Rymill Park Apartments Pty Ltd and Rymill Park Apartments Unit Trust

Demolition of existing office building and construction of 16 level mixed use building

2-6 Hutt Street, Adelaide 5000

DA Number 020/A081/17

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OVERVIEW

Application No	020/A081/17		
Unique ID/KNET ID	2017/16435/01		
	Rymill Park Apartments Pty Ltd & Rymill Park Apartments Unit		
	Trust		
Proposal	Demolition of existing 2-storey office building and construction		
	of a 16-level mixed use building		
Subject Land	2-6 Hutt Street, Adelaide 5000		
Zone/Policy Area	Capital City Zone. No applicable Policy Area.		
Relevant Authority	State Commission Assessment Panel		
Lodgement Date	20 December 2017		
Council	City of Adelaide		
Development Plan	Adelaide (City) Development Plan, Consolidated 20 June 2017		
Type of Development	Merit		
Public Notification	Category 2		
Representations	12 representations received. See section 6.		
Referral Agencies	No statutory referrals required		
Report Author	David Barone, Consultant Planner		
RECOMMENDATION	Development Plan Consent subject to conditions		

EXECUTIVE SUMMARY

The application is for the demolition of an existing office building and the construction of a mixed use building of 16 levels comprising 2 basement car parking levels; ground floor with restaurant, apartment entry foyer and services; mezzanine with resident lounge, terrace, amenities and storage; car parking and bicycle storage on levels 1 and 2; and apartments on levels 3 to 14 inclusive.

The proposed building will provide 38 apartments of between one and four bedrooms, and ranging in floor area between 70m² and 445m². Private open space (of between 8m² and 145m²) and storage (of between 12.6m³ and 53.5m³) are provided to each apartment.

The restaurant will provide 135m² on the ground floor, excluding potential outside dining spaces to Hutt Street. A total of 56 car parking spaces (44 "standard" and 12 "small"), a secure enclosure for up to 46 residents' bicycles, and a rack for up to 6 visitors' bicycles are provided.

The building will have frontages to East Terrace and Hutt Street. A driveway accessed from Hutt Street will provide access to the basement car parks and the private lane known as Cleo Lane, will provide vehicle access to the upper-level car parks, to visitor bike parking (at ground level) and to waste storage and collection areas. Relocation of an existing stobie pole, and additional pavement within the boundaries of the subject land, will increase the width of Cleo Lane and therefore its ability to serve the proposed development and existing development abutting it to the east.

The application is a merit, Category 2 form of development, and was notified to adjoining landowners and occupiers. Ten responses were received. The proposed development was also referred to the City of Adelaide for comment.

The proposal was amended by the applicant following additional consultation with both representors and the Adelaide City Council to address issues raised. The amendments resulted in the reconfiguration of the lower levels of the building to facilitate a revised access arrangement to Hutt Street (previously all access from Cleo Lane), as well as revisions to the encroaching ground level canopies of the restaurant, pedestrian entry,



and materiality of elements of the lower level façade, particularly the new driveway entry to Hutt Street.

There are no mandatory referral requirements. A Pre-Lodgement Agreement has been entered into between the applicant and the Government Architect, meaning that referral of the application to the Government Architect is not required and has not occurred. A revised / addendum Pre-Lodgement Agreement has been provided for the amended scheme.

A maximum building height of 22 metres is prescribed for development on the subject land. The proposed development will have a height of 53.9 metres to rooftop, and so seeks to exceed the prescribed height by 31.9 metres.

The Development Plan, including the May 2017 Capital City Policy Review (Design Quality) Ministerial Amendment and the further amendment which took effect on 19 December 2017 (but not yet consolidated), provides support for development which exceeds the prescribed maximum height where it complements its context and anticipated city form, and embodies specified design and sustainability measures.

Within the immediate locality built form of between 2 and 5 storeys predominates, and the proposed development does represent both a change from this existing character and a taller built form than the maximum of 22 metres envisaged for the subject land in the Capital City Zone. However a number of developments completed or recently approved within a wider precinct which includes the subject land are of a similar or slightly greater height than the proposed development.

Assuming some or all of the approved developments proceed, there will be built form of the same or greater height to the south and west of the proposed development. The proposed development will then form a defined built-form edge to the park lands to its north, and provide a transition to built form of a higher scale to the south and west.

The Pre-Lodgement Agreement between the applicant and the Government Architect records the Government Architect's high level of satisfaction with the quality of built form and finishes, and the ESD features of the proposed development, contingent on refinement and actual delivery of these outcomes. Further amendments have been accepted by the Government Architect in an addendum Pre-Lodgement Agreement.

Overall the proposed development is considered to satisfy the criteria for exceeding the specified maximum height under the Capital City Zone, including by complementing its context and having regard to adjacent built form and the desired character of the locality, by complementing the anticipated city form in Concept Plan figure CC/2 as well as the actual emerging desired city form, by incorporating specified design and sustainability features and by reason of embodying high-quality design and materials.

Representations received have expressed concern about the proposed building height, as well as about potential traffic congestion and overlooking from the proposed development into existing dwellings to the east. While these concerns are recognised, the design measures and supporting materials provided with the application demonstrate that appropriate measures have been or will be taken to address and minimise these impacts.

The proposed development also successfully addresses other key planning and technical issues. It is therefore considered suitable for Development Plan Consent subject to planning conditions recommended in this report.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

The subject land is within the Capital City Zone, but outside any specified Policy Area. The Objectives and the Desired Character for the Capital City Zone encourage a wide



range of commercial, community and residential land uses, a high scale of development with an activated pedestrian environment, and an emphasis on high quality contemporary architecture. Envisaged land uses within the Capital City Zone include a Residential flat building.

The subject land is subject to a prescribed maximum height limit of 22 metres, but following the commencement of the Capital City Policy Review (Design Quality) Ministerial amendment to the Adelaide (City) Development Plan in May 2017, further amended on 19 December 2017, discretion exists for the approval of development which exceeds a prescribed mandatory height in specific circumstances. Under the Development Plan as it stood when the application was lodged on 20 December 2017, approval to exceed a prescribed maximum height will be appropriate for a development which complements its context (having regard to adjacent built form and the desired character of the locality) and the anticipated city form, and includes specified design and sustainability measures.

The subject land is immediately adjacent to the City Living Zone. The boundary between the Capital City Zone and the City Living Zone runs along the eastern boundary of the subject land.

1.2 Pre-Lodgement Process

A Pre-Lodgement Agreement has been entered into between the applicant and the South Australian Government Architect. In accordance with section 37AA of the *Development Act 1993*, as a result of the Pre-Lodgement Agreement having been entered into, the application has not been referred to the Government Architect or Associate Government Architect, as would otherwise be the case under Schedule 8 to the *Development Regulations 2008*.

The Pre-Lodgement Agreement is dated 14 December 2017 and makes reference to the Tectvs architectural drawings submitted with the application. It records:

- The applicant's participation in a comprehensive pre-lodgement process including presentation to the Design Review panel on 5 occasions; participation in one Desktop Review session; and a response to advice arising.
- The Government Architect's support for a development of the proposed scale, contingent on the delivery of a high quality design outcome.
- The Government Architect's support for the ground-floor configuration of the development, that activates street frontages and provides separate entrances for public and private uses; and for the double-height green wall feature, the indoor garden, seating and artwork. The Government Architect also supports access to the car park and the location of services off Cleo Lane, and approves of the improved amenity of this frontage, and of those to Hutt Street and East Terrace.
- The Government Architect also supports built form and finish elements of the proposed development, including the mezzanine level terrace; the use of precast concrete panels and copper mesh inserts to above-ground car park levels; and the textured vertical articulation of the precast concrete panels to the north-east corner and east façade of the building.
- The Government Architect's support for the building to exceed the 22 metre building height prescribed in the Development Plan, and specifically for the proposed building height of 53.9 metres in the context of the site's Park Lands setting and position, contingent on a continued commitment and delivery of the high quality design outcome, particularly in relation to refined architectural expression, choice materiality, apartment amenity, sustainability initiatives, servicing strategy and public realm contribution.
- The opportunity for further refinement of roof forms and the layout of PV panels to assist in mitigating the height of the development and reducing the

visual impact of the roof line, as well as to assess further the visual impact of required fall protection as part of detailed design development.

- Support for the proposed interstitial blind system, contingent on delivery of high-quality fixtures and finishes.
- Support for inclusion of rooftop PV panels (subject to their visual impact being clearly demonstrated), electric vehicle charging and rainwater harvesting, with support for the development contingent on maximising the thermal performance of the building, and commitment to and delivery of an ESD outcome that exceeds minimum quantitative requirements.
- The applicant accepts a condition that additional details will be provided on the design and management of the traffic management system to control one-way vehicle movement to and from the building (now superseded).
- The applicant also accepts conditions in relation to traffic control and line marking; traffic and parking signage; ramp grade compliance with AS/NZ 2890.1-2004; and "bicycle friendly" operation of the bike storage area door.

The Agreement indicates that the following matters may be considered as conditions or reserved matters in respect of any approval of the proposed development:

- Collaboration with Council to achieve an integrated outcome for all new paving treatments.
- Refinement of the penthouse roof forms to assist in mitigating the height of the development, and further consideration of the layout of the photo-voltaic panels with the view to reducing the visual impact of the roof line.
- Final samples of selected materials.

The additional Pre-Lodgement Agreement dated 15 May 2018 between the applicant ad the South Australian Government Architect supports the changes made to the revised scheme, specifically noting:

- While not achieving an optimal outcome from an activation or pedestrian experience point of view, in principle the revised access arrangement is considered to be acceptable, but this is contingent on the retention of the existing street tree as per the documentation.
- Support for the approach to the cladding of the new driveway entry in responding to the established expression of the base of the building and mitigating the visual impact of the garage door.
- Support for the good line of sight and good sense of address for the revised residential entry canopy.
- Support for the revised corner canopy's shape which further strengthens the sculptural qualities of the design
- Remain unconvinced about the signage to the residential entry and suggest that this be further considered as part of a future application.
- Acceptance of the relocated transformer and waste room extent / doors.
- Support for the increased in height of the podium at the eastern end (to address overlooking) and the introduction of the projection as this is consistent with the approved expression of the building.

The second Pre-lodgement agreement seeks to act as an addendum to the original, rather than a replacement, and therefore, the matters requiring further resolution listed within the original Pre-Lodgement Agreement, still apply to the revised scheme.



2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

The proposal is for the demolition of the existing building on the subject land and the construction of a single building comprising:

- two levels of basement car parking;
- a restaurant, apartment foyer and common areas at ground level;
- communal meeting, dining and lounge spaces for apartment residents on a mezzanine level, with a terrace proposed to encroach over the Hutt Street and East Terrace road reserves;
- two further car parking levels including secure bicycle storage at levels 1 and
 In total, 56 marked car parking spaces, 46 resident bicycle parking spaces and 6 visitor bicycle parking spaces will be provided;
- a communal resident rooftop garden and seating area at level 3;
- 38 apartments in total across levels 3 to 14.

Ground-level setbacks are 1.05 metres to Hutt Street and East Terrace, and 4.2 metres to Cleo Lane. No setback is provided to the southern site boundary.

At levels 1 and 2, no setbacks to any boundaries are provided.

At levels 3 to 14 no setbacks to any boundaries are provided, except for a 4.3 metre setback to the southern boundary to accommodate the rooftop garden at level 3 and the space above it.

Pedestrian access will be to the apartment foyer from Hutt Street, and to the restaurant from separate entrance doors from Hutt Street and East Terrace.

Vehicle access will be from East Terrace via the existing left-in, left-out movement into Cleo Lane, and then onto vehicle ramps for access to the upper-level car parking. A separate driveway accessed from Hutt Street (also left-in, left-out) runs down to the basement car parks. The driveway crossover is split to Hutt Street around the existing street tree in this location.

The setback of the proposed building to Cleo Lane will effectively increase the width of that private road available for traffic movements and will allow two-way traffic movements along the northern 20 metres of Cleo Lane.

At ground level, the façade of the proposed building to Hutt Street and East Terrace will primarily be glazed. At upper levels, bronze and dark glass will be framed by panel concrete and profiled concrete, with copper and traditional Adelaide bluestone elements. While these materials and finishes are depicted in the application materials, they should be the subject of further refinement and specification as part of detailed design.

Landscaped areas will be provided in the form of:

- an internal green wall to the carpark ramp wall behind the ground-floor restaurant, up to the communal areas at mezzanine level;
- an internal "dry garden" to the residential entry from Hutt Street; and
- a communal rooftop garden at level 3 including a communal dining area, seating, decking, arbour structure and fire pit.

Landscaped areas will be inspected regularly and provided with ongoing maintenance and servicing. Further landscaping is intended to be provided to improve the amenity of Cleo Lane.

The applicant has indicated that this will be undertaken in further consultation with both the land owners and Council. The applicant has provided no written agreement with neighbouring land owners (82 and 83 East Terrace) for these works to be undertaken,



and as such, their inclusion in any approval remain hypothetical and limited weight has been placed on these specific works in the assessment of the proposal.

A summary of the proposal is as follows:

Land Use	Residential flat building; restaurant			
Description				
Building Height	53.9 metres above ground level (to rooftop)			
Description of levels	Basements			
	1 and 2: 28 car spaces (20 standard, 8 small)			
	Ground Floor: Restaurant (including kitchen), apartment			
	entry and lift lobbies, bin store, waste			
		collection area and waste vehicle collection		
		point, car park access ramps, visitor bicycle		
		rack (6 bikes)		
	Levels 1 and 2:	28 car spaces (24 standard, 4 small); bike		
		storage room (46 bikes)		
	Levels 3 to 14:	38 Apartments (4 one-bedroom, 21 two-		
		bedroom, 12 three-bedroom, 1 four-		
	bedroom)			
Floor areas	Restaurant – 135ı			
		ging between 70m ² and 445m ² .		
Private open space	Ranging between 8m ² and 145m ² per apartment.			
Site Access	Pedestrian access – Hutt Street (apartments), Hutt Street and			
	East Terrace (restaurant)			
	Vehicle access – Cleo Lane and Hutt Street			
	Bicycle room access – via lift lobby to Level 2			
	Bin store – Cleo Lane			
Car and Bicycle	56 car parking spaces (44 standard, 12 small)			
Parking	46 resident and 6 visitor bicycle parking spaces			
Encroachments		vel terrace will encroach over the Hutt Street		
	and East Terrace	•		
	New paving to roadway, waste collection area and temporary			
	waste vehicle collection point will encroach over Cleo Lane (a			
	private laneway)			
	Curved concrete beams along eastern façade encroach between			
	600mm and 900mm into 82 and 83 East Terrace			
Staging	No staging is indicated in the application materials.			

3. SITE AND LOCALITY

3.1 Site Description

The site consists of a single allotment, described as follows:

Lot No	Street	Suburb	Hundred	Title Reference
Allotment 118 on Filed Plan 181770	2-6 Hutt Street	Adelaide	Adelaide	CT Volume 5876 Folio 101

The subject land is located at the south-eastern corner of the intersection of Hutt Street and East Terrace. The subject land is rectangular in shape with frontages to Hutt Street (20.74 metres) and East Terrace (27.44 metres). The total site area is approximately 569m².

The land has access to a Right of Way over the rear 3.05 metres of 82 and 83 East Terrace, comprising Cleo Lane. The Cleo Lane frontage is 20.74 metres.



The subject land is generally flat. Existing improvements comprise a 2-storey brick office building with the main entrance to its northern (East Terrace) frontage. The building covers substantially the whole of subject land, with some landscaping provided in narrow setbacks from the main (East Terrace and Hutt Street) frontages.

3.2 Locality

Within the locality, both East Terrace and Hutt Street serve as important links for pedestrians, cyclists and motorists within the City of Adelaide, and from the City to the eastern and south-eastern suburbs. East Terrace, where it adjoins the subject land, provides three lanes of traffic for eastbound and turning vehicles, with marked bicycle lanes in each direction. Hutt Street provides two lanes for southbound traffic, and also has marked bicycle lanes in each direction. Along the Hutt Street boundary of the subject land, short-term paid on-street parking is provided in right-angle parking bays indented into the footpath. A number of established street trees line Hutt Street in the vicinity of the subject land.

North of the subject land, across East Terrace, is that part of the Adelaide Park Lands known as Rymill Park (Murlawirrapurka) featuring established gardens, an ornamental lake and other recreational facilities. Further north, the O'Bahn Bus Tunnel portal connects north-east suburban buses to the Grenfell Street bus corridor.

East of the subject land, across Cleo Lane, a 4-storey apartment building has northern and eastern frontages to East Terrace. Further south, Cleo Lane provides rear access to several townhouse dwellings that have their primary frontages to East Terrace.

The southern boundary of the subject land adjoins a two-storey office building with basement parking accessed off Hutt Street. Immediately further south is Rymill House which (including its former coach house and wall) is listed as a State Heritage Place.

West of the subject land, directly opposite it across Hutt Street, is a prominent 4-storey office building, and further south a row of smaller-scale office and commercial buildings, some of them former dwellings.

The wider locality, taking in areas either side of Hutt Street, has seen substantial development either undertaken or approved in recent years:

- a range of existing buildings on and around Flinders Street including Zen Apartments, the Flinders Street Project and 260 Flinders Street, ranging between 6 and approximately 14 storeys;
- the existing Tivoli Apartments on Pirie Street of 9 storeys;
- an approval for Tower 2 at 260 Flinders Street of 21 storeys;
- development at 293-297 Pirie Street of 16 storeys (60 metres), approved on 29 April 2016 and amended on 14 August 2017;
- development at 262-266 Pirie Street of a 25 level (80 metre) mixed use building, approved on 9 June 2016;
- development at 53-55 Hutt Street of a 12 storey mixed use building, approved on 16 May 2017 (Opus Apartments, recently commenced construction); and
- development at 248-253 East Terrace of a residential flat building of 8 storeys (currently under construction).

Together with existing development, upon completion of some or all of these proposed developments the built form nature of the area between the core Adelaide CBD and the east park lands will substantially change. In particular, the skyline looking towards the Adelaide CBD from the east park lands will feature, in the foreground to the towers of the CBD, buildings of a similar or greater height than the



proposed development, extending northwards and southwards along Hutt Street and its environs.

Similarly, looking southwards from Rymill Park, there will be a line of buildings between the taller towers of the CBD and Hutt Street of a similar height to the proposed development, with a continuing graduation downwards in height towards the east to the lower 8 storey building at 248-253 Hutt Street.

Figure 1 - Location Map



4. COUNCIL COMMENTS or TECHNICAL ADVICE

4.1 City of Adelaide

Council provided written comment on the application on the revised scheme on 17 May 2018 following previous preliminary comments and further discussions and negotiations with the applicant.

Council's comments are summarised as follows:

Traffic and Parking

- The traffic report is unclear in assumptions form to arrive at traffic volumes for the current office use on the site along Cleo Lane.
- The AM and PM peak estimations for the proposed development roughly match the number of existing office car parking spaces, however the movements will primarily be in the direction of peak travel, rather than being counterdirectional as could be reasonably assumed for an office development.
- The number of vehicles entering and leaving Cleo Lane is likely to be less than the current situation due to limited parking and the remaining trips generated to and from the site would be on the surrounding road network.

- the AM and PM peak estimations for the proposed development roughly match the number of existing office car parking spaces, the movements will primarily be in the direction of peak travel, rather than being counter-directional as could be reasonably assumed for an office development.
- There is no indication of current traffic volumes and queuing within Cleo Lane and the impact that queuing associated with the proposed development will have. As such, Council recommends that an appropriate survey of baseline conditions be undertaken.
- The ground floor plans do not provide context in relation to driveway access of adjacent properties, making it difficult to assess whether the proposed site will negatively impact upon these access points.
- The requirement for cyclists to negotiate steps and a door to access bicycles
 from the secure storage area does not provide easy or convenient access to
 bicycles. Additionally, the space between the column and wall needs to be
 confirmed to be adequate to provide convenient access for people walking
 their bikes.
- Car charging points should be investigated during the detailed design phase of the development.
- 'Keep Clear' markings on East Terrace at the Cleo Lane junction would not meet the Operational Instruction 2.23 by DPTI and Council is bound by this instruction.
- The proposal's waste management arrangements are supported.

Stormwater

- The proposed reuse of collected stormwater runoff for irrigation of the landscaping features is commended.
- Stormwater from the development (including driveway pavements on the land) must be contained within the property boundaries and discharged to the East Terrace road reserve utilising the two existing crossovers.
- Basement levels must be designed with a significant freeboard to 1%AEP flood levels in East Terrace to avoid flooding.
- Collection of ground seepage from the following parts of the development must be drained either to the sewer or the proposed property recycled water system:
 - basement parking levels
 - planter boxes, landscape areas, green wall and roof top garden
 - splash water from all swimming pools
 - surface water from levels 1 and 2 car parking areas.

Encroachments

- The revised balcony extent encroaches 41% of the Hutt Street facade and 21% of the East Terrace facade. While the Hutt Street facade does not satisfy the 30% requirement in Council's Encroachment Policy it is an improvement on the previous concept. Council's traffic section supports the amended scheme in that it removes conflicts with views to traffic signals.
- Council has waived the Encroachment Policy in this instance.
- Sunshades proposed to extend from levels 3 to 14 over both Hutt Street and East terrace encroach a maximum of 600mm, therefore satisfying Section 3.2.2 pf the Encroachment Policy.

Public Realm / Miscellaneous



- The existing street trees in Hutt Street must be retained due to their inclusion in the landscaping amenity of Hutt Street which is highly valued by the community.
- Relocation of a stobie pole is required to secure access to East Terrace. This
 will need to be confirmed with SAPN, with cost of relocation to be borne by the
 applicant.
- All lighting design and installation should be complaint with Australian Standard AS4282 1997 and signed off by consultant to confirm compliance.
- Lighting under the proposed canopies shall meet Council's under verandah requirements.
- A number of obligations, requirements and advisories regarding Council's footpath infrastructure (including crossovers, street furniture and lighting) which need to be considered in the construction of the development.

These comments, where appropriate, have been applied either as conditions of approval or notations that form part of the recommendation.

Applicant's response

Notwithstanding the quick response of Council to the amended scheme, the applicant has not been able to formally respond to the traffic and parking questions raised by Council before the finalisation of this report. A response will be tabled separately at the meeting.

5. STATUTORY REFERRAL BODY COMMENTS

No statutory referrals were required, or made, in respect of the proposed development, as a result of a Pre-Lodgement Agreement being concluded with the South Australian Government Architect, and the height of the proposed development not exceeding the prescribed height limits specified for the subject land under the Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5).

6. PUBLIC NOTIFICATION

Under the Procedural Matters set out in the Capital City Zone, the proposed development is a Category 2 form of development, as the subject land is adjacent to land in the City Living Zone, and the proposed development exceeds 22 metres in building height. Notification was therefore provided to the owners and occupiers of each piece of land adjacent to the subject land (as determined in accordance with section 4 of the Act).

10 responses were received from 9 respondents by the final date for representations, 15 January 2018. (One respondent provided an initial list of questions to the proponent's planning consultant, followed by a longer-form submission after discussion with the consultant). A further 2 responses, although received after the final date for representations, were considered and were provided to the applicant for consideration and response.

Respondents raised the following issues and concerns:

- the existence of asbestos materials within the existing building;
- the potential for construction of the proposed development to cause disruption to staff and clients using nearby premises;
- the height of the proposed development exceeding the height prescribed for the subject land under the Development Plan, and being out of scale and character with its surrounds;
- noise and odour impacts from the proposed ground-floor restaurant;
- the owner of land at 83 East Terrace expressed concern that the scale and intensity of the development would reduce the level of residential amenity enjoyed by that land and by "all dwellings within the adjoining City Living"



Zone", including through noise and other impacts of traffic, waste collection, operation of the restaurant and plant and equipment;

- overlooking from the proposed development into some parts of adjoining land, including in particular into the rear courtyard, bedroom and living room windows of 83 East Terrace;
- solar shading and overlooking of bedrooms on the western side of the property at 85 East Terrace;
- generally, shadowing impacts from the proposed development including the loss of sunlight to potential future solar cell arrays on nearby properties;
- suitability of vehicle access to the proposed development from East Terrace via Cleo Lane and the capacity of these existing roads to meet the additional demand, particularly at peak periods and during special events, including the suggestion that vehicle access to the proposed development should be from Hutt Street:
- traffic impacts of waste disposal truck movements in Cleo Lane;
- additional demand for on-street car parking caused by the proposed development, and the potential for the development to exacerbate traffic, congestion and parking problems in the area; and
- potential structural impacts of the construction of the proposed development on nearby buildings, and the need to ensure ongoing access from Cleo Lane to adjoining residences throughout the construction period.

Some respondents provided detailed submissions in support of the proposed development, writing in favour of the design standards and outcomes, and the appropriateness of the overall height, scale and massing of the building in its particular location. Other comments commended the pedestrian interface and integration with Hutt Street and Cleo Lane, the increased footpath widths to the perimeter of the building, and the environmental performance of the building. Respondents also supported the applicant's process of engagement with neighbours and the achievement of a prelodgement agreement with the Office of Design and Architecture.

Applicant's Response

The applicant undertook their own consultation with those parties who made representations. As a result, the scheme was varied to address a number of the issues raised, although the applicant's response also includes the following comments:

- Formal rights of way will be established in favour of residents of Cleo Lane for that portion of the land that has been offered by the applicant to increase the width of the lane to facilitate two way movement. This has been negotiated in favour of agreement of encroachment of the upper levels in addressing overlooking.
- Apart from providing better accessibility for vehicles using the laneway, the
 increased width will provide more visual presence from East Terrace and
 improve local accessibility during peak times. This extra width will also
 improve sightlines between pedestrians along East Terrace and cars using the
 laneway to exit onto East Terrace making the junction safer, more efficient
 and easier to navigate for all users.
- The development will also involve a general upgrade of Cleo Lane itself (subject to consultation with all relevant land owners) at the applicant's expense. This could include landscaping, pavers etc, the details of which will need to be discussed with each land owner. This is only the start of that process and is contingent upon the approval of the project.
- East facing curved concrete beams to levels 3 to 7 will be increased in width to between 600mm and 900mm in order to prevent direct overlooking into the

ground level courtyard of properties to the east. A section has been provided to demonstrate this.

- Shadow diagrams have been prepared every hour between 7am and 5pm on the winter solstice to confirm that the building only begins to shadow properties on the eastern side of Cleo Lane from between 1-2pm which satisfies the relevant provisions of the Development Plan.
- A potential clear zone approximately 6 metres wide in the southern most lane
 of East Terrace adjacent to Cleo Lane is also being sought from the Council to
 enable Cleo Lane residents to enter traffic during peak morning periods with
 ease avoiding any potential for queuing.
- The proposal satisfies the criteria under Capital City Zone PDC 21 to exceed 22m.
- Waste trucks for the residential apartments and restaurant will only service the site between 9am and 6pm on any given day. This avoids potential conflicts during the morning and afternoon peak traffic periods (i.e. between 7am to 9am and between 3pm to 6pm) and the sensitive hours of the day that may impact upon residential amenity (i.e. between 9pm and 7am the following day).
- All other service vehicles will use the proposed new loading zone on Hutt Street.
- In the event that a waste truck is parked on the subject site for the collection
 of waste, the turn-path diagrams prepared by InfraPlan demonstrate that a
 vehicle can pass the waste truck to either enter or exit Cleo Lane. This is no
 different to the existing condition which ensures the intent of PDC 241 is
 satisfied.
- The proposed occupier of the restaurant space will have no grease traps, exhausts associated with frying or the like. The operator is not a typical restaurant use rather more akin to a coffee/dessert bar which will not create any detrimental odour or noise impacts.
- The plant area will be located on level 13 and air-conditioning units will be located centrally and screened on the south elevation on each level. According to Sonus (the acoustic engineers engaged by the applicant), the designated location for mechanical plant provides shielding and a good separation distance to surrounding dwellings. As the layouts progress through the detailed design phase of the project, any necessary acoustic treatments will be incorporated into the design documentation to ensure compliance with the Environment Protection (Noise) Policy 2007.
- Sonus have advised that the use of a panel lift door instead of a transparent metal sectional door will minimise noise impacts. Further, the type of door proposed will be similar to other roller doors that exist within Cleo Lane.
- Asbestos will be removed by licensed contractors in accordance with the relevant policies and standards of the EPA.
- A Construction Management Plan ('CMP') will be prepared by the applicant
 which will deal with traffic management and general construction issues during
 the building process. This will include vehicular access for residents/workers
 and visitors who use Cleo Lane. At this early stage, restricted access within
 Cleo Lane during construction is not envisaged when both the East Terrace
 and Hutt Street frontages are available for construction services/activities and
 the like.
- A dilapidation report will be prepared by the applicant to protect surrounding buildings during the construction.

Additional Submissions



The amended scheme and the applicant's response was provided to the representors as a courtesy to establish if the amendments address the issues raised within their submissions. 3 representors have chosen to respond to the amended scheme and provided the following comments:

- It was understood that the agreed changes to the scheme would remove all access to Cleo Lane for vehicles which has not been achieved. Concerns about adequacy / suitability of Cleo Lane to handle anticipated traffic remain.
- Request that scheme be amended to gain all access from Hutt Street.
- The traffic assessments are not current and do not reflect the current 2018 conditions.
- Additional traffic flows on Cleo Lane will have an unreasonable impact on residential amenity.
- Hutt Street is outside of the core or primary pedestrian area and this site is not part of the 'cafe strip' along Hutt Street – affording a potential second access point for the development.
- The height of the building needs to be reduced to maintain the existing residential amenity of dwellings along East Terrace.
- Remain concerned about the extent of shadowing across 82 East Terrace, particularly the effectiveness of solar panels as a result. The diagrams provided do not cover all seasons.
- Wish to be assured that no overlooking will result from the development into the East Terrace properties.
- Wish to be assured that plant area is managed and there is no noise from air conditioning units this should be internal.
- Want to ensure that residential and commercial bins are managed and placed to avoid impacts on amenity (visual, odours, pests / vermin etc).
- Confirm that the use of Cleo Lane will not be accepted for construction purposes.
- The laneway is the boundary for the zone and the interface between large scale mixed use development and smaller scale traditional forms of development. The Development Plan seeks transition in scale, bulk and activity at this interface to preserve amenity and the proposal does not adequately achieve this.
- Do not consent to the encroachment of the proposal over their land.

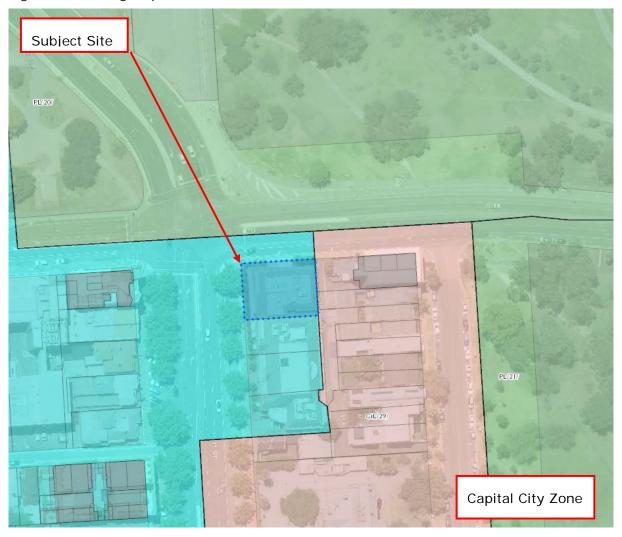
7. POLICY OVERVIEW

The subject land is within the Capital City Zone as shown below in Figure 2 and as described within the Adelaide (City) Development Plan Consolidated 20 June 2017. No Policy Area applies to the subject land.

Relevant planning policies are contained in Appendix One and summarised below.



Figure 2 - Zoning Map



7.1 **Zone**

The Desired Character for the Capital City Zone is as the economic and cultural focus of the State, with an increased population complementing the opportunities and experiences provided in the City and increasing its vibrancy.

High scale development is envisaged, with walls that frame the streets, and create an interesting pedestrian environment. Maintaining human scale at ground floor levels is emphasised through careful building articulation and fenestration, frequent openings, verandahs, balconies, awnings and other features that provide weather protection. In narrow and minor streets or laneways the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure.

A 22 metre height limit is identified for the subject land, although the zone does provide for development in excess of this height where specified criteria are satisfied. See further in section 8.7.1 of this report.

Non-residential land uses at ground-floor level such as shops, cafés and restaurants are encouraged.

New development is to achieve high design quality by being contextual, durable, inclusive, sustainable and amenable.

Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width), and an intimate, welcoming and comfortable pedestrian environment.



Restaurant and Residential Flat Building are envisaged forms of development within the Capital City Zone.

7.2 Council Wide

The Council Wide section of the Development Plan provides relevant guidance in relation to the following areas:

- Housing Choice
- Medium to High Scale Residential
- Environmental
- Heritage and Conservation
- Built Form and Townscape
- Transport and Access

The relevant provisions and an assessment of the proposed development against them are set out in sections 8.3 to 8.8 of this report.

7.3 Overlays

7.3.1 Affordable Housing

The subject land is within the area covered by Overlay 1 – Affordable Housing under the Development Plan. PDC 1 of Overlay 1 provides that development comprising 20 or more dwellings should include a minimum of 15 percent affordable housing.

The application material indicates that the applicant's intention is to deliver high-quality owner-occupied apartments at a price point well above the affordable housing price threshold. The applicant has not therefore included affordable housing as a part of the proposed development.

7.3.2 Adelaide Airport Building Heights

Prescribed height limits are specified for the subject land under the Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5). The height of the proposed building above ground level (53.9 metres) is substantially less than the specified height for the site (approximately 110 metres above ground level, or 153.5 metres AHD).

8. PLANNING ASSESSMENT

The State Commission Assessment Panel is the relevant authority as per Schedule 10(4)(1) of the *Development Regulations 2008*.

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan Consolidated 20 June 2017.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Site Area	No applicable Guideline in relation to Capital City Zone		YES NO DARTIAL	
Building Height	Maximum 22 metres unless additional height criteria in PDC 21	53.9 metres (to rooftop level)	YES NO DARTIAL	Eligible for additional height in accordance with Capital City Zone –



	Development Plan Guideline	Proposed	Guideline Achieved	Comment
	of Capital City Zone are satisfied			see section 8.7.1.
Land Use	Envisaged forms of development within the Capital City Zone include Restaurant and Residential Flat Building.	Restaurant Residential Flat Building	YES 🖂 NO 🗍 PARTIAL 🗍	
Car Parking	No requirement for provision of car parking within the Capital City Zone.	56 car parking spaces at basement and upper levels	YES 🖂 NO 🗆 PARTIAL 🗆	
Bicycle Parking	46 resident bicycle parking spaces 7 visitor bicycle parking spaces	46 resident bicycle parking spaces 6 visitor bicycle parking spaces	YES □ NO □ PARTIAL ⊠	Refer to section 8.8 for further discussion
Front Setback	Built to street frontage with above-podium setback of 3-6 metres	Small ground- level setbacks proposed, with minimal setbacks at upper levels.	YES □ NO □ PARTIAL ⊠	Seen as appropriate as part of articulation of building mass. See section 8.7.3 for discussion.
Rear Setback	None applicable		YES NO DARTIAL	
Side Setback	None applicable		YES X NO PARTIAL	
Private Open Space	1 bedroom – 8m ² 2 bedroom – 15m ² 3+ bedroom – 15m ²	Between 8m ² and 145m ² to each apartment	YES 🖂 NO 🔲 PARTIAL	

8.2 Land Use and Character

The proposed development contributes to the Desired Character of the Capital City Zone by introducing envisaged forms of development, which will contribute to an increased residential population and increased daytime and night time activity with a resulting increase in the vibrancy of this part of Adelaide's CBD.

While the height of the building will create a tall street wall and sense of definition to Hutt Street and the park land edge to Rymill Park, active building entrances and glazed frontages to Hutt Street and East Terrace will contribute to an active, comfortable and human-scaled pedestrian environment along the building's street frontages.

The Desired Character for the Capital City Zone is for new development which achieves high design quality by being:

- (a) **Contextual** so that is responds to its surroundings, recognises and carefully considers the adjacent built form, and positively contributes to the character of the immediate area.
- (b) **Durable** by being fit for purpose, adaptable and long lasting, and carefully considers the existing development around it.
- (c) **Inclusive** by integrating landscape design to optimize pedestrian and cyclist usability, privacy, and equitable access, and also promote the provision of quality spaces integrated with the public realm that can be used for access and



recreation and help optimize security and safety both internally and into the public realm, for occupants and visitors alike.

- (d) **Sustainable** by integrating sustainable systems into new buildings and the surrounding landscape design to improve environmental performance and minimise energy consumption.
- (e) **Amenable** by providing natural light and ventilation to habitable spaces.

The proposed development is considered to achieve high design quality as measured against these five criteria. It responds to its prominent corner site and park lands outlook by providing a defined and activated built form city edge with the opportunity for passive and active surveillance of the public realm. It is in a form consistent with development recently completed, and other development approved, for the wider area east of the CBD core. It includes significant energy efficiency measures (see section 8.5.5 below) and natural light and ventilation to habitable spaces. The support of the South Australian Government Architect, as noted in the Pre-Lodgement Agreement and outlined in section 1.2 above, is significant, including support for the scale and height of the development, the green wall feature and indoor garden, access for car parking and services off Cleo Lane and the built form and finish elements of the development.

8.3 Housing Choice

Objectives include a variety of housing options which suit the widely differing needs of future residents (Housing Choice, Objective 6); a range of long and short term residential opportunities to increase the number and range of dwellings available (Objective 7) and a broad range of accommodation to meet the needs of specific groups while ensuring integration with existing residential communities (Objective 8).

The proposed development will provide a range of compact and large apartments in an established residential area well served by existing infrastructure and facilities.

8.4 Medium to High Scale Residential/Serviced Apartment

Council Wide Objective 22 seeks medium to high-scale residential development with high standards of amenity, environmental performance and internal layouts; which is adaptable to meet a variety of accommodation and living needs; and which includes well-designed and functional recreation and storage areas.

Related Principles of Development Control (PDCs) 48 to 81 seek to enhance the amenity of residential apartment developments through high standards of amenity, legibility and safety in design. Identified measures include building entrances which are oriented towards the street and which are visible and easily identified. Entrances to individual dwellings should be located as close as practical to lift and/or lobby access and avoid the creation of potential areas for entrapment.

Access to daylight and an external outlook, and opportunities for natural ventilation should be maximised, with ceiling heights of 2.7 metres or more to residential habitable rooms above the first-floor level of mixed use buildings. Private open space should be provided to dwellings at the rate of at least 8m² (for 1 bedroom dwellings), 11m² (for 2 bedroom dwellings) and 15m² (dwellings of 3 or more bedrooms).

Minimum dwelling sizes of $50m^2$ (for 1 bedroom dwellings), $65m^2$ (for 2 bedroom dwellings) and $80m^2$ (for 3 bedroom dwellings, with an additional $15m^2$ for each additional bedroom) are specified.

Site facilities should include a common mail box structure and waste storage and collection facilities. Storage facilities should be provided at the rate of at least 8m³ for 1 bedroom dwellings, 10m³ for 2 bedroom dwellings and 12m³ for dwellings of 3 or more bedrooms, with 50% of storage space within the dwelling and the remainder in the basement or other communal areas.



Medium to high-scale residential development should be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development (PDC 66). Habitable room windows balconies, roof gardens, terraces and decks should be set back from boundaries with adjacent sites at least 3 metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites (PDC 67).

The material provided with the application demonstrates that the proposed development will achieve substantial compliance with applicable standards in relation to Medium to High Scale Residential Development. In particular:

- The entrance to the residential lobby is clearly identifiable and accessible from Hutt Street. On upper residential levels, each apartment has direct and convenient access to the lift lobby.
- Apartments are will provided with windows and terrace doors to take advantage of daylight and natural ventilation. The ceiling height of apartment floors (2.7 metres for levels 3 to 13, and from 3 to 4.4 metres for level 14), meet the specified minimum requirement.
- Private open space is provided to each apartment at or in excess of the prescribed rate. Each apartment the minimum floor area specified based on the number of bedrooms provided.
- Habitable room windows and balconies are set back from the southern boundary with an adjacent site by at least 3 metres, in accordance with PDC 67. While the level 3 roof garden is built to the southern site boundary, it will not restrict any reasonable development of the adjoining site.
- Habitable room windows and balconies are built to the eastern site boundary with Cleo Lane. While it is noted that this is a private road and may not therefore qualify as an "adjacent site", there is some potential for overlooking from east-facing windows and balconies of the proposed development into habitable rooms of adjacent development.

While what appear to be habitable room windows in the residential apartment building to the east side of Cleo Lane are set back approximately 10 metres from the site boundary, further south what may be habitable room windows to the rear of townhouses at 83 and 84 East Terrace are built close to the eastern edge of Cleo Lane. These windows, and outdoor yards of the townhouses, may be visible from east-facing windows and terraces of lower-level apartments in the proposed development. The degree of overlooking is likely to be less than the current overlooking from the first-floor east-facing windows of the existing office building, which are closer to the townhouses than will be the apartments on level 3 and upwards of the proposed development.

The façade system of the proposed development, including curved beams protruding by 600 to 900 millimetres from the façade at levels 3 to 7, will limit to limit overlooking from the proposed development eastwards across Cleo Lane to the adjacent residential properties. This design solution is considered to be effective and creative in its integration with the form and language of the building. However, the solution relies on the encroachment of the concrete beams over the boundary and agreement of this arrangement from the adjoining property owners has not been provided or secured. As such, it cannot be relied upon and a solution to addressing overlooking for the development. Notwithstanding this, I believe that a solution can be found to address this issue and a reserved matter to this effect is appropriate.

• A waste room and a common mail box structure are provided at ground floor level. Storage for individual apartments is allocated in a communal area on the mezzanine level and the application material indicates that storage which exceeds the required volumes is provided within each apartment.



8.5 Environmental

8.5.1 Crime Prevention Through Urban Design

Development should promote the safety and security of the community in the public realm and within development, through the promotion of natural surveillance and other design measures (Environmental – Crime Prevention Through Urban Design, PDCs 82 to 84).

The Planning Report submitted in support of the application notes that the proposed development will reduce opportunities for crime through measures which promote surveillance and visibility, activate street and park land frontages, control resident and visitor access, and limit opportunities for vandalism and concealment. I concur with this assessment and note that the development at the ground plane

- maintains direct sight from the street entry to the lifts foyer (with full glazing to this portion of the frontage
- the treatment of the façade adjacent Cleo Lane minimises entrapment points and alcoves, allowing for surveillance from East Terrace, and other users on Cleo Lane / adjacent residential properties.

8.5.2 Operating Hours and Associated Activities of Licensed Premises

Operating hours of licensed premises, together with associated activities of such premises, should be established and operated so as to reinforce the desired character of the locality and appropriate behavioural activities (Environmental – Operating Hours and Associated Activities of Licensed Premises, Objective 25).

Licensed premises should be located, designed and operated so as to not negatively impact on people's orderly use and enjoyment of a locality, and should incorporate best-practice measures to effectively manage the behaviour of users moving to and from such land uses (PDC 87). Licensed premises should operate with operating hours to reinforce the desired character of the locality (PDC 88).

It is assumed that a liquor licence will be sought in respect of the restaurant included within the proposed development. The Desired Character for the Capital City Zone refers to the Zone being active "during the day, evening and late night... non-residential land uses at ground floor level that generate high levels of pedestrian activity such as ... restaurants will occur throughout the Zone". Use of the ground floor of the proposed development as a restaurant, which will activate two key street frontages within the Capital City Zone, is therefore consistent with the Desired Character for the Zone.

No information was provided as part of the application for the proposed development as to the intended operating hours of the restaurant, or any measures to manage the behaviour of users of the restaurant. In the absence of this, hours have been suggested which take into account the context and amenity of this location and those of other similar facilities currently found along Hutt Street.

8.5.3 Waste Management

PDC 101 (Environmental – Waste Management) requires a dedicated area for on-site collection and sorting of recyclable materials and refuse to be provided within all new development. Development greater than 2,000 square metres total floor area should manage waste by containing a dedicated area for collection and sorting of construction waste and recyclable building materials; on-site storage and management of waste; disposal of non-recyclable waste;



and incorporating waste water and stormwater re-use including the treatment and re-use of grey water (PDC 103).

A Waste Management Preliminary Draft Report dated 18 April 2017 and prepared by infraPlan accompanies the application. Based on the *Better Practice Guide – Waste Management for Residential and Mixed Use Developments* (Zero Waste SA, 2014), the proposed development is classified as a high density development (10 or more dwellings) and a Complex Waste Management System is seen as appropriate.

Key elements of the recommended Waste Management System are as follows:

- A private waste collection operator will be engaged to collect waste generated from the proposed development.
- Separate waste storage bins will be provided for residents and for the restaurant tenancy on the ground floor level, but within a communal waste room.
- Collection of residential waste is proposed on a weekly basis; collection
 of waste from the restaurant tenancy is proposed to occur on a twiceweekly basis. In addition residents will be able to take advantage of the
 at-call, free hard-waste and e-waste collection service provided by the
 City of Adelaide up to 12 times per year.
- Sufficient waste storage capacity for each of the three waste streams (general waste, recyclables and organics) has been provided on-site to meet estimated waste generation demand. Sufficient space is also allocated for hard waste and e-waste storage within the ground-floor bin storage area.
- The bin storage area will be centrally located near the lift lobby with a bin cleaning area provided within the bin store.
- Unless a fully automated system is installed, a community attendant will be required to periodically monitor bin capacity under the bin chutes and replace filled bins with empty bins. The attendant will also be responsible for the upkeep of the bin storage area.
- Waste collection vehicles will reverse into Cleo Lane, temporarily blocking access to and from the upper parking levels. Collection times should therefore be strictly adhered to and communicated to residents to minimise inconvenience to residents using upper parking levels.

The Report finds that the proposed number of bins and the proposed frequency of collection by a private operator are sufficient for the proposed development. Council is also satisfied with these waste management arrangements.

8.5.4 Contaminated Sites

PDC 105 (Environmental – Contaminated Sites) requires that where there is evidence or reasonable suspicion that land (including underground water) may have been contaminated, development should only occur where it is demonstrated that the land can be made suitable for its intended use prior to commencement of that use.

The application material provides no evidence that any measures have been taken to ascertain whether any potential exists for contamination of land or underground water because of previous use of the site.

It is recommended as a condition of Development Plan Consent that a statement demonstrating suitability of the site for its intended use be provided prior to the commencement of any superstructure works.



8.5.5 Energy Efficiency

Buildings should provide adequate thermal comfort and minimise the need for energy use for heating, cooling and lighting through design measures specified in Environmental – Energy Efficiency PDCs 106 to 108. Internal materials for buildings should be selected for low impact on internal air quality and low toxic emissions (PDC 112).

A Sustainability Strategy dated 31 October 2017 and prepared by D Squared Consulting accompanies the application. It outlines overriding principles which will be applied to the proposed development to reduce its impact on the environment, both at construction and operational phases.

The Strategy outlines Sustainability Guiding Principles for the proposed development, including that the development is attractive to residents, visitors and the surrounding community; that buildings are designed in accordance with best practice in sustainable development; that the development encourages sustainable living within a high-quality environment; that the development provides a positive social return on investment; that the development promotes the notion of biodiversity at podium and street level; and that the development delivers on the triple bottom line of environmental, economic and social sustainability.

The Report describes sustainability initiatives included in the proposed development.

Social and community sustainability initiatives which are provided include:

- visual connection with the local environment
- easily accessible communal areas for visitors and residents
- green walls and landscaping at podium and street levels to connect indoor and outdoor spaces and promote the notion of urban biodiversity.

Water sustainability initiatives included in the proposed development are:

- selection of fittings with a minimum 6 Star WELS (for taps), 4 Star (for WCs) and 3 Star (for showers)
- selection of appropriate landscape planting to minimise irrigation watering use; providing rainwater storage and re-use systems for landscape and green wall irrigation
- and providing firefighting systems with a test water recycling facility

Sustainable transport initiatives within the proposed development include:

- provision of secure bicycle storage facilities for residents (at least one rack per apartment) with additional racks for visitors at ground floor level
- an option for apartment purchasers to have an electric vehicle charge point provided at their car parking space.

Sustainable energy initiatives including:

- an active façade of high-performance double glazing with integrated adjustable interstitial blinds (under automated control with manual override available)
- access to daylight and natural ventilation for apartments and for all common areas at ground level and above
- use of electro-chromic glass in strategic locations to provide additional privacy and solar load reduction

- supply of electricity via an inset (embedded) network, so that residents can benefit from the option of reduced electricity supply rates and the ability to share renewable energy from the building's solar PV array
- daylight control to lighting systems in common areas, selection of energy efficient lighting fittings and use of LED for all lighting
- functional zoning of apartment air conditioning systems (e.g. living rooms, bedrooms) with automatic and manual controls. All apartment air conditioning units to be inverter controlled and rated to highest available Energy Star rating. Units to be operable in fan mode, providing low energy air circulation
- provision of a "kill switch" to each apartment allowing one-touch isolation of lighting and air conditioning power when apartment is vacant
- provision of a 39kW roof-mounted solar photovoltaic array, connected via the inset network to benefit all residents and tenants. It is sized to provide renewable energy equivalent to 100% of common area power needs, including car park ventilation
- design of apartments, tenancies and common areas to exceed applicable energy performance standards by 30% or better
- use of light-coloured external finishes to improve thermal performance
- use of gas for water heating and cooking to reduce peak electricity demand, reduce overall carbon footprint and improve economic outcomes for residents
- building energy management system including smart metering to record and monitor and assist in controlling energy use
- providing for natural ventilation to car park levels where possible, and where not possible using measures to reduce the energy use of mechanical ventilation systems by 80%
- providing retractable clothes racks to apartments to minimise electric clothes drier use
- providing retail and commercial tenancy air conditioning systems with an economy cycle control allowing 100% outside air to be used when external weather conditions allow.

Waste initiatives:

- minimising construction waste through efficient design techniques such as standardisation and, where practicable, off-site fabrication
- management of construction waste through the implementation of an approved Environmental Management Plan
- construction waste to be sorted and binned on-site, with a minimum of 90% to be diverted from landfill
- apartment kitchens designed to accommodate split bins for general, recycling and compost waste
- provision of ventilated and weather-proof storage facilities for the collection and disposal of general, recyclable, organic, bulky and ewaste, with separation on-site for ease of recycling
- provision of a waste chute for general and recyclable waste for all apartment levels.



Indoor environment quality initiatives:

- use of paints, sealants, adhesives, carpets, coverings and furniture with low off-gassing properties (low VOC and low formaldehyde)
- maximising access to daylight while minimising glare to all residential areas
- all dwellings to be fully naturally ventilated
- all common areas at ground level and above to be fully naturally crossventilated
- electro-chromic glass provided to some glazing to improve occupant privacy

Construction initiatives:

- use of locally sourced, recycled or recovered materials wherever viable
- use of materials with low embodied energy and carbon profile, where practicable
- use of building materials with a recycled material content where viable
- use of off-site fabrication techniques to reduce on-site construction time, waste and greenhouse gas emissions, wherever practicable.

Landscape and biodiversity initiatives:

• strategic use of landscape and green walls improve thermal performance and air quality and to introduce the notion of biodiversity

In addition to these specific measures the Report outlines modelling undertaken in the course of design development of the building façade to determine a solution compliant with the planning requirement for an innovative approach to managing solar loads on west-facing elevations, and other applicable criteria in relation to appearance, design, maintaining daylight access and views, and energy efficiency.

The chosen façade design featuring high-performance double-glazing with interstitial blinds was presented to the ODASA Design Review Panel and as a result was optimised to use the proposed concrete building form as an external shading device.

8.5.6 Micro-climate and Sunlight

Wind

Development should be designed and sited to minimise micro-climactic impact on adjacent land or buildings, including effects of patterns of wind (Environmental – Micro-climate and Sunlight PDC 119). Development that is over 21 metres in height and is to be built to the street frontage should minimise wind tunnel effect through methods which may include use of a podium base with a tower above, aligned to deflect wind away from the street; substantial verandas to deflect downward-travelling wind flows; or placing one building windward of another building (PDC 125).

A letter "Resultant Wind Effects at Street Level" in relation to the proposed development prepared by DR Partners and dated 30 November 2017 accompanies the application and assesses wind impact from the proposed development as negligible to minor to pedestrian traffic on Rundle Street (should be Hutt Street) and East Terrace. Wind impacts have been addressed through use of podium with tower above built form; and use of substantial verandas to deflect downward travelling wind flows.



Sunlight

Development should be designed and sited to minimise micro-climactic impact on adjacent land or buildings, including effects of patterns of daylight, sunlight and shadow (Environmental – Micro-climate and Sunlight PDC 119). Development should not significantly reduce daylight to private or communal open space and habitable rooms in zones including the City Living Zone (PDC 121).

In addition, development in a non-residential Zone that is adjacent to land in the City Living Zone (and other named zones) should minimise overshadowing on sensitive uses by ensuring:

- (a) north-facing windows to habitable rooms of existing dwellings in those zones received at least 3 hours of direct sunlight over a portion of their surface between 9:00am and 3:00pm on 21 June;
- (b) ground level open space of existing residential buildings in those zones receive direct sunlight for a minimum of 2 hours between 9:00am and 3:00pm on 21 June to at least the smaller of half of the existing ground level open space, and 35 square metres of the existing ground level open space (with at least one of the area's dimensions measuring 2.5 metres).

(PDC 174).

Shadow diagrams were provided with the application and show that during the winter solstice, the proposed development will cast shadows to the south, south-west and south-east of the site not shadowed by existing or proposed development. Some of these areas include dwellings with private open space areas. The additional shadowing impact of the proposed development at the summer solstice is minor.

Additional shadowing impacts during the winter solstice from the proposed development are not unreasonable in the context of a development within the Capital City Zone which meets the criteria for exceeding the specified maximum height, as does the proposed development.

Based on the shadow diagrams provided, the ground level open space of existing residential buildings within the City Living Zone will not be in shadow from the proposed development between 9am and approximately 12 noon on 21 June, and so will meet the criteria of PDC 174.

8.5.7 Stormwater Management

Development should maximise the use of stormwater (Environmental – Stormwater Management, Objective 35). Development should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow (PDC 127). Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site (PDC 128).

A letter in relation to Stormwater impacts of the proposed development prepared by DR Partners and dated 30 November 2017 accompanies the application. It states that since the impervious proportion of the site will not be altered by the proposed development, no on-site stormwater detention is required.

Major flood events (1 in 100 year ARI) will be catered for by overland flow paths discharging to surrounding streets, and floor levels will be set back above existing footpath levels in accordance with Council requirements.

Notwithstanding there is no need to detain stormwater, the proposed development does seek to store and re-use stormwater from the roof of the building for the irrigation of landscaping on the site (including the roof top



terrace space on Level 3 and the planters and green walls proposed within the building. This approach is commended by Council and is consistent with the intent of the provisions of the Development Plan.

8.5.8 Infrastructure

Services and infrastructure should be provided that are appropriate for the intended development and desired character of the Zone or Policy Area (Environmental – Infrastructure, Objective 41). Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity (PDC 132). Development should only occur where it has access to adequate utilities and services, including electricity, water, drainage and stormwater, effluent disposal, telecommunications and gas (PDC 135).

A Building Services Report prepared by Lucid Consulting Australia and dated 13 December 2017 accompanies the application. It reports that:

- Discussion with SA Power Networks (SAPN) has resolved that a dedicated on-site transformer will be required to service the proposed development. Subject to final calculations, a 500kVa-rated transformer will be required.
- Electricity connection will be via high-voltage feed to the on-site transformer from existing SAPN high voltage infrastructure running along the Hutt Street (western) edge of the site. The electrical distribution system will include fire-rated mains to the main distribution switchboard on Level 2, including meters for each individual apartment and essential services power distribution.
- Preliminary discussions have been undertaken with SAPN in relation to re-positioning an existing power pole on East Terrace to provide clear access to the widened Cleo Lane, and reinstating street lighting to the new pole.
- NBN Co. is expected to serve the subject land by the anticipated completion date of the proposed development. The site has current access to Telstra copper communications infrastructure.
- Existing 150mm PVC sewer mains run along the East Terrace and Cleo Lane boundaries of the site. While a single connection will be sufficient to serve the site, the final number of connections will be resolved during detailed design.
- SA Water town water mains are provided to all 3 street frontages of the site. As SA Water will require that the development is served at minimum by a 200mm town main, it is expected that 200mm mains will be extended from the existing 400mm trunk main in Bartels Road to supply the proposed development with domestic cold water and fire services connections. A 50mm water meter will be provided near the East Terrace boundary of the site. Ground and mezzanine levels will be fed directly from the town mains, with above-carpark levels to be served via 2 x 5,000 litre capacity break tanks and an associated domestic cold water pressure pump assembly. Combined hydrant and sprinkler systems will be served by a 150mm connection to the proposed upgraded town main in East Terrace.
- Natural gas will be provided from existing low pressure gas mains in East Terrace or Hutt Street to a gas meter enclosure positioned at the rear of the building within a fire-rated enclosure under the groundmezzanine stairs.

• The proposed development will include 2 passenger lifts serving all levels of the building, with one sized to accommodate a stretcher in accordance with Building Code requirements.

8.6 Heritage and Conservation

Council Wide Objective 43 encourages development that retains the heritage value and setting of a heritage place, and its built form contribution to the locality.

No State or Local Heritage designation affects the subject land. The closest heritage place is approximately 50 metres south of the subject land, comprising Rymill House (and its wall and former coach house) which are listed as State Heritage Places.

The proposed development will not affect that site or its setting nor any other listed heritage place.

8.7 Built Form and Townscape

8.7.1 Height

Within the Council Wide Provisions – Built Form and Townscape, Objective 46 seeks to encourage reinforcement of the city's grid pattern of streets through measures including high-rise development framing the Park Lands.

Within the Capital City Zone, PDC 21 provides that development should not except in specified circumstances exceed the maximum building height shown in the relevant Concept Plan. Concept Plan Figure CC/1 shows a maximum building height of 22 metres applying to the subject land. The plans accompanying the Application show a maximum building height above street level of 53.9 metres to roof level.

Following a Ministerial amendment gazetted and commencing on 19 December 2017, PDC 21 now provides that:

- 21. Development should not exceed the maximum building height shown in Concept Plan Figures CC/1 and 2 unless:
 - (a) it is demonstrated that the development complements the context (having regard to adjacent built form and desired character of the locality) and anticipated city form in Concept Plan Figures CC/1 and 2; and
 - (b) only if:
 - (i) at least two of the following features are provided:
 - the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;
 - (2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;
 - (3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;
 - (4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities [sic] pedestrian network on Map Adel/1 (Overlay 2A);

- (5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;
- (6) residential, office or any other actively occupied use is located on all of the street facing sides of the building, with any above ground parking located behind;
- (7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;
- (8) more than 15 per cent of dwellings as affordable housing.
- (ii) plus all of the following sustainable design measures are provided:
 - a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;
 - (2) a greenroof, or greenwalls/façades supported by services that ensure ongoing maintenance;
 - (3) innovative external shading devices on all of the western side of a street facing façade; and
 - (4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.

In addition, PDC 16 provides that development that exceeds the applicable maximum building height, and meets the relevant quantitative provisions, should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions, including site configuration that acknowledges and responds to desired future character, and responds to the conditions and special qualities of a locality including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

The provisions of PDC 191 (Built Form and Townscape) calling for new development on major corner sites to define and reinforce the townscape importance of such sites are also relevant, noting that one design technique which is suggested is greater building height at corners. See section 8.7.6, below.

Using the PDC 21 criteria, there is justification for the proposed development to exceed the 22 metre maximum height specified for the subject land because:

• The proposed development will complement its context, having regard to adjacent built form and the desired character of the locality.

In the immediate environs of the subject land, existing built form is predominantly 2 to 4 storeys in height. But within the wider context, along Hutt Street and on either side in nearby streets, the existing built form is gradually giving way to a higher and more intense built form of development, including current and approved apartment and mixed used buildings in Flinders Street, Pirie Street, Hutt Street and East Terrace as outlined in section 3.2 above. The location of the proposed development, opposite expansive park lands and close to the commercial and retail hubs of Hutt Street and Rundle Street, and its



high level of accessibility to public transport services, mean that the development will be complementary to the existing and evolving desired character of its context.

The design and materiality of the lower levels of the building comprising the mezzanine and above ground parking levels present as a base podium compared to the higher residential levels. This complements the height of the adjacent apartment building on East Terrace / Bartels Road and others located further south along Hutt Street.

The desired character for the Capital City Zone, including daytime, evening and night time activity; high-scale development with high street walls that frame the streets; and an interesting pedestrian environment and human scale at ground floor levels all support a mixed-use development of significant scale.

As outlined in section 8.2 above, the proposed development is consistent with the Desired Character for high design quality of new development within the Capital City Zone, including by being contextual with its surrounds, durable and inclusive, incorporating appropriate sustainability measures and by providing a high level of amenity to habitable spaces.

• The proposed development will complement the anticipated city form in Concept Plan Figure CC/2.

While the site is within a portion of the Capital City Zone with a maximum prescribed height of 22 metres, it is within 100 metres of portions of the Capital City Zone with a 53 metre maximum prescribed height (to the west). Within this adjacent area, current and approved apartment and mixed-use buildings are beginning to establish a link with areas of taller built form in the Adelaide CBD core (where no building height limitation exists). Similarly, current and approved development along Hutt Street and to East Terrace will extend that visual and built form link eastwards and southwards.

The proposed development, although it exceeds in height the maximum prescribed height of 22 metres for the subject site, is both consistent with and complementary to the actual city form as it is emerging and evolving out of the transition anticipated in Concept Plan Figure CC/2.

 At least two of the features specified in paragraph (b) of PDC 21 are provided

In the wider context, the proposed development is considered to provide an orderly transition from the open space of the park lands up to existing taller buildings in the Adelaide CBD core.

In addition, an "actively occupied use" (a restaurant) is located on the public street-facing sides of the building (to Hutt Street and East Terrace), with no above-ground parking located on this level; and the range of dwelling types provided includes 13 dwellings out of 38 (some 34%) which are of 3 or more bedrooms, well exceeding the 10% specified in PDC 21(b)(7).

The above-ground car parking areas (floor to ceiling heights of 2.7 metres, as for apartment levels 3 to 13) are also considered to be adaptable for future uses (be they commercial or residential in nature).

• A rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance

Rooftop gardens are proposed at Level 3. To the extent that the uppermost roof level is not available for use as a rooftop garden

because it is reserved for a solar photovoltaic array, this is also considered to be a desireable sustainability outcome. A condition is proposed to ensure ongoing maintenance of the rooftop gardens.

• A greenroof, or greenwalls/façade supported by services that ensure ongoing maintenance

A substantial internal green wall is proposed to the restaurant and the common space above. A condition is proposed to ensure ongoing maintenance of the green wall.

• Innovative external shading devices on all of the western side of a street facing façade

While not external, the west-facing façade of the proposed development will feature double glazing with integrated interstitial blinds, under automated control with manual override available.

 Higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas

Private open spaces are provided in accordance with minimum prescribed standards to 30 of the 38 apartments, and in excess of those standards (in some instances substantially in excess) to the remaining 8 apartments. Each apartment enjoys access to natural light and ventilation. Natural ventilation is provided to corridors and lift lobbies. A greater degree of amenity is also afforded to occupants by virtue of the generous size of most of the apartments proposed, which exceed (some significantly) the minimum floor areas envisaged by the Development Plan.

It is considered that the PDC 16 requirement for a design which demonstrates a sufficiently high standard of design outcome in relation to the relevant qualitative policy provisions is achieved by the proposed development. This conclusion is supported by the terms of the Pre-Lodgement Agreement reached with the Government Architect.

In this instance, and given that the required PDC 21 criteria have been satisfied, the proposed height of the building at 53.9 metres (exceeding the 22 metres prescribed for the site in the Development Plan) is acceptable.

Within the Capital City Zone, PDC 25 was also amended by Ministerial amendment gazetted and commencing on 19 December 2017. It now provides that:

25 Parts of a development that exceed the prescribed maximum building height shown on Concept Plan Figures CC/1 and 2 that are directly adjacent to the City Living, Main Street (Adelaide) or the Adelaide Historic (Conservation) Zone boundaries should be designed to minimise visual impacts on sensitive uses in the adjoining zones and to maintain the established or desired future character of the area. This may be achieved through a number of techniques such as additional setback, avoiding tall sheer walls, centrally locating taller elements, providing variation of light and shadow through articulation to provide a sense of depth and create visual interest, and the like.

The proposed development is built to the boundary between the Capital City Zone applicable to the subject land, and the adjoining City Living Zone. While no additional setback is therefore provided, some off-site setback is provided by the fact that Cleo Lane, a private road of some 3 metres in width, runs along the eastern boundary of the subject land. Additional on-site setbacks for properties on the eastern side of Cleo Lane

mean that a distance of approximately 5.5 metres will exist between the proposed development and the closest building to the east.

While the eastern wall of the proposed development will be tall, it will not be without articulation and design interest. The curved nature of the design softens the building's appearance and provides a sculptural form. The balconies will provide a sense of depth and variation in light and shadow. The design of the façade to the parking levels is also sculptural providing interest and light and shadow for this component of the façade interface with adjacent residential development.

8.7.2 Bulk and Scale

While recognising that the Capital City Zone will accommodate intense urban development, the Development Plan also notes that the height, scale and massing of buildings should reinforce the desired character, built form, public environment and scale of the streetscape (Built Form and Townscape, PDC 170). The design should have regard to matters including avoiding massive unbroken façades, breaking up the building façade into distinct elements and including attractive planting, seating and pedestrian shelter.

While representing an increase in the scale of development in its immediate environs, the proposed development is consistent with the desired character for the Capital City Zone. The visual bulk of the proposed development has been reduced through a number of design initiatives including the horizontal articulation provided by the curved beam elements and articulation of the northern building façade to provide the impression of two separate buildings, side by side. Activation of the street frontages at ground and mezzanine levels, the rooftop garden at level 3 and balconies on each of the apartment levels will further contribute to visual interest and variety.

8.7.3 Building Setbacks

Within the Capital City Zone, buildings are to be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realms, whilst contributing to the interest, vitality and security of the pedestrian environment (Built Form and Townscape, PDC 179). However, the podium/street wall height, and upper level setback (in the order of 3-6 metres) should relate to the scale and context of adjoining built form; provide a human scale at street level; create a well-defined and continuity of frontage; and otherwise contribute to pedestrian comfort and interest (Capital City Zone, PDC 12).

While the proposed development does not provide for significant upper level setbacks (with the exception of the setback to the southern boundary, to accommodate the Level 3 roof garden), it is considered that ground-level setbacks, the "modular" appearance of the building to the northern elevation and the activation and visual permeability of the ground and mezzanine levels will contribute to pedestrian comfort and interest. In addition, the screening of above-ground parking levels 1 and 2 of the proposed development will create the visual impression of a solid podium at those levels, contrasting with the balconies and glazed windows at levels 3 and above.

It is considered that the proposed development provides an appropriate interface with both Hutt Street and East Terrace boundaries of the subject land.

8.7.4 Articulation and Modelling

PDC 182 (Built Form and Townscape) requires that building façades fronting streets or other public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired



character of the locality and the modelling and proportions of adjacent buildings.

Suggested design solutions include a design which defines a base, middle and top, related to the overall proportion of the building; using façade elements such as sun shading to reflect the orientation of the site; and using a variation of contrasting surface finishes, textures, colours or patterns.

The division of the proposed building between ground and mezzanine levels, with their active and permeable frontages; parking levels 1 and 2, with solid facades to the boundaries; and upper residential floors with their horizontal curved beams, balconies and glazed frontages, will contribute to visual articulation of the building in the vertical dimension. The use of a variety of materials, colours and finishes will complement and reinforce these design elements.

8.7.5 Materials, colours and finishes

PDC 187 (Built Form and Townscape) provides that the design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.

A wide range of materials and finishes are present within the locality. As such the materials proposed within the development are generally considered to be appropriate for this location. There is some potential for panels to the eastern and southern elevations of the new building to present large, blank surfaces from some vantage points, so further detail of material and patterning to these elevations should be provided. The retention of the quality of materials proposed for the building in the detailed design and development of the development is critical to the proposal and is particularly highlighted as part of the Pre-Lodgement Agreement comments by the Government Architect.

A proposed condition will require approval by SCAP of the final detailed materials schedule in consultation with the Government Architect.

8.7.6 Corner Sites

PDC 191 (Built Form and Townscape) provides that new development on major corner sites should define and reinforce the townscape importance of these sites with appropriately scaled buildings that establish an architectural form on the corner; abut the street frontage; and address all street frontages. Design techniques which are suggested for meeting this principle include articulation and modelling; prominent entrances and/or windows; and increased roof expression or building height at the corner.

As well as being at the major corner of Hutt Street and East Terrace, the subject land is opposite the south-western corner of Rymill Park. The proposed development will define and reinforce the townscape importance of the subject land by actively addressing (with entrances and windows) each of these major streets, and through its height and visual prominence, by defining the urban edge of the city.

8.7.7 Demolition

The planning report accompanying the application notes that the existing office building on the subject land will be demolished to allow construction of the proposed development. It asserts that no development plan consent is required for the demolition because of Schedule 1A of the *Development Regulations 2008*. However the exemption in Schedule 1 for partial or total demolition of a building does not apply in the area of the Corporation of the City of Adelaide, except to demolition undertaken "within a building".



Within the Council Wide provisions of the Development Plan, Built Form and Townscape – Demolition provides that where demolition of an existing building is proposed, the replacement building should be designed and sited to achieve the purposes of the relevant Zone and Policy Area, and to provide for quality urban design (Objective 53). Demolition of a building should not occur unless Development Approval for a replacement development has been granted, and if replacement development does not commence within 12 months of the granting of Development Approval, landscaping of the site should be undertaken (PDC 203).

For reasons set out in other sections of this report, it is recommended that the proposed development should be granted Development Plan Consent as it achieves the purposes of the Capital City Zone and provides for quality urban design. Approval for demolition of the existing building is also therefore recommended. A condition is proposed to achieve the outcomes specified in PDC 203.

8.7.8 Landscaping

PDC 207 (Built Form and Townscape - Landscaping) provides that landscaping should be selected and designed for water conservation; form an integral part of the design of development; and be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas and enhance the visual amenity of the area.

Within the constraints of a building built substantially to site boundaries (as is the proposed development), the landscaping for the proposed development is considered to meet the requirements of PDC 207. The design of the rooftop garden to level 3, the indoor green wall to the restaurant and the paving and landscaping to the widened Cleo Lane should be the subject of more detailed design to be approved by the SCAP, and to effective ongoing maintenance. Conditions to this effect are proposed.

8.7.9 Advertising

Objective 56 – Advertising within Built Form and Townscape aims for outdoor advertisements that are designed and located to reinforce the desired character and amenity of their location, to be concise and efficient, including by not contributing to confusion and visual clutter, and not to create a hazard. PDCs 211 to 217 set out design and location standards for advertising signage.

Some signage elements are depicted on the elevations and perspectives that accompanied the application, however no information as to the dimensions, materials, illumination or other details in relation to the signage has been provided. It is therefore recommended that the approval should not include any signage elements, and that all signage should be the subject of a separate application for Development Plan Consent.

8.8 Transport and Access

Development should provide safe, convenient and comfortable access and movement (Transport and Access, PDC 224), including by reflecting the significance and increasing the permeability of the identified pedestrian network (PDC 226), and by providing an adequate supply of on-site secure bicycle parking (PDC 234). No specific requirement for provision of on-site car parking arises for development in the Capital City Zone.

A Traffic Impact Statement Report dated 18 April 2018 and prepared by infraPlan accompanies the application. It includes a technical assessment of the operation and capacity of proposed carparking and access points, and an analysis of the likely traffic generation of the proposed development and its impact on the surrounding road network. It includes recommendations for



changes to the proposed development to ensure adequate performance of the surrounding road and traffic network.

