Karidis Corporation Ltd

Demolition of existing building and construction of a new 14 storey building comprising ground level shop (cafe), service and storage areas, 64 motel rooms (levels 1 to 12), and four serviced/residential apartments (level 13).

20 Toms Court, Adelaide

DA 020/A042/18

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OVERVIEW

Application No	DA 020/A042/18
Unique ID/KNET ID	3221 - 2018/11963/18
Applicant	Karidis Corporation Ltd
Proposal	Demolition of the existing building and construction of a new 14 storey building comprising ground level shop (cafe) and service functions, 64 motel rooms (levels 1 to 12), and four serviced/residential apartments (level 13).
Subject Land	20 Toms Court
Zone/Policy Area	Capital City Zone / no policy area
Relevant Authority	SCAP
Lodgement Date	8 May 2018
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan (Consolidated 20 June 2017)
Type of Development	Merit
Public Notification	Category 1
Representations	N/A
Referral Agencies	Government Architect
Report Author	Brett Miller
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The application is for the demolition of existing buildings on site and construction of a 14 storey mixed use building comprising café, motel and residential/serviced apartments.

The applicant engaged in the Departments Pre-lodgement Service and attended three Pre-lodgement meetings and 2 Design Review sessions. No pre-lodgement agreement was struck, however general support was provided by agencies involved in the process and Council.

The proposal was formally referred to the Government Architect for comment with general support provided, however there was some recommendations around further detailed design refinement.

The City of Adelaide provided some feedback around the location of bollards shown on the plans with the applicant confirming that these are outside of the site and not part of the application. No other issues were raised by Council.

The application has been designed to consider the context of the site and is considered to satisfactorily meet the Development Plan requirements in relation to design, height, pedestrian movements, traffic movements, occupant amenity and waste management. The development is also considered to actively contribute to a safer public realm through activation of all frontages of the site.

On balance the development is considered to display suitable merit to warrant the granting of Development Plan Consent.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

In March 2012, the Minister for Planning rezoned land in the City of Adelaide to increase envisaged building heights and provide additional development opportunities that would help enliven the city. As part of this initiative, policies were introduced that provide for a more performance based planning approach and place a stronger emphasis on the overall planning and design merit of an individual proposal.

On 30 May 2017 the Minister for Planning approved the Capital City Policy Review (Design Quality) Development Plan Amendment, the purpose of which was to introduce new policy intended to:

- reinforce design quality for new development;
- establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances; and
- provide guidance regarding built form responses to context and streetscape character.

1.2 Pre-Lodgement Process

The applicant undertook the pre lodgement/design review process offered by DPTI for this project. The project has progressed through three Pre-Lodgement Panel meetings and two Design Review sessions.
Whilst a pre lodgement agreement was not achieved, the project evolved through a series of review processes to its current form. Reference will be made to specific elements of the project that benefited from this process as applicable in the following assessment.

No fundamental issues concerning the project were identified. Considerations included the nature of the residential accommodation being sought, and notation that the proposed motel use is, by definition, dependant on the provision of the ground floor café. Removal of the café would change the defined use – however it was noted that the units do not meet the minimum requirements for serviced apartments.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

It is proposed to demolish the existing two-story commercial building on the site and construct a new 14 storey mixed use building comprising:

- ground level motel lobby and foyer with entrances from Toms Court and un-named public road; 40m² café with access from Toms Court entry; service facilities including refuse store, bicycle parking (10 internal, one external on public road), lift and stair access, bag store and fire hydrant enclosure.
- Level 1 - three motel rooms; fire plant room; building storage, utilities and services
- Level 2 - three motel rooms; motel and apartment storage rooms; utilities room
- Levels 3 to 12 - 58 motel rooms (two floor plan configurations of five and six units per floor)
- Level 13 - four residential units to be used as either serviced apartments or residential units
- Roof Level - plant and equipment

The building is proposed to be built from boundary to boundary, with internalised foyer/entry points at ground level, and semi-recessed balconies cantilevered some 1.2m over the street at the upper levels. The balconies occupy some two-thirds of the street frontages up to the top level where they cover the whole frontage, and are set within rectangular "box frames" which creates depth and a high level of vertical and horizontal articulation to the front and rear street elevations of the building.

