots to clearer/more prominent (refer to diagram 5).	Noted. Please refer to the updated documents in the development application.
<b>C4.1 Market housing building and townhouses</b>	

<p>22. The following is supported:</p> <ul style="list-style-type: none"> <li>• public access to the landscaped area at the interface of the building and the riparian corridor</li> <li>• lowering of the central courtyard to provide accessible connections to C4.1 and Main Street</li> <li>• architectural expression of the façade – including development reflective of the qualities of the façade diagram suite.</li> </ul>	Noted.
<p>23. The additional corridor window is an improvement; however, a twin-core arrangement remains a significantly better design outcome offering greater amenity, explore and provide an option for review that adopts a twin-core arrangement.</p>	<p>Noted. The design team has explored a dual core option. A dual core does not improve the built form or amenity provided to the apartments which are currently adhering to the ADG.</p> <p>A dual core in this building reduces the overall GFA, by increasing the required circulation spaces, servicing requirement area and therefore results in a significant cost increase whilst reducing overall apartments.</p>
<p>24. Improve amenity at corridors generally (to be less hotel-like) by increased width, height, and opportunities for gathering spaces.</p>	Noted.
<p>25. Provide and implement precedents for communal central courtyards and other comparable low light outdoor environments – including planting precedents.</p>	Noted.
<b>Requests for the next SDRP</b>	
<p>26. The following should be provided for EIS lodgement and the next SDRP:</p>	
<ul style="list-style-type: none"> <li>• greater detail on sustainability initiatives to support carbon neutrality</li> </ul>	Refer to the sustainability report provided in the development application.
<ul style="list-style-type: none"> <li>• information on the Green Star pathway, including specific sustainability initiatives</li> </ul>	Refer to the sustainability report provided in the development application.
<ul style="list-style-type: none"> <li>• outcomes of ongoing engagement with the local Aboriginal community to support connecting with Country</li> </ul>	Refer to the connecting with country report provided in the development application.
<ul style="list-style-type: none"> <li>• updated Dedication Plan resulting from discussions with Council</li> </ul>	Not possible. Refer to the approved concept masterplan for the dedication items.
<ul style="list-style-type: none"> <li>• details on C2 community bush-tucker garden, including engagement with local Aboriginal knowledge holders</li> </ul>	Detail can not be provided until adequate consultation and stakeholder engagement has occurred. Details are also not relevant to DA level of documentation.
<ul style="list-style-type: none"> <li>• updated Deep Soil Plan for the entire precinct and individual sites, with separately indicated areas of deep soil over structures</li> </ul>	<p>Deed soil calculations have been provided in the development application relevant to this stage in accordance with the ADG&gt;</p> <p>In relation to the masterplan, the deep soil plan can be found in the stamped consent documents.</p>
<ul style="list-style-type: none"> <li>• details of canopy cover for the precinct and a breakdown for each site</li> </ul>	Not a requirement under the masterplan consent or any current legislation.
<ul style="list-style-type: none"> <li>• tree and planting species, including street trees</li> </ul>	Refer to the landscape plans and report provided in the development application.
<ul style="list-style-type: none"> <li>• a precinct wide diagrammatic plan showing accessibility compliance or non-compliance for the site's public domain</li> </ul>	The masterplan accessibility diagram is not relevant to this stage. Public domain accessibility diagram relevant to this stage have been provided in the respective design reports and drawings.



<ul style="list-style-type: none"> <li>• a strategy for sandstone re-use</li> </ul>	Noted can be considered in the detailed design phase with the contractors to determine if the sandstone is feasible to use.
<ul style="list-style-type: none"> <li>• materials of C3 building</li> </ul>	Please refer to the updated documents in the development application.
<ul style="list-style-type: none"> <li>• a cohesive set of plans, sections and elevations for C2, C4 and (both) C4 buildings, include roof plans showing the distribution of solar/PV panels and roof gardens</li> </ul>	Please refer to the updated documents in the development application.
<ul style="list-style-type: none"> <li>• options C4.1 building to understand the implications of a twin-core arrangement</li> </ul>	Options will be provided in the next SDRP, however the design team disagrees with dual core to this building.
<ul style="list-style-type: none"> <li>• elevation options of C2 community facilities and gym building, including the balustrade/planter interface to the Village Green below</li> </ul>	Please refer to the updated documents in the development application
<ul style="list-style-type: none"> <li>• options of how to increase light to the community pool</li> </ul>	Please refer to the updated documents in the development application
<ul style="list-style-type: none"> <li>• precedent studies for low light outdoor environments – C4 central courtyard.</li> </ul>	Precedent studies will be provided in the next SDRP, however they not relevant to the development application.

