

APPLICATION ON NOTIFICATION – Category 2

Applicant:	Barrio Developments
Development Number:	110/M004/19
Nature of Development:	Demolition of existing building, and construction of a seven level residential flat building, comprising 20 apartments and 38 tourist accommodation rooms and ancillary car parking and landscaping.
Development Type:	Merit
Subject Land:	2 Canning Street, Glenelg North
Development Plan:	Holdfast Bay Council, consolidated 2 June 2016
Zone / Policy Area:	Residential High Density Zone / Urban Glenelg Policy Area 15 / Precinct 4 Five Storey
Contact Officer:	Will Gormly
Phone Number:	08 7109 7370
Consultation Start Date:	16 July 2019
Consultation Close Date:	29 July 2019
<p>During the notification period, hard copies of the application documentation can be viewed at the Department of Planning, Transport and Infrastructure, Level 5, 50 Flinders St, Adelaide, during normal business hours. Application documentation may also be viewed during normal business hours at the local Council office (if identified on the public notice).</p>	

Written representations must be received by the close date (indicated above) and can either be posted, hand-delivered or emailed to the State Commission Assessment Panel.

Any representations received after the close date will not be considered.

Postal Address:

The Secretary
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Street Address:

Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
ADELAIDE

Email Address: scapreps@sa.gov.au

Fax Number: (08) 8303 0753

**South Australian
DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2**

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Close Date: 29 July 2019

My Name: _____ My phone number: _____

Primary method(s) of contact: Email: _____
Postal Address: _____ Postcode: _____

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard by the State Commission Assessment Panel in support of your submission.

My interests are:
(please tick one)

☐ owner of local property
☐ occupier of local property
☐ a representative of a company/other organisation affected by the proposal
☐ a private citizen

The address of the property affected is:

Postcode: _____

My interests are:
(please tick one)

☐ I support the development
☐ I support the development with some concerns
☐ I oppose the development

The specific aspects of the application to which I make comment on are: _____

I: ☐ wish to be heard in support of my submission
(please tick one) ☐ do not wish to be heard in support of my submission
(Please tick one)

By: ☐ appearing personally
(please tick one) ☐ being represented by the following person
(Please tick one)

Signature: _____

Date: _____



Barrio Developments

2019-0070

3 July 2019



RESIDENTIAL APARTMENTS AND TOURIST
ACCOMODATION DEVELOPMENT AT
2 CANNING STREET GLENELG
PLANNING STATEMENT



Residential Apartment Building

1 July 2019

Lead consultant	URPS
In association with	Brown Falconer Infraplan LCS Landscapes SuHo Botten Levinson Lawyers Pyper Leaker Surveying Services Structural Systems Resonate Consultants Strata Data Lucid Consulting
Prepared for	Barrio Developments
Consultant Project Manager	Matthew King, Director Suite 12/154 Fullarton Road (cnr Alexandra Ave) Rose Park, SA 5067 Tel: (08) 8333 7999 Email: matthew@urps.com.au
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1.0 Introduction

URPS has been engaged by Barrio Developments, the applicant in this matter, to provide advice, liaise with the relevant government bodies during the pre-lodgment phase and prepare this planning report in respect of a proposed residential tourist accommodation development at 2 Canning Street Glenelg.

In accord with the pertinent planning objectives, the proposal presents an exciting opportunity to develop the land with high quality residential apartments and short-term accommodation afforded with views of the adjacent Patawalonga and access to public open space, recreational areas and the many shops/cafes and public transit services located at Jetty Road.

The proposal has been prepared by experienced architects, aided by an experienced team of consultants, and has been through a rigorous design review process with many iterations prepared before settling on the plan now submitted for formal assessment.

Discussions about the development of the land first commenced with the Department of Planning, Transport and Infrastructure in late 2017. The proposal was presented to design review and three pre-lodgment meetings and hence has evolved considerably since its early concept plans.

In our opinion, the submitted plan provides high quality urban design outcome that contributes to the objectives of the relevant zone, policy area and precinct all which seek additional compact housing, and tourist accommodation, and added vibrancy in the area, as described within this report.

In preparing this report we have undertaken a review of the following:

- Certificate of titles (**Appendix A**).
- Subject land and locality (refer URPS plan contained within **Appendix B**).
- Plans prepared by Brown Falconer (**Appendix C**).
- Traffic and parking assessment, and waste management plan, prepared by Infraplan (**Appendix D**).
- Landscaping plan prepared by LCS landscapes (**Appendix E**).
- Legal opinion prepared by Botten Levinson Lawyers (**Appendix F**).
- Sustainability report prepared by SuHo (**Appendix G**).
- Opinion from Pyper Leaker Surveying Services regarding the titling associated with the Stacker System (**Appendix H**).
- Stormwater management plan prepared by Structural Systems (**Appendix I**).
- Resonate Consultants acoustic assessment (**Appendix J**).
- Holdfast Bay City Development Plan, consolidated 2 June 2016.

A height policy analysis diagram (prepared by URPS) is also an appendix to this report (see **Appendix K**).



2.0 The Subject Land and Locality

The subject land comprises one allotment described as Allotment 1 in Deposited Plan 57894 in the area named Glenelg North Hundred of Noarlunga.

The land has a 28.04 metre frontage width to Canning Street and a 27.65 metre frontage width to Laycock Lane. The total area of the land is approximately 800m².

The land is basically flat and contains a detached dwelling. That dwelling has a demolition approval that was separately sought with the City of Holdfast Bay (per Development Plan Consent 110/001071/19).

The locality surrounding the subject land comprises a mix of different kinds of residential development including housing between 1 and 2 storeys in height, varying in style, and a large residential flat building complex (comprising apartments) of some 13 storeys to the immediate west of the land.

Single storey housing in the locality is typically of early 1900's era and 2 storey housing is typically of more contemporary townhouse style development constructed within the past 10-15 years by my estimation.

In addition, the land on the corner Canning Street and Adelphi Terrace (to the north-west of the land) comprises a low-rise motel building. That site however has authorization to construct a 14 storey mixed use building comprising tourist accommodation and shops.

The land is located close to the Patawalonga River - a popular space for recreation due to its attractive views, green space and highly functional footpath.

The land also has excellent connectivity to Glenelg Beach and through to Colley Reserve and Moseley Square, all of which provide large open community spaces.



3.0 The Proposal

3.1 Overview

In summary, the development comprises the following elements:

- Construction of a multi-level residential apartment and tourist accommodation building comprising 20 apartments and 38 tourist accommodation rooms plus communal areas for travellers.
- The ground floor of the facility will comprise lobby and entrance areas as well as a small lounge area for each respective land use. The ground floor also comprises a services/storage room, waste room and laundry/store room.
- All car parking is to be situated off-street and at-grade where there will be capacity for 40 car parking spaces in a vertical stacker system. The car park is to be accessed from Laycock Lane.
- There is bike parking (14 spaces) provided at-grade toward the land's Canning Street/Laycock Lane boundary.
- Landscaping is proposed at-grade and upon the building.

3.2 Apartment Sizes and Private Open Space

There are five different apartment types situated within each of the floors designated to residential use.

In summary each floor will include:

- **Type A** - 2-bedroom apartment of 90m² with a 17m² balcony
- **Type B** - 2-bedroom apartment of 64m² with an 11m² balcony
- **Type C** - 2 bedroom apartment of 64m² with an 11m² balcony.
- **Type D** - 3-bedroom apartment of 110m² with a 17m² balcony
- **Type E** - 3-bedroom apartment of 127m² with a 17m² apartment

3.3 Storage

All apartments have storage provided both internally and externally which ranges in size between 9.5-10.1m³.

3.4 Mail Box

The mail box facility for the residential apartments is located within the apartment lobby and will be accessible during day time for Australia Post delivery services.

3.5 Design Philosophy

The proposed apartment building has been designed in close consultation with the DPTI/ODASA with the design consultation process commencing in late 2016, re-commencing in late 2018 and ultimately concluding in June 2019.



The project was presented to Design Review and three pre-lodgement panel meetings. Prior to commencing with any pre-lodgement consultation, verbal feedback provided from DPTI in late 2016 was that a project over height was a “reasonable proposition” at this site primarily given its adjacency to the adjoining Precinct 5 wherein 12 storey/43 metre tall development is contemplated and where there is an existing residential apartment building of some 13 storeys.

The explorative design process has seen the project’s design evolve and be responsive to the various planning constraints, whilst being cognisant of the proponent’s economic and market-based objectives.

The following factors underpin this design:

- A mix of apartment sizes but a higher proportion of 2-bedroom units to suit market trends as advised by Connekt Real Estate.
- Tourist accommodation that seeks to offer short term accommodation for travellers.
- A high level of amenity for apartment occupiers with regard to internal spaces, outlook and views, and orientation which maximises sunlight access and natural ventilation where able.
- A contemporary design approach that incorporates natural light and views, and articulated facades that adequately enhance appearance to the public realm.
- A material and colours palette that is suited to its coastal context being highly durable and low maintenance.

3.6 Materials and Colours

Materials and colours will include:

- Chalk coloured bricks.
- Re-use of the stone associated with the existing dwelling.
- Use of timber.
- Rib and pan wall cladding in a dark, warm grey color.
- White coloured concrete slab and columns.
- Bronze metal work.
- Glazing with bronze tint.

3.7 Landscaping and Surface Treatment

Landscaping will include:

- A mix of low plantings and small trees on the strip of land to the west of the building on the ground floor.
- Climbing plants that are to grow on a steel mesh element on Levels 1-3 (north elevation).
- Timber decking will be used for the surface treatment of external pedestrian areas except for the rear pathway which will be comprised of an exposed concrete aggregate material.



- Forward of the building along the Canning Street frontage will be garden beds set against the building. The garden beds will be constructed using reclaimed sandstone.
- Small gardens beds are proposed along Laycock Lane. A more sizeable strip of screen plantings is proposed along the rear boundary.

3.8 Titling

All car parking stacker areas will be nominated on the title as 'communal' with the specific allocation of car parking spaces nominated via the building's by-laws.



4.0 Procedural Matters

4.1 Relevant Authority

The development involves the construction of a building exceeding 4 storeys in height within the Residential High-Density Zone of the City of Holdfast Bay Development Plan as consolidated 2 June 2016.

Therefore, the proposal is to be assessed by the State Planning Commission pursuant to Clause 4C (1)(c) Schedule 10, the *Development Regulations 2008*.

4.2 Kind of Development

The subject land is located within the Residential High-Density Zone as depicted on Zone Map HoB/2.

The proposal comprises both a 'residential flat building' component and a 'motel or 'tourist accommodation' component. All of these uses are to be assessed on their merits in the Zone.

4.3 Public Notification and Referrals

Pursuant to the procedural matters section identified within the Zone any development with an overall height exceeding 11.5 metres (excluding gables) measured from the natural ground level is defined as Category 2 for public notification purposes.

The application will need to be referred to the City of Holdfast Bay and the Government Architect for formal comment.



5.0 Planning Assessment

The following assessment addresses what we consider to be the most pertinent Development Plan matters relevant to a development of this kind.

5.1 Orderly and Sustainable Development

The proposal will provide further positive investment into the City of Holdfast Bay to the tune of \$7.8 million (including fit-out).

The proposal seeks to establish a new, architecturally designed apartment and tourist accommodation building within a locality comprising residential and tourist accommodation uses, in a sought-after location with exceptional access to services, and views and access to attractive public space.

Residents will be provided secure and covered car parking along with secured pedestrian access via an internal lobby and lift to their respective apartments/rooms.

The development will be economic and targeted towards professionals looking for comfortable, pleasant yet low maintenance residential accommodation, as well as retirees looking to downsize to more compact accommodation.

The tourist accommodation component will likely be owned by a single operator and will provide short term accommodation in the area to travelers.

Given the above, Orderly and Sustainable Objective 1 is achieved.

In satisfaction of Objectives 2, 3, 4 and Principles 1, 2, 3, 4, 7 and 9 the development will:

- Be a compact multi-residential housing scheme that desirably make use of existing infrastructure and public services that are readily available.
- Not prejudice the present or future land use of any adjoining properties nor their ability to satisfy important provisions of the Development Plan.
- Expand the economic base of the region through increased local permanent and temporary population, creating demand local services and business.
- Undertake a development which is efficient and coordinated and which will make better use of the land which is presently put to a low-density residential use (i.e. a single dwelling).
- Add to the diversity of housing type and availability of tourist accommodation in the area.
- Be in accordance with the Structure Plan Map, by providing a residential land use in this locality.

5.2 Land Use

Zone Objective 1 states:

1. **A residential zone comprising a range of high-density dwellings, including a minimum of 15 per cent affordable housing, primarily in the form of row dwellings and residential flat buildings, designed to integrate with areas of open space, neighbouring centres or public transport nodes.**



Policy Area 15 Objective 1 states:

- 1 A policy area comprising tourist accommodation and a range of dwellings and residential flat buildings at medium to high densities.**

The proposal provides both high density dwellings within a residential flat building and a tourist accommodation use, therefore it satisfies the above land use objectives of the Zone and Policy Area.

Policy Area 15's Desired Character states:

The policy area provides the Council's premier coastal medium and high-density living opportunities. It includes areas of Glenelg North around the foreshore and the Patawalonga, and within Glenelg and Glenelg South along the foreshore and extending into small parts of the suburban landscape, and along Colley Terrace.

...

The policy area is a premier location with excellent accessibility to views, beach, public spaces, centre services, facilities and public transport. The policy area adds to the choice of accommodation within Holdfast Bay and the wider metropolitan area by providing for a variety of medium and higher density dwelling types, including apartments for residential purposes and visitor accommodation.

Zone Principle 7 defines High Density as follows:

- 7 High density development that achieves gross densities of more than 45 dwellings per hectare (which translates to net densities of more than 67 dwellings per hectare) should typically be in the form of over 4 storey buildings.**

(my underline)

The proposal features 20 dwellings on an about 800m² site meaning a net density equivalent to approximately 250 dwellings per hectare and within a building over 4 storeys in height.

Desirably this is a 'high density' form of development that occurs near the Patawalonga so as to afford occupants exceptional access to this quality recreational open space.

Given the above, the proposal satisfies the above provisions as well as Zone Objective 2 and Principle 2.

5.3 Form and Character

The Desired Character of the Policy Area states:

Development will be of the highest architectural standard, contemporary in style and contribute positively to the quality of the public realm. Its built form will contrast with the open character of the adjacent foreshore and reserve public spaces. It will capitalise on the highly desirable location through significant scale, with built form between three and twelve stories in height. This development will demonstrate excellence in urban design. It will create design relationships between buildings at ground level and the street frontage that acknowledge and respect the existing context, ensuring that scale and the built form edge protects and enhances significant visual and movement corridors (including key vistas to the sea and views through to public spaces). Views into and out of development sites will also reinforce visual connectivity and way-finding within the policy area.



Building form and setbacks will vary to provide large-scale articulation within the streetscape. Building form will also use light and shade through articulation, eaves, verandas, canopies and balconies, to provide architectural detail, summer shade and promote greater energy efficiency. Likewise, buildings will use a balanced approach to the use of solid materials and glazing so to provide an attractive backdrop to key public spaces and streets.

Basement or undercroft car parking is contemplated where site circumstances allow appropriate design and integration with the streetscape / built form. Where ventilation is required for basement car parks, vehicles should be screened and landscaped.

Roofs will be designed to be integrated into the overall façade and composition of buildings and provide enclosed places for the screening of plant and service equipment (if not provided in basements) in locations away from living areas that do not visually detract from the amenity of adjoining spaces.

Landscaping will contribute to the high quality of the adjacent public areas, open space and streetscapes. Car parking areas that are not visible from public spaces will be shared and consolidated. Commercial uses in residential developments will be restricted to those associated with the respective building function.

Public promenades will incorporate public art, which is easily identifiable and fully integrated into the public environment.

(my underline)

The proposal satisfies the relevant parts of the Desired Character of Policy Area 15 because:

- It provides high density living opportunities via apartment living thus providing greater choice of residential accommodation with a mix of 2 and 3 bedroom apartments.
- The proposal expresses a contemporary and pleasing high quality architectural form and contributes positively to the quality public realm through:
 - > An activated base with apartment and tourist accommodation entry points clearly visible to the street.
 - > A high level of activation on the building generally with 20 apartments/tourist accommodation rooms having direct views over Canning Street.
 - > A ground floor setback and space for pedestrians and space for landscaping, public realm style seating, and bike parking facilities.
 - > Use of textured and reclaimed materials that provide for a pleasant and interesting ground floor area for pedestrians and a connection to local building fabric and heritage.
 - > A concealed car parking area that is not visible to the land's primary road frontage.
 - > A concealed location for services and waste storage.



Image 1: View of the Canning Street façade at street level (looking south-west)



Image 2: View of the Canning Street façade at street level (looking south)

- The building height will desirably contrast with the nearby open space and be within the height range generally sought for the Zone being 7 storeys (and the Zone seeks development between 3 - 12 storeys in height).



- The proposal is acceptably respectful of its local context noting that surrounding built form is either comprised of high-density apartments, a motel use, or low scale residential but within the same Zone/Policy Area/Precinct wherein the same forms of development as proposed herein are contemplated.
- The proposal does not impede any notable vistas, nor will it impede the local road network from continuing to function in an orderly manner as confirmed by Infraplan.
- Regarding the more specific design related policies above the proposal will:
 - > Provide setbacks and wall lines that vary to provide meaningful articulation. Light and shade is created by the use of the projecting concrete slabs that act like eaves over the apartments below on levels 4-7.
 - > Via the provision of balconies on levels 4-7, the Canning Street elevation has a lighter feel above the heavier base associated with levels 1-3.
 - > Achieve a balance with respect to the use of both solid and glazed building materials such as concrete, brick and tinted glass all evident.
- The proposal does not feature any basement or undercroft parking, rather it is at-grade. However, it is designed in such a way that it does not detract from the adjacent public realm through its location and screening measures.
- Services are not located within enclosed roofs however are not visible to the street being sited at the rear of the land behind the building within a designated service yard area.
- High quality landscaping features are proposed including:
 - > Along the Canning Street frontage in planters and upon the main façade.
 - > Within a designated landscaping strip along the western boundary (toward the street).
 - > Within a designated landscaping strip along the southern boundary.

Further, the Desired Character of Precinct 4 also states:

Development within Precinct 4 Five Storey will be predominantly in the form of residential flat buildings, serviced apartments and tourist accommodation of up to 5 storeys (or 18.5 metres) in height. Development may also include small scale non-residential uses such shops, restaurants and cafes, offices and consulting rooms at ground and first levels where site conditions permit.

Development will be of the highest architectural standard and contribute positively to the public realm through establishing clearly defined space between buildings on adjoining sites and building design that incorporates articulated facades and built form elements including balconies to create light and shadow. Building design will complement the scale, proportions, siting and materials of the existing heritage places in the locality.

Development on land fronting the South Esplanade immediately adjacent Precinct 5 Twelve Storey may accommodate additional building height over 5 storeys to achieve a transition in scale from the taller building anticipated in Precinct 5, down to the 5 storey scale anticipated in Precinct 4, provided buildings are designed to minimise any impacts on adjoining land within Precinct 4 or adjoining residential zones.

Development directly adjoining Sturt Street should not exceed 2 storeys in height to order to achieve a transition down to low scale at the interface with the adjoining Residential Character Zone.

(my underline)



In response to this policy, I note:

- It is evident the policies call for the same kinds of uses proposed in this development.
- At 7 storeys at 23.5 metres, the proposal exceeds the 5 storey or 18.5 metre height limit. Such a variation is acceptable in my view given the conditions of the locality, the location at the 'edge' of the 12 storey/43 metre wall height area (i.e. Precinct 5) and the proximity of the land to the Residential Zone. Further justification is provided for this within a following section of this report.
- The nearby Patawalonga Reserve is a Local Heritage Place (including the Reserve and area occupied by the water body between Adelphi Terrace and the Patawalonga frontage). Development in the Zone ought to complement various aspects of built form of heritages places however, as this listing does not relate to build form and to open space, this provision is not directly applicable.

5.4 Design and Appearance

This section deals with the pertinent Design and Appearance provisions in the General Section as well as those contained within Urban Glenelg Policy Area 15.

5.4.1 Reflectivity of Materials

The proposal will satisfy Design and Appearance Principle 3 as there will not be any highly reflective materials or finishes upon external walls or roofs.

5.4.2 Building Entries

The building entrances to both uses will be:

- Orientated toward the street.
- Clearly visible/identifiable.
- Provided with shelter, personal address and transitional space in/around the entry to facilitate comfortable movement and space for pedestrians.

Policy Area 15 Principle 2 is satisfied.

5.4.3 Balcony Design/Privacy

In satisfaction of Policy Area 15 Principle 3:

- The balconies are highly functional in that they are all 2.0 metres in dimension.
- Only 1 of the 5 main balconies on each floor is not facing either north, east or west therefore solar access levels are high. The two tourist accommodation terraces also face west.
- The balconies are neatly integrated into the form and detail and architecture of the building.
- Several balconies face the street to contribute to passive surveillance and the activation of the public realm.

- Main balconies areas are located adjacent living areas of the dwellings.
- Given their transparent balustrades, the building features balconies which are designed, where able, to take advantage of views of the Patawalonga waterway.
- The location of the land means there are no privacy issues resulting from balconies upon low scale housing outside the Residential High-Density Zone.

5.5 Building Height

The pertinent height provisions are as follows:

Desired Character of Policy Area 15

Development within Precinct 4 Five Storey will be predominantly in the form of residential flat buildings, serviced apartments and tourist accommodation of up to 5 storeys (or 18.5 metres) in height. Development may also include small scale non-residential uses such shops, restaurants and cafes, offices and consulting rooms at ground and first levels where site conditions permit.

19 Development should not exceed an external wall height of 18.5 metres above natural ground level (excluding lift service levels and gables).

The height of buildings should be treated like any numeric guideline with the Development Plan. Consideration should be given to its intent and planning purpose and to the planning consequences of the guideline not being met on the locality surrounding the land.

One can only speculate as to why there was a decision to have a 5 storey height limit imposed upon this part of the Residential High Density Zone. It may have been because of the location of this part of the zone relative to lower scale, low density housing areas.

The proposal was originally presented to the planning authority as an 11 storey building, then reduced to 8 storeys and it is now lodged at 7 storeys.

The building will have a total wall height in the order of 23.5 metres however this is measured to very top of the building. Given the design approach to have a roofing material at Level 7 one could argue the wall height is in fact 20.35m as above this height is a steel roofing material – the only difference is that it is vertically composed rather than having a slight pitch to it.

Had this level had a slight angel/pitch (aka like a mansard style roofing element) the wall height of the proposal would be 20.35 metres and only therefore 1.85 metres above the guideline. It was decided not to apply a mansard approach (even though the compliance with the development plan would have been improved) for aesthetic reasons.

The height is well below the Airport Building Heights maximum identified on Overlay Map HoB/2.

The proposal does exceed the wall height guideline of the Precinct 4 which is 18.5 metres (which excludes lift service levels and gables). However, in terms of broader and immediate context, we note that:

- Approval has been received for a 6-storey building at 22 Adelphi Terrace and we understand a proposal is going through assessment for a 7-storey scheme at 19-21 Adelphi Terrace – both sites fall into the same Precinct as this development.



- The land sits at the edge of a precinct wherein 12 storey and 43 metre wall heights are envisaged.
- There is an approval for a 14-storey mixed use development comprising hotel and shops on the immediately adjacent motel site to the north-west of the land.

The construction of a shorter building on the land has little planning benefit as we see it and would arguably mean a more sudden drop in height from the adjoining 13 storey development and any future 14 storey development on the adjacent motel site. Arguably, the design outcome is improved with a building taller than 5 storeys as the designed scheme provides a better transition to eventual and future circa 5 storey/18.5 metre high development that over time will occur to the east of the land within Precinct 4.

The building is visually attractive, articulated, and has incorporated domestic and durable materials and the 'top' level is clad in a darker roof-type steel material to provide contrast, be visually recessive and given the impression of a roof element.

The proposal incorporates ESD measures; the proposal incorporates good levels of ground level activation and spaces which integrates positively with the surrounding public realm; the proposal incorporates high quality landscaping features; and the apartments have high quality internal amenity with large internal spaces and balconies with outlook and views.

Further, the height of the development does not give rise to residential amenity impacts by way of overlooking or overshadowing upon low density housing outside of the zone.

Finally, and not critical in this argument, but in theory it would be possible to have a building that has an 18.5 metre wall and a gable roof on top and satisfy the policy – one can only speculate how tall a building of this kind would be however such a building may indeed not be dissimilar in pure height terms to this proposal at about 23.5 metres – see enclosed diagram within **Appendix K**.

For the above reasons, in my view, the height of the development is acceptable in the circumstances of the land and locality.

I also defer to the expert legal findings of Mr Tom Game who has provided an opinion on the suitability of the proposed height factoring in relevant case law and circumstances of the land and locality.

In summary, Mr Game holds the view that *“an exceedance of the height guidelines is likely to be appropriate and justified in the circumstances of the proposed development”*.

(underlining added)

5.6 Private Open Space

Principle 12 within the zone provides open space requirements as per Table 2 below:

Table 2: Private Open Space Requirements

Configuration	Open space requirement, other than for affordable housing
Studio (without separate bedroom)	No minimum requirement
One-bedroom	8 square metres
Two-bedroom	11 square metres
Three-bedroom or greater	15 square metres

The proposed area of private open space available to each dwelling is displayed in **Table 3** below:

Table 3: Available Private Open Space

Apartment Type	Number of Bedrooms	Open Space Requirement (square metres)	Available Private Open Space (square metres)
Type A	2	11	17
Type B	2	11	11
Type C	2	11	11
Type D	3	15	17
Type E	2	15	17

In addition, I note that each dwelling has excellent access to Glenelg Beach, the Patawalonga Frontage, Colley Reserve and Mosely Square all of which have large open public spaces.

5.7 Medium and High-Rise Development

Medium and High Rise Development Objective 1 is satisfied in that the proposal provides greater housing choice and short term employment opportunities in the construction industry and over the long term for a variety of businesses (waste contractors, cleaners and building maintenance professionals).

Objective 2 of this section is satisfied because the apartments will have a high standard of internal living amenity and because the building caters for a variety of accommodation needs given there is some diversity in dwelling typology to cater to different sections of the community.

Objective 4 of this section is satisfied because the building is designed and sited so as to be energy and water efficient as explained in more detail in a following section of this report.



5.7.1 Design and Appearance

In response to Principles 1, 2 and 3 of this section:

- The building achieves a human scale at street level through its 3 level podium in a brick material.
- It also provides shelter for pedestrians.
- The ground level provides for surveillance from public land to the inside of the building at night.
- The entry point is clearly visible to the street as previously noted in this report.

5.7.2 Building Separation and Outlook

In response to Principle 5 of this section:

- All dwellings and their balconies will have 'adequate separation' between habitable room windows and balconies of other buildings so as to provide visual and acoustic privacy for occupants and allow for infiltration of daylight into interior and outdoor spaces.
- The land has the benefit of two road frontages. As such the Canning Street and Laycock Lane sites of the buildings will not be 'boxed-in' by future redevelopment. In this regard:
 - > The land is some 16 metres from land to the north which may be developed with apartment building type development.
 - > The land is about 5.5 metres from land to the east which may also be developed with apartment building type development.
- Land to the south contains a two storey dwelling meaning the majority of the building is not enclosed. In the event future development of that land occurs, there remains reasonable separation provided along the southern boundary, with the main wall about 3 metres (on average) from this boundary.
- The 13 storey apartment building to the west is well setback from Canning Street and as such, its position has limited impact on outlook of the proposed building.

Further, the proposal forgoes ordinary residential zone type privacy screening measures in favor of providing apartments and rooms with high quality outlook and such an approach is considered acceptable on the basis that the proposal will not give rise to overlooking issues onto lower density housing in an adjoining zone/policy/precinct, which is the correct approach as per Policy Area 15 Principle 5:

- 5 Building design should minimise the impact of overlooking and overshadowing on existing lower density and scale development in adjoining zones/policy areas/precincts.**

(underling added)

5.7.3 Dwelling Configuration

In response to Principle 6, the proposal provides diversity of dwelling sizes as previously explained, with a mix of 2 and 3 bedrooms dwellings of varying sizes and shapes.