The report finds that:

- The proposed building setback of 3 metres along Cleo Lane will facilitate two-way traffic movement in that lane along the property boundary, and is envisaged to improve access for other residence which have parking access from Cleo Lane.
- No changes are proposed for traffic movements into and out of Cleo Lane, which will continue to operate as left-in, left-out only.
- A total of 56 car parking spaces are provided as part of the proposed development in two sections at basement and above-ground levels.
- No visitor parking is proposed on site. Visitors are expected to use existing on-street car parks along Hutt Street, Pirie Street and Bartels Road. All on-site parking is for residents only, and not for visitors or staff of the restaurant.
- Five on-street parking bays will be removed as a result of the development, with one new space (possible loading bay) and 2 motorcycle parking bays being reinstated adjacent the frontage.
- The street tree in Hutt Street can be accommodated with entry and exist crossovers for the Hutt Street driveway entry positioned either side of the tree safely.
- Access to basement and upper parking levels of the proposed development will be via two single-lane ramps (accessed from either Cleo Lane or Hutt Street). A signalling system will be required to control one-way, reversible movements through the car parking levels and ramps, in accordance with guiding principles set out in the Report and refined further at the detailed design stage. The design of the proposed carpark was found to be in accordance with applicable Australian Standards.
- A total of 53 bicycle parking spaces (46 for residents and 7 for visitors and customers) are required for the proposed development under applicable provisions of the Development Plan.
- The proposed development provides 46 bicycle parking spaces for residents on Level 2, accessible via lifts. Six bicycle parking spaces for visitors will be provided on site. The shortfall of one visitor bicycle parking space is expected to be met through the use of existing or future on-street bicycle parking spaces in the vicinity. All bicycle parking provision will be in accordance with AS2890.3 Bicycle Parking.
- The existing trip generation in Cleo Lane by the current office use on the site is modelled to be 10 trips in the morning peak hour and 7 in the afternoon peak hour (66 throughout the day). This is based on RMS Guide for trip generation.
- The proposed residential development is anticipated to generate 6 trips in the morning peak hour and 5 in the afternoon peak hour for Cleo Lane, (with an equivalent amount for Hutt Street entry) and therefore reduce the trips in Cleo Lane during peak hours.
- Access out of Cleo Lane during peak hours is dependent on gaps being provided within queuing that occurs on East Terrace / Bartels Road, however this is not dissimilar to other CBD sites.

It is noted that Council has provided commentary on the report and sought clarification of a number of assumptions made in determining existing traffic



volumes in Cleo Lane. These are important to confirm prior to a decision to confirm traffic generation in Cleo Lane would be within acceptable standards.

Council has also questioned the ability to deliver a clear zone across the Cleo Lane junction, given current DPTI directions. The inability to deliver this, while increasing ease for residents, as it is understood, does not impact negatively on the findings of InfraPlan in terms of capacity/traffic generation modelled.

The amended scheme, by splitting the traffic movement to the site across two separate entrances represents a substantial improvement to the proposal (from a traffic perspective).

The ease of access and convenience of the bicycle parking location has been questioned by Council as it involves steps and movement through a narrowed section of walkway. This should be addressed through the detailed design process to ensure suitable access is sufficiently convenient for users walking their bikes from the lift to the bike parking/storage cage and can be covered by condition of approval.

9. CONCLUSION

The proposed development raises the following key planning issues:

- The height of the building, at 53.9 metres (to rooftop), exceeds the maximum height of 22 metres for the site prescribed in the Capital City Zone. While the Capital City Policy Review (Design Quality) Ministerial Amendment to the Development Plan, introduced in May 2017 and amended in December 2017, introduces discretion for the approval of development which exceeds a prescribed mandatory height limit in specific circumstances, it is conditional on a development reinforcing the anticipated city form and incorporating specified design and sustainability measures.
- The potential for access to the development for car parking and waste removal purposes from East Terrace via Cleo Lane to cause congestion, especially during peak periods, to users of East Terrace and Cleo Lane.
- Overlooking from the proposed development into some parts of adjoining land to the east, including in particular rear courtyards and habitable room windows at 83 and 85 East Terrace, and the increased solar shading of those dwellings.

In other respects, including land use, setbacks from site boundaries, micro-climactic (wind) impacts, the incorporation of sustainable design features, waste management and car and bicycle parking and internal amenity of the apartments, the proposed development complies or materially complies with all applicable policies, or compliance can be assured through the use of appropriate conditions.

The height of the building does not give rise to a referral requirement in respect of Adelaide Airport operations.

It is considered the building height of the proposed new development is justified by its design and its relationship to its locality. In Hutt Street, and the wider locality, a number of buildings already completed or approved for construction are of a similar height, or taller than, the proposed new building. As these new buildings are completed, a visual and built form link will emerge between the Adelaide CBD core and areas around Hutt Street and East Terrace. The proposed development, although exceeding the maximum prescribed 22 metre height for the subject site, will be consistent with and complementary of the emerging and anticipated built form in this area.

The terms of the Development Plan including the May 2017 Ministerial amendment as amended in December 2017 provide support for this outcome where the required high design standards are achieved. The proposed development is considered to achieve a high design standard, as demonstrated by the inclusion of the required number of design



and sustainability measures and as acknowledged by the Pre-Lodgement Agreement entered into by the applicant and the Government Architect in respect of the proposed development.

Public representations in relation to the proposed development emphasised the 3 points listed above (building height, potential traffic congestion and overlooking from the proposed development towards the east) as well as other points in relation to potential amenity impacts of the proposed restaurant. These views are noted. However, for reasons outlined in detail in this report, the proposed development is seen as eligible to exceed the maximum prescribed height for the subject site. Measures taken to provide articulation to the eastern elevation of the building will ameliorate the visual impact of the proposed development on existing dwellings to the west. Screening of parking levels 1 and 2 of the proposed development will prevent overlooking from those levels, and will remove the overlooking opportunity presented from the existing office building on the site at an equivalent or lower level. Design measures such as the curved concrete horizontal beams to each residential apartment level are expected to prevent overlooking into existing dwellings to the east, if able to be negotiated with adjacent land owners, however an alternative design solution is likely to be available to address this issue if required, and this can be addresses through a reserved matter.

On balance, the proposed development will make a positive contribution to the desired character of the Capital City Zone. It will substantially increase the population of this precinct and as a result its daytime and night-time vibrancy. It will increase the activation of this key interface between the city and the park lands and form a defined edge to mark that interface. It will provide significant opportunities for active and passive surveillance of the public realm during day and night-time hours and will substantially enhance public safety.

It is concluded that the proposed development should be approved in the form shown in the plan set and other materials accompanying the application, and subject to the conditions set out in the following section.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the Adelaide (City) Development Plan Consolidated 20 June 2017 and as subsequently amended by amendments gazetted on 4 July and 19 December 2017.
- 3) RESOLVE to grant Development Plan Consent to the proposal by Rymill Park Apartments Pty Ltd and Rymill Park Apartments Unit Trust for demolition of the existing office building and the construction of a 16-level mixed use building at 2– 6 Hutt, Adelaide, subject to the following reserved matters and conditions of consent.

RESERVED MATTERS

- 1. Pursuant to Section 33(3) of the *Development Act 1993*, the following matters shall be reserved for further assessment, to the satisfaction of the Development Assessment Commission, prior to the granting of Development Approval:
 - 1.1. A design solution addressing the overlooking of the development to the adjacent residential properties fronting East Terrace is provided in consultation with the Government Architect and to the reasonable satisfaction of State Commission Assessment Panel. This may either be in the form of a formal agreement for the encroachment of the currently proposed curved concrete beams to the eastern



façade from the adjacent land owners to which they encroach, or an alternative design measures that achieves the design intent.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 020/A081/17.

Architectural Plans by Tectvs Architects:

Drawing Title	Drawing No.	Revision	Date
Site Plan	P-01	V1-1	15/05/2018
Basement 2 Carpark	P-02	V1-1	14/05/2018
Basement 1 Carpark	P-03	V1-1	14/05/2018
Ground Level Restaurant and	P-04	V1-1	14/05/2018
Amenity Mezzanine – Resident Lounge, Terrace and Amenity	P-05	V1-1	14/05/2018
Level 1 - Carpark	P-06	V1-1	14/05/2018
Level 2 - Carpark	P-07	V1-1	14/05/2018
Level 3 – Residential and Roof Garden	P-08	V1-0	12/12/2017
Level 4 – Residential	P-09	V1-0	12/12/2017
Level 5-9 – Residential	P-10	V1-0	12/12/2017
Level 10-12 – Residential	P-11	V1-0	12/12/2017
Level 13 – Sub-Penthouse	P-12	V1-0	12/12/2017
Level 14 – Penthouse	P-13	V1-0	12/12/2017
Roof	P-14	V1-1	13/12/2017
Ceiling Plans – Ground and Mezzanine	P-15	V1-1	14/05/2018
Section A and B	P-16	V1-1	15/05/2018
North and East Elevations	P-17	V1-1	14/05/2018
South and West Elevations	P-18	V1-1	14/05/2018
Perspective One – Looking South-East (East Terrace)	P-19	V1-0	12/12/2017
Perspective One – Looking South-East (East Terrace) showing changes	P-19-A	V1-0	14/05/2018
Perspective Two – Looking North-East (Hutt Street)	P-20	V1-1	14/05/2018
Perspective Three – Looking North (Cleo Lane)	P-21	V1-1	14/05/2018
Perspective Four – Looking South-West (East Terrace)	P-22	V1-1	14/05/2018
Public Realm Contribution – Café/Laneway/Urban Realm	P-23	V1-1	14/05/2018
Greening Strategy	P-24	V1-0	12/12/2017
Landscaping – Cleo Lane	P-25	V1-0	12/12/2017
Landscaping – Roof Garden and Resident Foyer	P-26	V1-0	12/12/2017
Materials - External	P-27	V1-1	14/05/2018
Materials - External Materials Board	P-28	V1-0	12/12/2017
Perspectives – Hutt Street Residential and Car Entries	P-29	V1-0	14/05/2018

Reports and correspondence:

- (a) Planning Statement Future Urban, 13 Dec. 2017
- (b) Traffic Impact Statement Report InfraPlan, 18 April 2018
- (c) Waste Management Preliminary Draft Report InfraPlan, 18 April 2018
- (d) Sustainability Strategy D Squared Consulting, 31 October 2017
- (e) Wind Assessment D R Partners, 30 November 2017
- (f) Stormwater Assessment D R Partners, 30 November 2017
- (g) Building Services Report Lucid Consulting Australia, 13 December 2017
- (h) Acoustic Assessment Sonus, December 2017
- (i) Response to Representations Future Urban Group, 23 April 2018

External Materials

2. Prior to Development Approval being issued for superstructure works, a final detailed schedule of materials and finishes shall be submitted in consultation with the Government Architect to the satisfaction of the State Commission Assessment Panel.

Roof Forms

3. Prior to Development Approval being issued for superstructure works, a final detailed design for penthouse roof forms including the layout of the photo-voltaic panels shall be submitted in consultation with the Government Architect to the satisfaction of the State Commission Assessment Panel. The detailed design must assist in mitigating the height of the development and the visual impact of the roof line.

Driveway and parking areas

- 4. All vehicle driveways and vehicle entry and manoeuvring areas shall be designed and constructed in accordance with Australian Standards AS2890.1:2004 and AS2890.6.2009) and be constructed, drained and paved with bitumen, concrete or paving bricks in accordance with sound engineering practice and appropriately line marked to the reasonable satisfaction of the State Commission Assessment Panel prior to the occupation or use of the development. Traffic and parking signage and line marking must meet the requirements of AS2890.1-2004 and the AS1742 series as applicable.
- 5. All bicycle parking spaces shall be designed and constructed in accordance with Australian Standard 2890.3-2015.
- 6. Access to the bicycle storage area on Level 2 shall be designed to be free of any steps between the lift and the storage cage door and should allow sufficient width for a person walking their bicycle. The door to bicycle storage area should avoid the use of heavy swing doors and where possible should be automated and access to the storage area. These details shall be, in consultation with the City of Adelaide, provided to the reasonable satisfaction of the State Commission Assessment Panel prior to the Development Approval being issued for superstructure works.
- 7. Prior to Development Approval being issued, additional details shall be provided to the satisfaction of the State Commission Assessment Panel documenting the design and management of the traffic management system to control one-way, reversible movement of vehicles through the car parking levels and ramps,.

Hours of operation of restaurant

- 8. The hours of operation of the restaurant (or other retail or commercial or licensed premises however described) forming part of the development shall not exceed the times specified in any applicable liquor licence or if no such times are specified, the times:
 - 7.1 Sunday to Thursday (excluding public holidays) 7 am to 10pm.
 - 7.2 Friday and Saturday (excluding public holidays) 7 am to 12am.
 - 7.3 Public holidays 7 am to 10pm.

Structure

- 9. The finished floor level of the ground floor level entry shall match that of the existing footpath unless otherwise agreed to by the SCAP.
- 10. Prior to the commencement of construction, a dilapidation report (i.e. condition survey) prepared by a qualified engineer shall be provided to the SCAP to ensure the stability and protection of adjoining buildings, structures and Council assets.

Soil Contamination

11. A statement by a suitably qualified professional that demonstrates that the land is suitable for its intended use (or can reasonably be made suitable for its intended use) shall be submitted to the SCAP prior to any superstructure works.

Acoustics

- 12. The acoustic attenuation measures recommended in the Acoustic Assessment, dated December 2017 by Sonus, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the SCAP. Such acoustic measures shall be made operational prior to the occupation or use of the development.
- 13. Air conditioning or air extraction plant or ducting shall be screened such that no unreasonable nuisance or loss of amenity is caused to residents and users of properties in the locality to the reasonable satisfaction of the State Commission Assessment Panel.

Waste Collection

14. Waste collection from the subject land will be strictly in accordance with the Waste Management Preliminary Draft Report dated 27 October 2017 (or any revised or updated report endorsed by the SCAP). Collection times will be strictly adhered to and communicated to residents to minimise inconvenience to residents using upper parking levels.

Lighting

- 15. All external lighting on the subject land shall be designed and constructed to conform to Australian Standard (AS 4282-1997).
- 16. Lighting under the proposed canopies shall meet Council's under verandah requirements.

Signage

17. No signage forms part of this development plan consent. No advertising display or signage shall be erected or displayed upon the subject land without any required Development Approval first being obtained.

Infrastructure

18. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, lighting, footpaths etc.) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.

Landscaping

19. A detailed landscaping plan for the level 3 rooftop garden and the internal green wall shall be submitted to the reasonable satisfaction of the SCAP prior to Building Rules Consent being granted for superstructure works. This shall identify planting medium depths, irrigation methods, inspection and maintenance schedules and

methods and other features of the landscaping scheme to demonstrate viability of all plantings. The detailed landscaping plan shall be reflected, as necessary, in all other relevant plans and drawings (including, for example, sectional drawings).

- 20. A detailed landscaping and pavement plan for Cleo Lane (where it forms the boundary of the subject site) shall be submitted to the reasonable satisfaction of the SCAP prior to Building Rules Consent being granted for superstructure works. The pavement plan must demonstrate collaboration with Council to achieve an integrated outcome for all new paving treatments and with adjoining landowners and Council to achieve a satisfactory landscaping outcome. The landscaping plan shall identify planting medium depths, irrigation methods, inspection and maintenance schedules and methods and other features of the landscaping scheme to demonstrate viability of all plantings. The paving plan and the detailed landscaping plan shall be reflected, as necessary, in all other relevant plans and drawings (including, for example, sectional drawings).
- 21. Landscaping shown on the approved plans (including without limitation the green wall, the rooftop garden and the landscaping and paving to Cleo Lane) shall be established prior to the occupation of the development and shall be inspected regularly and maintained and nurtured at all times with any diseased or dying plants to be replaced.
- 22. A watering system shall be installed at the time landscaping is established, and operated so that all plants receive sufficient water to ensure their survival and growth.

Stormwater

- 23. A final detailed Stormwater Management Plan shall be submitted, in consultation with the City of Adelaide and to the satisfaction of the SCAP. The details of the plan shall be incorporated within the Building Rules Consent documentation, submitted for Development Approval, and be implemented prior to occupation or use of the development.
- 24. All stormwater design and construction shall be in accordance with Australian Standard AS/NZS 3500.3:2015 (Part 3) to ensure that stormwater does not adversely affect any adjoining property or public road.
- 25. Any collection of water from:
 - seepage in the basement carparking levels
 - seepage from proposed planter boxes, green wall or roof garden
 - splash areas around proposed swimming pools
 - surface areas of car parks on levels 1 and 2

must not be discharged to the property stormwater system, but into either the sewer or property recycled water system.

Construction Management

- 26. A Waste Management Plan that details the proposed waste minimisation and resource recovery practices during demolition construction shall be prepared and implemented.
- 27. Demolition waste and excavated materials (including soil) shall be appropriately classified, managed and stored for on-site use or transported off-site for re-use and/or disposal in accordance with the Environment Protection Authority (EPA) Guideline: Standard for the Production and Use of Waste Derived Fill (October 2013).



- 28. If construction of the approved development does not commence within 12 months of the granting of Development Approval, landscaping of the subject site should be undertaken in consultation with the SCAP and Council.
- 29. A Construction Environment Management Plan (CEMP) shall be prepared and implemented in accordance with current industry standards including the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites Second Edition" and, where applicable, "Environmental Management of On-site Remediation" to minimise environmental harm and disturbance during demolition and construction.

A copy of the CEMP shall be provided to the SCAP and the City of Adelaide prior to the commencement of site works (including demolition).

EPA information sheets, guidelines documents, codes of practice, technical bulletins etc. can be accessed on the following website: http://www.epa.sa.gov.au

ADVISORY NOTES

- a. This Development Plan Consent will expire after 12 months from the date of this Notification, unless final Development Approval from Council has been received within that period or this Consent has been extended by the State Commission Assessment Panel.
- b. The applicant is also advised that any act or work authorised or required by this Notification must be substantially commenced within 1 year of the final Development Approval issued by Council and substantially completed within 3 years of the date of final Development Approval issued by Council, unless that Development Approval is extended by the Council.
- c. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).
- d. The applicant shall ensure there is no objection from any of the public utilities in respect of underground or overhead services and any alterations that may be required are to be at the applicant's expense.
- e. As work is being undertaken on or near the subject land boundary, the applicant should ensure that the boundaries are clearly defined, by a Licensed Surveyor, prior to the commencement of any building work.
- f. Any proposed works within the public realm adjacent to the site, including the installation of street furniture, planting of street trees, roadway modifications or changes to temporary parking controls shall be undertaken in consultation with the City of Adelaide. Improvements to the adjacent public realm outside of the identified subject land are not part of this planning consent.
- g. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.
- h. Approval for the construction methodology of the proposed building may be required from the Secretary for the Commonwealth Department of Infrastructure and



Regional Development, in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996.

- i. Any further proposed addition to the structure, including aerials, masts and vent/exhaust stacks, must be subject to a separate assessment by the Commonwealth Department of Infrastructure and Regional Development. Crane operations associated with construction shall be the subject of a separate application. Adelaide Airport Limited requires 48 days prior notice of any crane operations during the construction.
- j. This application makes the commitment to retain the street tree on Hutt Street to the front of the proposed driveway access. Construction of the development should ensure that the street tree is not damaged and incorporate appropriate protective measures as required by Council.
- k. The applicant is reminded of its general environmental duty, as required by Section 25 of the Environment Protection Act, to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.
- I. Building sites can also be major contributors of suspended solids, concrete wash, building materials and wastes, to stormwater and, potentially, receiving waters, if there are inappropriate management practices. Construction work and site preparation must be undertaken in a manner that does not allow the escape of soil, sediment or other pollutants by wind or water to the stormwater system at levels that breach the EPA's *Environment Protection (Water Quality) Policy 2003*.
- m. During construction the applicant must ensure that every effort is made to minimise noise and dust emissions generated from site works, particularly by use of heavy machinery and vehicular movements.
- n. Construction must be carried out so that it complies with the Construction Noise provisions of Part 6, Division1 of the *Environment Protection (Noise) Policy 2007*. A copy of the Policy can be viewed at: http://www.legislation.sa.gov.au
- Any information sheets, guidelines documents, codes of practice, technical bulletins etc. that are reference in this response can be accessed on the following web site: http://www.epa.sa.gov.au

David Barone

Consultant Planner

Rymill



Project

Rymill Park Apartments - 2 Hutt Street, Adelaide, SA, 5000

Issue

ODASA Pre-Lodgement Agreement

Description

Plan Drawings, Elevations, Sections and Visualisations

Date

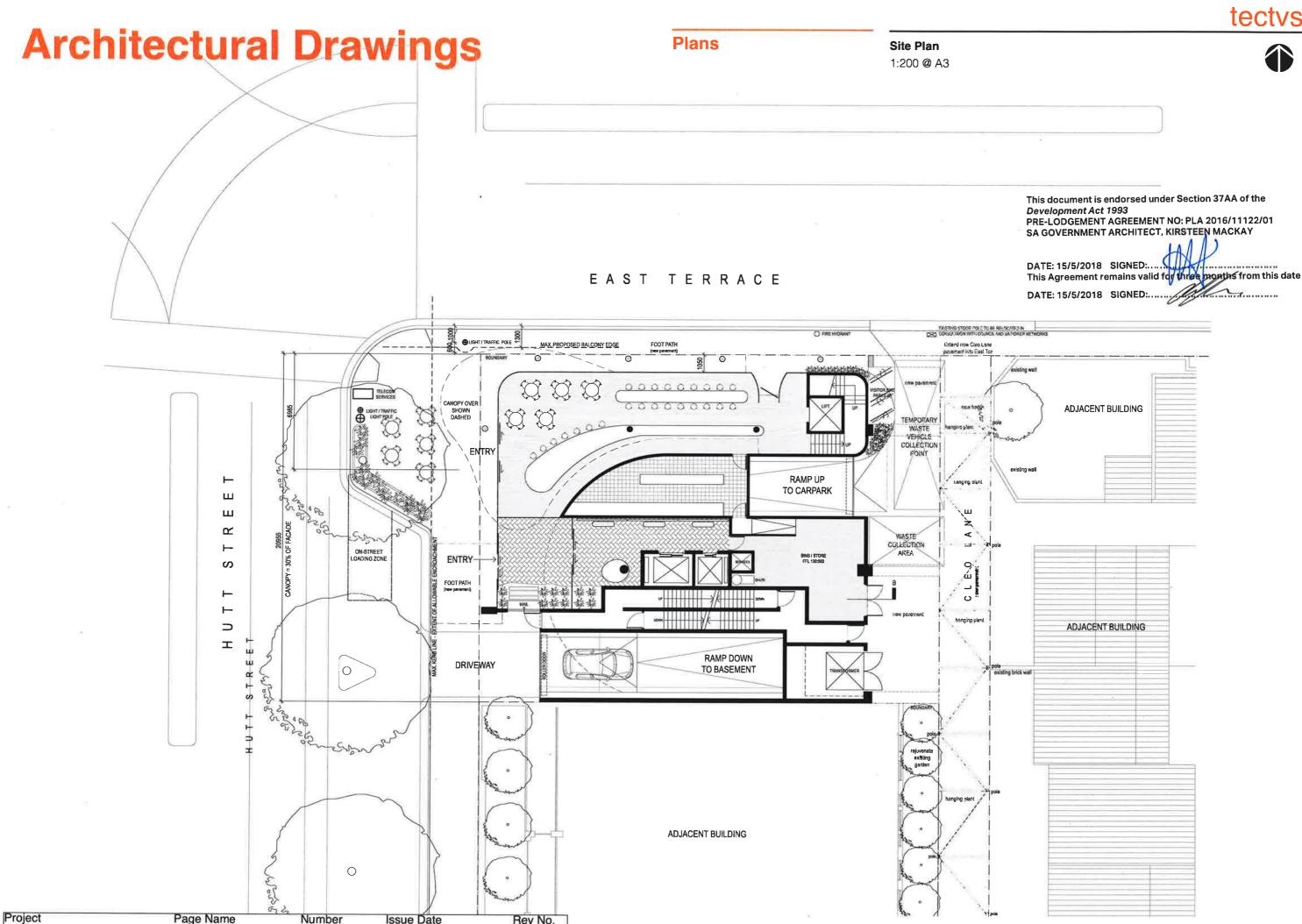
14-05-2018

Version

1-1

This document is endorsed under Section 37AA of the Development Act 1993 PRE-LODGEMENT AGREEMENT NO: PLA 2016/11122/01 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 15/5/2018 SIGNED:...
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28061 - 2 Hutt Street

Site Plan

14-05-2018

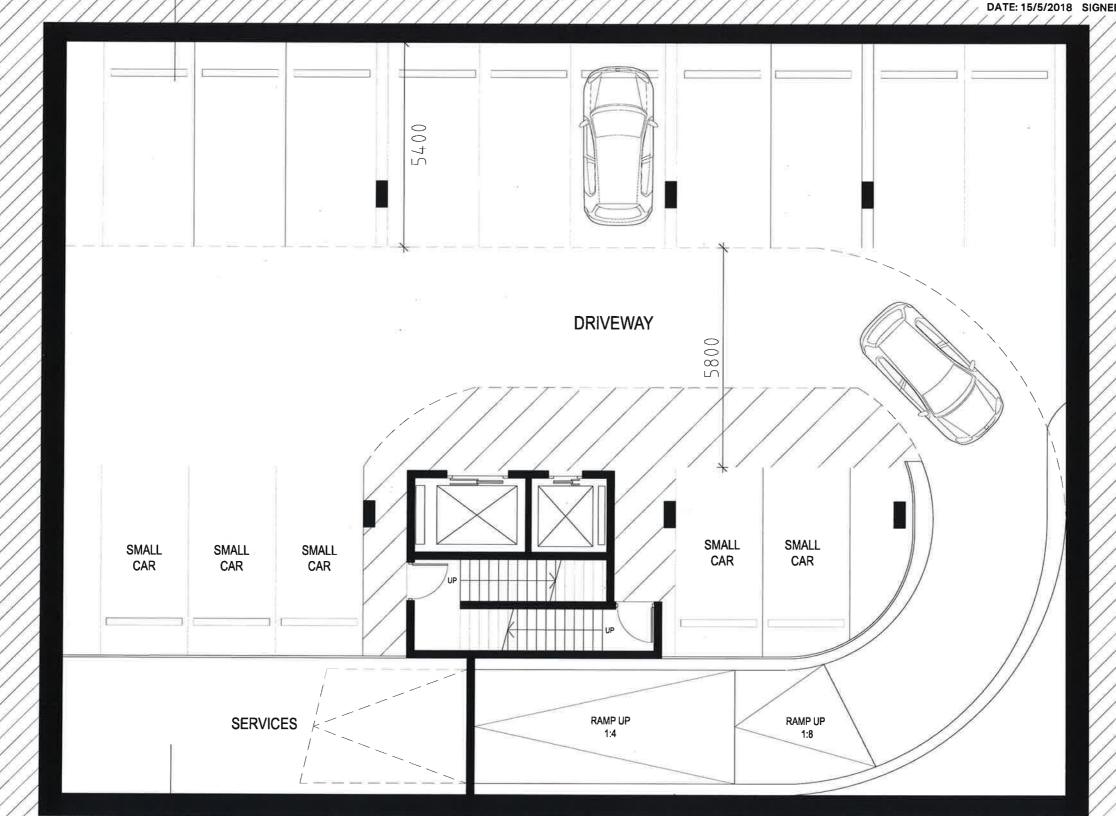
Plans

Basement 2 - Carpark 1:100 @ A3

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L14 L13 L10-12 L5-9

Page Name Number Issue Date 28061 - 2 Hutt Street Basement 2 Plan P-02 14-05-2018

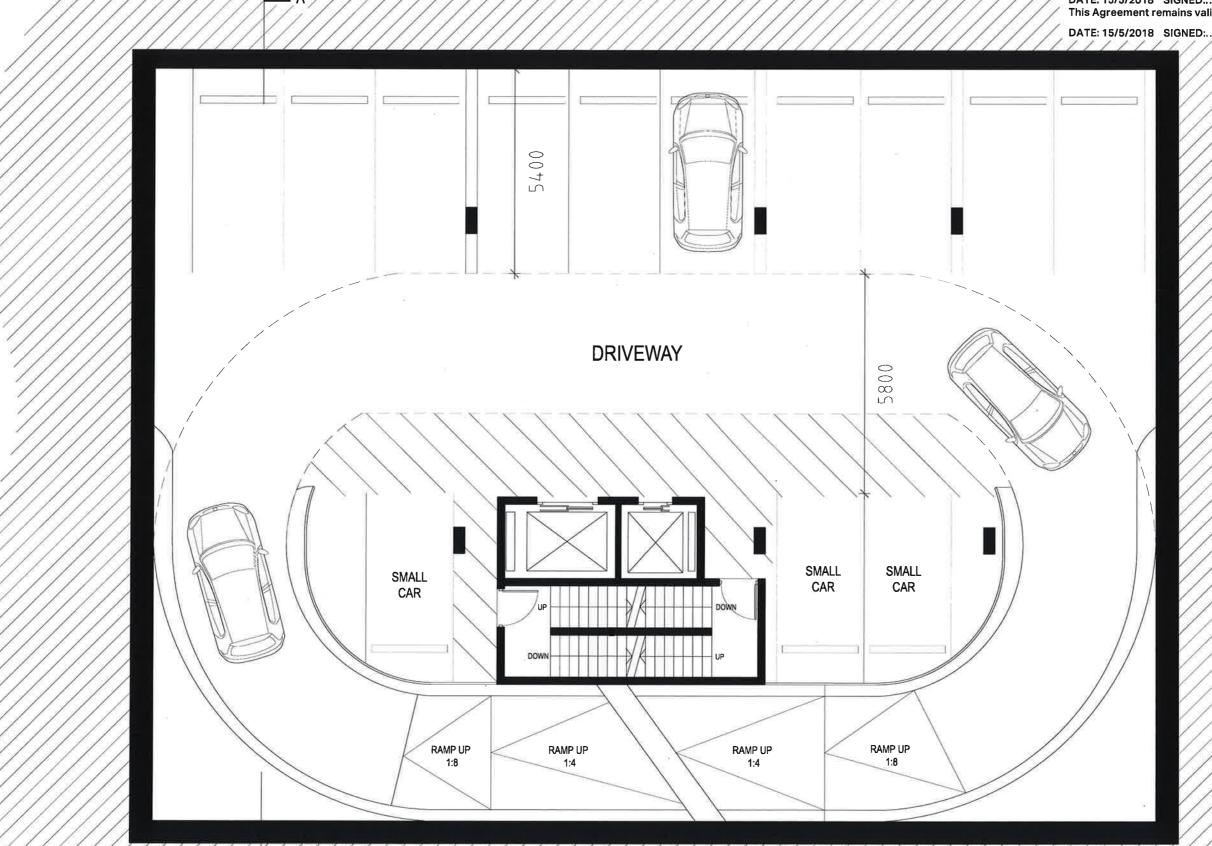
Rev No. v1-1

Plans

Basement 1 - Carpark 1:100 @ A3

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L13 L10-12 L5-9 L4 L3 L2

Project 28061 - 2 Hutt Street

Page Name Basement 1 Plan

Number Issue Date P-03

14-05-2017

Rev No.

tectvs

Ground Level - Restaurant & Amenity

1:100 @ A3



Architectural Drawings

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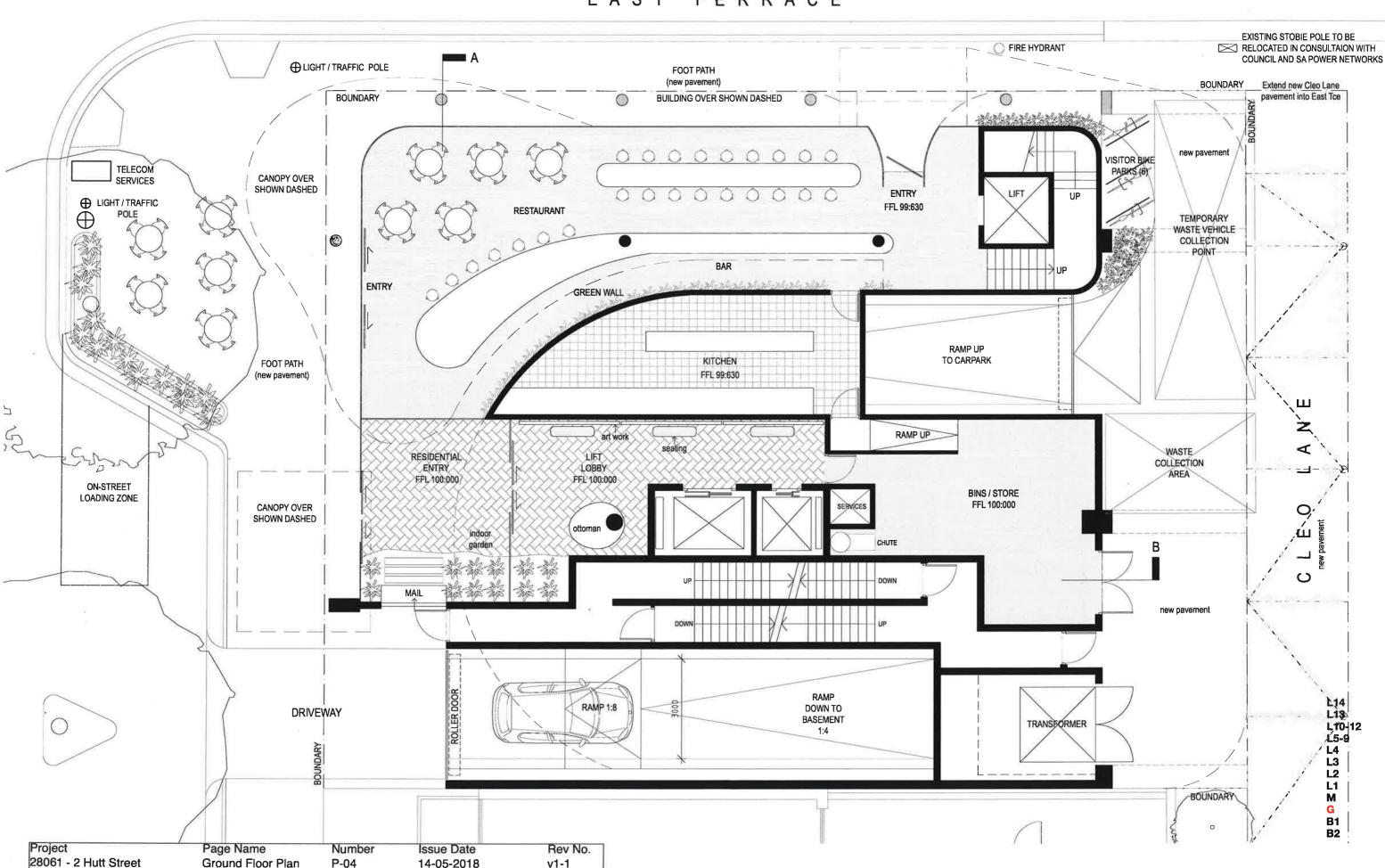
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Development Act 1993



28061 - 2 Hutt Street

Mezzanine Plan

P-05

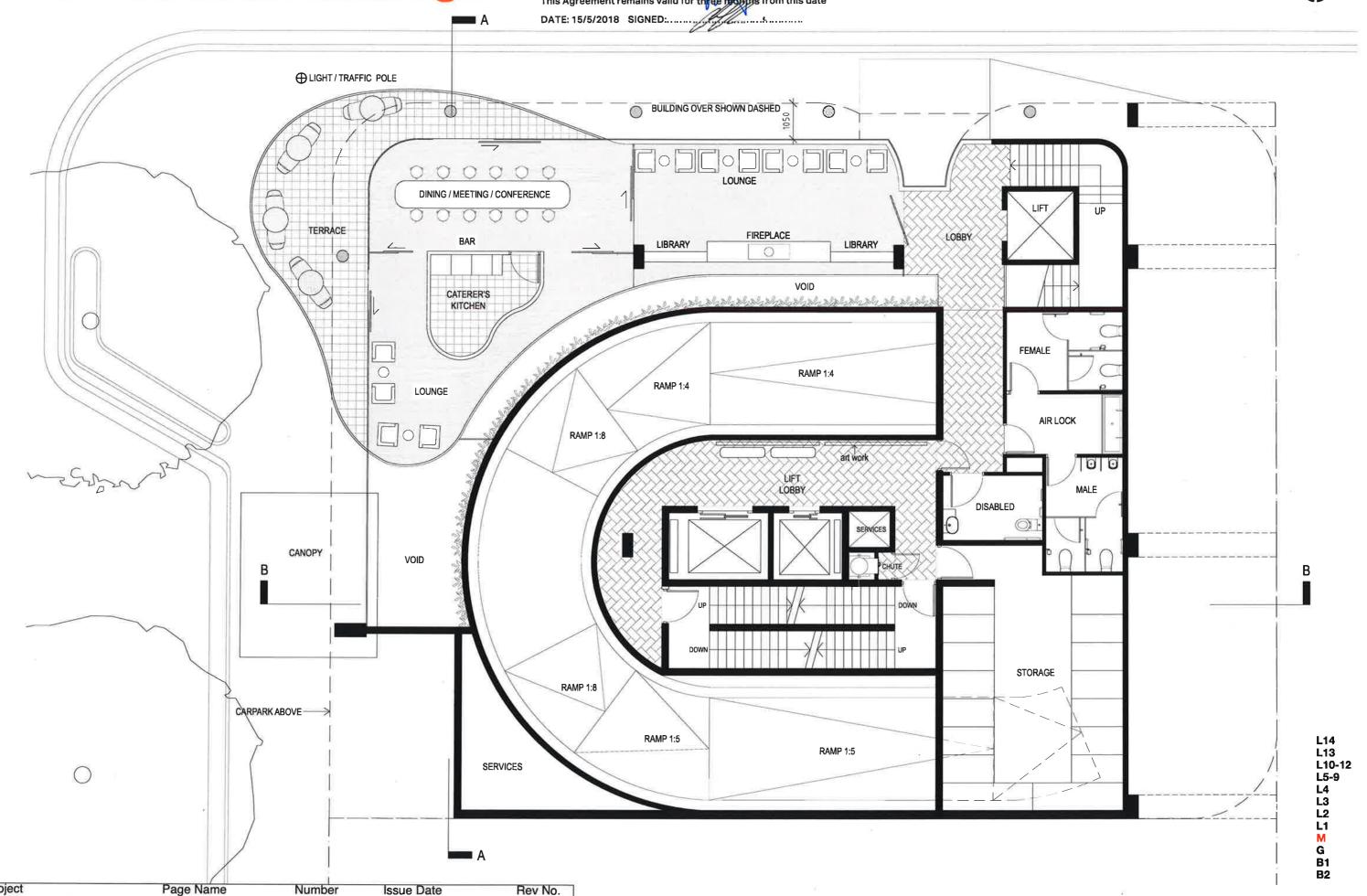
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 Mezzanine - Resident Lounge, Terrace & Amenity 1:100 @ A3



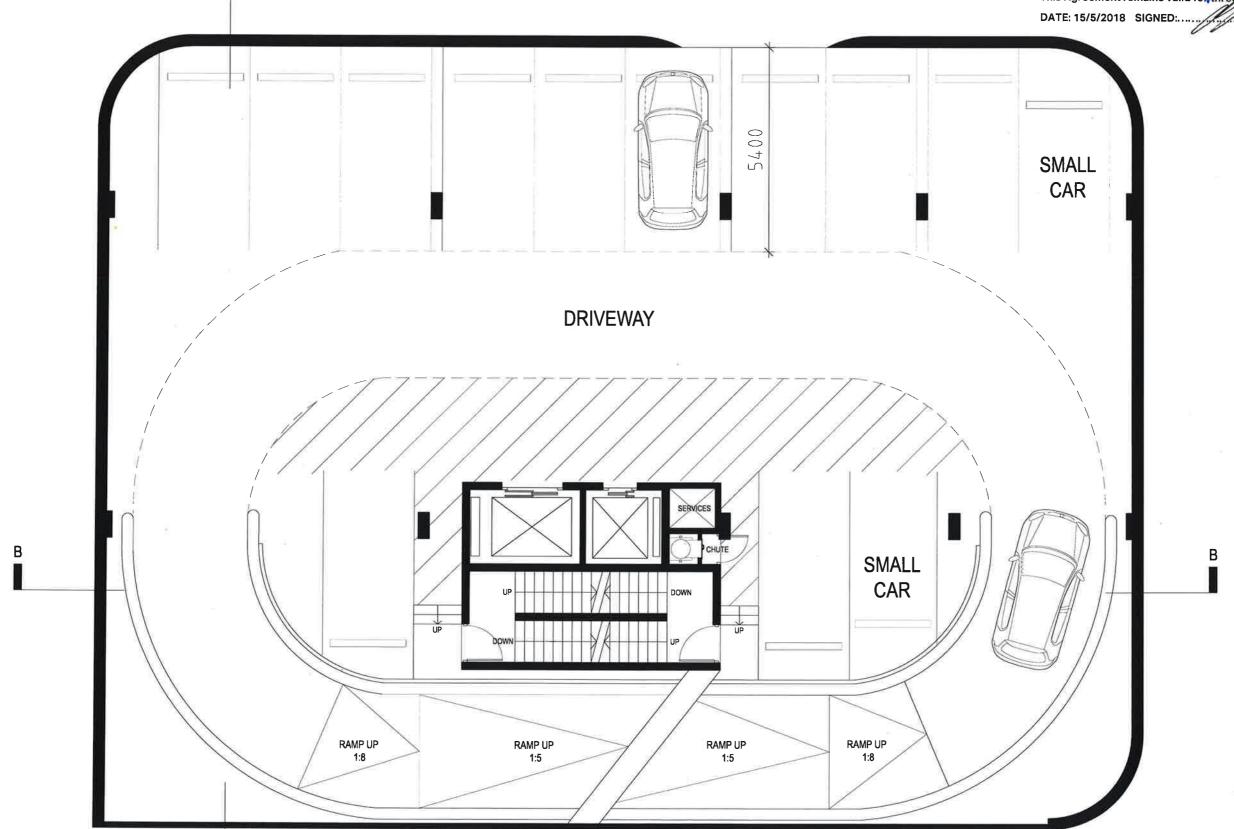


Plans

Level 1 - Carpark 1:100 @ A3

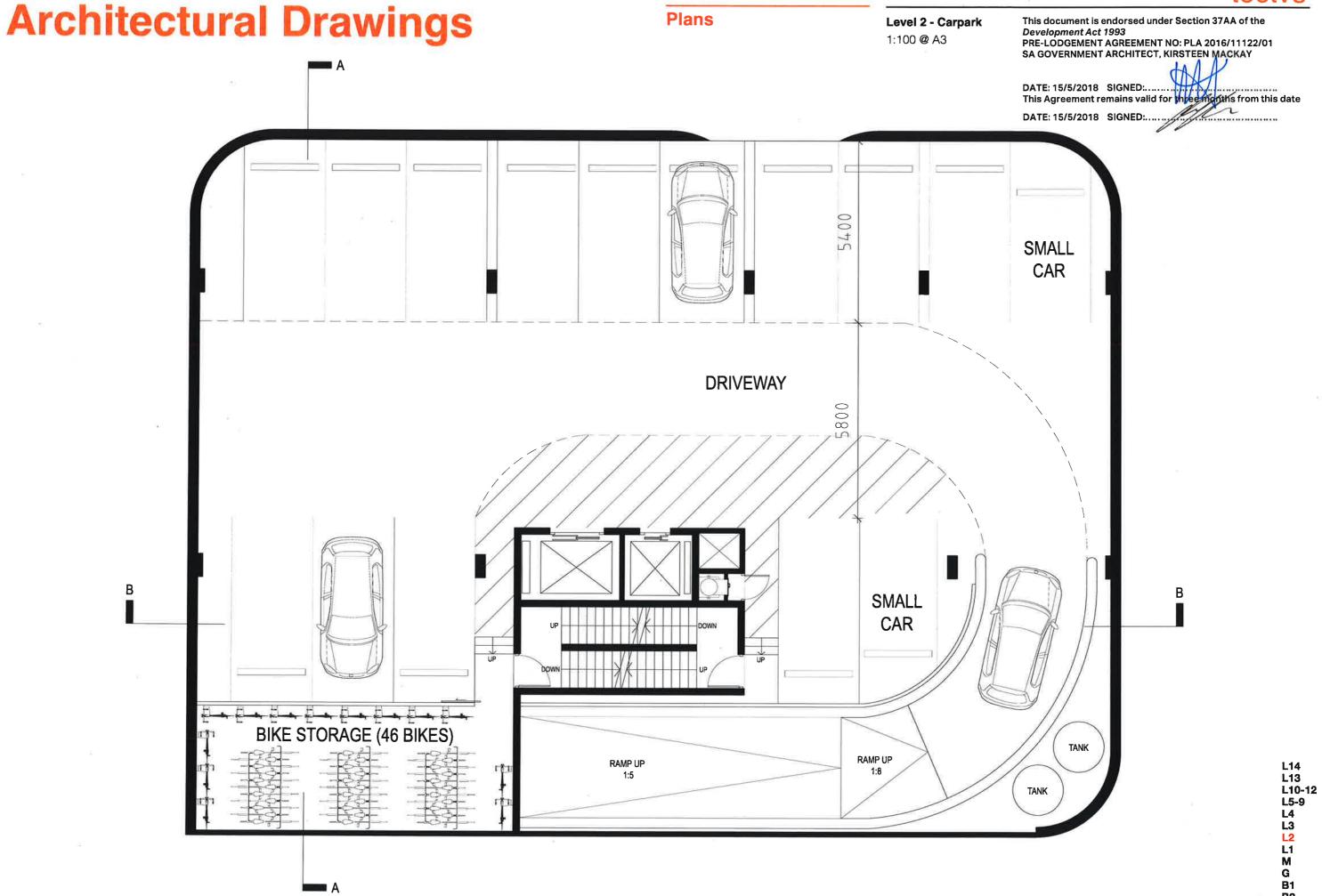
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L14 L13 L10-12 L5-9 L4 L3 L2 L1 M G B1 B2

Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Level 1 Plan P-06 14-05-2018 v1-1



Project 28061 - 2 Hutt Street

Page Name

Level 2 Plan

Number

P-07

Issue Date

14-05-2018

Rev No.

Architectural Drawings Plans Level 3 - Residential & Roof Garden 1:100 @ A3 This document is endorsed under Section 37AA of the Development Act 1993 APARTMENT 303 APARTMENT 304 PRE-LODGEMENT AGREEMENT NO: PLA 2016/11122/01 - 108 sqm - 93 sqm SA GOVERNMENT ARCHITECT, KIRSTEEN, MACKAY Total Living - 62 sqm Living - 82 sqm Living Terrace - 8 sqm Terrace - 11 sqm Terrace - 11 sqm DATE: 15/5/2018 SIGNED:..... This Agreement remains valid for three months from this date Beds Beds - 2 Beds - 2 - 1.5 Baths - 2 Baths - 2 DATE: 15/5/2018 SIGNED:.... 5000 BED 2 TERRACE DINING LIVING SITTING LIVING 9999 TERRACE KITCHEN BATH / DINING MASTER L'DRY KITCHEN \mathbb{H}_{\odot} MASTER L'DRY/ BED 2 GALLERY PWD LAUNDRY ROBE **ENTRY** ENTRY ROBE 0 PWD APARTMENT 301 0 0 - 72 sqm - 64 sqm LOBBY L'DRY - 8 sqm Terrace Beds - 1 ENS. ROBE APARTMENT 305 Baths - 1.5 ENTRY Living -75 sqm MASTER **KITCHEN** Теггасе -11 sqm Court - 9 sqm Beds - 2 Baths - 2 LIVING KITCHEN ENTRY TERRACE ROBE L'DRY ROBE TERRACE L14 SERVICES L13 L10-12 L5-9 L4 ROOF GARDEN - 38 sqm L3 L2 COURT BATH MASTER **ROOF TOP** BED 2 GARDEN L1 G **B**1

Project

28061 - 2 Hutt Street

Page Name

Level 3 Plan

Number

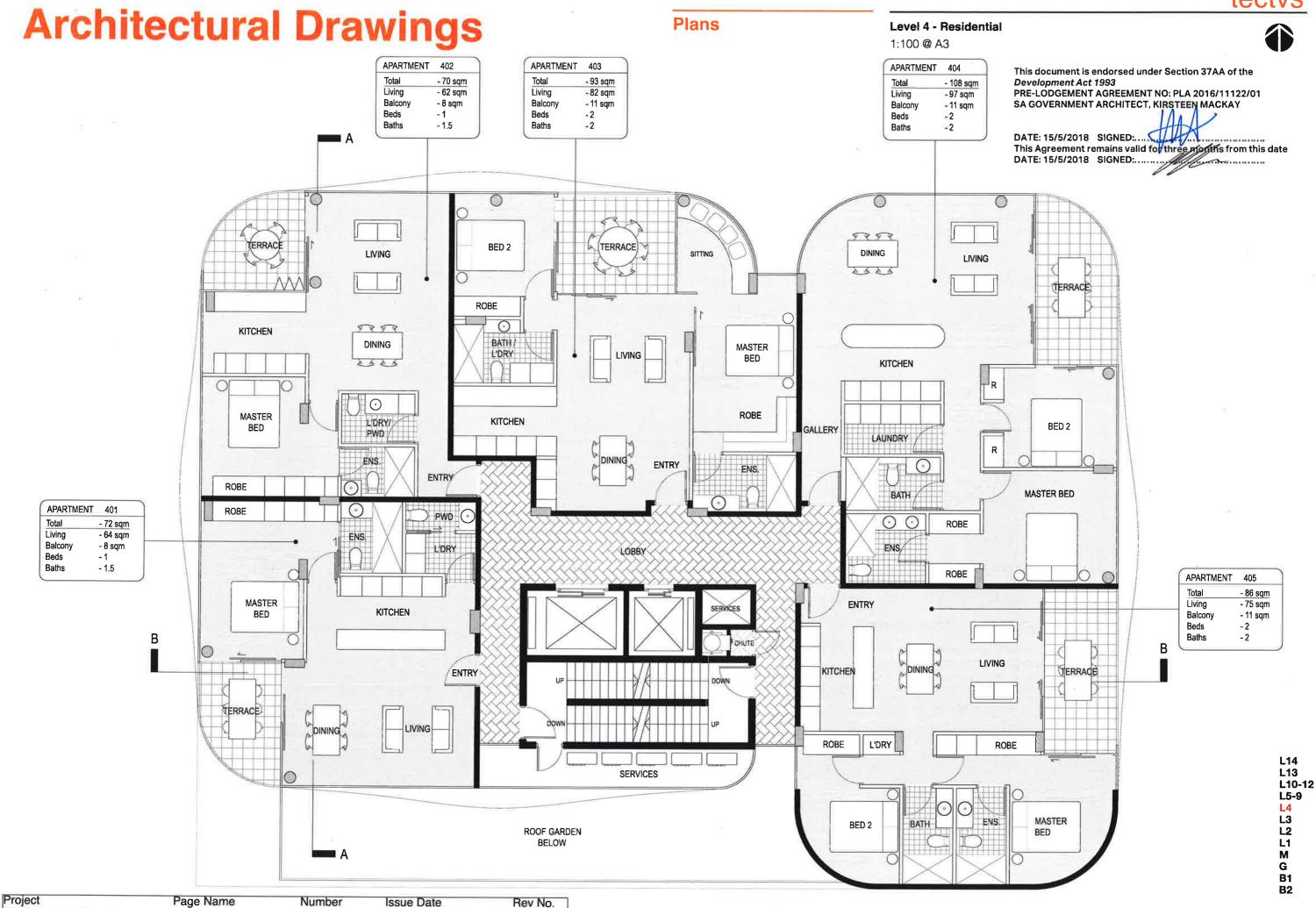
P-08

Issue Date

12-12-2017

Rev No.

v1-0



28061 - 2 Hutt Street

Level 4 Plan

P-09

12-12-2017

v1-0

Plans

Level 5-9 - Residential

1:100 @ A3

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Plans

Level 10-12 - Residential

1:100 @ A3



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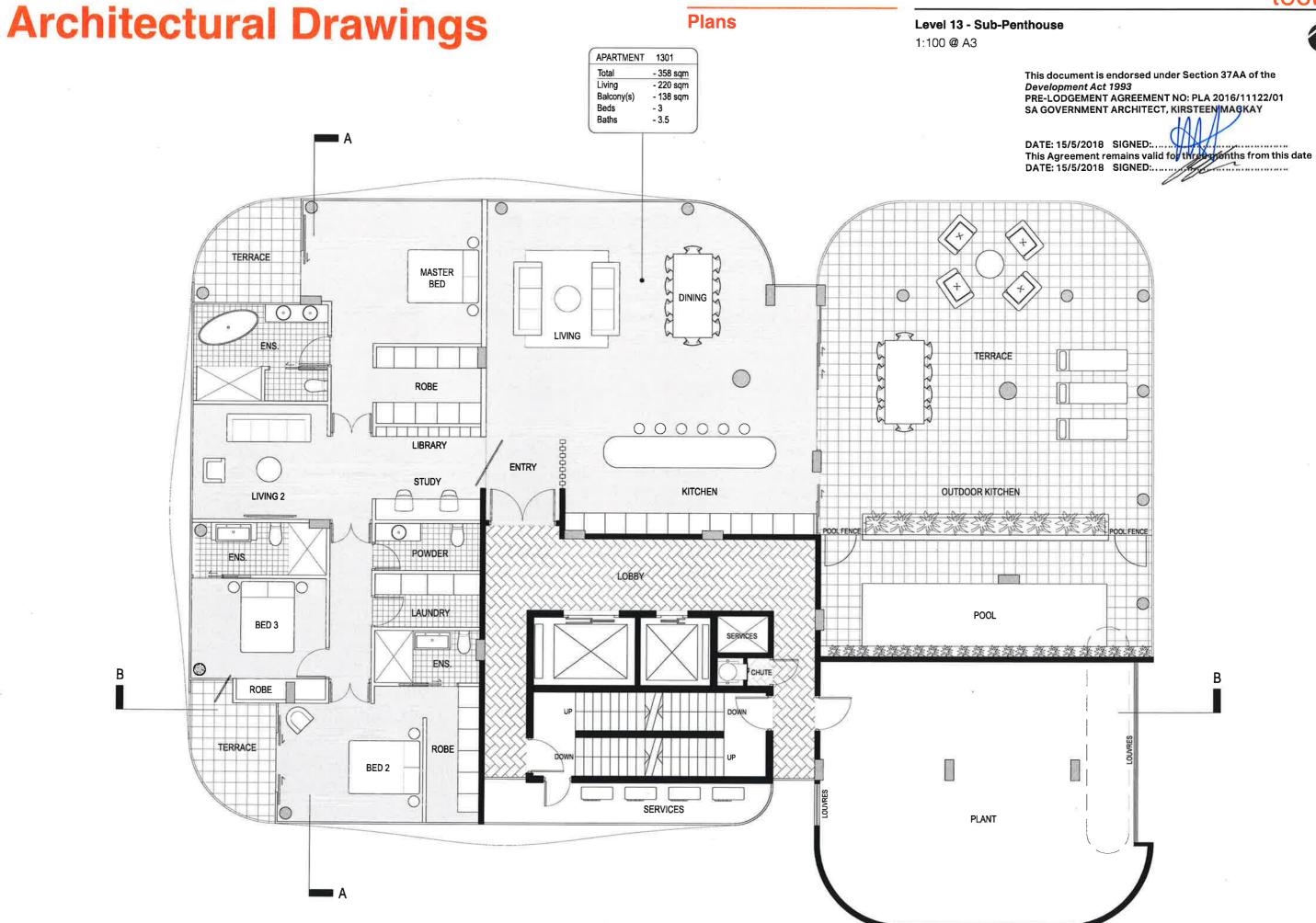
Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Level 10 - 12 Plan 12-12-2017 v1-0

L14 L13 L10-12

L5-9

L4 L3 L2 L1

B1



Project

28061 - 2 Hutt Street

Page Name

Level 13 Plan

Number

P-12

Issue Date

12-12-2017

Rev No.

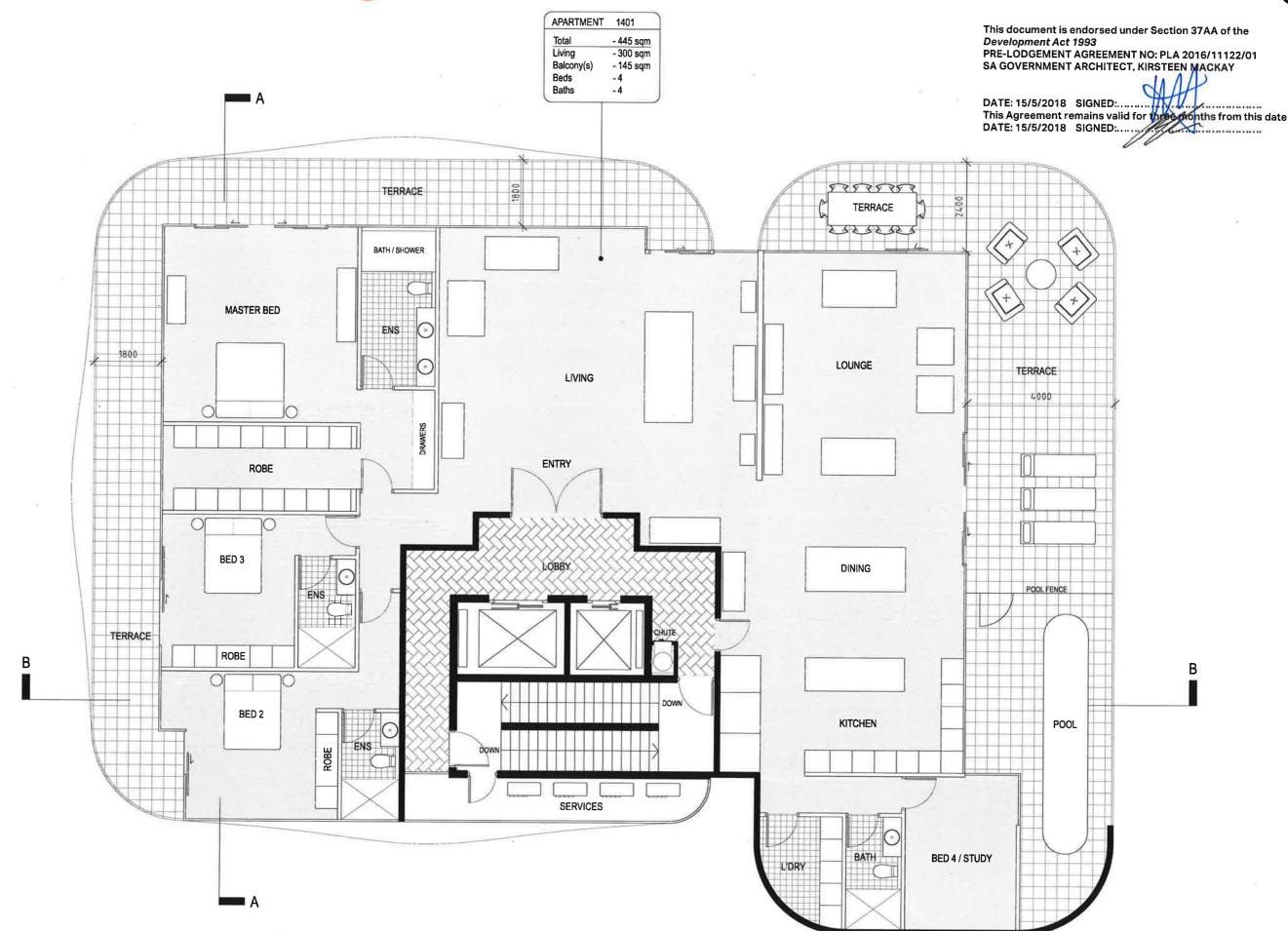
v1-0

Plans

Level 14 - Penthouse

1:100 @ A3





L13 L10-12 L5-9 L4 L3 L2 L1 M G **B**1

Plans

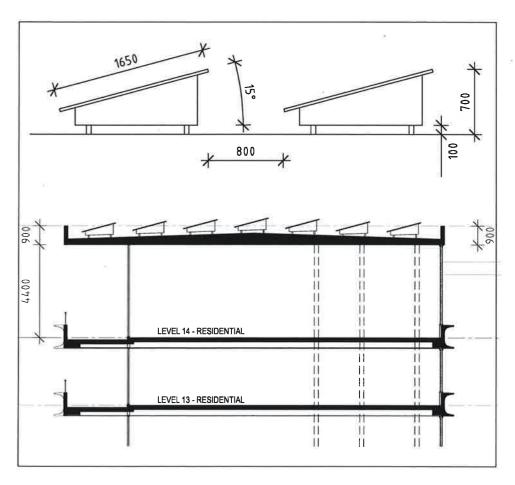
Roof

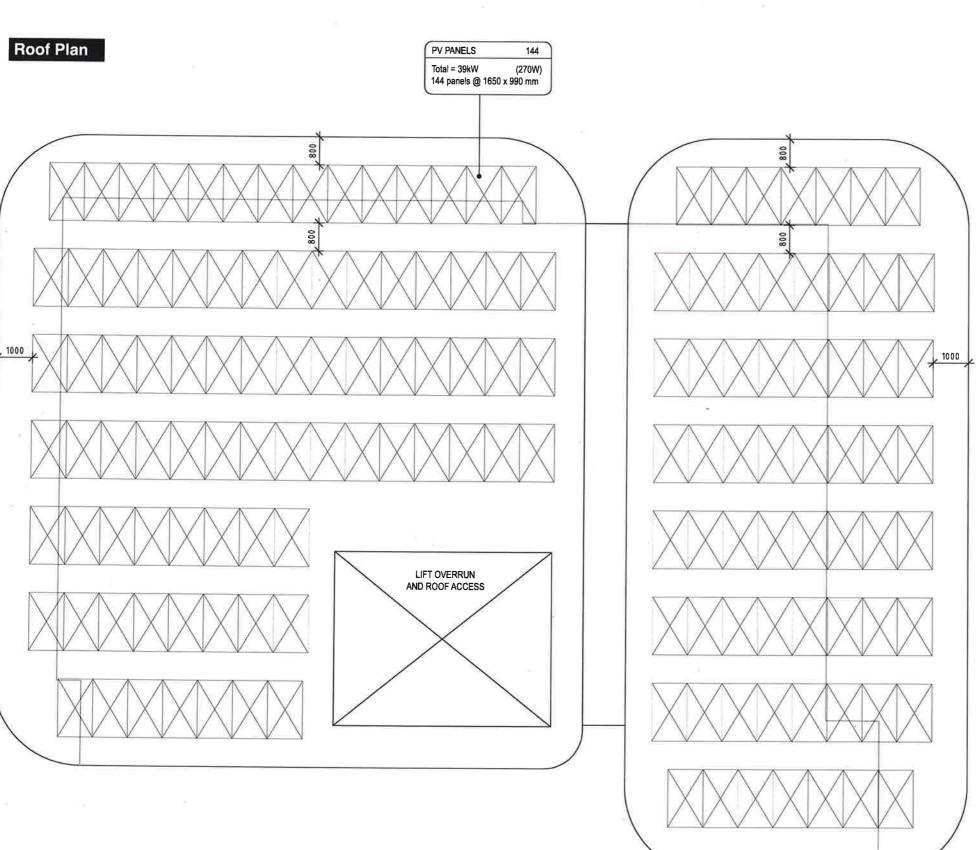
1:100 @ A3



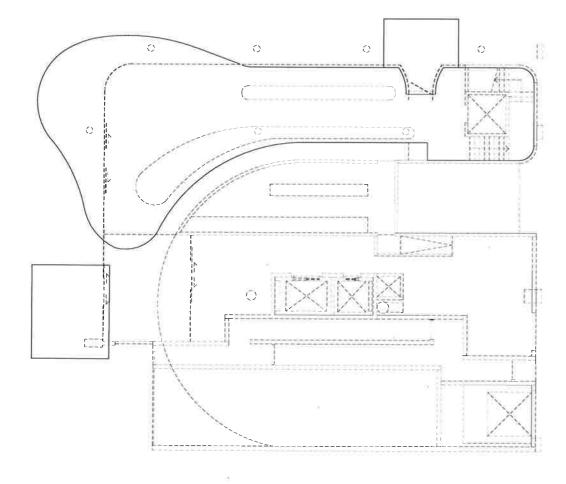
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Sections





Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Roof Plan + Section P-14 13-12-2017 v1-1



GROUND LEVEL

Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Ceiling Plans P-15 14-05-2018 v1-1

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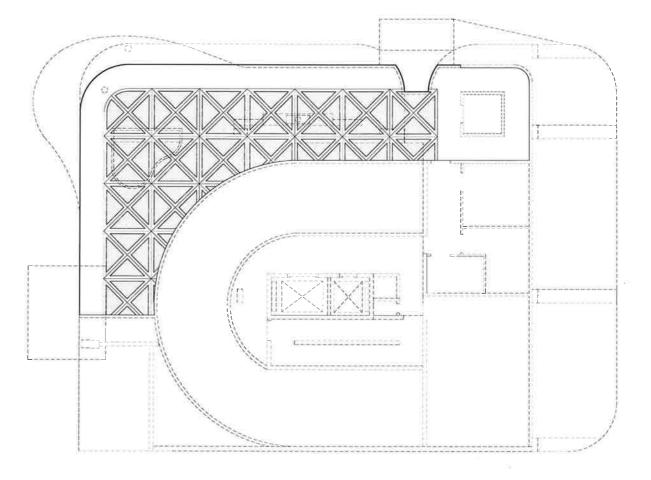
Plans

Ceiling Plans - Ground + Mezzanine

1:200 @ A3

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MEZZANINE

L14 L13 L10-12 L5-9 L4 L3 L2 L1 M G B1 B2

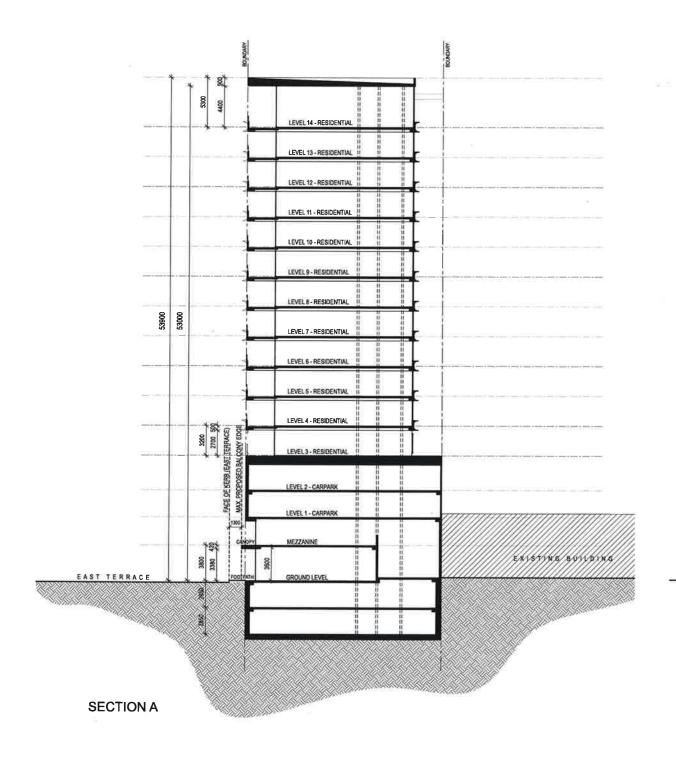
Sections

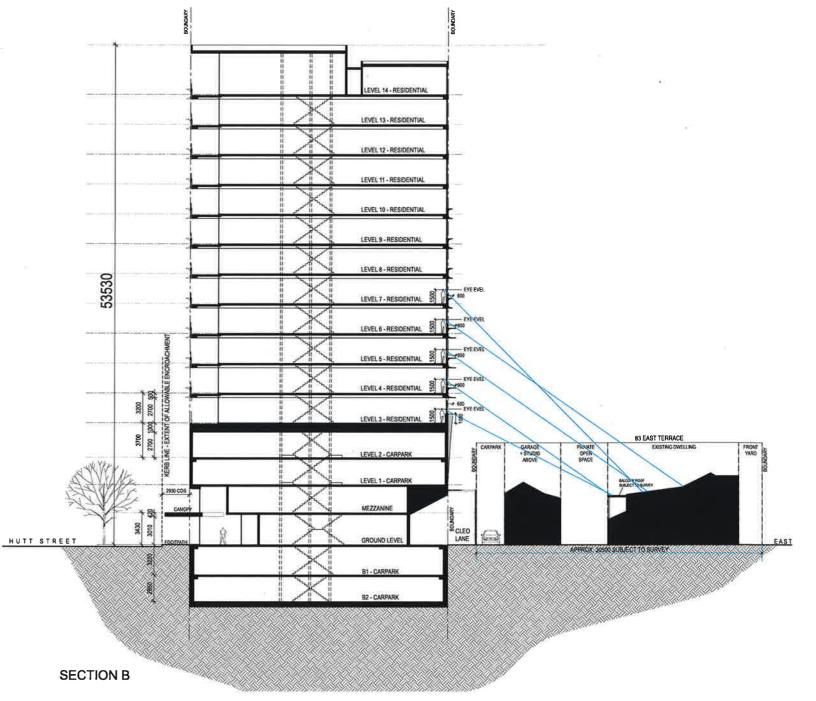
Section A & Section B

1:400 @ A3

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Elevations

North & East Elevations

1:500

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Elevations

South & West Elevations

1:500

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Perspective One

Looking South-Ea

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Perspective One (Main Perspective showing changes)

Looking South-East

East Terrace

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Perspective Two

Hutt Street

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Perspective Three

Looking North Cleo Lane

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Perspective Four

Looking South-W
East Terrace

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Design Response: Proposition 37AA of the Development Act 1993

DATE: 15/5/2018 SIGNED:...

PRE-LODGEMENT AGREEMENT NO: PLA 2016/11122/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

Public Realm Contribution

Cafe/Laneway/Urban Realm

A series of strategies and tactics aim to improve urban amenity.

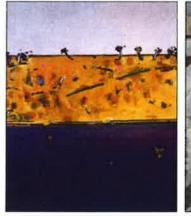
Public Art Study

Hutt Street - Residential Entry

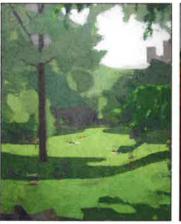






















Widened Footpaths





Greenwall - Plant Selections



Greenwall - Precedents



Foyer - Precedents















Project 28061 - 2 Hutt Street

Page Name Public Realm

P-23

v1-1

tectvs

Greening Strategy

A landscape approach that extends the parklands towards the urban context. with high quality universally accessible open space provided at ground level, combined with a rooftop garden on Level 3.

The proposal features multiple green spaces including:

Community rooftop garden (Level 3)

Activation

- · Green canopy and planting in Cleo Lane
- Internal greenwall in both the restaurant space (substantial), resident lounge and residential entry, which will be supported by services to ensure ongoing
- · Internal dry garden to residential entry
- · Street tree protection and maintenance

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Technical Information

Internal green walls in both the commercial areas and residential entry will provide a striking visual statement as well as reducing air pollutants, improving acoustics and cooling air temperature, improving energy efficiency.

A standard recommendation of 0.7 litres of water per day / m2 and that maintenance inspections occur fortnightly with works carried out as required has been factored into the ongoing requirements of the green wall. It is anticipated that for best performance, additional LED lighting to minimum of 3,500lx may be required to supplement natural lighting conditions.

Species selection will be detailed in collaboration with a green wall specialist supplier to ensure viable species are used

Existing street trees will be assessed using AS 4790-2009 Protection of Trees on Development Sites. Two large existing street trees adjacent to the property Platanus x acerfolius London Plane.

They will need to be protected in accordance with AS 4790-2009 during construction and will need to be watered to Adelaide City Councils current maintenance schedule.