Building finishes will include a combination of solid pre-cast coloured panels to the two street facades, natural anodised aluminium framed doors and windows and glazed balustrades. Contemporary colours (grey and off-white) walls will be offset by orange panels forming the "box frame" features surrounding the windows and balconies.

No car parking provision is made for the building, with pedestrian and vehicle access available via the two no through roads adjoining the front and rear of the site.

The sides of the building will be predominantly off-white horizontal pre-cast concrete panels with insert relief, with a central grey vertical panel feature running the full height of the building. A large section of this is indicated as "proposed signage panel". The balcony/window box surrounds will protrude slightly from the main building outline. The sides of the building will mostly abut three storey town houses to the south, and an existing warehouse building of similar height to the north.

Land Use Description	Mixed use development comprising ground floor retail (café), service and storage areas, 64 motel rooms (levels 1 to 12), and four serviced/residential apartments (level 13).	
Building Height	14 storeys, 48.29m above ground level.	
Description of levels	Ground level	lobby and foyer with entrances from Toms Court and un-named public road. Café 40m² with access from Toms Court entry. Refuse enclosure with service access to the un-named public road. Bicycle parking (10 internal, one external on public road). Lift access, fires escape stairs, bag store and fire hydrant enclosure.
	Level 1	fire plant room building storage, utilities and services three motel rooms
	Level 2	motel and apartment storage rooms, utilities room and three motel rooms
	Levels 3-12	58 motel rooms (two floor plan configurations of five and six units per floor)
	Level 13	four residential units to be used as either serviced apartments or residential units (two studio apartments and two one-bed apartments)
	Roof Level	plant and equipment
Apartment floor area (excluding balconies)	Studio (two)	33.4 m^2
	One-bed	50 m^2
Site Access	From Toms Court and the un-named private road.	
Car and Bicycle Parking	No car parking provision. 11 bicycle parks	
Encroachments	Upper-level balconies over Toms Court and the un-named public road	
Staging	Stage 1	Demolition
	Stage 2	Substructure
	Stage 3	Structure
	Stage 4	services and architectural

3. SITE AND LOCALITY

3.1 Site Description

The site comprises a single rectangular allotment measuring 9.42m x 25.3m with an area of 238.3 m^2, described as follows:

Lot No	Section	Street	Suburb	Hundred	Title Reference
654	FP 182306	20 Toms Court	Adelaide	Adelaide	5950/644

The subject site is located at the end of Toms Court, a small dead end street from Halifax Street, with frontage to the western side of the Court. The eastern side of the site is adjoined by another dead end street identified on the title as un-named public road. A further connection occurs to the northern side of the site from a small dead end private road called George Parade. The site does not appear to have access rights over this private road.

The site sits mid-block between Halifax and Carrington streets, immediately behind the first row of allotments fronting King William Street.

The site currently contains a two-storey commercial warehouse/store building of masonry construction.

3.2 Locality

The locality is characterised by a mix of uses and building styles from early 1900's to contemporary structures. Land uses range including retail, commercial, warehousing, professional rooms and residential. Building heights vary from typically two and three storey nearest to the site, and some high rise development further away.

An adjoining the site – the former Trims retail premises – currently has a valid approval for a 31 storey mixed use building fronting King William Street and Carrington Street.

Access to the site is afforded by three roads. Primary access is provided via Toms Court, which is a two lane dead-end road connecting to Halifax Street to the south. Toms Court provides pedestrian footpaths and kerb-side parking and is the most direct access to the site. The subject land is situated at the end of Toms Court.