5.7.4 Adaptability

In response to Principle 8, I note that there are no internal structural/load bearing walls meaning that the building has a flexible design that can provide for adaptation into more tourist accommodation rooms or more dwellings.

5.7.5 Environmental

In response to Principles 9 and 11:

- The roof design can facilitate the easy installation of PV panels as per the roof plan.
- Rainwater harvesting and re-use will be integrated into the building to reduce mains water demand.
- The exterior of the building will not generate glare or reflect light so as to affect the temperature of any land in the locality.
- The building is not a sheer wall and the combination of balconies, protruding building elements and varied setbacks will assist to deflect wind flows and prevent excessive tunneling effects.

In addition to the above, other environmental considerations to be applied to the building are referenced within the ESD Summary Report prepared by Sustainability House, as per **Appendix G**.

5.7.6 Site Facilities and Storage (including Waste)

Each apartment will have storage spaces within and outside their apartments. The areas available to each type of dwelling range between 9.5-10.1m³ exceeding minimum requirements.

Furthermore:

- Specific storage is available at ground level for building infrastructure and other services. This space may contain electrical equipment or other infrastructure. This storage room will be screened from public and occupant view.
- Specific storage area is available at ground level for bins. This storage area will be situated in a locked room out of site from the public and building occupants.
- A waste management report has been prepared by Infraplan. Waste collection will occur in accordance with Infraplan's waste management plan. Infraplan advise:
 - > Five x 660 litre bins will be required with two collections per waste stream, per week.
 - > Swept path diagrams confirm that collection can occur on-site.
 - > Collections should occur outside of peak periods (7-9am, 3-6pm) to minimise impacts on surrounding properties and peak hour traffic. a condition may be imposed to this effect.



5.8 Energy Efficiency

The Development Plan encourages the conservation of energy and on-site power generation by way of photovoltaic cells and wind power. This can be achieved by

- Providing solar access to buildings and open space.
- Ensuring natural light to main activity areas.
- Public lighting should be designed to use renewable energy.

The proposal retains sufficient space for the provision of photovoltaic cells as shown on the roof plan.

All apartments will receive natural light. All apartments can be naturally ventilated and high-performance insulation will be applied to the building. It is intended that the building receives a 7-star rating with respect to environmentally sustainable design.

Other environmental considerations to be applied to the building are referenced within the ESD Summary Report prepared by Sustainability House, per **Appendix G**.

5.9 Car Parking

The applicant has engaged Infraplan to undertake an assessment of anticipated traffic and proposed car and bicycle parking. I note the following from this report:

- Based upon the relevant car parking rates of the Development Plan, the proposal has a theoretical parking demand of between 32-37 spaces.
- 40 access-controlled spaces are proposed in the car park off Laycock Lane which is 3 spaces more than the minimum requirement of the Development Plan.
- The removal of the driveway access at the subject site from Canning Street will result in two additional on-street car parking spaces.

5.10 Bike Parking

Infraplan says as follows regarding bike parking:

“there are no specific requirements for bicycle parking at residential apartments in the zone. It is anticipated that residents will store their bicycles in their apartments, and therefore the lift has been designed to easily accommodate bicycles.

In addition, an area near the front entrance of the building provides convenient, well-lit parking for residential bike-share, and visitor bicycle parking. Seven parking racks are proposed, providing space for 14 x bikes”



5.11 Access and Vehicle Trips

The proposal will use the 'WHORD Combilift 543' vertical stacker system which provides car parking on 3 levels. As noted in the Infraplan report, cars enter at ground level and then the system automatically stacks and shuffles the car as required. Details of the operation of the car park are provided in the 'car park layout' section of the Infraplan.

On trip generation, Infraplan advises as follows:

"Canning Street is an 11m wide, residential street, with parallel parking (no time limit) on both sides. Traffic data has not been collected but observations indicate that Canning Street has more than sufficient capacity to carry the additional traffic generated from this development."

Laycock Lane is 5.4 metres wide and a no-through-road, providing rear access to 5 other properties. It is therefore considered appropriate for car park access to the subject site".

5.12 Acoustic Assessment

Environmental noise emissions from the proposed development should comply with the *Environment Protection (Noise) Policy 2007* (Noise EPP).

Resonate Consultants were asked to consider the noise of the proposed car stacker system. Their assessment provided recommendations on amendments to the building to ensure the relevant policy is met.

Those recommendations from Resonate Consultants have been adopted such that the proposal complies with the *Environment Protection (Noise) Policy 2007* (Noise EPP).



6.0 Conclusion

The proposal is considered to be sufficiently in accordance with the Development Plan because the development will:

- Provide considerable investment into the area of some \$7.8 million (including fit out).
- Make use of existing infrastructure and services as are available.
- Not be prejudicial to the use and operation of any nearby uses.
- Delivers on the zone objectives with high density housing and tourist accommodation land uses.
- Provides a mix of 2 and 3 bedroom apartments.
- Provide a contemporary, attractive, architectural design response and a building that is articulated and uses high quality and durable materials and finishes that are not reflective to cause glare.
- Conceal its car parking, waste store and services.
- Provide a clear and identifiable entry point to each use.
- Provide functional balconies that provide casual surveillance of the street and views/outlook for occupants with reasonably good sunlight access for most main balconies.
- Exceed the building height but is not materially larger/bulkier than a building that could in theory comply with the numeric standard if it was built per the policy (see **Appendix K**) and provide:
 - > A wall height only 1.85 metres over the policy if excluding the level 7 element which is composed of a roof material and some 20 metres lower in height than that which is envisaged in the adjoining Precinct 5 area.
 - > A suitable transition to the adjoining 12 storey Precinct 5 area and an existing 13 storey building and potential future 14 storey building on the adjacent motel site.
 - > A building is visually attractive, articulated, and has incorporates domestic and durable materials that are well suited to its coastal context.
- Incorporate ESD measures.
- Incorporate good levels of ground level activation and transitional space for pedestrians.
- Incorporate landscaping features.
- Provide compliant levels of private open space and storage space.
- Provide compliant levels of car parking for residents, tourists and visitors.
- Provide adequate bike parking, car parking and safe and convenient access.
- Provide adequate on-site waste storage.
- Provide appropriate waste collection strategy that will not disrupt flow of traffic on Laycock Lane.
- Not cause undue noise impact through its car stacking system and will satisfy the *Environment Protection (Noise) Policy 2007* (Noise EPP).

For all of the above reasons, I consider the proposal to merit Development Plan Consent.



Appendix A

Certificate of Title

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Registrar-General

Certificate of Title - Volume 5857 Folio 966

Parent Title(s) CT 5114/414
Dealing(s) RTU 9158464
Creating Title
Title Issued 26/10/2001
Edition 2
Edition Issued 13/08/2003

REAL PROPERTY ACT, 1886



Estate Type

FEE SIMPLE

Registered Proprietor

PASQUALE DELFINO
ROSA DELFINO
OF 2 CANNING STREET GLENELG NORTH SA 5045
AS JOINT TENANTS

Description of Land

ALLOTMENT 1 DEPOSITED PLAN 57894
IN THE AREA NAMED GLENELG NORTH
HUNDRED OF NOARLUNGA

Easements

NIL

Schedule of Dealings

Dealing Number	Description
9648149	MORTGAGE TO RAMS MORTGAGE CORPORATION LTD.

Notations

Dealings Affecting Title

NIL

Priority Notices

NIL

Notations on Plan

NIL

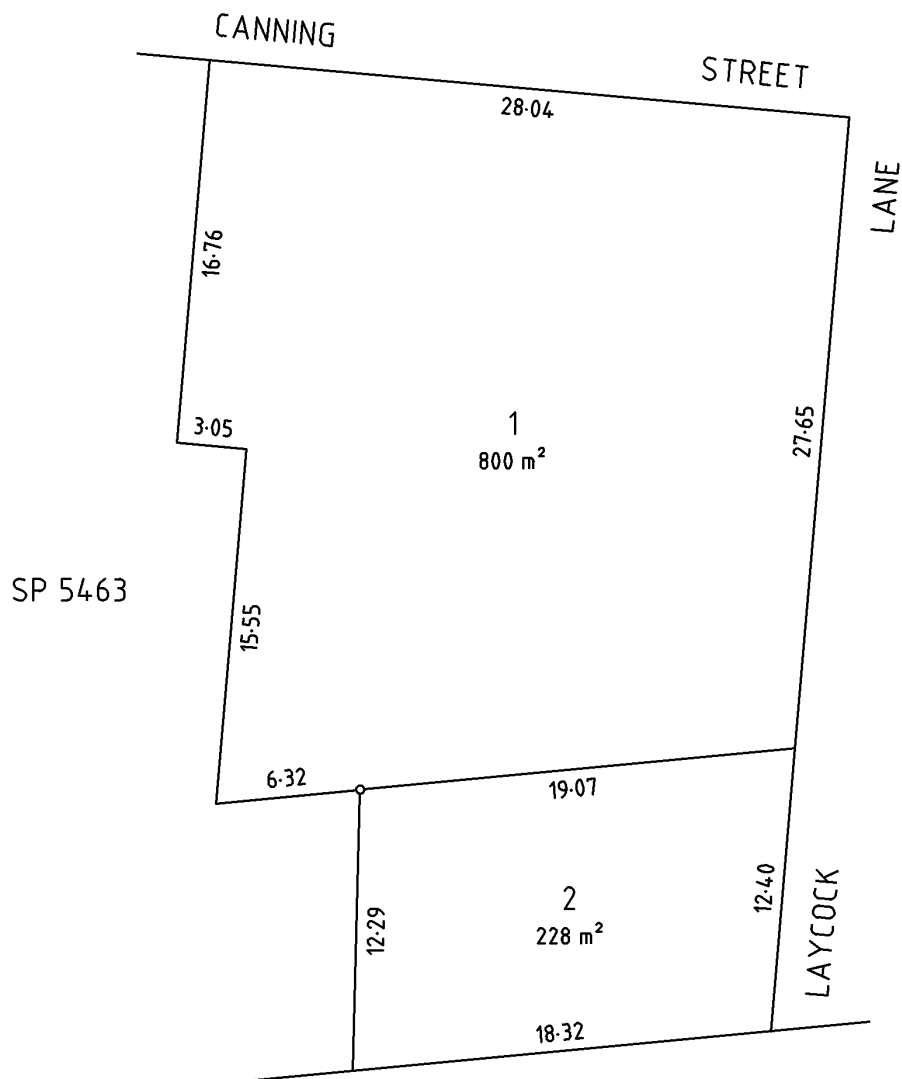
Registrar-General's Notes

NIL

Administrative Interests

NIL

* Denotes the dealing has been re-lodged.





Appendix B

Locality Plan prepared by URPS





Appendix C

Plans prepared by Brown Falconer



Contact

Brown Falconer
28 Chesser Street, Adelaide
South Australia, 5000
Telephone 08 8203 5800
bfg.admin@brownfalconer.com.au
brownfalconer.com.au

Contents

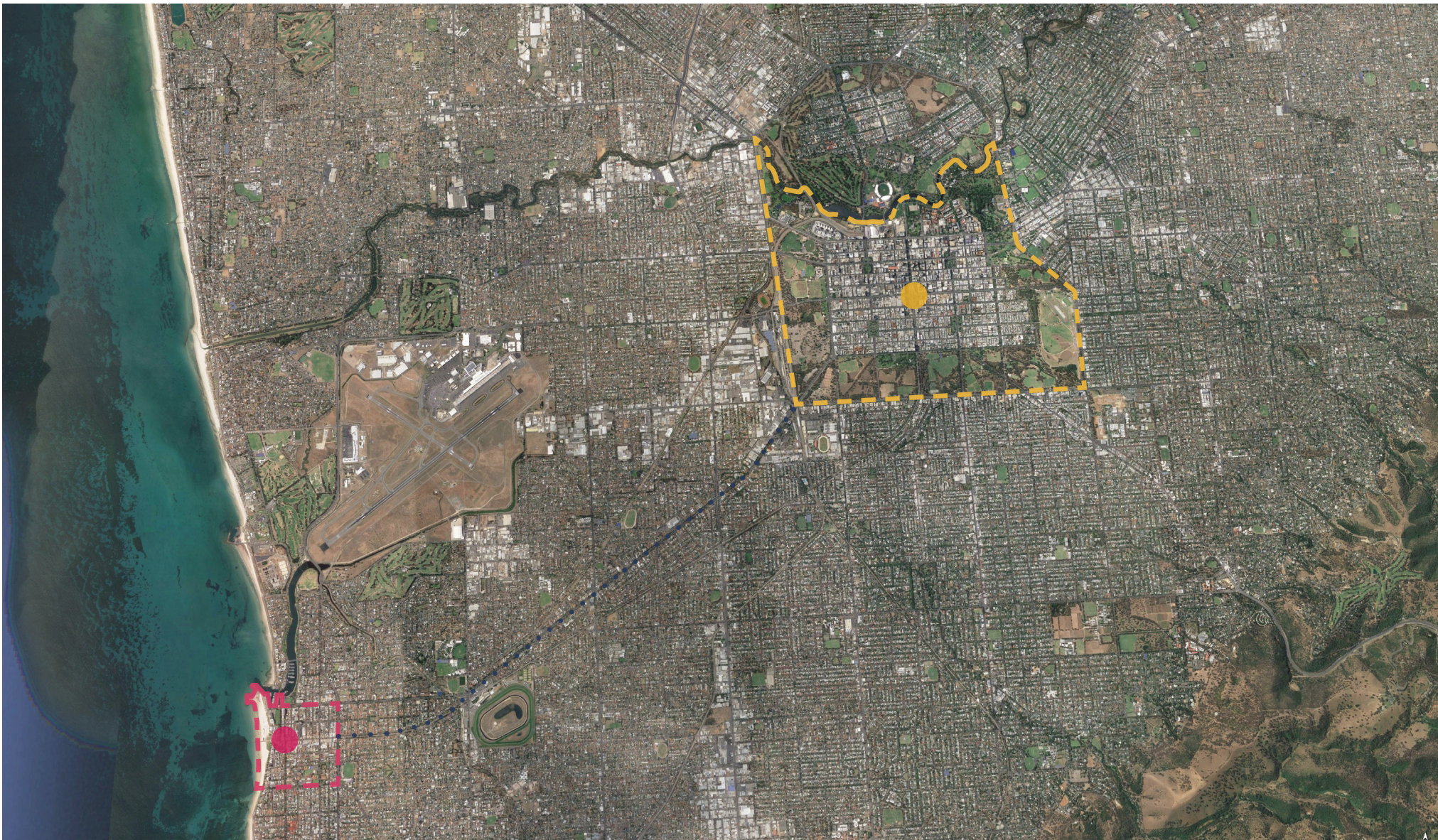
Page	Drawing Title	Revision
0	Cover Page	A
1	Context and Site Analysis	A
2	Project Vision and Precedents	-
3	Perspectives	A
4	Long View Perspectives and Shadow Diagrams	A
5	Floor Plans	A
6	Floor Plans	A
7	Floor Plans	A
8	Floor Plans	A
9	Elevations	-
10	Overlooking Diagrams and Site Elevations	A
11	Sections and Site Context	A

2 Canning Street, Glenelg North
Context and Site Analysis



Location Plan
Scale - 1:1000

- Legend
- ⓧ Number of Storeys
 - Progression from 1 - 14 Storeys
 - Subject Site
 - Key Views
 - Open Space
 - Community node
 - Thoroughfare



Context Plan - Greater Adelaide
Scale - NTS

- Legend
- Glenelg
 - Adelaide CBD



Context Plan - Glenelg
Scale - NTS

- Legend
- Subject Site
 - Marina
 - Wigley Reserve
 - Comfort Inn
 - Watermark
 - Anzac Highway
 - Glenelg Pier
 - Jetty Road
 - Colley Reserve
 - Moseley Square
 - Tapleys Hill Road

Barrio Vision

IMPROVING AND REGENERATING NEIGHBOURHOODS
THROUGH SUSTAINABLE AND THOUGHTFUL DESIGNS

Our mission
Our mission is to improve the way we live and commute plus have a low environmental footprint

Our Vision
Building modern and sustainably liveable communities

Our Focus
We specialise in identifying unique infill opportunities specifically located near high frequency public transportation.
Locations like this enable us to build sustainable development projects which are highly regarded from an urban planning perspective.

Project Vision

GLENELG’S MOST LIVEABLE ADDRESS

Beachside residential
Captures the essence of Glenelg community living.

Location
Engages with place. Context. Views. Abundant Amenity.

Sustainable
Sustainable from first principles. Urban location. Supported by infrastructure. Embedded environmentally responsive design.

Sustainability Initiatives

- 1

Urban design

The building gives back to the public realm, pulling away from the site boundaries on the ground floor, integrating high quality materials and presenting an activated frontage to Canning Street. The tall, open space is fitted with reclaimed materials, and provides space for community engagement - a place where tourists and residents can gather.
- 2

Transport connections

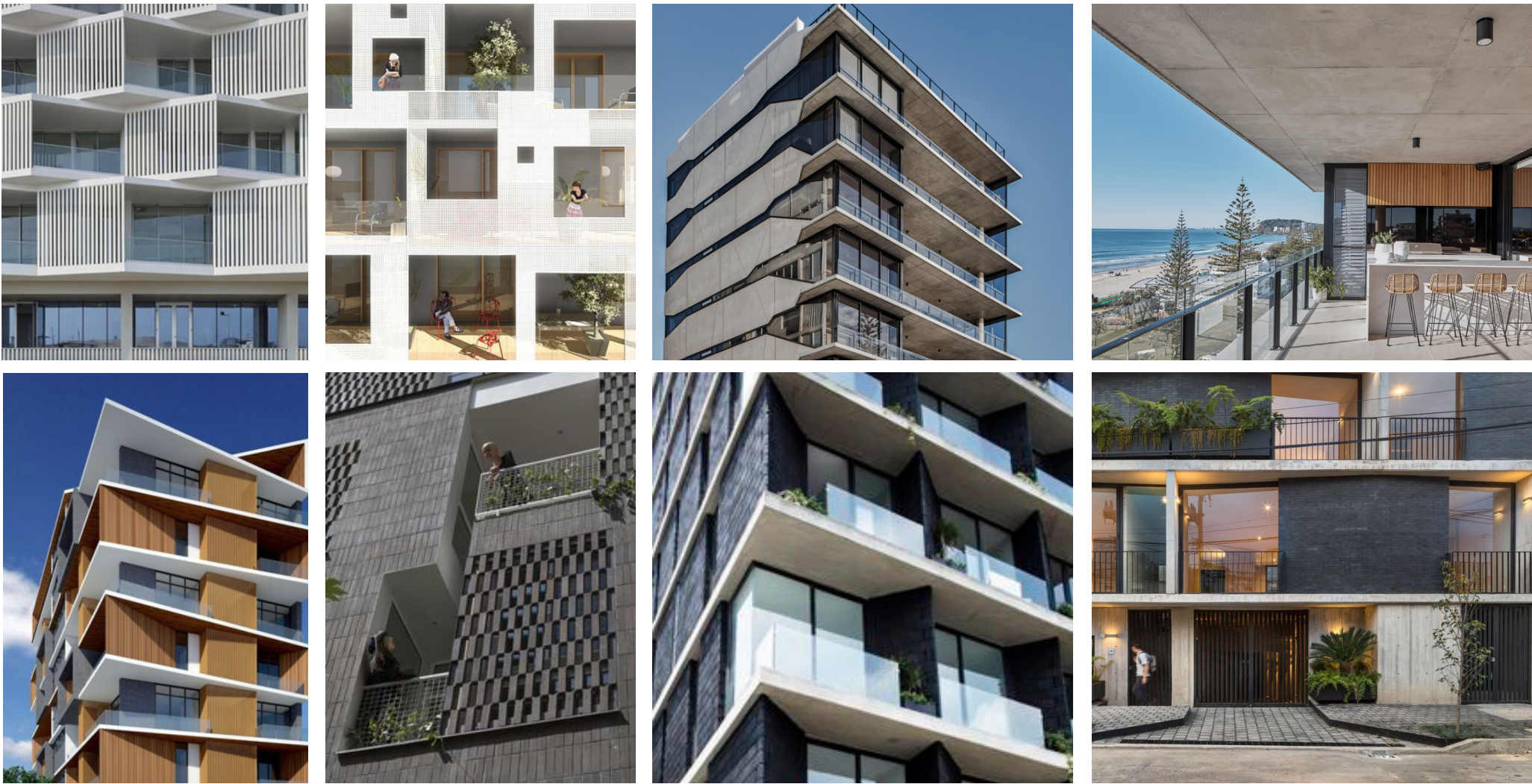
2 Canning Street is a short walk to the Bus and tram transport network. Close by are bikeways and facilities are provided to safely store bicycles.
- 3

Renewable energy source

The roof is fitted with solar panels to harness renewable energy.
- 4

Thermal performance

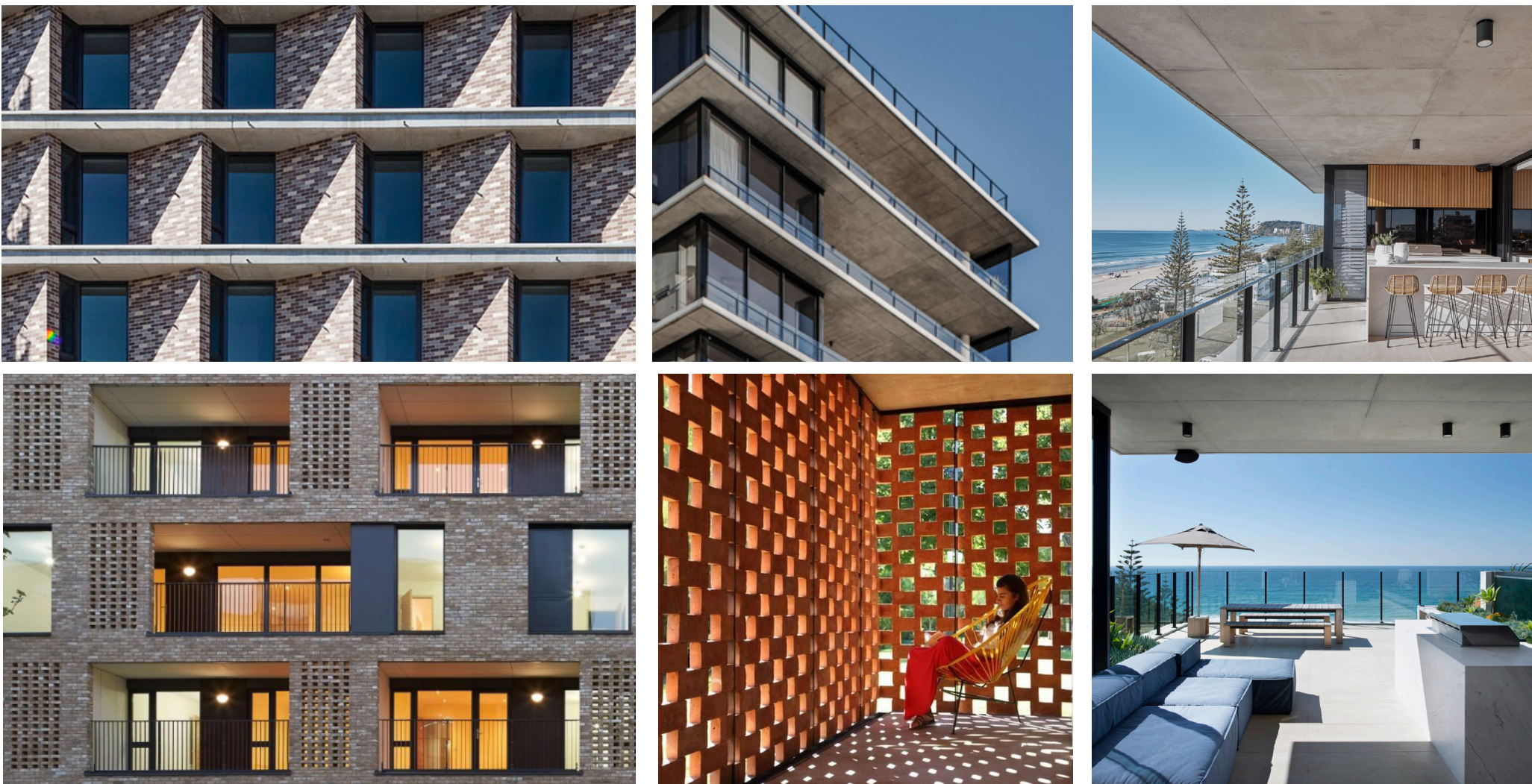
Sun-shading is built into the form of the building as opposed to being attached. A slab projects on the West and north elevations to shade the windows and walls of the floor below during the summer months. A balanced solid to glass ratio maximises ocean views while managing thermal loads.