Design Response: Proposal

Design Studies: Landscape

Cleo Lane

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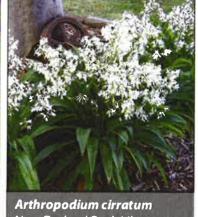
Wisteria sinensis

Chinese Wisteria









New Zealand Rock Lily

Cleo Lane is a shared laneway used to access adjacent properties.

The development includes a resurfaced laneway with amenity planting that will provide an improved entry experience to the proposed apartment building and adjacent properties.

Materiality of the laneway will be carefully considered to ensure a practical and robust surface that will withstand the public/ private nature of usage.

Red Hot Poker

Paved surfaces will be a hard-wearing granite or similar to complement the standard public realm material palette used in the city.

Overhead planting will be trained along wires and at a height suitable to allow light trucks to enter the lane without impediment.

Planting will be irrigated from a meter in the proposed development and managed as a part of the building strata. This will ensure the viability of the proposed planing.

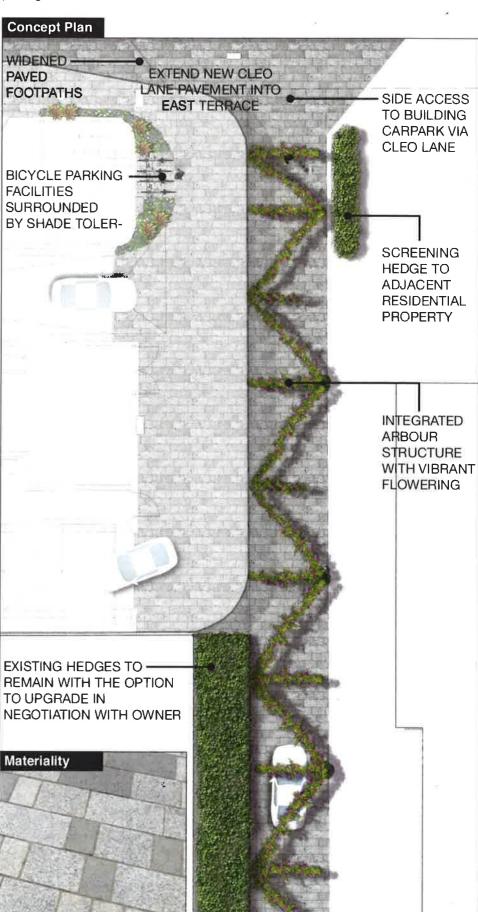
Overhead planting will be a Wisteria Sinenis or similar hardy deciduous vine with lower level planting to be hardy verge planting of lomandra or dianella varieties.

Finishes to the laneway will be negotiated with adjacent landowners and Adelaide City Council to ensure an appropriate design response and integration with the public realm.

Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Landscape Design P-25 12-12-2017 v1-0

Amenity & Interface Upgrades

Cleo lane is proposed to undergo improvements in amenity, access and utility. Significantly, the development widens Cleo Lane, taking space from the proposal, to enable improved traffic flow. A green canopy greets new plantings and visitor bicycle



Design Studies: Landscape

Roof Garden + **Resident Foyer**

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Roof Garden - Level 3 This Agreement remains valid for three months from this date DATE: 15/5/2018 SIGNED:..... Concept Plan **ENTRANCE** INTEGRATED INTEGRATED PLANTER PLANTER SEATING **SEATING** PODIUM DECKING PAVING COMMUNAL DINING AREA FLEXIBLE WITH POD SEATING **TEPPANYAKI** STYLE BBQ SCREENING PLANTS TO ACT AS A INTEGRATED ARBOUR STRUCTURE VISUAL AND AUDIBLE BUFFER FLEXIBLE SEATING WITH SHADE TOLERANT CLIMBERS RAISED PLANTER GAS FUELED FIRE PIT BETWEEN COMMUNAL AND PRIVATE

Amenity for Residents

A rooftop garden with BBQ and fire pit facilities along with a rock garden in the main residential entrance fover adds further amenity for the residents of the development.

The addition of these green spaces provides further extension of the parklands into the development and the city and provides greening on the city at a street level scale.

Resident Foyer - Ground Level

















Liriope muscari 'Royal Purple' Royal Purple Lily-turf Project

28061 - 2 Hutt Street



Landscape Design

Madagascar Periwinkle Page Name Number

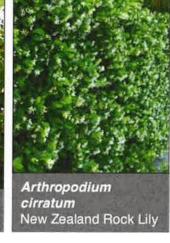
P-26



12-12-2017

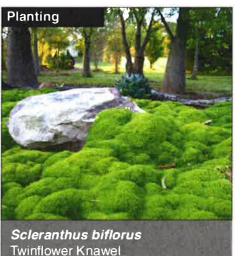


v1-0





cirratum New Zealand Rock Lily



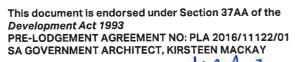
The indoor fover garden contains a formalised arrangement of differing sized pebbles and rocks to create dry landscape with mounded areas covered with shade tolerant groundcovers to provide a green highlight.

All ground covers will require a minimum 150mm depth of growing media and a drainage layer for irrigation. Garden bed can be mounded to reduce garden bed depth below finished surface level.

Design Response: Materials

External

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P-27

Number

Issue Date 14-05-2018

Rev No. v1-1

Materials/External Finishes & Textures

Expressive, clean, and upmarket, exterior material choices focus on speaking to the site by introducing natural forms and greenery to the building, with other materials playing with light.









Design Response: Materials

External

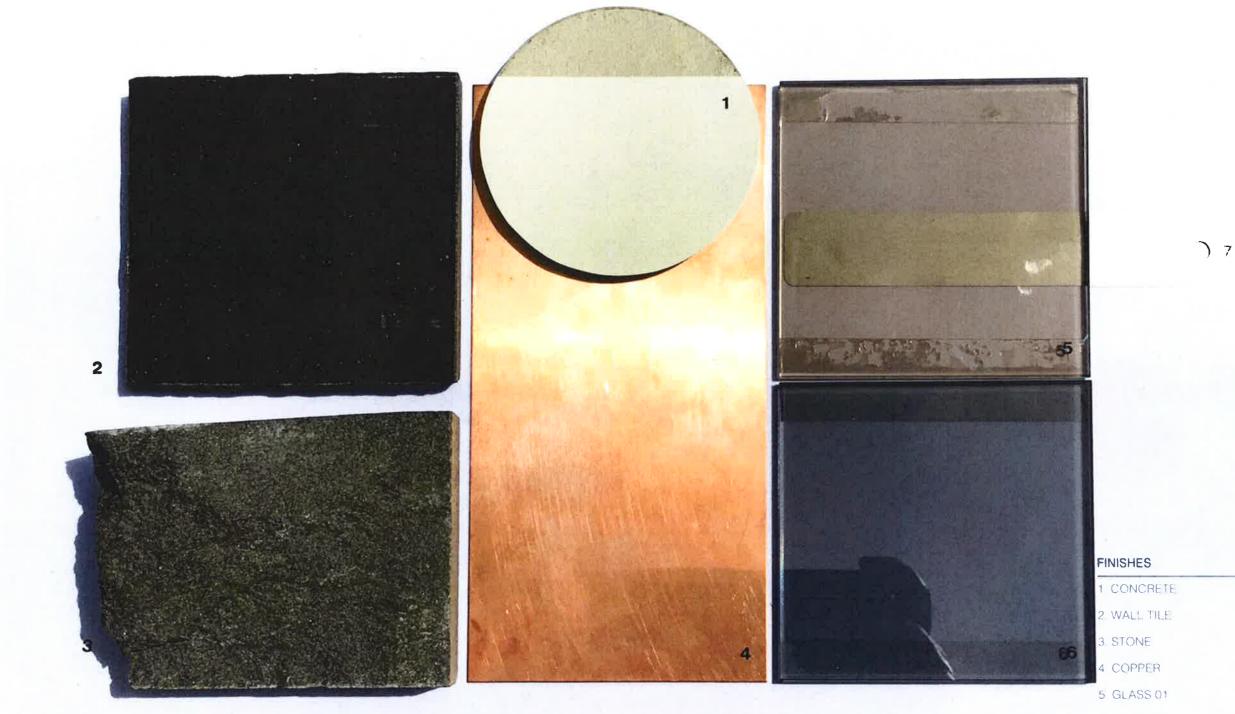
Materials Board

A material board representing the anticipated exterior finishes was presented to the design review panel.

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EXTERIOR PALETTE

RYMILL PLACE
2 HUTT STREET, ADELAIDE



tectvs

Project Page Name Number Issue Date Rev No. 28061 - 2 Hutt Street Material Board P-28 12-12-2017 v1-0

6 GLASS 02

7 BLIND

Hutt Street Entry Study

Perspectives

Design Study for the Hutt Street Residential and Car Entries NTS







This document is endorsed under Section 37AA of the Development Act 1993 PRE-LODGEMENT AGREEMENT NO: PLA 2016/11122/01 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 15/5/2018 SIGNED:.. This Agreement remains valid for the DATE: 15/5/2018 SIGNED:

DEVELOPMENT APPLICATION FORM

AUTHORITY:	TY: STATE COMMISSION ASSESSMENT PANEL FOR OFFICE USE							
APPLICANT:	PLICANT: RYMILL PARK APARTMENTS P/L & RYMILL PARK							
	APARTMENTS UNIT TRUST	Previous Development No:					<i>V</i>	
Postal Address:	C / – FUTURE URBAN GROUP	Δςςρςς	ment No:					
	GPO BOX 2403, ADELAIDE, SOUTH AUSTRALIA, 5001	_						
OWNER:	RYMILL PARK APARTMENTS PTY LTD		Complying		Application	forwarded to DA		
Postal Address:	LEVEL 3, 31 EBENEZER PLACE		Non-complyi	ng	Commission/Council on:			
Tostal Address.	ADELAIDE, SOUTH AUSTRALIA, 5000	۵	Notification (Cat 2		/	1	
		_	Notification (Cat 3	Decision:			
BUILDER:	TO BE CONFIRMED	☐ Referrals/Concurrence			Type:			
Postal Address:			Referrals/Col	icurrence	туре.	1		
Licence No:			DA Commissi	on	Date:		/	
CONTACT PERSOI	N FOR FURTHER INFORMATION:			Decision	Fees	Receipt No	Date-	
Name:	MR CHRIS VOUNASIS	Plannin	g:	YES				
Telephone:	(08) 8221 5511	Buildin	g:					
Email:	CHRIS@FUTUREURBANGROUP.COM	Land D	ividon			_		
Mobile:	0447 029 088	Land D	VISIOII;					
TWEETING LIGS		Additio	nal:					
EXISTING USE:		Dev Ap	proval:				1	
COMMERCIAL (OF	FICE)							
DESCRIPTION OF	PROPOSED DEVELOPMENT: CONSTRUCT A 16 LEVE	L, MIXE	D USE BUILDI	NG				
LOCATION OF PRO	DPOSED DEVELOPMENT:							
House No: 2	Lot No: 118 Road: HUTT STREE	Τ		Town/Sul	ourb: ADE	LAIDE		
Section No (full/par	t): Hundred: ADELAIDE		8	Volume:	5876	Folio:	101	
LAND DIVISION:				_				
Site Area (m²):	Reserve Area (m²):			No of Existing	Allotments			
	nal Allotments - (Excluding Road and Reserve):			Lease:	YES:	NC): []	
DOES FITHER SCH	 EDULE 21 OR 22 OF THE <i>DEVELOPMENT REGULATIONS 2008</i> APF	N V2			YES:	□ NO		
						_		
	ICTION INDUSTRY TRAINING FUND ACT 1993 LEVY BEEN PAID?				YES:	□ NC	√	
DEVELOPMENT C	COST (Do not include any fit-out costs): \$27,000,000			_				
I acknowledge that of Regulations 2008.	copies of this development application and any supporting document	tation ma	ay be provided	to interested p	ersons in ac	cordance with the	Development	
neguiations 2008.	M. II.							
SIGNATURE:	July L.			_	Dated:	14 DECEMBER 20)17	
	ON BEHALF OF RYMILL PARK APARTMENTS P/L & RYMILL PARK APARTMENTS LINIT							

TRŲŞT

DEVELOPMENT REGULATIONS 2008

Form of Declaration (Schedule 5, Clause 2A)

10:	The State Commission Assessment Panel					
From:	RYMILL PARK APARTMENTS P/L & RYMILL PARK APARTMENTS UNIT TRUST					
Date of Application:	14 December 2017					
Location of Proposed Dev	elopment:					
House Number:	2	Lot Number:	118			
Street:	Hutt Street	Town/Suburb:	Adelaide			
Section No (full/part):		Hundred:	Adelaide			
Volume:	5876	Folio:	101			
Nature of Proposed Devel	opment:					
Construct a 16 level, mixe	ed use building.					
will involve the constructi	on of a building which wou	of the Applicant, declare tha uld, if constructed in accorda ped for the purposes of Sect	at the proposed development ince with the accompanying ion 86 of the			
I make this declaration un	der Clause 2A(1) of Schedu	ule 5 of the <i>Development Re</i>	gulations 2008.			
		1/2				
14 December 2017		//4				
Date		Signed				



Product Date/Time **Customer Reference**

Register Search

30/11/2016 12:11PM

20161130006078 Order ID Cost \$27.75

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 5876 Folio 101

Parent Title(s) CT 2913/151

Dealing(s) Creating Title **CONVERTED TITLE**

Title Issued 19/07/2002

Edition

Edition Issued 18/02/2016

Estate Type

FEE SIMPLE

Registered Proprietor

RYMILL PARK APARTMENTS PTY. LTD. (ACN: 609 497 065) OF L 3 31 EBENEZER PLACE ADELAIDE SA 5000

Description of Land

ALLOTMENT 118 FILED PLAN 181770 IN THE AREA NAMED ADELAIDE **HUNDRED OF ADELAIDE**

Easements

TOGETHER WITH FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED A

Schedule of Dealings

NIL

Notations

Dealings Affecting Title

NIL

Priority Notices

NIL

Notations on Plan

Land Services Page 1 of 3

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South Australia



Product
Date/Time
Customer Reference

30

30/11/2016 12:11PM

Register Search

Order ID 20161130006078 Cost \$27.75

NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G1443/1979

Administrative Interests

NIL

Land Services Page 2 of 3

Product
Date/Time
Customer Reference

Order ID

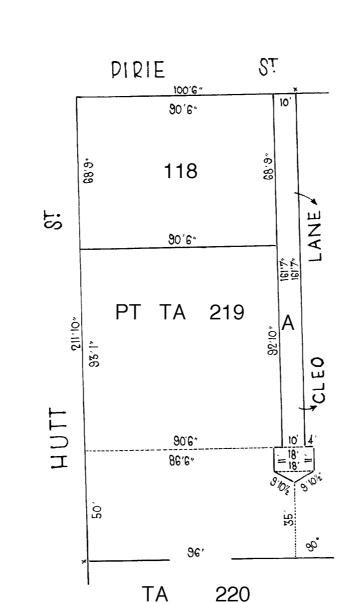
Cost

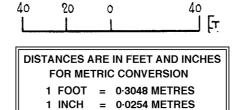
Register Search 30/11/2016 12:11PM

20161130006078

\$27.75

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 2913/151 SEE TITLE TEXT FOR EASEMENT DETAILS





NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION



PLAN NUMBER

19 1 8 119 98 Alfore
PRO REGISTRAR-GENERAL

DEV No 020/D031/97

30.7.98

ADELAIDE

ADELAIDE

CITY OF ADELAIDE

PLAN OF DIVISION

and EASEMENT

ALLOTMENT 119 in FP 181771

of PART TOWN ACRE 219

CITY OF ADELAIDE

STATEMENTS CONCERNING EASEMENTS ANNOTATIONS

PORTION OF ALLOTMENTS I and 2 MARKED B ARE SUBJECT TO A FREE and UNRESTRICTED RIGHT OF WAY

PORTION OF ALLOTMENTS I AND 2 MARKED B ARE TO BE SUBJECT TO A SERVICE EASEMENT TO THE SOUTH AUSTRALIAN WATER CORPORATION FOR SEWERAGE

PORTION OF ALLOTMENTS I AND 2 MARKED G ARE TO BE SUBJECT TO A SERVICE EASEMENT TO THE SOUTH AUSTRALIAN WATER CORPORATION FOR WATER SUPPLY

PORTION OF ALLOTMENT I MARKED H IS TO BE SUBJECT TO A FREE AND UNRESTRICTED RIGHT OF WAY APPURTENANT TO ALLOTMENT 2

TOTAL AREA 704m²

22.5

30.7.98

THIS IS SHEET I OF I SHEETS

CT 5524/52

TITLE SYSTEM REAL PROPERTY ACT

EXAMINED

ACCEPTED FOR FILING MAP REF 6628/42, j

TITLE REFERENCE

DOCKET No FIELD BOOK No CLOSURE CHECKED

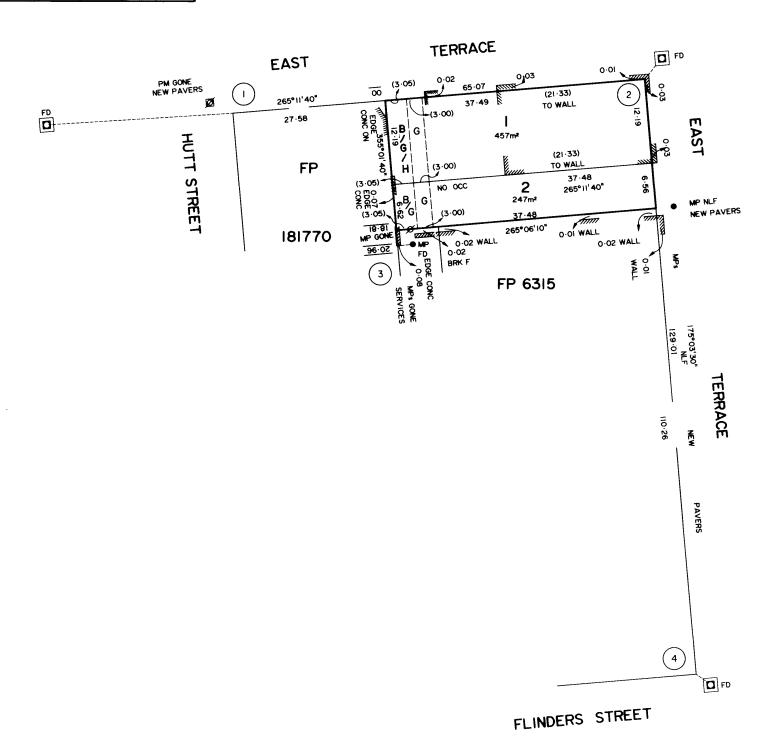
OB / LAST PLAN REF

RRIGATION AREA

HUNDRED

AREA

	REFERENCE MARKS						
Cnr Bearing From Dist PM Number							
1		PM GONE		6628/1426			
- 1	86°01'40"	PM FD	39.77	6628/22692			
2	220°07'30"	PM FD	0.86	6628/1427			
3	265°12'	MP FD	1.00	UNREGISTERED			
4	310°05'	PM FD	0.86	6628/13911			
<u> </u>							



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ALL DISTANCES ARE GROUND DISTANCES COMBINED SCALE FACTOR 1-00018

7/3/98 Dete

NETWORK PSM BEARING DATUM 175°03'28" DERIVED FROM PSM 6628/1427 to PSM 6628/13911 NETWORK STATION PERMANENT PLACED SURVEY FOUND D FD MARK GONE S GONE

LEGEND

PLACED • MP OR RAI FOUND • SPK FD GONE >> BT GONE REFERENCE MARKS DRILL HOLE & WING .

DIRECTION CHANGE PART DISTANCES (20.32)

20.85 CALC

100.85

CALCULATED DATA

COPIED DATA

CHRISTOPHER JOHN MILLETT censed surveyor of South Australia do hereby certify

FYFE SURVEYORS PTY LTD ACN 062 592 465 143 FULLARTON ROAD, ROSE PARK 5067

PH 8364 IOOO FAX 8364 0904 File 10778/1/1 Dwg No 10778D03 Date 7/3/98

DISTANCE 130-22





PLANNING STATEMENT 16 LEVEL MIXED USE BUILDING

2 HUTT STREET, ADELAIDE

Prepared for:

Rymill Park Apartments P/L & Rymill Park Apartments Unit Trust

Date:

13 December 2017



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Document Control

		Author	Date
V1	Draft	CV/FB/MN	8 December 2017
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1. INTRODUCTION

This planning statement relates to a proposal by Rymill Park Apartments P/L & Rymill Park Apartments Unit Trust to demolish the existing two storey office building on the south-eastern corner of the Hutt Street and East Terrace intersection, and to subsequently replace it with a 16 level, mixed use building (including mezzanine between ground and first floor levels).

The proposed building will contain:

- two levels of basement parking (the basement car park will contain 28 spaces);
- a restaurant on the ground floor level which has been designed to face Hutt Street and East Terrace;
- a communal dining, meeting, lounge, library and conference area on the mezzanine between the ground floor level and Level 1;
- two additional levels of parking between the mezzanine and Level 3 (these levels will combine to accommodate another 28 spaces)
- a storage enclosure on Level 2 which has been designed to accommodate up to, but not exceeding, 46 bicycles;
- two, one bedroom dwellings and three, two bedroom dwellings on Levels 3 and 4;
- three, two bedroom dwellings and one, three bedroom dwelling on Levels 5, 6, 7, 8 and 9;
- two, three bedroom dwellings on Levels 10, 11 and 12;
- a three bedroom dwelling on Level 13; and
- a four bedroom dwelling on Level 14.

In preparing this planning statement, we have:

- inspected the land in question and its surroundings;
- identified and reviewed what we consider to be the most pertinent provisions of the Adelaide (City) Development Plan ('the Development Plan');
- proceeded through the Pre-Lodgement Planning and Design Review process and reached a Pre-Lodgement Agreement;
- reviewed the following which form appendices to this planning statement:
 - » Appendix 1 Tectvs Architectural Design;
 - » Appendix 2 Traffic Impact Statement prepared by InfraPlan (dated 25 October 2017);
 - » Appendix 3 Waste Management Plan prepared by InfraPlan (dated 27 October 2017);
 - » Appendix 4 Sustainability Strategy Report prepared by D Squared (dated 31 October 2017);
 - » Appendix 5 Wind Report prepared by DR Partners (dated 30 November 2017);
 - » Appendix 6 Stormwater Plan prepared by DR Partners (dated 30 November 2017);
 - » Appendix 7 Acoustic Assessment prepared by Sonus (dated December 2017);
 - » Appendix 8 Building Services Report prepared by Lucid (dated 13 December 2017).



This planning statement contains our description of the land in question, its surroundings and the proposal, as well as our assessment of the proposal against what we consider to be the most pertinent provisions of the Development Plan.



2. PRE-LODGEMENT PLANNING AND DESIGN REVIEW PROCESS

The proposal evolved significantly and positively through five design review panel sessions and one desktop session plus Pre-Lodgement Panel meetings and numerous meetings with Adelaide City Council and DPTI.

A Pre-Lodgement Agreement has been reached with the Office of Design and Architecture (SA).





3. THE LAND

The land is located on the south-eastern corner of the Hutt Street and East Terrace intersection.

The land consists of one allotment only, legally described as Allotment 118 in Certificate of Title, Volume 5876 Folio 101, otherwise known as 2 Hutt Street, Adelaide.

The allotment to which we refer has a primary frontage of 20.74 metres to Hutt Street on its western side, a secondary frontage of 27.44 metres to East Terrace on its northern side, a tertiary frontage of 20.74 metres to Cleo Lane on its eastern side and an area of approximately 569.1 square metres.

Figure 1 Subject Site and Locality.



The land contains a two storey office building which has free and unrestricted rights of way over Cleo Lane.



4. THE LOCALITY

The locality displays a diverse character containing large expanses of open space to the north and east (Park Lands) low to medium rise development to the east and south and medium to high scale development to the west.

Rymill Park forms part of the Adelaide Park Lands and hosts many cultural events and festivals annually. It contributes significantly to the amenity of the subject site. The Park Lands extend to the east and between it and the subject site lies the City Living Zone (East Terrace Policy Area). This part of the City Living Zone contains a variety of dwellings fronting East Terrace and backing on to Cleo Lane. Rymill House (a State Heritage Place) forms a notable built form feature at the end of Cleo Lane. Dwellings between Rymill House and the subject site are predominately two to three storeys in height; however, a four-storey residential flat building exists to the east of the subject site. Vehicle access to garages associated with these dwellings and offices fronting Hutt Street (including the subject site) is provided via Cleo Lane.

Cleo Lane is a private lane of only 3 metres in width allowing left-in-left-out traffic movements. Currently, this width is not adequate to support two-way traffic movements. It is evident that some property owners along the eastern side of Cleo Lane have set back buildings by up to 3 metres, however as these setbacks are not continuous, Cleo Lane continues to function as a single width laneway. Through traffic to East Terrace is not possible.

East Terrace supports two-way traffic (which expands to four lanes at the intersection with Hutt Street). A bicycle lane exists along both sides of East Terrace, Bartels Road and Pirie Street. Parking along East Terrace, Bartels Road and Pirie Street is restricted (ticketed).

Whilst pedestrian footpaths exist along both sides of East Terrace, it is noted that the footpath adjacent to the northern boundary of the subject site is narrow, being only 1.4 metres (approximately) in width.

A variety of land uses exist along Hutt Street; however, they are predominantly commercial in nature ranging between one and five storeys. The northern portion of Hutt Street (north of Flinders Street) contains a mix of older buildings (not heritage listed) and more recent developments of varying heights between one and five storeys. Architecturally, within the immediate vicinity of the subject site there is a consistency in the use of brick, rendered cement, stone and glass materials, and curved building features. Bluestone also appears frequently in the area bound by East Terrace, Hutt Street and Flinders Street.

South of Flinders Street, buildings fronting Hutt Street are predominantly one and two storeys in height, however buildings located on corner sites are generally higher (up to 5 storeys). We note the Opus development under construction at 53-55 Hutt Street which is under construction and will be approximately 45m in overall height.

Hutt Street supports two lanes of traffic travelling in both a northerly and southerly direction. Street trees are reasonably evenly spread along both the eastern and western sides of Hutt Street. South of the intersection between Hutt Street and Flinders Street is a landscaped median strip including trees and low height shrubs.

A bicycle lane exists along both sides of Hutt Street with the west lane terminating at its intersection with Tucker Street.

Restricted (ticketed) on-street car parking exists along both the eastern and western sides of Hutt Street.

The locality to the west of the site has experienced recent development such as the 'Zen' apartment complex which is an 8 storey building. To Zen's west is the 'Art' Apartment complex which is a 14 level building.





A boutique hotel, (Clarion Hotel Soho) of 6 levels is located on the corner of Tucker Street and Flinders Street.

Two significant developments were also recently approved by the Development Assessment Commission on Pirie Street with heights of approximately 60m and 80m (293-297 Pirie Street and 262-266 Pirie Street, respectively). We understand that construction of 293-297 Pirie Street will commence early 2018. This development is located at the south-western edge of the Park Lands. To the north of this development at the intersection of East Terrace and Rundle Mall (292-300 Rundle Street) is a 60m high building that was also recently approved (through the Environment, Resources and Development Court). We understand that construction of this building will also commence in 2018.

The subject site is located adjacent to two major public transport routes, which are serviced by more than 15 routes along East Terrace, Hutt Street and Bartels Road. The nearest bus stops to the site are all within 230 metres, with the closest being within 50 metres. Other bus stops located along Grenfell Street are within 350 metres to 400 metres (5-7 minutes' walk), and will connect uses to most locations within Metropolitan Adelaide.



5. THE PROPOSAL

5.1 Overview

This planning report relates to a proposal by Rymill Park Apartments P/L & Rymill Park Apartments Unit Trust to demolish the existing two storey office building on the south-eastern corner of the intersection between Hutt Street and East Terrace, and to subsequently replace it with a 16 level, mixed use building (including mezzanine between ground and first floor levels).

5.2 Demolition

The existing office building will need to be demolished.

With that said, the demolition of the existing office building does not form part of this development application, as it is a form of development which does not require development plan consent.

Schedule 1A of the Development Regulations 2008 attests to this.

5.3 Land Use Mix

The proposed development will comprise of a "shop" in the form of a restaurant at Ground Level, and "dwellings" in the form of apartments between Level 3 and Level 14. These uses are defined in Schedule 1 of the *Development Regulations 2008*.

5.4 Dwelling Density

The net density of this development equates to 667.7 dwellings per hectare¹.

According to the 30 Year Plan for Greater Adelaide, anything over 70 dwellings per hectare is high density.

5.5 Dwelling Composition

5.5.1 Level 3

Level 3 will accommodate a total of five dwellings, including two, one bedroom dwellings and three, two bedroom dwellings.

The composition of each dwelling on Level 3 is set out in Table 1.1 below.

Table 1.1 – Composition on Level 3

Dwelling	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
301	72 square metres	One	8.0 square metres	13.8 cubic metres	Yes
302	70 square metres	One	8.0 square metres	12.6 cubic metres	Yes
303	93 square metres	Two	11 square metres	21.1 cubic metres	Yes
304	108 square metres	Two	11 square metres	17.5 cubic metres	Yes

¹ The net density of this development was calculated by dividing the total number of dwellings within the proposed building (38) by the area of the land in hectares (0.05691).

7



305	95 square metres	Two	11 square metres	15.8 cubic metres	Yes

5.5.2 Level 4

Level 4 will accommodate a total of five dwellings, including two, one bedroom dwellings and three, two bedroom dwellings.

The composition of each dwelling on Level 4 is set out in Table 1.2 below.

Table 1.2 – Composition on Level 4

Dwelling	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
401	72 square metres	One	8.0 square metres	13.8 cubic metres	Yes
402	70 square metres	One	8.0 square metres	12.6 cubic metres	Yes
403	93 square metres	Two	11 square metres	21.1 cubic metres	Yes
404	108 square metres	Two	11 square metres	17.5 cubic metres	Yes
405	86 square metres	Two	11 square metres	15.8 cubic metres	Yes

5.5.3 Levels 5 to 9

Levels 5, 6, 7, 8 and 9 will each accommodate four dwellings (20 dwellings in total), including three, two bedroom dwellings (15, two bedroom dwellings in total) and one, three bedroom dwellings in total).

The composition of each dwelling on Levels 5, 6, 7, 8 and 9 is set out in Table 1.3 below.

 Table 1.3 Composition on Levels 5 to 9

Dwellings	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
501, 601, 701, 801 and 901	83 square metres	Two	11 square metres	14.6 cubic metres	Yes
502, 602, 702, 802 and 902	111 square metres	Two	11 square metres	18.3 cubic metres	Yes
503, 603, 703, 803 and 903	151 square metres	Three	15 square metres	31.9 cubic metres	Yes
504, 604, 704, 804 and 904	86 square metres	Two	11 square metres	15.2 cubic metres	Yes



5.5.4 Levels 10 to 12

Levels 10, 11 and 12 will each accommodate two, three bedroom dwellings (six, three bedroom dwellings in total).

The composition of each dwelling on Levels 10, 11 and 12 is set out in Table 1.4 below.

Table 1.4 Dwelling Composition on Levels 10 to 12

Dwellings	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
1001, 1101 and 1201	191 square metres	Three	20 square metres	36.6 cubic metres	Yes
1002, 1102 and 1202	242 square metres	Three	29 square metres	46.3 cubic metres	Yes

5.5.5 Level 13

Level 13 will accommodate a three bedroom dwelling.

The composition of the only dwelling on Level 13 is set out in Table 1.5 below.

 Table 1.5 Dwelling Composition on Level 13

Dwelling	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
Sub-Penthouse (1301)	358 square metres	Three	138 square metres	40.2 cubic metres	Yes

5.5.6 Level 14

Level 14 will accommodate a three bedroom dwelling as well.

The composition of the only dwelling on Level 14 is set out in Table 1.6 below.

Table 1.6 Dwelling Composition on Level 14

Dwelling	Floor Area	Bedrooms	Private Open Space	Storage	Satisfies Development Plan Requirements?
Penthouse (1401)	445 square metres	Four	145 square metres	53.5 cubic metres	Yes



5.6 Common Areas

Common areas are proposed throughout the building for use by future residents and their visitors. These areas and their uses are specified below:

- lobby space at ground level with seating area, artwork and an indoor garden;
- common lounge area at the mezzanine level, with catering/kitchen facilities, conference room, terrace, library, bathroom and storage facilities; and
- rooftop garden and seating area of 37 square metres in area at Level 3.

5.7 Siting

At ground level the proposed building will be setback 1.05 from Hutt Street and East Terrace and 4.2 metres from Cleo Lane. The building will be sited on the southern boundary.

The mezzanine level contains a terrace that will encroach over the Hutt Street and East Terrace footpaths.

Levels 1 and 2 will be built to the boundaries on all sides.

Levels 3 to 14 will be built to the boundaries except for the area accommodating the roof top garden and space above which provides a 4.3m setback to the southern boundary.

5.7 Floor to Ceiling Heights

The various floor to ceiling heights are captured within Table 1.7 below.

Table 1.7 Floor to Ceiling Heights

Level	Floor to Ceiling Height
Basement 2	2.65 metres
Basement 1	2.65 metres
Ground	3.6 metres
Mezzanine	2.8 metres
Levels 1 to 13	2.7 metres
Level 14	3 metres to 4.4 metres

5.8 Building Height

The proposed building will be 53.9 metres in height (excluding the lift overrun and solar panels).



5.9 External Materials

The proposal includes external materials as specified below:

- bronze and dark glass;
- panel concrete and profiled concrete;
- copper; and
- traditional Adelaide bluestone.

5.10 Access

Vehicular access to the subject site will be gained via Cleo Lane through a left in, left out movement on East Terrace. The proposed development is setback 3 metres from the eastern boundary, allowing Cleo Lane to support two-way traffic movements for approximately 20 metres, improving passing opportunities, and allowing simultaneous entry and exit movements into/out of Cleo Lane.

From Cleo Lane, two separate ramps permit vehicles access to either the basement car parking levels, or the above-ground car parking on Levels 1 and 2. The reversible ramp system will be single lane width, with access and egress being controlled by a signalling system.

Pedestrians access to the site will be gained via the main apartment entry from Hutt Street or through the restaurant sliding doors along Hutt Street and East Terrace.

5.11 Bicycle Parking

A secure enclosure for the occupants of the dwellings will be provided in the south-western corner of Level 2. The enclosure has been designed to accommodate up to, but not exceeding, 46 bicycles at any one time.

A rack for visitors will also be provided on the eastern side of the northern-most stairwell. The rack has been designed to accommodate up to, but not exceeding, six bicycles at any one time.

5.12 Car Parking

The proposed building will contain 56 line-marked spaces, including 44 'standard' spaces and 12 'small' spaces.

The number and type of spaces on each level of the proposed building is captured with Table 1.8 below.

Table 1.8 – Number and Type of Spaces per Level

Level	'Standard' Spaces	'Small' Spaces	Total
Basement 1	10	5	15
Basement 2	10	3	13





Level 1	12	1	13
Level 2	12	3	15

5.13 Stormwater

The proposal will re-use roof water for the purposes of irrigation of landscaping and green walls which will ensure their long-term sustainability. The community strata will be responsible for the maintenance and operation of the rainwater tank and system.

5.14 Waste

A Waste Management Plan for the proposed development has been prepared by InfraPlan Pty Ltd, and is included in Appendix 3.

The proposed development utilises a chute system with waste collected by a private waste contractor in an area adjacent to Cleo Lane.

Within each apartment there will be integrated bin systems providing segregated compartments to encourage the sorting of co-mingled recycling, non-recyclable waste and organic food waste streams. Residents will be required to transport their waste to a chute room located on each residential level. The chute will include a diverter, allowing residents to allocate their waste as either 'general' or 'recycling'. Waste will then travel down to the bin storage room on ground level, and distributed into each waste stream bin accordingly. Monitoring of the waste bins will be undertaken by building services, with full bins replaced as required. Organic waste will need to be deposited by residents directly to the bin storage area.

Commercial tenants will be required to manually transport all waste streams into their allocated commercial bins in the bin storage area.

Waste is proposed to be collected via Cleo Lane outside of peak periods (7:00am to 9:00am, and 3:00pm to 6:00pm). The waste collection vehicle will reverse into Cleo Lane from East Terrace, and park briefly within the waste collection area while the private contractor wheels out the filled bins from the bin storage area, loads the waste, then returns the empty bins.

All residential waste will be collected on a weekly basis, whereas commercial waste will be collected twice a week. Details of the collection days will be finalised with the café/restaurant tenant once confirmed.

The following bins will be provided for the proposed development, as per InfraPlan's estimated waste volume calculations:

Number and Type of Bins Provided	1,000L	660L	240L
General Waste	2 x Residential 2 x Commerical	1 x Residential	1 x Commercial
Recycling	2 x Residential 1 x Commerical	-	2 x Commercial
Organic	3 x Commercial	1 x Residential	1 x Residential



Total	10	2	4

Hard waste and e-waste will be stored in a 4.9 cubic metres area allocated within the bin storage room, and collected from the subject site by separate contractors on an "as needs" basis when privately arranged.

5.15 Landscaping

Landscaping forms a key component of the overall appearance of the proposed building. The following landscaped areas are proposed to be provided:

- an internal green wall which utilises the structural ramp carpark wall from behind the restaurant/café on Ground Level up to the communal areas at the Mezzanine Level;
- an internal "dry garden" to the residential entry from Hutt Street; and
- a communal rooftop garden at Level 3 including a communal dining area, integrated planter seating, decking, integrated arbour structure and a fire pit.

All landscaped areas are to be supported with adequate services to ensure their ongoing maintenance. It is proposed that the green wall will be provided with 0.7 litres of water per day, per square metre, and that maintenance inspection be carried out fortnightly and works carried out as required. The applicant will seek the advice of a green wall specialist to ensure that appropriate, durable and viable plant species are selected. For best performance, it has also been anticipated that additional LED lighting to a minimum of 3,500lx may be required to supplement natural lighting conditions.

It is also the intent of the applicant to improve the amenity of Cleo Lane by including additional landscaping and a green canopy over this space, however at this stage the design is only conceptual and will be pursued through a separate process with adjacent land owners and Council.

5.16 Letter Boxes

A communal letter box will be installed along the southern side of the Hutt Street entrance.

Occupants of the dwellings will therefore be able to retrieve their mail from within the proposed building.

5.17 Building Services

A Building Services Report has been prepared by Lucid Consulting Australia which is included in Appendix 8. In summary, Lucid has advised the following:

- a dedicated on-site transformer will be required to service the development. Subject to final estimated maximum demand calculations, the transformer will be 500kva rated;
- NBN Co have confirmed that their roll-out will have extended to this site by the anticipated completion date however should timing not be feasible the site has access to Telstra copper communications infrastructure;



- the site has access to a 150mm PVC sewer main in both East Terrace and Cleo Lane at the rear which is sufficient to service the site;
- a 50mm water meter will be required to service the development;
- a 150mm fire services connection is proposed to be derived from the proposed upgraded town main in East Terrace to serve the building's combined hydrant and sprinkler systems;
- the site has access to a 250mm low pressure gas mains in East Terrace and a 100mm low pressure gas mains in Hutt Street;
- the building will be provided with all necessary electrical, communication, fire, hydraulic, mechanical and vertical transportation services to function efficiently and in a sustainable manner.

5.18 Environmental Sustainability

A Sustainability Strategy for the proposed development has been prepared by D Squared Consulting Pty Ltd, and is included in Appendix 4. Following is a summary of the key features to be included in the development:

- Water Efficiency:
 - water efficient fittings of a minimum 6 Star WELS rating for taps, 4 Star for WCs and 3 Star for showers;
 - » selection of appropriate landscape planting to minimise irrigation water use;
 - » provision of rainwater storage and re-use systems for landscape and green wall irrigation; and
 - » provision of firefighting systems with a test water recycling facility.

• Transport:

- » provision of bicycle storage facilities for apartment residents and visitors, with a minimum of one secure rack provided per apartment and additional racks for visitors at ground floor level;
- » provision of end of trip facilities for the retail and commercial tenants, including secure bicycle racks and locker space; and
- » all apartment purchasers will be offered the option of the provision of an electric vehicle charge point at their car park space, to promote the de-carbonisation of Adelaide's transport network. Dependent upon the final size of PV array installed, a number of these points can be supplied with 100% renewable energy.

• Energy:

- » Active façade:
 - use of high performance double glazing with integrated and adjustable interstitial blinds, access to daylight, and natural ventilation of the apartments to reduce energy demands;
 - solar sensors will be included in the façade, and will automatically control the interstitial blind systems. Occupants will have the ability to manually override the automated control of the blinds as preferred; and
 - electro-chromic glass has been incorporated in strategic locations to provide additional privacy and solar load reduction.





- » designing and certifying the apartments to achieve an energy performance at least 30% better than current Building Code minimum NatHERS rating of 6 Stars average, representing a dwelling average NatHERS Rating of 8 Stars;
- » designing the tenancy and common areas to achieve an energy performance at least 30% better than a deemed to satisfy compliant space in accordance with the NCC/BCA Section J, JV3 methodology;
- » electricity will be supplied via an inset (embedded) network, so that residents can benefit from the option of reduced electricity supply rates, and the ability to share renewable energy from the building solar PV array;
- » air conditioning systems within the apartments will be zoned to functional areas (e.g. living rooms, bedrooms), and provided with automatic and manual controls. They will be inverter controlled and rated to the highest available Energy Star rating, and include the option to operate in fan mode providing low energy air circulation;
- » provision of a "kill switch" to each apartment, which allows a one touch isolation of all lighting and air conditioning power when the apartment is vacant;
- » provision of a 39kW roof mounted solar photovoltaic array. The array will be connected via the inset network so that it can benefit all residents and tenants in the development, but is sized to adequately provide renewable energy equivalent to 100% of the common area power needs, including car park ventilation;
- » daylight control to lighting systems in common areas;
- » use of energy efficient, LED lighting fittings;
- » use of light coloured external finishes (in particular roof coverings) to reflect heat, reduce solar gain, and reduce the "heat island effect";
- » use of solar gas boosted hot water systems, gas hobs, and European Energy Label A category ovens for cooking throughout to reduce peak electricity demands, reduce the overall development carbon footprint, and provide an economical amenity for apartment owners;
- » provision of a building energy management system with smart metering to automatically record and monitor the building's resource use and establish trends and profiles to assist with the ongoing control of energy use (this information will be made available on-line);
- » as far as practicable, designing the car park levels to be naturally ventilated. In areas where access to natural ventilation is not possible, the car parking will be mechanically ventilated but with a system designed using an engineered approach, with variable speed drives and carbon monoxide automatic control, to reduce fan energy use by 80% when compared to a conventional system;
- » providing apartment owners with retractable clothes racks in their apartments, to minimise electric clothes drier use. These facilities will also minimise the incidence of clothes drying on exposed balconies; and
- » providing retail and commercial tenancy space air conditioning systems with an economy cycle control allowing 100% outside air to be used for free cooling purposes when external weather conditions allow.



• Indoor Environmental Quality:

- » using paints, sealants, adhesives, carpets, coverings and furniture which have low off-gassing properties (low VOC, low formaldehyde);
- » maximising access to daylight to all residential areas whilst minimising glare;
- » all dwellings will be fully naturally ventilated;
- » all common areas at ground level and above will be fully naturally cross ventilated; and
- » electro-chromic glass is provided to some glazing to improve occupant privacy.

• Construction Materials:

- » selecting locally sourced materials wherever viable;
- » selecting recycled and recovered materials wherever viable, particularly sourced from the local area to build in a recognition of the local area and heritage;
- » selecting materials with a comparatively low embodied energy/carbon profile e.g. timber in preference to steel, where practicable;
- » selecting building materials with a recycled material content e.g. thermal insulation, reinforcement bar, fly ash in concrete, recycled content floor coverings, where viable; and
- » using off site pre-fabrication techniques to reduce on site construction time, waste, and greenhouse gas emissions, wherever practicable.
- Landscaping and Biodiversity:
 - » strategic use of landscape and green walls in common terrace areas, to reduce the "heat island" effect at podium level, and to introduce the notion of biodiversity; and
 - » use of extensive green walls at ground and podium levels, to reduce the internal heat loads, improve common area air quality, and to promote the notion of biodiversity.



6. PROCEDURAL MATTERS

6.1 The Relevant Authority

The State Commission Assessment Panel ('SCAP') must assume the role of the relevant authority for two reasons.

First, the land is located within the area of the Corporation of the City of Adelaide. Second, the proposed building will cost more than \$10 million to complete.

6.2 The Relevant Development Plan

The relevant version of the Development Plan for procedural and assessment purposes was gazetted and subsequently consolidated on Tuesday, 20 June 2017.

The land, under this version of the Development Plan, falls within the confines of the Capital City Zone and abuts, on its eastern side, East Terrace Policy Area 29 of the adjacent City Living Zone.

6.3 Kind of Development

According to Principles 38 and 39 of the Capital City Zone, the proposal involves a kind of development that is neither complying nor non-complying. It must, therefore, be assessed and subsequently determined on its merits by SCAP in its capacity as the relevant authority.

6.4 Category of Development

According to Principle 40 of the Capital City Zone, the proposal involves a Category 2 kind of development for two reasons.

First, the land is located adjacent to the City Living Zone. Second, the proposed building will, once completed, exceed 22 metres in height.



7. ASSESSMENT

Our assessment of the proposal is set out below.

7.1 Desired Character

The Capital City Zone is envisaged to be the economic and cultural focus of the State including a range of employment, community, educational, tourism and entertainment facilities. It is anticipated that an increased population within the Zone will complement the range of opportunities and experiences provided in the City and increase its vibrancy. The proposal will contribute to an increased population.

High-scale development is envisaged in the Zone with high street walls that frame the streets. However, an interesting pedestrian environment and human scale is encouraged at ground floor level through careful building articulation and fenestration, frequent openings in building façades, verandahs, balconies, awnings and other features that provide weather protection. The proposed building reflects a high-scale and the podium design and potential future works to Cleo Lane create both the interest and human scale that the desired character seeks to achieve – all in a manner that offers weather protection and significant public benefit to the local community.

In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment. We note that Hutt Street is identified as a secondary pedestrian area. In narrow streets and laneways, the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure. The design approach along all frontages is entirely consistent with the street presentation envisaged.

Non-residential land uses at ground floor level that generate high levels of pedestrian activity such as shops, cafés and restaurants is encouraged. At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters. Non-residential and/or residential land uses will face the street at the first floor level to contribute to street vibrancy. The proposed land uses at ground level and first floor level are consistent with the desired character.

It is important to note that the Development Plan was recently amended to provide a stronger focus on high design quality. The desired character encourages new development to be contextual, durable, inclusive, sustainable and amenable. In our opinion, the Pre-Lodgement Agreement reached is testament to the high design quality achieved. Specifically, the design:

- responds positively to its surroundings and the character of the area, taking advantage of the
 northern aspect over the Park Lands, the siting and scale of adjacent built form and the generous
 contribution to the public realm by increasing the width of Cleo Lane and (subject to a separate
 process) upgrading the physical appearance of the laneway at the proponent's expense;
- is fit for purpose, adaptable and long lasting being very conscious of the materials and finishes proposed and very mindful of existing development to the southeast with respect to overshadowing, overlooking and visual impact;
- integrates landscaping to provide high quality spaces for occupants of the building and the public which also assists in optimising security and safety both internally and into the public realm;
- integrates very high quality sustainable systems into the buildings to improve environmental performance and minimise energy consumption which reaches a new level for living in the City; and



provides natural light and ventilation to all habitable spaces.

Importantly, the contemporary architecture proposed responds to the site's context and broader streetscape, while supporting optimal site development.

We note that the desired character seeks to reinforce the distinctive grid pattern of Adelaide through the creation of a series of attractive boulevards as shown on Concept Plan Figures CC/1 and 2. These boulevards are to provide a clear sense of arrival into the City and are to be characterised by buildings that are aligned to the street pattern, particularly at ground level. The site is located at the edge of the East Terrace boulevard and in our opinion the height, scale and design of the building will assist in providing the clear sense arrival that is sought by the Capital City Zone. The orientation of the development also maximises views to an important civic landmark (the Park Lands) whilst providing a distinct City edge which is explicitly envisaged for East Terrace.

In our opinion, Cleo Lane is a minor laneway. A sense of enclosure is envisaged for such laneways (i.e. a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment. The height and scale of the building together with the design of the ground plane is totally consistent with this envisaged character.

In consideration of all the above, we are of the opinion that the proposal satisfies Objective 8 in that it represents development that contributes to the Desired Character of the Capital City Zone.

7.2 Height, Bulk and Scale

The subject site is located within a designated 22 metre height area within the Capital City Zone however PDC 21 of that Zone provides an opportunity to exceed this height if a development can meet certain conditions. PDC 21 provides:

"Development should not exceed the maximum building height shown in Concept Plan Figures CC/1 and 2 unless;

- (a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan Figures CC/1 and 2, and
- (b) only if:
- (i) at least two of the following features are provided:
- (1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;
- (2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;
- (3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;
- (4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on Map Adel/1 (Overlay 2A);
- (5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;



- (6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;
- (7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;
- (8) more than 15 per cent of dwellings as affordable housing.
- (ii) plus all of the following sustainable design measures are provided:
- (1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;
- (2) a greenroof, or greenwalls / façades supported by services that ensure ongoing maintenance;
- (3) innovative external shading devices on all of the western side of a street facing façade; and
- (4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas."

In our opinion, the proposed height of the building satisfies PDC 21. First, we believe the development reinforces the anticipated city form in Concept Plan Figures CC/1 and 2. It does so by being lower in height than existing and future buildings to its west (noting that there is potential for much higher buildings to be developed to the west and northwest in the future); higher than buildings to its east; and, comparable in height to recently approved development at 292-300 Rundle Street and 293-297 Pirie Street both of which are adjacent to the Parklands. When the Rundle Street, Pirie Street and 2 Hutt Street developments are considered together, they assist in framing and maximising views to the Parklands and East Terrace as desired in the Zone.

In addition, the following features are satisfied by the development:

- the development provides an orderly transition up to an existing taller building (numerous are found to the west). We note that this criterion does not associate an existing taller building within an adjoining Zone or Policy Area through the use of the word 'or', underlined and emphasised below:
 - (b) (i) (1) the development provides an orderly transition up to an existing taller building <u>or</u> prescribed maximum building height in an adjoining Zone or Policy Area
- high quality universally accessible open space at first floor level is directly connected to, and well
 integrated with, the public realm of East Terrace. Further, the proponent has generously offered
 to increase the width of Cleo Lane by setting back the ground level and will contribute to a physical
 enhancement of the space for the betterment of the lane users;
- a range of dwelling types is provided of which more than 10% comprise of 3+ bedroom apartments;
- above ground car parking areas (floor to ceiling heights) are adaptable to future uses;

In our opinion, the development satisfies more than two features to meet the second test.

Furthermore, all of the following sustainable design measures will be provided (which have been assessed and verified in the DSquared report included in Appendix 4:





- rooftop gardens are proposed (Level 3 and Penthouse Level);
- a substantial internal green wall to the restaurant and common space above will be supported by services that ensure ongoing maintenance;
- whilst not external, an innovative shading device system will be provided along the western elevation;
- higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas is provided.

In consideration of all the above, we are of the opinion that the proposal satisfies PDC 21.

In forming our views in relation to building height, we have been very mindful of Council Wide PDC 167 and Capital City Zone PDC 16 which both encourage development to demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions of the Development Plan. The Pre-Lodgement Agreement reached confirms that design excellence has been achieved particularly in relation to pedestrian amenity, activation, sustainability, public realm and streetscape contribution, site configuration, the desired future character of the area and impact on adjacent conditions.

The proposed development is also consistent with a number of the council wide provisions, including but not limited to:

- PDC 168 which seeks a high standard of design and reinforcing the grid layout and distinctive urban character of the City by maintaining a clear distinction between the Capital City and City Living Zones and the open landscape of the Park Lands Zone;
- PDC 169 which encourages the height and scale of development and the type of land use to reflect and respond to the role of the street it fronts as illustrated on Map Adel/1 (Overlay 1);
- PDC 170 which envisages an overall height, scale and massing of buildings that reinforces the
 desired character, built form, public environment and scale of the East Terrace streetscape as
 contemplated within the Capital City Zone; and
- PDC 172 which encourages buildings and structures to not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. The height of the building does not penetrate the Obstacle Limitation Surface.

7.3 Building Appearance and Design

With reference to Section 5.5 of this Statement, the key quantitative apartment guidelines relating to apartment sizes, balcony areas, storage and floor to ceiling heights are satisfied and need not be assessed here. All areas exceed the minimum guidelines demonstrating one way in which the development achieves a high quality design.

The Capital City Zone seeks a high standard of architectural design and finish appropriate to the City's role and image as the capital of the State (see Zone PDC 6). Zone PDC 7 seeks to achieve a high standard of external appearance through:

- the use of high quality materials and finishes;
- providing a high degree of visual interest;



- ensuring lower levels are well integrated with, and contribute to a vibrant public realm; and
- ensuring any ground and first floor level car parking elements are sleeved.

In our opinion, the proposed design and appearance of the development satisfies Zone PDC 7 in that:

- robust and durable materials such as masonry, natural stone, prefinished materials are used that will minimise staining, discolouring or deterioration;
- no surfaces are painted above ground level;
- all facades are highly articulated, and the southern boundary wall incorporates design features that are expressed across other facades;
- the above-ground car parking levels are not visible and treated by an expression that relates to the tower element.

The design and appearance of the development has also been very cognisant of the ground plane and relationship/integration with both Hutt Street and Cleo Lane. All road frontages are attractive, active and pedestrian-oriented that adds interest and vitality to City streets and laneways in accordance with Zone PDC 8 and 9. The footpath width along East Terrace (and Hutt Street) will be increased as a result of the ground level setbacks to improve pedestrian comfort and safety. The Cleo Lane road width will also be increased to support two way vehicular movement and the ground level restaurant/café tenancy better utilises the street corner for outdoor dining experiences with a northern orientation. All frontages contribute to the comfort of pedestrians through the incorporation of a continuous shelter satisfying Zone PDC 10. With respect to Zone PDC 12 the podium height and design of the tower element is warranted in this particular instance to correspond with and complement the form of the existing adjacent apartment development to the east.

Overall, the façades of the building are strongly modelled and incorporate a vertical composition which reflects the proportions of existing frontages, and ensures that architectural detailing is consistent around corners and along all road frontages to provide a unified expression in accordance with Zone PDC 15.

Zone PDC 19 seeks a particular building form along East Terrace. It states:

"Development along the terraces should contribute to a continuous built form to frame the City edge and activate the Park Lands."

The overall building form is comparable in height to recently approved development at 292-300 Rundle Street and 293-297 Pirie Street both of which are adjacent to the Park Lands. When the Rundle Street, Pirie Street and 2 Hutt Street developments are considered together, they assist in framing and maximising views to the Parklands and East Terrace as desired in the Zone.

7.4 Parking, Access and Traffic

InfraPlan have prepared a Traffic Impact Statement for the proposed development. InfraPlan correctly note that the Development Plan does not prescribe a minimum car parking rate for dwellings or non-residential land uses located within the Capital City Zone. Notwithstanding, car parking spaces have been provided to each apartment as follows:

1 carparking space for 1 bedroom apartments;



- 1 carparking space for 2 bedroom apartments;
- 2 carparking spaces for 3 bedroom apartments; and
- 3 carparking spaces for each penthouse apartment.

InfraPlan also confirm in their response that there is sufficient on-street car parking available within close proximity of the subject site to accommodate visitor demands.

A total of 46 bicycle parking spaces for residents will be provided on Level 2, accessible via lifts, and 6 visitor cycle parking spaces will be provided on site. In accordance with Table Adel/6, a total of 53 bicycle parking spaces (46 for residents and 7 for visitors/customers) are required for the proposed development. InfraPlan do not consider the shortfall of one bicycle parking space significant, and confirm that it can be recovered by existing or future on-street bicycle parking spaces in the vicinity of the subject site. In our opinion, the proposal therefore satisfies Transport and Access PDC 234.

In addition to the above, InfraPlan have also confirmed the following:

- the widening of Cleo Lane provided by the 3 metre rear setback will facilitate two-way movement, and therefore improve the existing functionality of the laneway and access arrangements for existing and future residents;
- no change will be made to the left-in-left-out arrangement to/from Cleo Lane;
- the proposed development will have negligible impact on the surrounding road network in terms of trips generated (2 additional trips in the morning peak and 3 in the afternoon peak);
- existing access to at grade carparks from Cleo Lane will be replaced by two single lane ramps providing access to the basement and upper parking levels;
- use of the two single lane ramps will be controlled by a signalling system which will allow one-way, reversible movements. Guiding principles for designing such a signalling system are specified in the Traffic Impact Statement and shall be reviewed at the detailed design stage;
- waste is to be collected from a waste storage area on ground level outside of peak collection times (as specified in the Section 5.14) with the waste collection vehicle to reverse into Cleo Lane, and drive out in a forward direction (satisfying PDC 241);
- all bicycle parking provision shall be in compliance with AS2890.3 Bicycle Parking; and
- the proposed carpark design was assessed and found to be in general compliance with Australian Standards. Any deviation from standards have been identified by InfraPlan and mitigation measures recommended to improve compliance (satisfying PDC 251 and PDC 261).

Overall, InfraPlan support the overall car parking, traffic and access arrangements and we are comfortable with the overall approach in the context of the relevant provisions of the Development Plan.

7.5 City Living Zone Interface

In our opinion, Zone PDC 23 is the key interface provision that applies to the proposal.

The proposal is not located on the southern side of Gouger Street - Angas Street therefore PDC 24 does not apply. PDC 25 also does not apply as the proposal is not "directly adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries....".



This is a clumsy provision which is only applicable to sites that are adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries. Upon our review of the zone maps, there are actually no sites within the Capital City Zone which are adjacent to all of these other Zone boundaries.

Notwithstanding, the intent of PDC 25 is encapsulated within PDC 23 which is relevant and states:

"Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity".

PDC 23 seeks to manage the interface with the City Living Zone by:

- appropriately locating a higher building at the corner of Hutt Street and East Terrace. The adjacent eastern property contains a four storey wall and service yard adjacent to Cleo Lane. In addition, properties further south along Cleo Lane have garages, or in some cases two storey buildings sited on the Lane boundary. The scale and form of these 'laneway buildings' is such that limited views to the proposed building will be obtained from the small private open spaces to their rear;
- not resulting in any unreasonable overshadowing upon properties within the City Living Zone;
- creating two distinct tower elements which successfully breaks up the mass of the building to give the impression of two slender building forms;
- mitigating overlooking towards the City Living Zone through the orientation and design of the floor
 plans. We note that the existing office building to the south of the subject site would result in a
 higher degree of overlooking with upper level east facing windows looking directly into rear yards
 of East Terrace properties;
- all traffic associated with the proposal is concentrated towards the northern end of Cleo Lane which will be wider as a result of the development improving access and egress for all Cleo Lane properties contained within the City Living Zone.

Whilst others may argue that the height of the development may not respect the low to medium scale context of the City Living Zone we consider in the particular circumstances of this proposal, the location of the site at the northern edge of the interface; the adjacency to the Park Lands; the fact that the site is only one of three remaining development sites in the Capital City Zone with a northern orientation to the Park Lands; the prominent corner site characteristics of the land; and, the improvement to the conditions in Cleo Lane for other users, accords with the overall intent and purpose of the Development Plan.

In our opinion, the proposed building height and scale would not be appropriate further south adjacent to the core of the City Living Zone.

7.6 Crime Prevention

The following provisions are considered relevant in assessing the proposed development's ability to alleviate crime.





Environmental

- PDC 82 Development should promote the safety and security of the community in the public realm and within development. Development should:
 - (a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:
 - i. orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;
 - ii. avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;
 - iii. arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;
 - iv. positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;
 - v. creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;
 - vi. locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;
 - vii. ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and
 - viii. ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.
 - (b) provide access control by facilitating communication, escape and path finding within development through legible design by:
 - i. incorporating clear directional devices;
 - ii. avoiding opportunities for concealment near well travelled routes;
 - iii. closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;
 - iv. use of devices such as stainless steel mirrors where a passage has a bend;
 - v. locating main entrances and exits at the front of a site and in view of a street;
 - vi. providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and





- vii. locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.
- (c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:
 - i. clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;
 - ii. dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and
 - iii. locating main entrances and exits at the front of a site and in view of a street.
- (d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:
 - avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;
 - ii. using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;
 - iii. ensuring barriers along pathways such as landscaping, fencing and walls are permeable;
 - iv. planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;
 - v. adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and
 - vi. use of robust and durable design features to discourage vandalism.
- *PDC 83* Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.

The Development Plan encourages buildings which are designed to reduce opportunities for crime. In our opinion, the proposed development achieves the intent of the relevant crime prevention provisions in that:

- significant glazing and lighting to the Ground Floor Level will ensure visibility to/from the street at all times;
- inclusion of an active use at Ground Level, which may also extend into the evening hours will
 provide activity adjacent to road frontages and the Park Lands;





- promoting natural surveillance of the public realm (Hutt Street, East Terrace and Cleo Lane) plus the Park Lands from upper level balconies and windows, communal terrace and roof top garden;
- enabling direct sightlines between Hutt Street and the apartment entry;
- avoiding opportunities for concealment;
- providing secure and controlled entrances to the residential levels and car park levels by key card or remote control;
- controlling visitor access via an intercom system to promote territoriality and a sense of ownership through the clear delineation between public and private areas;
- the use of robust and durable design features to discourage vandalism;
- built form and signage clearly defining private and public areas;
- increasing the width of Cleo Lane which will provide a safer and more accessible environment for all users of the lane;
- increasing the width of the East Terrace footpath to provide a safer and more comfortable pedestrian environment and experience;
- ensuring waste collection occurs via Cleo Lane outside of peak periods (7:00am to 9:00am, and 3:00pm to 6:00pm). We note that the waste collection vehicle will reverse into Cleo Lane from East Terrace, and park briefly within the designated parking area which will still allow other vehicles to use Cleo Lane.

7.7 Landscaping

PDC 208 Landscaping should incorporate local indigenous species suited to the site and development, provided such landscaping is consistent with the desired character of the locality and any heritage place.

PDC 209 Landscaping should be provided to all areas of communal space, driveways and shared car parking areas.

As outlined in Landscaping PDC 207, landscaping should be selected to conserve water, form an integral part of the development, and be used to foster human scale, define spaces, and generally enhance visual amenity.

The proposed development has achieved this through the inclusion of a green wall over the Ground and Mezzanine Levels, a roof garden on Level 3, and an internal garden to the residential entry. The landscaping will contribute to additional amenity, and will be supported by services to ensure ongoing maintenance.

The proponents offer to upgrade Cleo Lane with landscaping will also contribute in a positive manner to the adjacent City Living Zone which in its existing state be best described as a service lane.



7.8 Environmental

7.7.1 Waste

The relevant provisions relating to waste encourage development to store waste in dedicated areas for onsite collection and the sorting of recyclable materials and refuse. In addition, odours associated with waste should be minimised.

As detailed in Section 5.14, a Waste Management Plan has been prepared by InfraPlan, and is included in Appendix 3. We have formed the opinion that the proposed waste arrangements will achieve the relevant provisions of the Development Plan in that:

- a dedicated bin storage room will be provided at Ground Level;
- general waste, recyclables, and organic waste are to be separately stored in each apartment and the bin storage room; and
- the waste collection vehicle will reverse into Cleo Lane, and temporarily park within the 3 metre setback from the eastern boundary of the subject site whilst waste bins are emptied.

The bin storage room has been designed to mitigate odour, and located a sufficient distance from other sensitive land uses to ensure they will not be impacted by any smells associated with the waste. Further, the frequent collection of waste is also anticipated to prevent odours building.

In relation to construction waste, a Construction Environment Management Plan will be prepared in due course to finalise these arrangements. A standard condition of consent typically formalises such an arrangement.

Respecting the above, we have formed the opinion that the waste arrangements are appropriate for the subject site.

7.7.1 Services

With reference to Section 5.17 of this Statement we have formed the opinion that the proposed development has made for provisions for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water in accordance with PDC 132 and PDC 135.

We also note that all service structures, plant and equipment are designed to be an integral part of the development and are suitably screened from public spaces or streets satisfying PDC 133.

7.7.1 Energy Efficiency

The energy efficiency provisions of the Development Plan encourage development to:

- provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting (PDC 106);
- promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems (PDC 107);



 reduce energy through appropriate building and window orientation, adequate thermal mass including night time purging to cool thermal mass, insulation, maximising natural ventilation, appropriate material selection and use of innovative technologies (PDC 108, PDC 109 & PDC 114).

We do not intend to repeat the extensive features listed under Section 5.18 however the following matters reinforce the environmental performance of the building:

- use of high performance double glazing with integrated and adjustable interstitial blinds, access to daylight, and natural ventilation to all apartments and corridors to reduce energy demands;
- solar sensors will be included in the façade, and will automatically control the interstitial blind systems. Occupants will have the ability to also manually override the automated control of the blinds (if they wish);
- electro-chromic glass has been incorporated in strategic locations to provide additional privacy and solar load reduction;
- designing and certifying the apartments to achieve an energy performance at least 30% better than current Building Code minimum NatHERS rating of 6 Stars average, representing a significant and unprecedented dwelling average NatHERS Rating of 8 Stars in the City of Adelaide;
- designing the tenancy and common areas to achieve an energy performance at least 30% better than a deemed to satisfy compliant space in accordance with the NCC/BCA Section J, JV3 methodology;
- offering all apartment purchasers, the option of an electric vehicle charge points at their car park space, in order to promote the de-carbonisation of Adelaide's transport network. Dependent upon the final size of PV array installed, a number of these points can be supplied with 100% renewable energy;
- air conditioning systems within the apartments will be zoned to functional areas (e.g. living rooms, bedrooms), and provided with automatic and manual controls. They will be inverter controlled and rated to the highest available Energy Star rating, and include the option to operate in fan mode providing low energy air circulation;
- provision of a "kill switch" to each apartment, which allows a one touch isolation of all lighting and air conditioning power when the apartment is vacant;
- provision of a 39kW roof mounted solar photovoltaic array connected via the inset network so that
 it can benefit all residents and tenants in the development, but is sized to adequately provide
 renewable energy equivalent to 100% of the common area power needs, including car park
 ventilation;
- daylight control to lighting systems in common areas and use of energy efficient, LED lighting fittings;
- use of light coloured external finishes (in particular roof coverings) to reflect heat, reduce solar gain, and reduce the "heat island effect";
- use of solar gas boosted hot water systems, gas hobs, and European Energy Label A category ovens
 for cooking throughout in order to reduce peak electricity demands, reduce the overall
 development carbon footprint, and provide an economical amenity for apartment owners;



- provision of a building energy management system with smart metering to automatically record
 and monitor the building's resource use and establish trends and profiles to assist with the ongoing
 control of energy use (this information will be made available on-line);
- providing apartment owners with retractable clothes racks in their apartments, to minimise electric clothes drier use which will also minimise the incidence of clothes drying on exposed balconies; and
- providing retail and commercial tenancy space air conditioning systems with an economy cycle control allowing 100% outside air to be used for free cooling purposes when external weather conditions allow.

The energy efficiency of the development reinforces the high design quality of the building which exceeds the expectations of the Development Plan.

7.7.1 Wind

A Wind Impact Assessment was undertaken by DR Partners which is included in Appendix 5. DR Partners has considered the interaction between the prevailing winds and the building morphology of the area.

With respect to westerly winds, the Hutt Street footpath is shielded by the proposed canopy along East Terrace and Hutt Street. There are also a number of several medium rise buildings and buildings are under construction that further mitigate the impact at lower levels.

In relation to northerly winds (including north-easterly and north-westerly), DR Partners note that the open character of the Park Lands and will tend to funnel down Hutt street however downwash from the proposed tower will be disrupted by the indented balconies, protruding surface features and the street level canopy which will also offer pedestrians protection.

In regard to Cleo Lane, winds are shielded at low level by surrounding buildings and downwash on the eastern façade is disrupted by the indented balconies, protruding surface features and the potential future works within Cleo Lane.

Overall, given the level of pedestrian activity and the minor to negligible wind impact, we have formed the opinion that the development achieves the relevant provisions of the Development Plan relating to wind impact.

7.7.1 Noise

A noise assessment has been undertaken by Sonus which is included in Appendix 7. The assessment considers:

- the noise from traffic and street activity on surrounding roads into the development; and,
- the noise emanating from car parking, mechanical plant and rubbish collection associated with the proposed development to other noise sensitive land uses.





The proposed development includes a restaurant at ground level. The assessment of noise associated with the restaurant has been excluded as the operator is unknown at this particular stage and whether the proposed operation has any potential to impact noise sensitive land uses in the vicinity.

The assessment has been based on noise logging conducted at a location representative of the existing noise environment at the site between the 27th and 28th of November 2017.

Sonus has identified that the key noise issue for the site is associated with the impact of traffic at the intersection of Hutt Street, East Terrace, Bartels Road and Pirie Street upon the amenity of the development. Accordingly, Sonus recommends that particular features of the building construction will adequately protect occupants against the intrusion of traffic noise.

In relation to other matters, Sonus has advised that:

- waste collection should not occur after 10.00pm or before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday;
- the assessment criteria associated with the mechanical plant is expected to be practically achieved without significant acoustic treatment;
- car park noise levels will not be noticeably different to the much greater number of vehicles on East Terrace.

Having regard to the above, the relevant provisions relating to noise are satisfied.

7.7.1 Stormwater

DR Partners has consulted the Adelaide City Council in relation to stormwater management. A copy of their correspondence is provided in Appendix 6. In summary, Council has advised that since the impervious area of the site remains unaltered that no on-site detention of stormwater is required.

Major flood events (1 in 100 year ARI event) will be catered for by overland flow paths discharging to the surrounding streets. Floor levels will be set above back of existing footpath levels in accordance with council requirements.

Notwithstanding, the proposal will re-use roof water for the purposes of irrigation of landscaping and green walls which will ensure their long term sustainability. The community strata will be responsible for the maintenance and operation of the rainwater tank and system.

7.7.1 Overshadowing

Council Wide PDC 174 encourages development in a non-residential Zone that is adjacent to land in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone to minimise overshadowing on sensitive uses by ensuring:

• north-facing windows to habitable rooms of existing dwellings in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone receive at least 3 hours of direct sunlight over a portion of their surface between 9.00am and 3.00pm on 21 June;



- ground level open space of existing residential buildings in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone receive direct sunlight for a minimum of 2 hours between 9.00am and 3.00pm on 21 June to at least the smaller of the following:
 - » half of the existing ground level open space;
 - » 35 square metres of the existing ground level open space (with at least one of the area's dimensions measuring 2.5 metres).

The shadow diagrams demonstrate that the proposed development will satisfy PDC 174. Furthermore, the shadow diagrams presented during the design review process demonstrated that the impact of the proposed development compared to a building of 22m in height was negligible in the context of PDC 174.

7.7.1 Overlooking

Council Wide PDC 66 encourages medium to high scale residential or serviced apartment development to be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development. The design of each apartment floor plan is such that the potential for overlooking into the City Living Zone will be minimised. The greatest potential for overlooking may occur from east facing balconies however it is important to recognise the following:

- the adjacent residential flat building does not contain west facing habitable room windows;
- habitable room windows of other dwellings to the south are located greater than 15m (measured horizontally) from the east facing balconies; and
- there are existing structures or trees located in rear yards of dwellings backing onto Cleo Lane that would screen any views that may occur.

We also note that the open space area located to the western side of the adjacent apartment building is a common service area and not 'private' as such.

All habitable room windows and balconies are set-back from boundaries with adjacent sites of at least three metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites in accordance with Council PDC 67. Whilst the communal roof garden is located on the southern boundary it is important to note that this space would otherwise be the car park roof deck. In our opinion, this space is unlikely to restrict the reasonable development potential of the adjacent site. The design of the garden space offers privacy screening and landscaping along the boundary.

Overall, we are satisfied that the design of the development minimises the potential for overlooking particularly to existing dwellings contained within the adjacent City Living Zone.