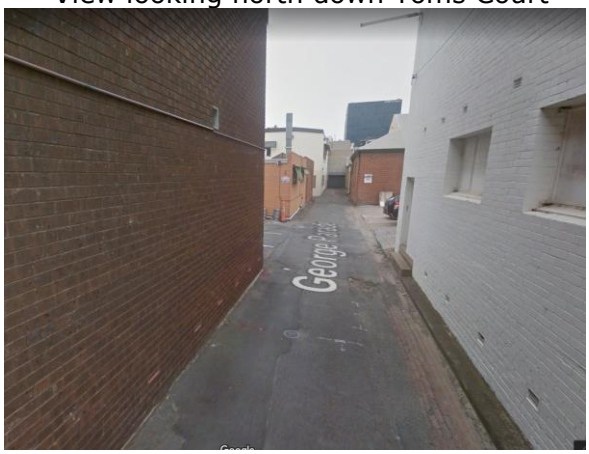
Branching off Toms Court and dog-legging around the block containing the subject land is an un-named public road. This road provides access to residential town-houses adjoining the subject land, and provides service access to commercial properties fronting King William Street. His road is also a dead end road terminating adjacent the subject land.

A third road – a private lane named George parade which connects to Carrington Street – terminates at the northern boundary of the site. While this lane provides physical access to the site, the subject land does not have any legal right of access over it.

Subject site from Toms Court

View looking north down Toms Court

Adjacent 3 storey dwellings on Toms Ct



View looking Sth towards site on George Pde

Figure 1 – Location Map

4. COUNCIL TECHNICAL ADVICE

4.1 Adelaide City Council

The application was informally referred to the City of Adelaide for technical advice. The Council's response is contained in ATTACHMENT 5, and summarised as follows:

- Council raised concern with the location bollards shown on the plans due to potential traffic related impacts arising from the location – *it has been confirmed by the applicant that these bollards are outside of the site and therefore do not form part of this application. Rather the Bollards were shown to indicate the interface with the neighbouring Echelon Development.*
- Council indicated concern with the use of motel rooms if the ground floor use of Café were not achieved – *This issue had been raised by DPTI staff within the Pre-lodgement process and the applicant has confirmed the use of Café is to remain.*
- Concern was raised in relation to the potential change of use of the motel rooms to serviced apartments due to assessment criteria. – *this issue was also raised during the Pre-lodgement process and acknowledged by the applicant that a change of use application would need to occur should the applicant wish to progress a change of use.*
- There was concern around the location of a transformer on site – *the applicant has confirmed that there is no need for a transformer on this site due to the proximity of one in the adjoining building.*
- General stormwater, infrastructure, lighting comments were raised and are reflected in relevant conditions attached to the recommendation of this report.
- The proposed encroachments have been considered and supported by Council.
- The Waste management plans has been accepted by Council
- There was a concern around the staging of the development application which revolved around the granting of Stage 1 Consent for Demolition works only.

5. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

5.1 Government Architect

The application has been referred to the Government Architect for comment pursuant to Schedule 8 of the Development Regulations. The referral response in summary recommended the following matters be addressed in any planning consent to be issued by the SCAP:

- A high quality of external materials with finishes and colours integral to the fabric rather than applied and/or painted finishes
- Development of a holistic and integrated strategy for architectural expression, branding and signage
- Further rationalisation of internal layouts to ensure accessibility to all facilities within the accessible motel rooms
- Consideration of services arrangements with a view to providing living areas with generous ceiling heights and the provision of level thresholds from living areas to balconies to provide universal access and a genuine extension of the interior to exterior spaces
- Provision of integrated shading devices to the west and north windows
- Materiality and detailing of the balcony balustrades and screens to ensure an integrated and contextual design outcome
- Development of a management strategy to implement the wind assessment report recommendations of securing loose furniture to ensure public and resident safety.

The applicant was aware of the comments from the Government Architect throughout the Design Review Process and has chosen not to provide any further response to the comments raised.

6. PUBLIC NOTIFICATION

The application is a Category 1 development pursuant to principle 40 of the Capital City Zone.

7. POLICY OVERVIEW

The subject site is within the Capital City Zone as described within the Adelaide (City) Development Plan Consolidated 26 September 2016. There are no applicable policy area provisions.

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

Figure 2 – Zoning Map

7.1 Zone policies

The Capital City Zone encourages a diverse range of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living uses with non-residential land uses at the ground floor level that can contribute to an active street frontage. Design and management of development should ensure the compatibility between residential and commercial and other development.

Innovative design and contemporary architecture that responds to the buildings context is encouraged. There is a prescribed height limit of 53 metres and a minimum height of 26.5 metres.