Beachside Residential - Material / Texture + Horizontal Articulation



Location - Engagement with place and community



Sustainable - Embedded environmentally responsive design



North Canning Streetscape



North-East Canning Streetscape



East Elevation



South Elevation



West Elevation



North-West corner

2 Canning Street, Glenelg North
Long View Perspectives and Shadow Diagrams



1 Sturt Street



2 Corner of Mary Street and Melbourne Street



3 Corner of Anzac Highway and Sturt Street



4 Wigley Reserve

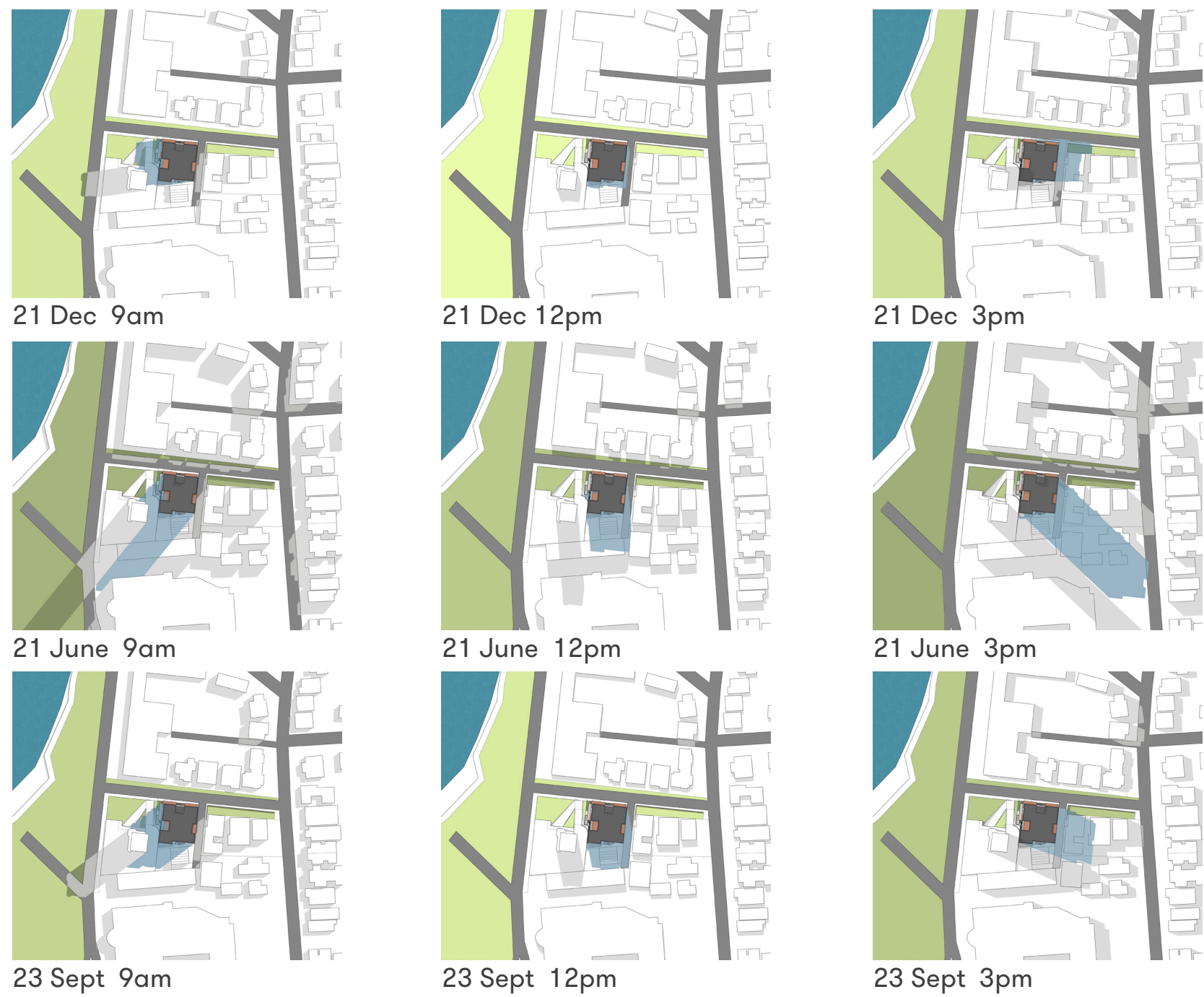


5 River Edge - looking East

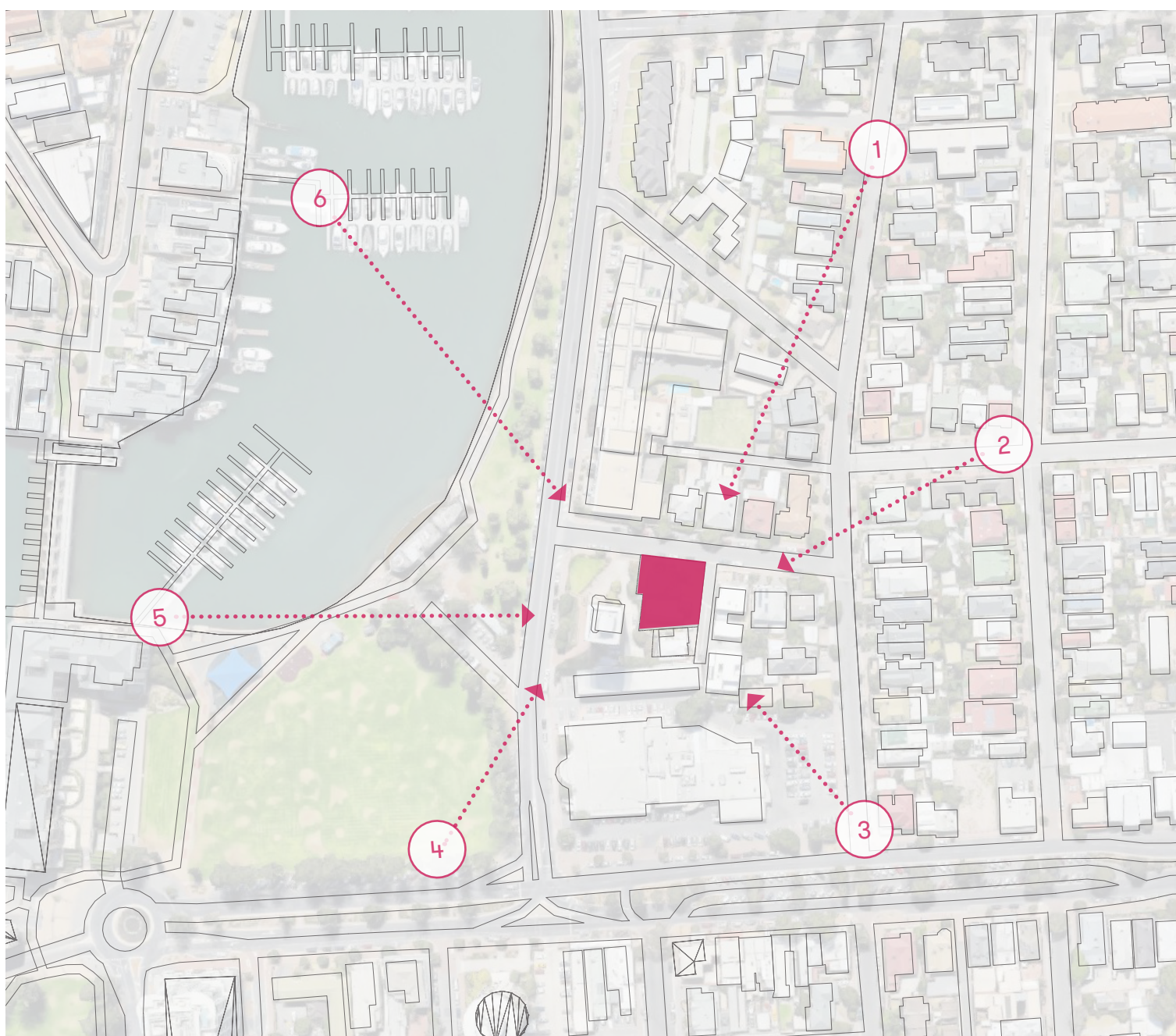
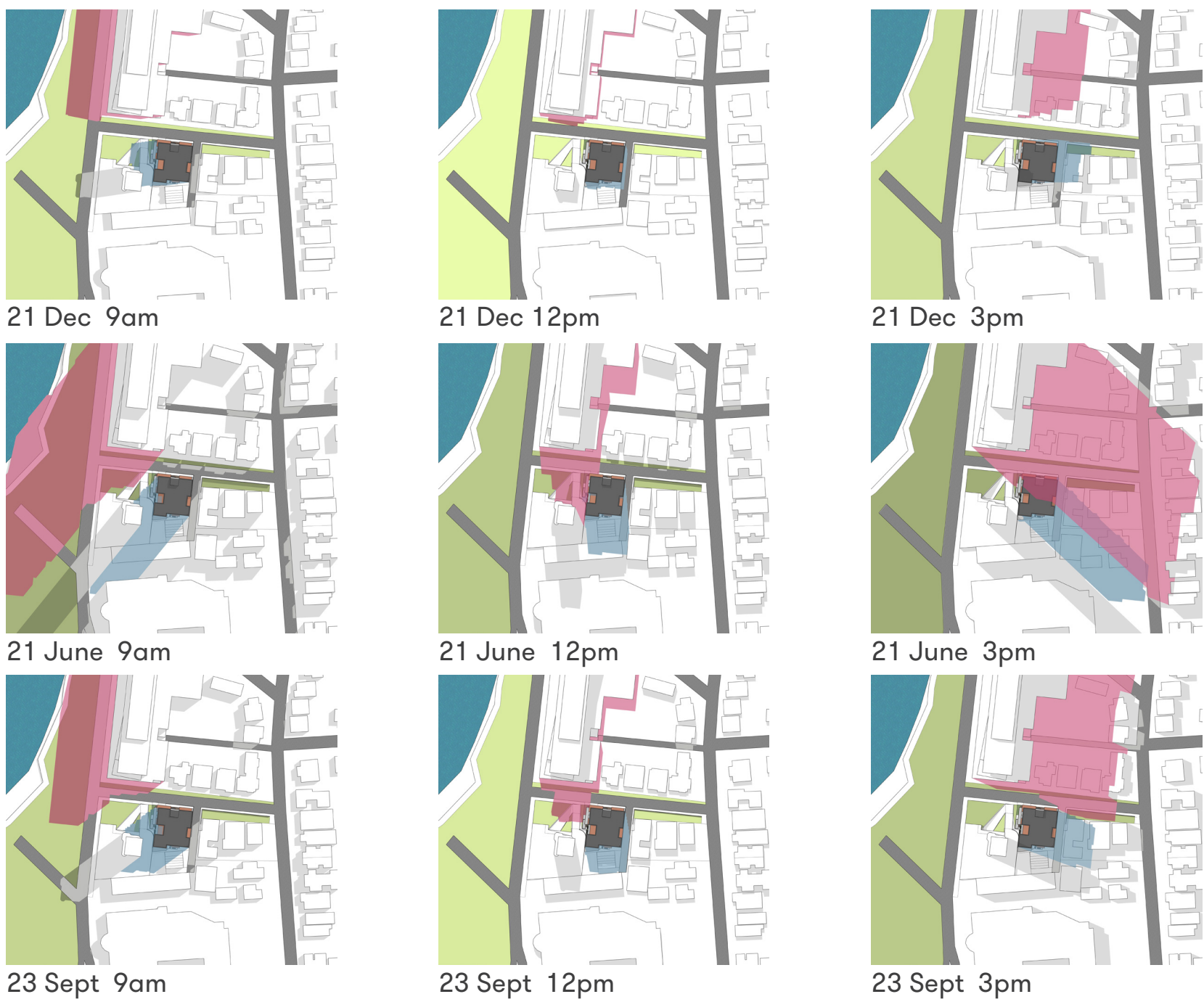


6 River Edge looking South East

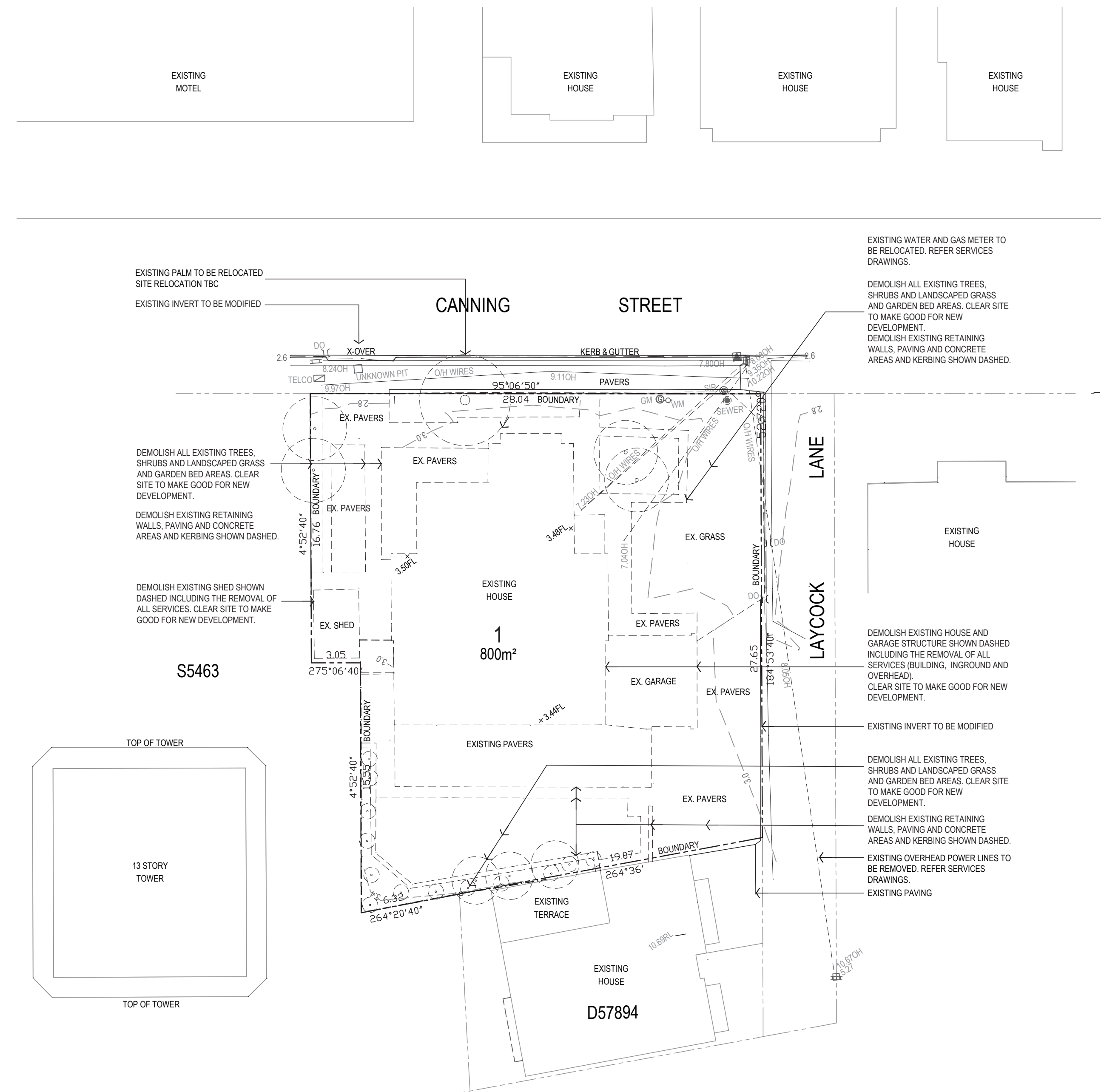
Shadow Diagrams
Existing Context



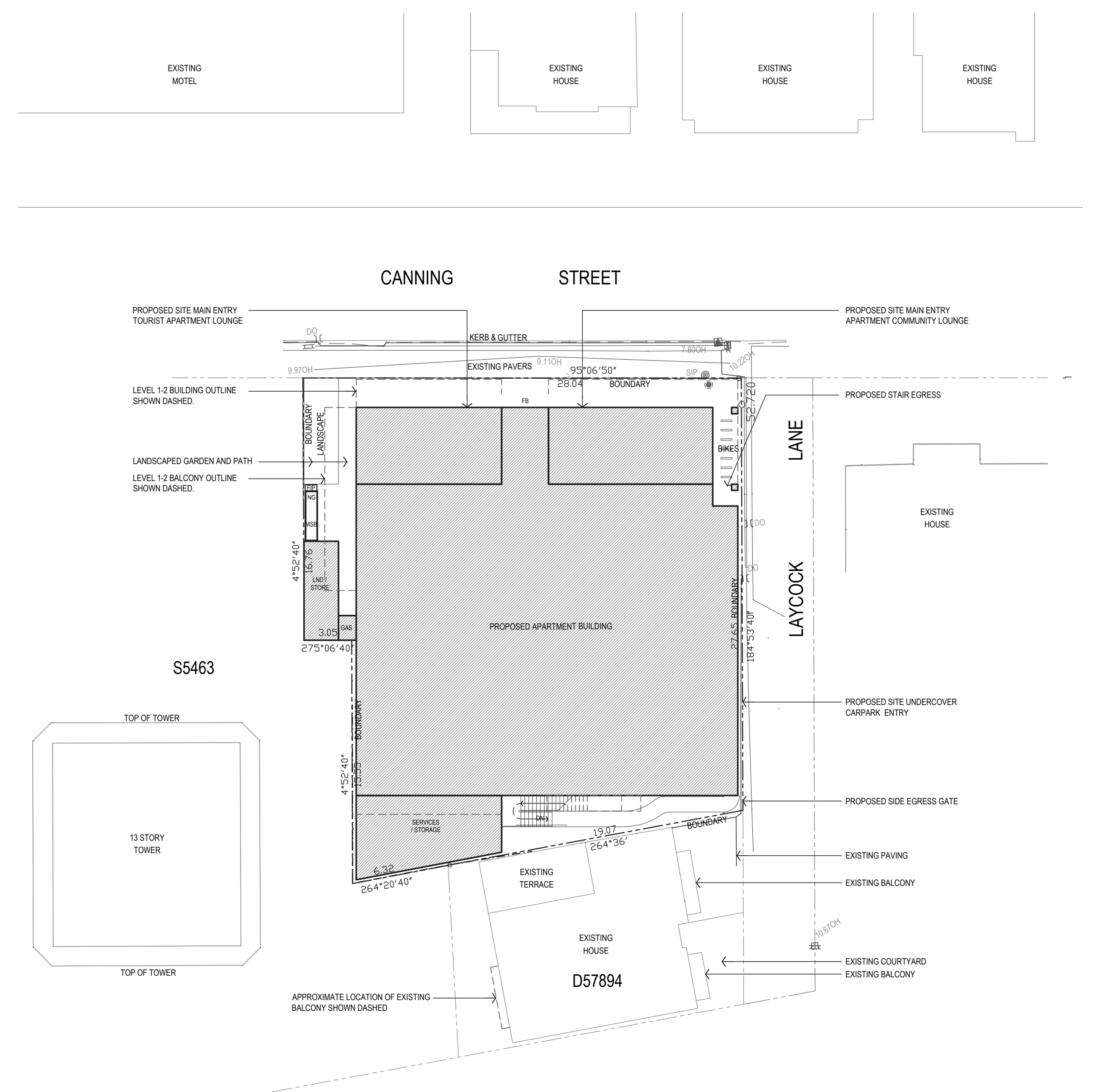
Shadow Diagrams
Future Context - with approved 14 storey Hotel



2 Canning Street, Glenelg North Floor Plans



Existing and Demolition Site Plan
Scale - 1:200



Proposed Site Plan
Scale - 1:200



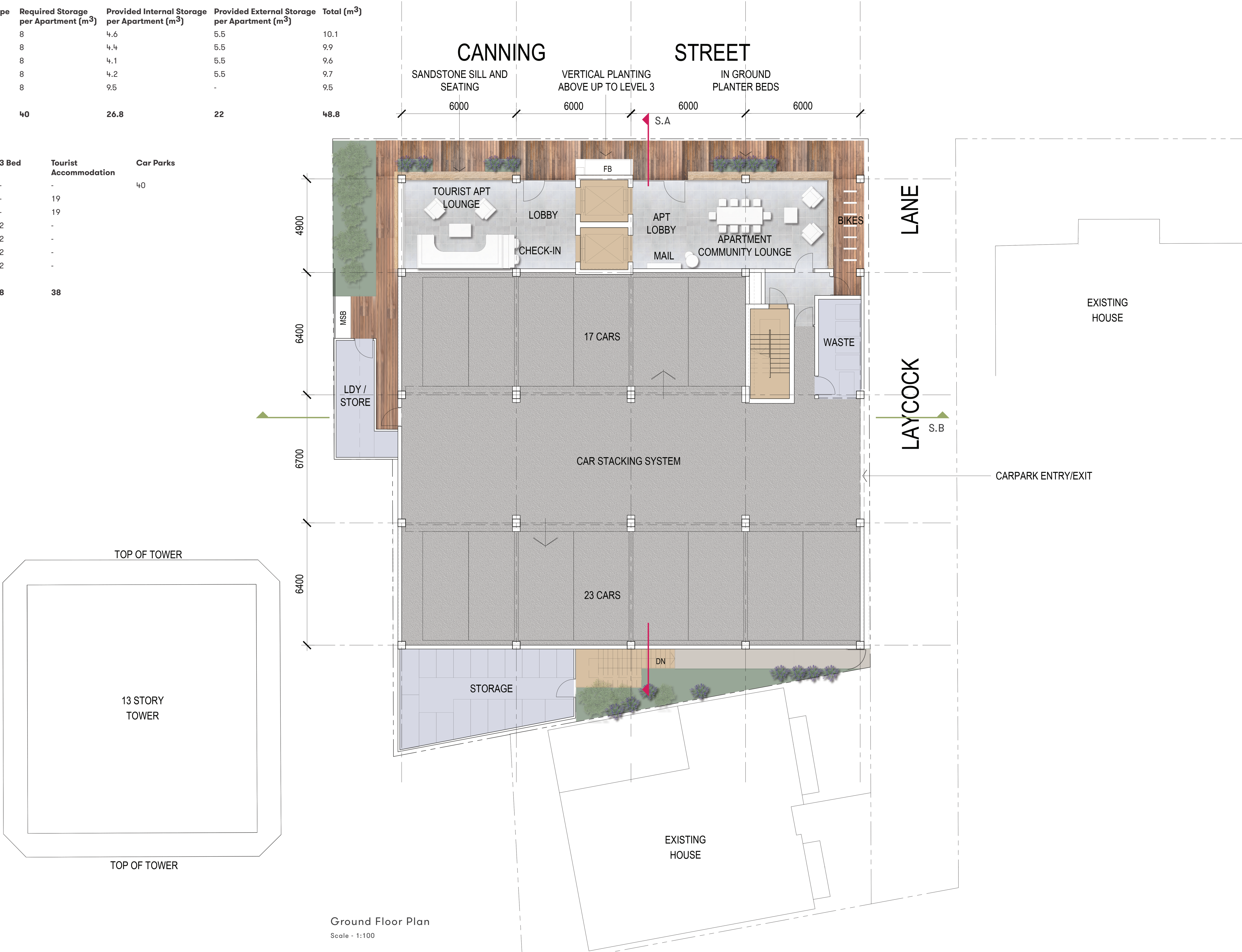
2 Canning Street, Glenelg North
Floor Plans

Typical Floor Level Storage Provision

Apartment	Apartment Type	Required Storage per Apartment (m ³)	Provided Internal Storage per Apartment (m ³)	Provided External Storage per Apartment (m ³)	Total (m ³)
A	2 Bed	8	4.6	5.5	10.1
B	2 Bed	8	4.4	5.5	9.9
C	2 Bed	8	4.1	5.5	9.6
D	3 Bed	8	4.2	5.5	9.7
E	3 Bed	8	9.5	-	9.5
TOTAL		40	26.8	22	48.8

Yield

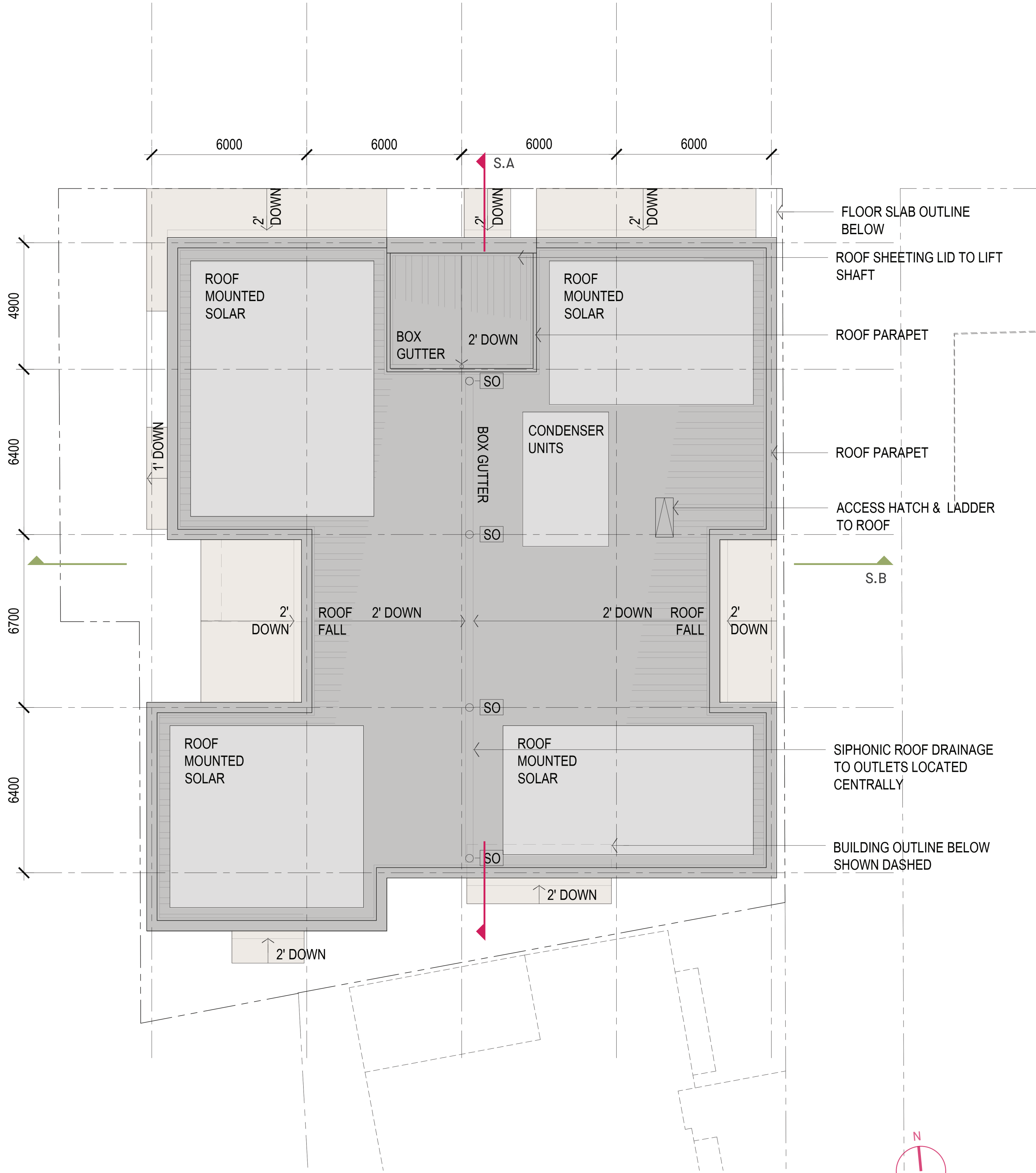
Level	2 Bed	3 Bed	Tourist Accommodation	Car Parks
L00	-	-	-	40
L01	-	-	19	
L02	-	-	19	
L03	3	2	-	
L04	3	2	-	
L05	3	2	-	
L06	3	2	-	
TOTAL	12	8	38	







Levels 3 - 6 Plan
Scale - 1:100



Roof Plan
Scale - 1:100

2 Canning Street, Glenelg North
Elevations



Material Legend



Chalk brick colour



Re-use of sandstone



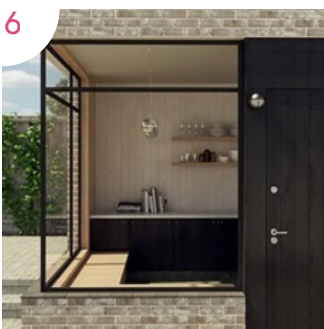
Recycled timber from Buffalo or similar recycled timber if Buffalo unsuitable



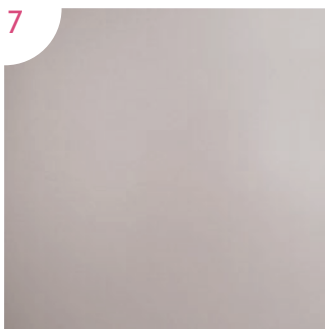
Rib and pan wall cladding in dark, warm grey



White coloured concrete slab and columns



Bronze metalwork



Glazing with bronze tint



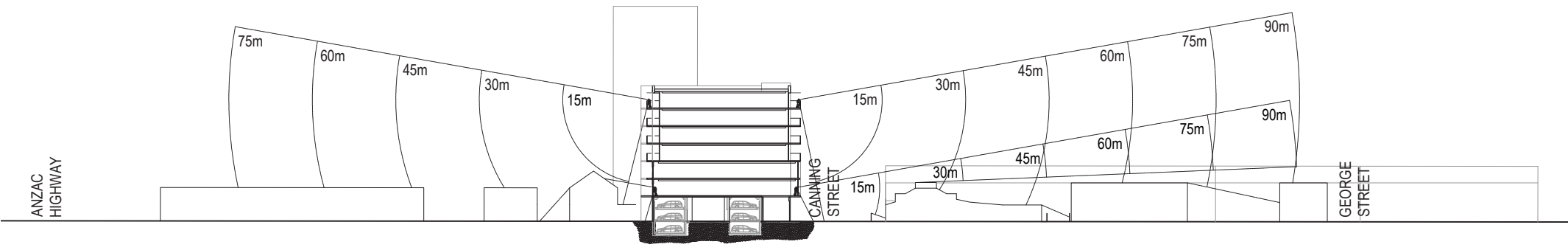
Landscape
Refer LCS drawing package



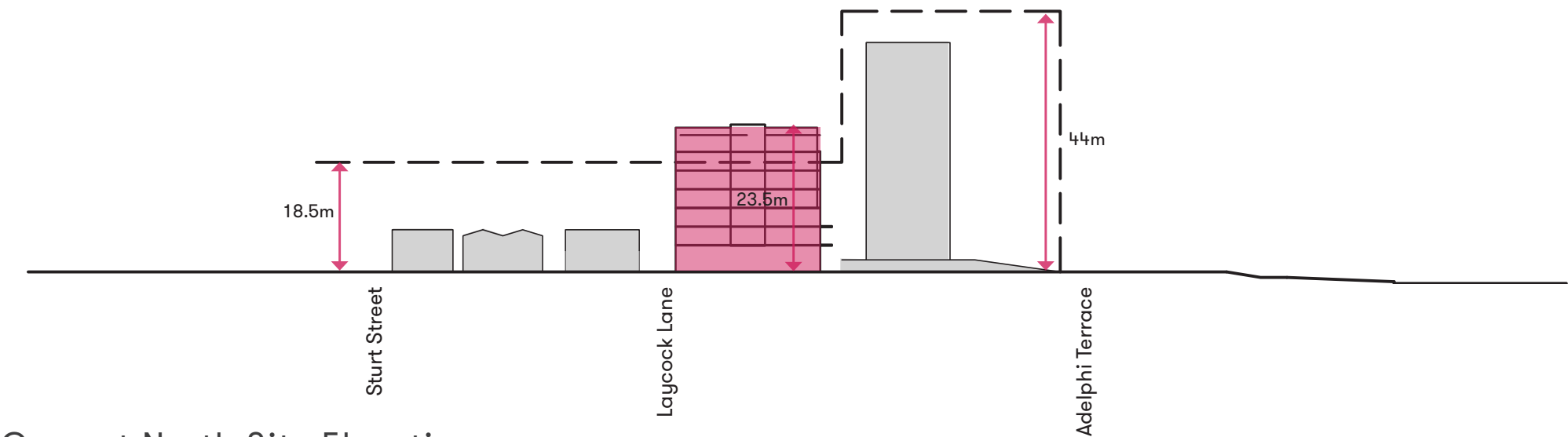
2 Canning Street, Glenelg North
Overlooking Diagrams and Site Elevations