7.9 Affordable Housing

The Affordable Housing Overlay applies to the proposal. The Overlay is not mandatory, and given the intent to deliver high quality owner occupier apartments at a price point well beyond the affordable housing price threshold, affordable housing will not be provided in this particular development.



8. CONCLUSION

We have concluded from our assessment of the proposal it represents both planning and design excellence. In support of our conclusion, we wish to highlight that:

- a Pre-Lodgement Agreement has been reached with the Government Architect reinforcing the high design quality of the development;
- the proposal satisfies the conditions to qualify for the height proposed;
- apartment sizes, balcony areas, storage and floor to ceiling heights exceed the minimum guidelines;
- apartments will be designed and certified to achieve an energy performance at least 30% better than current Building Code minimum NatHERS rating of 6 Stars average, representing a significant and unprecedented dwelling average NatHERS Rating of 8 Stars in the City of Adelaide;
- overall car parking, traffic and access and waste collection arrangements are acceptable;
- the location of the site relative to dwellings contained within the City Living Zone is such that no detrimental interface issues result from the development;
- the conditions within Cleo Lane from a traffic and access perspective will improve with the development;
- the amenity in Cleo Lane will improve if adjacent land owners and Council support the proponent to upgrade the laneway;
- the development will provide a safe environment;
- the development has been designed in a way that will not result in any unreasonable overlooking, overshadowing, wind, noise or traffic impacts; and
- roof water will be re-used for irrigation of landscaping and green walls which will ensure their long term sustainability

Accordingly, we have formed the opinion that Development Plan Consent should be granted.



APPENDIX 1. TECTVS ARCHITECTURAL DESIGN





APPENDIX 2. TRAFFIC IMPACT STATEMENT



APPENDIX 3. WASTE MANAGEMENT PLAN





APPENDIX 4. SUSTAINABILITY STRATEGY



APPENDIX 5. WIND REPORT





APPENDIX 6. STORMWATER PLAN



APPENDIX 7. ACOUSTIC ASSESSMENT





APPENDIX 8. BUILDING SERVICES REPORT



infraPlan



Traffic Impact Statement
Report

Rymill Park Apartments
Mixed-use Development
2-6 Hutt Street, Adelaide

April 2018

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1 Introduction

InfraPlan has been engaged by Maras Group to prepare a Traffic Impact Statement (TIS) for the proposed Rymill Park Apartments – mixed-use, residential + retail development located at the south-eastern corner of East Terrace and Hutt Street intersection. These plans have been updated since the initial proposal from 2016 and this traffic impact statement updated accordingly.

A location map is included as Figure 1 (overleaf)

In the preparation of this report, we have undertaken the following tasks:

- Design advice and input to the traffic related elements of the proposed development, including entry/exit points for all traffic movements;
- Technical assessment of the layout and operation of the proposed carpark,
- Technical assessment of the capacity of the access/egress points located off Cleo Lane;
- Detailed engineering analysis of the likely traffic generation of the proposed development and its impact on the surrounding road network, and
- Recommendation of any changes to the proposed carpark layout, access/egress points to ensure adequate performance of the surrounding road and traffic network.

We have referred to the following documents during this assessment:

- City of Adelaide Development Plan consolidated June 2017
- Department of Planning, Transport and Infrastructure, SA (DPTI) Trip Generation Rates for Assessment of Development Proposals
- Roads and Maritime Services, NSW (RMS) formerly known as Roads and Traffic Authority (RTA)
 Guide to Traffic Generating Developments (herein referred to as the RTA Guide)
- Australian Standards AS2890.1-2004 Off-Street Car Parking
- Australian Standards AS2890.6 Off-street Car Parking for People with Disabilities.

The drawing set issued by tectvs in March 2018 comprising of C02 – C12 have been referred to in providing the advice contained within this report.

2 Existing Conditions

2.1 Local Context

The subject site is illustrated below, and bound by East Terrace to the north, Hutt Street to the west, Cleo Lane to the east and another property to the south. Adjacent land uses include offices, retail and commercial activity, and medium to high density residential apartments/housing.

The existing site currently houses commercial tenancies served by six at-grade car parks (reserved for tenants) accessed from Cleo Lane. Pedestrian access to the existing property is from Hutt Street and East Terrace.



Figure 1: Location Map – proposed Rymill Apartments – Mixed use development

The Adelaide Development Plan defines Bartels Road, Pirie Street as part of the "...Primary Bicycle Network Route..." The City of Adelaide's *Smart Move Strategy* indicates that Bartels Road currently functions as an east-west 'Regional Link' and is envisioned as a future 'District Link', providing greater priority for pedestrians, cyclists and public transport users. The Bartels Road carriageway comprises 2 travel lanes in each direction, plus on-street parking (both parallel; for both cars and motorcycles) and a full-time exclusive bicycle lane.

Site location within the Capital City Zone is included as **Appendix A**.

The location of the site within the CBD is well positioned for access by public transport, cycling, and by private car or taxi, as discussed below.



2.2 Existing Land Use and Traffic Generation

It is understood that the existing building has two floors of commercial/office tenancies. With a total leasable area in excess of 600sqm, the existing site was estimated to generate approximately 12 peak hour trips, using a trip rate of 2 trips/100 sqm during peak hour as per the Department of Planning, Transport and Infrastructure (DPTI) Trip Generation Guidelines.

The existing commercial land use at the subject site was estimated to generate approximately 12 trips during the AM and PM peak hours, and up to 95 trips per day.

2.3 Site Access

As mentioned previously, the development site has frontage along both East Terrace and Hutt Street. An at-grade, undercover carpark for 6 vehicles is accessible from Cleo Lane.

Under existing conditions, Cleo Lane operates as a left-in-left-out laneway, providing vehicular access to properties located along its length. Cleo Lane is approximately 3.0m wide which is not wide enough to support simultaneous two-way traffic movement. Property owners (along the eastern side of Cleo Lane) have set back buildings by up to 3.0m to allow for vehicular movement into/out of their properties (garage). However, these set backs are not continuous and Cleo Lane therefore functions as a single lane laneway.

Cleo Lane operates as a left-in-left-out laneway forcing arriving vehicles to either change their travel route to arrive from the east or make a U-turn on Bartels Road (east of East Terrace) to access Cleo Lane.

Similarly, traffic exiting Cleo Lane is forced to turn left and pass through traffic lights at the East Terrace/Pirie Street/Hutt Street intersection.

2.4 On-street Parking

The Hutt Street site frontage comprises of 2 travel lanes in each direction. Sufficient on-street parking exists along Hutt Street south of Pirie Street/East Terrace within a walking distance of 400m (5-6 minutes) from the development site. Hutt Street has 90 degree on-street parking on the east side, and a mix of 60 degree and 90 degree on-street parking on the west side. A bicycle lane exists on the east side of Hutt Street, but not on the west side as it terminates at Tucker Street.

On-street parking is provided on Pirie Street, Hutt Street and Bartels Road in the vicinity of the site, as summarised below.

Hutt Street (eastern side) – 1P and 2P (ticket), 8am – 6pm Monday to Friday and 8am – 12 noon Saturday.

Hutt Street (western side) – 1P (ticket), 8am – 6pm Monday to Friday and 8am – 12 noon Saturday.

Bartels Road (both sides) -3P (ticket), 8am - 6pm Monday to Friday and 8am - 12 noon Saturday; 10P (ticket), 8am - 6pm Monday to Friday.

Pirie Street (both sides) – 1P (ticket), 9am – 6pm Monday to Friday and 2P (ticket) 8am – 12 noon Saturday.



2.4.1 Public Transport

The proposed development site is situated at the corner of Hutt Street and Bartels Road/East Terrace, both being major public transport routes with more than 15 bus routes using these streets.

Stop 1 on Bartels Road – north side is located less than 50m from the development site with Stop 1 on Bartels Road – south side being 120m away from the subject site.

Stop V1 on Hutt Street – west side is located just across the street from the development site. Stop F1 on Hutt Street – east side is approximately 230m from the subject site.

Grenfell Street has been identified as a High Concentration Public Transport Route by the Adelaide City Development Plan, servicing between 300 and 500 buses per day. Bus stops I1 & R1 on Grenfell Street are approximately 350 to 400m from the site, which is within a walking distance of 5 to 7 minutes from the site.

Pirie Street is not a transport corridor and no bus stops are located along Pirie Street.

Bus routes which pass along either Bartels Road, East Terrace or Hutt Street in the vicinity of the site include destinations such as City and North Adelaide (98A), Newton, West Lakes & Largs Bay (155, 157), Tusmore & Beaumont (147), and Klemzig, Paradise, Campbelltown, Modbury and north-eastern suburbs (O-Bahn services via Grenfell Street).

2.4.2 Walking

The Adelaide Development Plan defines Hutt Street (between Pirie Street/East Terrace and South Terrace) as a Secondary Pedestrian Area.

Hutt Street has generously proportioned footpaths on both sides of the carriageway, with paved surfaces.

Pirie Street/ East Terrace and Bartels Road, in general have wide footpaths with either paved or sealed surfaces. Cleo Lane is too narrow to accommodate a footpath.

Businesses located along Hutt Street have frontage access to pedestrian footpaths and residences along East Terrace have access to pedestrian footpaths along East Terrace. There was no observed desire line of pedestrian movements along Cleo Lane (not a through road) and given the width of footpaths on Hutt Street and East Terrace these movements can be catered for by existing pedestrian footpaths.

2.5 Existing Traffic Conditions

East Terrace, Pirie Street, Hutt Street and Bartels Road are all under the care and control of the City of Adelaide. It is important to establish the current and future traffic carrying capacity of these streets and the surrounding local area in order to determine the impact of the proposed development.

Table 1: Local Street Network Details

Street/Road	Classification	Operations			
East Terrace (EW)	Secondary City	Two-way, four lanes with on-street parking and bicycle			
/Bartels Road	Access	lanes on both sides			
Pirie Street	Secondary City	Two-way, two lanes with on-street parking and bicycle			
	Access	lanes on both sides			
Hutt Street /	Primary City	Two-way, four lanes with on-street parking and bicycle			
East Terrace (NS)	Access	lanes on both sides; turn lanes at key intersections			
Cleo Lane	Local Access	Two-way, single lane; primary function to provide			
	(private lane)	vehicular access to properties along it; no through road			

Intersections provide a node for two or more traffic streams to either cross or change direction safely. The capacity of an intersection is dependent on numerous parameters such as number of approaches, number of lanes on each approach, left/right turn treatments, cyclist and pedestrian movements, signal timing etc.

It is important to also assess current (and future) intersection capacities in order to determine the likely traffic impacts of the proposed development, in particular the intersection of Pirie Street/East Terrace and Hutt Street/East Terrace.

Most recent traffic counts (March 2015) reflecting traffic movement through East Terrace/Pirie Street/ Hutt Street intersection were sourced from the City of Adelaide.

A summary of traffic movement data sourced from the CoA is included in Figure 2.



Figure 2: Traffic Data Summary – Peak Hour and Weekday Daily Average

As can be seen from the above figure, East Terrace (EW)/Bartels Road was observed to carry an average of 23,000 vehicles/day (both directions) and Hutt Street was observed to carry an average 24,400 vehicles/day (both directions).

Weekday morning and afternoon peak hour traffic on East Terrace (EW) was observed to be 647 vehicles/hr and 445 vehicles/hr respectively. Site observations have indicated that queues on the Eastern Approach (East Terrace/Bartels Road) to the signalised intersection extend beyond 150m east of the signalised intersection. This frequently results in blocking egress from Cleo Lane which is located approximately 25m from the subject intersection.

Intersection Performance

Level of service (LOS) is a measure of effectiveness for intersection operations. It is categorised by letter designations ranging from "A," which is very good, to "F," which reflects very long delays.

Austroads Guide to Traffic Management Part 3 states, "Level of service is a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of factors such as speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety."

The Highway Capacity Manual (published by Transportation Research Board, 2000) methodology defines intersection LOS by seconds of average vehicle delay at signalised intersections and seconds of average vehicle delay for the worst approach at one-way and two-way stop-controlled intersections.

SIDRA® intersection software developed by Akcelik Associates (Aust) is widely used by traffic engineers for evaluating intersection performance. This tool has been utilised to assess the current and future performance of the Pirie St /East Tce / Bartels Rd / Hutt St intersection.

Table 2: Intersection Performance – Existing

Intersection	Intersection control	LOS (average delay) – AM Peak	LOS (average delay) – PM Peak
Pirie St /East Tce /	Signalised	E (75 sec)	E (71 sec)
Bartels Rd /Hutt St	120 sec cycle, five-phase		

The subject intersection is part of a co-ordinated corridor (east west) and assessing it as a standalone would provide for conservative results. In reality, the subject intersection is envisaged to operate at a better level of service than estimated as above.

Sidra intersection modelling outputs are included in **Appendix B**.

3 Subject Development

3.1 Development Details

The proposed development will replace the existing commercial (office) tenancies with a mixed-use commercial/residential development. The proposed mixed-use development will have the following

- 220 m² restaurant/café including open terrace seating on mezzanine level
- 2 levels of underground (basement) car parking (28 parking spaces)
- 2 levels of above-ground car parking (28 parking spaces)
- 12 levels of residences total 38 dwelling units

Detailed breakdown of types of dwellings is included as **Table 3** below:

Table 3: Dwelling Unit Details

	No. of Beds	Total Units	Total Bedrooms
1 bed	1	4	4
2 bed	2	21	42
3 bed	3	12	36
Penthouse	4	1	4
		38	86

An accessway servicing the basement portion of the car park will be accessed via Hutt Street while an accessway servicing level 1 and level 2 will be accessed via Cleo Lane. These are both intended to be two way single lane accessways that will be controlled by a sophisticated signalling system (further detailed in section 6.4).

3.2 Vehicular Access –Hutt Street

The basement levels of the development will be serviced by a proposed new crossover approximately 5.6m in width from Hutt Street as can be seen in Figure 3.

This access will require the removal of approximately 5x on-street parking spaces but will provide 1x new space for possible use as a loading zone and 2x new motorcycle parking spaces. The reduction of spaces is considered to be reasonable given the relatively low demand for on-street parking in the immediate vicinity.

The existing tree in Hutt Street can be retained and would act as a divider for entering and exiting traffic. This also provides space for waiting vehicles as required by the two way single lane system which will be discussed further in section 6.4.

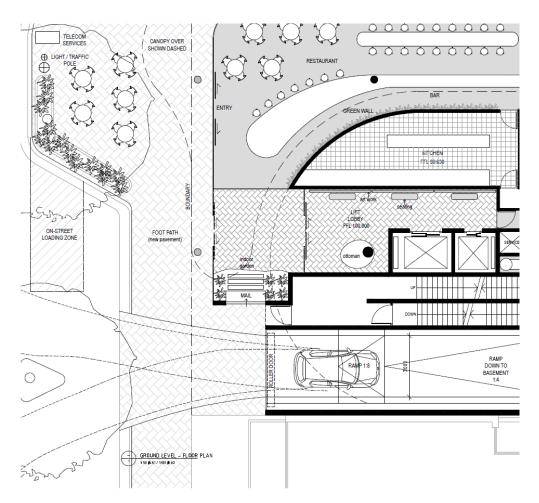


Figure 3: Proposed Hutt Street access arrangements

3.3 Vehicular Access - Cleo Lane

The development proposal includes a setback of 3m on Cleo Lane on the western side along the property boundary. The proposal setback would allow for a simultaneous two-way traffic movement on Cleo Lane along the property boundary—for approximately 20m from East Terrace.

As mentioned previously Cleo Lane is a no-through road as the southern end is privately owned restricting through movement. Under existing conditions Cleo Lane is approximately 3.0m wide with two-way traffic movement.

The proposed widening of Cleo Lane at its approach to East Terrace (EW) would allow for simultaneous entry and exit movements into/out of Cleo Lane. The proposed widening would also provide a passing opportunity to vehicles destined/originating from properties served by Cleo Lane if a vehicle is waiting to enter the proposed Rymill Park Apartments Car park. The upper levels of car parking will be serviced from Cleo Lane.

It is noted that a stobie pole will be required for relocation to facilitate widening of Cleo Lane.

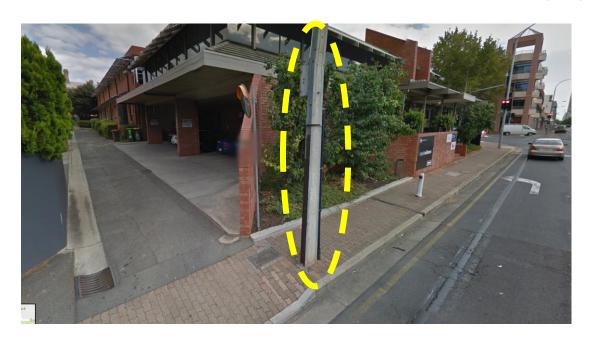


Figure 4: Stobie pole for relocation at junction of East Tce (EW) and Cleo Lane

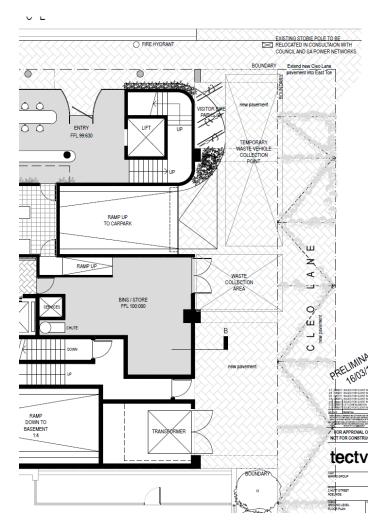


Figure 5: Proposed Cleo Lane Access Arrangement

3.4 Waste Collection

The bin storage area located on Ground Level will be accessible from Cleo Lane. It is understood that a private contractor will be engaged for collection and disposal/recycling of waste. Waste collection trucks will be required to reverse into Cleo Lane from East Terrace for waste collection as seen in Figure 6.

Access to the above ground carpark will be temporarily restricted, but vehicles will be able to enter and exit Cleo Lane using the remaining space. Waste collection vehicle will be undertaken outside of peak times to ensure minimal disruption.

Please refer to separate report on Waste Management.

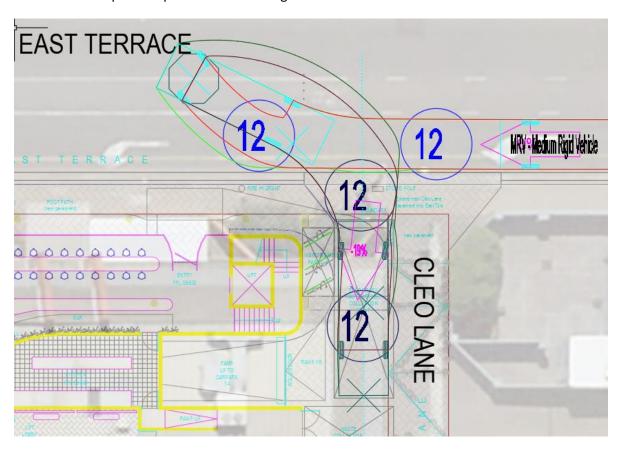


Figure 6: Example of reverse in waste collection manoeuvre to occur outside of peak times

3.5 Emergency Access

Emergency vehicles - Ambulance & Metropolitan Fire Service (MFS) will be able to access the development from East Terrace or Hutt St.

Two fire escape exits are proposed leading to Hutt Street (along the southern boundary) and to Cleo Lane.

4 Parking Demand

4.1 Car Parking Requirements – Residents

It is worth noting that Table Adel/7 of the Adelaide City Development Plan (ACDP) does not state a minimum parking provision for *Medium to High Scale Residential or Service Apartment* developments located within the Capital City zone.

However, the developer has allowed for a minimum parking provision for apartment units. A total 56 parking spaces are proposed in a four level (2 basements + 2 above ground) carpark using the following allocation (indicative only):

- 1 carparks for 1 bedroom units
- 1 carpark per 2 bedroom units
- 2 carparks per 3 bedroom units
- 3 carparks per penthouse

4.2 Car Parking Requirements – Ground Floor Tenancy

ACDP (Table Adel/7) does not state a minimum parking requirement for non-residential developments located within the Capital City zone. As such no parking is provided on-site for the proposed ground floor tenancy.

4.3 Car Parking Requirements – Visitors

ACDP (Table Adel/7) does not specify the minimum parking provision for visitors for *Medium to High Scale Residential or Service Apartment* developments located within the Capital City zone. As such no visitor parking is provided on-site.

The City of Adelaide provides excellent connectivity for cyclists, pedestrians and public transport that many visitors may choose to utilise. Where private vehicles are used instead of these alternatives, there is ample on-street parking (1P & 2P, ticketed and ½ P free) available within the immediate vicinity of the development site (on both sides of Hutt Street).

On-street (ticketed) parking is also available on East Terrace/Bartels Road and Pirie Street within a couple of hundred metres from the development site. Visitors to the proposed development (residences and ground floor tenancy) will be able to use the available on-street parking in the close vicinity.



4.4 Bicycle parking

All bicycle parking provision shall be designed in accordance with Australian Standard *AS2890.3 – Bicycle Parking*.

4.4.1 Residential Component

Table Adel/6 of the Adelaide City Development Plan (ACDP) provides rates for bicycle parking provision for various land uses summarised below:

All Low, Medium and High Scale Residential Developments -

- 1 space for every dwelling/apartment with a total floor area less than 150 square metres
- 2 spaces for every dwelling/apartment with a total floor area greater than 150 square metres
- 1 visitor space for every 10 dwellings

The proposed residential development with a total of 30 apartments less than 150 m² in area and eight apartments greater than 150m² would require a total of 46 bicycle parking spaces for residents and 4 bicycle parking spaces for visitors.

Residents will be provided bicycle parking area on level 2 which is accessible via Lifts. Six bicycle parking spaces accessible for visitor use will be provided on the ground floor and will be accessible from East Terrace (EW).

4.4.2 Ground Level Tenancies

A café/restaurant/bar type tenancy (220 m²) is proposed on the Ground Level.

Table Adel/6 of the Adelaide City Development Plan (ACDP) provides rates for bicycle parking provision for various land uses summarised below:

Café/Restaurant -

- 1 space per 20 employees for employees
- 1 space per 50 seats for customers/visitors

The proposed café/restaurant with (up to 100 seats) is estimated to require 3 bicycle parking spaces.

It is envisaged this will share the 6 spaces accessible for visitor use from East Terrace (EW). It is noted there is a shortfall of one space, however there is nearby bicycle parking available on-street on the south west corner of the Hutt Street and Pirie Street intersection and opportunity for further on-street bicycle spaces to be provided with the setback from the property boundary that this development offers.

5 Traffic Impact Assessment

5.1 Trip generation – Existing Land Uses

The Department of Planning, Transport and Infrastructure publication "Trip generation rates for the assessment of development proposals", September 2013 provides ready to use trip generation rates for selected land uses. Trip generation rates provided for *Office and Commercial* in the DPTI publication are provided at 15.85 daily trips and 2.02 peak hour trips /100m², however they are listed as requiring further investigation.

For this reason, data provided by the RMS Guide to Traffic Generating Developments (Updated traffic surveys 2013) is used, with updated rates for Office blocks being:

- Morning Peak Hour Trips = 1.6 trips/100m²
- Evening Peak Hour Trips = 1.2 trips/100m²
- Daily Trips = 11 trips/100m²

As mentioned previously, the existing building has two floors of commercial/office tenancies. With a total leasable area more than 600m², the existing site is estimated to generate traffic movements as listed below in Table 4.

Table 4: Existing development traffic generation estimate

Time	Trips
Daily	66
Morning Peak	10
Evening Peak	7

The existing land uses of the subject site were estimated to generate in the order of 10 trips during morning peak, 7 trips during evening peak hours and up to 66 trips per day.

Where peak hour trips were not accommodated on site via Cleo Lane, they are assumed to use onstreet parking along Hutt Street and/or Pirie Street.

5.2 Trip generation – Proposed mixed-use development

The aforementioned DPTI trip generation document can also be used to calculate trip generation rates for medium density residential developments. However, no trip generation rates for high-density residential developments were available in this DPTI publication.

InfraPlan have therefore 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 1.5 which falls within the upper range of survey responses provided.

Since the number of dwellings is not directly linked to the number of car parking spaces and hence, car trips, an additional calculation was also undertaken based on the number of car parking spaces when estimating the trip generation.

Table 5: Trip Generation Estimate

RTA - Land Use	Weekday Daily	Weekday AM Peak	Weekday PM Peak	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips	
	Trips / Dw	Dwelling Unit or Car Space			Hour Hips	riour rrips	
38 dwelling units	2.28	.29	.22	87	11	9	
56 parking spaces	2.02	.22	.18	113	12	10	

Using the higher estimate based on the number of parking spaces provided, the proposed development is estimated to generate 12 trips during morning peak hour and 10 trips during afternoon peak hour.

While no splits for in/out were readily available, InfraPlan have assumed the following splits

- Morning peak hour 80% departing, 20% arriving
- Afternoon peak hour 20% departing, 80% arriving

This translates into

- 10 vehicles departing, 2 arriving during morning peak hour
- 2 vehicles departing, 8 arriving during afternoon peak hour.

It is important to note that the proposed carpark will be split into basement and above ground carparks with equal capacity and accessing different roadways. In other words, 28 carparks in the basement (accessed via Hutt Street) and 28 carparks in above ground parking levels (accessed via Cleo Lane). Applying this split to trip generation the following is estimated:

Table 6: Arrival Departure Pattern – proposed development

Parking Level	AM Peak Hour			PM Peak Hour		
	Arriving	Leaving	Total	Arriving	Leaving	Total
Basement Carpark (Hutt Street)	1	5	6	4	1	5
Above Ground Carpark	1	5	6	4	1	5
(Cleo Lane)						
Total	2	10	12	8	2	10

5.3 Trip Distribution

As per the 2011 census, more than half (55%) of the residents in Adelaide CBD are reported to work within the CBD. Consistent with census data, the proposed residential development is envisaged to have the majority of residents working within the Adelaide CBD.

Assuming a 60-40 split for vehicular trips (60% out of CBD, 40% within CBD), the proposed development was estimated to have:

- 5 trips during morning peak hour to/from Adelaide CBD
- 7 trips during morning peak hour to/from outside Adelaide CBD
- 4 trips during afternoon peak hour to/from Adelaide CBD and
- 6 trips during afternoon peak hour to/from outside Adelaide CBD

5.4 Net change in Trip Generation

As mentioned previously, the existing property has office tenancies with 6 carparks accessible from Cleo Lane. The existing site is estimated to generate up to 10 trips during the morning (arriving) and 7 during the evening peak hours (leaving).

Discounting for trips generated from the existing site, the proposed residential development is estimated to generate 4 fewer trips during the morning peak hour and 2 fewer trips during the afternoon peak hour. This decrease in net trips is further reduced in consideration of Cleo Lane being widened for two-way traffic movement.

The basement carpark will generate an additional 6 trips in the morning peak and 5 in the evening along Hutt Street.

In terms of daily trips generated and assuming a 50/50 split in daily trips between the upper and basement level car park, the proposed development would decrease the number of trips by approximately 10 compared to the existing office facility. There would be approximately 56 additional daily trips along Hutt Street accessing the basement car park. This is anticipated to have a negligible impact on the adjacent signalised intersection.

Summary

The proposed mixed-use (residential/commercial) development is estimated to reduce the number of vehicle trips throughout the day and peak times along Cleo Lane compared to existing office development.

There will be an increase of approximately 6 trips in the AM peak., 5 in the PM and 56 throughout the day along Hutt Street. This is considered to be negligible.

5.5 Local Area Traffic Impacts

As explained above, the proposed development was estimated reduce the number of trips during the morning and afternoon peak hour. However, the arrival/departure pattern will be reversed compared to existing traffic. As such, traffic generated by the development will be departing (leaving the site) during the morning peak hour and arriving in the afternoon peak hour. In consideration of a widened Cleo Lane, this is expected to not cause any impacts.

It is important to note that the departing trips in the morning peak hour will be exiting from Cleo Lane onto East Terrace. These trips will be left-out only thus merging with traffic in the left-turn lane on East Terrace, approaching the signalised intersection at East Terrace/Pirie St/Hutt Street. The only concern is that if an exiting vehicle intends to cross over into the through lane, it will be dependent on the courtesy of other



motorists travelling along East Terrace (EW)/Bartels Road to allow an exiting vehicle to cross over into the through lane. This is not dissimilar to a number of locations within Adelaide CBD.

Trip generation along Hutt Street will be negligible in the context of the existing use and capacity of the roadway. Therefore no additional Sidra intersection assessment was undertaken.

In summary, the proposed development is estimated to result in negligible new trip generation during peak hours and therefore negligible impacts to the surrounding road network are envisaged.

6 Compliance with Standards

The proposed carpark was assessed as *User Class 1A – Residential, Domestic and Employee Parking* for compliance with relevant Australian Standards and Guidelines.

6.1 Car park access

6.1.1 Hutt Street Access

Access to the basement level car parks will be provided from Hutt Street. This has been designed around existing infrastructure in the street and given the high number of pedestrians using Hutt Street, provides appropriate sightlines for pedestrians. The proposed single lane ramp access will be 3.6m wide (wall to wall) which is deemed compliant with AS2890.1 requirements for a single lane driveway/access point.

6.1.2 Cleo Lane Access

Cleo Lane will be widened to support a two-lane, two-way traffic movement. Access to the upper level carparks will be provided from Cleo Lane. The proposed single lane ramp access will be 3.6m wide (wall to wall) which is deemed compliant with AS2890.1 requirements for a single lane driveway/access point.

The subject single lane ramp access will also be provided with a 4.0m kerb radius at ground level to facilitate efficient maneuvering of an exiting vehicle such that there is no disruption to southbound traffic (or a vehicle waiting to enter the subject carpark).

6.2 Car parking bays

The car park was assessed as User Class 1A (Table 1.1, AS2890.1), comprising residential parking only. Class 1A requires the following minimum dimensions for the provision of 90° parking bays:

- 2.4m wide x 5.4m long standard car bays
- 2.3m wide x 5.0m long small car bays
- 5.8m wide aisles

The proposed carpark will have two basement parking levels and two above ground parking levels, each utilising 90° parking. The number of parks on each level is as follows:

Basement 2: 10 standard 5 small Basement 1: 10 standard 3 small Level 1: 9 standard 2 small 2 accessible (unmarked) Level 2: 13 standard 2 small Total: 42 standard 12 small 2 accessible (unmarked)

Each car park complies with AS2890 with the exception of the north east spaces provided where there is less than a 1.0m gap for overhang and maneuvering as required for a blind aisle. However, these were tested using a B85 vehicle and are functionally accessible for both forward and reversing movements, without use of the ramp opposite (which can be used as a turning area). This is demonstrated in Appendix D, Figure 8 (a) & (b).

Table 7 of the Adelaide City Development Plan specifies that for 15 spaces provided, 1 space should function as a car space suitable for use by people with disabilities and other people with small children and prams. Additionally, every second space provided with people with special needs shall be reserved for the exclusive use of people with disabilities (i.e. 1 in 30 spaces).

Based on the parking provision of 56 vehicles, the car park should provide 2x accessible (unmarked) and 1x accessible (marked for exclusive use). The current layout of the car park does not explicitly provide for accessible parking spaces.

Given that there is no minimum parking requirement for this development, it being primarily residential in use and subsequently only for private use, it is considered reasonable that no accessible parking bays are provided. If required by a tenant of the building in future, existing parking bays can be converted (at the loss of one parking space) to provide for accessible use with a shared space as in the figure below.

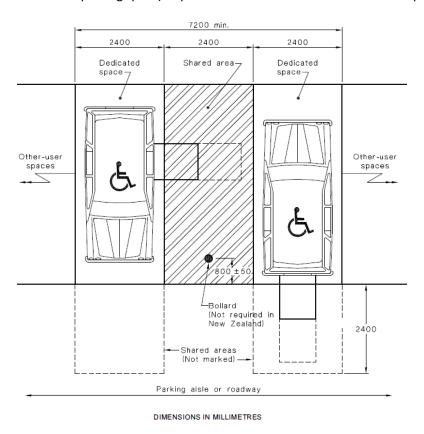


Figure 7: Example of exclusive accessible provision if required in future

6.3 Car Park Ramp System

The car park is proposed to have single lane, reversible ramp systems with access and egress controlled by signalling systems.

Ramps to both upper and lower parking levels are proposed to be 3.6m wide – clear width provided between walls. This was checked using a B99 vehicle using AutoTrack software and facilitates this vehicle.

Changes of grade in the car park is primarily provided along straight sections of ramps. Details of ramps slopes proposed are summarised below:

	Floor to Floor Height	Transition Ramp at bottom end	Ramp Main Section	Transition ramp at top end
Basement 2 to	2.85m	2.5m @ 1 in 8	8.8m @ 1 in 4	2m @ 1 in 8
Basement 1		(12.5%) slope	(25%) slope	(12.5%) slope
Basement 1 to	2.85m	2.5m @ 1 in 8	8.8m @ 1 in 4	2.3m @ 1 in 8
Ground Level		(12.5%) slope	(25%) slope	(12.5%) slope
Ground Level to	3.8m	2.5m @ 1 in 10	14m @ 1 in 4	2m @ 1 in 8
Mezzanine Level		(10%) slope	(25%) slope	(12.5%) slope
Mezzanine to Parking Level 1	2.7m	2m @ 1 in 10 (10%) slope	11.5m @ 1 in 5 (20%) slope	2m @ 1 in 10 (10%) slope
Parking Level 1 to	2.7m	2m @ 1 in 10 (10%)	11.5m @ 1 in 5	2m @ 1 in 10
Parking Level 2		slope	(20%) slope	(10%) slope

The grade change in the proposed ramp system has appropriate change of grade with no change greater than 1/8 and each grade change transition being greater than 2.0m in length. The proposed ramp system was deemed to comply with AS2890.1-2004 and AS2890.06-2009 requirements.

6.4 Circulation and Access Control

6.4.1 Circulation

As mentioned previously, a single lane reversible ramp system is proposed that would result in the following circulation pattern:

Circulation Pattern	Entering	Exiting
Basement 2 to Basement 1	Anti-clockwise	Clockwise
Basement 1 to Ground Level	Anti-clockwise	Clockwise
Ground Level to Mezzanine Level	Anti-clockwise	Clockwise
Mezzanine to Parking Level 1	Anti-clockwise	Clockwise
Parking Level 1 to Parking Level 2	Anti-clockwise	Clockwise

6.4.2 Access Control System

The proposed carpark will require a signal system to control access, circulation on each parking level and egress from the carpark.

The following guiding principles are proposed for the access control signal system.

- 1. The proposed carpark will be reserved only for residents of the proposed development
- 2. Each vehicle will be provided with a remote access key (remote control)
- 3. Entering vehicles will get priority over exiting vehicles.
- 4. A set of Green & Red lights will be installed at both ramps to Upper and Basement parking levels
- 5. Only one vehicle will be allowed to use a ramp system at any given time with the following exemptions:
 - a) In case of multiple entering vehicles, a predefined gap will be introduced between two vehicles to allow the leading vehicle to travel and park in the designated car park;
 - b) In case of multiple exiting vehicles (with no entering vehicle) a predefined gap will be introduced between two vehicles to allow for safe exit;



- c) In case an "Entry Call" is registered in between two successive Exit Calls, an exiting vehicle which has already entered the ramp system will be allowed to exit safely and following Exit Calls will be delayed with priority given to the entering vehicle;
- 6. One-way circulation is proposed thus no passing of vehicles on any parking level;
- 7. Sensors/detection loops will be required on both ends of ramps on each parking level to detect vehicle movement.

Exiting Traffic

- 1. An exiting resident, upon exiting from the lift on their parking level, will register an "Exit Call" using their remote access key;
- 2. Once a "Green" signal is displayed the motorist will be able exit from their parking bay and start travel towards Ground Level;
- 3. Priority will be given to entering vehicles to minimise impact on traffic movements in Cleo Lane or Hutt Street. In a scenario where an entering vehicle has already entered the ramp system, an exiting vehicle shall be made to wait until the entering vehicle has reached its parking level and completed their parking manoeuvre.

Entering Traffic

- 1. An arriving vehicle will have a "Green" signal at all times except when an exiting vehicle has already registered an "Exit Call";
- 2. In such a scenario (Red light for arriving vehicle), the arriving vehicle will register an "Entry Call" by using their remote access key;
- 3. An arriving vehicle can wait in Cleo Lane or Hutt Street allowing the exiting vehicle to exit safely;
- 4. An *Out of Turn Exit Manoeuvre* would be where a motorist pulls out of the parking bay after registering an "exit" call <u>but</u> before getting the "Green" signal to exit, while another vehicle is using the ramp system. There is sufficient space for such an out of turn vehicle to pull out of the travel path of the other vehicle using the ramp system.

With a two-way aisle width provided, there is sufficient room for two vehicles to pass or wait as required by the system. These principles provide a basic framework for the proposed single lane, reversible ramp system to function efficiently. The proposed access control system will be refined at the detailed design stage.

6.4.3 Signal Cycle Calculations

The following assumptions were made when estimating travel times between various parking levels.

Vehicle Travel Speed

On Ramp
 On parking level
 Ramp length (GL to Level 1)
 Ramp length
 Parking floor length
 Time to park/retrieve vehicle

Using the above information, the following time estimates were prepared:

Table 7: Car park movement time estimates

	Entering →				Entering →				
		GL	B1	B2			GL	UL1	UL2
	GL		52	74		GL		63	96
	B1	52		52		UL1	63		63
Exiting 🛧	B2	74	52		Exiting 🛧	UL2	96	63	

Refer to **Appendix C** for detailed calculations.

An entering/exiting vehicle to/from basement parking levels was estimated to require less than 75 seconds (1.25 minutes) to complete the manoeuvre. Thus, in a worst-case scenario, the maximum duration an entering vehicle (travelling to basement parking levels) will be required to wait on Cleo Lane was estimated to be less than 75 seconds (1.25 minutes).

An entering/exiting vehicle to/from the Upper Parking Levels is estimated to require less than 100 seconds (1.67 minutes) to complete the manoeuvre. Thus, in a worst-case scenario, the maximum duration an entering vehicle (travelling to Upper Levels) will be required to wait on Cleo Lane was estimated to be 100 seconds (1.67 minutes).

Sensors installed at either end of the ramps on all levels will be used to determine if vehicles (entering/exiting) have cleared the ramp system. A minimum clearance gap will be included between all entry and exit calls.

Queuing

Using Steady State queuing in accordance with Austroads Part 2 – Traffic Theory, the queuing space requirement is calculated as described below.

Signal Duration = 100 seconds (worst case – upper levels)

Service Rate = 36 vehicles/hour (3600/100)
 PM Peak Hour arrival rate = 5 vehicles (refer Table 6)

Based on these figures there would be a 1.9% chance that a vehicle would be required to wait for another vehicle at any given time. Thus, no queuing space would be required even in a conservative scenario as the number of entering vehicles is significantly less than the system service rate for vehicles travelling to/from upper level parking.

The access arrangements on Hutt Street allow for a waiting space for potentially up to two vehicles onstreet without impacting on moving traffic and allowing for vehicles to exit the facility and wait for traffic.

The proposed widening of Cleo Lane will allow for two-way movements. In case a vehicle is waiting to enter the proposed development car park, other local vehicles will be able to pass the waiting vehicle safely. This is not possible under exiting conditions with Cleo Lane only one lane wide.

It should be noted that the service rate mentioned above is calculated using 100 seconds per movement. Once an "entry" call is registered by an arriving vehicle; all exit calls will be superseded. Furthermore, the probability of two vehicles arriving is extremely low (less than 0.05%). Therefore, queuing is unlikely to occur on Cleo Lane.



6.5 Columns

Indicative column dimensions and locations provided by tectvs have been assessed and found to be in general compliance with AS2890.1 requirements.

It is recommended that column locations (in detailed design stage) be designed in accordance with the design envelope as per AS 2890.1:2004 requirements.

6.6 Headroom

It is understood that a floor to floor height of a minimum 2.7m is proposed for all parking levels, above ground and basement. The proposed ramp system was assessed to have a minimum 2.3m vertical clearance in accordance with AS2890.1-2004 requirements.

It is recommended that the proposed car park shall have a minimum vertical clearance of:

- 2.2m between the floor and any overhead obstruction (if lower than ceiling) for all parking spaces excluding accessible parking bays.
- 2.5m between the floor and any overhead obstruction (if lower than ceiling) for all car parks for people with disabilities.

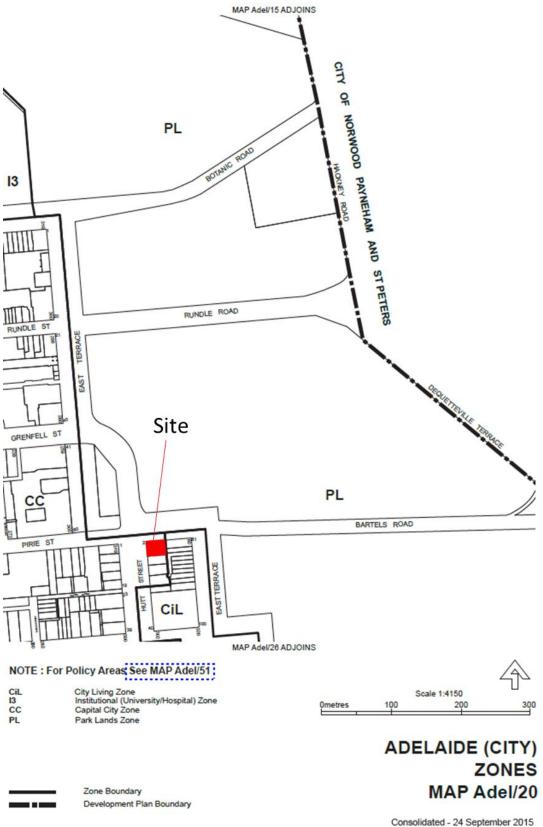
7 Summary and Conclusion

The proposed mixed-use (residential + retail) development has been assessed for accessibility, parking provision and traffic impact on the surrounding street network. A summary of the findings of this assessment is presented below.

- 1. The subject development will replace existing commercial tenancies with a mixed use residential and commercial development;
- 2. The development proposal includes a building setback of 3.0m along Cleo Lane to facilitate two-way traffic movement along the property boundary;
- 3. The proposed building setback on Cleo Lane is envisaged to improve access for other residences having parking access from Cleo Lane;
- No changes are proposed to traffic movements at the existing Cleo Lane access, which will continue to operate as left-in-left-out only;
- 5. The proposed development will have negligible impact on the surrounding road network in terms of trips generated;
- 6. The subject development will eliminate six at-grade off-street carparks accessible from Cleo Lane;
- 7. A total 56 parking spaces are proposed in two sections basement and above ground parking levels;
- No visitor parking is proposed on-site, visitors can use existing on-street carparks along Hutt Street,
 Pirie Street and Bartels Road;
- Existing access to at grade carparks from Cleo Lane will be replaced by a two-way, single lane ramp providing access to the upper parking levels;
- 10. A new crossover will be created along Hutt Street to offer access to a two-way, single lane ramp to the basement car parking levels;
- 11. The new crossover will require removal of approximately 5x on-street parking spaces but will provide 1x new space for possible use as a loading zone and 2x new motorcycle parking spaces
- 12. The proposed single lane ramps will require a signalling system to allow for and control one-way, reversible movements. Guiding principles for designing such a signalling system are provided in this report and shall be reviewed at the detailed design stage;
- 13. A total of 53 bicycle parking spaces (46 for residents and 7 for visitors/customers) are required for the proposed development with 38 dwelling units and ground floor tenancy;
- 14. 46 bicycle parking spaces for residents will be provided on Level 2, accessible via lifts. 6 visitor cycle parking spaces will be provided on site with the one shortfall to use existing or future on-street bicycle parking spaces in the vicinity;
- 15. All bicycle parking provision shall be in compliance with AS2890.3 Bicycle Parking
- 16. The proposed carpark design was assessed and found to be in general compliance with Australian Standards. Any deviation from standards have been identified and mitigation measures recommended to improve compliance;
- 17. A waste storage area is proposed on ground level with vehicular access from Cleo Lane. Please refer to the separate Waste Management Report for details on the proposed Waste Management System.

On the basis of the issues investigated, it is considered that the proposed development is supported from a transport and parking perspective.

Appendix A: Relevant Development Plan Zone Maps



Appendix B: SIDRA Intersection Outputs

MOVEMENT SUMMARY

Site: East Tce - Hutt St - Pirie St_2015 AM Peak

East Tce - Hutt St - Pirie St_2015 AM Peak

Signals - Fixed Time Isolated Cycle Time = 100 seconds (User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	Movement Performance - Vehicles										
Mov	OD	Demand		Deg.	Average	Level of	95% Back		Prop.	Effective	Average
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
Courtho	11.44.04	veh/h	%	v/c	sec		veh	m		per veh	km/h
	Hutt St	405									
1	L2	135	1.6	0.375	21.7	LOS C	8.8	62.6	0.67	0.66	30.7
2	T1	500	2.9	0.375	17.0	LOS B	10.5	75.1	0.67	0.60	27.2
3	R2	427	1.5	0.288	25.7	LOS C	6.9	49.2	0.71	0.75	34.2
Approa	ach	1062	2.2	0.375	21.1	LOS C	10.5	75.1	0.68	0.67	31.3
East: E	East Tce/Ba	artels Rd									
4	L2	681	0.8	1.090	160.3	LOS F	70.2	494.4	1.00	1.37	11.5
5	T1	325	0.0	0.565	33.2	LOS C	13.5	94.3	0.90	0.79	34.4
6	R2	237	4.9	1.117	179.8	LOS F	24.6	179.2	1.00	1.47	10.8
Approa	ach	1243	1.4	1.117	130.7	LOSF	70.2	494.4	0.97	1.24	14.3
North:	East Tce										
7	L2	144	5.1	0.118	6.4	LOSA	1.3	9.5	0.26	0.58	48.5
8	T1	523	2.6	0.990	84.4	LOS F	18.4	131.6	1.00	1.31	10.0
9	R2	38	2.8	0.352	56.8	LOS E	1.9	13.7	0.99	0.73	18.4
Approx	ach	705	3.1	0.990	66.9	LOS E	18.4	131.6	0.85	1.13	14.7
West:	Pirie St										
10	L2	25	8.3	0.370	48.9	LOS D	4.1	29.5	0.96	0.75	20.9
11	T1	156	0.7	0.370	44.3	LOS D	4.2	29.8	0.96	0.75	30.5
12	R2	35	6.1	0.201	48.4	LOS D	1.6	11.7	0.93	0.73	19.7
Appro	ach	216	2.4	0.370	45.5	LOS D	4.2	29.8	0.95	0.75	28.0
All Veh	nides	3226	2.1	1.117	75.0	LOSE	70.2	494.4	0.85	0.99	17.7

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy $Vehicle\ Model\ Designation$.

Mov		Demand	Average	Level of	Average Back	of Queue	Prop.	Effective
ID	Description	Flow	Delay	Service	Pedestrian	Distance	Queued	Stop Rate
		ped/h	sec		ped	m		per ped
P1	South Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	18.6	LOS B	0.1	0.1	0.61	0.61
All Pe	destrians	211	35.9	LOS D			0.84	0.84

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: East Tce - Hutt St - Pirie St_2015 PAM Peak

East Tce - Hutt St - Pirie St_2015 PM Peak

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Move	ment Perf	ormance - V	ehicles								
Mov	OD	Demand		Deg.	Average	Level of	95% Back		Prop.	Effective	Average
ID	Mov	Total veh/h	HV %	Satn v/c	Delay sec	Service	Vehicles veh	Distance m	Queued	Stop Rate per veh	Speed km/h
South	: Hutt St	VEIDII	70	V/C	360		Veri			par vari	KIIVII
1	L2	52	0.0	0.280	18.9	LOS B	5.0	35.5	0.66	0.60	33.1
2	T1	401	2.1	0.280	14.3	LOS B	5.9	42.1	0.66	0.57	29.4
3	R2	1009	0.2	1.057	137.5	LOS F	42.5	297.8	1.00	1.48	12.9
Appro	ach	1462	0.7	1.057	99.5	LOS F	42.5	297.8	0.89	1.20	14.3
East:	East Tce/Ba	rtels Rd									
4	L2	468	0.4	0.643	26.6	LOS C	14.9	104.8	0.86	0.84	34.3
5	T1	168	0.6	0.320	26.4	LOS C	5.3	37.3	0.84	0.72	37.3
6	R2	117	8.1	0.901	57.6	LOS E	5.5	41.5	1.00	1.03	24.0
Appro	ach	754	1.7	0.901	31.4	LOS C	14.9	104.8	0.88	0.84	32.9
North:	East Tce										
7	L2	272	4.3	0.445	23.6	LOS C	7.7	56.2	0.82	0.77	36.0
8	T1	443	1.7	0.849	44.1	LOS D	9.8	69.5	1.00	1.02	16.2
9	R2	19	0.0	0.138	44.2	LOS D	0.7	5.1	0.96	0.69	21.4
Appro	ach	734	2.6	0.849	36.5	LOS D	9.8	69.5	0.93	0.92	23.8
West:	Pirie St										
10	L2	40	2.6	1.039	110.2	LOS F	18.0	126.1	1.00	1.51	12.0
11	T1	466	0.0	1.039	105.7	LOS F	18.1	126.5	1.00	1.51	18.7
12	R2	67	0.0	0.502	46.1	LOS D	2.7	19.2	1.00	0.76	20.3
Appro	ach	574	0.2	1.039	99.0	LOS F	18.1	126.5	1.00	1.42	18.4
All Ve	hides	3523	1.2	1.057	71.7	LOSE	42.5	297.8	0.92	1.10	19.1

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

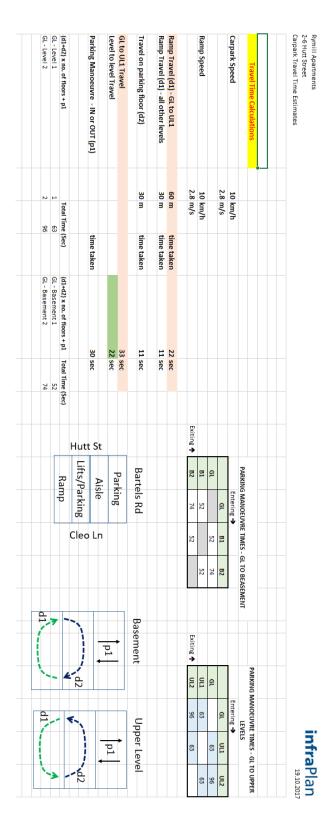
Mov		Demand	Average	Level of	Average Back	of Queue	Prop.	Effective
ID	Description	Flow	Delay	Service	Pedestrian	Distance	Queued	Stop Rate
		ped/h	sec		ped	m		per ped
P1	South Full Crossing	53	33.4	LOS D	0.1	0.1	0.91	0.91
P2	East Full Crossing	53	34.3	LOS D	0.1	0.1	0.93	0.93
P3	North Full Crossing	53	34.3	LOS D	0.1	0.1	0.93	0.93
P4	West Full Crossing	53	17.6	LOS B	0.1	0.1	0.66	0.66
All Pe	destrians	211	29.9	LOS C			0.86	0.86

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Appendix C: Ramp System Travel Time Estimates



Appendix D: Autotrack Turn Path & Design Envelopes

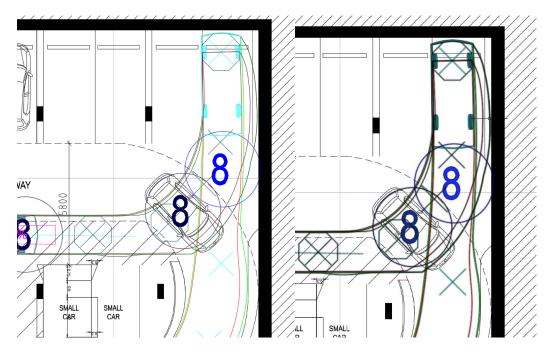


Figure 8 (a) & (b) - Front and reverse out, reverse in and front out (B2, B1, 1)

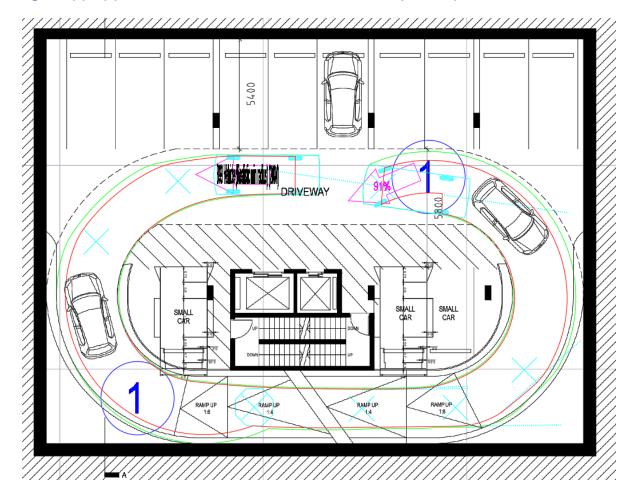


Figure 9: B99 vehicle turning movement on ramp (all levels)

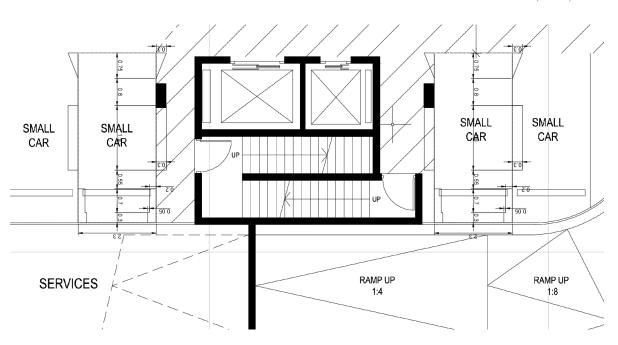


Figure 10: Small car design vehicle envelope (B2)

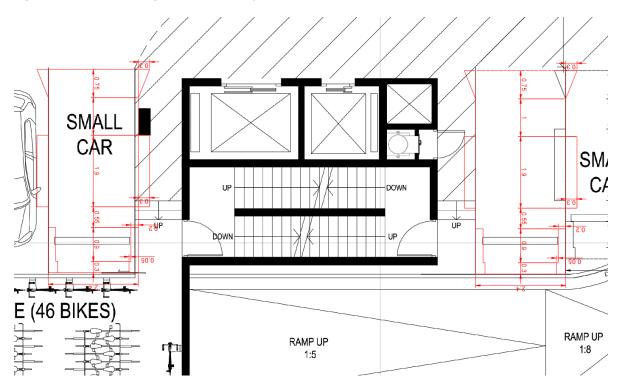
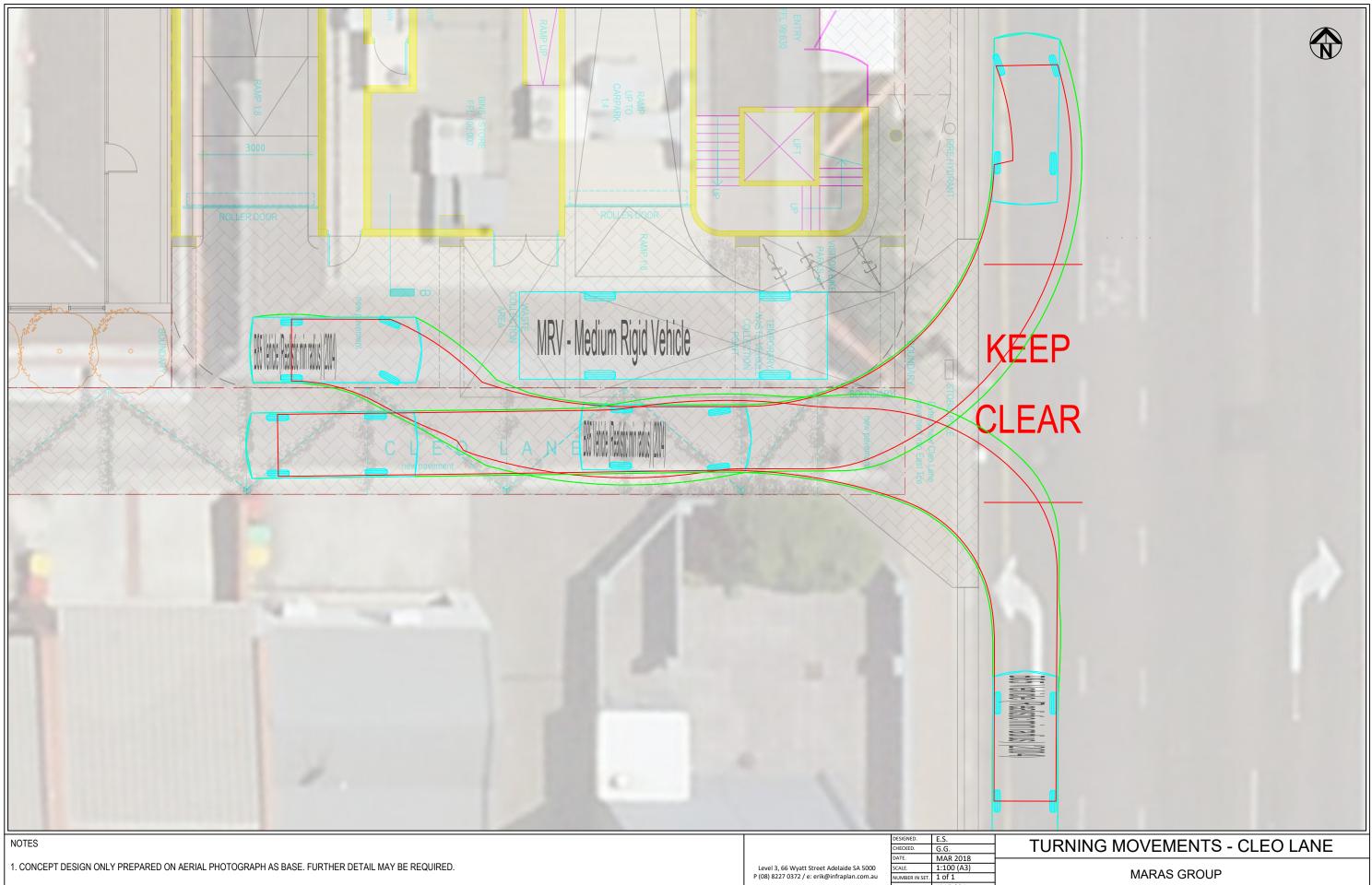


Figure 11: Design car envelope: note lower level stair less at 125mm above ground with car door height around 200mm (1, 2)



CONCEPT ONLY



PROJ NUMBER. IP17.034

A3-SK001

MARAS GROUP

#2-6 HUTT STREET HUTT STREET, ADELAIDE

infraPlan

policy - strategy - planning - infrastructure - transport - environment



Rymill Park Apartments
2-6 Hutt Street

Waste Management Preliminary Draft Report

April 2018

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1 Development Details

InfraPlan has been engaged by Maras Group to prepare a waste management plan for the proposed mixed-use residential + commercial development at 2 Hutt Street, Adelaide.

The proposed development includes a total 38 apartments and ground floor tenancies. Development details considered in preparing this report are provided below:

Land Use: Residential + Commercial

Site Area: 578 m²

No. of Dwellings: 38

Dwellings per hectare: 660 dwellings per ha

The proposed development is considered as a *high density residential development* with a dwelling density greater than 75 dwellings per hectare (ha).

The proposed development would have a 220 m² retail and café/restaurant tenancies on the ground floor accessible from Hutt Street and East Terrace. A total of 56 carparks are proposed in 2 discrete car parks, with upper levels accessible via Cleo Lane and basement levels accessible via Hutt Street.



Figure 1: Location Map-proposed Rymill Apartments-Mixed use development



2 Type of Waste System

For the purpose of developing a waste management plan InfraPlan have referred to the "Better Practice Guide Waste Management for Residential and Mixed Use Developments" published by Zero Waste SA (ZWSA) in 2014.

The proposed development will be a high density development (10 or more dwellings). Thus, using ZWSA guidelines, a **Complex Waste Management System** is recommended for the proposed development.

To further promote tenant awareness of recyclable waste streams, the developer intends to provide an integrated bin system that will provide segregated compartments for the sorting of co-mingled recycling, non-recyclable waste & organic food waste streams.

Figure 2 below shows a typical bin system for all the units.



Figure 2: Hafele HAILO Trio Integrated Bin System (Typical)

It is understood that a private waste operator will be engaged to collect & dispose of all co-mingled recycling, non-recyclable and organic food waste generated on site.

3 Waste System Sizing

3.1 Bin sizes

The following waste bins have been proposed for use at the subject development.





Table 1 - Waste Bin Sizes



3.2 Projected Waste Generation and Storage provision

Ready to use *Waste Resource Generation Rates (WRGRs) by land use type* provided in Table C.2 of ZWSA guide were used to estimate waste generation from the proposed development.

The projected waste generation volumes from residential portion of the proposed development are presented in Table 2 and the café portion in Table 3 below.

Table 2 - Waste generation - Residential

WASTE STREAM (collection frequency)	ZWSA Waste Generation Rates [L/bedroom/week]	No of Bedrooms	Projected Weekly Waste Generation	Residential component	Total Waste Storage Capacity Provided
Non-recyclable waste to landfill (weekly)	30 L	86	2,580 L/week	2 x 1,100 L 1 x 660 L	2,860 L
Co-mingled recycling (weekly)	25 L	86	2,150 L/week	2 x 1,100 L	2,200 L
Organic [food] waste (weekly)	10 L	86	860 L/week	1 x 660 L 1 x 240 L	900 L



Table 3 - Waste generation: Commercial – Café/Restaurant tenancy (220m2)

WASTE STREAM (collection frequency)	ZWSA Waste Generation Rates [L/10m²/day]	Projected Weekly Waste Generation	Total Waste Storage required	Café component	Total Waste Storage Capacity Provided
Non-recyclable waste to landfill (twice weekly)	30 L	4,620 L/week	2,310 L	2 x 1,100 L 1 x 240 L	2,440 L
Co-mingled recycling (twice weekly)	20 L	3,080 L/week	1,540 L	1 x 1,100 L 2 x 240 L	1,580 L
Organic [food] waste (twice weekly)	40 L	6,160 L/week	3,080 L	3 x 1,100 L	3,300 L

This results in a total number of bins as presented in Table 4.

Table 4 - Total number of bins required

Number and Type of Bins Required	1,100L	660L	240L
Landfill	2x Residential	1x Residential	
	2x Commercial		1x Commercial
Recycling	2x Residential		
	1x Commercial		2x Commercial
Organic	3x Commercial	1x Residential	1x Residential
TOTAL	10	2	4

3.3 Hard Waste and e-waste

As per ZWSA guide, a total 29 m³ area (38 dwellings x 0.77 m³/dwelling) would be required to store hard waste for the proposed development. However, the City of Adelaide offers free, at-call hard waste collection service to residents. Considering that up to 12 at-call services (1 per month) can be availed by residents of the proposed development, a total 2.4 m³ area would be required to store hard waste generated by the proposed development.

A 1.4m² area (approx.) is proposed within the bin storage area for storing *hard waste* and *e-waste*. The proposed bin storage area has a 3.5m floor to ceiling height. Thus, allowing for hard and e-waste to be stacked to a height of 1.8m, a total of up to 2.5m³ of space will be available to store hard waste within the bin storage area. This would reduce and possibly eliminate any unwanted furniture/bulk waste/e-waste items ending up kerbside.



4 Bin Storage Location

The bin storage area has been located centrally, adjacent to the lift lobby to ensure it can be readily accessed by residents/tenants. The storage area is located on the ground level with a 3.5m floor to ceiling height allowing for natural ventilation, it is however sheltered from the weather by the building above.

The bin storage area will be hard paved/concrete floor to facilitate easy maneuvering/wheeling of bins within and out of the storage area.

5 Bin Chute with Diverter system

The proposed development will have an integrated waste chute system. Access to the waste chute is proposed from the stair well on each floor. The proposed chute system will have an automated diverter that will segregate general waste and recyclable waste.

Key principles of the diverter system are listed below:

- Resident selects type of waste to be deposited e.g. general waste or recyclable
- Put the waste in chute using door
- Waste is deposited in selected (general or recyclable) bin in the ground level bin storage area
- Tenants will be required to deposit large cardboard boxes/other recyclable items (larger than chute opening) in the ground level bin storage area.

The proposed system will require initial monitoring to determine the frequency for replacing filled bins by empty bins under the chute. An automated bin rotation system can also be installed subject to a detailed assessment at the detailed design stage.

Residents will be required to deposit organic waste on the ground level. Organic bins will be accessible from a door located in the lift lobby.

Café/restaurant will share the bin storage area with residents but will be provided with separate bins. Waste generated from the café/restaurant can be transferred using a direct access to the bin storage area.

Refer to Figure 3 (overleaf) for a typical chute diverter system.



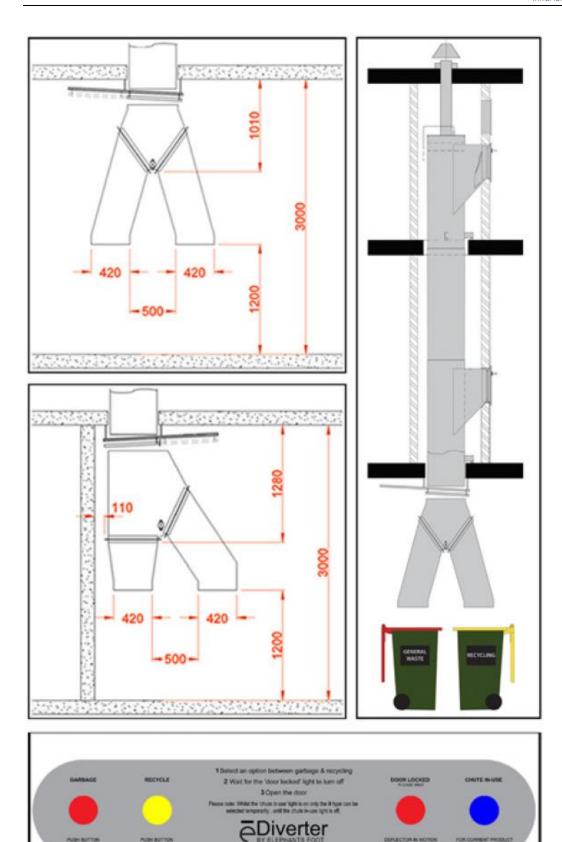


Figure 3: Typical waste chute diverter system (source: eDiverter system by Elephant's Foot)



6 Bin Presentation and collection time

6.1 Bin Presentation Area

A private contractor will be engaged to collect waste generated from the proposed development for both residential and commercial components (café/restaurant).

The proposed widening of Cleo Lane will enable a two-way traffic movement. The private operator vehicle will reverse into Cleo Lane from East Terrace and exit in a forward motion.

The private contractor will be required to wheel out filled bins from the bin storage area and wheel empty bins back into the bin storage area.

6.2 Collection Times

It is recommended that waste collection should be done outside peak periods (7-9am, 3-6pm) to minimise impact to traffic on the surrounding road network.

Please refer to Figure 4 for a plan of the bin storage area and collection point.

7 Waste Collection Frequency and Method

7.1 Residential Waste

As mentioned previously, a private waste operator will be engaged to collect all waste streams: co-mingled recyclable, non-recyclable general waste and organic waste streams from the proposed development.

The three waste streams (General, Co-mingled Recyclables and Organics) from the residential component will be collected on a weekly basis.

On the day of collection, the private waste operator will wheel out filled bins for collection and wheel empty bins back in the bin storage area.

7.2 Café/Restaurant

Waste generated by the café/restaurant is proposed for twice a week collection.

Details of collection day will be finalised based on discussions between the café/restaurant tenancy and waste collector.

On the day of collection, the private waste operator will wheel out filled bins for collection and wheel empty bins back in the bin storage area.

7.3 Hard waste and e-waste

The City of Adelaide offers up to 12 free services (1 per month) to collect hard and e-waste from large residential developments. Residents/tenants of the proposed development can avail this free service by storing waste in the bin storage area or arrange for a private hard waste collection service.



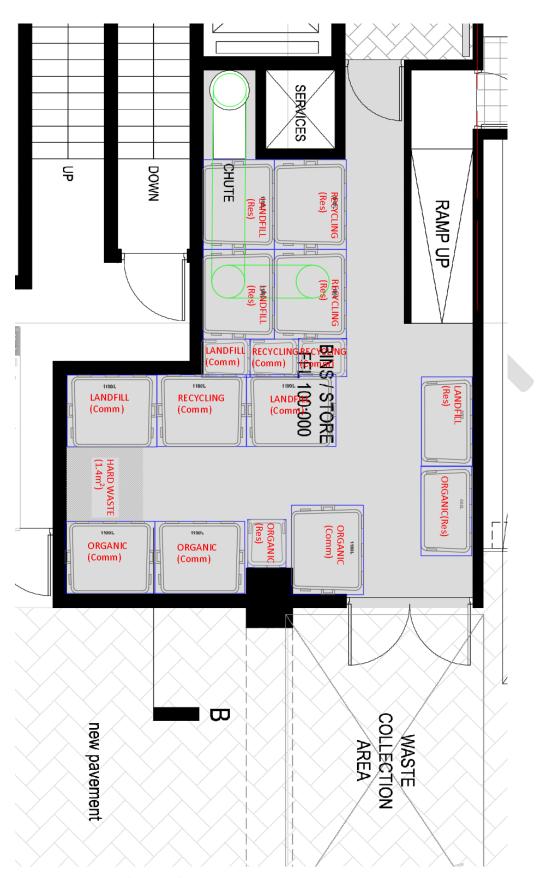


Figure 4: Bin Storage and Waste collection area



8 Conclusions

Based on the calculations and methodology presented in this report in relation to waste generation and collection at the proposed high density residential development at 2 Hutt Street in Adelaide, the following can be concluded:

- Waste generation for the proposed residential and retail development was estimated using Zero Waste SA guidelines.
- Using ZWSA guide, a <u>Complex Waste Management System</u> is recommended for the proposed high density mixed-use development
- A private waste collection operator will be engaged to collect waste generated from the proposed development
- Separate waste storage bins will be provided for residents and café/restaurant tenancy on the ground level.
- Residential waste is proposed for weekly collection; café/restaurant tenancy is proposed to have twice a week waste collection.
- Sufficient waste storage capacity for each of the three waste streams has been provisioned onsite to meet estimated waste generation demand.
- Sufficient Hard waste and e-waste storage area is provisioned within the bin storage area.
- Residents will be able to avail up to 12 per year, at call, free hard waste and e-waste service offered by ACC.
- The bin storage area will be centrally located near the lift lobby.
- A bin cleaning area has been provisioned within the bin storage area.
- In case a fully automatic system is not installed, a community attendant will be required to periodically monitor bin capacity under bin chutes and replace filled bins with empty bins.
- The attendant will also be responsible for upkeep of the bin storage area.
- Waste collection vehicles will have to reverse into Cleo Lane, temporarily blocking access to/from upper parking levels. It is recommended that bin collection times be strictly adhered to by the operator and be communicated to residents to minimise impacts to residents using upper parking levels.

The proposed number of bins are deemed sufficient for the proposed development for the stated collection frequency by private operator.

If you have any questions regarding the waste management plan presented in this report please contact us at 8227 0372 to discuss further.

Yours sincerely,

Erik Stopp

Senior Transport Engineer

InfraPlan (Aust) Pty. Ltd



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Document Control

Issue	Date	Change	Checked	Approved
1	24/7/17	First Draft issue	PD	DD
2	8/8/17	Updated following design development	PD	DD
3	18/9/17	Updated following adjustment of external shading element and addition of electro-chromic glass	PD	DD
4	31/10/17	Updated with roof PV layout and capacity review	PD	DD



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1 Introduction

This report proposes the Sustainability Vision - the overriding principles which will be applied to the Rymill Place Development, and the Sustainability Strategies which will be employed to reduce the development's impact on the environment in both construction and operation.