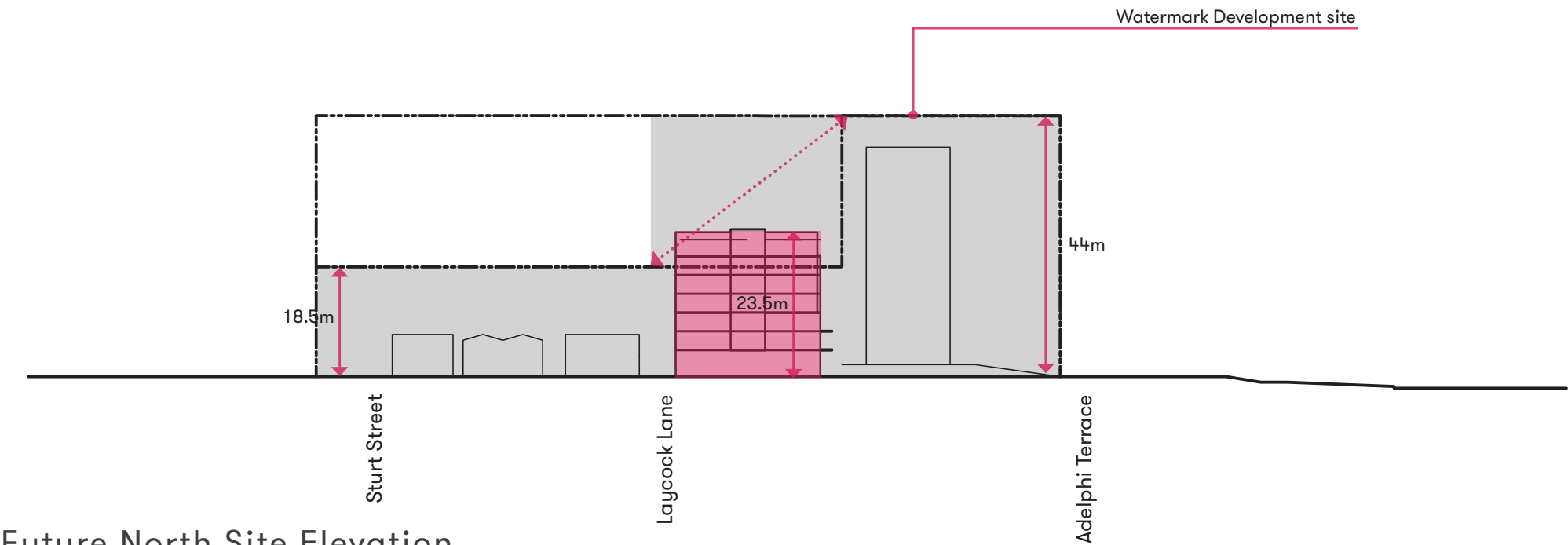
Overlooking Section 1
Scale - 1:1000



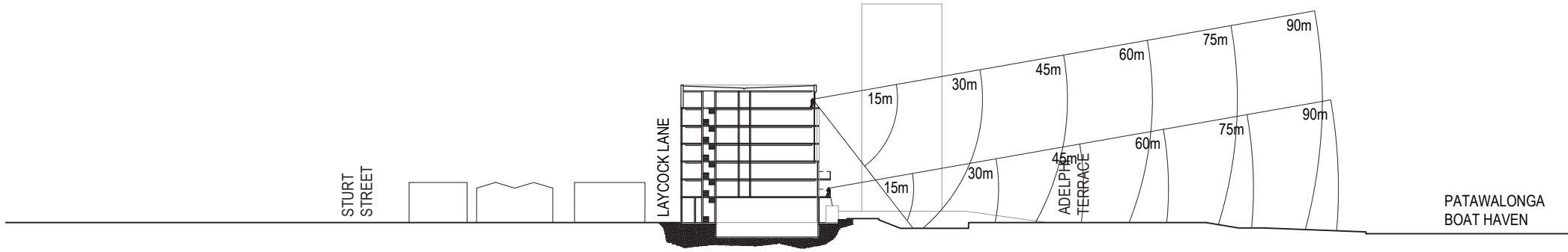
Overlooking Section 2
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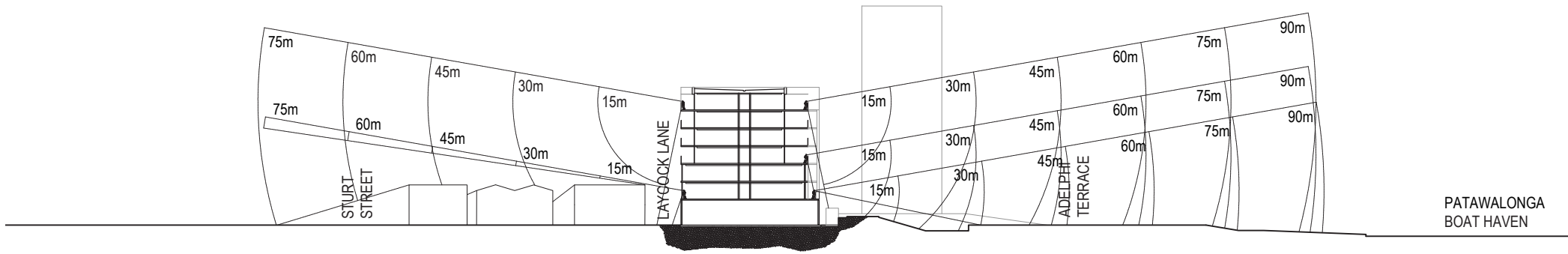
Current North Site Elevation
Scale - 1:1000



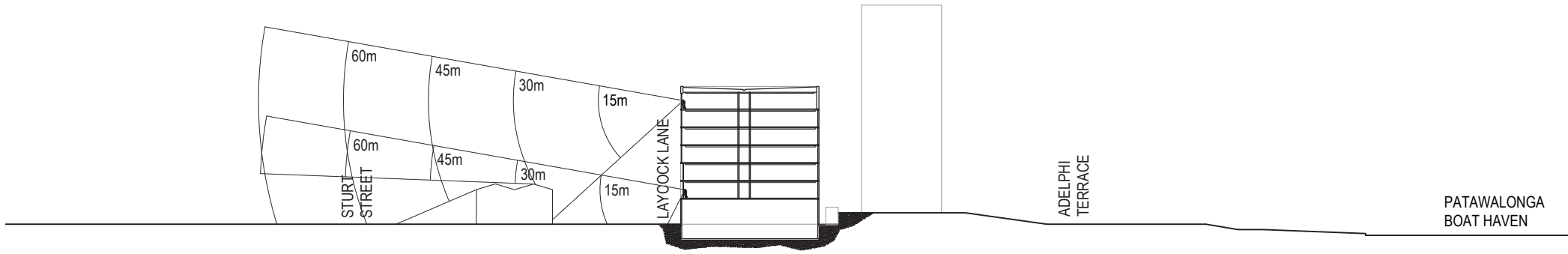
Future North Site Elevation
Scale - 1:1000



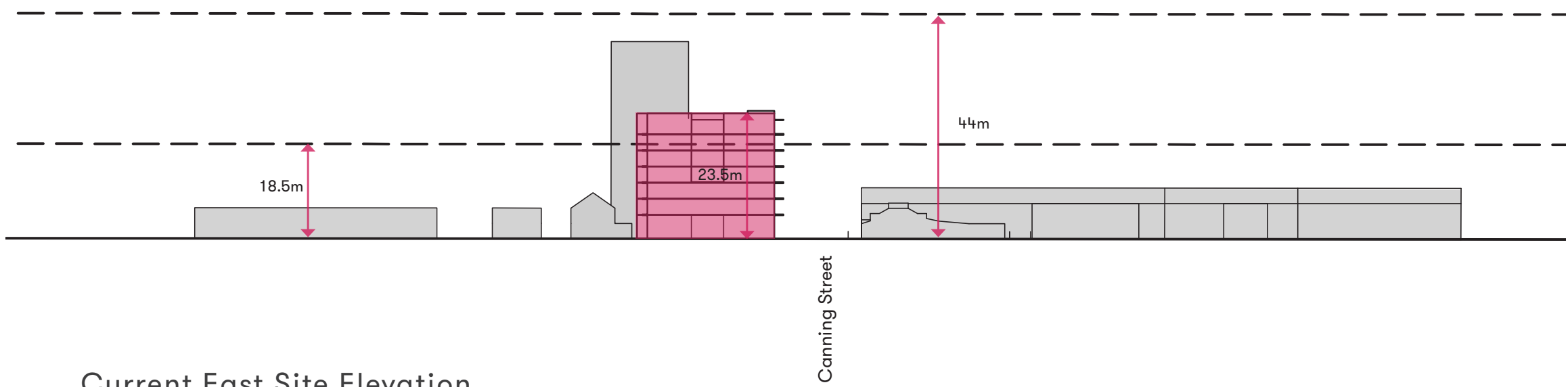
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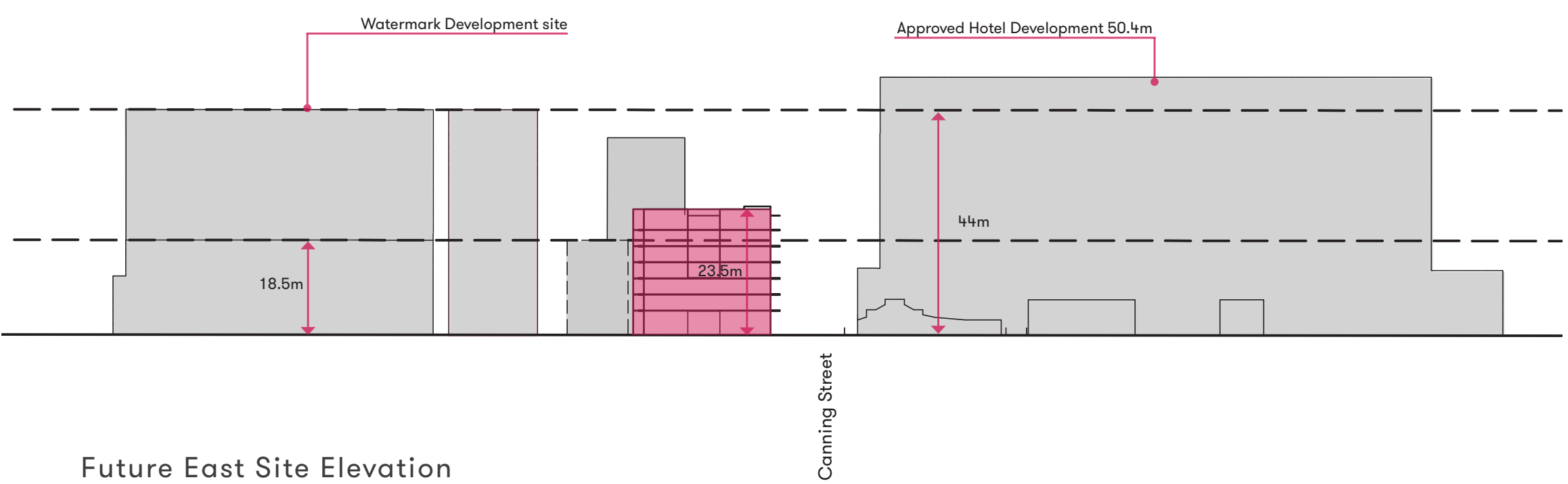
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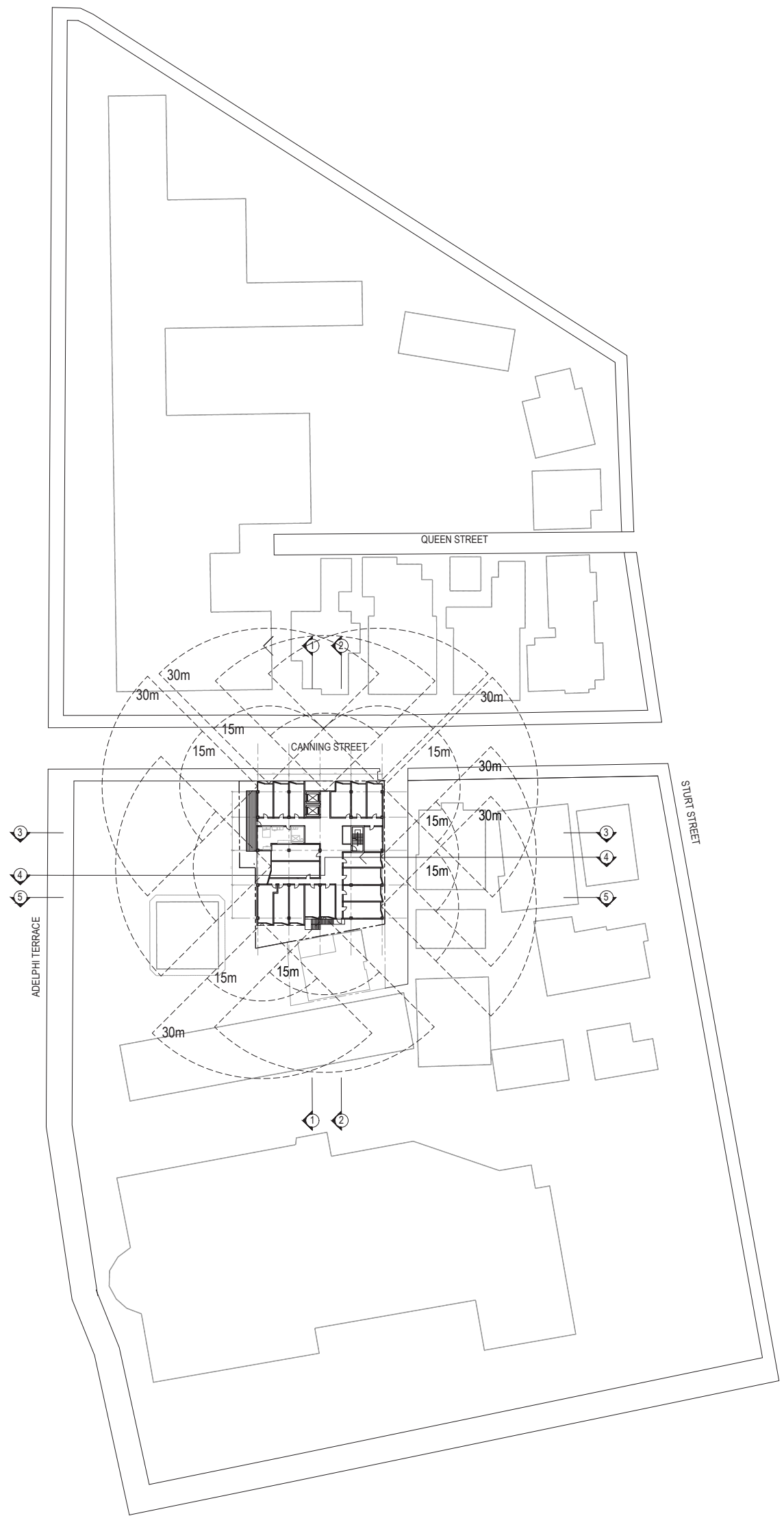
Overlooking Section 5
Scale - 1:1000



Current East Site Elevation
Scale - 1:1000

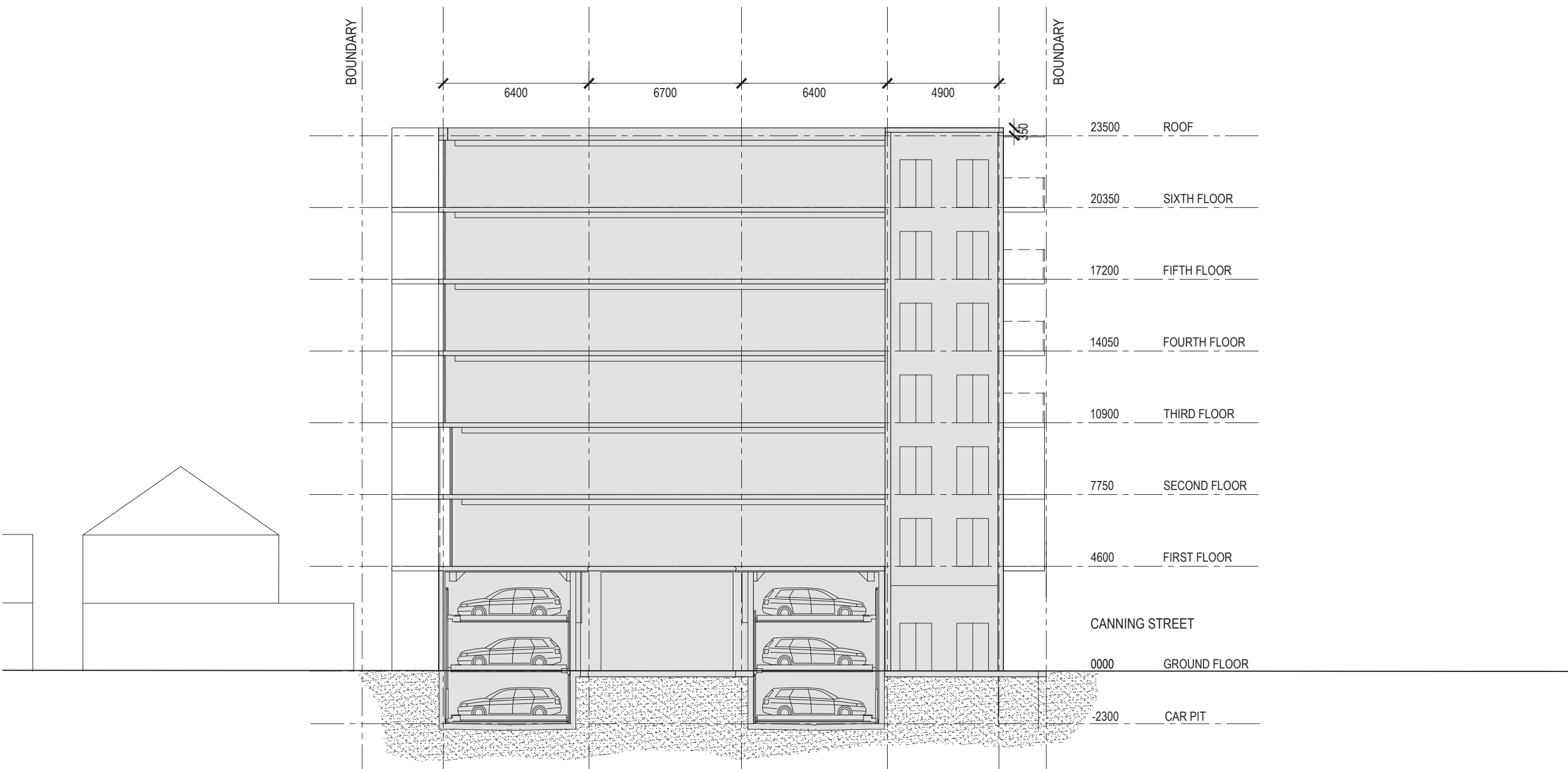


Future East Site Elevation
Scale - 1:1000

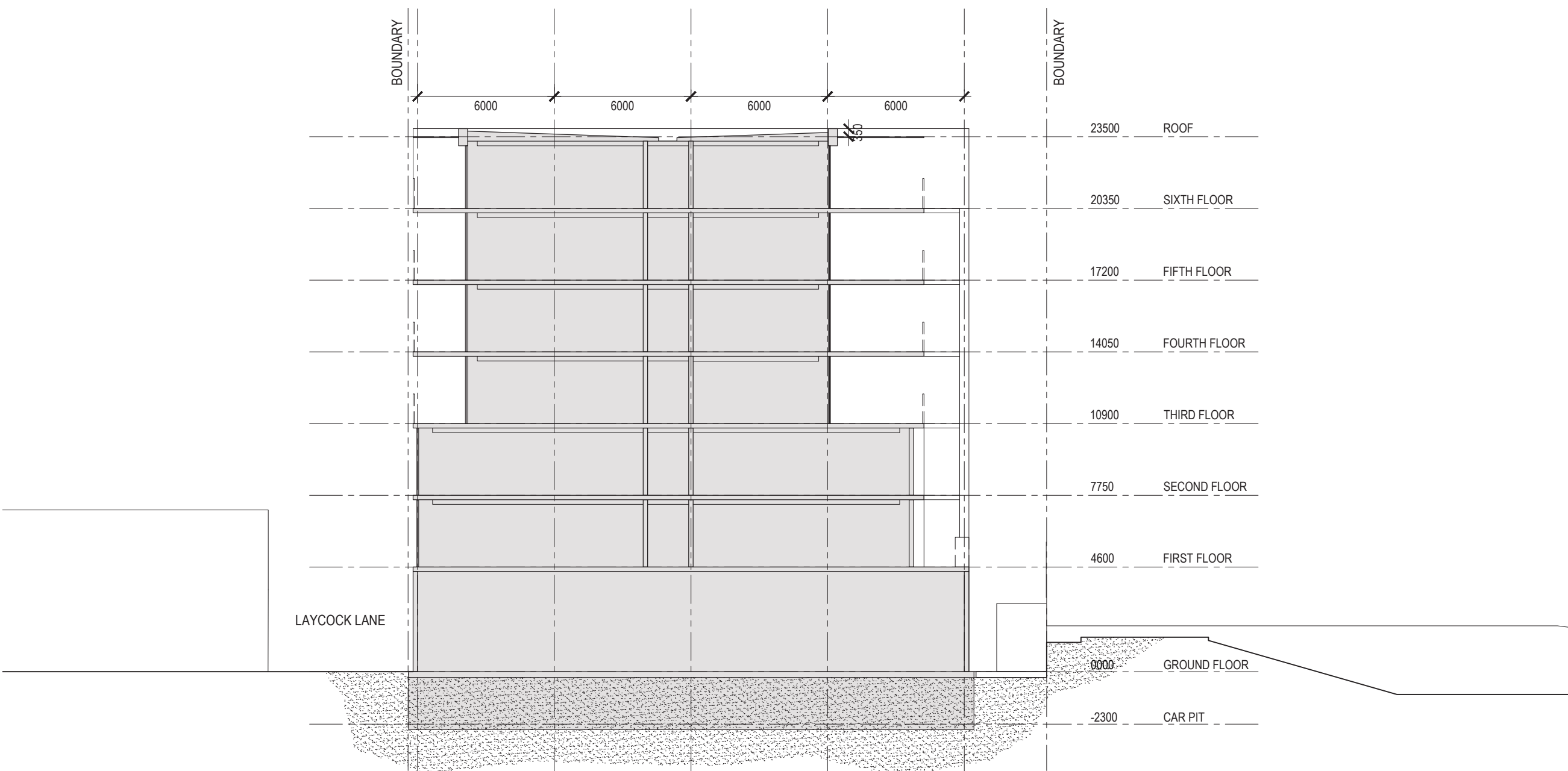


Overlooking Plan
Scale - 1:1000

2 Canning Street, Glenelg North
Sections and Site Context



Section A - North-South
Scale - 1:200



Section B - East-West
Scale - 1:200



Adelphi Terrace looking East



Canning Street looking West



2 Canning Street
Residence



Laycock Lane
Existing Residences



Adelphi Terrace
Residential Tower



Laycock Lane
South boundary



Unit 1/5 Adelphi Terrace
Residence



1 Laycock Lane
Residence



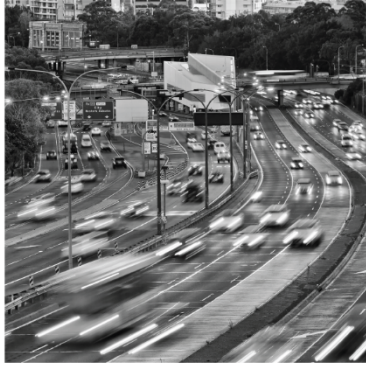
4A Canning Street
Residence



Appendix D

Traffic and Parking Report, and WMP, prepared by Infraplan

infraPlan



2 Canning Street, Glenelg North: Proposed Development

Car parking + Waste Report

June 2019




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Project Name	Car parking + Waste Report - 2 Canning Street, Glenelg North: Proposed Development				
Client contact details	<div>Glen Vollebregt M1 Centre Level 4, 195 North Terrace PO Box 3571, Rundle Mall ADELAIDE SA 5000 p: 7070 2580 glen@barrio.com.au</div> <div></div>				
Consultant contact details	<div>Gayle Buckby Director - InfraPlan (Aust) Pty Ltd Level 3, 66 Wyatt Street ADELAIDE SA 5000 p: 08 8227 0372 gayle@infraplan.com.au</div>				

Document Control					
Name:	IP19.009 2 Canning Street, Glenelg North: Proposed Development				
Version	Notes	Author	Date	Reviewer	Date
0	Preliminary Review - DRAFT	GB	21-3-19	ES	21-3-19
1	Preliminary Review - DRAFT	GB	21-3-19	ES	21-3-19
2	DRAFT 2 Modifications to design	GB	13-5-19	ES	14-05-19
3	DRAFT 3 Modifications to design	GB	05-06-19	ES	05-06-19
4	Issue	GB	07-06-19		

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1. Executive Summary

InfraPlan has been engaged by Barrio Developments to participate in design development for the traffic and waste management aspects of a proposed development at 2 Canning Street in Glenelg North. This development includes the following components relating to traffic, parking and waste:

- At total of 58 apartments or 86 bedrooms, comprising of:
 - 12 x 2-bed residential apartments,
 - 8 x 3-bed residential apartments,
 - 38 x 1 bed apartments for tourist accommodation,
- 40 x access-controlled undercover car parks,
- Bicycle parking, and
- Bin storage area for 5 x 660 litre waste, recycling and organic bins.

Key findings of this study are listed below and explored further in the report:

- Sustainable transport is nearby as it is a short walk to high-frequency bus stops, and less than a 10-minute walk to the Jetty Road Tram stops.
- Off-street car parking is in excess of the minimum required in the Development Plan and will sufficiently cater for the residential, tourists and visitor car parking demand.
- The underground car park is designed efficiently with a vertical stacking arrangement and is appropriately accessed from Laycock Lane.
- Canning Street and Laycock Lane will be improved for safety and amenity with the removal of four garages (1 on Canning Street and 3 on Laycock Lane). Vehicle access will be consolidated to one point only – from Laycock Lane.
- Canning Street has 24 on-street car parks with 4 of these directly in front of the subject site. The driveway crossover removal will enable two additional on-street car parking spaces to be installed.
- Canning Street is a local street and Laycock Lane is a no-through lane providing rear access to five other dwellings. These streets have sufficient capacity to accommodate the additional traffic that is likely to be generated by the development.
- There is sufficient space designated for waste, recycling and organic bins, which will be collected by a private contractor twice a week. The floor to ceiling height in the underground carpark is sufficient (greater than 4.2m) for refuse collection to be undertaken off-street.

As part of this study, we have reviewed:

- Brown Falconer Drawings dated May 29, 2019,
- Holdfast (City) Development Plan consolidated 2 June 2016,
- RMS Update to the RTA Guide to Trip Generating Developments, and
- Australian Standard AS2890.1, Off-Street Car Parking.

2. Existing Site

The subject site is a residential dwelling located at 2 Canning Street, Glenelg North within the City of Holdfast Bay. The site is bound by a rear access laneway to the east (Laycock Lane), and residential apartments and houses on other sides. Canning Street is a local street, and the nearby major road network includes Adelphi Terrace, Tapleys Hill Road and Anzac Highway. The site is within close vicinity of bus stops on Anzac Highway, and Adelphi Terrace, and tram stops on Jetty Road. Refer Figure 1.



Figure 1: Location Plan, subject site in orange (from Development Plan, Transport Overlay Map)

2.1 Planning Context

Under the City of Holdfast Bay Development Plan, the site is within a Residential High-Density Zone and the Urban Glenelg Policy Area 15. The primary transport related matters arising from these classifications include:

- *Service yards, car parking areas and facilities, service ducting and plant should be designed and located to ensure that the appearance of buildings and land viewed from all abutting roads is attractive*
- *Development should provide car parking within the zone in accordance with Table HoB/1B – Off Street Vehicle Parking Requirements for the Residential High Density Zone.*

2.2 Car parking

Two spot surveys were undertaken of Canning Street to understand the existing demand for on-street parking on Canning Street. There are 24 on-street spaces in total (between Adelphi Terrace and Sturt Street), with 4 of these directly in front of the subject site.

The surveys found:

- 18 spaces available on a typical weekday evening (Monday April 1 at 7:30pm):
- 1 space available on a busy weekend day (Sunday April 7 at 3pm). During this survey there was a 'Dream Cars' event at Wigley Reserve that resulted in a high demand for car parking throughout the entire precinct.

The existing dwelling has off-street parking in four garages (1 on Canning Street and 3 on Laycock Lane).

3. Proposed Development

The proposed high-density residential development includes the following elements that result in change to traffic, parking and waste:

- 12 x 2-bed residential apartments
- 8 x 3-bed residential apartments
- 38 x 1-bed apartments for tourist accommodation
- 40 x access-controlled undercover car parks
- Bicycle parking, and
- Bin storage to house 5 x 660 litre waste, recycling and organic bins.

3.1 Parking Requirements

The City of Holdfast Bay Development Plan provides guidance for Residential High-Density Zone car parking rates as listed in Table 1.

Dwelling type	Residential parking Required	Visitor parking required	Total spaces required per dwelling
Studio, 1 or 2 bed	1 per dwelling	0.25 per dwelling	1.25
3 x bed +	1.25 per dwelling	0.25 per dwelling	1.5
Tourist accommodation	1 per 4 bedrooms (min) or 1 per 2 bedrooms (max)	0	0.25 – 0.5

Table 1: Development Plan rates

In addition to this requirement, the City of Holdfast Bay Development Plan allows for a lesser parking rate if certain local circumstances are met. The circumstances that would apply at the Canning Street development are:

(a) amalgamation of allotments occurs, or an agreement is formed to integrate and share adjoining parking areas, to create larger more functional and efficient parking areas, as follows:

(ii) side road frontage with two-way access provided

(iii) convenient flow through two-way accessibility created between side roads

(c) sites are located within 200 metres walking distance of a convenient and frequent service fixed public transport stop

(f) suitable arrangements are made for any parking shortfall to be met elsewhere or by other means

(g) generous on-street parking and/or public parking areas are available and in convenient proximity, other than where such parking may become limited or removed by future loss of access, restrictions, road modifications or widening.

3.2 Parking provision

The parking rates are translated to this development in the table below, which shows that a minimum of 35 car parks are required.

Dwelling Type	No. apartments	Residential car parks required	Visitor parks required	Total spaces required
2 x bed	12	12	3	15
3 x bed	8	10	2	12
Tourist Accommodation	38	9.5 (min), 19 (max)	0	10 (min)
Total	58	32 (min)	5	37 (min)

Table 2: Car park requirement

40 access-controlled spaces are proposed in the car park off of Laycock Lane which is 3 spaces more than the minimum requirement of the Development Plan. These spaces will be designated as listed in Table 3.

Car park user	Spaces provided
Residential (22 spaces required)	25 spaces
Tourist (10-19 spaces required)	10 spaces
Visitor (5 spaces required)	5 spaces
Total	40

Table 3: Car space distribution options

On-street Car Parking

The removal of the driveway access to the subject site from Canning Street will result in space for two additional on-street car parks. Although this development does not rely on on-street parking, there would be potential for overflow parking on-street if required.

Bicycle Parking

There are no specific requirements for bicycle parking at residential apartments in this zone. It is anticipated that residents will store their bicycles in their apartments, and therefore the lift has been designed to easily accommodate bicycles.

In addition, an area near the front entrance of the building provides convenient, well-lit parking for resident bike-share, and visitor bicycle parking. Seven parking rails are proposed, providing space for 14 x bikes.

Loading and Deliveries

It is anticipated that delivery and/or service vehicles (particularly for the tourist accommodation, such as linen, cleaning etc) could utilise on-street car parking if available, or the visitor car parks during weekdays, when visitor demand would be at its lowest.

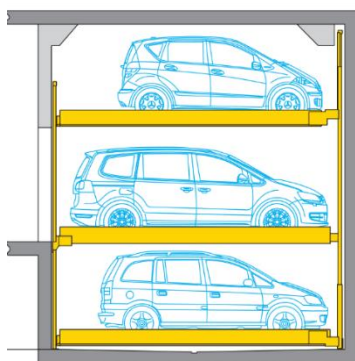
Waste collection can occur off-street in the car park (as discussed in Section 5).

3.3 Car Park Layout

The access controlled off-street car parks are provided in the form of a 'WOHR Combilift 543' vertical stacker and provides parking for 40 cars on 3 levels, refer images below. Vehicles enter from the ground level and the system automatically stacks and shuffle the cars as required.

The lift is operated using either a chip at an operating device, a hand-held transmitter in the vehicle, or by using a smartphone App. Vehicles are admitted into a designated single bay in each stacker unit. We have simulated the manoeuvring to check that vehicles can enter and exit the bay sufficiently, (refer to Appendix A for illustrations).

Visitors wishing to park in the secure car park will contact the resident via a telecom system who will assist them to park, until they are familiar with the system. It is proposed that a temporary visitor stopping area is marked in the aisle of the car park, where the visitor will wait until the resident assists.



The design has been assessed against Australian Standard AS2890.1 Off-Street Car Parking. This Standard is a resource for conventional car parking layouts and does not specifically apply to mechanical car parking, such as the Wohr Combilift.

The dimensions of the combilift, the column locations and the aisle width vary from the dimensions recommended in the Standard as illustrated in Figure 2. Therefore, we have reviewed the variations and made an assessment as to whether the proposed carpark functionally satisfies the requirements of the Standard. A summary of this assessment is listed in the table below. In addition, vehicle turn paths are illustrated in Appendix A.

Item (residential car park)	Australian Standard AS2890.1	Proposed car park, variation to AS2890.1	Functional compliance Y/N?
Multiple vehicle garage with no internal walls. <i>Clause 5.4(b)</i>	Bays 2.4m wide. Spaces contiguous with the end spaces having a minimum width of between the centre line of the space and the end wall of 1.5m to allow clearance for door opening	Bays are 2.8 to 3.0m metres wide and contiguous. End spaces are 3.0m wide which provide 1.5m clearance for door opening	Y
Aisle Width <i>Table 1.1, Figure 2.2.</i>	5.8m wide minimum	7.6m total aisle width, with 5.9m clearance between columns.	Y
Aisle width for 90 degree angle parking manoeuvres. <i>Table B2.</i>	Widest parking space width noted in Standard is 2.6m (<i>note Canning Street is 2.9m</i>). With 2.6m width, the base aisle width required is 4.8m + 300mm on each side for manoeuvring (= 5.4m).	Clear aisle width between columns = 5.9m. Therefore we have more space available than the base dimension.	Y
Blind Aisle <i>Fig. 2.3.</i>	Provide 1000mm extension to blind aisle to accommodate reversing manoeuvre.	There is a 300mm extension of the blind aisle. Given that the aisle width at the end of the blind aisle is 7600 clear, the turn paths show that the reversing manoeuvre can be undertaken satisfactorily* (refer Appendix A, Figure 4)	Y
Column location and spacing. <i>Clause 5.2 Note</i>	Column should not be located at the edge of a parking aisle. The difficulty of manoeuvring into a parking space is increased by such a location.	Columns are located at the edge of the parking aisle, but the aisle width and parking bay width are wider than minimum and swept paths show that the manoeuvring is possible.	Y

Table 4: : Variations from AS2890.1

* AS2890 notes that, 'Drivers can manoeuvre vehicles within smaller spaces than swept turning paths would suggest. Wider parking spaces require slightly smaller aisle width'. This further indicates that the manoeuvre is satisfactory, given that our swept paths show that it is possible.

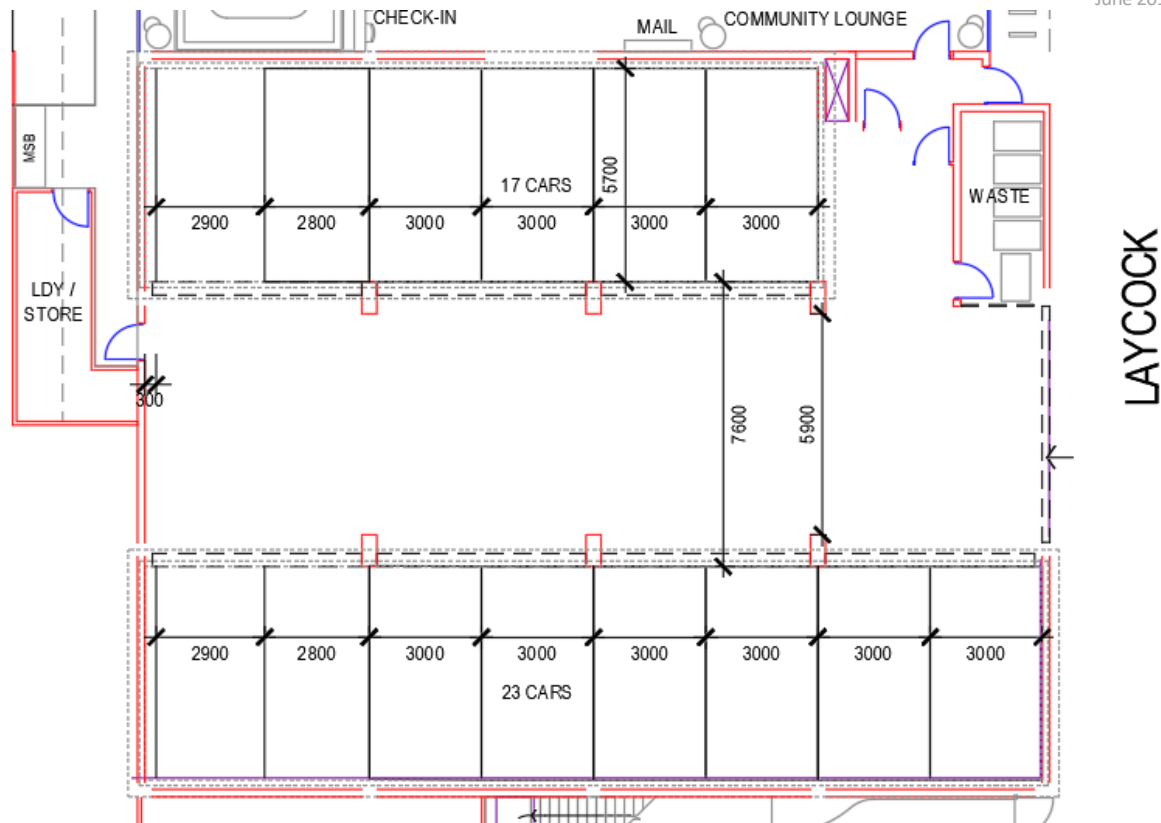


Figure 2: Car park layout and dimensions

3.4 Site Access

The proposed site access is entirely from Laycock Lane, and the driveway access from Canning Street will be removed. Laycock Lane is a no-through-road and its sole purpose is to provide rear access to car parking for the surrounding apartments and dwellings. There is space for a vehicle to wait in Laycock Lane if required while another exits the car park, or for another vehicle to overtake the waiting vehicle to access other properties further west in Laycock Lane.

The consolidation of the existing four garages (Canning Street and Laycock Lane) to a single carpark access point off of Laycock Lane will result in improvement to both street frontages and pedestrian safety/amenity.

3.5 Future Proofing

The 3-level car lift results in a high floor to ceiling clearance of 4.6m, which provides future-proofing conversion opportunities if the car parks are not required due to change in travel modes.

4. Vehicle Trips

We have referred to the RMS Guide to Traffic Generating Developments (Updated traffic surveys 2013) for rates applicable to high-density residential developments. It is noted that these survey values are recorded for Sydney based properties. For applicability to Adelaide, these averages were multiplied by 2x which falls within the upper range of the survey data.

There is no guidance for typical trip generation for tourist accommodation because of considerable variance depending on location and transport alternatives. Therefore, we have used a first principles approach where we used the number of car parks designated to the tourist accommodation (assuming at 100% capacity) and assumed 4 trips per vehicle per day. These would be distributed throughout the day/night and not necessarily in the AM or PM peak as for the residential apartments.

Given the above, the assumed rates are considered conservative (on the higher end), and result in around 92 trips per day, as listed in Table 5.

RTA – Land Use	Weekday Daily	Weekday AM Peak	Weekday PM Peak	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
	Rate: trips per apartment					
20 x apartments	3.04	0.38	0.3	61	7	6
38 x Tourist accommodation (10 car parks provided)	4 trips per vehicle			40		
Total				101		

Table 5: Trip Generation Estimate

Canning Street is an 11m wide, residential street, with parallel parking (no time limit) on both sides. Traffic data has not been collected but observations indicate that Canning Street has more than sufficient capacity to carry the additional traffic generated from this development.

Laycock Lane is 5.4 metres wide and a no-through-road, providing rear access to 5 other properties. It is therefore considered appropriate for car park access to the subject site.

5. Waste, recycling and organics

Zero Waste South Australia (ZWSA) have published a *Better Practice Guide* for waste management in South Australia that is used as a best practice guideline document when determining the waste needs of a development. This document bases waste generation on land use type, area and period of use and provides guidance on the systems, generation and collection methods of general, recycling and organic waste streams.

5.1 Waste management

A bin area is proposed that is conveniently located on the ground floor between the lift lobby and the car park. Residents will dispose of general, recycling and organic waste into the bins as they exit the building to either the car park, Canning Street or Laycock Lane.

5.2 Waste generation

The ZWSA Guidelines identifies rates for waste generation based on number of beds for high density residential as listed in Table 6: Waste Generation per bedroom.

Land Use (rate)	General	Recycling	Organics
High Density Residential	30 Litres/bedroom/week	25 Litres/bedroom/week	10 Litres/bedroom/week

Table 6: Waste Generation per bedroom

5.3 Waste Storage

Knowing the total amount of waste generated, the number and size of bins can be assessed. Bins typically are sized in either 240L (standard kerbside collection), 660L or 1,100L. The 660L bin has been adopted for this site for efficiency and ease of handling. The 660L bin dimensions and the bin storage layout are illustrated in Table 7.

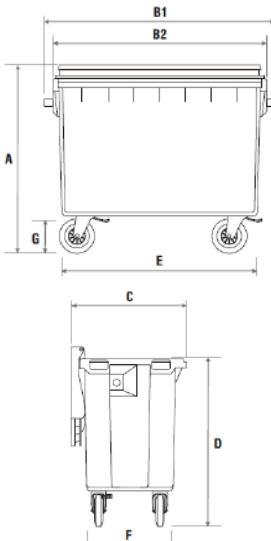
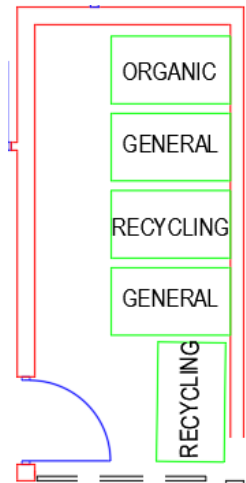
Capacity	Dimensions	Canning St Bin Layout
660 Litres	<p>1,360 L x 770 W x 1,200 H</p> <p>A - 1200mm B - 1360mm B2 - 1225mm C - 770mm D - 1120mm E - 1095mm F - 630mm G - 200mm</p> 	

Table 7: Waste bin sizes and layout

The waste generation, number of bins required, and collection frequency has been calculated using a total of 86 bedrooms as listed in Table 8.

Waste Stream: 78 bedrooms	General	Recyclable	Organic
Waste generated per week (Litres)	2580	2150	430
No. of bins provided	2 x 660L	2 x 660L	1 x 660L
Collection frequency	Twice a week	Twice a week	Twice a week
Waste Capacity per week (Litres)	2640	2640	660

Table 8: ZWSA and adopted waste generation rate for high density residential

In summary, five x 660 litre bins are required as follows:

- 2 x 660 litre general waste bins collected twice a week,
- 2 x 660 litre recycling bins collected twice a week, and
- 1 x 660 litre organic bin collected twice a week.

5.4 Waste Collection

A small refuse truck (6.4m) operated by a private contractor will collect waste from the car park as illustrated in Figure 5. It is recommended that waste collection should be conducted outside of peak periods (7-9am, 3-6pm) to minimise impacts to surrounding properties and peak hour traffic.

The site plan illustrates the proposed development layout. The building footprint is outlined in blue, with internal room divisions in black. Key areas include:

- Top Section:** LANDSCAPE, TOURIST APT LOUNGE, LOBBY, CHECK-IN, FB (Food & Beverage), APT LOBBY, MAIL, APTMENT COMMUNITY LOUNGE, BIKES, and WASTE.
- Central Section:** A parking area labeled "17 CARS" with dimensions 2900, 2800, 3000, 3000, 3000, and 5700. It includes two vehicle symbols and a note "200% PARKING DEMAND ON PARKING (200)".
- Bottom Section:** A larger parking area labeled "23 CARS" with dimensions 2900, 2800, 3000, 3000, 3000, 3000, 3000, and 5800. It includes a vehicle symbol and a note "200% PARKING DEMAND ON PARKING (200)".
- Left Side:** LDY/STORE, MSB, and SERVICES/STORAGE.
- Right Side:** LANE and LAYCOCK.
- Bottom Center:** EXISTING TERRACE and a staircase labeled "DN".

Various colored lines (red, green, blue, black) and arrows indicate circulation paths, boundaries, and specific design annotations throughout the plan.

Figure 3: B85 Swept paths indicating sufficient manoeuvring







Appendix E

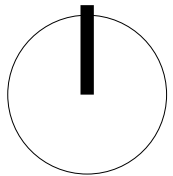
Landscaping plan prepared by LCS

CANNING STREET - GLENELG

PROPOSED LANDSCAPE - 27.06.2019



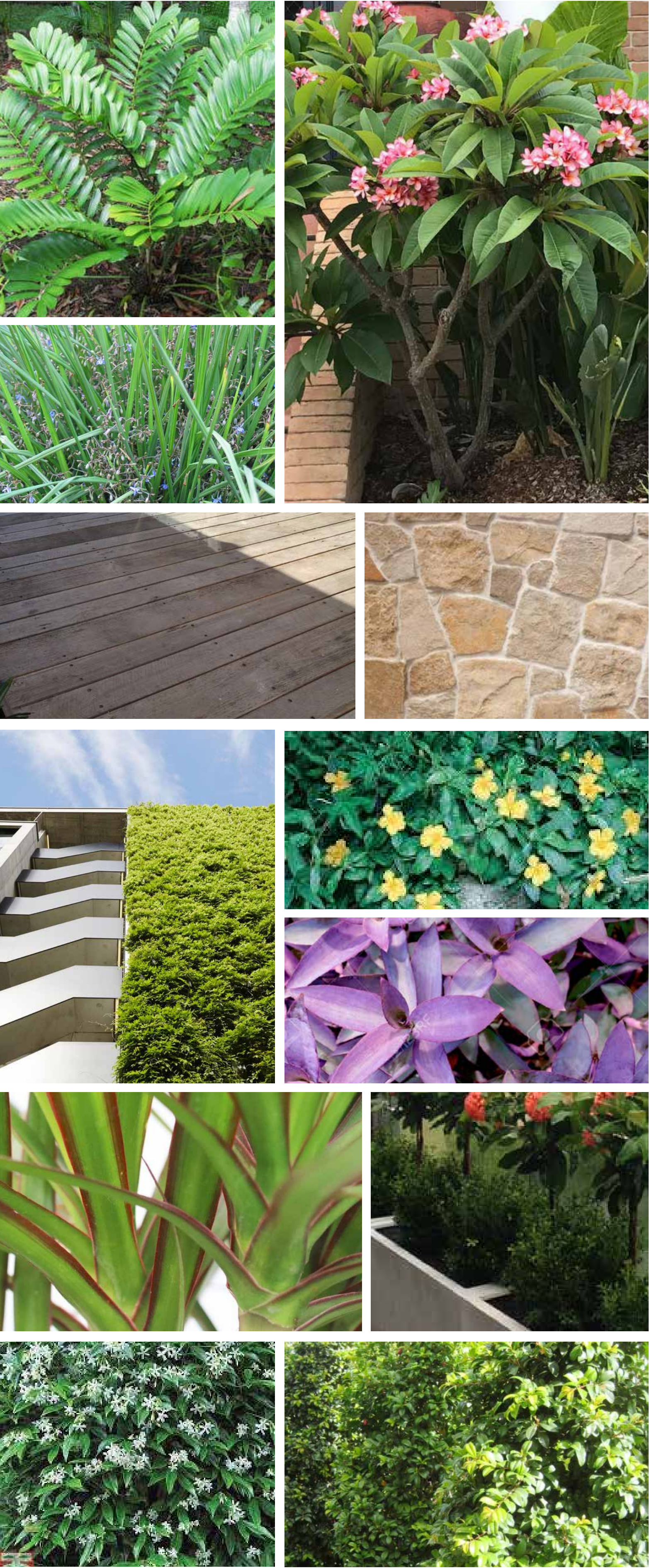
LOCATION/CONTEXT PLAN
NOT TO SCALE



PLANTING SCHEDULE

SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x spread)
CLIMBERS/GROUND COVERS			
Hibbertia scandens	Guinea Flower	140mm	3m x 500mm
Tradescantia pallida	Purple heart	140mm	300mm x 3m
LOW PLANTING			
Dianella brevicaulis	Native flax lily	140mm	600mm x 600mm
Liriope 'Evergreen Giant'	Turf Lily	140mm	600mm x 600mm
FEATURES			
Dracaena marginata	Madagascar palm	300mm	3m x 1m
Zamia furfuracea	Card board palm	140mm	600mm x 600mm
SCREENING			
Syzygium australe 'Pinnacle'	Lilly Pilly	300mm	5m x 1m
TREES			
Plumeria rubra	Frangipani	45L	5m x 5m

MOOD IMAGERY



27.06.2019 - For Development Application
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Project:
CANNING STREET GLENELG DEVELOPMENT

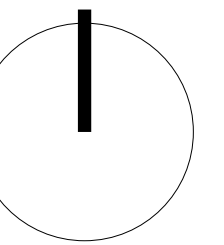
Drawing:

PROPOSED LANDSCAPE

Scale: NTS
Drawn: DF
Checked: SK
Date: 27.06.2019
Dwg no: LS.030.19
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3 Creswell Road Largs North SA 5016
PO Box 3246 Port Adelaide SA 5015
tel: 8249 9799
fax: 8249 9744
enquiry@lcslandscapes.com.au
www.lcslandscapes.com.au
Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 68 102 505 180



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LCS LANDSCAPES
Defining Spaces

Project:
CANNING STREET GLENELG DEVELOPMENT

Drawing:
PROPOSED LANDSCAPE

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3 Creswell Road Largs North SA 5015
PO Box 3246 Port Adelaide SA 5015
tel: 8249 9799
fax: 8249 9744
enquiry@lcslandscapes.com.au
www.lcslandscapes.com.au
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PROPOSED LANDSCAPE - SOUTHERN ELEVATION

SCALE 1:100 AT A1

SCREENING PLANTS TO
BOUNDARY FENCE PROVIDES
PRIVACY TO NEIGHBOURING
PROPERTY
• Syzygium pinnacle

REAR BOUNDARY FENCE

27.06.2019 - For Development Application
Revision:


LCS LANDSCAPES
Defining Spaces

Project:

CANNING STREET GLENELG DEVELOPMENT

Drawing:

PROPOSED LANDSCAPE

Scale: 1:100 AT A1

Drawn: DF

Checked: SK

Date: 27.06.2019

Dwg no: LS.030.19

Sheet: 5 OF 5

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PO Box 3246 Port Adelaide SA 5015
tel: 8249 9799
fax: 8249 9744
enquiry@lcslandscapes.com.au
www.lcslandscapes.com.au
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Builders Licence: BLD175870 / ABN: 68 102 505 180



Appendix F

Legal opinion prepared by Botten Levinson Lawyers

Our ref: THG/219113

19 June 2019

Matthew King
Urban & Regional Planning Solutions
Suite 12
154 Fullarton Road
ROSE PARK SA 5067

By email: matthew@urps.com.au

Dear Matt

Approach to assessment of proposed development at 2 Canning Street, Glenelg North

You have sought my advice on the relevant considerations and correct approach to assessing and determining a development application for a proposal that exceeds the relevant height guideline contained in the Holdfast Bay Council Development Plan consolidated 2 June 2016.

The proposed development involves a mixed use building (comprising residential dwellings and tourist accommodation) of 7 storeys (above-ground) with a total height in the order of 23.5 metres.

Having regard to the Development Plan and the factual context of the proposed development, I am of the view that the proposed exceedance of the height guideline in the Development Plan is likely to be justified in the circumstances.

Approach to assessment generally

As a starting point, it is important in assessing a development application to be mindful that no provision of a Development Plan should be read in isolation, and that the provisions of the Development Plan are not mandatory; rather they are guidelines which the statutory scheme requires assessment against (not strict compliance with)¹ and accommodates an acceptable degree of departure from². They must also be applied having regard to the factual circumstances of the proposed development.

The provisions of Development Plans should not be applied mechanically.³ In assessing the proposed development, and the height limit exceedance, it is necessary to consider the effect of any departures from the quantitative provisions in the context of the qualitative goals.⁴

The relevant principles and reasoning in the following cases are well established and bear rehearsing (**emphasis added**).

¹ *Development Act 1993*, s 33(1)(a).

² *Development Act 1993*, s 35(2).

³ *Lakshmanan & Anor v City of Norwood, Payneham and St Peters & Anor* [2010] SASCFC 15 at [45] and [47].

⁴ *Gibbs v City of Charles Sturt* [2010] SASC 26 at [22].