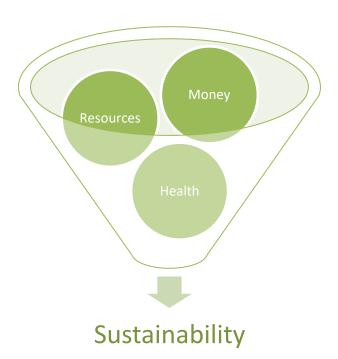
This report is based on:

- a review of the building design and proposal summary prepared by Tectvs Architects;
- the commitments made at planning stage by the Client; and
- the results of computer building simulation modelling of a number of design options undertaken by dsquared.

The report has been prepared Paul Davy, a Director of consultancy firm dsquared. Paul has over 30 years' experience in the UK, Europe, Asia and Australia as an engineering, ESD, and sustainability consultant. Paul holds IEng and MCIBSE Accreditation, is a Green Star Certified Assessor, a Green Building Council of Australia Teaching Faculty Member, an Ambassador for the Living Futures Institute of Australia, and a member of the South Australian Government ODASA Design Review Panel.

These are the Sustainability Guiding Principles for the Project:

- That the development is attractive to residents, visitors and the surrounding community
- That the buildings are designed in accordance with best practice in sustainable development
- That the development encourages sustainable living within a high-quality environment
- That the development provides a positive social return on investment
- That the development promotes the notion of biodiversity at podium and street level
- That the development delivers on the triple bottom line of sustainability: Environmental, Economic, and Social



3 Sustainability Initiatives

3.1 Community and Social Sustainability

The following Community and Social Sustainability initiatives are included:

- 1. Connecting the building with the local environment and allowing the building to respond to the seasons.
- 2. Providing access to views from within the building to outside, from external vantage points to the environment, and into the building from outside to provide transparency and a visual connection between residents and the community and environment.
- 3. Provide easily accessible communal areas to both residents and visitors to the building.
- 4. Provide overt green walls and landscaping at podium and street levels to connect the indoor space with the outside and to promote the notion of urban biodiversity.

3.2 Water

The following Water initiatives are included:

- 1. Selecting water efficient fittings of a minimum 6 Star WELS rating for taps, 4 Star for WCs and 3 Star for showers.
- 2. Selecting appropriate landscape planting to minimise irrigation water use.
- 3. Providing rainwater storage and re-use systems for landscape and green wall irrigation.
- 4. Providing the firefighting systems with a test water recycling facility.

3.3 Transport

The following Transport initiatives are included:

- Providing bicycle storage facilities for apartment residents and visitors, with a minimum of one secure rack provided per apartment. Additional racks will be provided for visitors at ground floor level.
- 2. Providing end of trip facilities for the retail and commercial tenants, including secure bicycle racks and locker space.
- 3. All apartment purchasers will be offered the option of the provision of an electric vehicle charge point at their car park space, in order to promote the de-carbonisation of Adelaide's transport network. Dependent upon the final size of PV array installed, a number of these points can be supplied with 100% renewable energy.

3.4 Energy

The building and systems design has been subject to optioneering using computer building simulation modelling techniques. The façade design has, in particular, been the subject of design option studies. The options considered and the results of the modelling undertaken are included in Section 4 of this report.

The following finalised Energy initiatives are included:

- Active facade design the use of high performance double glazing with integrated and adjustable
 interstitial blinds, access to daylight, and natural ventilation of the apartments to reduce energy
 demands. Electro-chromic glass has been incorporated in strategic locations to provide additional
 privacy and solar load reduction. The façade will include solar sensors and automated control of the
 interstitial blind systems to provide an active façade. Occupants will be have the ability to manually
 override the automated control of the blinds as required to suit their own requirements.
- 2. All common areas at Ground level and above will be naturally ventilated and provided with daylight access.
- 3. Electricity will be supplied via an inset (embedded) network, so that residents can benefit from the option of reduced electricity supply rates, and the ability to share renewable energy from the building solar PV array.
- 4. Daylight control to lighting systems in common areas.
- 5. Selection of energy efficient lighting fittings. All lighting will be LED.
- 6. Zoning the apartment air conditioning systems into functional areas (e.g. living rooms, bedrooms) and providing automatic and manual controls. All apartment air conditioning units will be inverter controlled and rated to the highest available Energy Star rating. All units can be operated in fan mode providing low energy air circulation.
- 7. Providing a kill switch to each apartment allowing a one touch isolation of all lighting and air conditioning power when the apartment is vacant.
- 8. Providing a 39kW roof mounted solar photovoltaic array. The array will be connected via the inset network so that it can benefit all residents and tenants in the development, but is sized to adequately provide renewable energy equivalent to 100% of the common area power needs, including car park ventilation.
- 9. Designing and certifying the apartments to achieve an energy performance at least 30% better than current Building Code minimum NatHERS rating of 6 Stars average, representing a dwelling average NatHERS Rating of 8 Stars.
- 10. Designing the tenancy and common areas to achieve an energy performance at least 30% better than a deemed to satisfy compliant space in accordance with the NCC/BCA Section J, JV3 methodology.
- 11. Using light coloured external finishes (in particular roof coverings) to reflect heat, reduce solar gain, and reduce the heat island effect.
- 12. Using solar gas boosted hot water systems, gas hobs, and European Energy Label A category ovens for cooking throughout in order to reduce peak electricity demands, reduce the overall development carbon footprint, and provide an economical amenity for apartment owners.

- 13. Providing a building energy management system with smart metering to automatically record and monitor the building's resource use and establish trends and profiles to assist with the ongoing control of energy use. This information will be made available on-line.
- 14. As far as practicable, designing the car park levels to be naturally ventilated. In areas where access to natural ventilation is not possible, the car parking will be mechanically ventilated but with a system designed using an engineered approach, with variable speed drives and carbon monoxide automatic control, to reduce fan energy use by 80% when compared to a conventional system.
- 15. Providing apartment owners with retractable clothes racks in their apartments, to minimise electric clothes drier use. These facilities will also minimise the incidence of clothes drying on exposed balconies.
- 16. Providing retail and commercial tenancy space air conditioning systems with an economy cycle control allowing 100% outside air to be used for free cooling purposes when external weather conditions allow.

3.5 Waste

The following Waste initiatives are included:

- 1. Construction waste will be minimised through efficient design techniques including standardisation and wherever practicable off site pre-fabrication.
- 2. All Construction waste will be managed via the implementation of an approved Environmental Management Plan.
- 3. A minimum of 90% of all construction waste will be diverted from landfill. All Construction waste will be sorted and binned on site to facilitate ease of recycling.
- 4. Each apartment kitchen will be designed to accommodate split bins for general, recycling, and compost waste.
- 5. The building will incorporate ventilated and weather proof storage facilities for the collection and disposal of general, recyclable, organic waste, bulky waste, and e-waste, which will be separated on site to facilitate ease of disposal for recycling.
- 6. A Waste chute will be provided for general waste and recycling waste movement for all apartment levels.

3.6 Indoor Environment Quality

The following Indoor Environment Quality initiatives are included:

- 1. Using paints, sealants, adhesives, carpets, coverings and furniture which have low off-gassing properties (low VOC, low formaldehyde).
- 2. Maximising access to daylight to all residential areas whilst minimising glare.
- 3. All dwellings will be fully naturally ventilated.
- 4. All common areas at ground level and above will be fully naturally cross ventilated.
- 5. Electro-chromic glass is provided to some glazing to improve occupant privacy.

3.7 Construction

The following Construction initiatives are included:

- 1. Selecting locally sourced materials wherever viable.
- 2. Selecting recycled and recovered materials wherever viable, particularly sourced from the local area in order to build in a recognition of the local area and heritage.
- 3. Selecting materials with a comparatively low embodied energy/carbon profile e.g. timber in preference to steel, where practicable.
- 4. Selecting building materials with a recycled material content e.g. thermal insulation, reinforcement bar, fly ash in concrete, recycled content floor coverings, where viable.
- 5. Using off site pre-fabrication techniques to reduce on site construction time, waste, and greenhouse gas emissions, wherever practicable.

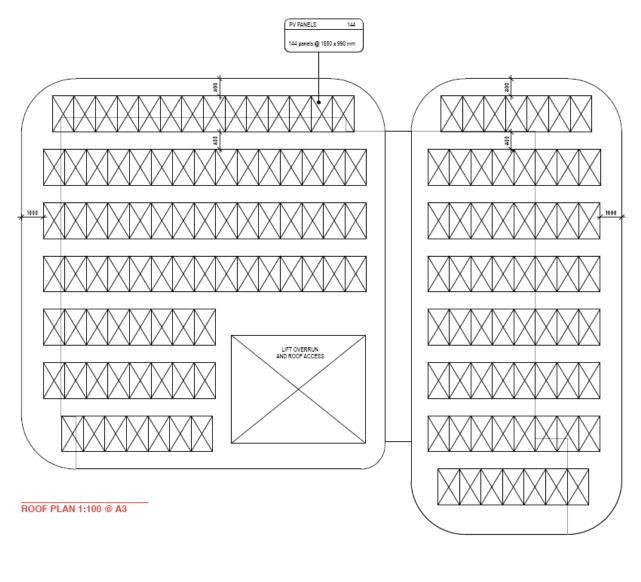
3.8 Landscape and Biodiversity

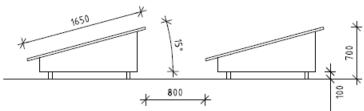
The following landscape and biodiversity initiatives are included:

- 1. The strategic use of landscape and green walls in common terrace areas, to reduce the heat island effect at podium level, and to introduce the notion of biodiversity.
- 2. The use of extensive green walls at ground and podium levels, to reduce the internal heat loads, improve common area air quality, and to promote the notion of biodiversity.

4 Solar PV Design Development

The solar PV system has been subject to design development with the panel mounting angles, spacing, and general arrangement co-ordinated to maximise the potential renewable energy yield. This has resulted in the proposed deployment of a 144-panel array, with each panel having a plated capacity of 270W. The combined rated system capacity is therefore 39kW.





5 Façade Design Development

5.1 Introduction

The purpose of this section of the report is to summarise the results of the computer building simulation work that has been undertaken to inform the design development of the building façade.

5.2 Methodology

A typical mid-tower, west facing apartment has been modelled for the purposes of façade design development. The west elevation is considered to be subject to the most significant heat loads and so has been used to determine a worst-case scenario.

The building has been constructed as a dynamic model using IES Virtual Environments Software, which is a globally recognised leading software programme and BESTEST Certified. In addition, the apartments have been built using FirstRate 5 software, in order to generate a NaTHERS predicted rating for code compliance purposes.

The modelling has been undertaken following our third party verified quality management system, verified under the Green Building Council of Australia Recognised Provider programme.

Multiple façade design approaches have been modelled, in order to determine the relative merits of each façade design approach, and the modelling re-run until an optimal solution has been established.

5.3 Criteria

The following criteria has been applied to determine the options for modelling:

- 1. The glass reflectance needs to be "low" to avoid a reflective or mirror appearance (reflectance therefore needs to be less than 20%), and generally clear/neutral in colour (to provide a residential rather than commercial building aesthetic).
- 2. The materials and design approach used can be innovative, but needs to be practicable using Adelaide-based trades.
- 3. The materials and design approach needs to be affordable so that the project remains commercially viable.
- 4. In order to deliver the building aesthetic required by the Client and Tectvs, the inclusion of protruding horizontal or vertical shade systems is prohibited. The solution is required to maintain a "sheer" façade aesthetic.
- 5. The finalised solution "meets ODASA requirements". This is considered to be achieved if the finalised solution introduces an element of innovation to manage the load on west facing elevations.
- 6. The resultant NaTHERS rating is 7.0 Stars or higher (with 6.0 Stars average being the BCA minimum code compliance required).

5.4 Initial Options Modelling

The following options have been modelled:

Option	Description
1	As a reference case, with high performance single glazing only. Viridian Enviroshield ITO Neutral 54 (#4), 10.76mm thick. 6% reflectance. SHGC 0.44. Does not meet ODASA requirements Thermal load: 117.7 MJ/sqm NaTHERS: 5.2 Stars (does not comply with BCA)
2	High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE ³ -366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. - Does not meet ODASA requirements - Thermal load: 72.4 MJ/sqm - NaTHERS: 6.9 Stars (15% better than BCA)
3	High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE³-366, 12mm argon gap, 6mm clear. 11% reflectance. SHGC 0.27. - Does not meet ODASA requirements - Thermal load: 68.7 MJ/sqm - NaTHERS: 7.1 Stars (18% better than BCA)
4	High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE³-366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. Integrated adjustable interstitial venetian blind. Note: the final system selection will have a deeper air gap to accommodate the blind system. A 12mm air gap has been modelled as a conservative scenario. - Can be presented as an integrated, innovative solution – meeting ODASA requirements - Thermal load: 51.4 MJ/sqm - NaTHERS: 7.8 Stars (30% better than BCA)

Option		Description
5	300mm	High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE ³ -366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. 300mm deep reveal (which could be a "lost" reveal between panes, to maintain the sheer appearance of the elevation). - Does not meet ODASA requirements - Thermal load: 71.8 MJ/sqm - NaTHERS: 6.9 Stars (15% better than BCA)
6		High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE³-366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. Additional layer of 10.76mm laminated glass with a 50% frit (or alternatively a solar PV glass) to form a veil. - Meets with ODASA requirements - Thermal load: 61.7 MJ/sqm - NaTHERS: 7.3 Stars (22% better than BCA) - PV option generates 30,000 kWHr annually (30 T CO₂)
7		High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE³-366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. Introduce a 5° angle to the elevation (either as a whole or with serrations). - Potentially ODASA compliant as it is an alternative façade design and there are other Adelaide precedents (e.g. University of Adelaide IPAS building) - Thermal load: 71.1 MJ/sqm - NaTHERS: 6.9 Stars (15% better than BCA)

Option	Description		
8	High performance insulated double glazing system. Chevron Cardinal (Neat) 6mm LoE³-366, 12mm air gap, 6mm clear. 11% reflectance. SHGC 0.27. Apply an external green shading system. This is assumed to be providing up to 50% shading to maintain occupant views to outside. - Meets with ODASA requirements - Thermal load: 62.9 MJ/sqm - NaTHERS: 7.3 Stars (22% better than BCA)		

5.5 Comparison

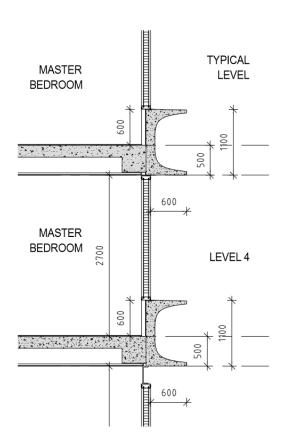
The comparative performance results are as follows:

Option		ODASA Compliant	Thermal Load (MJ/sqm)	NaTHERS Rating (Stars)	% better than BCA
1	Single glazing	No	117.7	5.2	(none)
2	Double glazing – air filled	No	72.4	6.9	15%
3	Double glazing – argon filled	No	68.7	7.1	18%
4	Double glazing – interstitial blinds	Yes	51.4	7.8	30%
5	Double glazing – 300mm deep reveal	No	71.8	6.9	15%
6	Double glazing – external frit veil or PV glass	Yes	61.7	7.3	22%
7	Double glazing – serrated elevation	Yes	71.1	6.9	15%
8	Double glazing – green shading	Yes	62.9	7.3	22%

5.6 Option Design Development

Option 7 – "high performance double glazing with interstitial blinds", has been selected as the preferred option for design development and was presented to the ODASA Design Review Panel for review. This review identified an opportunity to optimise the design approach by utilising the proposed concrete form as an external shading device. This has now been documented as follows:

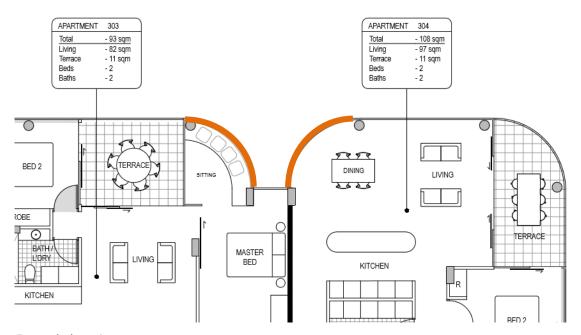




The modelled NaTHERS result is an annual average thermal load of 45.9 MJ/sqm, achieving an 8 Star NaTHERS rating which is 33% better than the minimum code requirement.

5.7 Electro-chromic glass

During design development, the deployment of electro-chromic glass has been identified for glazed areas which face each other from different apartment owners, in order to provide visual privacy. Electro-chromic glass is normally obscure but can be made clear when a small electric current is passed through it.



Example location



Electro-chromic glass can also provide a reduction in solar heat gain but this benefit has not been included in the modelling undertaken.

5.8 Conclusion

The façade design which includes a high performance double glazing system including an interstitial blind system provides the highest level of thermal performance, offering a solution which maximises daylight access and views, and an average NaTHERS rating of 8 Stars, which is 33% better than BCA code minimum compliance.

This level of performance is better than façade veil systems, serrated façade designs, and the deployment of green shading. The biodiversity benefit of green shading is recognised by the Client, and instead extensive landscaping and green walls are proposed to be included in the podium and street level spaces, where they can be adequately shaded and maintained.

This level of performance is also better than façade solar PV glass systems. The greenhouse gas emissions (carbon) reduction benefit of a solar PV façade system is recognised by the Client, and instead a large scale (40kW) solar PV array will be installed at roof level. Whilst being smaller in physical size than a façade glazing array, the roof array efficiency will be significantly higher resulting in on annual generation capacity in the order of 64,000kWhr ($64 T CO_2$) which is more than double the façade system generation rate.

In conclusion, it is proposed that the façade design comprises:

- a high performance insulated double glazing system, with a fully adjustable interstitial venetian blind. Glazing system to be Chevron Cardinal (Neat) or equal approved, comprising 6mm LoE³-366, 12mm air gap minimum (or deeper to accommodate the blind system), 6mm clear. 11% reflectance. SHGC 0.27.
- The use of electro-chromic glass in select locations for apartment owner privacy.

5.9 Precedents

Precedent for the use of sheer high-performance facades with interstitial blinds, in order to adequately suppress thermal loads whilst maximising daylight access and views include:



200 George Street, Sydney

New high-rise development with a sheer double-glazed façade and interstitial blinds.

The blinds are automatically controlled in conjunction with façade mounted solar incidence sensors.

The resultant workplace fitout for Ernst & Young is targeting a 6 Star Green Star rating and a WELL Building rating.



1 Bligh, Sydney

High-rise development completed in 2014, including a sheer double-glazed system with integrated interstitial blinds.

Certified 6 Star Green Star As-Built.

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Tectvs Pty Ltd 167 Flinders St ADELAIDE SA 5000

Dear Heather,

PROPOSED RESIDENTIAL DEVELOPMENT, 2 HUTT ST RESULTANT WIND EFFECTS AT STREET LEVEL

This report is in relation to the proposed development at the corner of East Tce and Hutt St and presents an opinion on the likely impact of the proposed development on the wind environment on the critical areas within and around the proposed development. The impact of wind activity is examined for wind from the north, south, east and west. The analysis of the wind effects relating to the proposal was carried out in the context of local wind climate, building morphology and land topography.

30th November 2017

The conclusions of this report are drawn from experience in this field, and based upon examination of the architectural drawings which have been prepared by Tectvs. No wind tunnel testing has been undertaken. As such, this report addresses only the general wind effects and any localised effects that are identifiable by visual inspection. Any recommendations in this report are made only in principle and are based upon our experience in the study of wind environment effects around buildings.

Wind Climate of the Adelaide Region

The Adelaide region is subject to varied winds from different directions at different times of the day and at different times of the year. These variables are measured at the Adelaide Airport and the data is presented in the form of Wind Roses. The wind roses are included as appendix A. It is clear that the critical wind directions are North Northeast in the mornings and the Southwest in the afternoon.

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Wind Effects on People

The acceptability of wind in any area is dependent upon its use. The following table describes the effects of various wind intensities on people (Penwarden, 1975)

Type of Winds	Beaufort Number	Gust Speed (m/s)	Effects	Applicability	
Calm, light air	1	0 • 1.5	Calm, no noticeable wind	Generally acceptable for Stationary, long	
Light breeze	2	1.6 - 3.3	Wind felt on face	exposure activities suc as in outdoor restaurants, landscape gardens and open air theatres.	
Gentle breeze	3	3.4 • 5.4	Hair is disturbed, Clothing flaps		
Moderate breeze	4	5.5 • 7.9	Raises dust, dry soil and loose paper • Hair disarranged	Generally acceptable for walking & stationary, short exposure activities such as window shopping, standing or sitting in plazas.	
Fresh breeze	5	8.0 - 10.7	Force of wind felt on body	Acceptable as a main pedestrian thoroughfare	
Strong breeze	6	10.8 - 13.8	Umbrellas used with difficulty, Hair blown straight, Difficult to walk steadily, Wind noise on ears unpleasant.	Acceptable for areas where there is little pedestrian activity or for fast walking.	
Near Gale	7	13.9 • 17.1	Inconvenience felt when walking.		
Gale	8	17.2 •20.7	Generally impedes progress, Great difficulty with balance.	Unacceptable as a public accessway.	
Strong gale	9	20.8 • 24.4	People blown over by gusts.	Completely unacceptable.	

The criteria for acceptance of wind conditions for various activities is shown in the table below:

Comfort Criteria	teria Beaufort Scale Equivalent	
Safety	9 – Strong Gale	
Walking	5 – Fresh Breeze	
Standing	4-5 – Moderate to Fresh Breeze	
Sitting	<4 – Moderate Breeze	

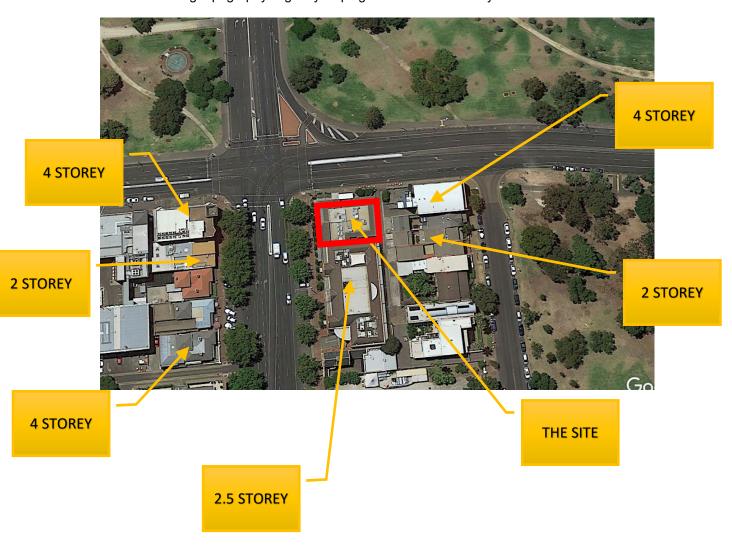
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Description of the proposed Development and Surrounds

The proposed development consists of a 19 storey apartment building. The building footprint is approximately 27.5 x 21 metres and covers the site to the street boundaries on the east, north and west sides and against an existing two level office building to the north. The tower is immediately bounded by existing buildings in the range of 2 to 5 storeys There is a 4 storey apartment

The surrounding topography is gently sloping to the northeast – Rymill Park Lake.



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VERANDAH

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The outdoor trafficable areas within and around the subject development site are summarised as follows:

Hutt St and East Tce

Cleo Lane

pedestrian footpaths under verandah structures Pergola over the street

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Assessment and Discussion

The interaction between the prevailing winds and the building morphology has been considered.

Hutt St Footpaths

For westerly winds Hutt St footpaths benefit from shielding provided by the proposed veranda on the west of the building. Upwind in the south western quadrant are several medium rise buildings. Winds from the south westerly quadrant are shielded at low levels by several existing buildings up to 4 storeys, and will be further softened by buildings currently under construction in the near vicinity. Northerly wind is open to the parklands and will tend to funnel down Hutt street. Downwash from the proposed tower is disrupted by indented balconies and protruding surface features and a street level veranda is proposed to protect pedestrians.

East Tce Footpath

North-easterly quadrant and north-westerly quadrant winds are not shielded, flowing in from the parklands. Downwash on this northern facade is disrupted by indented balconies and protruding surface features and a street level veranda is proposed to protect pedestrians.

Cleo Lane

North-easterly quadrant winds are not shielded, flowing in from the parklands. South easterly quadrant winds are shielded at low level Downwash on the eastern façade is disrupted by indented balconies and protruding surface features and a street level pergola structure is proposed to protect pedestrians.

Summary

The site is situated within a local pedestrian movement zone as defined in the City of Adelaide Smart Move Strategy. The main pedestrian activity considered to be people walking from parked cars into the city during the working week or alternatively to the parklands on weekends.

Wind impact from the proposed development is assessed as negligible to minor to pedestrian traffic on Rundle St and East Tce.

The relevant provisions of the City of Adelaide Development plan, consolidated on 2 April 2015, are as follows:

PDC 119 Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.

PDC 125 Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

Design Techniques (these are ONE WAY of meeting the above Principle) **125.1** Methods to reduce the potential for a wind tunnel effect may include:

- (a) a podium built at the base of a tall tower and aligned with the street to deflect wind
- away from the street:
- (b) substantial verandahs around a building to deflect downward travelling wind flows; and/or
- (c) placing one building windward of another building.

The development has been designed incorporating both methods (a) and (b).

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Given the level of pedestrian activity, and minor to negligible wind impact the development is considered to be in keeping with these provisions in that it will create minimal wind tunnel effects, and have minimal detrimental effect on pedestrians.

Much

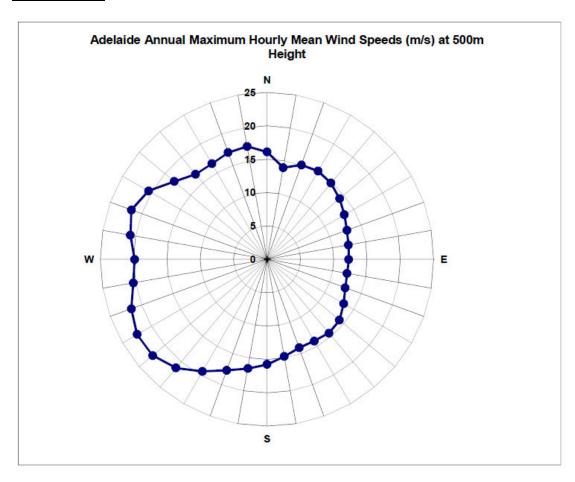
Regards,

Jon Rudd Partner

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APPENDIX A -



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APPENDIX B

WIND ROSES

ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

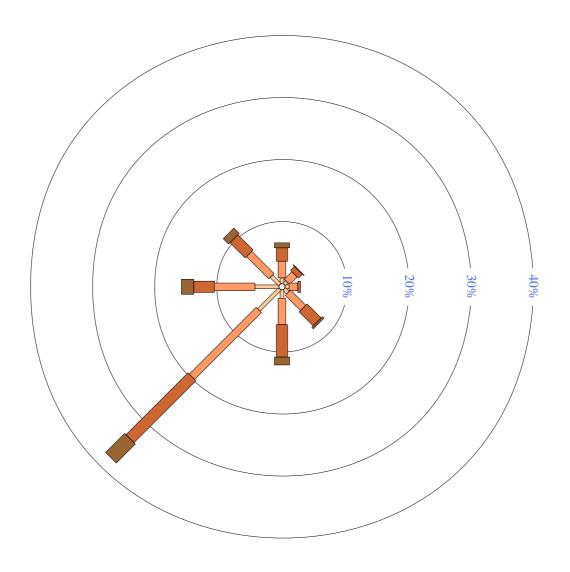
N NE CALM km/h

W CALM E 0-10 10-20 20-30 >30

Sw SE Scale factor = 30.0%

3 pm Autumn 4598 Total Observations (1955 to 2004)

Calm 2%



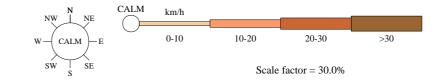
Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.

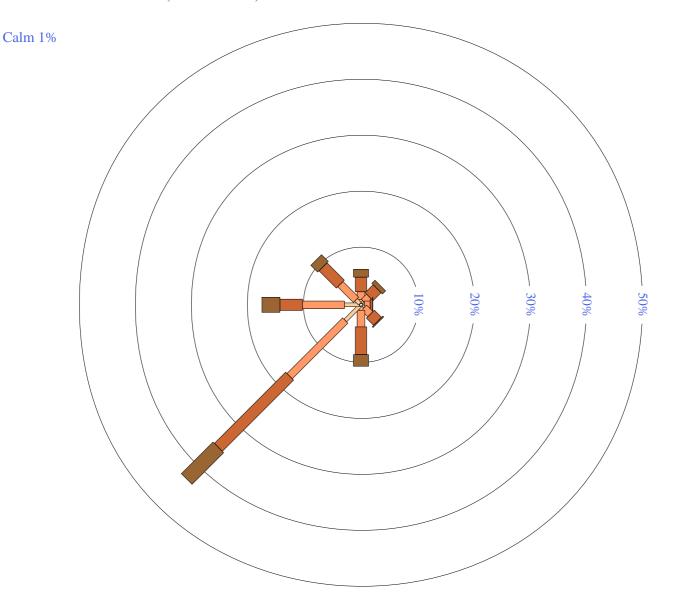


ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$



3 pm Spring 4424 Total Observations (1955 to 2004)



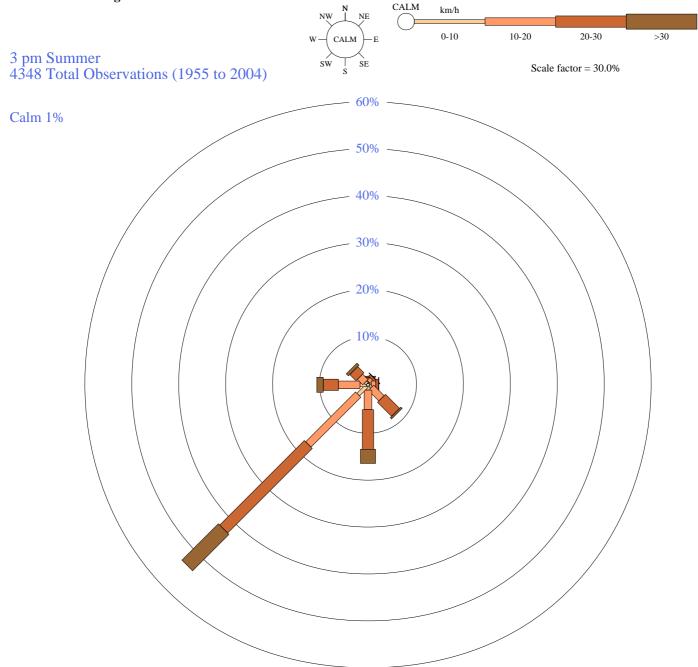
Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$



Wind directions are divided into eight compass directions. Calm has no direction.

An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

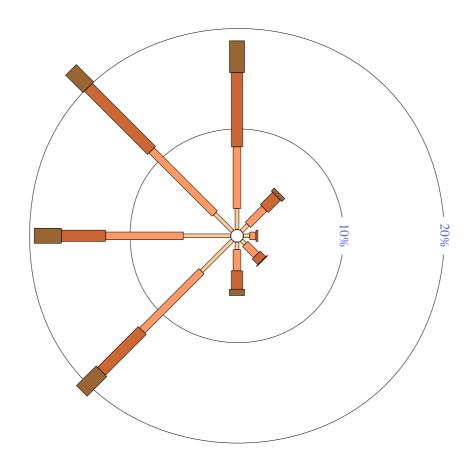
NW NE CALM km/h

W CALM E 0-10 10-20 20-30 >30

SW S SE Scale factor = 30.0%

3 pm Winter 4507 Total Observations (1955 to 2004)

Calm 3%



Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



ADELAIDE AIRPORT **STATION NUMBER 023034**

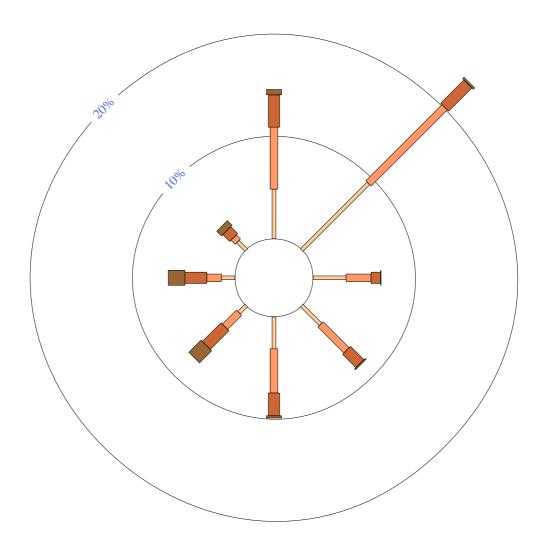
Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

0-10

km/h 10-20 20-30 >30 Scale factor = 30.0%

9 am Autumn 4594 Total Observations (1955 to 2004)

Calm 19%



Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

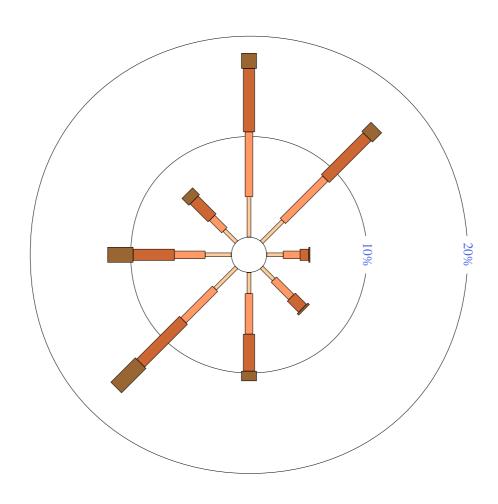
NW NE CALM km/h

W CALM E 0-10 10-20 20-30 >30

Sw SE Scale factor = 30.0%

9 am Spring 4423 Total Observations (1955 to 2004)

Calm 9%



Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

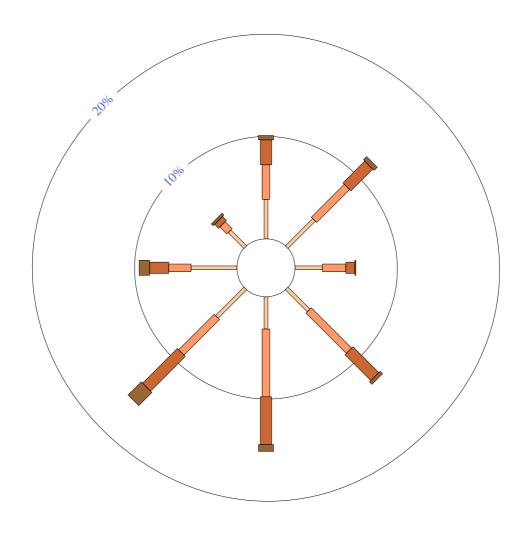
N NE CALM km/h

W—CALM E 0-10 10-20 20-30 >30

SW SE Scale factor = 30.0%

9 am Summer 4346 Total Observations (1955 to 2004)

Calm 14%



Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

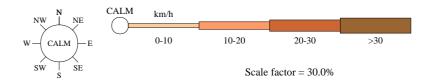
An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



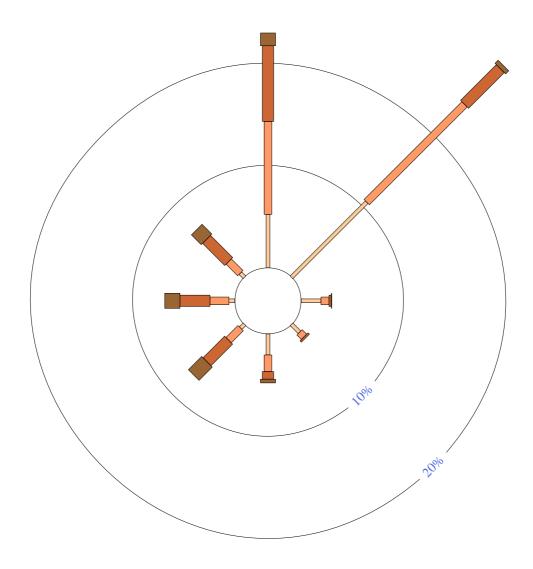
ADELAIDE AIRPORT STATION NUMBER 023034

Latitude: -34.95 $^{\circ}$ Longitude: 138.52 $^{\circ}$

9 am Winter 4502 Total Observations (1955 to 2004)



Calm 16%



Wind directions are divided into eight compass directions. Calm has no direction. An asterisk (*) indicates that calm is less than 1%.

An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.



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Tectvs Pty Ltd 167 Flinders St ADELAIDE SA 5000 30th November 2017

Dear Heather,

PROPOSED DEVELOPMENT 2 HUTT ST ADELAIDE STORMWATER

This report discusses the existing site conditions, the proposed development and the council requirements for handling and treatment of stormwater flows resulting from the development of the site.

Existing site details:

•	Area	578	sqm
•	Total Impervious	578	sqm
•	Landscaped areas	minor	sqm

The site falls to the north east corner - approxi.

Discharge to the street drainage system is via:

• steel crossovers to the street kerbs to the north (East Tce)

Proposed development:

The proposed development consists of apartments, retail tenancies and associated carparking.

Area 578 sqmTotal Impervious 578 sqm

• Landscaped area minor – in planter boxes

Stormwater System:

Council has advised that since the impervious proportion of the site remains unaltered that no on site detention of stormwater is required. Refer attached email.

Major flood events (1 in 100 year ARI event) will be catered for by overland flow paths discharging to the surrounding streets. Floor levels on will be set above back of existing footpath levels in accordance with council requirements.

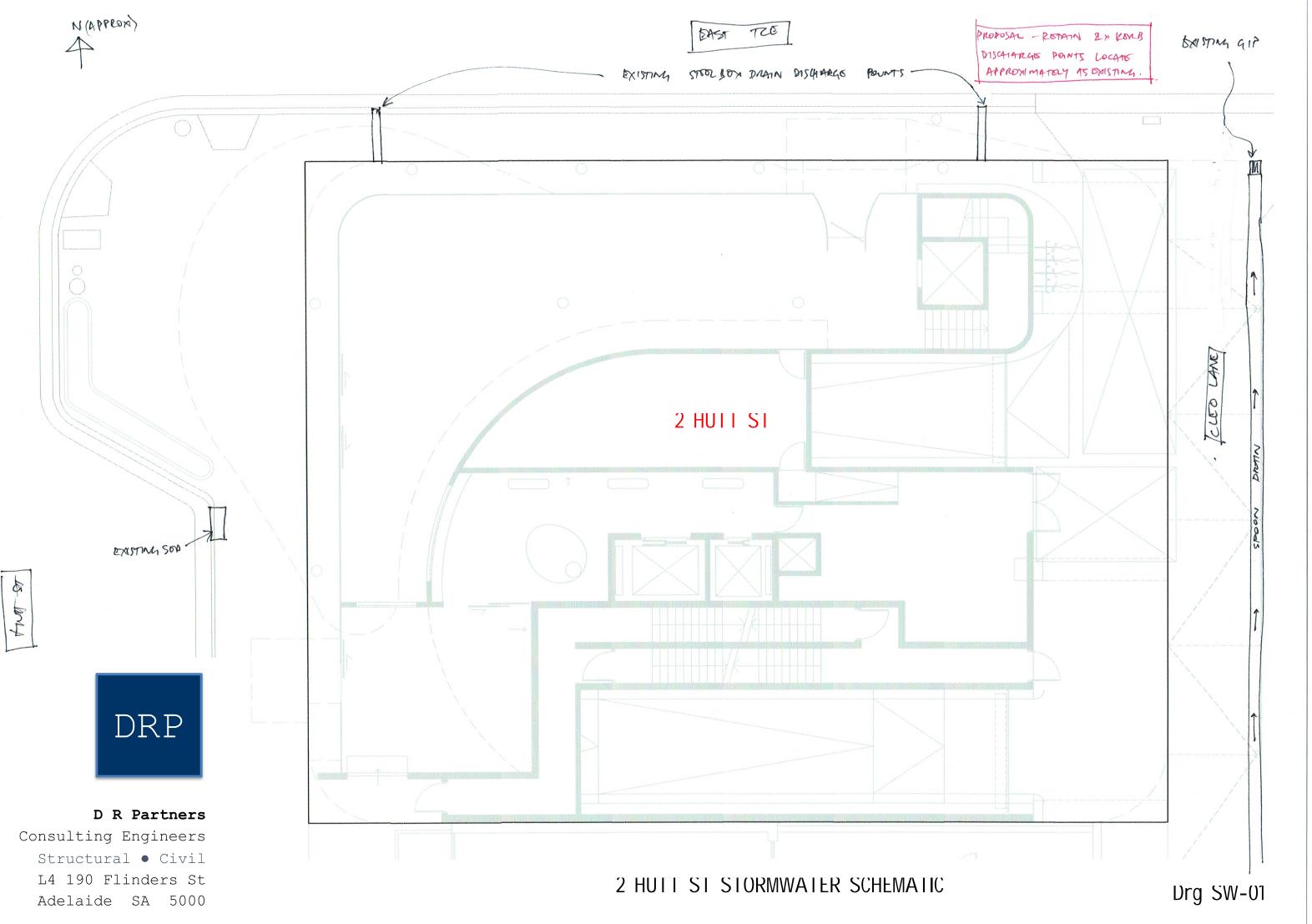
This proposal is consistent with the natural grade on the site.

A) Turk

Refer to the attached sketch drawings SK1 for a schematic stormwater management plan.

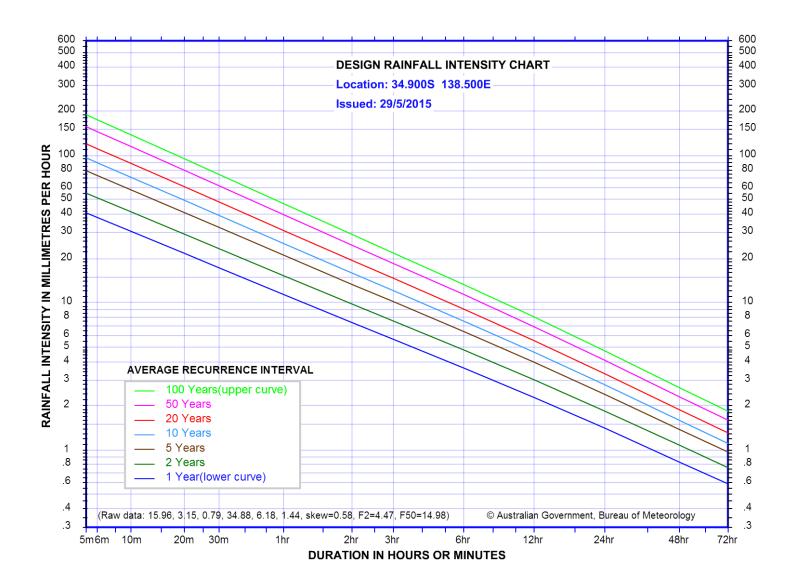
Regards,

Jon Rudd Partner



D R Partners Consulting Engineers

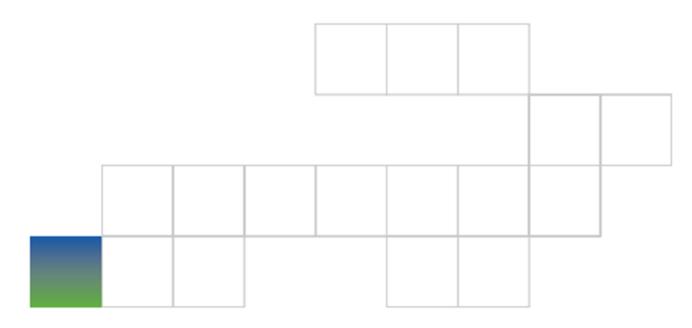
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BUILDING SERVICES REPORT



DOCUMENTATION ISSUE REGISTER

REVISION	DESCRIPTION	DATE ISSUED	ENGINEER	REVIEWED
Α	Planning Approval Issue	13/12/2017	PC	NAH

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1

1 INTRODUCTION

1.1 BUILDING DESCRIPTION

The subject development site is located on the prominent corner of Hutt Street and East Terrace and abuts Cleo Lane at the eastern rear of the building.

The project involves the construction of a 16 storey plus 2 basement carpark levels residential apartment development comprising the following;

- Basement 1 and 2 levels to house 28 motor vehicles
- Ground/Mezzanine Restaurant and Bar facility with approx. 60 person seating capacity and associated kitchen and ablution areas.
- Ground Floor Entry/Lift Lobby, Bin Store and access to Basement and upper level carpark ramps.
- Levels 1 and 2 two levels of carpark to house 28 motor vehicles and Bike Storage for 46 bicycles.
- Levels 3 and 4 5 off mix of one and two and three-bedroom apartments per level 10 apartments total.
- Levels 5 9 inclusive 4 off mix of two and three-bedroom apartments per level 20 apartments total.
- Levels 10 12 inclusive 2 off three-bedroom apartments per level total 6 subpenthouses.
- Level 13 1 off three-bedroom sub penthouse with a large outdoor terrace including a small lap pool plus the building Fire Tank/Pump Room and Penthouse and Sub Penthouse Pool Plant in the south-eastern corner of the floor.
- Level 14 1 off three-bedroom plus Study Penthouse with a large outdoor terrace including a small lap pool.

In summary the development will comprise a total of 38 high quality residential apartments.

2 UTILITIES

2.1 SA POWER NETWORKS ELECTRICAL SUPPLY

Discussions with SA Power Networks (SAPN) has resolved that a dedicated on-site transformer will be required to service the development. Subject to final estimated maximum demand calculations, the transformer will be 500kva rated.

SAPN underground high voltage infrastructure traverses directly past the Hutt Street side of the site. To provide a suitable service connection point to the site, it is proposed to provide a high voltage cut-in and extend a high voltage feed to an on-site transformer positioned at the rear of the building, accessed from the site rear service driveway adjoining Cleo Lane.

It is noted that there is an existing SAPN power pole positioned off East Terrace which requires relocation to provide clear access to the building rear service driveway. Preliminary discussions have been undertaken with SAPN with respect to repositioning the power pole to the east such that the street light over entrance to Cleo Lane can be reinstated on the new pole. The relocation works will also include re-feeding a light pole on the opposite side of East terrace and reconnection of existing low voltage supplies fed from this pole.

ACC will be consulted in relation to providing an alternative street lighting arrangement to illuminate the entrance to Cleo Lane.

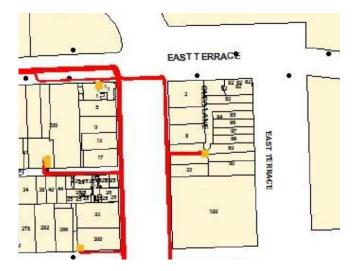


Figure 1 - Details of existing SAPN High Voltage Infrastructure

2.2 COMMUNICATIONS

NBN Co have confirmed that their roll-out will have extended to this site by the anticipated completion date. Should timing not be feasible the site has access to Telstra copper communications infrastructure.

2.3 SA WATER CORPORATION

2.3.1 SEWER INFRASTRUCTURE

The site has access to a 150mm PVC sewer main in both East Terrace and Cleo Lane at the rear.

The fixture loading unit assessment for this development indicates that a single 150mm sewer connection will be sufficient to service the site. The final number of connections may however be dictated by the internal drainage arrangement and will be resolved during detail design.



Figure 2 - Details of existing SA Water Corp Sewer Mains

2.3.2 DOMESTIC COLD WATER INFRASTRUCTURE

The subject development site is afforded access to SA Water Corporation towns mains on all three street frontages (150mm diameter in Hutt Street and 100mm in both East Terrace and Cleo Lane). Given that the building is more than 8 storeys height, to meet the Water Supply Code of Australia (WSA 03-2011) version 3.1 requirements, SA Water will require that the development is serviced by a minimum of a 200mm towns mains.

Review of the SA Water Corporation Map indicates the presence of a 400mm trunk mains in Bartels Road which provides the feed to the 100mm towns water mains which traverses past the subject development site. Given that the mains upgrade will be derived from the 400mm trunk main, it is expected that the 200mm towns mains will extend as a minimum just past the eastern boundary of the development site. Domestic Cold Water and Fire Services connections will therefore be positioned towards the eastern end of the site.

The fixture loading unit assessment for this development indicates that a 50mm water meter will be required to service the planned development. The water meter will be housed in a cast iron footpath box by SAWC in the footpath off East Terrace. The water meter will be positioned towards the eastern end of the site to suit connection to the proposed upgraded towns mains.

The incoming water main extending from the proposed new 50mm water meter will extend to 2×5000 litre capacity break tanks and associated domestic cold water pressure pump assembly, which will be utilised to service all upper levels of building above the carpark levels. Ground and Mezzanine Floors will be fed directly off the towns mains.

A 150mm fire services connection is proposed to be derived from the proposed upgraded towns main in East Terrace to serve the building's combined hydrant and sprinkler systems comprising an on-site booster assembly, attack hydrants in the stairwells, fire tanks and pumps and automatic sprinkler system.

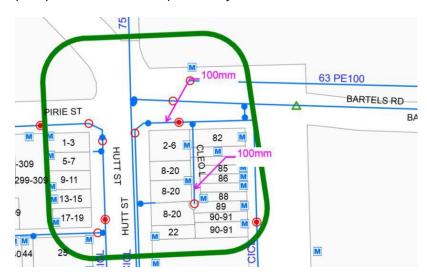


Figure 3 - Details of existing SA Water Corp Water Mains

2.4 APA GROUP NATURAL GAS INFRASTRUCTURE

The site has access to a 250mm low pressure gas mains in East Terrace and a 100mm low pressure gas mains in Hut Street, both positioned directly adjacent the development site.

Careful consideration has been given to positioning visible infrastructure e.g. fire booster assembly and gas meters such that it does not impact on the aesthetics of the prominent Hutt – East Terrace corner frontage.

Accordingly, the gas meter enclosure will be recessed (flush with façade) positioned at the rear of the building within a fire rated enclosure under the Ground – Mezzanine stairs.

The enclosure will house the gas meters for the Restaurant and Apartment Gas Hot Plates and Bulk Hot Water system.

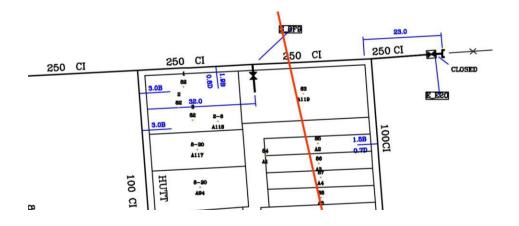


Figure 4 - Details of existing APA Natural Gas Mains

3 BUILDING SERVICES

3.1 ELECTRICAL & COMMUNICATION SERVICES

- Connection to on-site transformer low voltage fuse rack and provision of consumers mains to site Main Switchboard comprising building main circuit breaker, master (parent) meter and essential services distribution section. Main Switchboard located within a fire rated Switchboard Room on Ground Floor a rear of the building with dedicated external access.
- Electrical distribution system including fire rated mains to Main Distribution Switchboard located on the carpark Level 2, comprising metering panel comprising embedded (child) meters for the individual apartments, metered sub-mains to each apartment and common area sub-mains.
- Essential services power distribution comprising fire rated sub mains to serve the lifts, stairwell pressurisation and associated air relief fans and fire pump power supplies.
- Apartment and ground floor tenancy circuit boards.
- Lighting, power, communications and MATV/PAY TV installation to each apartment.
- Programmable lighting control system and motion sensor control to common area lighting.
- Common area power distribution system to serve common area and stairwell lighting, carpark lighting and exhaust/fresh air fans and miscellaneous equipment.
- Exit and emergency lighting system complying with the requirements of AS2293.
- Electronic security and access control systems.
- NBN fibre optic network infrastructure servicing the apartments
- Reticulated MATV and PAY TV backbone cabling reticulation to each apartment and Ground Floor tenancy.
- Audio intercom system to each apartment with master intercom station at Ground Floor Main Entry for visitor controlled access to each apartment.
- Energy efficient lighting (LED)
- 39KW PV roof mounted solar array with connection to the building power reticulation system after the Main (master) meter.

3.2 FIRE SERVICES

 Connection to SA Water Corporation towns mains in East Terrace and establishment of a 150mm fire services connection to the site.

- Incoming fire service connection to extend to SAMFS booster recessed into building façade under the Ground-Mezzanine stairs.
- Fire Pump Room on Ground Floor comprising 2 x diesel fire pumps and Fire Services Storage Tanks (approx. 50,000 litres effective capacity) located in a Fire Pump Room located in south-eastern corner of the building on Level 13.
- Diesel Fire Pump located in Basement Hydraulic Services Room to provide a reliable make-up water supply to the Fire Tanks.
- Fire hydrants located within the fire isolated scissor stairs, providing coverage to all areas of the building. Ground coverage provided via connection to booster assembly.
- Automatic fire sprinkler system to serve the entire building. Sprinkler control valve assembles (one per level) to be located on each residential apartment level in the nominated fire stair. Separate sprinkler control valve assemblies to be provided for the basement carpark levels, upper carpark levels and ground/mezzanine floor. Latter sprinkler control valve assemblies to be positioned in a separate sprinkler control valve enclosure in the Basement Fire Pump Room and be towns main fed. Residential sprinkler valve sets to be fed off the boosted (Fire Pump boosted) system.
- Smoke detection system throughout the building for activation of the smoke control systems and early activation of the occupant warning systems.
- Fire hose reels on ground, mezzanine and all carpark levels and portable fire extinguishers throughout.
- Interfaces with other services for control of building fire mode operations.

3.3 HYDRAULIC SERVICES

- Connection to SA Water Corporation Authority water and sewer infrastructure
- Connection to APA Group Authority gas infrastructure including gas meter enclosure
- Sanitary drainage system comprising multiple sewer stacks and associated relief vents within vertical plumbing ducts within the apartments which will be combined at high level in Level 2 carpark, roll over to sewer stacks within the carpark and continue to Ground floor level offsetting where required to suit the Mezzanine floor plan layout prior to rolling over and combining at high level in Ground floor and dropping at rear of building into the basement where the main sewer drains will connect to the SA Water Corporation connection point (s) in Cleo Lane.
- Waste points to serve miscellaneous equipment including Fire Pump Room, central hot water plant, Bin Room and L13 and L14 swimming pool backwash.
- Domestic Cold Water Break Tanks and associated Pressure Pump Assembly for connection to the building's cold water reticulation system. The Pressure Pump Assembly will comprise 3 x 50% duty pumps. Lower levels of the building up to Level 2 carpark shall be direct towns mains fed.

- Central gas fired storage hot water plant for supply of hot water to the apartments.
- Dedicated electric continuous flow hot water unit to serve the common ablutions on Mezzanine level.
- Cold water supply make-up feed to the L13 Fire Services Storage Tanks.
- Hot and cold reticulation to all apartments comprising hot and cold water risers with sub water meters to apartments. Sub-meters to form part of the building's embedded metering system.
- Hot and cold water supplies to serve the Restaurant/Bar tenancy fed from the building hot and cold water supply with sub meters to each feed.
- Natural gas supply to apartment cooktops and L13 and L14 lap pool heating systems.
- Grease arrestor and trade waste pumping chamber to serve the Ground Floor Kitchen and Mezzanine Catering Kitchen.

3.4 MECHANICAL SERVICES

- Individual reverse cycle ducted air conditioning systems to serve each apartment comprising energy efficient invertor type systems. Associated condensing units will be grouped on each apartment level within an external screened enclosure accessible from the service core.
- Energy efficient variable refrigerant volume type reverse cycle ducted air conditioning systems to serve the Restaurant and Bar areas on Ground and Mezzanine levels. Associated condensing unit will be positioned in a plant area at the rear of the building on Mezzanine level.
- Carpark levels exhaust and fresh air ventilation systems
- Cooking canopy exhaust duct provisions with pre-treatment systems prior to discharge as required.
- Ducted rangehood exhaust system to each apartment with discharge directed to the façade adjacent the apartment served.
- Ducted bathroom and laundry exhaust system to each apartment with discharge directed to the facade adjacent the apartment served.
- Miscellaneous exhaust systems to serve common ablution area, Fire Pump Room and Bin Room.
- Stairwell pressurisation system (1 per stairwell) comprising roof mounted exhaust fan/ductwork assemblies with connection to builder's shaft comprising supply grilles in stairwell at every 2nd level.

Mechanical air relief system forming part of the stairwell pressurisation system comprising 4 x in-line axial fans in the ceiling space of the common residential passage (2 each side of lift shaft) with discharge directed to wall discharge louvres located on the southern side of the building. A similar arrangement will be provided to the Mezzanine level with connection to a wall discharge louvre on the northern side of the building.

3.5 VERTICAL TRANSPORTATION SERVICES

• The building will be provided with 2 off motor-room-less type variable frequency drive passenger lifts to serve all levels of the building. One of the lifts will be sized to accommodate a stretcher in accordance with BCA requirements.

2 Hutt Street

Acoustic Assessment

S5470C2

December 2017

Sonus.

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Document Title : 2 Hutt Street, Adelaide

Acoustic Assessment

Document Reference : S5470C2

Date : December 2017

Author : Chris Turnbull, MAAS

Reviewer : Jason Turner, MAAS

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1 INTRODUCTION

A noise assessment has been conducted for the proposed apartment development at 2 Hutt Street, Adelaide.

The proposed development comprises basement car parking, a restaurant occupying the ground level, resident lounge on the mezzanine, car parking at levels one and two and residential apartments from level three to level fourteen.

The assessment considers:

- The noise from traffic and street activity on surrounding roads into the development; and,
- The noise from car parking, mechanical plant and rubbish collection from the proposed development to other noise sensitive land uses.

The proposed development includes a restaurant at ground level. The assessment of noise from this area will be made at the time of liquor licence application, when the operator is known, if the proposed operation has any potential to impact noise sensitive land uses in the vicinity.

The assessment has been based on:

- Tectvs drawings "C01" to "C019" (inclusive) and "C08b", with Project number "28061" and dated November 2017; and,
- Noise logging conducted at a location representative of the existing noise environment at the site between 27 and 28 November 2017.

The key noise issue for the site is the impact of traffic at the intersection of Hutt Street, East Terrace, Bartels Road and Pirie Street on the amenity of the development. The assessment ensures that the proposed building construction will adequately protect against the intrusion of noise from the traffic in the vicinity.

In addition, a preliminary assessment of the environmental noise from car parking, mechanical plant operating and rubbish collection at the proposed development has been conducted.

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2 DEVELOPMENT PLAN

The subject site is located within a Capital City Zone of the City of Adelaide Development Plan (consolidated 20 June 2017). The Development Plan has been reviewed and particular regard has been given to the following Council Wide provisions:

OBJECTIVES

- Objective 9: High-quality student accommodation that creates an affordable, safe, healthy and comfortable living environment.
- Objective 22: Medium to high scale residential (including student accommodation) or serviced apartment development that:
 - (a) has a high standard of amenity and environmental performance;

...

- Objective 26: Development that does not unreasonably interfere with the desired character of the locality by generating unduly annoying or disturbing noise.
- Objective 27: Noise sensitive development designed to protect its occupants from existing noise sources and from noise sources contemplated within the relevant Zone or Policy Area and that does not unreasonably interfere with the operation of non-residential uses contemplated within the relevant Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

- 68. Medium to high scale residential or serviced apartment development close to high noise sources (e.g. major roads, established places of entertainment and centres of activity) should be designed to locate noise sensitive rooms and private open space away from noise sources, or be protected by appropriate shielding techniques.
- 89. Development with potential to emit significant noise (including licensed entertainment premises and licensed premises) should incorporate appropriate noise attenuation measures in to their design to prevent noise from causing unreasonable interference with the amenity and desired character of the locality, as contemplated in the relevant Zone and Policy Area.
- 90. Development of licensed premises or licensed entertainment premises or similar in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone should include noise attenuation measures to achieve the following when assessed at the nearest existing or envisaged future noise sensitive development:
 - (a) the music noise (L10, 15 min) is:
 - (i) less than 8 dB above the level of background noise2 (L90,15 min) in any octave band of the sound spectrum; and
 - (ii) less than 5 dB(A) above the level of background noise (LA 90,15 min) for the overall (sum of all octave bands) A-weighted level.
- 93. Mechanical plant or equipment should be designed, sited and screened to minimise noise impact on adjacent premises or properties. The noise level associated with the combined operation of plant and equipment such as air conditioning, ventilation and refrigeration

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systems when assessed at the nearest existing or envisaged noise sensitive location in or adjacent to the site should not exceed

(a) 55 dB(A) during daytime (7.00am to 10.00pm) and 45 dB(A) during night time (10.00pm to 7.00am) when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.

•••

- 94. To ensure minimal disturbance to residents:
 - (a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:
 - (i) after 10.00pm; and
 - (ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.
 - (b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.
- 95. Noise sensitive development should incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity when exposed to noise sources such as major transport corridors (road, rail, tram and aircraft), commercial centres, entertainment premises and the like, and from activities and land uses contemplated in the relevant Zone and Policy Area provisions.
- 96. Noise sensitive development in mixed use areas should not unreasonably interfere with the operation of surrounding non-residential uses that generate noise levels that are commensurate with the envisaged amenity of the locality.
- 97. Noise sensitive development adjacent to noise sources should include noise attenuation measures to achieve the following:
 - (a) satisfaction of the sleep disturbance criteria in the bedrooms or sleeping areas of the development as defined by the limits recommended by the World Health Organisation;
 - (b) the maximum satisfactory levels in any habitable room for development near major roads, as provided in the Australian/New Zealand Standard AS/NZS 2107:2000 'Acoustics Recommended Design Sound Levels and Reverberation Times for Building Interiors'; and
 - (c) noise level in any bedroom, when exposed to music noise (L_{10}) from existing entertainment premises, being:
 - (i) less than 8 dB above the level of background noise ($L_{90,15 \text{ min}}$) in any octave band of the sound spectrum; and
 - (ii) less than 5 dB(A) above the level of background noise ($L_{A90,15\,min}$) for the overall (sum of all octave bands) A-weighted levels.

Background noise within the habitable room can be taken to be that expected in a typical residential/apartment development of the type proposed, that is inclusive of internal noise sources such as air conditioning systems, refrigerators and the like as deemed appropriate.

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3 TRAFFIC NOISE

3.1 Criteria

The noise source with the greatest potential to impact upon the development is road traffic.

In relation to the appropriate criteria for the intrusion of noise into a housing development, the assessment considers the relevant provisions of the Adelaide City Council Development Plan which refer to the recommendations of the Australian Standard *AS 2107:2000 – Acoustics – Recommended design sound levels and reverberation times for building interiors*¹ and the World Health Organisation Guidelines with respect to sleep disturbance; and include music noise criteria based on the EPA Music Noise Guidelines. The assessment also considers the Minister's Specification *SA 78B Construction requirements for the control of external sound* to provide a contemporary approach.

3.1.1 World Health Organisation Guidelines

Council Wide Principle of Development Control (CWPDC) 97(a) refers to the objective recommendations of the World Health Organisation for sleep disturbance.

The World Health Organisation (WHO) has developed guidelines for community noise in specific environments. To protect against the potential onset of sleep disturbance effects in bedrooms, the WHO suggests a long term goal noise level of 30 dB(A) $L_{\rm eq}$.

3.1.2 <u>Australian Standard AS 2107</u>

CWPDC 97(b) makes particular mention of Australian Standard *AS 2107:2000 – Acoustics – Recommended design sound levels and reverberation times for building interiors* (AS 2107).

AS 2107 provides recommended internal noise levels for different types of building occupancies and activities. Table 1 details the recommended internal noise levels for different types of occupancies in a residential building environment.

AS 2107 was updated in 2016. The 2016 version of AS 2107 has been used for this assessment.

Table 1: Recommended noise levels of AS2107.

Type of Occupancy/Activity	Recommended Design Sound Levels (dB(A))
Sleeping areas	35 to 40
Living areas	35 to 45
Work Areas	35 to 45

3.1.3 Minister's Specification SA 78B

The intent of Minister's Specification *SA 78B Construction requirements for the control of external sound* (SA 78B) is to protect the occupants of residential buildings from the sound intrusion of transport corridors and from mixed use activity. To this end, SA 78B establishes internal noise levels or "performance requirements".

The objective assessment criteria applied to the development for internal noise levels are detailed in Table 2, which have been extracted from SA 78B.

Table 1: Noise criteria provided by SA 78B for transport corridors.

Tune of room	Internal Sou	Applicable time	
Type of room	Average for total number of rooms	Maximum for individual room	period
Bedroom	30 dB(A) L _{Aeq, 9hr (transport)} 30 dB(A) L _{Aeq, 15min (people)}	35 $dB(A)$ L _{Aeq, 9hr (transport)} 35 $dB(A)$ L _{Aeq, 15min (people)}	Night (10pm to 7am)
Other habitable room	35 <i>dB(A)</i> L _{Aeq, 15hr}	40 dB(A) L _{Aeq, 15hr}	Day (7am to 10pm)

For a particular site, the need to comply with SA 78B is established by "designation" in the Development Plan. The subject site has not been designated in the Development Plan and therefore SA 78B does not strictly apply but has been considered to provide the most contemporary approach. For the consideration of music noise ingress, SA 78B refers to the relevant council or Environment Protection Authority for appropriate requirements.

3.1.4 Summary of Assessment Criteria for Noise Ingress

Based on the above, the following criteria are adopted for external noise intrusion into the proposed apartment development:

- an average noise level (L_{Aeq}) of 30 dB(A) across the total number of bedrooms and a maximum of 35 dB(A) for any bedroom; and,
- an average noise level of 35 dB(A) across the total number of living/lounge/kitchen areas and a maximum of 40 dB(A) in any living/lounge/kitchen area;

3.2 Assessment

3.2.1 Noise from Traffic

An assessment has been made of the acoustic treatment required to achieve the SA78B criteria and therefore ensure there are no unreasonable impacts on the amenity of the apartments from traffic. The assessment has been based on continuous noise monitoring conducted at the site, from Monday 27 to Tuesday 28 November 2017.

A logger was positioned in a location considered representative of the proposed apartments on the opposite side of the intersection. The $L_{eq,9hr}$ and $L_{eq,15hr}$ for night and day periods respectively have then been used to predict the noise into the habitable rooms of the apartment building.

The facades of the proposed development predominantly consist of glazing, masonry and small areas of lightweight construction. In order to achieve the criteria of the Minister's Specification, all apartment facade glazing, (including any sliding doors) should be As follows;

- Bedrooms of either;
 - o Single glazing of minimum 10.38mm thick laminated glass; or,
 - Double glazing consisting of one layer of 6mm thick glass and one layer of 6.38mm thick laminated glass separated by a minimum cavity of 25mm
- Kitchen/Living/Lounge areas of either;
 - o Single Glazing consisting of 12.5mm thick VLam Hush glass; or,
 - Double glazing consisting of two layers of 10.38mm thick laminated glass separated by a minimum cavity of 25mm

All windows and doors should be fitted with seals, which achieve an airtight seal when closed.

As a minimum the roof and any lightweight wall elements shall be constructed as follows;

Roof

- Sheet metal roofing;
- 50mm glass fibre insulation within the ceiling cavity;
- 10mm thick standard plasterboard.

Walls

- Outer cladding of minimum 9mm thick fibre cement sheet, or equivalent;
- 50mm glass fibre insulation within the ceiling cavity;
- 13mm thick fire rated plasterboard (density 10.5kg/m²).

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4 NOISE FROM THE DEVELOPMENT

Potential noise sources at the proposed development are plant and equipment associated with the mechanical services system and the collection of rubbish.

4.1 Mechanical Plant

Objective criteria have been considered for the design of the mechanical services system in order to prevent adverse impacts at the existing and approved surrounding dwellings.

CWPDC 93 of the City of Adelaide Development Plan provides the relevant objective criteria for noise from mechanical plant and equipment at the development, which are as follows:

- 55 dB(A) L_{Aeq} during the daytime (7am to 10pm); and,
- 45 dB(A) L_{Aeq} during the night-time (10pm to 7am).

The criteria are to be achieved with the noise measured and adjusted at the nearest existing and approved noise-sensitive land use in accordance with the *Environment Protection (Noise) Policy 2007*.

The designated location for mechanical plant on the southern facade of the residential levels and at the larger "Plant" area at level 13 provides shielding and a good separation distance to surrounding dwellings. As final equipment selections are not available at the Development Application stage of a project, a preliminary assessment has been conducted to determine whether the established noise criteria can be practicably achieved during the detailed design stage.

As the layouts progress through the detailed design phase of the project, any necessary acoustic treatments will be incorporated into the design documentation to ensure compliance with the project criteria recommended above.

Notwithstanding, the assessment criteria are expected to be practicably achieved without any significant acoustic treatment

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4.2 Car Park Activity

Council-wide Principle 94(b) makes reference to the noise from night-time (10pm to 7am) car park activity achieving the sleep disturbance recommendations of the World Health Organisation (WHO).

It is normal practice when considering internal noise levels from an external source to assume that windows may be partially open. This allows for people to open windows on warm nights. Based on the windows of the surrounding residences being partially open, the WHO suggests that to achieve the internal levels described earlier in this report, the equivalent (L_{eq}) and maximum (L_{max}) noise levels outside a bedroom window should be limited to 45 dB(A) and 60 dB(A) respectively.

Notwithstanding the objective criteria provided above, given the proximity to East Terrace and the high number of higher speed vehicle movements on the public road network, it is considered that the noise from vehicle movements and general carpark activity cannot unreasonably impact on the adjacent apartments where the noise levels are in the range of existing movements on the public roadway.

Noise measurements have been conducted adjacent the closest noise sensitive receiver to the carpark, being the western facade of the townhouse with a balcony overlooking Cleo Lane, immediately east of the proposed development. The measurements indicate that the maximum noise level from vehicle movements along East Terrace will be in the range of 60 dB(A) to 68 dB(A).

Predictions of the maximum noise level from vehicle movements into the carpark indicate that noise levels from the proposed arrangement will also be within the range of 60 to 68 dB(A). Therefore the noise level will will not be noticeably different to the much greater number of vehicles on East Terrace.

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4.3 Rubbish Collection

Council-wide Principle 94 of the City of Adelaide Development Plan deals with waste collection and deliveries by effectively limiting the hours to the least sensitive portions of the day. The Development Plan requires that deliveries and waste collection only occur between the hours of 9am and 7pm on a Sunday or public holiday, and between 7am and 10pm on any other day. In the circumstance where the development incorporates an arrangement which can satisfy the onerous requirements of the *Environment Protection* (Noise) Policy 2007, then it is considered that the times may be extended without adversely impacting on the amenity of the surrounding area.

In accordance with the development plan, specifically Council Wide Principle of Development Control 94, waste collection should not occur during the following times:

- after 10.00pm; and,
- before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.



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Seb Grose 8203 7195 **Enquiries:**

Reference: S10/49/2017

17 May 2018

State Commission Assessment Panel

By email: <u>brett.miller@sa.gov.au</u> Cc: scapadmin@sa.gov.au

Attention: State Commission Assessment Panel

Dear Sir/Madam

Application: \$10/49/2017

Applicant: RYMILL PARK APARTMENTS P/L Address: 2-6 Hutt Street, ADELAIDE SA 5000

Demolish existing building and construct a 16 level apartment building Description:

Council has the following comment(s) to make on the above application:

TECHNICAL COMMENTS

ROADS / FOOTPATHS ENGINEERING

- Any disused driveway inverts resulting from the development are to be reinstated to equivalent footpath levels to Council standards and specifications.
- Any damage caused to Council road, footpath and kerbing infrastructure during development will be the responsibility of the developer to rectify to a standard that equals or improves the pre-development condition.
- Existing crossovers and new crossovers have been proposed under this development. All new or alterations to existing crossovers firstly require Council approval outside of the application process and also need to be to Council standards and specifications via the City Works Guidelines.

- Existing boundary (back of path) levels must not be modified.
 Finished floor levels must be based around retaining the existing back of path levels subject to the following:
 - o If the level difference between top of kerb and back of path is less than 50 mm; and
 - o If the existing cross fall(s) exceed 4% (1:25).
- If any of the above conditions exist for any footpath infrastructure that services the perimeter of the site boundary then please contact the Lead Asset Consultant Streets prior to setting finished floor levels.