In *Development Assessment Commission v A&V Contractors Pty Ltd*, the Full Court of the Supreme Court stated:

*Objectives and principles are generally stated on a council wide and zone basis, by reference to particular classes of developments, and on occasion by reference to particular sites. Moreover, the objectives and principles are directed towards a wide range of planning objectives. Therefore, there will necessarily be a degree of tension between the provisions of development plans. Some principles and objectives may militate for a development and others militate against it. Nonetheless, **a proposed development must be assessed against all of the provisions of a development plan which, on their terms, apply to that development.***⁵

Regard must also be had to the particular factual circumstances of an application:

*... planning authorities do not apply the objectives and principles of development plans in a vacuum. First, as I earlier observed, there will often be tension between those objectives and principles. **Most of the objectives and principles, as a matter of construction, apply as general rules and not as inviolable prescriptions; they are guidelines within which an expert planning judgment must be made.** Most obviously, the **particular factual circumstances of a proposed development will inform that planning judgment**, and, in particular, affect which of the principles and objectives will predominate.*⁶

On the task of exercising the planning judgment, the Full Court of the Supreme Court in *Lakshmanan & Anor v City of Norwood, Payneham and St Peters & Anor*⁷ cited Justice DeBelle in *City of Mitcham v Freckmar*⁸:

*In cases such as this, where the proposed development is neither a complying or a non-complying development, that is to say, where the Plan neither permits nor prohibits the proposed development, the **task of the planning authority is to weigh the benefits and detriments, in other words, to weigh "the pros and the cons" of the proposed development by reference to the Plan.** Ultimately, the **planning authority must make a judgment** whether the proposal will be permitted. If it is to grant the application, it must be satisfied that there are sufficient reasons for that decision, **reasons which are based on acceptable principles of planning and the relevant provisions of the Plan.** That judgment will have regard to the factors mentioned above. Thus, **a proposed development might be approved if it is conducive to the objectives and desired character of the zone in which it is to be sited.** It will be relatively easy in some cases to decide that the proposal is quite compatible with the amenity of the locality. In other cases, that test will be more difficult. **It will be a question of fact and degree in every case, after weighing all relevant considerations, whether the proposed development should be approved.***⁹

The combined operation of the above principles establish relevantly that SCAP must exercise a planning judgment which considers the merits of the proposal as a whole for which the Development Plan (and all of its relevant provisions) will be a guide.

⁵ [2011] SASCF 21 at [72].

⁶ Ibid, at [77].

⁷ [2010] SASCF 15 at [45].

⁸ [1999] SASC 234.

⁹ Ibid at [19].

If SCAP were to refuse the proposal, based on a departure from a PDC only (in this case the height limit exceedance), without undertaking an assessment of, and making a planning judgement on, the merits of the proposal as a whole, SCAP could not be said to have properly exercised the "planning judgment" required of it by law.

When will a departure from the provisions of a Development Plan be justified?

The relevant height limit provisions in the Development Plan are contained in the desired character statement for "Precinct 4 Five Storey" which provides:

Development within Precinct 4 Five Storey will be predominantly in the form of residential flat buildings, serviced apartments and tourist accommodation of up to 5 storeys (or 18.5 metres) in height.

Also, PDC 19 in the precinct specific section of the Residential High Density Zone's Principles of Development Control provides:

Development should not exceed an external wall height of 18.5 metres above natural ground level (excluding lift service levels and gables).

As noted previously, the statutory scheme¹⁰ accommodates departures from the provisions of a Development Plan. In *Town of Gawler v Impact Investments Corporation Pty Ltd*¹¹ the Full Court of the Supreme Court set out the following factors which form a guide for determining whether a proposal's departure from the provisions of a Development Plan is justified (footnotes in judgment omitted):

1. *The language of the principle or principles concerned – whether it is direct or contemplates some flexibility in approach;*
2. *Whether the relevant principle is in conflict with some other applicable planning principle. That is likely to happen only rarely, in which case the more specific principle may displace the more generally expressed principle;*
3. *The evident purpose and objective of the policy expressed in the principle or principles concerned;*
4. *The significance of the policy to this particular Development. The clearer the policy in its application to a particular development, the more compelling the reasons for departing from the policy will need to be;*
5. *Where the policy contemplates possible degrees of compliance, the extent of the Development's compliance with the policy;*
6. *Consistency of the Development with other objectives and purposes of the Zone;*
7. *Whether there is something unusual about the Development or the land on which it is to take place which makes the policy inapplicable or inappropriate;*
8. *Whether other events have happened since the Development Plan was adopted which make the policy redundant, either generally or in respect of this particular development;*

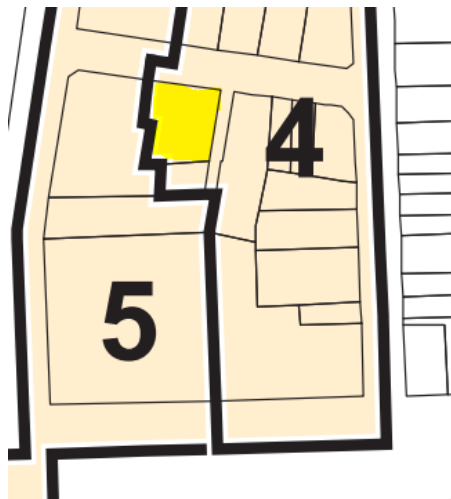
¹⁰ See *Development Act 1993*, ss 33(1)(a) and 35(2).

¹¹ [2007] SASC 326.

9. *The probable effect of non-compliance with the policy on the planning objectives of the Zone; and*
10. *Whether non-compliance with the policy in this case is likely to encourage other non-complying developments in the Zone.*¹²

It is prudent now to briefly consider each of the 10 factors in *Impact Investments* against the current proposal and the relevant Development Plan provisions. Adopting the numbering in *Impact Investments*, I consider:

1. The language in PDC 19 is inherently flexible in nature due to the use of the word "should" as opposed to, for example, "must" or some other term connoting that the requirement is mandatory or without flexibility.¹³
2. This factor is not applicable for present purposes.
3. The evident purpose of the relevant height limits is to regulate building height on a precinct-by-precinct basis throughout the Urban Glenelg Policy Area. Further, it is uncontroversial to suggest that the underlying purpose of the precinct-by-precinct height limit structure is to deliver a planned and co-ordinated distribution of high-density residential development, according to precinct-specific heights, throughout the Urban Glenelg Policy Area.
4. The height limit applies clearly to development within each precinct of the Urban Glenelg Policy Area. However, the proposal's unique location, in a pocket of Precinct 4 (5 storeys or 18.5m) surrounded on all sides (except one) by Precinct 5 (12 storeys or 43m), is a particularly compelling planning reason to depart from the prescribed height limit in order to deliver a co-ordinated transition in building heights within that pocket (**transition-pocket**). An extract from the Development Plan (Precinct Map HoB/4) showing the transition-pocket with the subject site marked is set out below.



5. While the numerical degree of exceedance of the height limits is not considered minor (i.e. a nominal exceedance), the unique factual scenario of the proposal's location should weigh heavily in SCAP's consideration of the numerical degree of exceedance and the weight it gives to that exceedance when exercising its "planning judgement" over the development as a whole.

¹² Ibid at [81]. See also *Yuile & Anor v The City of Unley & Anor* [2009] SAERDC 55 at [32].

¹³ See Doyle CJ in *Town of Gawler v Impact Investments Corporation Pty Ltd* [2007] SASC 326 at [38].

6. But for the proposal's height, I understand that it will be generally consistent with all other applicable provisions of the Development Plan. Importantly I note that the proposal delivers precisely the type of development use that is envisaged in the Zone.
7. The fact of the proposal being sited in the transition-pocket diminishes the weight to be applied to the generic precinct-wide height limits. The transition-pocket, in my view, requires an assessment of building heights on a merits basis in order to achieve a sensible transition between the 2 precincts. Without a sensible transition, residential buildings in the transition-pocket will be surrounded on 2 or 3 sides by residential buildings that are potentially more than twice as tall (5 storeys versus 12 storeys).
8. This factor is not applicable for present purposes.
9. I understand that the proposed height exceedance would not have any adverse effects on the planning objectives of the Zone. For example, the additional height will not lead to unreasonable additional overlooking or overshadowing or result in an adverse impact on the streetscape. I understand you are of the view that the extent of the height exceedance achieves a sensible planning outcome in terms of a planned and co-ordinated stepping down of building height in the transition-pocket.
10. Plainly the height exceedance here, which is proposed based on its location in the transition-pocket, is not apt to be repeated carte blanche across the Zone and will not set a precedent for over-height developments. Every development will need to be assessed in the context of its particular factual circumstances.

For completeness, and further to the above considerations, I note that the Development Plan, in the precinct-specific provisions¹⁴ and elsewhere¹⁵, envisages scenarios at the interface of zones and precincts where general application building controls are apt to change in order to create areas of transition. Such a transition area is explicitly established in Precinct 4, albeit to the south of the subject site. Nevertheless, the fact of the provisions establishing transition areas is evidence that the harmonious transition at the interface of zones and precincts is a compelling planning outcome implemented on occasion in the Development Plan where the locality context demands. It is plain, in my view, that the locality of this proposal warrants a sensible and more gradual transition between the 12 storey policy area and the 5 storey policy area.

Amenity impacts at the periphery of the Precinct

As part of SCAP's assessment and the exercise of its planning judgment, it will consider the amenity impacts caused by the proposal. To the extent that the building's height (and the degree of exceedance) causes amenity impacts it should be noted that the courts have acknowledged that the integrity of a zone (and the impacts of development ordinarily anticipated in that zone) might be very different at the centre of the zone when compared to its periphery.

¹⁴ Residential High Density Zone, Urban Glenelg Policy Area 15, Precinct 4 Five Storey PDC 20(c).

¹⁵ Residential Zone, Institutional Policy Area 4, Objective 4 and Minda Incorporated Brighton Campus desired character.

In *Papadopoulos v Corporation of the City of Woodville* (1985) 39 SASR 569 at p 577, the Supreme Court said:

... it must be remembered that zone boundaries are only lines on a map, and the residential integrity of a residential zone at its perimeter might be very different from its residential integrity elsewhere. Lines on a map cannot prevent noise or smoke or smells or the visual or other impact of non-residential development from escaping across the boundary between a non-residential and a residential zone...

In *Lanzilli Holdings v City of Campbelltown* (1982) 38 SASR 81 at p 85, the Supreme Court said:

... the amenity of the locality ... has to be judged by reference to the locality as a whole, and not by reference only to the houses located closest to the Industrial Zone ... the amenity of such a locality is not to be measured by the standards appropriate to a solely residential zone, and the amenity and convenience of those who choose to live on the very boundary of the Light Industrial Zone ought not necessarily to be regarded as the appropriate standard of amenity and convenience for the locality as a whole...

In *Bond v City of Norwood, Payneham & St Peters* [2007] SAERDC 56 at [61], the ERD Court said:

... Lanzilli Holdings and Papadopoulos are, in my view, authorities for the proposition that the amenity expectations of those who reside in zones within which commercial or residential activities are envisaged, or even on the periphery of a residential zone in close proximity to a commercial or industrial zone, cannot equate with those of residents in the heart of residential zones. Were that not to be the case, commercial and residential activities located in zones within which such uses were sanctioned could potentially be seriously restricted by the application of residential amenity standards having their origin in zones devoted solely to residential uses.

Considering the logic of the above body of case law, it follows that the amenity expectations at the centre of Precinct 4 will not necessarily equate with expectations towards the periphery of Precinct 4 bordering the more intense Precinct 5.

Measure of height limits: storeys versus metres

I note that there is a potential ambiguity under the relevant provision about whether the applicable height limit should be the measured in storeys or metres.¹⁶ In my view, the 18.5m external wall height limit should be preferred to the 5 storey limit.

Determining height limits by reference to storeys is an imprecise and ambiguous method of measuring height. There is, of course, no agreed figure of how high a single storey might be and the height of a particular storey can vary depending upon the nature of the use.

The ambiguity of the terminology of “storeys in height” has frustrated the ERD Court on a number of occasions.

¹⁶ Noting that the relevant height provisions variously provide both storey and metre height limit.

For example, in *Frederick Snowden Pty Ltd v City of Unley*¹⁷ the ERD Court observed:

*Provisions designating height limits in terms of 'storeys' are unsatisfactory, given that there is no fixed height for a storey, and there may be debate in relation to levels which are partly under natural ground level, or mezzanine levels, as to what constitutes a storey.*¹⁸

In *Mila Enterprises Pty Ltd v City of Holdfast Bay and Hutchens*¹⁹ the ERD Court observed that "the use of the number of storeys as a means of defining the height of a building is imprecise and problematic"²⁰.

Also of relevance, in *Pawmac (No 1) P/L v Corp. of City of Adelaide*²¹ the ERD Court said of height limits:

*... It is important to keep in mind the purpose for which a building height limit is prescribed. It is sensible to assume that the height limit is to be measured from the perspective of a viewer of the proposed building, as it is a prescription limiting the mass of the built form...*²²

Considering the above, as a general premise the height limit in metres should be applied in preference to the storeys limit where both are proffered. The relevant height guideline in this case is an external wall height of 18.5 metres. It is not a guideline for the total height of buildings.

The reference to "5 storeys" in the desired character statement should be considered as only a general and convenient descriptor of the scale of development expected in the policy area.

Conclusion

Having regard to the above, an exceedance of the height guidelines is likely to be appropriate and justified in the circumstances of the proposed development. That is ultimately a matter to be determined in balance with an assessment of all other aspects of the development against all of the relevant provisions of the Development Plan.

I trust this advice assists.

Yours faithfully



Tom Game
BOTTEN LEVINSON
Mob: 0419 809 361
Email: thg@bllawyers.com.au

¹⁷ [2003] SAERDC 96.

¹⁸ Ibid at [19].

¹⁹ [2005] SAERDC 34.

²⁰ Ibid at [31].

²¹ [1998] SAERDC 539.

²² Ibid at [3].



Appendix G

Sustainability report prepared by SuHo



ESD Statement

2 Canning Street

Reference: SH110749

Date: 4 June 2019

Assessment of:

Proposed Residential Development

2 Canning Street, Glenelg, SA 5045

Report commissioned by:

Barrio Developments

Responsible authority:

City of Holdfast Bay

Contact:

Tom Symons

esd@suho.com.au



SUHO

ABN 73 091 349 021

T 1300 308 525

esd@suho.com.au

suho.com.au

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Document Control

Job Title	2 Canning Street	SH Reference:	SH110749
Document Title	ESD Statement	File Reference:	R:\...\SH110749\reports
File Name	ESD Statement_2 Canning Street_SH110749		

Version	Date	Prepared by	Checked by	Approved by	Comments
0	13/05/2019	TS	DN	JW	Draft Revision
1	4/06/2019	TS	LV	JW	Final

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Executive Summary

SUHO has been engaged by Barrio Developments to provide an ESD Statement to support the Development Application for the proposed mixed-used residential development at 2 Canning Street, Glenelg, SA. This project is within the jurisdiction of the City of Holdfast Bay. The Council ESD requirements for this project have been outlined in this report, along with the project's design response. The purpose of this document is to demonstrate Council ESD requirements have been achieved. The key sustainable design strategies considered in the development include:

- High performance building fabric and glazing
- Solar PVs for onsite energy generation
- Energy efficient building services, including HVAC, lighting and DHW systems
- Water efficient fixtures and fittings
- Green landscaping and facades with preference for drought tolerant and/or native vegetation
- Good access to natural daylight and ventilation
- Adequate balconies to improve resident amenity and connection to the outdoors
- Car stacking system allowing for 1 bicycle/1 car per apartment to encourage active modes of transport for residents. Bicycle parking for visitors has also been provided off Laycock Lane.



1 Introduction

SUHO has been engaged by Barrio Developments to prepare an Environmentally Sustainable Design (ESD) Statement to support the Development Approval application of the proposed 2 Canning Street development.

1.1 Purpose

The purpose of this document is to demonstrate the client's commitment to ESD initiatives in the 2 Canning Street development and outline Development Plan compliance.

1.2 Project Overview

The 2 Canning Street development is a 7-storey apartment building. There are 20 residential two and three bedroom residential apartments, with an additional 38 tourist accommodation one bedroom serviced apartments located on the first and second floors. The project also includes a 40 car stacking facility.

1.3 Planning Requirements

The local planning requirements generally relate to managing solar exposure, managing waste, water sensitive urban design and minimising energy consumption. These requirements and objectives are outlined in Section 3 of this report, along with the design response. Barrio Developments is committed to delivering a project that exceeds Council requirements, for a market that has growing expectations for ESD.

1.4 Basis of Assessment

This document and all related assessments have been based on the following:

- Project discussions and email correspondence with Brown Falconer Architects and Barrio Developments.
- The architectural concept design package set from Brown Falconer Architects. Received at the start of June 2019.

1.5 Sustainability Categories

This Statement categorises the proposed ESD initiatives into 8 broad sustainability categories. These categories align with Green Star; a widely recognised and applied rating tool across the industry. These categories are summarised below:

- Management
- Indoor Environment Quality
- Energy
- Transport
- Water
- Materials
- Land Use & Ecology
- Emissions



2 ESD Features

The following is a summary of the ESD initiatives included in each of the categories.

2.1 Management

The following describes items relating to Management included in this project.

#	Initiative	Description	Responsibility
2.1.A	Environmental Management Plan	The preferred contractor will develop a site-specific Environmental Management Plan prior to construction commencement. ISO 14001 Environmental Management System accreditation will also be highly regarded when considering tenderers.	Contractor
2.1.B	Waste Management Plan	Waste will be collected privately and adequate bin space will be provided for the landfill and recycling waste. The residential apartments will have waste and recycling collection points on each floor. FOGO (Food and Garden Organics) waste will be managed separately by each tenant. Allowance for future shared FOGO waste management will be considered if necessary. The ground floor has been designed to allow for trucks to pull in to collect the waste off the street.	Waste Consultant
2.1.C	Building Information	The building will incorporate a number of smart technologies. The client is currently exploring the option of potentially including a BMS Lite technology with the idea of creating a share economy between the residential apartments on top of some building operational efficiencies.	BMS Contractor

2.2 Indoor Environment Quality

The following describes items relating to Indoor Environment Quality (IEQ) included in this project.

#	Initiative	Description	Responsibility
2.2.A	Natural Ventilation	All of the apartments and tourist accommodation will have openable windows improving the liveability of the bedrooms and living areas. While this will reduce energy consumption, it will also improve the connection to the outdoors and allow for fresh air into these spaces.	Architect
2.2.B	Daylight	Windows have been provided to the corridors on each floor, allowing good levels of natural light into these spaces that would otherwise rely on 100% artificial lighting.	Architect



		All bedrooms and living rooms have been provided with large windows to allow for abundant natural light. The majority of bathrooms also have windows. This design initiative will allow for high indoor environment quality, while also minimising the need for lighting thus reducing energy consumption.	
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

2.3 Energy

The following describes items relating to Energy included in this project.

#	Initiative	Description	Responsibility
2.3.A	Building Fabric	Where appropriate, the building will include additional insulation that significantly improves upon the NCC reference case. Actual building fabric system performance values will be confirmed following detailed energy modelling.	ESD Consultant / Architect
2.3.B	Glazing	High performance double glazing, most likely with a warm grey tint will be provided throughout the development to provide good performance and reduce solar heat gain. Actual glazing thermal performance will be confirmed following detailed energy modelling.	ESD Consultant / Architect
2.3.C	Solar PV	The project includes an indicative area of 260m ² for the inclusion of solar photovoltaic (PV) panel. This area can accommodate a total system size of 30kWp, which can generate approximately 40MWh per annum with a 10° inclination. This energy will be used for common area services and the feasibility for future battery storage will explored at a later stage. Detailed modelling may be undertaken at a later date to optimise the solar layout.	ESD Consultant / Contractor
2.3.D	HVAC	The building's heating and cooling will be provided by efficient VRF / VRV systems. These systems generally have a coefficient of performance (COP) of at least 3.5, but can achieve COPs of greater than 5.0 depending on the system configuration and environmental conditions.	Mechanical Designer / Contractor
2.3.E	Lighting	The project will generally include energy-efficient LEDs throughout. This initiative will enable the development to achieve an overall lighting power density of no more than 4W/m ² .	Lighting Designer / Contractor
2.3.F	Lighting Control	Common area lighting, excluding safety lighting, will be provided with daylight/motion sensors where applicable.	Lighting Designer / Contractor



2.3.G	Domestic Hot Water System	The project proposes a bulk hot water storage system to reduce overall energy consumption and greenhouse gas emissions when compared with having individual units for each apartment. There is the potential to incorporate a solar boosted option, this will be confirmed at a later date once further analysis has been conducted.	Hydraulic Consultant / Contractor
2.3.H	Appliances	Whitegoods that are included in the development, such as dishwashers, will have a minimum 4 Star Energy Rating.	Architect / Contractor

2.4 Transport

The following describes items relating to Transport included in this project.

#	Initiative	Description	Responsibility
2.4.A	Bicycle Parking Facilities	The proposed car stacker has been selected with the ability to park both a car and bicycle in each apartment's parking space. Visitor car parking spaces have also been provided off Laycock Lane. The care stacker will be accessible at grade to allow for ease of access and avoid cyclists having to unnecessarily lift their bikes.	Architect / Contractor
2.4.B	Walk Score	Based on the project's location, the Walk Score for the site is 87. This means that the project is within close proximity of key businesses and shops allowing for most errands can be accomplished on foot.	Architect

2.5 Water

The following describes items relating to Water included in this project.

#	Initiative	Description	Responsibility
2.5.A	Efficient Fixtures and Fittings	Through the use of water-efficient fixtures and fittings the development intends to reduce its potable water consumption wherever possible. As a guide selections for fittings and fixtures would include WELS 6 Star taps, 4 Star toilets, and 3 Star showers.	Architect / Contractor
2.5.C	Landscape Irrigation	It is intended that if required, landscape irrigation will be efficient and most likely delivered via water saving sub-surface drip systems.	Landscape Designer / Contractor



2.6 Materials

The following describes items relating to Materials included in this project.

#	Initiative	Description	Responsibility
2.6.A	Construction & Demolition Waste	During demolition and construction phases, the contractor is to ensure as much material is recycled as practical. Individual bins to separate waste streams will improve recycling rates on site. Sandstone from the existing dwelling may also be recycled (See Section 2.6C).	Contractor
2.6.B	Sustainable Timber	All major timber in this development will be sustainably sourced and hold either FSC or PEFC/AFS certification.	Architect / Contractor
2.6C	Reuse of Materials	To both incorporate recycled materials and tie the building to Glenelg's Heritage the building may boast the reuse of local materials. This could include the recycling and re-use of the demolished dwellings sandstone and the potential inclusion of recycled timber from the Buffalo.	Architect / Designer / Contractor

2.7 Land Use & Ecology

The following describes items relating to Land Use & Ecology included in this project.

#	Initiative	Description	Responsibility
2.7.A	Large Balconies	Each residence is provided with large balconies with floor waste traps to encourage outdoor living and urban-scale gardening.	Architect / Contractor
2.7.B	Deep Soil Zones	Buffer zones have been provided at the rear and side of the site. These have been incorporated where possible between the neighbouring homes and the building.	Landscape Designer / Contractor

2.8 Emissions

The following describes items relating to Emissions included in this project.

#	Initiative	Description	Responsibility
2.8.A	Waterless Heat Rejection	The building does not utilise any heat-rejection water. This is achieved through the adoption of VRF / VRV heating and cooling.	Mechanical Designer / Contractor
2.8.B	Light Pollution	All external lighting that is not required for pedestrian safety will be positioned to avoid direct light pollution to the night sky.	Lighting Designer / Contractor



3 Council ESD Requirements and Objectives

The following table provides a summary of the overall design response in relation to Council requirements and objectives.

#	Objective	Design Response
Holdfast Bay Council Development Plan, Page 10.	<p>Council Strategic Setting:</p> <p><i>"The Council is committed to building a strong community, creating a sustainable environment, delivering economic prosperity, and enhancing city design and function along with investments in bike paths and delivery of the shared-use metropolitan Coast Park through the Council area."</i></p>	<p>The development's design approach was to capture the essence of Glenelg community living, engage with the location and to be sustainable through the embedded environmentally responsive design.</p> <p>While the addition of the 38 tourist accommodation apartments will offer additional employment opportunities for local residents of the Glenelg community.</p>
Holdfast Bay Council Development Plan, Page 34.	<p>Overshadowing</p> <p><i>"10 The design and location of buildings should enable direct winter sunlight into adjacent dwellings and private open space and minimise the overshadowing .."</i></p>	<p>During the design process overshadowing has been taken into consideration, based on both existing and the approved addition of a 14 story hotel, which is in close proximity.</p>
Holdfast Bay Council Development Plan, Page 36.	<p>PRINCIPLES OF DEVELOPMENT CONTROL</p> <p><i>"1 Development should provide for efficient solar access to buildings and open space all year around.</i></p> <p><i>2 Buildings should be sited and designed:</i></p> <p><i>(a) to ensure adequate natural light and winter sunlight is available to the main activity areas of adjacent buildings</i></p> <p><i>(b) so that open spaces associated with the main activity areas face north for exposure to winter sun</i></p> <p><i>(c) to promote energy conservation by maintaining adequate access to winter sunlight to the main ground level of living areas of existing dwellings on adjoining land.</i></p> <p><i>3 Except for buildings that take advantage of coastal views, development should promote the efficient consumption of energy through the use of larger but appropriately shaded windows on the north and east building surfaces and</i></p>	<p>The building has been designed with solar access and natural light as a key design principle.</p> <p>The development has been designed to provide appropriate shading windows to the north and west of the building.</p> <p>Western windows have also been limited at approximately a 50/50 wall to glazing ratio combined with high performance glazing this will allow for adequate solar access while also minimising solar heat gain during summer from the western sun.</p>



	<i>smaller windows on the south and west building surfaces."</i>	
Holdfast Bay Council Development Plan, Page 36.	<p><i>On-site Energy Generation</i></p> <p><i>"4 Development should facilitate the efficient use of photovoltaic cells and solar hot water systems by:</i></p> <p><i>(a) taking into account overshadowing from neighbouring buildings</i></p> <p><i>(b) designing roof orientation and pitches to maximise exposure to direct sunlight.</i></p> <p><i>5 Public infrastructure and lighting, should be designed to generate and use renewable energy."</i></p>	<p>The development includes allowance for a potential 30kWp onsite energy generation system. The system will be on the roof of the building which will not be impacted by neighbouring overshadowing or vegetation for much of the year. However the proposed 14 Storey Hotel will most likely render the Solar PV somewhat redundant during the middle of winter.</p> <p>The relatively flat roof will allow for a maximum number of panels to be installed on the roof with minimal self-shading.</p> <p>It is the intent of the developer to use the Solar PV system to directly supply where possible and if not offset the buildings facilities.</p>
Holdfast Bay Council Development Plan, Page 64.	<p><i>Water Sensitive urban design</i></p> <p><i>"5. Development should be designed to maximise conservation, minimise consumption and encourage reuse of water resources."</i></p>	<p>The building will features water saving features throughout to minimise water usage wherever possible. This includes high efficiency taps, shower heads, toilets and appliances.</p>
Holdfast Bay Council Development Plan, Page 66.	<p><i>Biodiversity and Native Vegetation</i></p> <p><i>"26 Development should retain existing areas of native vegetation and where possible contribute to revegetation using locally indigenous plant species."</i></p>	<p>Minimal native vegetation is currently on the existing site, with the existing dwelling having a relatively sparse garden. The proposed development will incorporate native and drought tolerant vegetation.</p>
Holdfast Bay Council Development Plan, Page 86.	<p><i>Site Facilities and Storage</i></p> <p><i>"47 Site facilities for group dwellings, residential parks and residential flat buildings and should include:</i></p> <p><i>(b) bicycle parking for residents and visitors</i></p> <p><i>(c) household waste and recyclable material storage areas away from dwellings"</i></p>	<p>Adequate bicycle facilities will be available for both visitor and residential spaces available. Visitor facilities will be located outside the front of the building. While the residents will each have a space in the car stacker that allows sufficient space for both a car and a bicycle to be stored.</p> <p>As discussed on in the next row waste and recyclable storage areas will be located in a designated area on the ground floor. Sufficiently away from the dwellings on the floors above.</p>
Holdfast Bay Council Development	<p><i>Waste</i></p> <p><i>"Development that, in order of priority,</i></p>	<p>The waste disposal area for the development will be located in the ground floor basement area. It should be screened</p>



Plan, Page 105.	<i>avoids the production of waste, minimises the production of waste, reuses waste, recycles waste for reuse, treats waste and disposes of waste in an environmentally sound manner."</i>	<p>and separated from adjoining areas, designed and have an impervious surface to ensure that wastes cannot contaminate storm water.</p> <p>There will be a serviced waste collection point on each of the residential apartment levels.</p> <p>Waste will be collected privately and adequate bin space will be provided for the landfill and recycling waste.</p> <p>The ground floor has been designed to allow for trucks to pull in collecting the waste off of the street.</p>
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4 Conclusion

Based on the above inclusions and the client's commitment to ESD, the project satisfies council requirements for a development of this nature. The development has strived to achieve this through the design approach with its three main principles of capturing the essence of Glenelg's community living, engaging with the location all with a sustainable approach.





Appendix H

Opinion from Pyper Leaker Surveying Services regarding the titling associated with the Stacker System

Barrio Developments
Attn: Glen Vollebregt

13th June 2019

Hi Glen,

The cleanest and most efficient way of dealing with the car stacker is as I suggested in my earlier email. We would create 2 separate areas that can be referred to in the by-laws. The plan would label the areas as "Car Stacker". The Unit holders would have rights to use that particular area of at the exclusion of other Unit owners. I have attached an example C40885.

Regards,

David Pyper

Licensed Surveyor

Pyper Leaker Surveying Services Pty. Ltd.

C40885

SHEET 2 OF 7

53844_pland_1_V02_Version_4

BEARING DATUM: ① - ② 355°07'40"
DERIVATION: D111330 ADOPTED

TOTAL AREA : 337m²

CIRCUIT

WATERFORD

EAST PARKWAY

CUNNINGHAM

LANE

FOUR LEVEL
BUILDING

BALCONY
ELEVATION

GARAGE

BALCONY

355°07'40"
19.35

40°07'40"
8.70

85°07'40"
6.85

27.50
175°07'40"

①
310°07'40"
2.83

VIDE

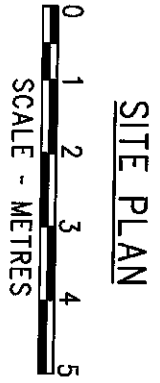
11.00
265°07'40"

A7

A7

A7

D111330



C40885

SHEET 3 OF 7

53844_pland_2_V02_Version_4

CIRCUIT

WATERFORD

EAST
PARKWAY

LIFT PIT

CAR STACKER
PIT

CUNNINGHAM

LANE

D111330



BASEMENT LEVEL PLAN

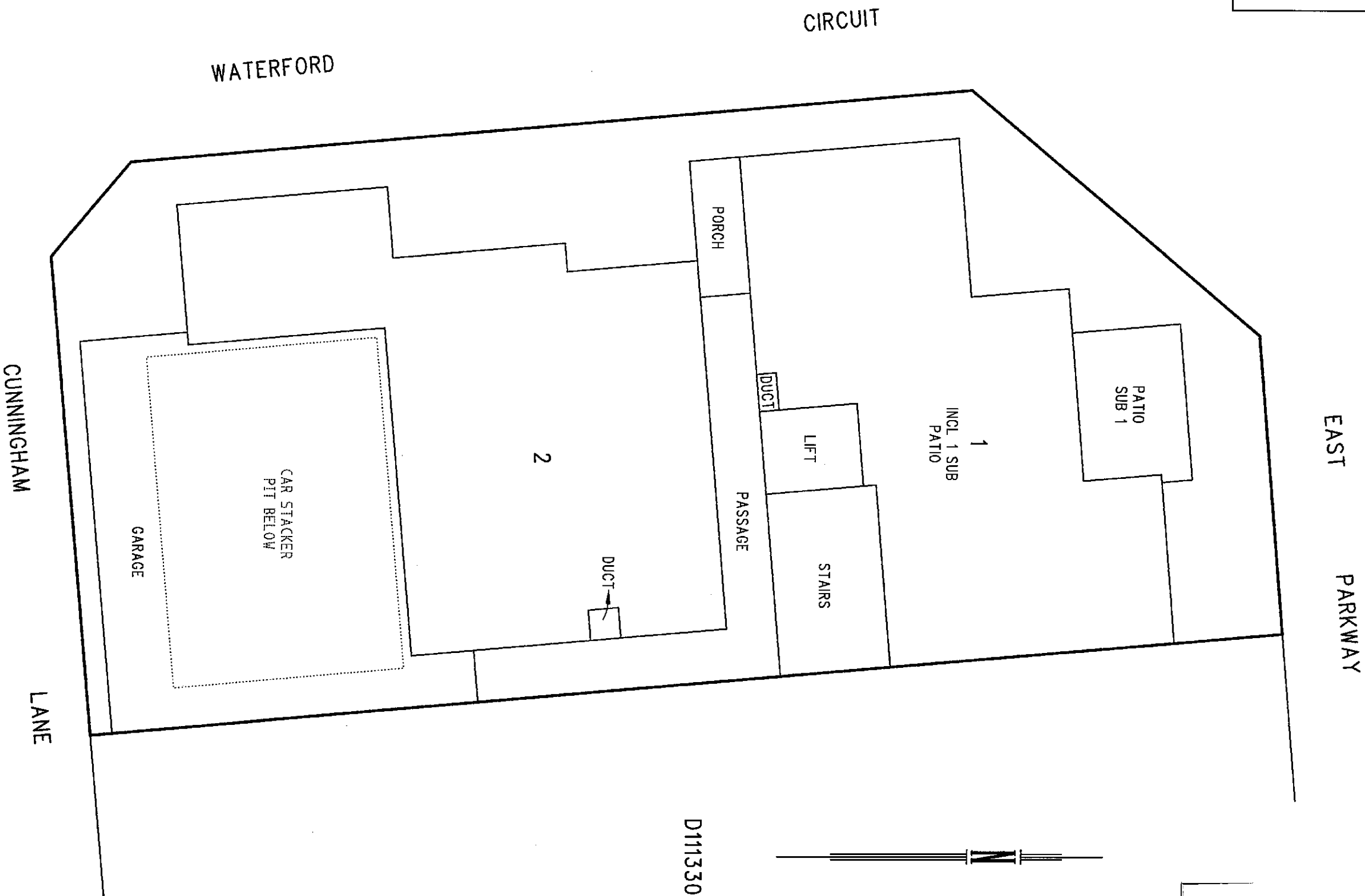


C40885

SHEET 4 OF 7

53844_pland_3_V02_Version_4

NOTE:
PATIO IS COVERED



GROUND FLOOR PLAN



C40885

SHEET 5 OF 7

53844_pland_4_V02_Version_4

NOTE:
BALCONIES ARE COVERED

EAST PARKWAY

CIRCUIT

WATERFORD

CUNNINGHAM

LANE

BALCONY
SUB 3

3
INCL 1 SUB
BALCONY

LIFT

STAIRS

PASSAGE

DUCT

4
INCL 1 SUB
BALCONY

DUCT

BALCONY
SUB 4

GARAGE

D111330



FIRST FLOOR PLAN

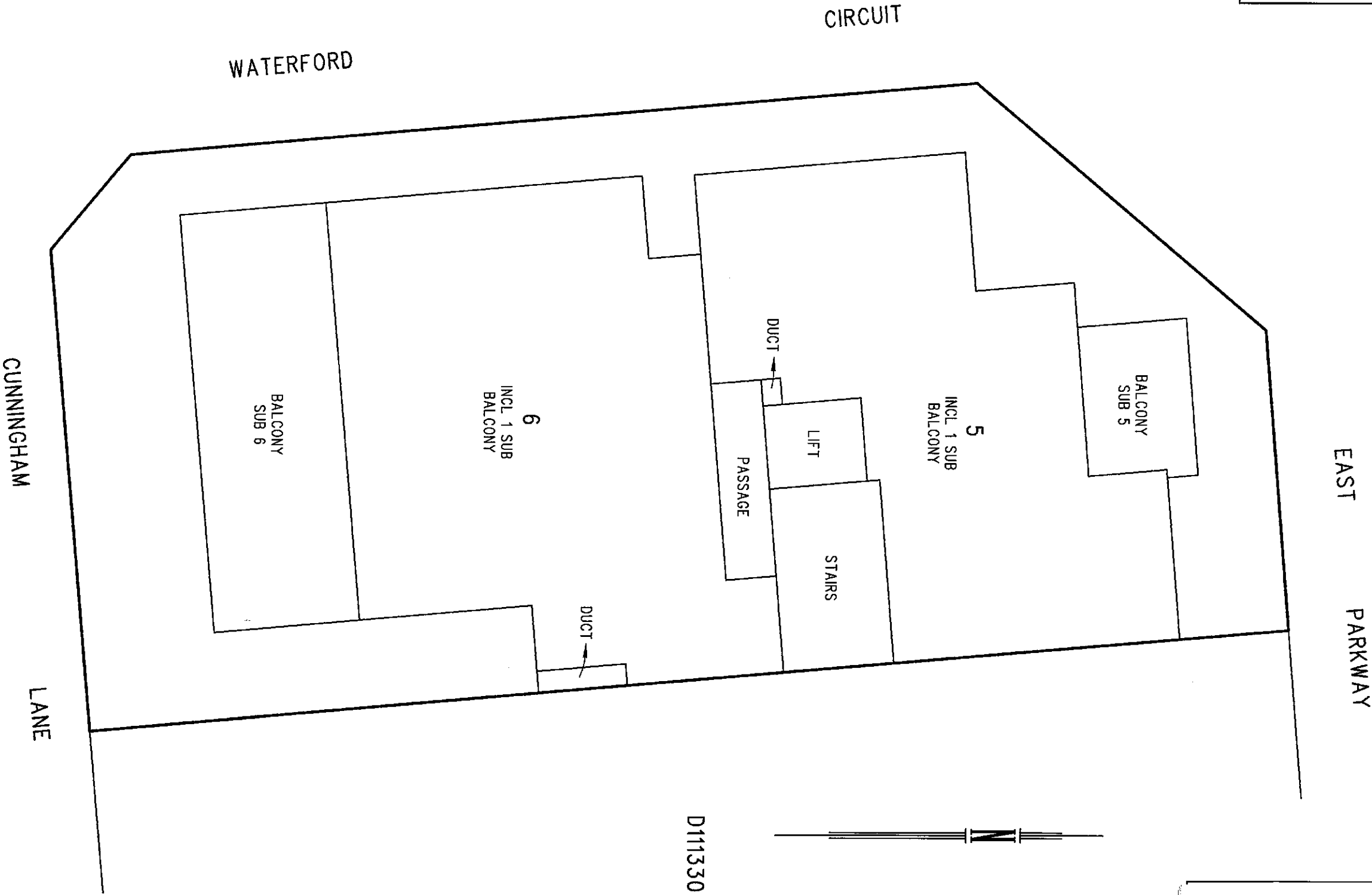


C40885

SHEET 6 OF 7

53844_pland_5_V02_Version_4

NOTE:
BALCONIES ARE COVERED



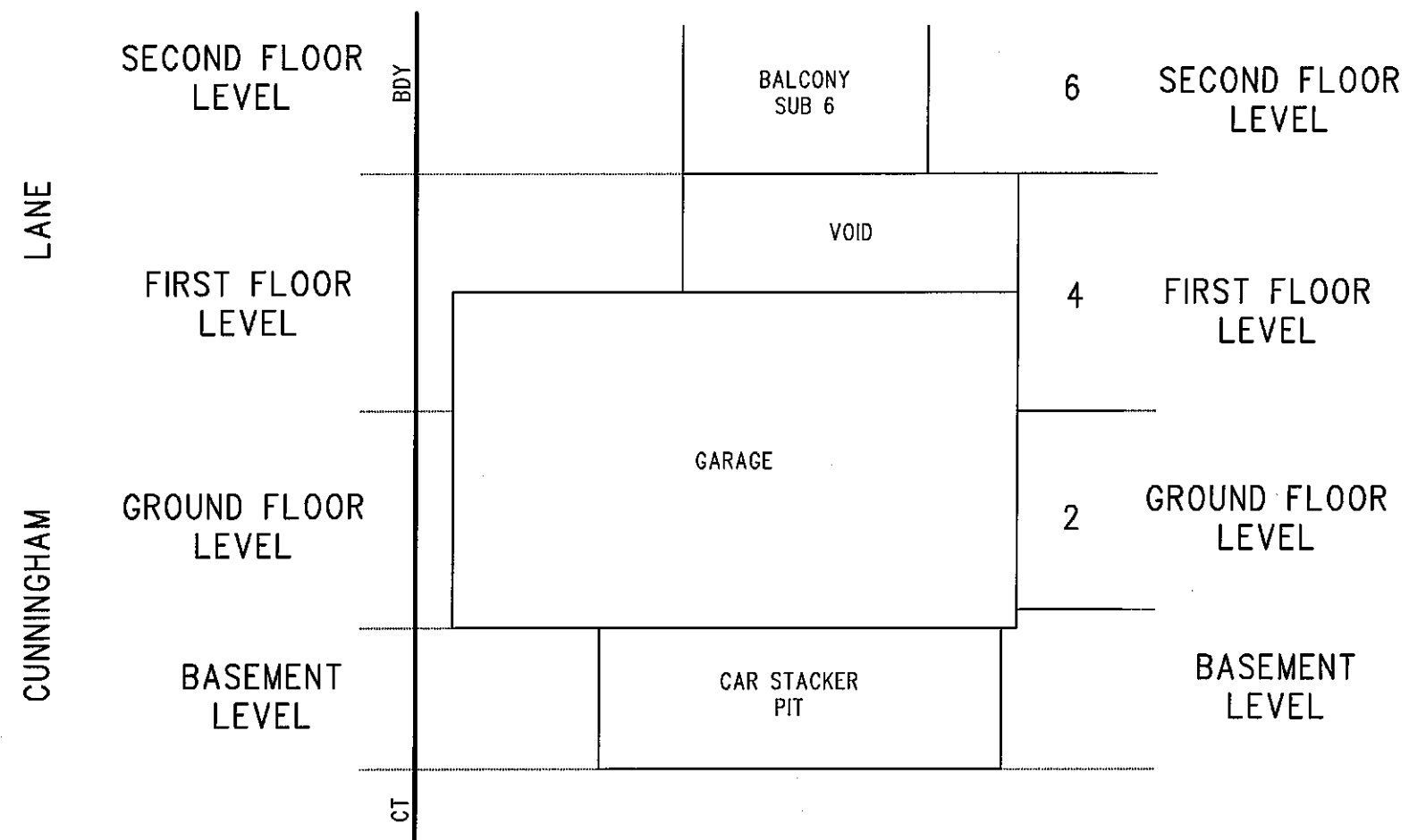
SECOND FLOOR PLAN

0 1 2 3 4 5
SCALE - METRES

C40885

SHEET 7 OF 7

53844_pland_6_V02_Version_4



ELEVATION A7

NOT TO SCALE

LOT ENTITLEMENT SHEET

COMMUNITY PLAN NUMBER

C40885

SHEET 1 OF 1

ACCEPTED

PRO REGISTRAR-GENERAL

DEV. NO. 040 : C101 : 16 :

APPLICATION: 12721503

SCHEDULE OF LOT ENTITLEMENTS		
LOT	LOT ENTITLEMENT	SUBDIVIDED
1	1,320	
2	1,360	
3	1,570	
4	1,710	
5	1,810	
6	2,230	
AGGREGATE	10,000	

CERTIFICATE OF LAND VALUER

I, JEFFREY WOOD

being a land valuer within the meaning of the
Land Valuers Act 1994 certify that the
schedule is correct for the purposes of the
Community Titles Act 1996.

Dated the 7TH day of APRIL 2017

Signature of Land Valuer



Appendix I

Stormwater management plan prepared by Structural Systems

NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL ASSOCIATED DRAWINGS/SPECIFICATIONS AND ANY DISCREPANCIES TO BE DIRECTED TO THE DESIGNER FOR CLARIFICATION.
- ALL WORK EXTERNAL TO SITE BOUNDARY TO BE CARRIED OUT TO COUNCIL REQUIREMENTS.
- USE FLEXIBLE CONNECTION FOR STORMWATER PIPES.
- THIS IS NOT A CADASTRAL PLAN AND SHOULD NOT BE USED IN DETERMINING PRECISE DIMENSIONS WITH RESPECT TO BOUNDARIES.
- ALL U.P.V.C. PIPES LESS THAN 200mm BELOW THE SURFACE ON THE DRIVEWAY TO BE ENCASED IN 100mm CONCRETE.
- PIPES LESS THAN 300mm IN DEPTH (FROM TOP OF PIPE) MUST HAVE CONCRETE COVER.
- BUILDERS/ CONTRACTORS TO CHECK FOR ANY UNDERGROUND SERVICES PRIOR TO CONSTRUCTION.
- STORMWATER TANK TO BE PLUMBED TO LAUNDRY \ WC - REFER TO ARCHITECTURAL DRAWINGS, OWNER, BUILDER, DEVELOPER FOR DETAILS.
- IT IS THE RESPONSIBILITY OF THE OWNER/BUILDER TO ENSURE THAT FINISHED LEVELS AS PROPOSED BY ENGINEER BE ADEQUATE AS TO GET DESIRED FALL TO SEWERAGE INVERT. OWNER/BUILDER/PLUMBING CONSULTANT/PLUMBER MUST CHECK EXISTING SEWERAGE CONNECTION POINT INVERT TO ENSURE THAT PROPOSED FINISHED LEVELS ARE ADEQUATE PRIOR TO COMMENCEMENT OF ANY WORK.

LEGEND:

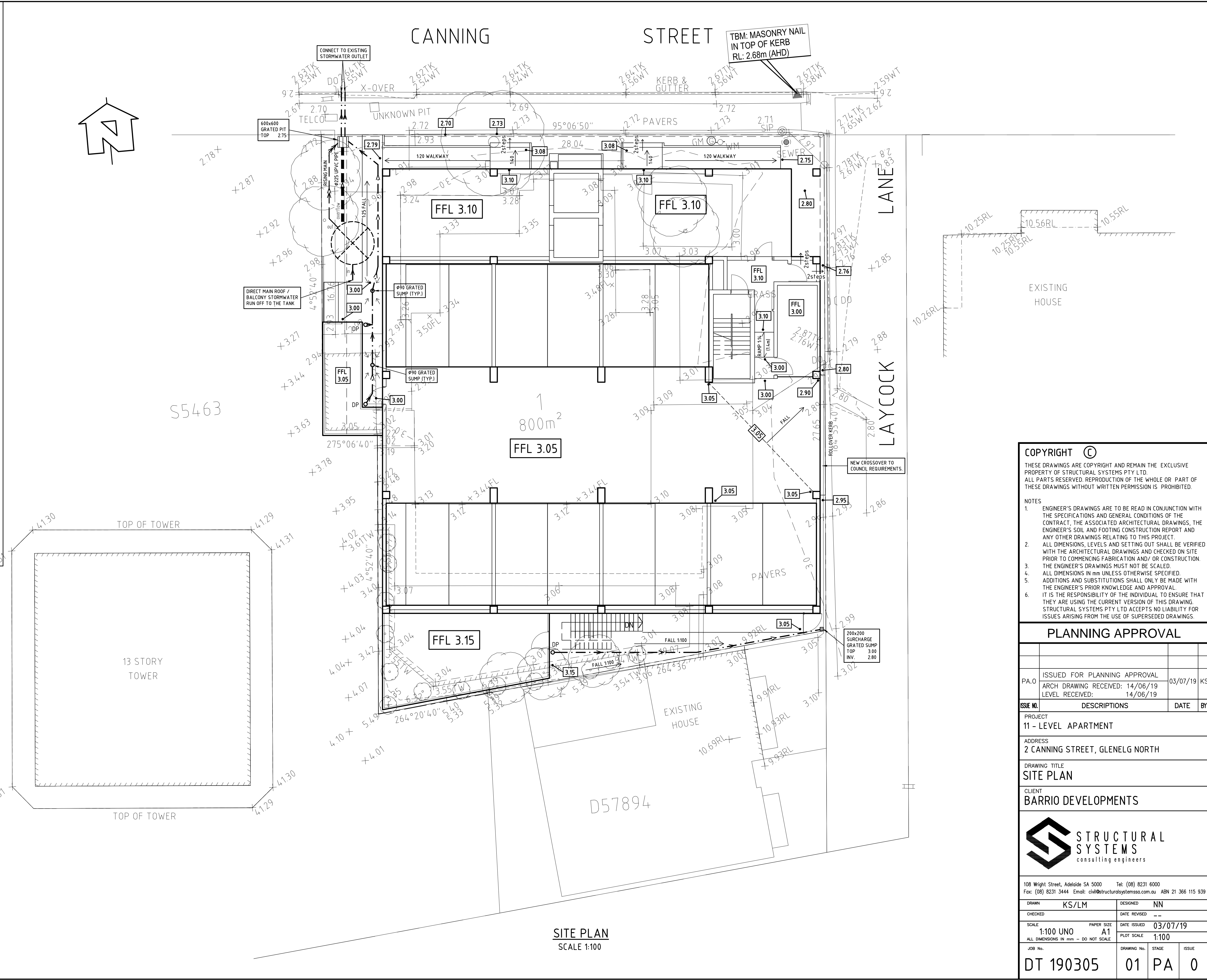
- STORMWATER ALIGNMENT
Ø100 UPVC PIPE
- STORMWATER ALIGNMENT
Ø225 UPVC PIPE
- UNDER GROUND SEALED
SYSTEM Ø100 UPVC PIPE
- STORMWATER RISING MAIN
- DOWNPIPE
- Ø90 GRATED SUMP (TYP.)
- OPEN UNLINED SURFACE
DRAIN AT MIN FALL 1 in 200
- EXISTING LEVEL
- 1 (VERTICAL) : 2 (HORIZONTAL)
(MAX.) BATTER
- DESIGN LEVEL
- DESIGN CONTOUR
- INSPECTION OPENING
- SEWER I.P.
- SUMP
- JUNCTION BOX
- CONCRETE SLEEPER RETAINING WALL

INDICATES 9000L CONCRETE UNDERGROUND DETENTION TANK WITH BUILT IN DUAL PUMP & ALARM. PUMP OUT RATE 9L/S. PROVIDE OVERFLOW TO GRATED SUMP. DIRECT STORMWATER FROM UPPER ROOF & BALCONY TO TANK.

PROVIDE PERIMETER CONCRETE KERBING AS REQUIRED.

NOTE:
BUILDER/CONTRACTOR TO ENSURE UNDERGROUND TANK ARE INSTALLED OUTSIDE EXISTING OR PROPOSED FOOTING INFLUENT ZONE. OUR OFFICE SHALL BE CONTACTED FOR ADVISE & RECOMMENDATION IF THERE IS POSSIBILITY OF DESTABILIZING EXISTING OR PROPOSED STRUCTURE AS THE RESULT OF UNDERGROUND TANK INSTALLATION.

NOTE:
ALL UNDERGROUND TANK MUST BE DESIGNED & BUILT WITH ANTI-FLOATATION SYSTEM TO MANUFACTURER'S SPECIFICATIONS TO OVERCOME HYDROSTATIC PRESSURE (UPLIFT) ASSOCIATED WITH UNDERGROUND TANK. ALL UNDERGROUND TANK MUST BE DESIGNED & INSTALLED STRICTLY AS PER MANUFACTURER'S REQUIREMENTS / SPECIFICATIONS FOR ITS INTENDED USE. ALL SITE FACTORS SHALL BE CONSIDERED SUCH AS TRAFFIC LOAD, CORROSION... etc.



SITE PLAN
SCALE 1:100

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PLANNING APPROVAL

PA.0	ISSUED FOR PLANNING APPROVAL ARCH DRAWING RECEIVED: 14/06/19 LEVEL RECEIVED: 14/06/19	03/07/19	KS
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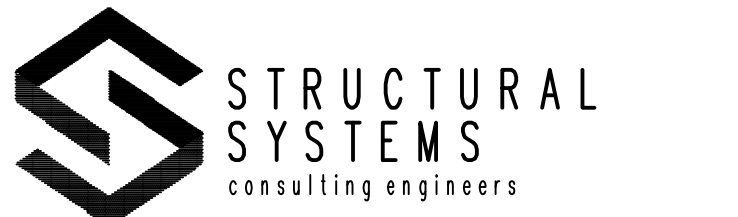
ISSUE NO.	DESCRIPTIONS	DATE	BY
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PROJECT
11 - LEVEL APARTMENT

ADDRESS
2 CANNING STREET, GLENELG NORTH

DRAWING TITLE
SITE PLAN

CLIENT
BARRIO DEVELOPMENTS



108 Wright Street, Adelaide SA 5000 Tel: (08) 8231 6000
Fax: (08) 8231 3444 Email: civil@structuralsystems.com.au A8N 21 366 115 939

DRAWN	KS/LM	DESIGNED	NN
CHECKED		DATE REVISED	--
SCALE	1:100 UNO	PAPER SIZE	A1
DATE ISSUED	03/07/19	PLOT SCALE	1:100
ALL DIMENSIONS IN mm - DO NOT SCALE			
JOB No.	DT 190305	DRAWING No.	01
STAGE	PA	ISSUE	0

STAGE ABBREVIATION: P=PRELIMINARY, DS=ENGINEERING DESIGN STAGE, PA=FOR PLANNING APPROVAL, T=TENDER, BA=BUILDING APPROVAL, C=FOR CONSTRUCTION



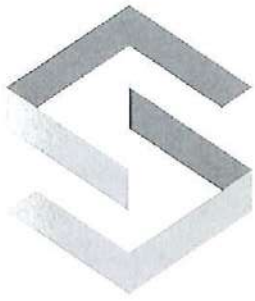
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ABN 21 366 115 939

Date Issued	Wednesday, 3 July 2019
Job No	DT 190305
Site	2 CANNING STREET, GLENELG NORTH
Client	BARRIO DEVELOPMENTS
Proposed	11 - LEVEL APARTMENT

HYDROLOGICAL ANALYSIS

Engineering Drawings
DT 190305.01.PA.0 Site Plan



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Date Issued

Wednesday, 3 July 2019

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Site

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Client

BARRIO DEVELOPMENTS

Proposed

11 - LEVEL APARTMENT

Eng

NN

Based on Council provide flood map &
extract from "Marion & Hedbert Bay flood mapping
2013" estimate flood depth at the most critical
point at North West corner is 0.2m - 0.4m

Based on detail survey, existing level at this location
2.53 AHD

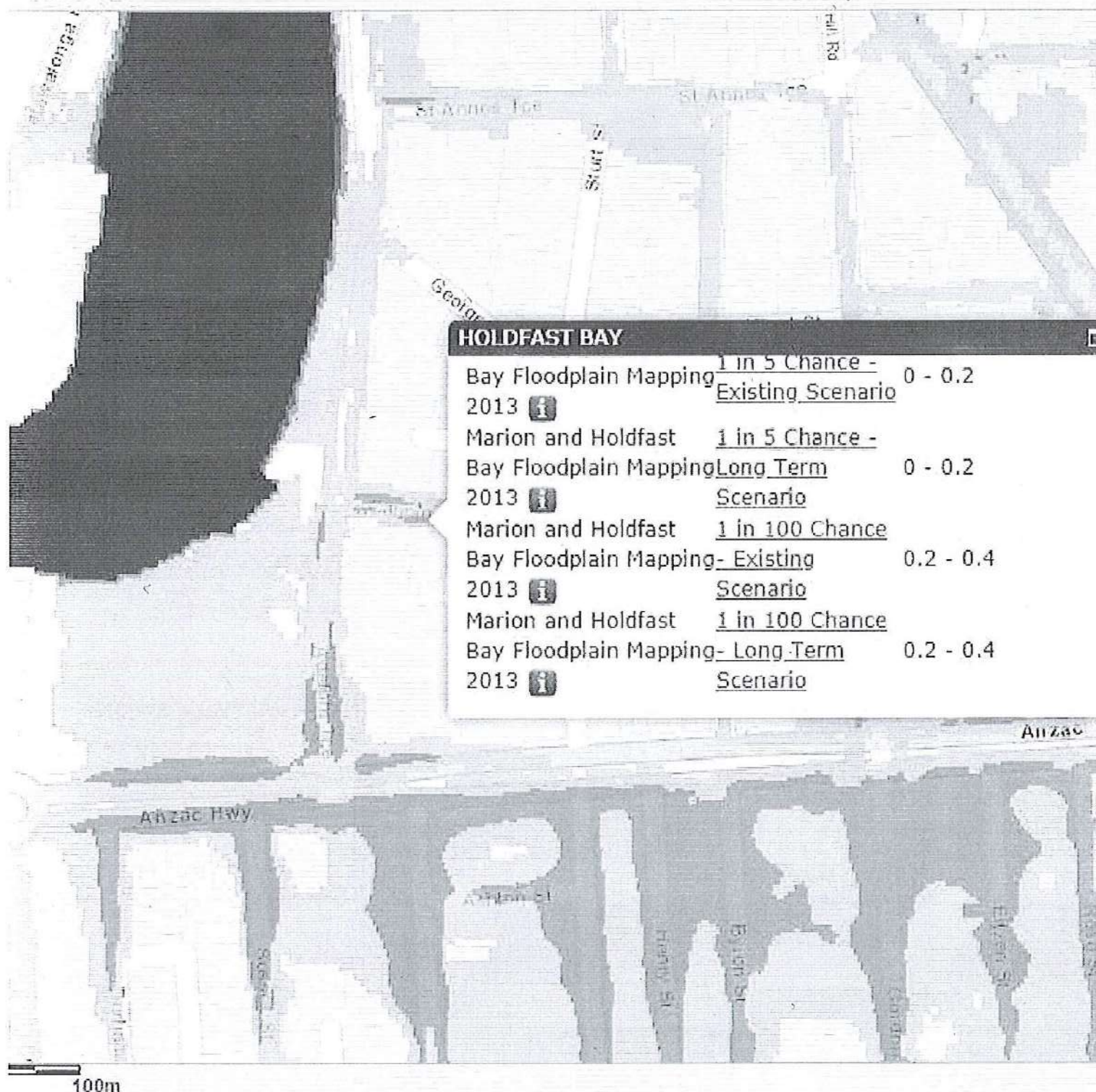
→ Design flood level adopt $2.53 + 0.4 = 2.93$ AHD

Adopt 0.15m freeboard → design FFL: 3.10 AHD

Based on available information, this proposed FFL
will be sufficient protect the proposed property in
1 in 100 years ARI storm event.