TORRENS & STORM WATER

- Stormwater runoff from the proposed residential development must be contained within the property boundaries, collected and discharged to the East Terrace road reserve. Stormwater discharge to East Terrace should utilise the two existing stormwater footpath crossovers in East Terrace.
- Considering Cleo Lane is subject to existing rights of way to adjacent property owners, stormwater runoff from the proposed development should not be discharged to Cleo Lane.
- Any proposed collection of ground seepage water from the basement carparking levels (1 and 2) must not be discharged to the property stormwater system. Any collected ground seepage water from the basement levels must be discharged to either sewer or the proposed property recycled water system.
- Collected seepage water from proposed planter boxes, landscaped areas, green wall, Cleo Lane arbour planting and roof garden must not be discharged to the property stormwater system. Any collected landscaping seepage water must be discharged to either sewer or the property recycled water system.

- Any collected splash water from proposed swimming pools on levels 13 and 14 must <u>not</u> be discharged to the property stormwater system. Any collected splash water from the proposed rooftop swimming pools must be discharged to either sewer or the property recycled water system.
- Any collected surface water from levels 1 and 2 (carparking)
 must not be discharged to the property stormwater system.
 Any collected surface water from the carparking levels must be
 discharged to either sewer or the property recycled water
 system.
- The proposed entrance levels to the basement carparking levels must be designed with a significant freeboard to 1% AEP flood levels in East Terrace taken to be equivalent top of kerb level in East Terrace.
- Council commends the proposed reuse of collected stormwater runoff for irrigation of the landscaping features.

LIGHTING / ELECTRICAL / CCTV

- The proposed development works may impact on the public lighting within the proximity of the development site. The public lighting installed on Hutt Street is owned and maintained by Council and consists of street lighting columns/luminaires with associated underground cabling and pits. The public lighting on Bartels Road is owned and maintained by SA Power Networks and consists of stobie pole mounted lighting with associated overhead electrical cabling spanning between columns.
- If temporary hoarding or site works require modification of existing Council and/or SA Power Network's public lighting (including associated infrastructure such as cabling etc) shall meet Council requirements and all costs borne directly by the developer.

- All modifications requiring temporary removal, relocation, provision of temporary lighting, reinstatement of existing Council and/or SA Power Network's public lighting (including associated infrastructure such as cabling etc) shall meet Council requirements and all costs borne directly by the developer.
- Any damage to Council infrastructure, including damage to public lighting and u/g ducting etc caused by projects works or loading of site crane onto pathways will be repaired to meet Council requirements and at the cost of the developer.
- Lighting under the proposed canopies shall meet Council's under verandah requirements shall be installed.
- Obtrusive Lighting Lighting design and installation to be fully compliant with Australian Standard - AS 4282 - 1997 Control of the Obtrusive Effects of Outdoor Lighting. Sign off by consultant required to confirm compliance. In addition, provide relevant lighting calculation grid detailing property boundary lines for Council review and records.

STREET TREES

 The existing street trees in Hutt Street <u>must</u> be retained due to their inclusion in the landscaping amenity supplied for the rest of Hutt Street which is highly regarded by the community.

TRAFFIC / TRANSPORT

- The traffic report estimates traffic generation for the existing
 office use based on floor area and proposes that 100% of the
 traffic generated using this method of calculation would use
 Cleo Lane. This results in an estimation for the office use of 10
 trips during the morning (arriving) and 7 during the evening
 peak (leaving). It is unclear how the trips have been calculated.
- The number of vehicles entering and leaving via Cleo Lane is likely to be less than the current situation (due to limited parking supply) and the remaining trips generated to and from the site would be on the surrounding road network.

- Whilst the AM and PM peak estimations for the proposed development roughly match the number of existing office car parking spaces, the movements will primarily be in the direction of peak travel, rather than being counter-directional as could be reasonably assumed for an office development.
- There is little site appreciation of current traffic conditions and demand in Cleo Lane. No traffic surveys have been undertaken and the only operational observation made is that the queues from the Hutt Street/Bartels Road/East Terrace/Pirie Street intersection extend beyond Cleo Lane and frequently block egress.
- There is no indication of current traffic volumes and queuing within Cleo Lane and the impact that queuing associated with the proposed development will have. As such, Council recommends that an appropriate survey of baseline conditions be undertaken.
- The ground floor plans do not provide context in relation to driveway access of adjacent properties. As such it is difficult to assess whether the proposed site will negatively impact upon these access points.
- Concern is raised regarding a requirement for cyclists to negotiate steps and a door to access bicycles from the secure storage area. This does not provide easy or convenient access to bicycles. Additionally, the space between the column and wall appears too narrow to facilitate access.
- It is recommended that future tenants be made aware of access restrictions that occur as a result of the Adelaide 500 event at point of sale.
- It is recommended that opportunities for car charging points be investigated during the detailed design phase.
- I note that access requires the relocation of a stobie pole. This will need to be confirmed with SAPN, with cost of relocation to be borne by the applicant.

 In terms of the potential for 'Keep Clear' line markings on East Terrace, Council is bound by DPTI Operational Instruction 2.23, which refers to requirements around the warrants and application for such markings. 'Keep Clear' line markings in this location would not meet the Operational Instruction.

WASTE

- The proposed plans and waste management report identify that a requirement to have spare bins underneath the chute system when bins are being emptied can be satisfied.
- This can be accommodated as a procedure by rotating the bins at the time of emptying by the engaged contractor.
- The proposal is supported.

PLANNING RELATED COMMENTS

Council Administration has not undertaken a thorough planning assessment of the proposal but makes the following comments in relation to the proposed development:

ENCROACHMENTS

- A balcony is proposed at mezzanine level over both the adjacent Hutt Street and East Terrace footpaths.
- Originally the balcony was proposed to extend along 65% of the Hutt Street façade, 24% of the East Terrace façade and 65% of the balcony was proposed to extend over the footpath. This proposed encroachment did not satisfy Council's Encroachment Policy which limits such an encroachment to 30% of a building façade and requires at least 50% of all balcony floor area to be located behind the property boundary.
- Furthermore, the balcony over Hutt Street was proposed to extend beyond the footpath protuberance and the balcony to East Terrace was to extend in front of traffic lights. These locations were not supported by Council's traffic section.

- Accordingly, Council advised SCAP early in the approval process that a Council sign-off for the balcony encroachment would not occur unless at least the protuberance and traffic light visibility issues were addressed.
- The applicant has recently provided amended plans which show a reduction of the proposed balcony encroachment. The balcony is now proposed to extend along 41% of the Hutt Street facade and 21% of the East Terrace façade. Whilst the Hutt Street portion does not satisfy the 30% requirement, it is an improvement on the original proposal. The balcony no longer extends beyond the footpath protuberance and is not located in front of traffic lights. Furthermore, 42% of the balcony is now proposed behind the boundary line which is in accordance with the Encroachment Policy.
- Council's traffic section supports the amended plans which have reduced the extent of the balcony, particularly to East Terrace.
- Accordingly Council has waived to the Encroachment Policy in this instance.
- Sunshades are proposed to extend from levels 3 to 14 over both Hutt Street and East Terrace. The sunshades will extend a maximum of 600mm over both streets which satisfies Section 3.2.2 of the Encroachment Policy.

Yours faithfully

Helen Dand
ACTING MANAGER - PLANNING ASSESSMENT

File No: 2014/11234/01

Ref No: 12184628

Pre-lodgement Agreement

ODASA Pre-lodgement No: PLA 2016/11122/01

Pursuant to Section 37AA of the Development Act, this Agreement obviates the need for a statutory referral to the South Australian Government Architect during the State Commission Assessment Panel (SCAP) process. The State Commission Assessment Panel refers all applicable development proposals to the South Australian Government Architect, for review and comments on design merit. The Agreement must be lodged with the development application, and the application lodged within three months of the Agreement being signed.

The Agreement between the South Australian Government Architect and Rymill Park Apartments Pty Ltd & Rymill Park Unit Trust (the Proponent), signed on 14 December 2017 pertains to the development proposal for 2 Hutt Street, Adelaide described in the drawings listed in the schedule below, reviewed by the South Australian Government Architect on 14 December 2017. The drawings form part of the Agreement.

This Agreement is not an approval to proceed with the proposal. Development Approval from the State Commission Assessment Panel must be obtained prior to commencing work.

Development description

The proposal is for a 53.9 metre tall mixed use building that comprises two levels of below ground car parking, ground floor restaurant and apartment entry foyer, mezzanine level dining and lounge area for residential use, two levels of above ground car parking and 12 residential floors. The site is located on the corner of Hutt Street and East Terrace, Adelaide.

Level 1 26-28 Leigh Street Adelaide SA 5000

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DX 171



File No: 2014/11234/01

Ref No: 12184628

Drawing Schedule

Floor Plan Details	Drawing Number	Version	Scale	Format
Tectvs	1.	*		*
Title Page	28061 P-00	1.0	π.	A3
Site Plan	28061 P-01	1.0	1:200	A3
Basement 2 Floor	28061 P-02	1.0	1:100	A3
Plan				
Basement 1 Floor	28061 P-03	1.0	1:100	A3
Plan				
Ground Floor Plan	28061 P-04	1.0	1:100	A3
Mezzanine Floor	28061 P-05	1.0	1:100	A3
Plan				
Level 1 Floor Plan	28061 P-06	1.0	1:100	A3
Level 2 Floor Plan	28061 P-07	1.0	1:100	A3
Level 3 Floor Plan	28061 P-08	1.0	1:100	A3
Level 4 Floor Plan	28061 P-09	1.0	1:100	A3
Level 5-9 Floor Plan	28061 P-10	1.0	1:100	A3
Level 10-12 Floor	28061 P-11	1.0	1:100	А3
Plan				
Level 13 Floor Plan	28061 P-12	1.0	1:100	A3
Level 14 Floor Plan	28061 P-13	1.0	1:100	A3
Roof Plan and	28061 P-14	1.1	1:100	A3
Section				
Ceiling Plans	28061 P-15	1.0	1:200	A3
Sections	28061 P-16	1.0	1:400	A3
Elevations	28061 P-17	1.0	1:500	A3
Elevations	28061 P-18	1.0	1:500	A3
Visualisations	28061 P-19	1.0	NTS	A3
Visualisations	28061 P-20	1.0	NTS	А3
Visualisations	28061 P-21	1.0	NTS	А3
Visualisations	28061 P-22	1.0	NTS	А3
Public Realm	28061 P-23	1.0	NTS	A3
Greening Strategy	28061 P-24	1.0	NTS	А3
Landscape Design	28061 P-25	1.0	NTS	А3
Landscape Design	28061 P-26	1.0	NTS	А3
Materials	28061 P-27	1.0	NTS	A3
Materials Board	28061 P-28	1.0	NTS	A3

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Advisory Notes

The project was presented to the Design Review panel on five occasions and participated in one Desktop Review session, over which period the applicant responded to the advice provided. I acknowledge the willingness with which the project team has engaged with Design Review. I also acknowledge the change in the design team that occurred subsequent to the third Design Review session, and commend the efforts made to revisit and examine the contextual analysis and inherited design as well as the progression of technical discussions and quality and clarity of the presentation material.

I support the project team's aspiration to deliver a high quality residential focused development in this part of the city and the emphasis on design quality and environmental performance. My support for a development of the proposed scale is contingent on the delivery of the high quality design outcome presented. The site's key location within the City of Adelaide presents a rare opportunity and I am of the opinion that any development on this site has a responsibility to deliver a high benchmark for design.

I support the ground floor configuration that activates the north and west frontages and the provision of separate entrances for public and private uses. The ground floor includes a restaurant with a dedicated entrance off East Terrace and double height green wall feature that covers the expressed curved car park ramp, which I support. The residential entry lobby, located off Hutt Street, is well-defined and provides a sense of address and security for the residents by way of the secure airlock. I support the inclusion of an indoor garden, seating and artwork within the lift lobby and encourage further consideration of the placement and integration of furniture as the project progresses.

I support the proposed car park ramp access and location of services off Cleo Lane. I also support the location of the transformer on the mezzanine level, as this improves the presentation of the laneway. I welcome the project team's intent to engage with adjacent landowners to achieve a mutually agreeable outcome for the shared space, and upgrades that include an integrated landscaped arbour and resurfacing with small scale textured paving that extends into East Terrace. In my view, the consideration given to the amenity of the laneway and transition between the private laneway and public realm will reinforce the development's sense of place and contextual relationship. New footpath paving is proposed along East Terrace and Hutt Street and I urge collaboration with Council to achieve an integrated outcome for all new paving treatments. The existing established street trees along Hutt Street provide valuable shade and amenity and assist in integrating the proposed development into the streetscape. I anticipate ongoing protection and maintenance of the street trees, and support utilising the street tree canopy for outdoor seating.

The mezzanine level includes a lounge with meeting/dining/conference facilities for resident's use. The mezzanine ceiling includes recessed patterning, which offers visual interest while effectively managing the interface with the highly textured podium cladding. Access to the mezzanine level is via the restaurant entry off East Terrace, which I support as it offers flexibility for potential adaptive reuse. A large cantilevered curvilinear terrace extends over the Hutt Street corner, capturing Park Land views and northern light, which I anticipate will be desirable to residents and result in streetscape activation.

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I commend the decision to provide two levels of car parking below ground and support the reduction of above ground car parking to two levels. I also support the car park floor to floor dimensions that allow for potential adaptive reuse. The above ground car parking extends to all boundaries and is enclosed with precast concrete panels featuring three dimensional articulation and copper mesh inserts. I support the approach to the enclosure of the above ground car park levels, as in my view the solid treatment contributes to a podium expression, grounds the built form and integrates appropriately with the architectural expression of the residential floors above. I support the textured vertical articulation of the precast concrete panels that transitions to a sculptural expression on the north east corner and east facade. In my view, this contributes to the building's unique identity.

The residential floors are configured to include five apartments on levels three and four, four apartments on levels five to nine, two apartments on levels 10 to 12, a sub penthouse on level 13 and penthouse on level 14. Acknowledging the market testing that has been undertaken, I support the proposed mix and layouts of the apartments that are generous and offer a high level of amenity. I also support the provision of 2.7 metre ceiling heights typically and light and ventilation access to habitable rooms.

The proposed building height is 53.9 metres, with a marginal set down of the eastern building element. I consider the site to be prominent with landmark characteristics afforded by its Park Lands setting and elevated position. As such, in principle I support an approach for a building that exceeds the 22 metres, which is the maximum height envisaged by the Development Plan. Given development of this scale will become a significant backdrop to the Park Lands and will be viewed from all angles, my support for the height from a design perspective is contingent on a continued commitment and delivery of the high quality design outcome presented, particularly in relation to the refined architectural expression, choice materiality, apartment amenity, sustainability initiatives and servicing strategy as well as public realm contribution.

The architectural expression is characterised by two building elements with curved corners defined by a distinct recess. I support the approach for a robust and simple expression that presents a slender built form that is articulated into two elements, as this assists in managing the development's mass and scale. I also support the horizontal emphasis resulting from the expressed Glass Reinforced Concrete beams, which are modelled to include lips that taper and vary the facade depth. I acknowledge the technical modelling undertaken to achieve the optimal depth of the beam lips to achieve effective sun shading and support the resulting refined built form articulation. The solid southern boundary wall is articulated with a negative band above the podium and textured vertical expression that relates to the profile of the northern podium facade and tapers towards the top of the building. The top of the solid south facade is also curved, which further refines its appearance. I support the resulting architectural expression, including the vertical emphasis and cohesive relationship with the overall building expression. I anticipate refinement of the connection of the precast units in the next stages of detailed design development. I also anticipate the negative band will be expressed using an integral rather than an applied finish.

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File No: 2014/11234/01

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The penthouse roofs reference the proportions and materiality of the expressed concrete beams, however are flush rather than modelled. I acknowledge the studies undertaken by the design team that explore alternative roof profiles. In my view, however, an opportunity exists to further refine the penthouse roof forms to assist in mitigating the height of the development, I urge further consideration of the layout of the PV panels with the view to reducing the visual impact of the roof line. I also recommend that the visual impact of required fall protection be assessed during the next stages of detailed design development.

The development proposes a high quality interstitial blind system that sits within the double glazed fenestration and curved electrochromic privacy glass. My support for this scheme is contingent on delivery of these high quality fixtures and finishes.

The proposed development includes a number of Ecologically Sustainable Development (ESD) initiatives being developed in association with a specialist ESD consultant. I strongly support the depth of investigations and modelling undertaken regarding the performance of the building at this early stage of design development. I also support the inclusion of ESD initiatives such as a rooftop solar photo-voltaic array, electric vehicle charging and rainwater harvesting. My support for the development is contingent on maximising the thermal performance of the building and continued commitment and delivery of the ESD ambition that exceeds the minimum quantitative requirements. I also recommend that presentation material clearly demonstrates the visual impact of the rooftop solar photo-voltaic array.

The proposal's landscape concept includes the Cleo Lane upgrade, internal double height green wall, level three south facing communal terrace and indoor garden in the apartment entry. I consider the proposed greening strategy to be an appropriate response to the Park Lands aspect. I support the engagement of a landscape architect and urge ongoing collaboration as design development progresses to achieve integrated and successful delivery of the landscape elements. I support the inclusion of the internal green wall, however I understand delivery and maintenance of specimens of the envisaged lush character is highly specialised and technical. I anticipate resolution of the green wall in the next stages of detailed design development, cognisant of the ESD ambitions. While I am not of the view that the level three terrace is a rooftop garden, I do acknowledge the benefits of this space including accessibility, micro climate, maintenance and contribution to managing urban heat island effects at street level. I also acknowledge the roof area is dedicated to PV panels. I support the residential amenity afforded by the communal dining area and outdoor seating and anticipate resolution of fall protection during the next stages of detailed design development. An indoor 'rock' garden is proposed within the residential entry lobby, which I support. I anticipate all plant selections for the development have been informed by solar access and maintenance requirements and all landscape elements will be supported by services that ensure successful delivery of the envisaged concept.

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To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider conditions or reserved matters to protect the following elements of the proposal, as design details are produced in due course:

- Collaboration with Council to achieve an integrated outcome for all new paving treatments.
- Refinement of the penthouse roof forms to assist in mitigating the height of the development and further consideration of the layout of the photo-voltaic panels with the view to reducing the visual impact of the roof line.
- · Final samples of selected materials.

While the Government Architect has considered the design aspects of the proposed development, the detailed assessment of whether the development plan policy is met is deferred to the State Commission Assessment Panel.

Date 14/12/17

Date 14/12/17.

ODASA Pre-lodgement Agreement No: PLA 2016/11122/01

2 Hutt Street, Adelaide

South Australian Government Architect

Signature Kirsteen Mackay

South Australian Government Architect

The Proponent

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T- +61(0)8 8402 1884 E- odasa@sa.gov.au Signature Chris Vounasis Future Urban Group

Level 1, 89 King William Street

Adelaide, SA, 5000

Representing

Rymill Park Apartments Pty Ltd & Rymill Park Unit Trust



File No: 2014/11234/01

Ref No: 12681918

15 May 2018

Mr Chris Vounasis Director Future Urban Group L1, 89 King William Street Adelaide, SA, 5001

chris@futureurbangroup.com

Dear Mr Vounasis,

2 Hutt Street, Adelaide

I refer to the Pre-lodgement Agreement No: PLA 2016/11122/01 between myself as the South Australian Government Architect and Rymill Park Apartments Pty Ltd & Rymill Park Unit Trust (the Proponent), signed on 14 December 2017 that pertains to the development proposal for 2 Hutt Street.

I have reviewed the revised documentation provided me on 15 May 2018. The amended proposal seeks to reduce the size of the restaurant and reconfigure the apartment entry to provide a vehicle entrance to the basement car park from Hutt Street. While not achieving an optimal outcome from an activation or pedestrian experience point of view, in principle the revised access arrangement is considered to be acceptable. However, support for this proposal is contingent on retention of the existing street tree as per the documentation.

The proposed Hutt Street vehicle entrance is setback approximately 2.5 metres from the western facade. The garage door, fire door and wall lining above are all clad with metal routed panelling, with the view to achieving a uniform recessive expression. I support this approach, as the proposed design responds to the established expression of the base of the building, and mitigates the visual impact of the garage door.

In regards to the apartment entrance, the revised design maintains a good sense of address, and achieves clear site lines between the entrance and secured lift lobby. I also support the revised corner canopy, as in my view the shape further strengthens the sculptural qualities of the design. I acknowledge the intent for an apartment building entrance canopy that seeks to establish a relationship with the restaurant entrance. However, I am yet to be convinced by the signage element and anticipate further resolution of signage as part of a separate Development Application.

I note the revised design relocates the transformer from the mezzanine level to the ground floor level, and relocates the bins/store double doors, which I accept.

The revised design proposes an extension to the height of the podium at its eastern end, with a view to addressing overlooking. The height of the podium extends by one metre uniformly and introduces a 600mm projection. I support the proposed podium design, as in my view this approach is consistent with the approved expression.

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File No: 2014/11234/01

Ref No: 12681918 This advice references the following documentation that replaces drawings cited in the Pre-lodgement Agreement No: PLA 2016/11122/01. This letter relates to the proposed design changes only, and is an addendum to and should be read together with the abovementioned agreement.

Drawing Schedule

Floor Plan Details	Drawing	Version	Scale	Format
	Number			
Tectvs			'	
Title Page	28061 P-00	1.1	-	A3
Site Plan	28061 P-01	1.1	1:200	A3
Basement 2 Floor Plan	28061 P-02	1.1	1:100	A3
Basement 1 Floor Plan	28061 P-03	1.1	1:100	A3
Ground Floor Plan	28061 P-04	1.1	1:100	A3
Mezzanine Floor Plan	28061 P-05	1.1	1:100	A3
Level 1 Floor Plan	28061 P-06	1.1	1:100	A3
Level 2 Floor Plan	28061 P-07	1.1	1:100	A3
Level 3 Floor Plan	28061 P-08	1.1	1:100	A3
Level 4 Floor Plan	28061 P-09	1.0	1:100	A3
Level 5-9 Floor Plan	28061 P-10	1.0	1:100	A3
Level 10-12 Floor Plan	28061 P-11	1.0	1:100	A3
Level 13 Floor Plan	28061 P-12	1.0	1:100	A3
Level 14 Floor Plan	28061 P-13	1.0	1:100	A3
Roof Plan and Section	28061 P-14	1.1	1:100	A3
Ceiling Plans	28061 P-15	1.1	1:200	A3
Sections	28061 P-16	1.1	1:400	A3
Elevations	28061 P-17	1.1	1:500	A3
Elevations	28061 P-18	1.1	1:500	A3
Visualisations- Perspective 1	28061 P-19	1.0	NTS	A3
Visualisations- Perspective 1	28061 P-19-A	1.0	NTS	A3
(showing changes)				
Visualisations - Perspective 2	28061 P-20	1.1	NTS	A3
Visualisations - Perspective 3	28061 P-21	1.1	NTS	A3
Visualisations – Perspective 4	28061 P-22	1.1	NTS	A3
Public Realm	28061 P-23	1.1	NTS	A3
Greening Strategy	28061 P-24	1.0	NTS	A3
Landscape Design	28061 P-25	1.0	NTS	A3
Landscape Design	28061 P-26	1.0	NTS	A3
Materials	28061 P-27	1.1	NTS	A3
Materials Board	28061 P-28	1.0	NTS	А3
Hutt Street Entry Study	28061 P-29	1.0	NTS	A3

Date |5/5/18

Date 15/5/18.

South Australian Government Architect

South Australian Government Architect

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Kirsteen Mackay

Signature

Chris Vounasis

Future Urban Group

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Adelaide, SA, 5000

Representing Rymill Park Apartments Pty Ltd & Rymill Park Unit Trust





DOCUMENT SCHEDULE

Project

28061 - 2 Hutt Street, Adelaide, SA, 5000

ARCHITECTURAL

No	Version	Title	Scale	Format	Issue Date
28061	1.1	Document Schedule	-	A4	14/05/2018
28061 P-00	1.1	Title Page	NTS	A3	14/05/2018
28061 P-01	1.1	Site Plan	1:200	A3	14/05/2018
28061 P-02	1.1	Basement 2 Floor Plan	1:100	A3	14/05/2018
28061 P-03	1.1	Basement 1 Floor Plan	1:100	A3	14/05/2018
28061 P-04	1.1	Ground Floor Plan	1:100	A3	14/05/2018
28061 P-05	1.1	Mezzanine Floor Plan	1:100	A3	14/05/2018
28061 P-06	1.1	Level 1 Floor Plan	1:100	A3	14/05/2018
28061 P-07	1.1	Level 2 Floor Plan	1:100	A3	14/05/2018
28061 P-08	1.1	Level 3 Floor Plan	1:100	A3	12/12/2018
28061 P-09	1.0	Level 4 Floor Plan	1:100	A3	12/12/2018
28061 P-10	1.0	Level 5 - 9 Floor Plan	1:100	A3	12/12/2018
28061 P-11	1.0	Level 10 - 12 Floor Plan	1:100	A3	12/12/2018
28061 P-12	1.0	Level 13 Floor Plan	1:100	A3	12/12/2018
28061 P-13	1.0	Level 14 Floor Plan	1:100	A3	12/12/2018
28061 P-14	1.1	Roof Plan + Section	1:100	A3	13/12/2018
28061 P-15	1.1	Ceiling Plans	1:200	A3	14/05/2018
28061 P-16	1.1	Sections	1:400	A3	14/05/2018
28061 P-17	1.1	Elevations	1:500	A3	14/05/2018
28061 P-18	1.1	Elevations	1:500	A3	14/05/2018
28061 P-19	1.0	Visualisation – Perspective 1	NTS	A3	12/12/2018
28061 P-19-A	1.0	Visualisation – Perspective 1 (showing changes)	NTS	A3	14/05/2018
28061 P-20	1.1	Visualisation - Perspective 2	NTS	A3	14/05/2018
28061 P-21	1.1	Visualisation - Perspective 3	NTS	A3	14/05/2018
28061 P-22	1.1	Visualisation - Perspective 4	NTS	A3	14/05/2018
28061 P-23	1.1	Public realm	NTS	A3	14/05/2018
28061 P-24	1.0	Greening Strategy	NTS	A3	12/12/2018
28061 P-25	1.0	Landscape Design	NTS	A3	12/12/2018
28061 P-26	1.0	Landscape Design	NTS	A3	12/12/2018
28061 P-27	1.1	Materials	NTS	A3	14/05/2018
28061 P-28	1.0	Material Board	NTS	A3	12/12/2018
28061 P-29	1.0	Hutt Street Entry Study	NTS	A3	14/05/2018

Indicates New Sheet

This document is endorsed under Section 37AA of the Development Act 1993 PRE-LODGEMENT AGREEMENT NO: PLA 2016/11122/01 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 15/5/2018 SIGNED:..... This Agreement remains valid for three months from this date DATE: 15/5/2018 SIGNED:.....

File Document Schedule	Date 15/05/18	Revision 1.2	Approved AG	Page 1 of 1
T Dt-1116 0044	•			

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymilll Park Apartments P/L & Rymill Park Aparti Future Urban Group	ments Unit Trust c/-
Development Number:	020/A081/17	
Nature of Development:	Demolition of existing office building and the conmixed use building (including mezzanine) comprestaurant, and 38 dwellings with associated con and servicing	ising a ground floor
Type of development:	Merit	
Zone / Policy Area:	City of Adelaide - Capital City Zone	
Subject Land:	2-6 Hutt Street, ADELAIDE	
Contact Officer:	Brett Miller	
Phone Number:	8343 2988	
Close Date:	27 February 2018	
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My name: ANTHON	y GIBB	
My phone number:	119 298 592	
PRIMARY METHOD(s) OF CONTACT		lalifax com
	Postal address: 351 HAUE	AX STREET
	A.A.C. O. G.E.	Conn
	- FROECHINE	Postcode Sooo
be heard in support of your sub		ndicate below that you wish t
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occup	ier of local property	
a repr	resentative of a company/other organisation affected by the pro	posal
	ate citizen	
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	on to which I make comment on are:	
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Should the State Commission Asses	ssment Panel conduct a public hearing for this Development Ap	oplication:
I ✓ wish	to be heard in support of my submission	7
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(Plea	se tick one)	2 6 FEB 2018
Ву		
appe	aring nersonally	State Commission
	earing personally	State Commission Assessment Panel
being	earing personally g represented by the following person:	

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.



Response to 020/A081/17 Proposal

Introduction

This is a detailed response to the proposed development of 2-6 Hutt Street, Adelaide as presented in the above Application. The proposed development is deficient in the following respects. The PD

- breaches, by a factor of nearly 2½ times, the guidelines for the Capital City zone;
- will cause unacceptable congestion, noise and disruption in Cleo Lane;
- will cause substantial solar shading of our property;
- will overlook bedrooms on the Western side of our property;
- will create noise and odours that will adversely affect our property;
- will make parking in the City Living zone more difficult;
- will not benefit the existing residents of the area and
- will reduce the value of our property.

Breach of development height guidelines

The Capital City Zone ends at the western side of Cleo Lane. Our property at 85 East Terrace is in the City Living Zone. The prescribed height limit for the Capital City Zone is 22m, and there is a recommendation that buildings in this zone are to be stepped in height with the lowest step on the Eastern edge of the zone. Buildings near the City Living zone must be lower than 22m and near the recommended height of 14m in that zone. The PD is on the Eastern edge of the Capital City zone. It proposes a height that is more than double the recommendation. There is no attempt to step down from 22m to recognise the impact the PD will have on the amenity of adjacent residents in the City living zone. The PD appears to hold the provisions of the Building Height Concept Plan in contempt.

The visual impact of a 54.9m high building compared with a 22m high building is obvious. If the PD had architectural merit, there might be an argument for allowing it to approach to mandated height in the Capital City zone. As the PD stands, the proposed building appears only to exist to maximise occupancy and exploit the location. The PD makes pious references Harry Seidler buildings in the Design Response. It is difficult to see the connection.

Section 6.3 of the PD claims that the PD is neither complying nor non-complying. This seems an odd claim to make when the PD clearly fails to comply with the height guidelines.

Congestion in Cleo Lane and access to 85 East Terrace

Cleo Lane is a small access lane that currently serves buildings to its East and West. It is only 3.05m wide and traffic enters and exits by turning left onto and off East Terrace. There is access to East Terrace to the South of Cleo Lane but existing buildings along the lane have no right of way over this exit. The PD offers to widen Cleo Lane by setting the building back by 3m to make Cleo Lane two-way for 20m. The addition of at least 56 new residents, contributing traffic to an already congested access, will completely swamp any benefit from the setback. The need to park garbage vehicles in the Lane daily to collect waste from the proposed development will further reduce any benefit from the widening.

The traffic analysis in the PD suggests that the new building will add 2 additional trips at peak hour in the morning and three in the afternoon (7.4).

The traffic analysis by Infraplan suggests that the PD will generate about 47 extra trips per day. Given that the 10 existing dwellings along Cleo Lane were measured to make 66 trips per day, it seems unlikely that the addition of 38 new dwellings on Cleo Lane will only generate an additional 47 trips per day. Simple proportion would suggest that if 10 dwellings cause 66 trips per day 48 dwellings (10 current plus 38 new from the PD) will give rise to 317 trips per day. The traffic analysis needs to be revisited and the proposed load on Cleo Lane needs to be re-assessed. As proposed, it is not credible. Higher traffic loads in Cleo Lane would guarantee congestion and reduce the amenity of existing users of Cleo Lane.

Furthermore, the one-way design of the ramps to access the PD parking will guarantee that arriving residents will be queued in Cleo Lane for significant periods of the day. This will, in turn create congestion on Bartels Road.

Solar Shading of 85 East Terrace

The DP provides no information on solar shading so this effect has had to be calculated independently. An edifice 54.9m high and 27m wide will seriously reduce the amount of sunlight available at 85 East Terrace at any time of year. Figures 1 and 2 below show that the PD will, on the 21st of June 2018, cast a shadow over 85 East Terrace commencing at 12:51pm and remaining until dusk. The statement in Section 7.7.1 Overshadowing that a building of 54m would have neglible extra impact over a building of 22m is manifest nonsense. The shadow cast will extend more than twice as far down East Terrace. It will affect properties much further down East Terrace.

Overlook of 85 East Terrace

In section 7.7.1 Overlooking the PD states :-

The greatest potential for overlooking may occur from east facing balconies however it is important to recognise the following:

- the adjacent residential flat building does not contain west facing habitable room windows;
- habitable room windows of other dwellings to the south are located greater than
 15m (measured horizontally) from the east facing balconies; and
- there are existing structures or trees located in rear yards of dwellings backing onto Cleo Lane that would screen any views that may occur.

We also note that the open space area located to the western side of the adjacent apartment building is a common service area and not 'private' as such.

85 East Terrace has two bedrooms facing west which are completely exposed to overlook from the PD. These are well within the 15m separation from the PD. Other existing buildings along the lane have windows facing West. Every dwelling in the PD has terraces facing East with the potential to reduce privacy in the dwellings on East Terrace. The rooftop garden on L3 will also have the ability to overlook the west facing bedrooms of 85 East Terrace.

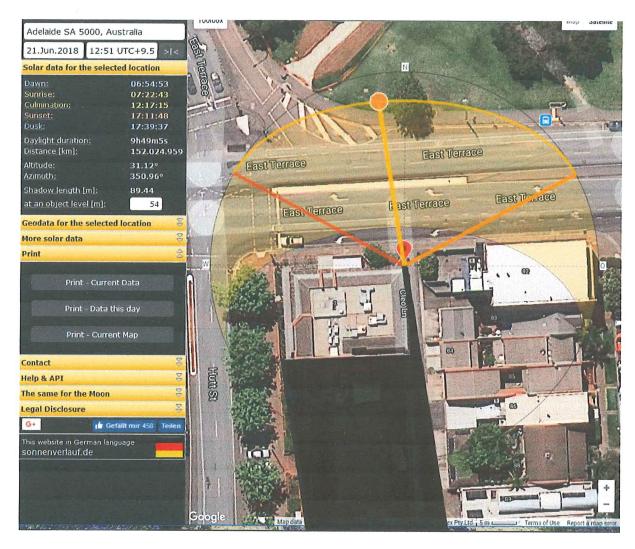


Figure 1 - Edge of shadow at 12:51 on 21 June 2018

Noise and smell from proposed restaurant

The PD makes various promises about containment of noise and odours from the proposed restaurant. Such promises are only as good as the management of the strata community corporation and the day-to-day practices of the proposed restaurant. Provision of labour to manage waste storage and collection is very dependent on the ability of the corporation to finance such activities. Beyond the first year, there is no guarantee that such services will be maintained. Their absence will mostly affect the other residents along Cleo Lane and not the residents of the PD.

Kitchen odours will vent either directly or indirectly into Cleo Lane to the discomfort of East Terrace residents.

There are many examples in the City of Adelaide of unacceptable noise levels from restaurant activities adversely affecting neighbours. These include the emptying of used bottles into recycling bins, loud departures by restaurant patrons late at night and noise from car movements by restaurant patrons.

Putting a restaurant so close to existing properties on East Terrace will reduce the amenity of the residents of those properties.

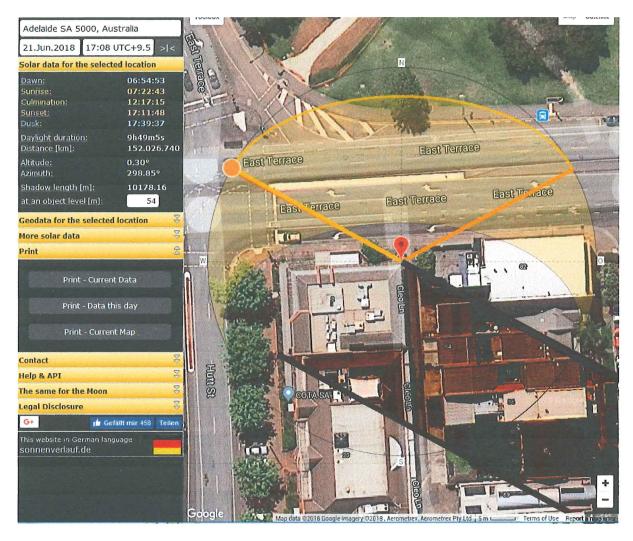


Figure 2 - Edge of shadow at dusk on 21 June 2018

Wind and weather

The prevailing winds bearing rain in Adelaide come from the South West. The proposed building will offer no protection from weather arriving from this direction and the obstruction provided by the PD is likely to direct more rain and wind into the western side of the East Terrace residents. Likewise the building will offer no protection from hot Northerly winds in the summer and again, is likely, by obstructing such winds, to direct them onto and over the residents of East Terrace.

Waste storage and collection

Waste storage and collection facilities are proposed to centre on Cleo Lane, with temporary storage of trash, recyclable and organic waste in a bin room adjacent to Cleo Lane. This bin room will need to be ventilated and this can only be done by expelling the smell of garbage into Cleo Lane. The resulting smell of stale garbage, no matter how often the garbage is removed will adversely affect 85 East Terrace. Garbage trucks in Cleo Lane are unlikely to improve the aroma around the collection point. Proposed coverage of Cleo Lane with a pergola and climber is likely to trap this smell in Cleo Lane.

Parking

Car parking in East Terrace in front of 85 East Terrace is limited in availability and duration time. The existing parks are in high demand from City visitors who leave their cars there for short periods during the day. Visitors to 85 East Terrace have to compete for parking in East Terrace now. So will visitors to the PD. East Terrace resident visitors will be disadvantaged by the competition for parking from City visitors and residents in and visitors to the PD.

It is highly probable that illegal parking in the lane by visitors to the proposed building and to its restaurant may further increase congestion in Cleo Lane.

Benefit to the local community

Section 7.1 includes the statement that:-

The proposed building reflects a high-scale and the podium design and potential future works to Cleo Lane create both the interest and human scale that the desired character seeks to achieve – all in a manner that offers weather protection and significant public benefit to the local community.

The local community affected by this PD will suffer solar shading of their properties. They will experience traffic congestion. They will be overlooked. They will lose privacy. They will experience heightened rain and wind effects rather than weather protection. They will be subject to noise and smells from the proposed restaurant. They already live in an area that has interest and human scale. It is very difficult to see any benefits to the local community from the PD.

Value of 85 East Terrace

The PD will have an immediate and negative impact on the value of 85 East Terrace and on our ability to enjoy it in future. This cannot be quantified yet and the PD offers no redress for this. A claim has been made that the development will increase the land value of 85 East Terrace, but this could only be achieved if an equally inconsiderate development were to be proposed for that site.

Conclusion

We are strongly opposed to the proposed development. To make it even marginally acceptable the following changes need to be made.

- The height of the proposed building must be reduced to 22m with an appropriate step down so that it is less than 22m at the boundary of the City Living zone.
- The plan for a restaurant in the PD needs to be changed and the restaurant replaced by suitable office space.
- The entrance to the PD must be moved to Hutt Street to minimise the traffic and congestion impacts on Cleo Lane.
- The PD must include provision for preserving the privacy of the west facing rooms on East terrace properties.
- Any guarantees offered regarding the proposed green walls, the rooftop garden, the
 management of waste and the scheduling of waste collection are ultimately at the discretion
 of the community corporation. The PD must guarantee in writing such offers so that
 adjacent residents have legal recourse to ensure that the services are maintained.

The PD threatens severely to reduce the amenity of existing residents on East Terrace and provides no discernable benefit to such residents. It is not supported.

Toubs C.

Anthony and Judith Gibb, 351 Halifax Street Adelaide Owners of 85 East Terrace Adelaide.



SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymilli Park Apartments P/L & Rymili Park Apartments Unit Trust c/-
Development Number:	Future Urban Group 020/A081/17
Nature of Development:	
Mature of Development:	Demolition of existing office building and the construction of a 16 level mixed use building (including mezzanine) comprising a ground floor
	restaurant, and 38 dwellings with associated common areas, car parking
	and servicing
Type of development:	Merit
Zone / Policy Area:	City of Adelaide - Capital City Zone
Subject Land:	2-6 Hutt Street, ADELAIDE
Contact Officer:	Brett Miller
Phone Number:	8343 2988
Close Date:	15 January 2018
My name: Jak	UE MUSSARED - CEO COTA SA
My phone number:	
PRIMARY METHOD(s) OF CONTACT:	
	Postal address: COTA SM 16 HUTT STREET
	ADELRIBE Postcode 5000
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	of local property
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a repre	esentative of a company/other organisation affected by the proposal
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The address of the property affected	is 16 HUTT ST ADELAIDE Postcode 5000
The specific aspects of the application	
We are aware	of the existence of asbestos materials
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	with Street (please see attached report 2010)
	g tenants (ext buildings are attached)
We are concess	and about the potential real significant
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Shorid the State Collinission Assess	ment Panel conduct a public hearing for this Development Application:
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do not	wish to be heard in support of my submission
(Pleas	e tick one)
Ву арреа	ring personally
being	represented by the following person:
Date 15/01/2018	Signature Cluoteto

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

CARTER CORPORATION PTY. LTD.

42 Trembath Street, Bowden SA 5007
Ph. (08) 8346 2999 Fax. (08) 8346 3888
Email: cartercorp@chariot.net.au Web: www.cartercorporation.com.au
ABN 58 007 881 763

ASBESTOS REGISTER ANNUAL UPDATE

REGISTER NO.:

AS 2203

PROPERTY NAME (if applicable):

PROPERTY ADDRESS:

2 & 16-22 Hutt Street

Adelaide, SA

CLIENT:

2-20 Hutt Street Pty Ltd

PROPERTY OWNER (if known):

2-20 Hutt Street Pty Ltd

REGISTER CONTROLLER:

Mr Michael O'Connor

BUILDING INSPECTOR:

George Sheaffer

ORIGINAL REGISTER DATE:

October 1996

THIS ANNUAL UPDATE DATE:

September 2010

NEXT ANNUAL UPDATE DUE:

September 2011

MANAGING ASBESTOS IN PLACE - MADE SIMPLE

HOW TO COMPLY WITH THE OCCUPATIONAL HEALTH SAFETY AND WELFARE REGULATIONS 4.2.10

- MANAGING YOUR RISK -

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ABN 58 007 881 763

2010 ANNUAL COMPLIANCE AUDIT

- Q1 Was a copy of the Site Register available on-site as required by the regulations?

 No, the site register was not located on site. Recommend qualify location and replace/update as necessary.
- Q2 Are regulations referred to in the original asbestos register? Yes.
- Q3 Were there adequate facilities to record asbestos related work, access, or maintenance information as required by the regulations?

 No, as register not located on site, recommend instigate hazard management procedures to enable correct documentation of asbestos related work.
- Q4 Were necessary / adequate Caution Signs visible?
 Yes
- Q5 Were any asbestos containing materials removed and <u>not</u> recorded in the register since the last inspection?

 No, nil asbestos containing materials were removed since the last inspection.
- Q6 Are any hazard management recommendations required to be carried out? Yes, to enable compliance on-going policies and procedures must be maintained to ensure that all "reasonably practicable" steps are taken to eliminate or minimize the possibility of asbestos exposure.

GENERAL REQUIREMENTS

- This update is a visual re-inspection of previously identified asbestos materials listed in the original October 1996 register, and is not a full inspection of the building. Consequently, this update report may not disclose all asbestos materials within the property. All original conditions, limitations, and recommendations apply.
- It is the responsibility of the owner to comply with the OHS&W Act & Regulations including the implementation of recommendations made in this report.
- It is also the responsibility of all employers, tenants, occupiers, contractors and employees to comply with the OHS&W Act and Regulations. Safe working practice is everyone's responsibility.
- A copy of the register and any alterations or updates made to this register from time to time
 are required to be made available to the occupier of the building. As a minimum the register is
 required to be updated at least annually, or if recommended, more frequently, to maintain
 compliance to the regulations.

NEXT UPDATE INSPECTION IS DUE:

September 2011

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LOCATION – DESCRIPTION	EXTENT	ASBESTOS ASSESSMENT	CONDITION	SAMPLE NO. or VISUAL TEST	SIGNAGE STATUS	SURVEY FINDINGS and HAZARD MANAGEMENT RECOMMENDATIONS
PROPERTY - EXTERNAL -						
No. 2 Hutt Street Building - EXTERNAL						
No inspection.	1	1	1		j	No inspection carried out as no asbestos was noted in the original register/past updates. Refer also notes below.
No. 2 Hutt Street Building - INTERNAL -						R
Register page 4, Item 2, First Floor, Female & Male toilets accessed from the northern stairwell, cubicle partitioning – compressed fibre cement thick-sheet.	Approx 5m² visible	Chrysotile asbestos detected	Stable	Original register sample no. 6 (10/1996)	Specific caution signs visible on item.	Avoid physical and mechanical damage. When maintenance/upgrade is required, recommend removal and reinstate with non-asbestos product.
No. 16-22 Hutt Street Building – INTERNAL / EXTERNAL -				e e		
No inspection.	,		I			No inspection carried out as no asbestos was noted in the original register/past updates. Refer also notes below.
HISTORICAL INFORMATION – No Further inspection has been undertaken to the following items from the original register / past updates. Items have since been either removed or confirmed as non-asbestos by sample analysis since original register created.						
No. 2 Hutt Street Building - INTERNAL -						
Register page 4, Item 1 Plant room – APAC heat pump unit – light grey mastic sealant to air conditioning ductwork joints and associated flashings.		Chrysotile asbestos detected	t.	Original register sample no. 7 (10/1996)	None visible	On inspection 2009 documentation dated 2002 confirmed item removed. Documentation held in asbestos file with Barry Parsons.

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may not disclose all asbestos materiais within the property	मु, श्री क्रांग्राह्म व्वावीत	ons, limitations, and rec	ommendations apply.	Inspection carried on	r in accordance with Ca	ter Corporation P.L. standard asbestos registar.
LOCATION – DESCRIPTION	EXTENT	ASBESTOS ASSESSMENT	CONDITION	SAMPLE NO. or VISUAL TEST	SIGNAGE STATUS	SURVEY FINDINGS and HAZARD MANAGEMENT RECOMMENDATIONS

ANNUAL UPDATE INSPECTION SPECIFIC NOTES

which historically have or can contain asbestos. The "presumed asbestos content" is determined by various criteria such as but not limited to type Items listed within the Register as "visual" have not been sampled to confirm an asbestos content. These items have been identified as materials of material, age of building, similar products, and the experience of the surveyor. All materials which have been listed as visually identified within this register must be treated as asbestos unless proven otherwise by sample analysis. It is recommended that all materials are sampled in order to qualify.

The register and updates are required to be maintained for a

records are kept upon works carried out on asbestos.

The register controller is to ensure access and maintenance

Ensure copy of register is available on site as required.

Register requirements:

Recommend tenants, employees, contractors and occupiers

The register is required to be updated at least annually.

period of 40 years after the date of the last entry.

are trained in asbestos awareness and use of the asbestos

egister including hazard management procedures.

2008 ANNUAL UPDATE INSPECTION SPECIFIC NOTES -

After on site de brief with Barry Parsons, all mastic materials around duct work and flashings must be treated as asbestos containing unless the exact description can be ascertained

2007 ANNUAL UPDATE INSPECTION SPECIFIC NOTES

As last year, extent & or actual location of suspect asbestos containing air conditioner ductwork not located (discussed with Barry Parsons). Recommend access with caution (see item 1).

2006 ANNUAL UPDATE INSPECTION SPECIFIC NOTES -

regulation references and standard conditions were highlighted. All conditions / limitations per original register apply.

The old register by others including the current update by CC have been bound into the new register document to provide all documented history Whilst a new inspection on the entire building was not performed, a new register document was provided as part of this update to ensure current This annual update based upon items listed in the register provided by the client reference DJF Asbestos & Environmental Surveys, report number 105 dated October 1996, and inspection was performed only to the items on page 4 & 5 listed in this register.

A main electrical switchboard cabinet (LAI industries) was noted on the front wall with reference date 1999, assumed non-asbestos panel internal. The mechanical services (air-conditioning) contractor was contacted to provide further information (Mechanical Building Services ph. 8240 0377) about the building history for item 1 – Liz confirmed that the air-conditioning in the plant room was installed new in 1999 following building

ORIGINAL REGISTER INSPECTION NOTES

Refer DJF Asbestos & Environmental Surveys, report number 105 dated October 1996. The original register inspection noted the following:

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GENERAL NOTES

- disturbing or dismantling these materials. Should asbestos or suspected asbestos containing materials be detected then consult register controller recommended to access these items with caution if working on or in the vicinity of, using an asbestos safe work method as a pre-caution when components, behind electrical panels, to porcelain electrical fuse holders, oyster type light fittings, service conduits and pits, wiring and cable trays and risers. No inspection is carried out to pipe-work chases, wall and column cavities, above flush panel cellings, underground services, * No inspection carried out (unless specifically noted otherwise) to inaccessible areas and items such as - Internal of plant / equipment / airconditioning ductwork / heater banks, ductwork mastic, electrical and service components such as internal of hot water service units, switch Asbestos containing materials may be part of the above items and as a 'visual only / non-destructive' inspection has been performed it is beneath floor coverings / under floor spaces, window and control joint putty, lost formwork and floor / beam packers etc. and revise work methods accordingly.
 - * Specifically no inspection has been conducted (unless otherwise stated) to the internal of air-conditioning systems to identify the extent / location contractor. If heater-banks are detected, they are to be inspected only under strict asbestos conditions. Recommend engage a competent person of any heater bank units (if any). As this is an area that is inaccessible and may contain an asbestos insulation, it is recommended that the client and to instigate hazard management to minimise the potential for disturbance within the duct whilst accessing, assessing, and/or sampling. All (according to the OHS&W regulations) to assess, in particular, the possibility of "Millboard" type asbestos lining to the internal of the ductwork, work to be in conjunction with the mechanical services contractor who can locate possible additional units, and isolate and dismantle the "live" heaterbank unit(s) to enable access within the units for assessment. qualify air conditioning heaterbank locations (whether redundant or operational) with their nominated mechanical services / air-conditioning
 - * Recommend treat all suspect materials as asbestos containing when carrying out works. Material can be sample analysed upon major works to confirm content. Samples taken in certain locations may not necessarily be indicative of similar looking items for the entire building. Sample results are indicative of the specific area from which they were taken. Refer to section 6 of this register for sample analysis details.
 - * Treat all vinyl floor products, bituminous containing products, cement sheet products, window, air conditioning ductwork and control joint putty and all gaskets (other than rubber and cork) and friction materials as asbestos containing unless confirmed otherwise by sample analysis. Treat all fire rated doors as having an asbestos internal core unless confirmed otherwise.
 - * It is possible upon building works / demolition to encounter unidentified or undetected asbestos material. Access with caution and consult register controller and implement revised safe work procedure. If major demolition works are planned, it is recommended to conduct a 'destructive' type inspection incorporating additional / unrestrictive sample analysis.
- * It is recommended to wear suitable personal protective equipment (PPE) including respiratory protection when entering all ceiling and confined spaces as a minimum pre-caution.
- Standard Operating Procedures. Subsequently no inspection has been performed to ceiling height and roofing heights greater than 3m unless site * Inspections are conducted based upon the inspector performing and completing a job safety analysis / risk assessment prior to commencement of the inspection to ensure work is carried out in accordance with the relevant Occupational Health, Safety and Welfare regulations and company specific safe access systems have been made available. No inspection has been performed to operating / in service plant and equipment.
 - * Although no specific inspection for SMF (Synthetic Mineral Fibres) such as has been conducted, recommend all works on SMF be performed in accordance with the "Approved Code of Practice for the Safe use of Synthetic Mineral Fibres".

Access these areas with caution as may contain suspect asbestos containing materials.

If any unknown / undetected materials encountered, consult the register controller, conduct risk assessment and implement safe work procedures as necessary.

All work is to be carried out in accordance with the OHS&W regulations and the approved 'Code of Practice'.

This register extract schedule is to be read in conjunction with the Carter Corporation Pty. Ltd. standard asbestos register in full. Refer also to page 3 for constraints and qualifications.

Asbestos Removal Regulations in SA require any work on greater than 10m² of non-friable and greater than half a square metre of friable asbestos containing material to be carried out by a licensed removalist. As part of licensed removal work an application and approval from SafeWork SA is required prior to commencing every individual job. Air monitoring equipment is also required to provide scientific evidence the removal zone is safe to re-occupy.

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

	Rymilli Park Apartments P/L & Rymill Park Apartments Unit Trust c/- Future Urban Group
evelopment Number:	020/A081/17
Nature of Development:	Demolition of existing office building and the construction of a 16 level mixed use building (including mezzanine) comprising a ground floor restaurant, and 38 dwellings with associated common areas, car parking and servicing
Type of development:	Merit
one / Policy Area:	City of Adelaide - Capital City Zone
ubject Land:	2-6 Hutt Street, ADELAIDE
ontact Officer:	Brett Miller
none Number:	8343 2988
ose Date:	15 January 2018
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	Postal address: Postcode
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heard in support of your su	ubmission.
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Attn: Brett Miller Via The Secretary State Commission Assessment Panel GPO BOX 1815 Adelaide SA 5001

Via email: Brett.Miller@sa.gov.au

Dear Brett,

CATEGORY 2 REPRESENTATION FOR DEVELOPMENT APPLICATION 020/A081/17 AT 2-6 HUTT STREET, ADELAIDE

I write as the owner of Apartment No2 at 82 East Terrace, Adelaide which is located directly east of the development proposed at 2-6 Hutt Street, Adelaide (Development Application 020/A081/17).

82 East Terrace, Adelaide is located within the City Living Zone and is the property most affected by the proposed development.

The purpose of this representation is to convey my full support to the State Commission Assessment Panel. I am encouraged by the significant investment to be made and the high-quality design outcome that will be achieved. The applicant should be commended for obtaining the Pre-Lodgement Agreement from the Office of Design and Architecture

Whilst the height of the building exceeds 22 storeys, the proposal satisfies the important tests set out under PDC 21. Furthermore, the proposal has clearly demonstrated a significantly higher standard of design outcome in relation to qualitative policy provisions of the Development Plan. The Pre-Lodgement Agreement reached confirms that design excellence has been achieved particularly in relation to pedestrian amenity, activation, sustainability, public realm and streetscape contribution, site configuration, the desired future character of the area and impact on adjacent conditions.

The overall height, scale and massing of the building is totally appropriate along this part of East Terrace adjacent to the Park Lands (north facing) and the landmark qualities of the site. The development will sit comfortably in its existing and future context (where I note other developments have been approved and soon to be constructed at 297 Pirie Street and 292 Rundle Street). All these developments will take advantage of the Park Land asset and assist in framing East Terrace. I understand that the site is only one of three remaining development sites in the Capital City Zone with a northern orientation to the Park Lands. The proposal takes advantage of this unique circumstance.

The design and appearance of the development has also been very cognisant of the ground plane and its relationship/integration with both Hutt Street and Cleo Lane. All road frontages are attractive, active and pedestrian-oriented. I support the increased footpath width along East Terrace (and Hutt Street) and the generous offering by the applicant to increase the width of Cleo Lane into the site to support two way vehicular movement.

Together with the potential upgrade of Cleo Lane, the proposal will only impact positively on other properties fronting East Terrace. I welcome further engagement with the applicant in relation to some of the finer details of the Cleo Lane upgrade.

The applicant has also invested significantly in the environmental performance of the building. All apartments will be designed and certified to achieve an energy performance at least 30% which is better than the current Building Code minimum NatHERS rating of 6 Stars average. This represents a significant and unprecedented dwelling average NatHERS Rating of 8 Stars in the City of Adelaide.

Other characteristics of the proposal I support include, but not limited to:

- apartment sizes, balcony areas, storage and floor to ceiling heights which exceed the minimum guidelines;
- overall car parking, traffic and access and waste collection arrangements;
- the conditions within Cleo Lane from a traffic and access perspective;
- the safe environment the development will create for all users and surrounding residents/businesses;
- the way in which the development has been designed so that no unreasonable overshadowing, wind, noise or traffic impacts will be presented upon the locality;
- roof water will be re-used for irrigation of landscaping and green walls which will ensure their long-term sustainability.

I understand that the applicant has engaged with my neighbours. I support the applicant's responses to the issues they have raised to avoid detrimental interface issues with lower scale development in the City Living Zone.

Overall, I am very excited by this development for the City and urge the SCAP to grant Development Plan Consent.

Yours sincerely,

Mark Ebbinghaus

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymilll Park Apartments P/L & Rymill Park Apartments Unit Trust c/- Future Urban Group
Development Number:	020/A081/17
Nature of Development:	Demolition of existing office building and the construction of a 16 level
Nature of Development.	mixed use building (including mezzanine) comprising a ground floor
	restaurant, and 38 dwellings with associated common areas, car parking
	and servicing
Type of development:	Merit
Zone / Policy Area:	City of Adelaide - Capital City Zone
Subject Land:	2-6 Hutt Street, ADELAIDE
Contact Officer:	Brett Miller
Phone Number:	8343 2988
Close Date:	15 January 2018
My name: Micha	el Denis YOUNG
My phone number: 040	8 - 488 538
PRIMARY METHOD(s) OF CONTACT:	Email address: Mike Young a adelaide edu au
. ,	Postal address: 88 East Terrace
	Adelaide SA Postcode 5000
	nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to
be heard in support of your subr	nission.
My interests are:	of local property
occupie	er of local property
a repre	sentative of a company/other organisation affected by the proposal
a priva	te citizen ,
The address of the property affected	is 88 East Terrace, Adelaide Postcode 5000
The specific aspects of the application	in to which I make comment on are:
I require fui	other in termation on the proposed
changes to	lleo Lane.
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to my garage	I need assurance that access arrangements will not be adversely a fected.
Should the State Commission Asses	sment Panel conduct a public hearing for this Development Application:
I wish	to be heard in support of my submission
do no	ot wish to be heard in support of my submission
(Plea	se tick one)
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By appe	aring personally
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	represented by the following person:
(Plea	se tick one)
Date 10 ///8	Signature M. W. Young
Return Address: The Secretar scapadmin@sa.gov.au.	ry, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or

15 January 2018 17-057let01

Mr B Miller
Team Leader – CBD and Inner Metro
State Commission Assessment Panel
GPO Box 1815
Adelaide SA 5001



Planning Chambers Pty Ltd

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Office

08 8211 9776

Email Fax

admin@planningchambers.com.au 08 8212 5979

ABN 54 093 576 900

Dear Brett

Re: 020/A081/17 - 2-6 Hutt Street, Adelaide

I write on behalf of Mr Ray Khabbaz, an adjoining owner to the abovementioned development application for a 16 level mixed use building.

Mr Khabbaz is the owner and occupier of the dwelling at 83 East Terrace, which adjoins the eastern boundary of the subject land. Mr Khabbaz and his wife have enjoyed the past 11 years living in East Terrace and intend on spending many more years during their retirement within this premium residential area of the city. They welcome the development of the subject land and look forward to sharing the unique residential park land setting with their future neighbours. They do however have concerns that the scale and intensity of the proposal is such that it will significantly impact upon and detrimentally alter the current high level of amenity that is enjoyed by them and their neighbours and which makes this part of the city a desirable location for developments such as that proposed.

Given the height and density of the proposal along with the proximity of the proposed development, in particular the loading dock and car park access, to Mr Khabbaz's rear courtyard and dwelling there is a real concern that the proposal will forever reduce the level of residential amenity not only enjoyed by Mr Khabbaz but by all of the dwellings within the adjoining City Living Zone.

Mr Khabbaz's principal concerns are further outlined below but can be summarised as being:

- the scale and intensity of the development within the interface adjoining the City Living Zone;
- noise impacts from traffic, waste collection, operation of the restaurant and plant and equipment;
- increased levels of traffic within Cleo Lane including waste trucks and service vehicles;
- appropriateness of the access to the site from Cleo Lane given the current level of congestion along Bartels Road;
- odour from the restaurant, waste storage room and grease traps;
- overlooking into the rear courtyard and bedroom and living room windows from the eastern units; and
- the lack of information regarding the above matters and other key elements of the proposal.



The above matters are explored in further detail below.

Scale and Intensity of development

The subject land is located on the eastern edge of the Capital City Zone, with the zone boundary running along the western edge of Cleo Lane. The residential properties fronting East Terrace to the east of the subject land are located within the City Living Zone.

It is acknowledged that the Development Plan seeks a high level of activity and density of development within the Capital City Zone, which the proposal seeks to achieve through the 18 levels of residential, commercial and car parking proposed. The Development Plan however is clear in seeking a reduction in height and intensity at the interface with the City Living Zone. The Building Height Concept Plan Figure CC/2 within the Capital City Zone shown in Figure 1 below articulates the desired reduction in intensity from the Central Business Policy Area (no height limit) down to 53 metres, then 22 metres for the subject land and 14 metres for the properties along the adjacent portion of East Terrace. The proposal has a height of 53 metres.

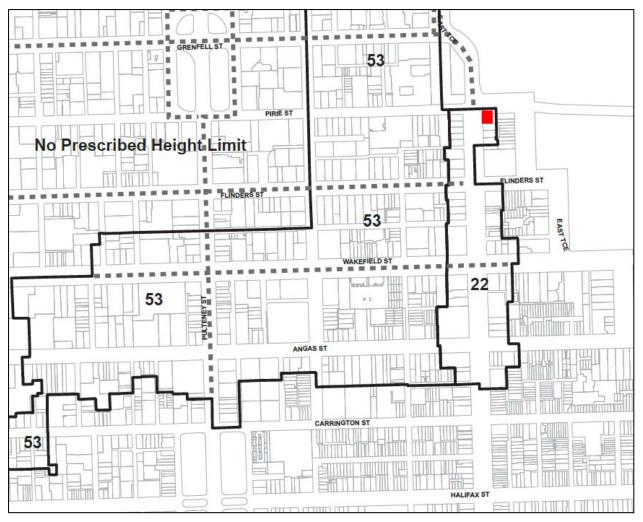


Figure 1: Building Height Concept Plan Figure CC/2



The 22 metre maximum height area is limited to the depth of a single allotment either side of Hutt Street, from Pirie Street to just past Angas Street (the southern edge of the Capital City Zone). The designation of this portion of the city at the lower height of 22 metres cannot be ignored. This area forms the buffer and transition in scale between the more intensely developed centre of the city to the west and the lower scale, predominately residential area along East Terrace.

The desired reduction in the intensity of development is supported by Capital City Zone Principles of Development Control (PDC) 23 and 25 and Council Wide Objective 47 and PDC's 173 and 270. The assessment of the proposal against these provisions within the planning report accompanying the proposal is considered to be inadequate, particularly given the proposed height of 53 metres is almost 2.5 times greater than the desired height of 22 metres. The discussion provided in relation to Zone PDC 23 comments only on the height of the building and lacks any consideration of the amenity impacts which will arise from the intensity of residential development proposed.

23 Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity.

It is noted that the applicant has drawn on a number of recently approved developments within the eastern portion of the city to support the additional height. Whilst two of these are located within the 22 metre height area none are located in an interface or transition area adjacent a lower scale residential area such as the City Living Zone. Both examples along Hutt Street, with approved heights of around 40 metres, are located on the western side of Hutt Street adjoining the 53 metre height area to the west. In both of those instances the buildings provide a transition up to the adjoining taller building area to the west as sought within the Development Plan. The subject proposal does not provide any such transition; instead it will result in a significant deviation from the overall form and height of the city as sought within the Development Plan.

In my opinion the proposal has not adequately demonstrated that it satisfies the grounds for additional height within Zone PDC 21 or addressed the potential impacts upon the adjoining City Living Zone which the Development Plan describes as 'Adelaide's main residential living district(s)'. The impact of the additional 9 levels of residential units over and above the maximum height of 22 metres and the increase in movements and activity which will result from the additional building height is of significant concern to Mr Khabbaz and will potentially leave the door open for additional over height developments in the future.

Noise

It is noted that a preliminary acoustic report has been provided with the application documents. Consideration has been given within the report to ensuring that an appropriate acoustic environment can be provided for future residents. A lesser degree of attention has been paid to the external impacts of the proposal on adjoining residents. The report does not adequately consider or address the potential impacts on adjoining residents of noise from:

reversing and idling waste trucks and service vehicles;



- movement and handling of bins and unloading of waste into the waste trucks;
- opening and closing of the two car park roller doors, particularly at night;
- noise from plant and equipment including mechanical ventilation of the car park, waste room and kitchen; and
- noise from the operation of the restaurant.

Further consideration of these aspects is requested, particularly given the location of the subject land on the interface with the City Living Zone and the desire of the Development Plan to ensure the ongoing amenity of adjoining residential properties.

Traffic and access

The applicant proposes to utilise Cleo Lane at the rear of the site for all vehicle access and servicing of the 220m² restaurant, 38 residential units and 56 car parks. Cleo Lane is a private lane owned by the properties at 82, 83 and 84 East Terrace. The subject land has rights of way over a 3.05 metre wide portion of the lane immediately adjoining the subject land. The ground floor is proposed to be setback 3 metres from the boundary to provide additional width to the laneway.

The applicant's planning report describes the 3 metre rear setback as a "generous contribution to the public realm", neglecting the fact that the setback is essential to provide the required level of access to the development. It is also noted that the setback falls short of the minimum 3.5 metres sought by Council Wide PDC 246 so as to provide an overall width of 6.5 metres to allow for adequate and safe access. It is also noted that the applicant has not committed to providing rights of way to adjoining properties over the 3 metre setback. Without such rights the setback area can not legally be used by any of the properties along Cleo Lane for access.

Council Wide PDC 251 notes that car parking should be located and designed so as to provide amongst other things safe and convenient access as well as 'minimise adverse impacts on adjoining residential properties in relation to noise and access and egress'. The use of the rear lane for all access and servicing will result in both resident's cars and service vehicles having to stand within the lane whilst waiting to access the site or load/unload. This will result in delays to the 22 residential car parks which currently utilise the lane.

Mr Khabbaz and his family have firsthand experience of the difficulties in accessing and exiting Cleo Lane onto Bartels Road, particularly during the peak periods. Traffic backs up a significant distance along Bartels Road to the east blocking access to Cleo Lane as shown in the picture below (taken outside of the morning peak). The nature of the intersection of Hutt and Bartels is such that left turning traffic travel along the inside lane of Bartels Road at speed making the left turn into the site difficult, as vehicles behind misread the situation thinking that the vehicle ahead is indicating to turn left into Hutt Street at the lights. The queuing of traffic also means that vehicles are held up within the lane waiting to exit. This occurs frequently with only 22 residential car parks using the lane; the additional 56 car parks proposed will exacerbate this situation. The added complication of waste and service vehicles parking in the lane along with cars waiting to access the car parking results in additional complications and delays within the lane.

Whilst it is acknowledged that the general preference from an urban design and public realm perspective is for development to utilise rear laneways and minor streets for access where available it is noted that this notation is predicated within Traffic and



Vehicle Access PDC 241 to occur only where 'residential amenity is not unreasonably affected'. The applicant has not adequately demonstrated that this is the case in this instance.



Figure 2: Traffic queuing across the entrance to Cleo Lane, taken 10am Friday 12 January.

Given the difficultly of accessing Cleo Lane and the impact that the use of this lane will have upon adjoining residents for all access and servicing it is suggested that an alternative access, for part or all of the proposed residential parking, should be considered from Hutt Street in this instance.

Odour

No details of potential odour sources or the treatment of such impacts have been provided within the application documents. Council Wide Waste Management PDC 104 requires that development which includes a restaurant component demonstrate that they will not 'cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality'.

Further details of how odour impacts will be prevented within the proposal are required before a decision can be made on the application by the Commission.

Privacy

A number of dwellings fronting East Terrace to the west of the subject land, including Mr Khabbaz's dwelling, have internal west facing windows and private courtyards which will be overlooked by windows and balconies on the eastern façade of the proposed building.

The application documents have not demonstrated that overlooking will be adequately prevented or restricted so as to satisfy Council Wide PDC's 60 and 66 which seeks to prevent overlooking from medium to high scale residential development into adjacent development.



The courtyard at the rear of 83 East Terrace provides the only private outdoor area for the enjoyment of Mr Khabbaz and his family. It is adjoined by the main internal living area at ground level with a balcony and master and second bedrooms at the upper level. All of these areas will be overlooked from the living areas, bedrooms and terraces/balconies of the eastern units on all of the 12 residential levels. Whilst it is acknowledged that the degree of overlooking will diminish at the upper levels as the separation distance increases the perception of overlooking from all 12 levels, and the looming nature of a development of that height, will remain along with the direct overlooking from the lower levels as shown within the attached cross section.

The upper level balcony and bedroom windows will also be directly overlooked from the north eastern balconies on the lower levels given the direct line of sight from those balconies past the side of the rear garage on Mr Khabbaz's property as shown in Figure 4 below.



Figure 3: Location of subject land relative to rear courtyards and windows of adjacent dwellings.





Figure 4: View from the upper level balcony of 83 East Terrace looking west towards the rear garage/studio with the subject land behind and visible to the right through the gap between the dwelling and the garage.

Further information

As noted above the proposal is lacking in detail in a number of areas. The following additional information is considered to be required prior to any further assessment to ensure that the proposal adequately satisfies the relevant Development Plan provisions:

- location of mechanical plant and equipment including air conditioning and venting of car parking areas, waste room and kitchen (noting the reference on page 9 of the building services report to a plant room at the rear of the mezzanine for the restaurant and bar which is not reflected upon the floor plan);
- · Consideration of odour impacts;
- Legible overshadowing diagrams;
- Swept path diagrams showing ability of waste trucks and service vehicles to access the rear lane and for vehicles to safely pass a waiting vehicle;
- Frequency and length of stay of waste trucks and service vehicles visiting the site and impact on access to adjoining properties within the rear lane;



- Consideration and demonstration of how vehicles will pass a car waiting within the lane including sufficient clearance to Bartels Road and suitable visibility of the waiting car for vehicles turning into the lane;
- Consideration of the likely wait times for vehicles exiting the lane during peak times given the continual backup of traffic along Bartels Road and the impact that this will have on the current users of the lane (22 residential car parks);
- Safety of accessing the site from the lane given the level of traffic along Bartels Road during peak periods and the speed of vehicles in the left turning lane on to Hutt Street adjacent the site;
- Details of the restaurant including proposed number of patrons;
- More detailed assessment of potential wind impacts upon the rear lane, including a consideration of the level of impact without the proposed pergola structure;
- Commitment, and demonstration of the ability, to keep the rear lane open at all times during construction;
- Commitment to the preparation of a dilapidation report for all adjoining properties;
- Amended plans removing the encroachment over the adjoining properties to the east of the extension of the concrete floor slabs on levels 4 to 14;
- Details of the proposed alterations within Cleo Lane; and
- Clarify what rights of way will be afforded to the dwellings on the eastern side of Cleo Lane over the 3 metre setback at the rear of the building.

Given the breadth of the matters above we request that this information be provided to the State Commission by the applicant and the matter renotified to allow adjoining neighbours to adequately review and consider the information provided and comment on the true severity of the impacts upon their dwellings.

Mr Khabbaz is willing to meet with the applicant and the design team to discuss any and all matters including the proposed alterations to Cleo Lane. I would be happy to arrange such a meeting and hope that the applicant would be amendable to such discussions.

Conclusion

Whilst the Capital City zoning of the subject land and the desire for medium to high density development within that zone is acknowledged the proposal does not adequately address or accommodate the interface with the City Living Zone and existing low scale residential development to the east. The proposed height of 53 metres is significantly greater than the 22 metre height envisaged for this part of the city. The Development Plan clearly seeks a reduction in both scale and intensity from the central business area down to the long established residential area along East Terrace. The proposal does not provide for this transition; instead it seeks even greater height and intensity which will ultimately result in an unacceptable level of pressure upon a narrow private lane.



The location of all access and servicing from the private rear lane will result in an unreasonable level of impact upon the amenity and movement of adjoining residents to the rear. The applicant has not provided a sufficient level of information or consideration of the potential impacts to prove that the interface requirements have been adequately addressed. We ask that this information be requested of the applicant and circulated for further review and comment by all affected stakeholders.