NING STREET, GLENELG NORTH, SOUTI **Q**

please be aware of the assumptions and limitations of flood maps. For further information refer to the FAQ link link on t
lood free land.

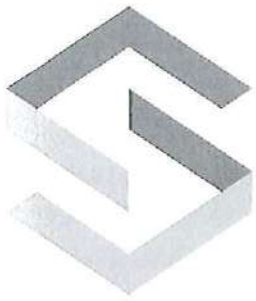


ood map you can either:

Click on a study name in the right hand column and click on one of the layers for that study. When the Auto Zoom Map box will automatically zoom to the extent of the selected map layer, or

Use the search feature in the boxes directly above the map and either type in an address and selecting the correct address in box, choose a Suburb or choose a Council Area. Click on any point of the map and a text box will appear with flood information.

Flood depth is available for some flood map layers by clicking on a location on the map.



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E: civil@structuralsystemssa.com.au

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Client	BARRIO DEVELOPMENTS
Proposed	11 - LEVEL APARTMENT
Eng	NN

Pre development:

The site consist of existing single storey house with extensive garden and paving.

Measured catchment areas:

$$A_{site} = 800 \text{ m}^2$$

$$A_{roof} = 342 \text{ m}^2$$

$$A_{pav} = 298 \text{ m}^2$$

$$A_{garden} = 160 \text{ m}^2$$

Estimate discharge rate to Canning street for $t_c = 6 \text{ mins}$

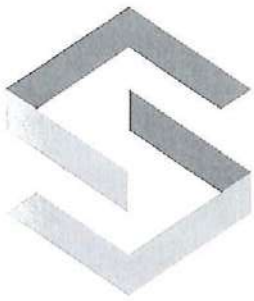
$$Q_5 = 10.8 \text{ L/s}$$

$$Q_{10} = 13.8 \text{ L/s}$$

$$Q_{100} = 30.2 \text{ L/s}$$

Council require post discharge rate not exceed predevelopment outflow rate.

Outlet discharge can be directed to Canning Street.
With discharge rate for 1 in 5 years ARI Storm not exceeding 10 L/s



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Client

BARRIO DEVELOPMENTS

Proposed

11 - LEVEL APARTMENT

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Post development.

Proposed development is a multi storey building.

Area of main roof & balcony can be directed to detention tank

$$A_{\text{roof1}} = 689 \text{ m}^2 \rightarrow \text{direct to detention tank}$$

Area of roof that not contribute to detention tank

$$A_{\text{roof2}} = 15 \text{ m}^2 + 23 \text{ m}^2 = 38 \text{ m}^2$$

(laundry store)

Paving area that not cover by roof:

$$A_{\text{pav}} = 18 \text{ m}^2 + 5 \text{ m}^2 + 2 \text{ m}^2 = 25 \text{ m}^2$$

(rear paving) (Front side paving)

Landscape area

$$A_{\text{garden}} = 48 \text{ m}^2$$

Estimated discharge rate from roof, paving, pervious area that not contribute to detention tank:

$$Q_{5(1)} = 1.2 \text{ L/s}$$

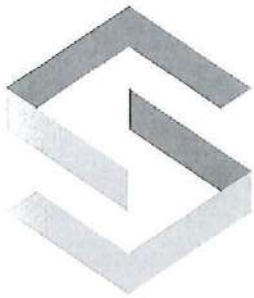
$$Q_{10(1)} = 1.5 \text{ L/s}$$

$$Q_{10(2)} = 3.2 \text{ L/s}$$

To satisfy Council requirement, allowable discharge rate from detention tank must not exceed.

$$Q_{5(2)} = Q_5 - Q_{5(1)} = 10.8 - 1.2 = 9.6 \text{ L/s}$$

$$Q_{10(2)} = Q_{10} - Q_{10(1)} = 13.8 - 1.5 = 12.3 \text{ L/s}$$



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Proposed

11 - LEVEL APARTMENT

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$$Q_{100(2)} = Q_{100} - Q_{100(1)} = 30.2 - 3.2 = 28 \text{ L/s}$$

Trial 7000 L Under-ground tank for detention
($\phi 2.4 \text{ m} \times 2.4 \text{ m H}$)

Refer Drain analysis output & input for estimated
discharge outlet rate to Street WT.

For pump at 8-9 L/s pump out rate

Minor storm event 0.2 EY (1 in 5 years ARI)

$$Q_{out max} = 8 \text{ L/s} < Q_{5(2)}$$

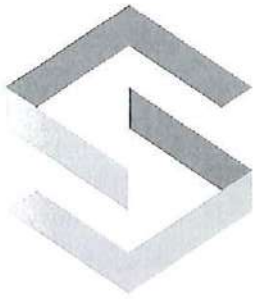
Major storm event 1% AEP (1 in 100 years ARI)

$$Q_{out max} = 9 \text{ L/s} < Q_{100(2)}$$

PASS.

Maximum require detention volume is $\approx 7000 \text{ L}$ at
most critical major storm event.

With contribution of detention tank, post development flow rate
less than predevelopment flow and less than 16 L/s
in 1 in 5 years ARI critical storm event.



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Wednesday, 3 July 2019

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BARRIO DEVELOPMENTS

Proposed

11 - LEVEL APARTMENT

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Trial Ri. industrial 9090L Under ground
tank. Tank size ϕ 2.44m x 2.46m height
Internal tank size estimated
 ϕ 2.24m x 2.3m
Tank cover 150mm.
Tank height included cover: $2.46 + 0.15 = 2.61$ m
Adapt tank invert. 0.1m AHD

Date
03.07.19

Job Number
DT 190305

Site
2 CANNING STREET, GLENELG NORTH

Engineer
NN



DRAIN DIAGRAM - N.T.S

PIT / NODE DETAILS

Name	Type	Family	Version 14 Size	Ponding Volume (cu m)	Pressure Change Coeff. Ku	Surface Elev (m)	Max Pond Depth (m)	Base Inflow (cu m/s)	Blocking Factor	x	y	Bolt-down lid	Part Full Shock Los	Inflow Hydrograph	Pit is	Internal Width (mm)	Inflow is Misaligned	Minor Safe Pond Dept (m)	Major Safe Pond Depth (m)
N1	Node					6.5		0		419	-363	1			No				
OUT1	Node					2.75		0		833	-374	7			No				

DETENTION BASIN DETAILS

Name	Elev	Surf. Area	Not Used	Outlet Typ	K	Dia(mm)	Centre RL	Pit Family	Pit Type	x	y	HED	Crest RL	Crest Leng	id
Detention	0.1	3.94		None						568	-389	No			6
	0.2	3.94													
	0.3	3.94													
	0.4	3.94													
	0.5	3.94													
	0.6	3.94													
	0.7	3.94													
	0.8	3.94													
	0.9	3.94													
	1	3.94													
	1.1	3.94													
	1.2	3.94													
	1.3	3.94													
	1.4	3.94													
	1.5	3.94													
	1.6	3.94													
	1.7	3.94													
	1.8	3.94													
	1.9	3.94													
	2	3.94													
	2.1	3.94													
	2.2	3.94													
	2.3	3.94													

SUB-CATCHMENT DETAILS

Name	Pit or Node	Total Area (ha)	Paved Area %	Grass Area %	Supp Area %	Paved Time (min)	Grass Time (min)	Supp Time (min)	Paved Length (m)	Grass Length (m)	Supp Length (m)	Paved Slope(%) %	Grass Slope %	Supp Slope %	Paved Rough	Grass Rough	Supp Rough	Lag Time or Factor	Gutter Length (m)	Gutter Slope %	Gutter FlowFactor	Rainfall Multiplier
Roof and E N1		0.0689	100	0	0	6	10	0										0				1

PIPE DETAILS

Name	From	To	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Type	Dia (mm)	I.D. (mm)	Rough	Pipe Is	No. Pipes	Chg From	At Chg	Chg (m)	RI (m)	Chg (m)	RL (m)	etc (m)
Pipe 1	N1	Detention Tank	10	6	5.1	9	uPVC, not	150	154	0.03	NewFixed	1	Detention Tank	0					

This model has no pipes with non-return valves

Date	Job Number	Site	Engineer
03.07.19	DT 190305	2 CANNING STREET, GLENELG NORTH	NN

DRAINS results prepared from Version 2019.03

PIT / NODE DETAILS

Name	Max HGL	Max Pond HGL	Version 8		Min Freeboard (m)	Overflow Constraint (cu.m/s)
			Max Surface Flow (cu.m/s)	Max Pond Volume (cu.m)		
N1	6.04		0.015			
OUT1	2.75		0			

SUB-CATCHMENT DETAILS

Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm
Roof and E	0.013	0.013	0	6	10	0	0.2EY AEP, 10 min burst, Storm 8

PIPE DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm
Pipe 1	0.013	3.27	6.042	5.14	0.2EY AEP, 10 min burst, Storm 8

CHANNEL DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm
------	----------------	-------------	--------------

OVERFLOW ROUTE DETAILS

Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV	Max Width	Max Due to Storm
Pump1	0.007	0.007					0.2EY AEP, 10 min burst, Storm 3

DETENTION BASIN DETAILS

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
Detention	0.48	1.5	0.007	0	0.007

Run Log for DT190305_Prel detention cal.drn run at 12:13:15 on 14/6/2019

DRAINS results prepared from Version 2019.03

PIT / NODE DETAILS

Name	Max HGL	Max Pond HGL	Version 8		Min Freeboard (m)	Overflow Constraint (cu.m/s)
			Max Surface Flow (cu.m/s)	Max Pond Volume (cu.m)		
N1	6.06		0.03			
OUT1	2.75		0			

SUB-CATCHMENT DETAILS

Name	Max Flow Q (cu.m/s)	Paved Max Q (cu.m/s)	Grassed Max Q (cu.m/s)	Paved Tc (min)	Grassed Tc (min)	Supp. Tc (min)	Due to Storm
Roof and Bal	0.027	0.027	0	6	10	0	1% AEP, 10 min burst, Storm 3

PIPE DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm
Pipe 1	0.027	3.85	6.063	5.163	1% AEP, 10 min burst, Storm 3

CHANNEL DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm
------	----------------	-------------	--------------

OVERFLOW ROUTE DETAILS

Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV	Max Width	Max V	Due to Storm
Pump1	0.009	0.009						1% AEP, 25 min burst, Storm 1

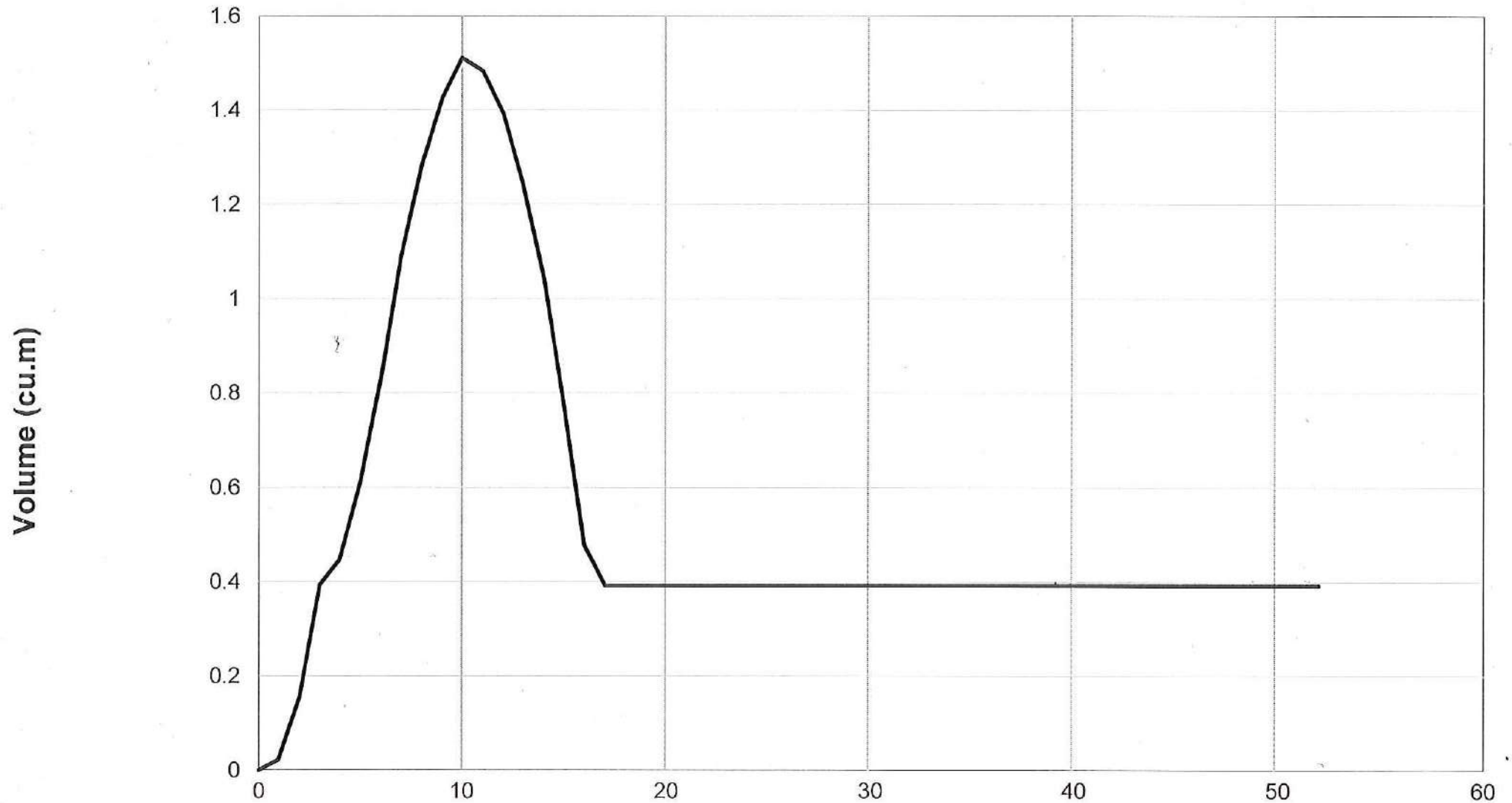
DETENTION BASIN DETAILS

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
Detention Tank	1.87	7	0.009	0	0.009

Run Log for DT190305_Prel detention cal.drn run at 12:13:15 on 14/6/2019

(1 in 5 years ARI)

Detention Tank Storage Volume - 0.2EY AEP, 10 min burst, Storm 3



Date

03.07.19

Job Number

DT 190305

Site

2 CANNING STREET, GLENELG NORTH

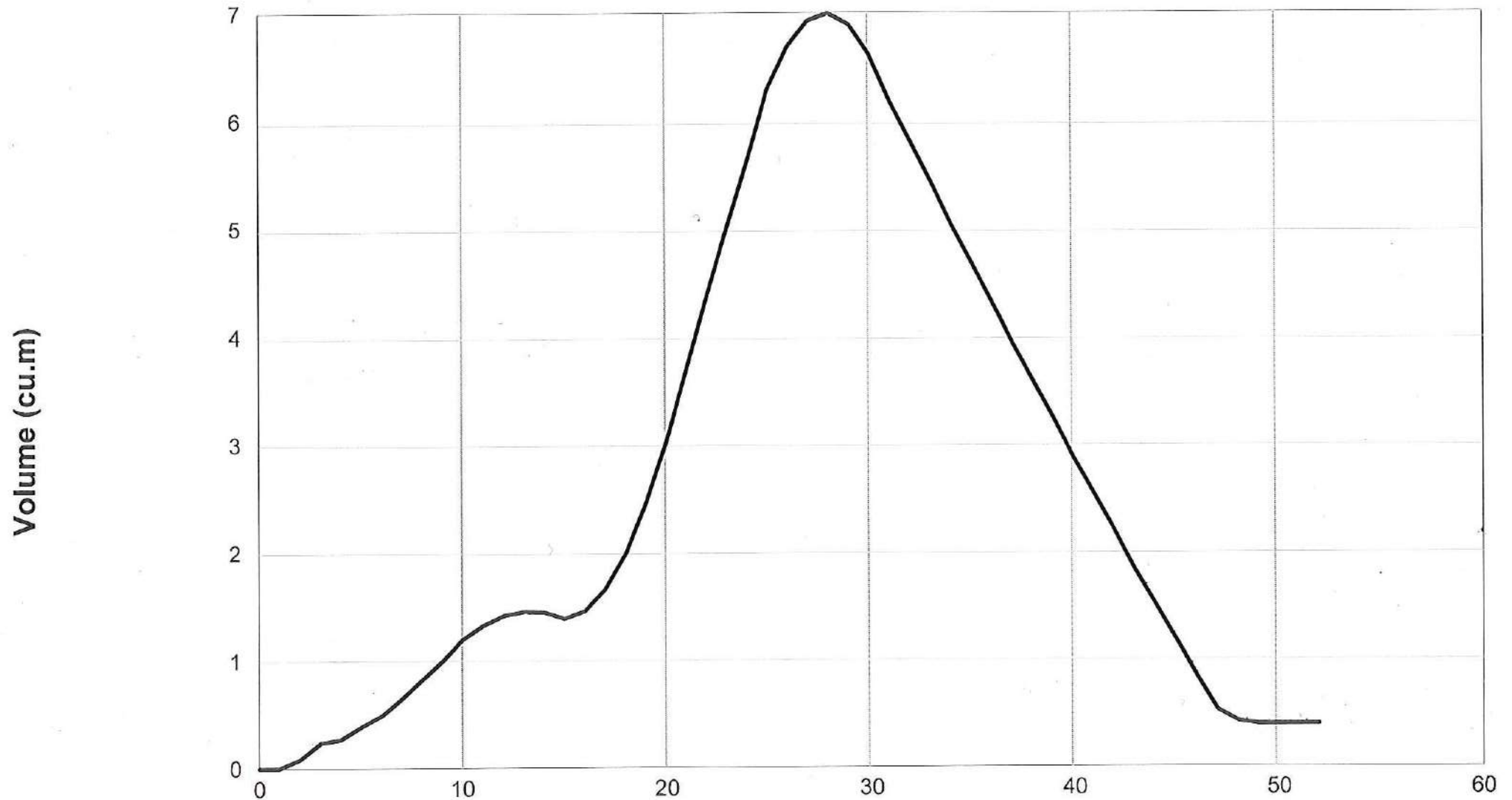
Engineer

NN

Time (mins)

1 in 100 years ARI

Detention Tank Storage Volume - 1% AEP, 25 min burst, Storm 1



Date
03.07.19

Job Number
DT 190305

Site
2 CANNING STREET, GLENELG NORTH

Engineer
NN

Time (mins)



Appendix J

Resonate Consultants acoustic assessment

Thursday, 20 June 2019

Project number: A190456

Reference: A190456LT1

Glen Vollebregt
Barrio Developments
Suite 625, 38 Gawler Place
PO Box 3571, Rundle Mall Adelaide SA 5000

Dear Glen,

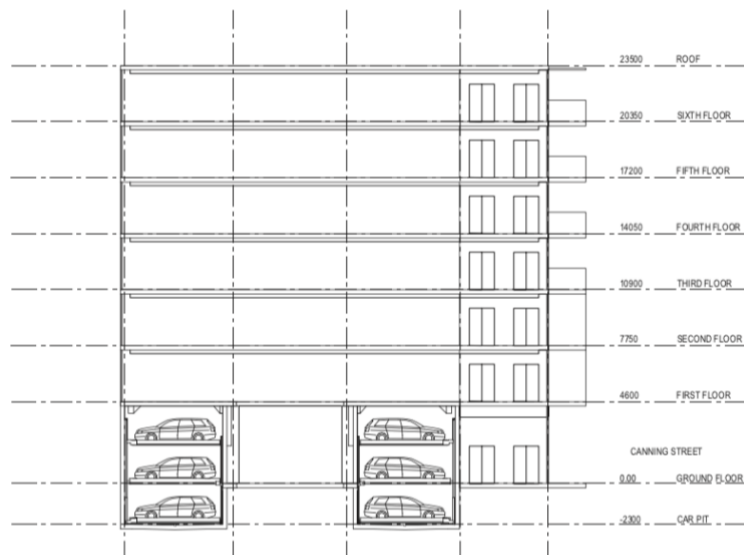
2 Canning Street - Car Stacker Noise Environmental Noise Assessment

This letter outlines the environmental noise assessment for the proposed residential development at 2 Canning Street, Glenelg North.

1 Proposed development

1.1 Noise source

As part of this development, a car stacker is to be used on the ground floor (with cars to be stacked one level above and one level below). A section through the building is shown in Figure 1, which demonstrates the layout of the car stacker.



Section - North South

Figure 1 Section showing car stacker

The car stacker system to be used is the Wohr Combilift 543 system.

1.2 Location

The site is located on the corner of Canning Street and Laycock Lane. The closest receptors are residential receptors across Laycock Lane to the east, and to the south west of the proposed site.

The site and residences to the north, east and south are located in a 'Residential High Density' zone, 'Urban Glenelg' Policy Area, 'Five Storey' Precinct. The adjacent land to the west is located in a 'Residential High Density' zone, 'Urban Glenelg' Policy Area, 'Twelve Storey' Precinct.

For the 'Urban Glenelg' Policy Area the following objectives are noted in the Development Plan:

OBJECTIVES

1. A policy area comprising tourist accommodation and a range of dwellings and residential flat buildings at medium to high densities.
2. Accommodation that provides a diversity of dwelling sizes within residential flat buildings that cater for different household requirements.
3. Retention of the heritage character, especially along South Esplanade in Precinct 4 Five Storey and Precinct 5 Twelve Storey.
4. Development that contributes to the desired character of the policy area/precinct.

On this basis, we believe that the site and the closest receptors are located in an area that primarily promotes residential land uses.

We note that to the South of the site is the Watermark Glenelg hotel, which has the potential to generate noise from activities such as deliveries and forklifts, music noise, patron noise, car park and drive through activity.

2 Environmental noise criteria

Environmental noise emissions from the proposed development should comply with the *Environment Protection (Noise) Policy 2007* (Noise EPP).

The noise goals in the Noise EPP are based on the zoning of the development and the closest noise affected premises in the relevant development plan. The land uses primarily promoted by the zones are used to determine the environmental noise criteria with the indicative noise factors shown in Table 1.

Table 1 Excerpt from Noise EPP—Table 2(subclause(1)(b))

Land use category	Indicative noise factor dB(A)	
	Day (7 am to 10 pm)	Night (10 pm to 7 am)
Rural living	47	40
Residential	52	45
Rural industry	57	50
Light industry	57	50
Commercial	62	55
General industry	65	55
Special industry	70	60

As noted above, the development and the most affected noise sensitive premises are located in zones in which residential land uses are primarily promoted.

In accordance with Part 5 of the Noise EPP, the relevant criteria for this development will be the relevant indicative noise factors less 5 dB(A). The application of Part 5 results in the following environmental noise criteria:

- 47 dB(A) during the day, 7 am to 10 pm
- 40 dB(A) at night, 10 pm to 7 am.

In addition, as the receivers are located in a 'quiet locality' (being residential) a maximum noise criterion of L_{max} 60 dB(A) is applicable.

3 Assessment

Noise measurements of the Wohn Combilift 543 system was undertaken in Melbourne on Friday, 14 June 2019.

Our assessment is based on these measurements, and to achieve the more stringent night time criteria of L_{eq} 40 dB(A) and L_{max} 60 dB(A) we recommend the following treatments:

- To west facade:
 - Open brick section to the north west—breezeblock (36 % open) comprising approximately 50% of this section of wall.
 - Remainder of wall to west to be solid.
- To east facade:
 - Solid garage door.
 - Open brick section to the north east (open to the waste area)
 - Remainder of wall to be solid.

These recommendations are indicated on Figure 2.

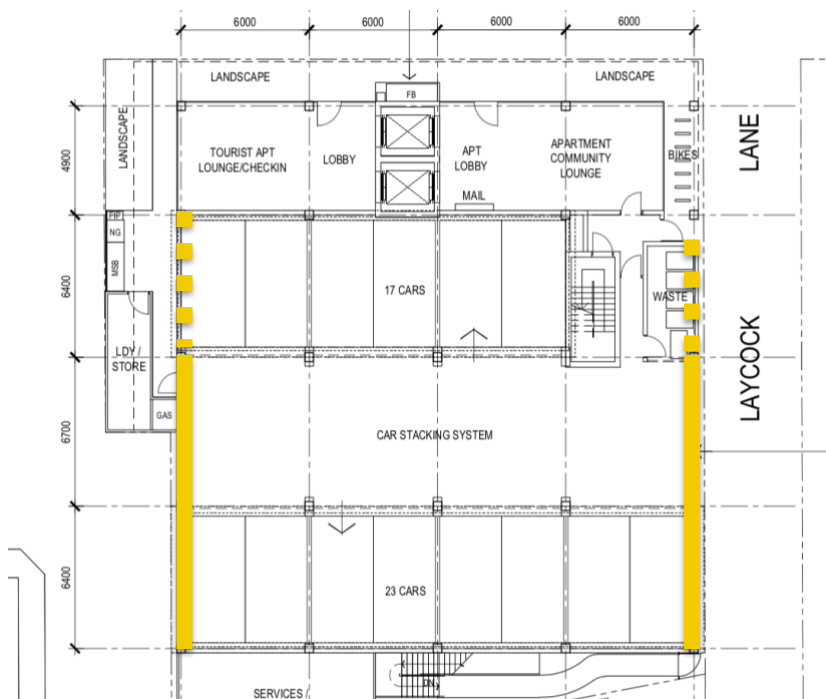


Figure 2 Indication of recommended facade treatments—dotted line is allowed to be partially open, solid line to be of solid construction

The solid sections can be a mix of brick and glass bricks to maintain natural light if desired.

Please let me know if you have any questions.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Deb James', with a stylized, flowing script.

Deb James
Managing Director
p+61 8 8155 5888
m+61 422 047 275
deb.james@resonate-consultants.com

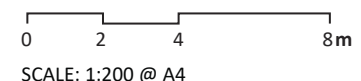


Appendix K

Height analysis prepared by URPS



Development should not exceed an external wall height of 18.5 metres above natural ground level (excluding lift service levels and gables).



FRONT ELEVATION **2 CANNING STREET,** **GLENELG NORTH**

JOB REF.	19ADL-0070
PREPARED BY.	MP
DATE.	01.07.19
REVISION.	1