As noted above Mr Khabbaz wishes to extend an invitation to the applicant to discuss the above matters so as to achieve a harmonious outcome with a development which will provide the high quality outcome clearly sought by the applicant whilst not coming at the expense of the level of amenity enjoyed by current and future neighbours.

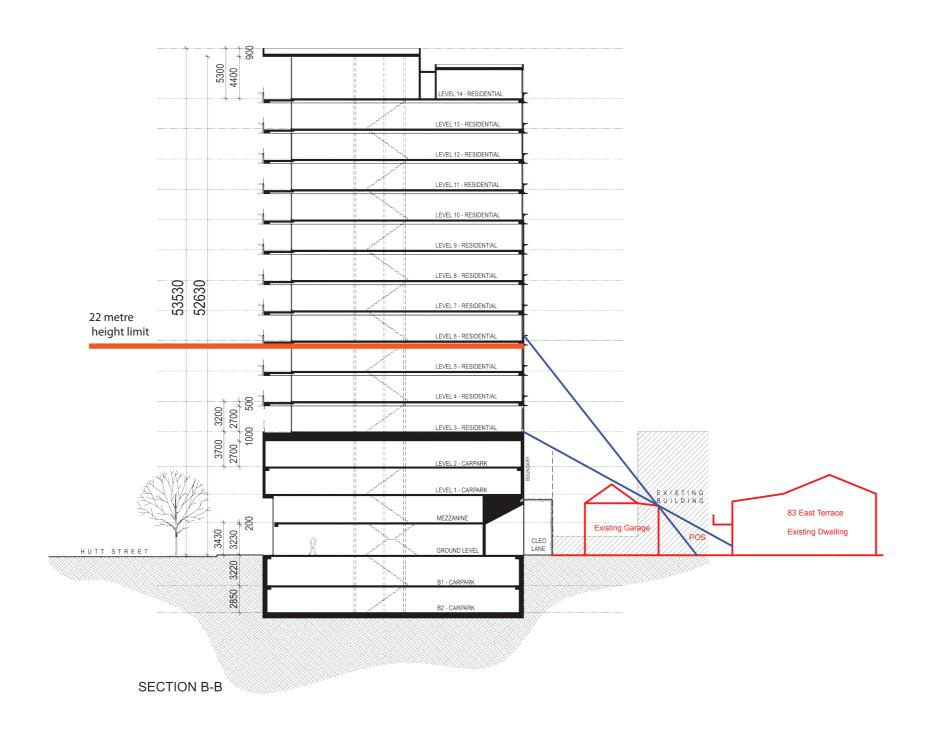
Mr Khabbaz wishes to be heard before the State Commission Assessment Panel when the matter is considered.

Should you require any further details or clarification please contact the undersigned on phone (08) 8211 9776.

Yours sincerely

Damian Dawson

Associate





SCALE 1:400 @ A3

Adapted from Section B-B by Tectvs Architects



Potential overlooking Proposed deve

OVERLOOKING CROSS SECTION

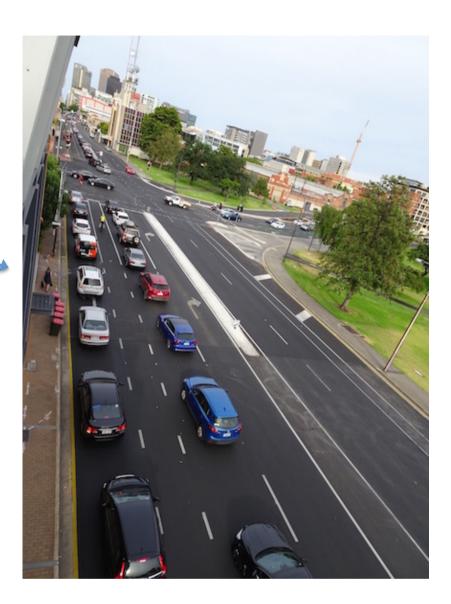
Proposed development at 2-6 Hutt St overlooking 83 East Terrace, Adelaide 17-057.01 JANUARY 2018

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymill Park Apartments P/L & Rymill Park	Apartments Unit Trust c/-
Development Number:	Future Urban Group 020/A081/17	
Nature of Development:	Demolition of existing office building and t mixed use building (including mezzanine) restaurant, and 38 dwellings with associat and servicing	comprising a ground floor
Type of development:	Merit	
Zone / Policy Area:	City of Adelaide - Capital City Zone	
Subject Land:	2-6 Hutt Street, ADELAIDE	
Contact Officer:	Brett Miller	
Phone Number:	8343 2988	
Close Date:	15 January 2018	
My name: Tomoko Naka	yama and Akira Nakayama	
My phone number: $+61 \ 43^{\circ}$	9 850 737	
PRIMARY METHOD(s) OF CONTACT	,	
	Postal address: 3-82 East Terrace Add	elaide SA
		Postcode5000
occup a rep a priv	r of local property ier of local property resentative of a company/other organisation affected by ate citizen 3-82 Fast Terrace Adelaide SA	5000
The address of the property affects	d is 3-82 East Terrace Adelaide SA	Postcode 3000
The specific aspects of the applicat	on to which I make comment on are:	
	ement of the Cleo Lane. As I explained in the	
ooth drivers as well as pedestrease the difficulties of the income	consuming even with current small number of the Lane exit. The point of the Lane exit. The point drivers to the Lane, but will not work for the already very short distance between the consumer of the consum	oroposed two-lane approach may For the outgoing cars because the
1	tical (as explained in the photo 3). With this	
	y to a driver at the Lane exit is unrealistic. C	
1 0	afety issues. As changing the plan is almost:	1
	t any compromise from the beginning. Con	
	ssment Panel conduct a public hearing for this Develop	
do n	to be heard in support of my submission ot wish to be heard in support of my submission use tick one)	→ The only viable solution for this building is to make a driveway facing Hutt St. The short distance problem of this drive way to the Hutt St.
	earing personally	intersection will be solved by th
	g represented by the following person:	left-turn only driveway.
-	se tick one) Signature	T-6 -9-
Date <u>13/01/2018</u>	Signature	

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

East Terrace Morning Traffic Photo-1



East bound morning traffic in front of 2 East Terrace.

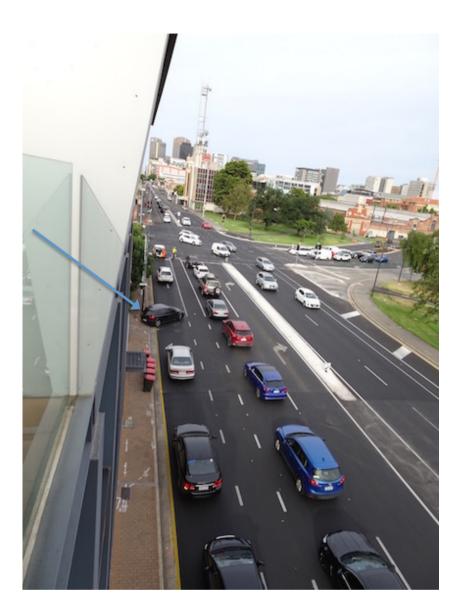
- Arrow
 indicates the Cleo Lane exit.
- A pedestrian heading toward the Hutt St intersection is approaching to the lane where an outgoing car is trying to exit
- East-bound Hutt St traffic signal is red and cars in the left-turn lane are in station.

East Terrace Morning Traffic - Photo 2



• The pedestrian has walked away (see arrow) from the lane exit but the waiting car in the lane cannot move as traffic starts moving with green signal.

East Terrace Morning Traffic Photo-3



- The white car in the left-turn lane gave way to the waiting car in the lane.
- As the distance from the lane exit to the intersection is so close (only 50 steps) most cars in the left-turn lane do not give way to a waiting car in the lane even when they are waiting at the red signal, let alone at the green signal.
- With the proposed extended 2 lane system, the distance between the intersection and the lane exit gets shorter imposing more difficulties for the Cleo lane cars to exit.
- Watching pedestrians approaching to the lane exit from both ways adds more difficulties.



22 December 2017

Ms Y Nakayama and Mr A S McFarlane and Ms H J McFarlane 1/82 East Tce ADELAIDE SA 5000 Level 5, 50 Flinders Street Adelaide SA 5000

GPO Box 1815 Adelaide SA 5001

Telephone: 08 7109 7060 ABN 92 366 288 135

http://www.dpti.sa.gov.au

Dear Sir or Madam

Application Number:

020/A081/17

Applicant:

Rymill Park Apartments P/L & Rymill Park Apartments Unit

Trust c/- Future Urban Group

Proposed Development:

Demolition of existing office building and the construction of a 16 level mixed use building (including mezzanine) comprising a

ground floor restaurant, and 38 dwellings with associated

common areas, car parking and servicing

Subject Land:

2-6 Hutt Street, ADELAIDE

As an adjoining owner/person potentially affected by the above development application, you are invited to view details of the application and make comment.

The application may be examined between 2 January 2018 and 15 January 2018 during normal business hours at the office of the State Commission Assessment Panel (SCAP), Level 5, 50 Flinders Street, Adelaide and at the office of the City of Adelaide. The application documentation is also available on the SCAP website http://www.saplanningcommission.sa.gov.au/scap/public notices.

If you wish to comment on the application please complete the attached form. This must reach the Secretary, State Commission Assessment Panel, GPO BOX 1815, Adelaide SA 5001 by no later than Close of business **15 January 2018.**

You may be given an opportunity to appear before the SCAP to further explain your views. You will be contacted should a hearing be arranged.

If you have any questions relating to this matter please contact Brett Miller of this office by telephone on 8343 2988 or email brett.miller@sa.gov.au.

Yours sincerely

Mark Adcock

A/UNIT MANAGER - DEVELOPMENT ASSESSMENT

as delegate of the

STATE COMMISSION ASSESSMENT PANEL

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymill Park Apartments P/L & Rymill Park Apartments Unit Trust c/-
Development Number:	Future Urban Group 020/A081/17
Nature of Development:	Demolition of existing office building and the construction of a 16 level
Matare of Bevelopment.	mixed use building (including mezzanine) comprising a ground floor
	restaurant, and 38 dwellings with associated common areas, car parking
	and servicing
Type of development:	Merit
Zone / Policy Area:	City of Adelaide - Capital City Zone
Subject Land:	2-6 Hutt Street, ADELAIDE
Contact Officer:	Brett Miller
Phone Number:	8343 2988
Close Date:	15 January 2018
My name: ANDROW	MCFARLANIS
My phone number: 0412	291 807
PRIMARY METHOD(s) OF CONTACT:	Email address: ANDEW & MOMERITUM BA, COM
Transmitt METHOD(a) of continer.	
	Postal address: PO BOX 2618
	KENT TOWN SA Postcode 507
	ominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish
be heard in support of your subm	ission.
My interests are:	
	f local property
occupier	of local property
a repres	entative of a company/other organisation affected by the proposal
a private	citizen
	CHACH
The address of the property affected i	s 1/82 (5078) TCLE ADELANTS Postcode 5000
The specific aspects of the application	to which I make comment on are:
SEE AMNEUN	D DOCUMENT
Should the State Commission Assessn	nent Panel conduct a public hearing for this Development Application:
I wish to	be heard in support of my submission
	wish to be heard in support of my submission
(Please	tick one)
By appeari	ing personally
being re	epresented by the following person:
(Please	tick one)
Date 12 1 18	Signature /

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

Andrew McFarlane

From:

Andrew McFarlane

Sent:

Wednesday, 10 January 2018 11:11 AM

To:

'chris@futureurbangroup.com'

Subject:

FW: 2 Hutt Street Development - Confidential

Hi Chris,

Stephen Connor passed on your contact details to me.

I believe you are also doing some work for Bene Aged Care re some council issues, I am the CEO of Bene Aged Care.

The reason for my email, is in relation to the above development and I live at 1/82 East Tce Adelaide, I have a couple of questions below for clarification arising from a meeting with the other owners at 82 East Tce Adelaide;

- Require constant access to Cleo Lane during construction
- No interruption to all utilities and services to 82 East Tce
- No structural damage to 82 East Tce or damage to the property
- What will the construction period be and work hours
- What is the planned hours for waste collection & restaurant waste management
- We need to ensure all safety requirements are met in relation to pedestrian, bike and vehicle at the Cleo Lane entrance
- Cleo Lane will have left turn only exit
- Where will all the plant & services be located and will there be noise & exhaust control
- We need privacy screening for our rear courtyard
- Ensure no changes to water pressure
- Shade impact of 82 East Tce using a solar panel system

The ultimate issue is around the Cleo Lane access and increased traffic etc. The preferred option would be to change the car access to enter/exit via Hutt Street.

Regards

Andrew McFarlane BEc, CPA, FAIM Life Member, FIML, MAICD Chief Executive Officer



Italian Benevolent Foundation SA Inc.

Phone: (08) 8131 2034 Fax: (08) 8131 2020

Email: Andrew.mcfarlane@bene.org.au

Web: www.bene.org.au

Attn: Brett Miller
Via The Secretary
State Commission Assessment Panel
GPO BOX 1815
Adelaide SA 5001

Via email: Brett.Miller@sa.gov.au

Dear Brett,

CATEGORY 2 REPRESENTATION FOR DEVELOPMENT APPLICATION 020/A081/17 AT 2-6 HUTT STREET, ADELAIDE

I write as the owner of 1/82 East Terrace, Adelaide which is located directly east of the development proposed at 2-6 Hutt Street, Adelaide (Development Application 020/A081/17).

82 East Terrace, Adelaide is located within the City Living Zone and is the property most affected by the proposed development.

The purpose of this representation is to convey my conditional support to the State Commission Assessment Panel. I am encouraged by the significant investment to be made and the high-quality design outcome that will be achieved. The applicant should be commended for obtaining the Pre-Lodgement Agreement from the Office of Design and Architecture.

Whilst the height of the building exceeds the areas maximum height, the proposal satisfies the important tests set out under PDC 21. Furthermore, the proposal has clearly demonstrated a significantly higher standard of design outcome in relation to qualitative policy provisions of the Development Plan. The Pre-Lodgement Agreement reached confirms that design excellence has been achieved particularly in relation to pedestrian amenity, activation, sustainability, public realm and streetscape contribution, site configuration, the desired future character of the area and impact on adjacent conditions.

The overall height, scale and massing of the building is totally appropriate along this part of East Terrace adjacent to the Park Lands (north facing) and the landmark qualities of the site. The development will sit comfortably in its existing and future context (where I note other developments have been approved and soon to be constructed at 297 Pirie Street and 292 Rundle Street). All these developments will take advantage of the Park Land asset and assist in framing East Terrace. I understand that the site is only one of three remaining development sites in the Capital City Zone with a northern orientation to the Park Lands. The proposal takes advantage of this unique circumstance.

The design and appearance of the development has also been very cognisant of the ground plane and its relationship/integration with both Hutt Street and Cleo Lane. I support the increased footpath width along East Terrace (and Hutt Street) and the generous offering by the applicant to increase the width of Cleo Lane into the site to support two-way vehicular movement. I welcome further engagement with the applicant in relation to some of the finer details of the Cleo Lane upgrade.

The applicant has also invested significantly in the environmental performance of the building. All apartments will be designed and certified to achieve an energy performance at least 30% which is better than the current Building Code minimum NatHERS rating of 6 Stars average. This represents a significant and unprecedented dwelling average NatHERS Rating of 8 Stars in the City of Adelaide.

I appreciate the time the applicant has taken to respond to a number of queries I and my neighbours have raised.

On Wednesday 12 January 2018, my neighbour and I had a lengthy discussion with the applicant's planning consultant, Mr Chris Vounasis of Future Urban Group. Below are the issues we raised with him direct and his responses.

1. Require constant access to Cleo Lane during construction

A Construction Management Plan ('CMP')will be prepared by the applicant which will deal with traffic management issues during construction. This will include vehicular access for residents who use Cleo Lane. At this early stage, we don't see why access would be restricted when both the East Terrace and Hutt Street frontages are available for construction services/activities and the like.

It is standard practice for the State Commission Assessment Panel ('SCAP') to include a CMP as a condition of the Development Plan Consent, if granted. The applicant has no objection if the SCAP wishes to formalise the above in its standard condition.

2. No interruption to all utilities and services to 82 East Terrace

A services and infrastructure report has been prepared by Lucid Consulting. Based on the findings of the report and the proximity of the site to all relevant services, the construction of the development will not interrupt utilities or services to 82 East Terrace.

3. No structural damage to 82 East Terrace or damage to the property

A dilapidation report will be prepared by the applicant which can be formalised as a condition of consent to protect 82 East Terrace.

4. What will the construction period be and work hours

All going well, construction is expected to commence by the end of the year with completion due in mid-2020. In accordance with the relevant EPA requirements, the builder will need to take all reasonable measures to minimise noise and to limit noise activities to between 7am to 7pm, Monday to Saturday.

5. What is the planned hours for waste collection & restaurant waste management

Waste collection (residential and restaurant) will occur outside morning and afternoon peak periods (i.e. not between 7am and 9am or between 3pm and 6pm). A condition of consent can formalise this.

6. We need to ensure all safety requirements are met in relation to pedestrian, bike and vehicle at the Cleo Lane entrance

As mentioned, Cleo Lane will be widened to support a two-lane, two-way traffic movement. Access to the basement carpark will be provided from Cleo Lane. The proposed single lane ramp access will be 3.6m wide (wall to wall) which is deemed compliant with AS2890.1 requirements for a single lane driveway/access point. The subject single lane ramp access will also be provided with a 4.0m kerb radius at ground level to facilitate efficient manoeuvring of an exiting vehicle such that there is no disruption to southbound traffic (or a vehicle waiting to enter the subject carpark). The arrangement is also safe for all types of users with respect to sightlines.

7. Cleo Lane will have left turn only exit

We can confirm that the proposal will maintain the Cleo Lane left turn only exit.

8. Where will all the plant & services be located and will there be noise & exhaust control

The plant area will be located on level 13 and air-conditioning units will be located centrally on the south elevation on each level. According to Sonus (the acoustic engineers engaged by the applicant), the designated location for mechanical plant provides shielding and a good separation distance to surrounding dwellings. As the layouts progress through the detailed design phase of the project, any necessary acoustic treatments will be incorporated into the design documentation to ensure compliance with the Environment Protection (Noise) Policy 2007.

9. We need privacy screening for our rear courtyard

As discussed, the above ground car parking levels are enclosed therefore overlooking from these levels to the ground level courtyard of 82 East Terrace would not be possible. The applicant is willing to investigate the provision of privacy screens for the apartments between levels 4 to 6 facing east to further mitigate overlooking. We understand it is these apartment levels that are of most concern to you.

10. Ensure no changes to water pressure

The site is afforded access to SA Water Corporation towns mains on all three street frontages (150mm diameter in Hutt Street and 100mm in both East Terrace and Cleo Lane). Given that the building is more than 8 storeys in height, to meet the Water Supply Code of Australia (WSA 03-2011) version 3.1 requirements, SA Water will require that the development is serviced by a minimum of a 200mm towns mains. Review of the SA Water Corporation Map indicates the presence of a 400mm trunk mains in Bartels Road which provides the feed to the 100mm towns water mains which passes the subject site. Given that the mains upgrade will be derived from the 400mm trunk main, it is expected that the 200mm towns mains will extend as a minimum just past the eastern boundary of the development site. Domestic Cold Water and Fire Services connections will therefore be positioned towards the eastern end of the site.

The fixture loading unit assessment for this development indicates that a 50mm water meter will be required to service the development. The water meter will be housed in a cast iron footpath box by SAWC in the footpath off East Terrace. The water meter will be positioned towards the eastern end of the site to suit connection to the proposed upgraded towns mains.

Respecting the above, existing water pressure to 82 East Terrace will not be affected.

11. Shade impact of 82 East Tce using a solar panel system

Shadow diagrams have been prepared and are included in the development application. On the winter solstice (when the sun is at its lowest angle) the proposal will only begin to cast a shadow over 82 East Terrace after 3pm meaning any solar panel system at 82 East Terrace will not be compromised.

12. Cleo Lane access and increased traffic (the preferred option would be to change the car access to enter/exit via Hutt Street).

As discussed, we originally proposed all access/egress via Hutt Street. Both the Adelaide City Council and SCAP did not support this arrangement and encouraged all access/egress to occur via Cleo Lane. The proposed carpark will require a signal system to control access, circulation on each parking level and egress from the carpark. InfraPlan (traffic engineers) have been engaged by the applicant to assess this system together with the access/egress arrangement and impact on Cleo Lane.

In their report InfraPlan have stated that an exiting resident, upon exiting from the lift on their parking level, will register an "Exit Call" using their remote access key. Once a "Green" signal is displayed the motorist will be able exit from their parking bay and start travel towards Ground Level. Priority will be given to entering vehicles to minimise impact on traffic movements in Cleo Lane.

In a scenario where an entering vehicle has already entered the ramp system, an exiting vehicle will be made to wait until the entering vehicle has reached its parking level and completed their parking manoeuvre.

An arriving vehicle will have a "Green" signal at all times except when an exiting vehicle has already registered an "Exit Call". In such a scenario (Red light for arriving vehicle), the arriving vehicle will register an "Entry Call" by using their remote access key. An arriving vehicle can wait in Cleo Lane allowing the exiting vehicle to exit safely.

InfraPlan have advised that the proposed development is estimated to generate 12 trips during morning peak hour and 10 trips during afternoon peak hour. InfraPlan have assumed the following splits:

- Morning peak hour 80% departing, 20% arriving;
- Afternoon peak hour 20% departing, 80% arriving

This translates into:

- 10 vehicles departing, 2 arriving during morning peak hour;
- 2 vehicles departing, 8 arriving during afternoon peak hour.

InfraPlan have assessed the impact the proposal may have on Cleo Lane in regard to queuing. Using Steady State queuing in accordance with Austroads Part 2 – Traffic Theory, InfraPlan have calculated that there would be a 1.9% chance that a vehicle would be required to wait for another vehicle at any given time. Thus, no queuing space would be required even in a series of conservative scenarios as the number of entering vehicles is significantly less than the system service rate for vehicles travelling to/from upper level parking.

The proposed widening of Cleo Lane will allow for two-way movements. In the event that a vehicle is waiting to enter the proposed development car park, other local vehicles will be able to pass the waiting vehicle safely. This is not possible under exiting conditions with Cleo Lane only one lane wide.

It should be noted that the service rate mentioned above is calculated using 100 seconds per movement. Once an "entry" call is registered by an arriving vehicle; all exit calls will be superseded. Furthermore, the probability of two vehicles arriving is extremely low (less than 0.05%). Therefore, queuing as a result of the development, is unlikely to occur on Cleo Lane.

As part of the Cleo Lane upgrade, the applicant is prepared to investigate the opportunity of establishing a right of way through the currently gated access associated with 90 East Terrace. If 90 East Terrace agrees to the creation of a right of way over the existing access to provide Cleo Lane residents with an egress alternative then this may alleviate the existing issues experienced by residents at the northern end of Cleo Lane, particularly during the morning peak. It is important to recognise that there is no guarantee that this may occur however the work undertaken by InfraPlan and the proposed car parking, access and egress arrangement of the proposal demonstrates that the impact on Cleo Lane would be minimal.

Conclusion

Overall, I am comfortable with the responses provided by the applicant and support the proposal with the above conditions recommended. However, I remained concerned about traffic exiting Cleo Lane during the morning peak period.

Yours sincerely,

Andrew McFarlane

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Rymilli Park Apartments P/L & Rym	ill Park Apartments Unit Trust c/-			
D 1 101 1		Future Urban Group			
Development Numb		and the construction of a 10 level			
Nature of Developn		Demolition of existing office building and the construction of a 16 level mixed use building (including mezzanine) comprising a ground floor			
		ssociated common areas, car parking			
国际工作	and servicing	associated common areas, can partning			
Type of developmen					
Zone / Policy Area:	City of Adelaide - Capital City Zone				
Subject Land:	2-6 Hutt Street, ADELAIDE				
Contact Officer:	Brett Miller	RECEIVED			
Phone Number:	8343 2988	1 E TAN 2010			
Close Date:	15 January 2018	1 3 JAN 2010			
My name: Ms	A.G. KITTO AND MS L.A. HIL	State Commission Assessment Panel			
	L.A. Hill 04/7834 767				
PRIMARY METHOD(s) O		nhax. net			
	Postal address: 5 WAR	REN CRES PANORAMA SA			
		Postcode 5041			
		rostcode			
You may be contacted be heard in support of the My interests are:	d via your nominated PRIMARY METHOD(s) OF COnfigure of local property	ONTACT if you indicate below that you wish t			
	occupier of local property				
	a representative of a company/other organisation af	fected by the proposal			
		rected by the proposal			
	a private citizen				
	97 1-	ADELAIDE Postcode 5000			
The address of the prop	erty affected is 87 EAST TERRACE	7/DELAIDE Postcode SCOO			
The specific aspects of t	ne application to which I make comment on are:				
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	EASE REFER TO ATTACK	(E) POCUMENT			
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THE STATE OF THE S					
	the resident leading with the same				
Should the State Comm	ission Assessment Panel conduct a public hearing for this	Development Application:			
	Wish to be heard in support of my submission				
1					
	do not wish to be heard in support of my submissi	on			
	(Please tick one)				
Ву	appearing personally	1/1			
	being represented by the following person:	OBERT HILL			
	(Please tick one)				
, ,					
Date 15/1/18	Signature				
///					

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

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

 The totally inadequate time given to study the proposal and submit comments/concerns on the application

- The inappropriate height of the proposed apartment building

- The shadow that would be created by the proposed apartment building

- The invasion of privacy for nearby residents

- The increased noise and congestion from additional traffic in Cleo Lane disturbing nearby residents

Concerns over the structural integrity of nearby buildings as a consequence of the building process

These objections are explained in greater detail in the attachment.

The letter advising adjoining owners / persons potentially affected by the development application was dated the 22nd December. Given public holidays, postal delays due to the Christmas period and the fact that many residents may have been absent over this period means that there has been a totally inadequate period to consider the proposal, let alone prepare and lodge meaningful submissions with the State Commission Assessment Panel by the 15th January, 2018.

Whilst the document outlining the proposed apartment building refers to other multi-storey buildings, either existing or about to be constructed, it seems that most or all of these buildings are in the CBD west of Hutt Street. Again, the limited time given to study the proposal has been inadequate. However, buildings in the immediate vicinity of 2-6 Hutt Street are mainly low-level, low-density private residences. We therefore strongly object to the height of the proposed apartment building, as it would be totally inconsistent with the existing residences. The height of other multi-storey buildings cited in the proposal document is irrelevant. Previously, buildings between Cleo Lane and East Terrace were not allowed to disadvantage or obscure the occupiers of other buildings - even the set-back of the buildings from the front boundaries was to not impede the views of adjoining owners. Why then should a 16 storey building for this area even be considered?

The Adelaide City Council recently introduced a programme to encourage property owners to install solar cells to make the council area more environmentally friendly and reduce electricity costs – a matter of great concern to every household! The proposed apartment building also wants to install a solar PV array to reduce their electricity costs. However, in the proposal is the statement "We acknowledge the produced shadows by the building". This is a totally inadequate approach by the developer to the problems that would be caused by the shadow from this building. Is any compensation offered for the loss in electricity generation to those who already have installed solar panels? Will there be any compensation offered to all affected properties for the loss in capital value that will be inevitable if the building proposal proceeds and any potential future buyers of these properties know that they cannot install an effective PV array because of the proposed building's shadow?

It is noted that the proposed apartments have balconies and windows that overlook adjoining properties. Indeed there is a communal garden in the proposed apartment building that will presumably overlook adjoining properties. What about the restaurant? Pity there has not been sufficient time to study the proposal and check this! I understand that suburban councils now have more stringent requirements when considering new building applications to protect the privacy of neighbours. Why should this apartment proposal be any different?

There is the potential for noise to adversely affect the lifestyle of adjoining properties as a consequence of increased traffic flow in Cleo Lane, not just from the residents of the apartments, but also the rubbish disposal vehicles, their reversing warning devices and noise associated with the transfer of rubbish. It is noted that collection of rubbish will not occur during peak times, but there seems to be no mention of exactly when rubbish will be collected, 6:00 am perhaps? We are not advised! It is not entirely clear as to whether the rubbish trucks will be parked in Cleo Lane to empty bins, or if the proposed loading area is within the building itself [there seems to be a "temporary" loading area mentioned].

What about deliveries of goods to apartments, the restaurant, other building tenants? Will these deliveries be made from Cleo Lane? Just how congested will the lane become, and what will be the effect on existing property owners? Will the lane be designated as a "no parking" lane?

There is also reference to a "green canopy" over Cleo Lane. Again, not enough time to understand exactly what this means. Is it a canopy only over the widened part of Cleo Lane, or over the entire lane? In the past Cleo Lane has been used, with the consent of other residents, for short-term use by cranes to access properties between Cleo Lane and East Terrace. Will this still be possible?

The proposed apartments will have underground car parks, and this obviously would require extensive excavation. What precautions would be taken to ensure the structural integrity of adjoining buildings? Would adjoining properties be insured by the developer against structural damage? Will there be a mechanism for adjoining residents to recoup costs of any damage done to their homes during construction?

SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2

RI	ECEIVED
	1 0 JAN 2018
DYZ.	

Applicant:	Rymill Park Apartments P/L & Rymill Park Apartments Unit Trust c/-
Davidanment Nu	Future Urban Group umber: 020/A081/17
Development Nu	
Nature of Develo	mixed use building (including mezzanine) comprising a ground floor
	restaurant, and 38 dwellings with associated common areas, car parking
	and servicing
Type of developm	
Zone / Policy Are	
Subject Land:	2-6 Hutt Street, ADELAIDE
Contact Officer:	Brett Miller
Phone Number:	8343 2988
Close Date:	15 January 2018
My name: PE10	ED DARIEY DES LANK
My phone number:	0418 804228 De 0420 310 800 PS
PRIMARY METHOD(s	
T MINIMANT INICITIOD(S	
	Postal address: 89 CNS7 TCE
	ABSCACOE Postcode 5000
Vou may be conto	acted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to
	ort of your submission.
De Heard III Suppor	Te or your submission.
My interests are:	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 pr	property affected is 89 EKN TEE ADOLANDE Postcode SOCO
The specific aspects of	of the application to which I make comment on are:
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Should the State Con	mmission Assessment Panel conduct a public hearing for this Development Application:
I	wish to be heard in support of my submission
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	(Please tick one)
Ву	appearing personally
	being represented by the following person:
	(Please tick one)
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Date 6 · D	SANUMLY 18 Signature Circle orders

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

23 April 2018

Mr Brett Miller
Team Leader
Inner Metro Development Assessment
Department of Planning, Transport and Infrastructure
Via email: brett.miller@sa.gov.au



Level 1, 89 King William Street GPO Box 2403 Adelaide SA 5001 PH: 08 8221 5511 E: info@futureurbangroup.com W: www.futureurbangroup.com ABN: 34 452 110 398

Dear Brett,

RESPONSE TO REPRESENTATIONS FOR DA/020/A081/17 AT 2-6 HUTT STREET, ADELAIDE

We write in response to representations received during category 2 public notification of the above-mentioned application.

A total of ten (10) representations were received by the State Commission Assessment Panel. These representations have been prepared by:

- Andrew McFarlane (1/82 East Tce, Adelaide)
- Mark Ebbinghaus (2/82 East Tce, Adelaide)
- Tomoko and Akira Nakayama (3/82 East Tce, Adelaide)
- Ray Khabbaz (83 East Tce, Adelaide)
- Anthony & Judith Gibb (85 East Tce, Adelaide)
- Lynette Hill (87 East Tce, Adelaide)
- Michael Young (88 East Tce, Adelaide)
- Peter Darley (89 East Tce, Adelaide)
- Dr Miles Doddridge (1 Hutt Street, Adelaide)
- Jane Mussared of COTA SA (16 Hutt Street, Adelaide)

Each representation can be summarised in the table below.

Table 1 Summary of representations

Name of Representor	Summary
Andrew McFarlane (1/82 East Tce, Adelaide)	In support of the proposal subject to conditions relating to:
	 Access during construction No interruption to utilities and services No structural damage Confirmation of construction period Hours of operation for waste collection (resident/restaurant) Safety in Cleo Lane Left turn-out only from Cleo Lane Location of plant and services and noise/exhaust control Overlooking from the eastern units Ensure no changes to water pressure



Name of Representor	Summary
Andrew McFarlane (1/82 East Tce, Adelaide)	- Confirmation of shadow impact
continued	- Change car access to enter/exit via Hutt Street
Mark Ebbinghaus (2/82 East Tce, Adelaide)	In support of the proposal
Tomoko and Akira Nakayama (3/82 East Tce, Adelaide)	Seek one driveway access off Hutt Street
Ray Khabbaz (83 East Tce, Adelaide)	Principal concerns relate to:
	 Height and scale of development adjacent to the City living Zone Noise impacts associated with traffic, waste collection, operation of restaurant and plant equipment Traffic volume in Cleo Lane including waste and service vehicles Appropriateness of access via Cleo Lane Odour from the restaurant, waste storage room and grease traps Overlooking from the eastern units
Anthony & Judith Gibb (85 East Tce, Adelaide)	Lack of information in relation to certain aspects of the proposal Principal concerns relate to:
	 Height of the development Congestion in Cleo Lane Overshadowing Overlooking from eastern units Noise and odour associated with restaurant Wind and weather
Lynette Hill (87 East Tce, Adelaide)	- Waste storage and collection Principal concerns relate to:
	 Height of the development Overshadowing Overlooking from the eastern units Increased noise and congestion associated with traffic in Cleo Lane Structural damage during construction
Michael Young (88 East Tce, Adelaide)	Requires further information in relation to:
Peter Darley (89 East Tce, Adelaide)	 Proposed changes in Cleo Lane Assurance that access arrangements to garage will not be adversely affected Requires further information in relation to:
Teter surrey (65 East ree, Auctinity)	 Establishment of formal right-of-way over land adjoining Cleo Lane Overlooking from the eastern units Location of air-conditioning units Access arrangement Parking associated with restaurant visitors
Dr Miles Doddridge (1 Hutt Street, Adelaide)	Principal concerns relate to:
	Height and scaleTraffic congestion and car parking
Jane Mussared of COTA SA (16 Hutt Street, Adelaide)	Requires further information in relation to:
	Asbestos removalDisruption during construction process



Our response to each representation is detailed as follows.

Andrew McFarlane (1/82 East Tce, Adelaide)

We consulted Mr McFarlane prior to and during the public notification process and held a meeting on 15 February 2018 to go through the issues raised in the representation. The responses attached to Mr McFarlane's representation are true and accurate and extracted from an email we sent on 12 January 2018. We do not intend to repeat our responses here again.

We understand that these responses address Mr McFarlane's representation however we also wish to advise of the following as a result of further design development and consultation with other representors:

- Formal rights of way will be established for residents in Cleo Lane over that portion of the subject land that has been offered by the applicant to increase the width of the lane to facilitate two-way traffic movement.
- The curved concrete beams running across the east facing units between levels 3 to 7 will be increased in width to prevent direct overlooking into the ground level courtyard of Mr McFarlane's property (see enclosed section drawing prepared by Tectvs).
- Shadow diagrams have been prepared every hour between 7am and 5pm on the winter solstice to confirm that the building only begins to shadow properties on the eastern side of Cleo Lane from between 1-2pm which satisfies the relevant provisions of the Development Plan.
- Further consultation with Adelaide City Council has successfully resulted in the relocation of the basement ramp to Hutt Street together with an on-street loading zone. A potential clear zone approximately 6 metres wide in the southern most lane of East Terrace adjacent to Cleo Lane is also being sought from the Council to enable Cleo Lane residents to enter traffic during peak morning periods with ease avoiding any potential for queuing.

With the above further developments, we believe Mr McFarlane's initial queries would now be fully addressed.

Mark Ebbinghaus (2/82 East Tce, Adelaide)

We consulted Mr Ebbinghaus' representative during the public notification process. He has conveyed his full support for the proposal including the height, scale and massing of the development. He also supports the ground plane treatment, environmental performance of the building, the high-quality design (reinforced through the pre-lodgement agreement reached with the Government Architect) and the relationship to the City Living Zone.

Tomoko and Akira Nakayama (3/82 East Tce, Adelaide)

We consulted Mr and Mrs Nakayama at the same time as Mr McFarlane. As a result of our engagement with Mr and Mrs Nakayama and Adelaide City Council we believe the relocation of the basement ramp to Hutt Street (together with on-street loading zone) and potential 6 metre wide clear zone in the southern most lane of East Terrace will address their concern.

Ray Khabbaz (83 East Tce, Adelaide)

We met with Mr Khabbaz and his Planning Consultant, Mr Damian Dawson of Planning Chambers on two occasions (2 February 2018 and 6 April 2018) to go through all of the issues raised in the representation. At this meeting we responded to the issues raised in the representation. We confirm our response together with any further developments since these times as follows:





- The proposal satisfies the criteria under Capital City Zone PDC 21 to exceed 22m.
- The basement ramp has been relocated to Hutt Street (together with on-street loading zone) and a potential 6 metre wide clear zone is proposed in the southern most lane of East Terrace.
- To avoid traffic impacts in Cleo Lane and noise impacts upon Cleo Lane residents, we can confirm that waste trucks for the residential apartments and restaurant will only service the site between 9am and 6pm on any given day. This avoids potential conflicts during the morning and afternoon peak traffic periods (i.e. between 7am to 9am and between 3pm to 6pm) and the sensitive hours of the day that may impact upon residential amenity (i.e. between 9pm and 7am the following day). All other service vehicles will use the proposed new loading zone on Hutt Street which also has a length that could accommodate the manoeuvring and parking of the smallest available waste trucks. When these waste trucks become more readily available the opportunity to collect all waste on Hutt Street may be possible.
- In the event that a waste truck is parked on the subject site for the collection of waste, the turn-path diagrams prepared by InfraPlan demonstrate that a vehicle can pass the waste truck to either enter or exit Cleo Lane. This is no different to the existing condition which ensures the intent of PDC 241 is satisfied.
- We can confirm that the proposed occupier of the restaurant space will have no grease traps, exhausts associated with frying or the like. The operator is not a typical restaurant use rather more akin to a coffee/dessert bar which will not create any detrimental odour or noise impacts.
- The curved concrete beams running across the east facing units between levels 3 to 7 will be
 increased in width to minimise overlooking into Mr Khabbaz's property (see enclosed section
 drawing prepared by Tectvs).
- The plant area will be located on level 13 and air-conditioning units will be located centrally and screened on the south elevation on each level. According to Sonus (the acoustic engineers engaged by the applicant), the designated location for mechanical plant provides shielding and a good separation distance to surrounding dwellings. As the layouts progress through the detailed design phase of the project, any necessary acoustic treatments will be incorporated into the design documentation to ensure compliance with the Environment Protection (Noise) Policy 2007.
- We have been advised by Sonus that the use of a panel lift door instead of a transparent metal sectional door will minimise noise impacts. Further, the type of door proposed will be similar to other roller doors that exist within Cleo Lane.
- Formal rights of way will be established for residents in Cleo Lane over that portion of the subject land that has been offered by the applicant to increase the width of the lane to facilitate two-way traffic movement. In doing so, Mr Khabbaz has agreed to the encroachment of the upper levels which also assists in mitigating overlooking impacts.

Anthony & Judith Gibb (85 East Tce, Adelaide)

We met with Mr and Mrs Gibb on 7 March 2018 to discuss the issues raised in their representation. Our responses above appropriately respond to the issues raised and need not be repeated here again.





Lynette Hill (87 East Tce, Adelaide)

We met with Ms Hill on 8 February 2018 to discuss the issues raised in her representation. Our responses above appropriately respond to the issues raised and need not be repeated here again.

Michael Young (88 East Tce, Adelaide)

We liaised with Mr Young via email on 29 January 2018 to clarify the issues raised in his representation.

Peter Darley (89 East Tce, Adelaide)

We met with Mr Darley on 16 February 2018 to discuss the issues raised in his representation. We understand that having discussed these issues in more detail, Mr Darley does not object to the proposal.

Dr Miles Doddridge (1 Hutt Street, Adelaide)

Our responses above appropriately respond to the issues raised by Anthony & Judith Gibb and need not be repeated here again.

Jane Mussared of COTA SA (16 Hutt Street, Adelaide)

We wrote to Ms Mussared on 30 January 2018 to confirm that asbestos will be removed by licensed contractors in accordance with the relevant policies and standards of the EPA.

In relation to Ms Mussared's concern relating to construction impacts, we advised that as a result of the development, Cleo Lane will be widened from the existing width of approximately 3.0m to over 6.0m. This will effectively create a two lane, two direction laneway that is an improvement on the existing one lane, two direction laneway. Additionally, the building itself will be set back an extra 1.0m from the laneway creating a 7.0m laneway corridor for the length of the development. This will allow for appropriate manoeuvring space from adjacent properties into the laneway as well as allow for passing space when any servicing is taking place within the laneway.

Apart from providing better accessibility for vehicles using the laneway, the increased width will provide more visual presence from East Terrace and improve local accessibility during peak times. This extra width will also improve sightlines between pedestrians along East Terrace and cars using the laneway to exit onto East Terrace making the junction safer, more efficient and easier to navigate for all users.

The above works will also involve a general upgrade of Cleo Lane itself (subject to consultation with all relevant land owners) at the applicant's expense. This could include landscaping, pavers etc, the details of which will need to be discussed with each land owner. This is only the start of that process and is contingent upon the approval of the project.

A Construction Management Plan ('CMP') will be prepared by the applicant which will deal with traffic management and general construction issues during the building process. This will include vehicular access for residents/workers and visitors who use Cleo Lane. At this early stage, we don't see why access would be restricted within Cleo Lane when both the East Terrace and Hutt Street frontages are available for construction services/activities and the like.

In addition to the above, a dilapidation report will be prepared by the applicant to protect surrounding buildings during the construction. It is standard practice for the SCAP to include a CMP and a dilapidation report as conditions of the Development Plan Consent, if granted. The applicant has no objection if the SCAP wishes to formalise the above in its standard conditions.





To conclude, the applicant and/or project team has spent a considerable amount of time to meet and/or liaise with the representors to address a number of issues. This has a resulted in the provision of amended plans and details which are enclosed.

We can also confirm that Adelaide City Council is satisfied with the revised ramp configuration.

In our opinion, the proposal as originally proposed and as amended maintains the integrity of the Pre-Lodgement Agreement reached with ODASA. Further, the proposal displays substantial planning merit and design quality to warrant Development Plan Consent.

We confirm our attendance at the 24 May 2018 SCAP Hearing to respond to any third-party submissions.

Should you require any further information please do not hesitate to contact our office.

Yours sincerely

Chris Vounasis

Director

Encl. Amended plans (overlooking and revised ramp configuration)

Updated Traffic Impact Statement and Waste Management Plan

Cleo Lane Turning Movement Plan

Shadow diagrams



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7 May 2018 17-057let02

Mr B Miller Team Leader – CBD and Inner Metro Department of Planning, Transport and Infrastructure **GPO Box 1815** Adelaide SA 5001

Dear Brett

Re: 020/A081/17 - 2-6 Hutt Street, Adelaide

I write in response to your recent correspondence providing an opportunity to respond to the further information submitted by the applicant in respect to the abovementioned application.

As you are aware I act for Mr Ray Khabbaz, who along with his family, is the owner and occupier of 83 East Terrace directly to the rear of the proposal on the opposite side of Cleo Lane. The lane is private property owned by Mr Khabbaz and two other adjoining properties with rights of way afforded to the subject land.

Mr Khabbaz and I have met with the applicant on two occasions as outlined within the response to representations document prepared by the Future Urban Group. Whilst those meetings were amicable with a number of concessions canvased by both parties, to date they have not resulted in any agreed compromise between my client and the applicant. As such the concerns raised within Mr Khabbaz's representation dated 15 January 2018 still remain. The applicant's response asserts that a number of agreements have been reached with Mr Khabbaz. This is not the case. All discussions have been on the basis that no access be obtained from Cleo Lane with both the basement and upper level car parks to be accessed from Hutt Street. It was my understanding that this is also the preferred outcome for the applicant. The plans submitted in response to the submissions made during the public notification contain only a single access to Hutt Street with the remainder of the car parking still gaining access from the private lane at the rear.

As outlined within the representation the use of Cleo Lane for residential traffic from the proposal, albeit now only from one car parking area, will exacerbate the existing safety and congestion issues along Bartels Road and within the laneway. Currently 22 residential car parks are accessed via Cleo Lane. The congestion and safety issues which result, particularly during peak periods, are felt by all of the existing residents. Whilst the proposal seeks to widen the lane the additional 26 car parks proposed will effectively double the traffic within the lane whilst providing no improvement to sightlines of on-coming traffic or traffic flows along Bartels Road. Whilst it is acknowledged that the general preference from an urban design and public realm perspective is for development to utilise minor streets for access Traffic and Vehicle Access PDC 241 is clear that this should occur only where 'residential amenity is not unreasonably affected'. Given the low scale residential nature of the adjoining properties to the east of Cleo Lane and the location of private rear yards and living rooms/areas adjacent the lane the impacts of the additional traffic movements within the lane is considered to be such that it will result in an unreasonable impact upon the existing level of residential amenity.



The subject portion of Hutt Street is not located within the core or primary pedestrian areas of the city and is removed from the recognised 'café strip' of Hutt Street further to the south. It is noted that a single access is now proposed to Hutt Street which has been accepted by Council staff. A second access point would be unlikely to result in any significant impacts or issues over and above a single access. That is to say that once an access has been granted the width or intensity of that access point is a lesser concern and one that is warranted in this instance given the alternative will result in unreasonable impact and conflict within Cleo Lane.

It is also important to note that the laneway is the boundary between the Capital City Zone and the City Living Zone and is therefore an interface between large scale mixed use developments and smaller scale traditional residential forms of development. In such instances the Development Plan seeks a transition in scale, bulk and activity at the periphery of the zone to preserve the existing levels of residential amenity. In its current form the proposal does not adequately preserve the amenity of the existing residents of the City Living Zone, particularly given the alternative access solution available from Hutt Street.

On the basis that the proposal still relies on access from Cleo Lane Mr Khabbaz wishes to retain his objection to the proposal. As such Mr Khabbaz does not consent to the encroachment of the proposal over his land and remains unconvinced of the adequacy of the overlooking solution proposed by the applicant.

The previous invitation to work with the applicant, Council and DPTI to find an amiable solution for all parties remains.

I wish to re-confirm that Mr Khabbaz desires to be heard before the State Commission Assessment Panel when the matter is considered.

Should you require any further details or clarification please contact the undersigned on phone (08) 8211 9776.

Yours sincerely

Damian Dawson

Associate



Business Advisors Management Consultants Taxation Solutions System Solutions

296 Rundle Street Adelaide SA 5000 PO Box 2618 Kent Town SA 5071 Tel. 08 8232 9360 Fax. 08 8232 9362

5th May 2018

Mr Brett Miller
Team Leader – Inner Metro Development Assessment
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
ADELAIDE SA 5000

Dear Brett,

Re: 2 – 6 Hutt Street, Adelaide Development

Further to our meeting with Mr Maras, Mr Vounasis, Tectvs and Mr and Mrs Nakayama on the 15th February 2018 and your email and reports received on the 24th April 2018, I would like to make the following comments.

At our meeting it was agreed to apply to Adelaide City Council and SCAP to obtain 100% carpark access from Hutt Street. It seems now the landscape has changed, where we have a proposal of 50/50 split between carpark access from Hutt Street and Cleo Lane. I have read your detailed reports and I disagree with the traffic analysis (dated) and proposals for Cleo Lane. I have resided at 1/82 East Tce, Adelaide for over 14 years and the traffic issues associated with accessing Cleo Lane are increasingly worse, as are the safety concerns for pedestrians and cyclists along Bartels Road/Cleo Lane entrance/exit.

Any use of Cleo Lane to access your proposed carpark will compound the existing traffic, pedestrian and cyclist safety issues and will result in an absolute disaster! The carparks with 100% access from Hutt Street seems to be the only viable solution going forward.

If you have any further questions please contact me on 0412291807 or email me at andrew@momentumba.com.

Yours sincerely,

Andrew McFarlane B.Ec. CPA CPMgr GAICD FAIM/IML Life Member

Director

4 May 2018

Dear Mr Miller

Referring to Mr Chris Vounasis' letter dated 23 April 2018, we wish to respond as follows.

1. Cleo Lane

Cleo Lane still remains as a major issue unsolved. The proposal for creating Hutt Street as well as Cleo Lane access/egress contradicts with what we (Mr MacFarlane and ourselves) were told at the meeting of 15 February 2018 with Mr Maras, Mr Vounasis and a person from Architecture and Design studio Tectvz. At the meeting they told us that they originally proposed to have all access/egress via Hutt Street but encountered objections from the Adelaide City Council and SCAP encouraging them all access/egress to occur via Cleo Lane. As you are proposing the use of Hutt St. now, we assume that City Council and SCAP have agreed to use Hutt St. access/egress. If so we wish to be explained the necessity for using Cleo Lane against your original plan of all access/egress via Hutt Street and also against the residents' rejection of Cleo Lane access/egress that you are well aware of. We request Hutt only solution not 50/50 Hutt/Cleo solution. Mr Vounasis' letter concludes, "In summary the proposed development is estimated to result in negligible new trip generation during peak hours and therefore negligible impacts to the surrounding road network are envisaged." (P19) and list the following data as the bases of their conclusion:

- Most recent traffic counts (2015)
- Trip generation Existing Land Uses (Sep 2013)
- Trip Distribution (As per 2011)

What this conclusion is missing is that different from their estimation, we existing residents have been experiencing enough problems from the point of pedestrian safety and our difficulty to exit. And also, we have to advise that the above data used as their bases for their conclusion do not reflect the current 2018 conditions. Now we have a bike lane added next to the southernmost left-turn-only lane at the Bartels Rd. and are experiencing increased traffics as well. We may have to expect more bicycles and pedestrians coming to the café proposed.

Also if the proposed development is estimated to result in negligible new trip generation during peak hours as Mr Vounasis' letter concludes, we assume without having Cleo lane access/egress, Hutt St. access/egress could handle the negligible trip generation easily. This approach sounds much more reasonable.

2. Height

East Terrace is a residential zone of the city and we wish them to respect the residents' right to protect its existing amenities the zone provides. As the proposed construction is expected to destroy many of its existing basic

amenities, we believe the height of the building needs to be reduced to a height that is not excessive for the zone.

In relation to the issues of height, the issue of shadow is huge. It does not only shadow one of the bedrooms of 82 East Terrace building completely but also decreases the solar panel effectiveness. We are told that on the winter solstice, the proposal will only begin to cast a shadow over 82 East Terrace after 3pm and any solar panel system will not be compromised. We need to have some accurate data for all four seasons. The shadow diagrams prepared are not convincing enough from our experience living at 82 East Terrace.

3. Amenities

In relation to the amenities of residential zone, we wish to be assured of the following matters.

- No overlooking of East Terrace residents properties. The lower residential floors with balcony facing East Terrace does not protect us from this issue.
- Plant area management, i.e., no exposure of and no noise from the air-conditioning units. We believe it should be internal.
- Residential and commercial rubbish bins to be placed and positioned, to minimise any realistic and aesthetic impacts on all residents who utilise Cleo Lane and Bartels Rd. "Realistic" means to be free from smells, rodents and collection issues, and "aesthetic" means maintaining residential amenities.

4. Clarity of construction management

We do not see any plan to minimise the disruptions inflicted on the East Terrace residents during the construction period of over 2 years. We have to emphasise for our physical and mental wellbeing that we cannot accept using Cleo lane as the construction site, i.e. no excavators, trucks or cranes etc. to eliminate noise, dust and for safety, etc. With cranes, we need to have the assurance that their flashing lights at night do not invade our properties.

Kind regards, Akira and Tomoko Nakayama

3 / 82 East Terrace Adelaide SA 5000

CAPITAL CITY ZONE

Introduction

The Desired Character, Objectives and Principles of Development Control that follow apply in the whole of the Capital City Zone shown on Maps Adel/17 to 20, 23 to 26 and 29 to 31. They are additional to those expressed for the whole of the Council area and in cases of apparent conflict, take precedence over the more general provisions. In the assessment of development, the greatest weight is to be applied to satisfying the Desired Character for the Zone.

DESIRED CHARACTER

This Zone is the economic and cultural focus of the State and includes a range of employment, community, educational, tourism and entertainment facilities. It is anticipated that an increased population within the Zone will complement the range of opportunities and experiences provided in the City and increase its vibrancy.

The Zone will be active during the day, evening and late night. Licensed entertainment premises, nightclubs and bars are encouraged throughout the Zone, particularly where they are located above or below ground floor level to maintain street level activation during the day and evening.

High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building façades, verandahs, balconies, awnings and other features that provide weather protection.

In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment. In narrow streets and laneways the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure. In the Central Business Policy Areas, upper level setbacks are not envisaged.

Non-residential land uses at ground floor level that generate high levels of pedestrian activity such as shops, cafés and restaurants will occur throughout the Zone. Within the Central Business Policy Area, residential land uses at ground level are discouraged. At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters. Non-residential and / or residential land uses will face the street at the first floor level to contribute to street vibrancy.

New development will achieve high design quality by being:

- (a) **Contextual** so that it responds to its surroundings, recognises and carefully considers the adjacent built form, and positively contributes to the character of the immediate area.
- (b) **Durable** by being fit for purpose, adaptable and long lasting, and carefully considers the existing development around it.
- (c) **Inclusive** by integrating landscape design to optimize pedestrian and cyclist usability, privacy, and equitable access, and also promote the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimize security and safety both internally and into the public realm, for occupants and visitors alike.
- (d) **Sustainable** by integrating sustainable systems into new buildings and the surrounding landscape design to improve environmental performance and minimise energy consumption.
- (e) **Amenable** by providing natural light and ventilation to habitable spaces.

Contemporary juxtapositions will provide new settings for heritage places. Innovative design is expected in areas of identified street character with an emphasis on contemporary architecture that responds to site context and broader streetscape, while supporting optimal site development. The addition of height, bulk and massing of new form should be given due consideration in the wider context of the proposed development.

There will also be a rich display of art that is accessible to the public and contextually relevant.

Adelaide's pattern of streets and squares

The distinctive grid pattern of Adelaide will be reinforced through the creation of a series of attractive boulevards as shown on Concept Plan Figures CC/1 and 2. These boulevards will provide a clear sense of arrival into the City and be characterised by buildings that are aligned to the street pattern, particularly at ground level.

Views to important civic landmarks, the Park Lands and the Adelaide Hills will be retained as an important part of the City's charm and character.

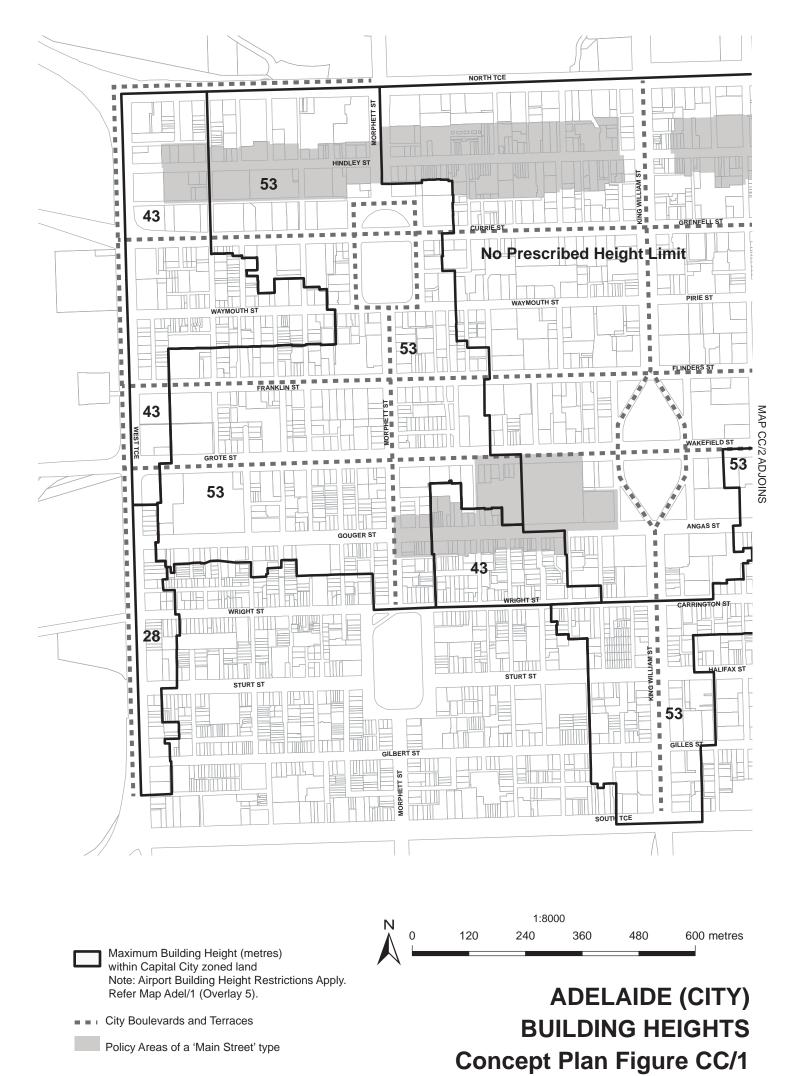
The City's boulevards, terraces and Squares will be developed as follows:

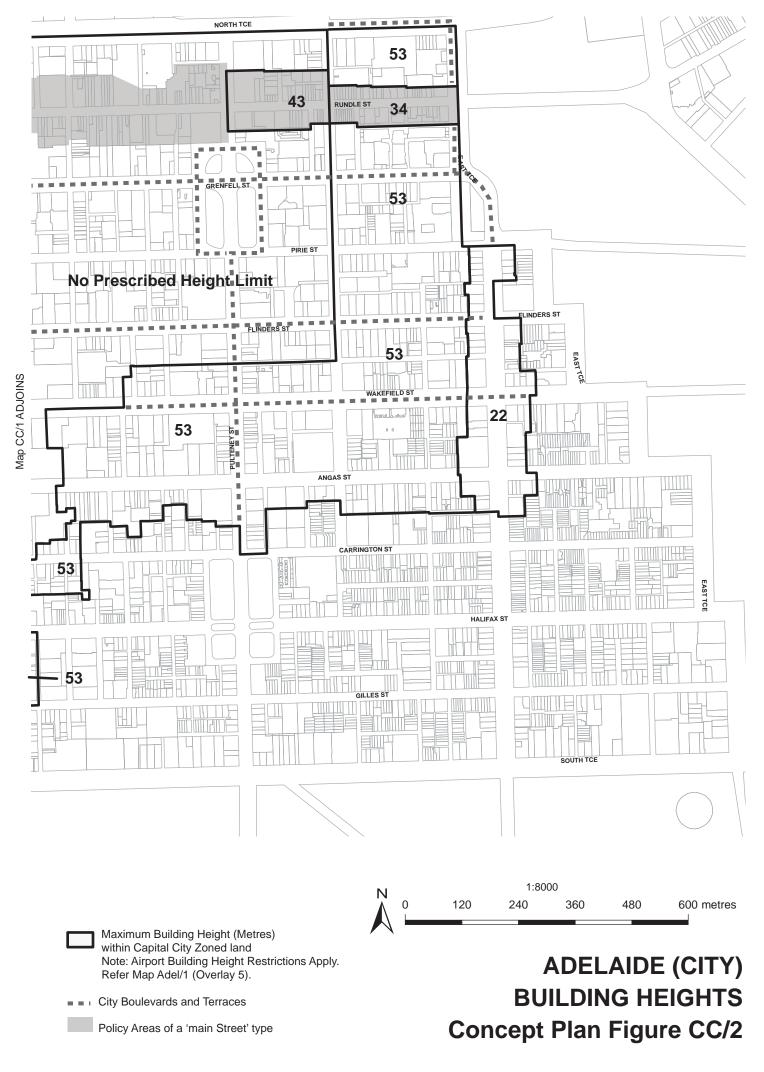
- (a) North Terrace will be reinforced as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile.
- (b) King William Street will be enhanced as the City's principal north-south boulevard and will be reinforced as the City's commercial spine.
- (c) Grote Street-Wakefield Street will be enhanced as the City's principal east-west boulevard and will be developed to provide a strong frame that presents a sense of enclosure to the street.
- (d) East Terrace will be characterised by buildings that maximise views through to the Park Lands and provide a distinct City edge.
- (e) West Terrace will be reinforced as the western 'gateway' to the City centre and will form an imposing frontage to the western City edge. Buildings will be constructed to the front and side boundaries, and designed to maximise views through to the Park Lands. Corner sites at the junctions of West Terrace and the major east-west streets will be developed as strongly defined visual gateways to the City. This will provide an imposing frontage to the western edge of the City, which comprises a mixture of commercial, showroom and residential development.
- (f) Pulteney and Morphett streets are key north-south boulevards. A sense of activation and enclosure of these streets will be enhanced through mixed use development with a strong built form edge. Pulteney Street will include residential, office and institutional uses, and retail activities. These boulevards will become important tree-lined commercial corridors.
- (g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas and these view corridors should remain uncluttered.
- (h) Victoria, Hindmarsh and Light Squares will have a continuous edge of medium to high-scale development that frames the Squares and increases ground level activity.

The Zone also includes a number of Main Street areas, encompassing Rundle Mall, Rundle Street, Hindley Street and Gouger Street, which are envisaged to have a wide range of retail, commercial and community uses that generate high levels of activity. These areas will have an intimately scaled built form with narrow and frequent building frontages. These areas are shown on Concept Plan Figures CC/1 and 2.

Development fronting North Terrace, King William Street, Wakefield Street, Grote Street, the Squares, and in the Main Street Policy Area, will reflect their importance though highly contextual design that reflects and responds to their setting and role.

Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment with buildings sited and composed in a way that responds to the buildings' context. There will be a strong emphasis on ground level activation through frequent window openings, land uses that spill out onto the footpath, and control of wind impacts.





Development in minor streets and laneways with a high value character will respond to important character elements and provide a comfortable pedestrian environment, particularly in the following streets: Gray, Leigh, Union, Chesser, Coromandel, Tucker, Cardwell, Kenton, Market, Ruthven, Cannon, Tatham, Benthem streets, Murrays Lane and Wright Court.

A comprehensive, safe and convenient movement network throughout the City will develop, focusing on the provision of linkages on both public and private land between important destinations and public transport. A high quality system of bicycle or shared pedestrian and bicycle routes will be established within the Zone.

OBJECTIVES

General

Objective 1: The principal focus for the economic, social and political life of metropolitan

Adelaide and the State.

Objective 2: A vibrant mix of commercial, retail, professional services, hospitality,

entertainment, educational facilities, and medium and high density living.

Objective 3: Design and management of City living to ensure the compatibility of residential

amenity with the essential commercial and leisure functions of the Zone.

Objective 4: City streets that provide a comfortable pedestrian environment.

Objective 5: Innovative design approaches and contemporary architecture that respond to a

building's context.

Objective 6: Buildings that reinforce the gridded layout of Adelaide's streets and respond to

the underlying built-form framework of the City.

Objective 7: Large sites developed to their full potential while ensuring a cohesive scale of

development and responding to a building's context.

Objective 8: Development that contributes to the Desired Character of the Zone.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following types of development, or combinations thereof, are envisaged:

Affordable housing

Aged persons accommodation

Community centre

Consulting room

Convention centre

Dwelling

Educational establishment

Emergency services facility

Hospital

Hotel

Indoor recreation centre

Licensed entertainment premises

Library

Motel

Office

Pre-school

Personal service establishment

Place of worship

Serviced apartment

Restaurant

Residential flat building Student accommodation Shop or group of shops Tourist accommodation

- 2 Land uses that are typically closed during the day should be designed to maximise daytime and evening activation at street level and be compatible with surrounding land uses, in particular residential development.
- 3 Low impact industries should be located outside the Central Business Policy Area and have minimal off-site impacts with respect to noise, air, water and waste emissions, traffic generation and movement.
- **4** Development listed as non-complying is generally inappropriate.

Form and Character

5 Development should be consistent with the Desired Character for the Zone.

Design and Appearance

- 6 Development should be of a high standard of architectural design and finish which is appropriate to the City's role and image as the capital of the State.
- 7 Buildings should achieve a high standard of external appearance by:
 - (a) the use of high quality materials and finishes. This may be achieved through the use of materials such as masonry, natural stone, prefinished materials that minimise staining, discolouring or deterioration, and avoiding painted surfaces particularly above ground level;
 - (b) providing a high degree of visual interest though articulation, avoiding any large blank facades, and incorporating design features within blank walls on side boundaries which have the potential to be built out;
 - (c) ensuring lower levels are well integrated with, and contribute to a vibrant public realm; and
 - (d) ensuring any ground and first floor level car parking elements are sleeved by residential or non-residential land uses (such as shops, offices and consulting rooms) to ensure an activated street frontage.
- **8** Buildings should present an attractive pedestrian-oriented frontage that adds interest and vitality to City streets and laneways.
- **9** The finished ground floor level of buildings should be at grade and/or level with the footpath to provide direct pedestrian access and street level activation.
- 10 Providing footpath widths and street tree growth permit, development should contribute to the comfort of pedestrians through the incorporation of verandahs, balconies, awnings and/or canopies that provide pedestrian shelter.
- 11 Buildings should be positioned regularly on the site and built to the street frontage, except where a setback is required to accommodate outdoor dining or provide a contextual response to a heritage place.
- 12 Buildings should be designed to include a podium/street wall height and upper level setback (in the order of 3-6 metres) that:
 - (a) relates to the scale and context of adjoining built form;
 - (b) provides a human scale at street level;
 - (c) creates a well-defined and continuity of frontage;

- (d) gives emphasis and definition to street corners to clearly define the street grid;
- (e) contributes to the interest, vitality and security of the pedestrian environment;
- (f) maintains a sense of openness to the sky for pedestrians and brings daylight to the street;
 and
- (g) achieves pedestrian comfort by minimising micro climatic impacts (particularly shade/shelter, wind tunnelling and downward drafts);

other than (h) or (i):

- (h) in the Central Business Policy Area;
- (i) where a lesser (or zero) upper level setback and/or podium height is warranted to correspond with and complement the form of adjacent development, in which case alternative design solutions should be included to achieve a cohesive streetscape, provided parts (b) to (g) are still achieved.
- 13 Buildings north of Rundle Mall, Rundle Street, Hindley Street and Gouger Street should have a built form that incorporates slender tower elements, spaces between buildings or other design techniques that enable sunlight access to the southern footpath.
- **14** Buildings, advertisements, site landscaping, street planting and paving should have an integrated, coordinated appearance and should enhance the urban environment.
- 15 Building façades should be strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.
- 16 Development that exceeds the maximum building height shown in Concept Plan Figures CC/1 and 2, and meets the relevant quantitative provisions should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including site configuration that acknowledges and responds to the desired future character of an area but that also responds to adjacent conditions (including any special qualities of a locality), pedestrian and cyclist amenity, activation, sustainability, and public realm and streetscape contribution.

The Squares (Victoria, Hindmarsh and Light)

- 17 Outdoor eating and drinking facilities associated with cafés and restaurants are appropriate ground floor uses and should contribute to the vitality of the Squares and create a focus for leisure.
- **18** Buildings fronting the Squares should:
 - (a) provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a minimum of 75 percent of the landscaped part of each Square at the September equinox; and
 - (b) reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.

The Terraces (North, East and West)

- 19 Development along the terraces should contribute to a continuous built form to frame the City edge and activate the Park Lands.
- 20 Development along North Terrace should reinforce the predominant scale and 'City wall' character of the Terrace frontage.

Building Height

- 21 Development should not exceed the maximum building height shown in Concept Plan <u>Figures</u> <u>CC/1 and 2</u> unless;
 - (a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan Figures CC/1 and 2, and
 - (b) only if:
 - (i) at least two of the following features are provided:
 - (1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;
 - (2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;
 - (3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;
 - (4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on Map Adel/1 (Overlay 2A);
 - (5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;
 - (6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;
 - (7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;
 - (8) more than 15 per cent of dwellings as affordable housing.
 - (ii) plus all of the following sustainable design measures are provided:
 - (1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;
 - (2) a greenroof, or greenwalls / façades supported by services that ensure ongoing maintenance:
 - (3) innovative external shading devices on all of the western side of a street facing façade; and
 - (4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.
- Development should have optimal height and floor space yields to take advantage of the premium City location and should have a building height no less than half the maximum shown on Concept Plan Figures CC/1 and 2, or 28 metres in the Central Business Policy Area, except where one or more of the following applies:
 - (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations;
 - (b) the site is adjacent to the City Living Zone or the Adelaide Historic (Conservation) Zone and a lesser building height is required to manage the interface with low-rise residential development;

- (c) the site is adjacent to a heritage place, or includes a heritage place;
- (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event, within the previous 3 years where the new building has the same, or substantially the same, layout and external appearance as the previous building.

Interface

- 23 Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity.
- 24 Development on all sites on the southern side of Gouger Street Angas Street and adjacent to a northern boundary of the City Living Zone or the Adelaide Historic (Conservation) Zone should not exceed 22 metres in building height unless the Council Wide overshadowing Principles of Development Control are met.
- Parts of a development that exceed the prescribed maximum building height shown on Concept Plan Figures CC/1 and 2 that are directly adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries should be designed to minimise visual impacts on sensitive uses in the adjoining zones and to maintain the established or desired future character of the area. This may be achieved through a number of techniques such as additional setback, avoiding tall sheer walls, centrally locating taller elements, providing variation of light and shadow through articulation to provide a sense of depth and create visual interest, and the like.

Movement

- 26 Pedestrian movement should be based on a network of pedestrian malls, arcades and lanes, linking the surrounding Zones and giving a variety of north-south and east-west links.
- 27 Development should provide pedestrian linkages for safe and convenient movement with arcades and lanes clearly designated and well-lit to encourage pedestrian access to public transport and areas of activity. Blank surfaces, shutters and solid infills lining such routes should be avoided.
- 28 Development should ensure existing through-site and on-street pedestrian links are maintained and new pedestrian links are developed in accordance with Map Adel/1 (Overlay 2A).
- 29 Car parking should be provided in accordance with Table Adel/7.
- 30 Multi-level car parks should locate vehicle access points away from the primary street frontage wherever possible and should not be located:
 - (a) within any of the following areas:
 - (i) the Core Pedestrian Area identified in Map Adel/1 (Overlays 2, 2A and 3)
 - (ii) on frontages to North Terrace, East Terrace, Rundle Street, Hindley Street, Currie Street, Waymouth Street (east of Light Square), Victoria Square or King William Street;
 - (b) where they conflict with existing or projected pedestrian movement and/or activity;
 - (c) where they would cause undue disruption to traffic flow; and
 - (d) where it involves creating new crossovers in North Terrace, Rundle Street, Hindley Street, Currie Street and Waymouth Street (east of Light Square), Grenfell Street and Pirie Street (west of Pulteney Street), Victoria Square, Light Square, Hindmarsh Square, Gawler Place and King William Street or access across primary City access and secondary City access roads identified in Map Adel/1 (Overlay 1).

- 31 Multi-level, non-ancillary car parks are inappropriate within the Core Pedestrian Area as shown on Map Adel/1 (Overlays 2, 2A and 3).
- 32 Vehicle parking spaces and multi-level vehicle parking structures within buildings should:
 - (a) enhance active street frontages by providing land uses such as commercial, retail or other non-car park uses along ground floor street frontages;
 - (b) complement the surrounding built form in terms of height, massing and scale; and
 - (c) incorporate façade treatments along major street frontages that are sufficiently enclosed and detailed to complement neighbouring buildings consistent with the Desired Character of the locality.

Advertising

- 33 Other than signs along Hindley Street, advertisements should use simple graphics and be restrained in their size, design and colour.
- 34 In minor streets and laneways, a greater diversity of type, shape, numbers and design of advertisements are appropriate provided they are of a small-scale and located to present a consistent message band to pedestrians.
- **35** There should be an overall consistency achieved by advertisements along individual street frontages.
- In Chesser Street, French Street and Coromandel Place advertisements should be small and preferably square and should not be located more than 3.7 metres above natural ground level or an abutting footpath or street. However, advertisements in these streets may be considered above 3.7 metres at locations near the intersections with major streets.
- Advertisements on the Currie Street frontages between Topham Mall and Gilbert Place and its north-south prolongation should be of a size, shape and location complementary to the desired townscape character, with particular regard to the following:
 - (a) On the southern side of Currie Street, advertisements should be fixed with their underside at a common height, except where the architectural detailing of building façades precludes it. At this 'canopy' level advertisements should be of a uniform size and fixed without the support of guy wires. Where architectural detailing permits, advertisements may mark the major entrances to buildings along the southern side of Currie Street with vertical projecting advertisements 1.5 metres high by 1.2 metres wide at, or marginally above, the existing canopy level. Painted wall or window signs should be restrained.
 - (b) On the northern side of Currie Street, advertisements should be of a uniform fixing height and consistent dimensions to match those prevailing in the area.

PROCEDURAL MATTERS

Complying Development

38 Complying developments are prescribed in Schedule 4 of the Development Regulations 2008.

In addition, the following forms of development are assigned as **complying**:

- (a) Other than in relation to a State heritage place, Local heritage place (City Significance), or Local heritage place, work undertaken within a building which does not involve a change of use or affect the external appearance of the building;
- (b) Temporary depot for Council for a period of no more than 3 months where it can be demonstrated that appropriate provision has been made for:
 - (i) dust control;

- (ii) screening, including landscaping;
- (iii) containment of litter and water; and
- (iv) securing of the site.
- (c) Change in the use of land from a non-residential use to an office, shop or consulting room (excluding any retail showroom, adult entertainment premises, adult products and services premises or licensed premises).

Non-complying Development

39 The following kinds of development are non-complying:

A change in use of land to any of the following:

Amusement machine centre

Advertisements involving any of the following:

- (a) third party advertising except on Hindley Street, Rundle Mall or on allotments at the intersection of Rundle Street and Pulteney Street, or temporary advertisements on construction sites:
- (b) advertisements located at roof level where the sky or another building forms the background when viewed from ground level;
- (c) advertisements in the area bounded by West Terrace, Grote Street, Franklin Street and Gray Street;
- (d) animation of advertisements along and adjacent to the North Terrace, King William Street and Victoria Square frontages.

Total demolition of a State Heritage Place (as identified in Table Adel/1).

Vehicle parking except:

- (a) where it is ancillary to an approved or existing use;
- (b) it is a multi-level car park located outside the Core Pedestrian Area as indicated on Map Adel/1 (Overlay 2, 2A and 3); or
- (c) it is within an existing building located outside the Core Pedestrian Area as indicated on Map Adel/1 (Overlay 2, 2A and 3).

Public Notification

40 Categories of public notification are prescribed in Schedule 9 of the *Development Regulations* 2008.

In addition, the following forms of development, or any combination of (except where the development is non-complying), are assigned:

(a) Category 1, public notification not required:

All forms of development other than where it is assigned Category 2.

(b) Category 2, public notification required. Third parties do not have any appeal rights.

Any development where the site of the development is adjacent land to land in the City Living Zone or Adelaide Historic (Conservation) Zone and it exceeds 22 metres in building height.

Note: For Category 3 development, public notification is required. Third parties may make written representations, appear before the relevant authority on the matter, and may appeal against a development consent. This includes any development not classified as either Category 1 or Category 2.

Community Facilities

OBJECTIVES

Objective 4: Community and social facilities and services that promote greater equity, are

located for convenient access by residents, workers and visitors and that form a

focus for residential development.

Objective 5: Location of appropriate community facilities (e.g. schools, hospitals and other

institutions) where they are conveniently accessible to the population they serve.

PRINCIPLES OF DEVELOPMENT CONTROL

- 2 Community facilities should:
 - (a) be located conveniently in relation to the population they serve;
 - (b) be designed for multi-purpose use where possible;
 - (c) meet the demonstrated needs of the various communities who will use them;
 - (d) be safe and easy to reach on foot, by bicycle and by public transport;
 - (e) be situated in suitable locations; and
 - (f) not unreasonably impact on the amenity of the surrounding locality through excessive traffic generation.
- 3 The redevelopment, alteration or change of use of community facilities should ensure the adequate provision of such facilities.
- 4 Childcare facilities should be incorporated into large scale employment, commercial, shopping, higher education, tourism, entertainment, health and leisure development.

City Living

Housing Choice

OBJECTIVES

Objective 6: A variety of housing options which supplement existing types of housing and suit

the widely differing social, cultural and economic needs of all existing and future

residents.

Objective 7: A range of long and short term residential opportunities to increase the number

and range of dwellings available whilst protecting identified areas of special

character and improving the quality of the residential environment.

Objective 8: A broad range of accommodation to meet the needs of low income,

disadvantaged and groups with complex needs whilst ensuring integration with

existing residential communities.

PRINCIPLES OF DEVELOPMENT CONTROL

5 Development should comprise of a range of housing types, tenures and cost, to meet the widely differing social and economic needs of residents.

- Development should provide a variety of accommodation to meet the needs of low income people, student housing, social housing, housing for single people, large and small families, people with disabilities and people with other complex needs These forms of housing should be distributed throughout the Council area to avoid over-concentration of similar types of housing in a particular area and should be of a scale and appearance that reinforces and achieves the desired character of the locality, as expressed in the relevant Zone and Policy Area.
- 7 Residential development should be designed to be adaptable to meet people's needs throughout their lifespan to ensure that changes associated with old age, special access and mobility can be accommodated.

Design Technique (this is ONE WAY of meeting the above Principle)

- 7.1 Buildings constructed in accordance with the requirements set out in Australian Standard AS 4299: 'Adaptable Housing'.
- **8** Residential development for older people and people with disabilities should be:
 - (a) located within easy walking distance to essential facilities such as convenience shops, health and community services and public transport;
 - (b) located where on-site movement of residents is not unduly restricted by the slope of the land;
 - (c) located and designed to promote interaction with other sections of the community, without compromising privacy;
 - (d) of a scale and appearance that reinforces the desired character of the locality; and
 - (e) provided with access to public and private open space and landscaping to meet the needs of residents.
- **9** The City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone should develop as follows:
 - (a) Residential areas should comprise a wide range of housing alongside a diversity of community facilities, with many heritage places conserved. Residential amenity should be enhanced and attractive townscape qualities reinforced.
 - (b) Adelaide was once a predominantly residential City. The character in the south east corner continues to reflect this historical pattern with distinctive dwelling types and earlyshops from the mid to late 19th century. This historic importance is identified by the Adelaide Historic (Conservation) Zone within which development should complement and protect the historic character. In the south east and south west corners, groups of mid to late 19th housing remain amidst development from the 20th century. This early housing is identified within Historic (Conservation) Areas where development should complement and protect the historic character.
 - (c) North Adelaide is associated with the foundation of the City of Adelaide. It retains many buildings and sites of State and Local Heritage value and provides strong cultural and historic evidence of the creation of the colony, the establishment of early settlement and the development of the capital city over time. North Adelaide contains excellent examples of a diverse range of residential architecture from all periods of the City's development, which individually and as groups, reflect the periods of economic prosperity of the City and the social composition of the colonial population. The remaining historic housing is an essential and defining element of North Adelaide's cultural value and is a microcosm of housing styles and periods in the State as a whole. The historic value of the residential parts is such that they are identified as the North Adelaide Historic (Conservation) Zone within which development should complement and protect the historic character.

- (d) The City Living Zone fronting South Terrace, and between Whitmore and Hurtle Squares, is suited to medium density mixed use development, accompanied by community and commercial activities. East Terrace is suited to medium rise housing.
- (e) The interface between established non-residential uses with neighbouring residential properties should be effectively managed, recognising the legitimate rights of commercial and community activities whilst protecting the amenity of residents.
- (f) Small scale, small size, ancillary businesses and activities which provide a local service to residents may be appropriate provided compatible with the desired character of the locality, does not result in the net loss of residential floor space and do not threaten the envisaged development of non-residential zones.

Medium to High Scale Residential/Serviced Apartment

OBJECTIVE

- **Objective 22:** Medium to high scale residential (including student accommodation) or serviced apartment development that:
- (a) has a high standard of amenity and environmental performance;
- (b) comprises functional internal layouts;
- (c) is adaptable to meet a variety of accommodation and living needs; and
- (d) includes well-designed and functional recreation and storage areas.

PRINCIPLES OF DEVELOPMENT CONTROL

Building Entrances

- 48 Entrances to medium to high scale residential or serviced apartment development should:
 - (a) be oriented towards the street;
 - (b) be visible and easily identifiable from the street; and
 - (c) provide shelter, a sense of personal address and transitional space around the entry.
- **49** Entrances to individual dwellings or apartments within medium to high scale residential or serviced apartment development should:
 - (a) be located as close as practical to the lift and/or lobby access and minimise the need for long access corridors;
 - (b) be clearly identifiable; and

avoid the creation of potential areas for entrapment.

Daylight, Sunlight and Ventilation

50 Medium to high scale residential or serviced apartment development should be designed to maximise opportunities to facilitate natural ventilation and capitalise on natural daylight and minimise the need for artificial lighting during daylight hours.

Design Technique (this is ONE WAY of meeting the above Principle)

50.1 Design solutions may include:

(a) corner dwelling/apartment

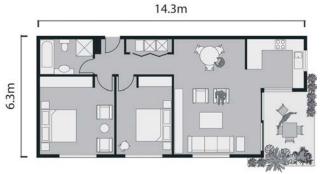
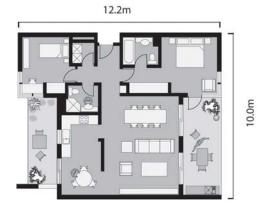


Figure 50.1 - two bedroom corner dwelling.

(b) double aspect dwelling/apartment.



 $Figure~50.2 \hbox{--} two~bedroom~double~aspect~dwelling/apartment.}$

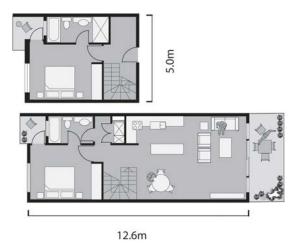


Figure 50.3 - two bedroom double aspect dwelling/apartment.



Figure 50.4 - one bedroom double aspect dwelling/apartment.

(c) split level dwelling/apartment.

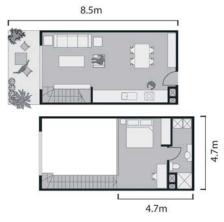


Figure 50.5 - one bedroom split level dwelling/apartment.

(d) shallow, single aspect dwelling/apartment limited in depth to 8 metres from a window



 $Figure~50.6 \hbox{--} one~bedroom~single~aspect~dwelling/apartment.$

Note: If over 15 metres deep, the width of the dwelling/apartment should be 4 metres or greater to ensure sufficient natural daylight.

- 51 Medium to high scale residential or serviced apartment development should be designed and located to maximise solar access to dwellings and communal open space on the norther facade.
- 52 Ceiling heights that promote the use of taller windows, highlight windows, fan lights and light shelves should be utilised to facilitate access to natural light, improve daylight distribution and enhance air circulation, particularly in dwellings with limited light access and deep interiors.

Design Technique (this is ONE WAY of meeting the above Principle)

52.1 Design solutions may include:

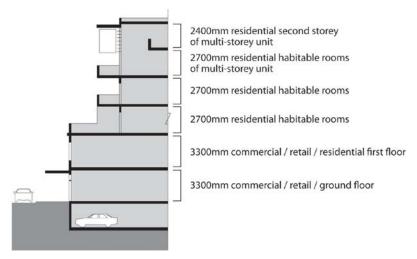


Figure 52.1 - appropriate ceiling heights for mixed use buildings.

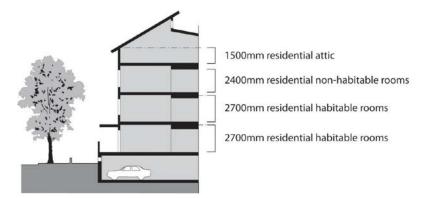


Figure 52.2 - appropriate ceiling heights for medium to high scale residential or serviced apartment development.

- 53 All new medium to high scale residential or serviced apartment development should have direct ventilation and natural light.
- The maximum distance of a habitable room such as a living, dining, bedroom or kitchen from a window providing natural light and ventilation to that room is 8 metres.
- 55 Light wells should not be used as the primary source of daylight for living rooms to ensure a sufficient level of outlook and daylight.
- Medium to high scale residential or serviced apartment development should be designed to ensure living areas, private open space or communal open space, where such communal open space provides the primary area of private open space, are the main recipients of sunlight.
- 57 Medium to high scale residential or serviced apartment development should locate living areas, private open space and communal open space, where such communal open space provides the primary area of private open space, where they will receive sunlight and, where possible, should maintain at least two hours of direct sunlight solar time on 22 June to:
 - (a) at least one habitable room window (excluding bathroom, toilet, laundry or storage room windows);
 - (b) to at least 20 percent of the private open space; and
 - (c) communal open space, where such communal open space provides the primary private open space for any adjacent residential development.

- 58 Natural cross ventilation of habitable rooms should be achieved by the following methods:
 - (a) positioning window and door openings in different directions to encourage cross ventilation from cooling summer breezes;
 - (b) installing small low level windows on the windward side and larger raised openings on the leeward side to maximise airspeed in the room;
 - (c) installing higher level casement or sash windows, clerestory windows or operable fanlight windows to facilitate convective currents;
 - (d) selecting windows which the occupants can reconfigure to funnel breezes such as vertical louvred, casement windows and externally opening doors;
 - (e) ensuring the internal layout minimises interruptions to airflow;
 - (f) limiting building depth to allow for ease of cross ventilation; and/or
 - (g) draught proofing doors, windows and other openings.

Design Techniques (these are ONE WAY of meeting the above Principle)

58.1 In relation to Principle of Development Control 58(e):

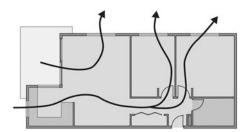


Figure 58.1 - effective layout for an upper level corner dwelling/apartment.

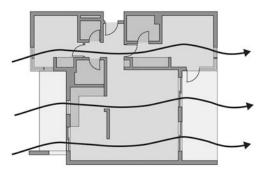


Figure 58.2 - optimal layout allowing air flow directly from one side of a dwelling/apartment to the other.

Private Open Space

- 59 Medium to high scale residential development and serviced apartments should provide the following private open space:
 - (a) studio (where there is no separate bedroom): no minimum requirement but some provision is desirable.
 - (b) 1 bedroom dwelling/apartment: 8 square metres.
 - (c) 2 bedroom dwelling/apartment: 11 square metres.
 - (d) 3+ bedroom dwelling/apartment: 15 square metres.

A lesser amount of private open space may be considered appropriate in circumstances where the equivalent amount of open space is provided in a communal open space accessible to all occupants of the development.

Private open space for 2 or more bedroom dwellings/apartments may be divided into different areas whilst private open space for studios or 1 bedroom dwelling/apartments should be in a single area.

Areas used for parking of motor vehicles are not included as private open space.

Note: In the City Living, Main Street and Institutional Zones, specific landscaped open space and private landscaped open space provisions apply.

- Medium to high scale residential (other than student accommodation) or serviced apartment development should ensure direct access from living areas to private open space areas, which may take the form of balconies, terraces, decks or other elevated outdoor areas provided the amenity and visual privacy of adjacent properties is protected.
- Other than for student accommodation, private open space should have a minimum dimension of 2 metres and should be well proportioned to be functional and promote indoor/outdoor living.

Design Techniques (these are ONE WAY of meeting the above Principle)

61.1 Design solutions for balconies may include:

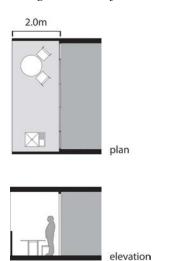


Figure 61.1 - a minimum depth of 2 metres

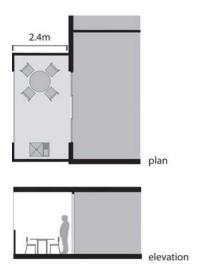


Figure 61.2 - a 2.4 metre deep balcony is needed for a table and four chairs.

- 62 Balconies should be integrated into the overall architectural form and detail of the development and should:
 - (a) utilise sun screens, pergolas, shutters and openable walls to control sunlight and wind;
 - (b) be cantilevered, partially cantilevered and/or recessed in response to daylight, wind, acoustic and visual privacy;
 - (c) be of a depth that ensures sunlight can enter the dwelling below; and
 - (d) allow views and casual surveillance of the street while providing for safety and visual privacy.
- 63 Secondary balconies, including Juliet balconies or operable walls with balustrades should be considered, subject to overlooking and privacy, for additional amenity and choice.
- **64** For clothes drying, balconies off laundries or bathrooms and roof top areas should be screened from public view.
- 65 The incorporation of roof top gardens is encouraged providing it does not result in unreasonable overlooking or loss of privacy.

Visual Privacy

- 66 Medium to high scale residential or serviced apartment development should be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development.
- A habitable room window, balcony, roof garden, terrace or deck should be set-back from boundaries with adjacent sites at least three metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites.

Noise and Internal Layout

- Medium to high scale residential or serviced apartment development close to high noise sources (e.g. major roads, established places of entertainment and centres of activity) should be designed to locate noise sensitive rooms and private open space away from noise sources, or be protected by appropriate shielding techniques.
- 69 Attached or abutting dwellings/apartments should be designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.

Minimum Unit Sizes

- 70 Medium to high scale residential or serviced apartment development should provide a high quality living environment by ensuring the following minimum internal floor areas:
 - (a) studio (where there is no separate bedroom): 35 square metres.
 - (b) 1 bedroom dwelling/apartment: 50 square metres
 - (c) 2 bedroom dwelling/apartment: 65 square metres
 - (d) 3+ bedroom dwelling/apartment: 80 square metres plus an additional 15 square metres for every additional bedroom over 3 bedrooms.

Note: Dwelling/apartment "unit size" includes internal storage areas but does not include balconies or car parking as part of the calculation.

71 Internal structural columns should correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.

Adaptability

- 72 Within medium to high scale residential or serviced apartment development, dwelling/apartment layouts should be adaptable to accommodate:
 - (a) a range of activities and privacy levels between different spaces;
 - (b) flexible room sizes and proportions;
 - (c) efficient circulation to optimise the functionality of floor space within rooms; and
 - (d) the future reuse of student accommodation as residential apartments through a design and layout that allows individual apartments to be reconfigured into a larger dwelling or other alternative use.

Design Technique (this is ONE WAY of meeting the above Principle)

- 72.1 Design solutions may include:
 - (a) windows in all habitable rooms and to the maximum number of non-habitable rooms;
 - (b) adequate room sizes or open plan dwellings which provide a range of furniture layout options; and/or
 - (c) dual master bedrooms that can support two independent adults living together or a live/work situation.

Outlook

All medium to high scale residential or serviced apartment development should be designed to ensure the living rooms have a satisfactory external outlook. Living rooms that do not have an outlook or the only source of outlook is through high level windows or a skylight are not considered to provide an appropriate level of amenity for the occupiers.

Note: Outlook is a short range prospect and is distinct from a view which is more extensive and long range to particular objects or geographic features.

- 74 Light wells may be used as a source of daylight, ventilation, outlook and sunlight for medium to high scale residential or serviced apartment development provided that:
 - (a) living rooms do not have lightwells as their only source of outlook;
 - (b) lightwells up to 18 metres in height have a minimum horizontal dimension of 3 metres or 6 metres if overlooked by bedrooms; and
 - (c) lightwells higher than 18 metres in height have a minimum horizontal dimension of 6 metres or 9 metres if overlooked by bedrooms.

On-Site Parking and Fencing

OBJECTIVE

Objective 23: Safe and convenient on-site car parking for resident and visitor vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

75 To ensure an adequate provision of on-site parking, car parking should be provided for medium to high scale residential (other than student accommodation) or serviced apartment development in accordance with <u>Table Adel/7</u>.

- 76 Garages and parking structures associated with medium to high scale residential or serviced apartment development should be located so that they do not visually dominate the street frontage.
- 77 Car parking areas should be designed and located to:
 - (a) be close and convenient to dwellings/apartments;
 - (b) be lit at night;
 - (c) be well ventilated if enclosed;
 - (d) avoid headlight glare into windows; and
 - (e) clearly define visitor parking.
- **78** Where garages are located within a basement or undercroft:
 - (a) the width of access driveways should be kept to a minimum and should not detract from the streetscape;
 - (b) driveways should be designed to ensure safe and convenient access and egress;
 - (c) access should be restricted to one driveway or one point of access and egress;
 - (d) vehicles should be able to safely exit in a forward direction and should not compromise pedestrian safety or cause conflict with other vehicles; and
 - (e) the height of the car park ceiling should not exceed one metre above the finished ground floor level to ensure minimal impact on the streetscape.
- 79 Fencing and walls should:
 - (a) be articulated and detailed to provide visual interest;
 - (b) assist the development to address the street;
 - (c) assist in the provision of safety and surveillance;
 - (d) assist in highlighting entrances; and
 - (e) enable visibility of buildings from and to the street.

Storage Areas

- **80** Site facilities should be readily accessible to each dwelling/serviced apartment, complement the development and relevant desired character and should include:
 - (a) a common mail box structure located close to the main pedestrian entrance;
 - (b) areas for the storage and collection of goods, materials, refuse and waste including facilities to enable the separation of recyclable materials as appropriate to the size and nature of the development and screened from public view; and
 - (c) external clothes drying areas for residential dwellings that do not incorporate ground level open space.
- 81 Medium to high scale residential (other than student accommodation) or serviced apartment development should provide adequate and accessible storage facilities for the occupants at the following minimum rates:

- (a) studio: 6 cubic metres
- (b) 1 bedroom dwelling/apartment: 8 cubic metres
- (c) 2 bedroom dwelling/apartment: 10 cubic metres
- (d) 3+ bedroom dwelling/apartment: 12 cubic metres

50 percent of the storage space should be provided within the dwelling/apartment with the remainder provided in the basement or other communal areas.

Environmental

Crime Prevention Through Urban Design

OBJECTIVES

Objective 24: A safe and secure, crime resistant environment that:

- (a) ensures that land uses are integrated and designed to facilitate natural surveillance;
- (b) promotes building and site security; and
- (c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

PRINCIPLES OF DEVELOPMENT CONTROL

- **82** Development should promote the safety and security of the community in the public realm and within development. Development should:
 - (a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:
 - (i) orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;
 - (ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;
 - (iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;
 - (iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;
 - (v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;
 - (vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;
 - (vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance: and

- (viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.
- (b) provide access control by facilitating communication, escape and path finding within development through legible design by:
 - (i) incorporating clear directional devices;
 - (ii) avoiding opportunities for concealment near well travelled routes;
 - (iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;
 - (iv) use of devices such as stainless steel mirrors where a passage has a bend;
 - (v) locating main entrances and exits at the front of a site and in view of a street;
 - (vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and
 - (vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.
- (c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:
 - (i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;
 - (ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and
 - (iii) locating main entrances and exits at the front of a site and in view of a street.
- (d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:
 - (i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;
 - (ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;
 - (iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;
 - (iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;
 - (v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and
 - (vi) use of robust and durable design features to discourage vandalism.
- 83 Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.

Design Technique (this is ONE WAY of meeting the above Principle)

- 83.1 Residential development adjacent to public or communal open space or streets having at least one habitable room window facing such areas with a sill height no greater than 1.5 metres.
- **84** To maximise security and safety, buildings should be designed to minimise access between roofs, balconies and windows of adjacent buildings.
- 85 Security features should be incorporated within the design of shop fronts to complement the design of the frontage and allow window shopping out of hours. If security grilles are provided, these should:
 - (a) be transparent and illuminated to complement the appearance of the frontage;
 - (b) provide for window shopping; and
 - (c) allow for the spill of light from the shop front onto the street.

Solid shutters with less than 75 percent permeability are not acceptable.

- **86** Public toilets should be designed and located to:
 - (a) promote the visibility of people entering and exiting the facility by avoiding recessed entrances and dense shrubbery which obstructs passive surveillance;
 - (b) limit opportunities for vandalism through the use of vandal proof lighting on the public toilet buildings and nearby;
 - (c) avoid features which facilitate loitering, such as seating or telephones immediately adjacent the structure; and
 - (d) maximise surveillance through location near public transport links, pedestrian and cyclist networks.

Operating Hours and Associated Activities of Licensed Premises

OBJECTIVE

Objective 25: Operating hours of licensed premises or licensed entertainment premises, together with associated activities of such premises, established and operated so as to reinforce the desired character of the locality and appropriate behavioural activities.

PRINCIPLES OF DEVELOPMENT CONTROL

- 87 Licensed premises and licensed entertainment premises or similar should:
 - (a) be located, designed and operated in order to reinforce the desired character of a locality, as expressed in the relevant Zone or Policy Area;
 - (b) be located, designed and operated so as to not negatively impact on peoples orderly use and enjoyment of a locality, such as through disorderly behavioural activities and/or disorderly behavioural movement to and from such land uses; and
 - (c) incorporate best practice measures to effectively manage the behaviour of users moving to and from such land uses.
- **88** Licensed premises and licensed entertainment premises or similar should operate with operating hours to reinforce the desired character of the locality.

Noise Emissions

OBJECTIVES

- **Objective 26:** Development that does not unreasonably interfere with the desired character of the locality by generating unduly annoying or disturbing noise.
- **Objective 27:** Noise sensitive development designed to protect its occupants from existing noise sources and from noise sources contemplated within the relevant Zone or Policy Area and that does not unreasonably interfere with the operation of non-residential uses contemplated within the relevant Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Noise Sources

- 89 Development with potential to emit significant noise (including licensed entertainment premises and licensed premises) should incorporate appropriate noise attenuation measures in to their design to prevent noise from causing unreasonable interference with the amenity and desired character of the locality, as contemplated in the relevant Zone and Policy Area.
- Development of licensed premises or licensed entertainment premises or similar in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone should include noise attenuation measures to achieve the following when assessed at the nearest existing or envisaged future noise sensitive development:
 - (a) the music noise (L_{10, 15 min}) is:
 - (i) less than 8 dB above the level of background noise₂ (L_{90,15 min}) in any octave band of the sound spectrum; and
 - (ii) less than 5 dB(A) above the level of background noise (LA 90,15 min) for the overall (sum of all octave bands) A-weighted level.
- 91 Development of licensed premises or licensed entertainment premises or similar in the Capital City, Main Street, Mixed Use and City Frame Zones should include noise attenuation measures to achieve the following when assessed at:
 - (a) the nearest existing noise sensitive location in or adjacent to that Zone:
 - (i) music noise ($L_{10, 15 \text{ min}}$) less than 8 dB above the level of background noise ($L_{90, 15 \text{ min}}$) in any octave band of the sound spectrum; and
 - (ii) music noise (LA10, 15 min) less than 5 dB(A) above the level of background noise (LA90,15 min) for the overall (sum of all octave bands) A-weighted levels; or
 - (b) the nearest envisaged future noise sensitive location in or adjacent to that Zone:
 - (i) music noise (L_{10, 15 min}) less than 8dB above the level of background noise (L_{90,15 min}) in any octave band of the sound spectrum and music noise (L_{10, 15 min}) less than 5dB(A) above the level of background noise (L_{A90,15 min}) for the overall (sum of all octave bands) A-weighted levels; or
 - (ii) music noise (L_{10, 15 min}) less than 60dB(Lin) in any octave band of the sound spectrum and the overall (L_{A10,15 min}) noise level is less than 55 dB(A).

Note: A report regarding noise associated with licensed premises or licensed entertainment premises or similar prepared by an acoustic engineer at the planning application stage should specify the noise attenuation measures and address other typical noise sources to ensure those sources do not result in unreasonable interference. These noise attenuation measures might include:

 installation of an in-house music system which has a limiting device that monitors and controls the volume of the system so that the maximum internal noise level certified by the acoustic engineer is not exceeded;

- (b) treatment of openings, such as by airlocks and seals for doors, sealing of wall and roof vents and treatment of ventilation and air-conditioning paths;
- acoustic treatment of building elements, such as sealing and double glazing of windows or upgrading roof construction;
- (d) no entertainment on or in any balcony or outdoor area;
- (e) no loud speakers placed on or in the fascia of the premises, balcony or any adjacent outdoor area or footpath;
- (f) external windows and doors are kept closed where relied upon for noise attenuation;
- (g) locating and designing entrances and fencing to assist in keeping patrons away from noise sensitive areas; or
- (h) locating car park, delivery and rubbish collection areas away from noise sensitive development and limiting times of activity to minimise noise impacts.
- **92** Speakers should not be placed on the fascias of premises or on the pavement adjacent to the premises to ensure development does not diminish the enjoyment of other land in the locality.
- 93 Mechanical plant or equipment should be designed, sited and screened to minimise noise impact on adjacent premises or properties. The noise level associated with the combined operation of plant and equipment such as air conditioning, ventilation and refrigeration systems when assessed at the nearest existing or envisaged noise sensitive location in or adjacent to the site should not exceed
 - (a) 55 dB(A) during daytime (7.00am to 10.00pm) and 45 dB(A) during night time (10.00pm to 7.00am) when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.
 - (b) 50 dB(A) during daytime (7.00am to 10.00pm) and 40 dB(A) during night time (10.00pm to 7.00am) in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone, the North Adelaide Historic (Conservation) Zone or the Park Lands Zone when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.
- **94** To ensure minimal disturbance to residents:
 - (a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:
 - (i) after 10.00pm; and
 - (ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.
 - (b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.

Noise Receivers

- 95 Noise sensitive development should incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity when exposed to noise sources such as major transport corridors (road, rail, tram and aircraft), commercial centres, entertainment premises and the like, and from activities and land uses contemplated in the relevant Zone and Policy Area provisions.
- Noise sensitive development in mixed use areas should not unreasonably interfere with the operation of surrounding non-residential uses that generate noise levels that are commensurate with the envisaged amenity of the locality.
- 97 Noise sensitive development adjacent to noise sources should include noise attenuation measures to achieve the following:

- (a) satisfaction of the sleep disturbance criteria in the bedrooms or sleeping areas of the development as defined by the limits recommended by the World Health Organisation;
- (b) the maximum satisfactory levels in any habitable room for development near major roads, as provided in the Australian/New Zealand Standard AS/NZS 2107:2000 - 'Acoustics -Recommended Design Sound Levels and Reverberation Times for Building Interiors'; and
- (c) noise level in any bedroom, when exposed to music noise (L₁₀) from existing entertainment premises, being:
 - less than 8 dB above the level of background noise (L_{90,15 min}) in any octave band of the sound spectrum; and
 - (ii) less than 5 dB(A) above the level of background noise (L_{A90,15 min}) for the overall (sum of all octave bands) A-weighted levels.

Background noise within the habitable room can be taken to be that expected in a typical residential/apartment development of the type proposed, that is inclusive of internal noise sources such as air conditioning systems, refrigerators and the like as deemed appropriate.

Unless otherwise demonstrated, the minimum background noise to be used will be:

Octave Band Centre Frequency (Hz)	Minimum Background Noise Level (L _{A90, 15}) dB (A)
63	10
125	12
250	14
500	14
1000	12
2000	10
4000	8
Overall Sum	21

on the basis of the windows being closed for the noise sensitive development and any existing entertainment premises complying with the relevant legislation relating to noise emission.

Note: The report prepared by a suitably qualified acoustic engineer at the planning application submission stage should identify existing noise sources, identify the appropriate level of sound attenuation required and specify the noise attenuation measures that will be applied to the proposal. The noise attenuation measures might include:

- (a) siting and orientating the building away from the noise source and/or providing an external area that limits noise levels to World Health Organisation recommendations for residential areas;
- (b) sensitive internal layout of rooms, by locating noise sensitive rooms such as bedrooms and secluded private open space areas away from the noise source;
- (c) locating and designing entrances to be sealed and to provide air lock entries to sensitive rooms;
- (d) window location and design through thicker glass or double glazing of windows in recognition of the noise source;
- (e) sloping of roof or flat roof/parapet design to assist in noise passing overhead rather than penetrating through the roof of the dwelling;
- (f) selecting appropriate construction materials, such as sound absorbing materials and materials that reduce sound transmission:
- (g) installing door seals;
- (h) creation of hybrid buildings that serve as a buffer between different uses, eg the location of offices between residential and entertainment uses, can be vertically or horizontally applied;
- (i) adequate separation between residential and noise generating uses;
- (j) acoustic separation of ducts, fans etc;
- (k) constructing shared walls and floors between dwellings/apartments in a way which minimises the transmission of noise: or
- (I) separating openings of adjacent dwellings/apartments by a distance of a least three metres.

98 Attached dwellings/serviced apartments should be designed to minimise the transmission of sound between dwellings/serviced apartments and should particularly protect bedrooms from possible noise intrusion.

Design Techniques (these are ONE WAY of meeting the above Principle)

- **98.1** Appropriate stacking and horizontal location of rooms, eg bedrooms over bedrooms and bedrooms next to bedrooms.
- **98.2** *Bedrooms of any dwelling/serviced apartment:*
 - (a) not sharing a wall with a living room* or a garage of another dwelling; and
 - (b) not located above or below a living room* of another abutting dwelling.
- **99** The number of dwellings/serviced apartments within a development sharing a common entry should be minimised to limit noise generation in internal access ways.

Design Techniques (these are ONE WAY of meeting the above Principle)

- 99.1 Common entries servicing a maximum of 10 dwellings/serviced apartments on each floor level.
- 99.2 Incorporation of acoustic core filled doors with airtight rubber seals for all entry doors into common access ways.
- 100 Development on land affected by aircraft noise exceeding 20 ANEF, as shown on Map/1 (Overlay 6), should be designed, constructed and insulated to minimise the impact of aircraft noise by being built in accordance with the Australian Standard AS2021-2000: 'Acoustics Aircraft Noise Intrusion Building Siting and Construction'.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

- **101** A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.
- **102** A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.
- **103** Development greater than 2 000 square metres of total floor area should manage waste by:
 - (a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;
 - (b) on-site storage and management of waste;
 - (c) disposal of non-recyclable waste; and

^{*} Living room means a room used for social interaction, relaxation or dining, including a living room, lounge room or open eating area linked to a kitchen, but does not include a bedroom.

- (d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.
- 104 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:
 - (a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;
 - (b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and
 - (c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Design Technique (this is ONE WAY of meeting the above Principle)

104.1 Ventilation equipment built in accordance with Australian Standard 1668.2-2002: 'The Use of Ventilation and Airconditioning in Buildings - Ventilation Design for Indoor Air Contaminant Control'.

Energy Efficiency

OBJECTIVE

Objective 30: Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

PRINCIPLES OF DEVELOPMENT CONTROL

All Development

- **106** Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:
 - (a) providing an internal day living area with a north-facing window, other than for minor additions*, by:
 - (i) arranging and concentrating main activity areas of a building to the north for solar penetration; and
 - (ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.
 - (b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;
 - (c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;
 - (d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;
 - (e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;
 - (f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;
 - (g) providing an external clothes line for residential development; and
 - (h) use of landscaping.

- 106.1 In relation to Principle 106(a), facing the length of the development to the north to maximise solar access with day living areas incorporating a window that faces between 20° west and 30° east of true north; or
- **106.2** *In relation to Principle 106(b):*
 - (a) grouping rooms with similar uses and heating and cooling needs;
 - (b) incorporating doors between living areas and other rooms and corridors; and
 - (c) placing utility areas such as bathrooms, toilets and laundries as buffer zones to the west.
- 106.3 In relation to Principle 106(c):
 - (a) dwellings and additions (other than minor additions) having a total window area (including glass doors) of less than 30 percent of the total wall area of the dwelling;
 - (b) dwellings and additions (other than minor additions) having a total window area facing east and west not exceeding 50 percent of the total window area of the dwelling to avoid heat gain during the summer months and reduce heat loss during the winter months;

^{*} Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

- (c) shading of north facing windows to allow winter sun access but providing complete shading during summer, such as by eaves overhang, awnings, adjustable louvres, pergola's, shutters or planting of deciduous trees and vines;
- (d) external shading is provided to west facing windows; and
- (e) designing skylights and high level windows with adjustable louvres, double glazing and shading to minimise heat gain or loss.

106.4 *In relation to Principle 106(d):*

(a) positioning windows and doors to encourage cross ventilation for summer cooling as illustrated below.

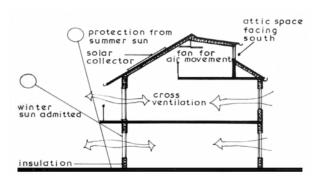


Figure 106.1 - appropriate orientation and design for residential development

106.5 *In relation to Principle 106(h):*

- (a) using appropriate landscaping to assist in microclimatic management of a site by:
 - (i) planting of evergreen trees along the eastern and western boundaries to protect from eastern and western sun providing it poses no undue risk of damage to footings; or
 - (ii) incorporating low shrubs, lawns, ponds and pools to cool summer breezes.
- **107** All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.
- **108** Energy reductions should, where possible, be achieved by the following:
 - (a) appropriate orientation of the building by:
 - (i) maximising north/south facing facades;
 - (ii) designing and locating the building so the north facade receives good direct solar radiation;
 - (iii) minimising east/west facades to protect the building from summer sun and winter winds;
 - (iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or
 - (v) minimising the ratio of wall surface to floor area.
 - (b) window orientation and shading;
 - (c) adequate thermal mass including night time purging to cool thermal mass;

- (d) appropriate insulation by:
 - (i) insulating windows, walls, floors and roofs; and
 - (ii) sealing of external openings to minimise infiltration.
- (e) maximising natural ventilation including the provision of openable windows;
- (f) appropriate selection of materials, colours and finishes; and
- (g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

Design Techniques (these are ONE WAY of meeting part of the above Principle)

- **108.1** *In relation to Principle 108(b) (refer Figure 108.1):*
 - (a) shading for all windows except for south facing elevation against summer sun penetration, by means such as vegetation, external louvres, external blinds, structural overhangs, low emittance glazing, spectrally-selective glazing and/or window films;
 - (b) maximising natural daylight while limiting glare through the incorporation of narrow floor plates, light shelves, shaded skylights, light shafts and/or atriums with daylight sensing control of electric lighting;

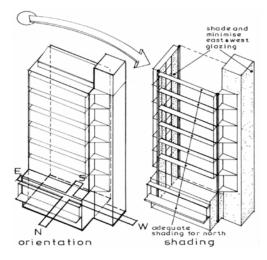


Figure 108.1 - appropriate orientation and shading for commercial buildings.

- (c) integration of solar shading with solar energy collection technology such as solar heat pumps and photovoltaic cells; and/or
- (d) use of high performance glazing.

108.2 In relation to Principle 108(c):

- (a) night purging and fan assisted thermal chimneys to remove heat stored in the building during the day and the recirculation of warm air during winter; and
- (b) adjustable air flow rates for high, but variable, occupancy rates (ie office and conference areas).

- 108.3 In relation to Principle 108(f):
 - (a) use of materials and light colours that reflect rather than absorb solar radiation, whilst ensuring reflective material avoids transferring heat and glare to adjoining properties and/or the pedestrian environment;
 - (b) use of well insulated materials; and
 - (c) light coloured internal walls and ceilings to assist with effective distribution of daylight.
- 108.4 In relation to Principle 108(g), geoxchange heating and cooling systems including closed loop and open loop systems.
- **109** Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

Design Techniques (these are ONE WAY of meeting the above Principle)

- 109.1 A roof incorporating an area of at least 10 square metres which:
 - (a) faces between 30° east and 20° west of north respectively; and
 - (b) has a pitch of greater than 18°.
- **110** Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.
- 111 New buildings should be readily adaptable to future alternative uses.

Design Techniques (these are ONE WAY of meeting part of the above Principle)

- 111.1 Design solutions may include:
 - (a) a structural grid which accommodates car parking dimensions, retail, commercial and residential uses vertically throughout the building;
 - (b) the alignment of structural walls, columns and service cores between floor levels;
 - (c) minimisation of internal structural walls;
 - (d) higher floor to floor dimensions on the ground and first floor;
 - (e) knock-out panels between dwellings to allow two adjacent dwellings to be amalgamated;
 - (f) design for disassembly by selecting systems/materials that can be deconstructed at the end of the projects useful life; and/or
 - (g) the use of products with high post-consumer recyclable content.
- 112 Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

- **112.1** The use of:
 - (a) oil based floor sealers; and/or
 - (b) natural materials for floor linings such as plywood flooring, linoleum and wool carpet.

(d) closed or open loop geoexchange systems providing space cooling, space heating and domestic hot water.

Micro-climate and Sunlight

OBJECTIVES

Objective 33: Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.

Objective 34: Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

PRINCIPLES OF DEVELOPMENT CONTROL

- 119 Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.
- **120** Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.
- **121** Development should not significantly reduce daylight to private open space, communal open space, where such communal open space provides the primary private open space, and habitable rooms in adjacent City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone.
- **122** Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

Design Techniques (these are ONE WAY of meeting the above Principle)

- *122.1 Design solutions may include:*
 - (a) reducing the quantity of glass used by having a higher proportion of masonry or other non-reflective materials in the building exterior;
 - (b) recessing glass into the building;
 - (c) shading or angling the glass;
 - (d) selecting glass that has a low level of reflection; and/or
 - (e) avoiding the use of large expanses of highly reflective materials.
- **123** Buildings within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlays 2, 2A and 3), unless specified otherwise within the relevant Zone or Policy Area, should be designed to provide weather protection for pedestrians against rain, wind and sun. The design of canopies, verandahs and awnings should be compatible with the style and character of the building and adjoining buildings, as well as the desired character, both in scale and detail.
- **124** Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.
- **125** Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

- 125.1 Methods to reduce the potential for a wind tunnel effect may include:
 - (a) a podium built at the base of a tall tower and aligned with the street to deflect wind away from the street;
 - (b) substantial verandahs around a building to deflect downward travelling wind flows; and/or
 - (c) placing one building windward of another building.

Stormwater Management

OBJECTIVES

Objective 35: Development which maximises the use of stormwater.

Objective 36: Development designed and located to protect stormwater from pollution sources.

Surface water (inland, marine, estuarine) and ground water has the potential to be detrimentally affected by water run-off from development containing solid and liquid wastes. Minimising and possibly eliminating sources of pollution will reduce the potential for degrading water quality and enable increased use of stormwater for a range of applications with environmental, economic and social benefits.

Objective 37: Development designed and located to protect or enhance the environmental values of receiving waters.

Objective 38: Development designed and located to prevent erosion.

Development involving soil disturbance may result in erosion and subsequently sedimentation and pollutants entering receiving waters. Design techniques should be incorporated during both the construction and operation phases of development to minimise the transportation of sediment and pollutants off-site.

Objective 39: Development designed and located to prevent or minimise the risk of downstream flooding.

PRINCIPLES OF DEVELOPMENT CONTROL

126 Development of stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.

Design Techniques (these are ONE WAY of meeting the above Principle)

- 126.1 The integrated use of open space for appropriate recreation and stormwater management through the installation of water treatment devices such as wetlands, aquifer storage and recovery, detention and retention basins, gross pollutant traps, trash racks; or
- 126.2 The reservation, through land division, of drainage channels, drainage easements, watercourses and land within the 1 in 100 year flood event.
- 127 Development affecting existing stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.

- *127.1 The retention of natural watercourses through:*
 - (a) the control of development and activities within the 1 in 100 year flood event, including the placement of fill, excavation, building work, the placement of structures and fences, the storage of materials, the keeping of animals, the piping of watercourses; and
 - (b) the planting of local native flora along watercourses and the replacement of exotic plants.
- 127.2 The restoration of lined watercourses.
- 127.3 The maximisation of road frontage onto open space areas in subdivision design.

128 Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.

Design Techniques (these are ONE WAY of meeting the above Principle)

- 128.1 For residential and non-residential development, rainfall run-off should be retained and used as much as possible through the application of an appropriate range of the following techniques:
 - (a) collection and use of roof run-off in rain saver gutters and rainwater tanks for irrigation (a 500 litre rainwater tank to irrigate 25 square metres of garden), and internal purposes (drinking when considered safe to do so, flushing toilets, washing, and bathing);
 - (b) use of on-site detention tank/s with an appropriately sized orifice;
 - (c) directing rainfall run-off onto landscaped areas;
 - (d) installing appropriate soakage devices (soakage trenches or wells) having regard to the availability of unbuilt upon or unsealed areas, the ability of soils to absorb and drain water, the potential impact on building foundations and footings on or adjacent to the site, and the ability to safely direct surplus flows to a public street without causing nuisance to adjoining properties; and
 - (e) use of permeable forms of paving for public and private parking areas, open storage, display, work areas, driveways, vehicle and pedestrian carriageways.
- **129** Development should incorporate appropriate measures to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria and litter and other contaminants to the stormwater system and may incorporate systems for treatment or use on site.

- 129.1 For residential and non-residential development:
 - (a) rainfall run-off from the roof of any building, where not retained on site, discharged directly to the street water table or to the council stormwater system and not mixed with rainfall run-off originating from surfaces such as car parks, outdoor storage areas and display areas; and
 - (b) rainfall run-off from ground surfaces directed to a stormwater treatment system capable of removing litter, sediment, grease, oil and other substances capable of contaminating stormwater. Also, a high flow bypass provided to enable water from extreme rainfall events to discharge direct to stormwater swales or to council stormwater systems. The stormwater treatment system is to discharge on site to storage; grassed swales; stone filled trenches; small infiltration basins; a constructed water feature; bores approved for aquifer recharge; or off site to the council stormwater system.
- 129.2 Wastewater from air conditioning units, cooling towers and compressors prevented from discharging into any stormwater drainage system.
- 129.3 Housing and other building layouts which minimise sewage and water piping with potential for leakage.
- **130** Development should not cause deleterious affect on the quality or hydrology of groundwater.
- **131** Development should manage stormwater to ensure that the design capacity of existing or planned downstream systems are not exceeded, and other property or environments are not adversely affected as a result of any concentrated stormwater discharge from the site.

Built Form and Townscape

OBJECTIVES

Objective 46: Reinforcement of the city's grid pattern of streets through:

- (a) high rise development framing city boulevards, the Squares and Park Lands
- (b) vibrant main streets of a more intimate scale that help bring the city to life
- (c) unique and interesting laneways that provide a sense of enclosure and intimacy.

Objective 47: Buildings should be designed to:

- (a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;
- (b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;
- (c) contribute to pedestrian safety and comfort; and

- (d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.
- **Objective 48:** Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment.

PRINCIPLES OF DEVELOPMENT CONTROL

167 Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

Height, Bulk and Scale

PRINCIPLES OF DEVELOPMENT CONTROL

- **168** Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:
 - (a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;
 - (b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;
 - (c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and
 - (d) the open landscape of the Park Lands Zone.
- **169** The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on Map Adel/1 (Overlay 1).
- **170** The height, scale and massing of buildings should reinforce:
 - (a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:
 - (i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;
 - (ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and
 - (iii) avoiding massive unbroken facades.
 - (b) a comfortable proportion of human scale at street level by:
 - (i) building ground level to the street frontage where zero set-backs prevail;
 - (ii) breaking up the building facade into distinct elements;
 - (iii) incorporating art work and wall and window detailing; and
 - (iv) including attractive planting, seating and pedestrian shelter.
- 171 Where possible, large sites should incorporate pedestrian links and combine them with publicly accessible open space.

- 172 Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in Map Adel/1 (Overlay 5) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.
- 173 Development in a non-residential Zone that abuts land in a City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone, should provide a transition between high intensity development and the lower intensity development in the adjacent Zone by focussing taller elements away from the common Zone boundary.
- 174 Development in a non-residential Zone that is adjacent to land in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone should minimise overshadowing on sensitive uses by ensuring:
 - (a) north-facing windows to habitable rooms of existing dwellings in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone receive at least 3 hours of direct sunlight over a portion of their surface between 9.00am and 3.00pm on 21 June;
 - (b) ground level open space of existing residential buildings in the City Living Zone, Adelaide Historic (Conservation) Zone or North Adelaide Historic (Conservation) Zone receive direct sunlight for a minimum of 2 hours between 9.00am and 3.00pm on 21 June to at least the smaller of the following:
 - (i) half of the existing ground level open space;
 - (ii) 35 square metres of the existing ground level open space (with at least one of the area's dimensions measuring 2.5 metres).
- 179 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

Composition and Proportion

- **180** Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:
 - (a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and
 - (b) clearly defining ground, middle and roof top levels.
- **181** Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:
 - (a) frontages creating clearly defined edges;
 - (b) generating new compositions and points of interest;
 - (c) introducing elements for future neighbouring buildings; and

(d) emphasising the importance of the building according to the street hierarchy.

Articulation and Modelling

182 Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.

- 182.1 Design solutions may include:
 - (a) defining a base, middle and top related to the overall proportion of the building;
 - (b) expressing key horizontal lines within the townscape by using cornices, a change in materials or building setback;
 - (c) expressing the internal layout of the building by using for example, vertical bays or its structure, such as party wall divisions;
 - (d) expressing the variation in floor to floor height, particularly at the lower levels;
 - (e) articulating building entries with awnings, porticos, recesses, blade walls and projecting bays;
 - (f) using a variety of window types to create a rhythm or express the use of the building;
 - (g) incorporating architectural features which give human scale to the design of the building at street level such as entrance porches, awnings and colonnades;
 - (h) designing facades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls;
 - (i) expressing important corners by giving visual prominence to parts of the facade, for example, a change of building articulation, material or colour, roof expression or increased height;
 - (j) using a variation of contrasting surface finishes, textures, colours or patterns; or
 - (k) avoiding unbroken building elevations of more than 15 metres on a vertical plan;
 - (l) using recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the facade;
- 183 Balconies should be designed to give shelter to the street or public space at first floor levels.
- 184 Balconies should:
 - (a) respond to the street context and building orientation; and
 - (b) incorporate balustrade detailing to reflect the balcony type and location and the materials and detail of the building facade.
- **185** No part of any fully enclosed building should extend over property boundaries, including streets and public spaces, whether above a balcony at a lower level or not.
- **186** Building services such as drainage pipes together with security grills/screens, ventilation louvres and car park entry doors, should be coordinated and integrated with the overall facade design.

Materials, Colours and Finishes

- **187** The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.
- 188 Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape
- **189** Materials and finishes that are easily maintained and do not readily stain, discolour or deteriorate should be utilised.
- **190** Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

Corner Sites

- **191** New development on major corner sites should define and reinforce the townscape importance of these sites with appropriately scaled buildings that:
 - (a) establish an architectural form on the corner;
 - (b) abut the street frontage; and
 - (c) address all street frontages.

Design Technique (these are ONE WAY of meeting part of the above Principle)

- **191.1** *In relation to Principle 191(a):*
 - (a) corporation of corner elements such as pediments, turrets, verandahs, balconies and other articulation and modelling into the design of the building;
 - (b) incorporation of prominent entrances and/or windows at the apex;
 - (c) increasing roof expression or building height at the corner to emphasise the importance of the street corner;
 - (d) rotating the building line to create a chamfered edge;
 - (e) projecting corner elements forward; and/or
 - (f) in a change of building articulation, material or colour.

Sky and Roof Lines

OBJECTIVE

Objective 49: Innovative and interesting skylines which contribute to the overall design and performance of the building.

PRINCIPLES OF DEVELOPMENT CONTROL

192 Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.

- **193** Buildings should be designed to incorporate well designed roof tops that:
 - (a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;
 - (b) enhance the skyline and local views;
 - (c) contribute to the architectural quality of the building;
 - (d) provide a compositional relationship between the upper-most levels and the lower portions of the building;
 - (e) provide an expression of identity;
 - (f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;
 - (g) respond to the orientation of the site; and
 - (h) create minimal glare.

- 193.1 Design solutions may include:
 - (a) articulating form and surface by large, simple features that can be recognised from a distant view point;
 - (b) tapering towers by stepping back floor plates;
 - (c) integrating plant and fixtures within the roof top design; and/or
 - (d) incorporating an architectural roof feature within the design of the building by:
 - (i) creating a feature that forms part of its overall architectural form and composition;
 - (ii) ensuring visual compatibility with nearby towers and other structures whilst maintaining architectural distinction;
 - (iii) providing sky line features capable of being viewed over great distances;
 - (iv) including modelled parapets;
 - (v) ensuring compatibility of podia height at street alignment; and/or
 - (vi) incorporating roof top gardens and terraces.
- **194** Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:
 - (a) be designed to minimise the visual impact; and
 - (b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.
- **195** Roof design should facilitate future use for sustainable functions such as:
 - (a) rainwater tanks for water conservation;
 - (b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or

(c) "green" roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

Active Street Frontages

OBJECTIVES

- **Objective 50:** Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality's desired character.
- **Objective 51:** Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:
 - (a) enlivening building edges;
 - (b) creating welcoming, safe and vibrant spaces;
 - (c) improving perceptions of public safety through passive surveillance; and
 - (d) creating interesting and lively pedestrian environments.

PRINCIPLES OF DEVELOPMENT CONTROL

196 Development should be designed to create active street frontages that provide activity and interest to passing pedestrians and contribute to the liveliness, vitality and security of the public realm.

Design Techniques (these are ONE WAY of meeting the above Principle)

- **196.1** Design solutions may include:
 - (a) Well designed and legible entrances, lobbies and commercial uses at ground level.
 - (b) Window displays of merchandise or open shopfronts, well lit panel displays, corporate identity and/or artworks.
 - (c) Avoiding vast expanses of blank walls presenting flat surfaces without detailing, openings or activity.
 - (d) Orientating active parts of a building to the street frontage.
 - (e) Incorporating uses such as retailing, food and drink outlets, counter services and cafés/restaurants particularly with outdoor seating areas.
- **197** Retail frontages should be designed to provide interest to passing pedestrians at street level and relief to building mass.

- 197.1 Design solutions may include:
 - (a) Providing views into and out of buildings.
 - (b) Providing interesting and active window displays.
 - (c) Providing external light fittings, particularly where street lighting is blocked eg under verandahs.
 - (d) Using transparent glass, open mesh or transparent security shutters that allow views into and out of the building.

- (e) Illuminating shop windows until 12.00pm.
- (f) Incorporating detailed architectural facade treatment.
- **198** Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

Design Techniques (these are ONE WAY of meeting the above Principle)

- **198.1** Design solutions may include:
 - (a) Providing well designed legible entrances and lobbies that address the street.
 - (b) Creating richness and detail at street level through methods such as artwork (including animating spaces with water), use of high quality materials and variation in materials, wall and window detailing and decoration.
 - (c) Locating lively interior activities along street frontages so they are visible from outside e.g. employee canteens or reception areas oriented towards the street;
 - (d) Cafés and restaurants utilising footpath space; and/or
 - (e) Providing designs which incorporate places for people to sit and watch.
- **199** Residential development should be designed to create interesting pedestrian environments and resident surveillance of any street, accessway and driveway.

Design Techniques (these are ONE WAY of meeting the above Principle)

- 199.1 Design solutions may include:
 - (a) Using transparent glass along street frontages.
 - (b) Maximising the number of windows and doors.
 - (c) Enlivening building edges with balconies, bays, porches, awnings or other projections.
 - (d) Designing interesting and innovative fencing and walls.
 - (e) Incorporating transparent fencing and walls that enable presentation of the building to the street eg use of mesh fencing rather than blank solid walls.
 - (f) Avoiding blank high walls and elevations unbroken by architectural detail which prevents community interaction and resident surveillance of the street.
 - (g) Avoiding car parking in front of buildings.
 - (h) Addressing housing on corner sites to both street frontages by establishing prominent entrances and/or windows at the apex of buildings.
 - (i) Incorporating compatible non-residential uses such as home offices, art/craft workshops and galleries at ground floor level.

Outdoor Dining

OBJECTIVE

Objective 52: Development that contributes to the vibrancy, activity and desired character of a locality.

PRINCIPLES OF DEVELOPMENT CONTROL

200 Outdoor dining should:

- (a) be located outside the associated premises;
- (b) provide sufficient set-backs, such as from kerbs and property boundaries, and clearances, such as from buildings;
- (c) be located in an area safe for patrons where the security of the building is not compromised;
- (d) ensure the dining area is set back from the building line at street intersections;
- (e) ensure unimpeded pedestrian flow through free and uninterrupted pedestrian paths; and
- (f) ensure wheelchair access to pedestrian ramps is not compromised.

201 Structures should:

- (a) be of high quality design and form an integral part of the streetscape;
- (b) not restrict public access;
- (c) not detract or restrict views of significant sightlines, buildings and landmarks;
- **202** Signage that identifies the business name or logo, or advertises goods sold on the premises is only appropriate on glass and canvas screens and umbrellas and should meet the following:
 - (a) signage and advertisements should be designed to improve and complement the amenity of the premises, be of an appropriate design and consistent with the desired character of the locality;
 - (b) advertisements on outdoor dining items such as umbrellas and canvas screens should not exceed a portion that covers 10 percent of the total available space on each outdoor dining item, up to half of which may be commercial advertisements in the form of product logos used or sold by the premises;
 - (c) advertisements should not be illuminated or animated; and
 - (d) third party advertising on outdoor dining items is inappropriate.

Demolition

OBJECTIVE

Objective 53: Where demolition of an existing building is proposed, the replacement building is designed and sited to achieve the purposes of the relevant Zone and Policy Area and to provide for quality urban design.

PRINCIPLES OF DEVELOPMENT CONTROL

- **203** The demolition of any building should not occur unless Development Approval for a replacement development has been granted. Exceptions may only be granted:
 - (a) for documented reasons of public health or safety agreed by the planning authority or alternatively agreed by a statutory order; or
 - (b) where located within the Park Lands Zone.

Should the replacement development not commence within 12 months of the granting of Development Approval, then landscaping of the site should be undertaken.

- (d) maintaining the existing pattern and structure of streets and laneways;
- (e) restricting building over minor streets and laneways to avoid over-shadowing and preserve the built-form pattern established by traditional land sub-division in the City; and
- (f) allowing for ease of pedestrian circulation and through access where possible.

Design Techniques (these are ONE WAY of meeting parts of the above Principle)

- **220.1** In relation to Principle 220(a), minimising set-back distances from the perimeter of the space to increase the ability of the building to interact with the public realm.
- 220.2 In relation to Principle 220(b), incorporating uses such as home offices, artist studios, galleries, cafés and restaurants where encouraged by the Policy Areas provisions.
- 221 Development on, over, encroaching upon, or opening on to public spaces should not endanger public safety or cause undue inconvenience to either pedestrians, including persons with disabilities, or users of vehicles, and should ensure adequate alignment of building levels to surface levels.
- 222 Cornices, sunscreens and hoods should:
 - (a) have a minimum height of 3 metres above the level of the footway or 5 metres above a carriageway;
 - (b) have a maximum projection of 1.2 metres over a public space which exceeds 10 metres in width and a maximum of 600 millimetres over a public space which is 10 metres or less in width; and
 - (c) be constructed to prevent water dripping or running into a public place.
- 223 Public spaces should allow good visibility into and across the space to promote security and safety and should provide opportunities for citizens to meet and socialise.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

- 224 Development should provide safe, convenient and comfortable access and movement.
- 225 Vehicle access points along primary and secondary city access roads and local connector roads, as shown on Map Adel/1 (Overlay 1) should be restricted.

Pedestrian Access

OBJECTIVES

- **Objective 61:** Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.
- **Objective 62:** Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities.

PRINCIPLES OF DEVELOPMENT CONTROL

- 226 Development should reflect the significance of the paths and increase the permeability of the pedestrian network identified within Map Adel/1 (Overlay 2) by ensuring:
 - (a) pedestrians are not disrupted or inconvenienced by badly designed or located vehicle access ramps in footpaths or streets; and
 - (b) vehicle and service entry points are kept to a minimum to avoid adverse impact on pedestrian amenity.
- 227 Within the Core, Primary and Secondary Pedestrian Areas identified within Map Adel/1 (Overlays 2, 2A and 3), development should be designed to support the establishment and maintenance of continuous footpaths so that pedestrian flow is free and uninterrupted. Pedestrian access should be provided at ground level mid-block between all streets.
- 228 Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within Map Adel/1 (Overlays 2, 2A and 3) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.
- 229 Corner buildings in the Central Business Policy Area of the Capital City Zone, buildings adjacent to street intersections and buildings along a high concentration public transport route or along public transport pedestrian routes identified within Map Adel/1 (Overlay 4) should provide weather protection for pedestrians in the form of verandahs, awnings or canopies. Where verandahs or awnings are provided which block street lighting, they should include additional lighting beneath the canopy.
- **230** Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.
- 231 Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.
- 232 Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

- **Objective 64:** Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.
- **Objective 65:** Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

- 233 Development should have regard to the bicycle routes identified within Map Adel/1 (Overlay 3) by:
 - (a) limiting vehicular access points; and

- (b) ensuring that vehicles can enter and leave the site in a forward direction, thereby avoiding reverse manoeuvres.
- 234 An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in Table Adel/6.
- 235 Onsite secure bicycle parking facilities for residents and employees (long stay) should be:
 - (a) located in a prominent place;
 - (b) located at ground floor level;
 - (c) located undercover;
 - (d) located where passive surveillance is possible, or covered by CCTV;
 - (e) well lit and well signed;
 - (f) close to well used entrances;
 - (g) accessible by cycling along a safe, well lit route;
 - (h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and
 - (i) in the case of a cage have an access key/pass common to the building access key/pass.
- 236 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:
 - (a) directly associated with the main entrance;
 - (b) located at ground floor level;
 - (c) located undercover;
 - (d) well lit and well signed;
 - (e) located where passive surveillance is possible, or covered by CCTV; and
 - (f) accessible by cycling along a safe, well lit route.
- 237 Access to bicycle parking should be designed to:
 - (a) minimise conflict with motor vehicles and pedestrians;
 - (b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and
 - (c) ensure the route is unhindered by low roof heights.

- **237.1** *In relation to Principle 237(a):*
 - (a) avoid unnecessary vehicular crossing points, particularly with potential reversing movements from motor vehicles; and
 - (b) utilise the shortest, most direct route for cycles to reach the destination bicycle parking

- **237.2** In relation to Principle 237(c), a minimum clearance of 2 metres for new, permanent structures.
- 238 To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

Public Transport

OBJECTIVES

- **Objective 66:** Development that promotes the use of sustainable transport consistent with State Government objectives and initiatives.
- **Objective 67:** Accessible public transport for all metropolitan residents and visitors and safe and attractive facilities for public transport users.

PRINCIPLES OF DEVELOPMENT CONTROL

- 239 Development along a high concentration public transport route should be designed to ensure that activity and interest for public transport passengers is maximised through the incorporation of active street frontages.
- **240** Development along high concentration public transport routes identified in Map Adel/1 (Overlay 4) should:
 - (a) ensure there are pedestrian links through the site if needed to provide access to public transport;
 - (b) provide shelter (e.g. verandahs) for pedestrians against wind, sun and rain;
 - (c) provide interest and activity at street level; and
 - (d) where possible, avoid vehicle access across high concentration public transport routes identified in Map Adel/1 (Overlay 4). Where unavoidable, vehicle access should be integrated into the design of the development whilst retaining active street frontages.

Traffic and Vehicle Access

OBJECTIVES

- **Objective 68:** Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).
- **Objective 69:** An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.
- **Objective 70:** Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

241 Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.

242 Facilities for the loading and unloading of courier, delivery and service vehicles and access for emergency vehicles should be provided on-site as appropriate to the size and nature of the development. Such facilities should be screened from public view and designed, where possible, so that vehicles may enter and leave in a forward direction.

Design Technique (this is ONE WAY of meeting the above Principle)

- **242.1** Commercial vehicle facilities in compliance with the requirements recommended in Australian Standard AS 2890:2: Off-Street Parking Part 2: Commercial Vehicle Facilities.
- 243 Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment.
- 244 Vehicular access to development located within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlay 2A) should be limited and designed to minimise interruption to street frontages.
- 245 Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.
- 246 There is no minimum setback required from a rear access way where the access way is wider than 6.5 metres. Where the access way is less than 6.5 metres in width, a setback distance equal to the additional width required to make the access way 6.5 metres or more, is required to provide adequate manoeuvrability for vehicles.
- 247 The number of access points on primary city access roads identified in Map Adel/1 (Overlay 1) should be limited to minimise traffic and pedestrian inconvenience, interference with public transport facilities and adverse effects on the environment.
- **248** Buildings located along primary and secondary access roads should be sited to avoid the need for vehicles to reverse on to the road (unless the dimensions of the site make this impractical).
- 249 Access roads within residential development should:
 - (a) provide convenient access for emergency vehicles, visitors and residents;
 - (b) enable vehicles to enter and leave a site in a forward direction;
 - (c) provide a comfortable and safe pedestrian environment; and
 - (d) be well lit.
- 250 Access roads within residential development for older people and people with disabilities should:
 - (a) include platforms across roadways at pedestrian crossing points;
 - (b) not have steep gradients; and
 - (c) have level surface passenger loading areas.

Car Parking

OBJECTIVES

Objective 71: To meet community expectation for parking supply while supporting a shift toward active and sustainable transport modes.

Objective 72: An adequate supply of short-stay and long-stay parking to support desired growth in City activities without detrimental affect on traffic and pedestrian flows.

PRINCIPLES OF DEVELOPMENT CONTROL

- **251** Car parking areas should be located and designed to:
 - (a) ensure safe and convenient pedestrian movement and traffic circulation through and within the car parking area;
 - (b) include adequate provision for manoeuvring and individually accessible car standing areas;
 - (c) enable, where practical, vehicles to enter and leave the site in a forward direction;
 - (d) minimise interruption to the pattern of built form along street frontages;
 - (e) provide for access off minor streets and for the screening from public view of such car parking areas by buildings on the site wherever possible;
 - (f) minimise adverse impacts on adjoining residential properties in relation to noise and access and egress;
 - (g) minimise loss of existing on-street parking spaces arising through crossovers and access;
 - (h) incorporate secure bicycle parking spaces and facilitate convenient, safe and comfortable access to these spaces by cyclists; and
 - (i) provide landscaping, such as semi-mature trees, to shade parked vehicles and reduce the visual impact of the car parking area while maintaining direct sight lines and informal visual surveillance.

- 251.1 Car parking in compliance with the requirements recommended in Australian Standard AS 2890.1: 'Parking Facilities Off-street Car Parking' and Australian Standard AS 2890.2: Off-Street Parking Part 2: Commercial Vehicle Facilities.
- 252 All development should provide car parking spaces for people with disabilities in accordance with the requirements in the Building Code of Australia (BCA). For classes of buildings not covered by the requirements of the BCA, the number of spaces should be provided in accordance with Table Adel/7 and such car parking spaces should comply with Australian Standard 2890.1: 'Parking Facilities Off-street Car Parking'.
- **253** Within the City Living Zone, Adelaide Historic (Conservation) Zone, North Adelaide Historic (Conservation) Zone, Main Street, Mixed Use and Institutional Zones:
 - (a) adequate car parking should be provided within the site area of the development to meet the demand generated by the development;
 - (b) car parking should be provided in accordance with Table Adel/7; and
 - (c) car parking rates lower than the minimum in Table Adel/7 may be appropriate where there is readily accessible and frequent public transport in the locality or it can be demonstrated that a lower provision is warranted, such as for the following reasons:
 - (i) the nature of development;
 - (ii) existing heritage places on or adjacent to the development site which dictates the development of the site in a manner which hampers the provision of on-site parking;
 - (iii) the opportunity to exploit shared car parking areas between uses based upon compatible hours of peak operation;

- (iv) use of a car share scheme; or
- (v) suitable arrangements for any parking shortfall to be met elsewhere or by other means.

254 Off-street parking should:

- (a) be controlled in accordance with the provisions for the relevant Policy Area;
- (b) be located away from street frontages or designed as an integral part of buildings on the site. Provision of parking at basement level is encouraged; and
- (c) not include separate garages or carports in front of buildings within front set-backs.
- 255 Garaging and parking structures (including the width of any support structure) provided on a public street frontage or on a laneway that functions as the dwellings primary frontage should be of a width less than 50 percent of the allotment width on that frontage.
- **256** Undercroft parking is not appropriate within the City Living Zone, Adelaide Historic (Conservation) Zone, North Adelaide Historic (Conservation) Zone, Mixed Use Zones or Main Street Zones.
- **257** Undercroft parking should project no higher than 1 metre above ground level and should be screened from public view and designed to add interest and creativity to the street frontage.
- **258** Off-street parking in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A) will only be appropriate where:
 - (a) parking is ancillary to another activity carried out on the land;
 - (b) it can be provided without loss of pedestrian amenity; and
 - (c) it is not separately created on a strata title or community title basis (unless in association with another title held on the site).
- **259** Multi-level car parks or non-ancillary car parking use of an existing building should only be established where it can be demonstrated that there is a need which is not adequately satisfied by other parking facilities in the locality.
- 260 Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages in the Primary Pedestrian Area identified in Map Adel/1 (Overlays 2, 2A and 3). Multi-level car parks, short stay public use of ancillary car parking spaces or non-ancillary car parking use of an existing building may be appropriate where it:
 - (a) is located away from ground floor street frontages to major streets;
 - (b) ensures vehicle access is from the road with less pedestrian activity in instances where a site has access to more than one road frontage;
 - (c) has no more than one entry lane and one exit lane;
 - (d) has a controlled exit at the property boundary to stop vehicles before travelling across the footpath;
 - (e) has no more than one left in and one left out access point;
 - (f) avoids access points along high concentration public transport routes identified in Map Adel/1 (Overlay 4); and
 - (g) with respect to ancillary parking, is provided at basement level, or undercroft if located behind other uses which provide activity on the street frontage.

- 261 Multi-level car parks should be designed to:
 - (a) provide active street frontages and land uses such as commercial, retail or other non-car park uses, along ground floor street frontages to maintain pedestrian interest and activity at street level;
 - (b) be of a high quality design and complement the surrounding built form in terms of height, bulk and scale;
 - (c) provide surveillance, lighting and direct sightlines along clearly defined and direct walkways, through and within car parking areas and to lift and toilet areas;
 - (d) on a corner site with two major street frontages, be set back from the major street frontages, with commercial or other non-car park floor space in front of and screening the car parking building;
 - (e) on a site with only one major street frontage, include screening so that any car parking is not visible from the public realm either day or night, and detailed to complement neighbouring buildings in a manner consistent with desired character in the relevant Zone and Policy Area;
 - (f) incorporate treatments to manage the interface with adjacent housing, such as careful use of siting and use of materials and landscaping;
 - (g) not have vehicle access points across major walking routes identified in Map Adel/1 (Overlay 2); and
 - (h) provide safe and secure bicycle parking spaces in accordance with the requirements of Table Adel/6.
- 262 The hours and methods of operation of multi-level and non-ancillary car parks should ensure overall traffic efficiency, minimum adverse impact on the environment, and levels of parking supply adequate to meet the economic and social needs of the City.
- 263 In areas outside the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlays 2, 2A and 3), car parking may be provided to serve a development within the site of the development or elsewhere. Where car parking is provided, it should be:
 - (a) provided with vehicle access points that do not cross major walking routes identified in Map Adel/1 (Overlay 2); and
 - (b) located away from frontages to major streets wherever possible.
- 264 On-site parking should be provided for development in those localities close to the City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone, unless suitable parking facilities exist within the vicinity of the development, the use of which does not adversely impact on amenity in the City Living Zone, Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone.
- **265** Car parking associated with development for older people and people with disabilities should:
 - (a) be conveniently located on site within easy walking distance to resident units;
 - (b) be adequate for residents, staff, service providers and visitors in accordance with the requirements set out in Table Adel/7;
 - (c) include separate and appropriately marked places for people with disabilities and spaces for small electrically powered vehicles;
 - (d) have slip-resistant surfaces with low gradients;
 - (e) allow ease of vehicle manoeuvrability;

- (f) be designed to allow the full opening of all vehicle doors; and
- (g) minimise the impact of car parking on adjacent residences due to visual intrusion, noise and emission of fumes.

Design Technique (this is ONE WAY of meeting part of the above Principle)

265.1 In relation to Principle 264(d), the gradient of the car parking space not steeper than 1:20.