Buildings should present an attractive pedestrian-oriented frontage that adds interest and vitality to City streets and laneways.

More detailed policies are referred to as required in the following planning assessment.

7.2 Adjoining Zone policies

The subject site immediately adjoins the Main Street (Adelaide Zone) along its eastern frontage to Toms Lane.

The zone primarily relates to the main road frontages of Halifax and Sturt streets and seek to enhance their main-street character of lively retail, personal services, restaurants, cafes, hospitality, community and mixed business uses, and medium to high scale residential development. The policies refer primarily to the interface of development with the street frontage. The subject proposal adjoins the zone by virtue of its proximity to large land parcels that have frontage to the "main street", but does not itself have any direct impact on the main-street frontage. The site has frontage to two minor roads.

7.3 Council Wide

Council wide provisions contain specific technical and performance requirements for development relevant to this proposal including medium and high density residential uses, built form and townscape, pedestrian access, street activation, stormwater management, waste management, noise, wind, crime prevention and traffic and access arrangements.

7.4 Overlays

7.4.1 Affordable Housing

The subject land is located within the Affordable Housing Designated Area in Development Plan Map Adel/1 (Overlay 5a).

The Overlay recommends integration of affordable housing with residential and mixed-use development, and development comprising 20 or more dwellings to include a minimum of 15 percent affordable housing.

The predominant land use proposed is motel, and provides for only four residential apartments. Accordingly the proposal does not necessitate consideration for affordable housing.

7.4.2 Adelaide City Airport Building Heights

The existing ground level is 45.22m AHD. The building is 48.29m high which results in a total height of 93.51m AHD.

The site is within the 100m OLS contour as shown on the Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5), and accordingly does not require referral to Adelaide Airport Limited.

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the City of Adelaide Development Plan, which are contained in Appendix One.

Policy context

The project site is situated within the Capital City Zone as prescribed by the Adelaide (City) Development Plan. The zone encourages a diverse range of land uses with non-residential land uses at ground floor level that generate high levels of pedestrian activity, together with positive activation at street level/street interface.

High-scale development is envisaged in the Capital City Zone with high street walls that frame the streets and an interesting pedestrian environment and human scale created at ground level. 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.

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.

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.

The site is bound by a laneway to the east and west known as Toms Court and is adjacent the approved multi storey development on the Trims Site (known as Echelon).

The site is located in an area of the Capital City zone which recommends a building height no greater than 53m. It should be noted that the site is located adjacent the zone boundary to the Main Street (Adelaide) Zone which discusses a maximum height of 22m unless the sites are greater than 1500m2 which would trigger catalyst site provisions which consider the context of the locality rather than a specific height.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	53m	48.29m	YES ☒ NO ☐ PARTIAL ☐	
Land Use	Commercial, retail, professional services, hospitality, entertainment, educational facilities, medium and high density living, long and short term residential.	Retail, long and short term residential	YES ☒ NO ☐ PARTIAL ☐	
Car Parking	nil	nil	YES ☒ NO ☐ PARTIAL ☐	
Bicycle Parking	11 spaces	11 spaces	YES ☒ NO ☐ PARTIAL ☐	
Front setback	Set to street frontage. Some setback above podium.	No setback to street frontages. Minor setback above ground level.	YES ☒ NO ☐ PARTIAL ☐	
Rear Setback	n/a		YES ☒ NO ☐ PARTIAL ☐	
Side Setback	None specified		YES ☒ NO ☐	

			PARTIAL ☐	
Private Open Space	Motel rooms – no requirement **Apartments** 1 bedroom – 8m^2 Studio - no requirement	Motel rooms – mixture between 0 and 11m^2 **Apartments** 1 bedroom – 11m^2 Studio – 3m^2	YES ☒ NO ☐ PARTIAL ☐	

8.2 Land Use and Character

The proposal involves the development of a café, tourist accommodation and 4 residential apartments with associated facilities. The proposal is consistent with PDC 1 which seeks these forms of land use within the Capital City Zone.

The provision of a mixture of uses within a building is also contemplated in the Development Plan and positive to provide activation and integration to the locality. The locality being rear lanes will be significantly improved by having an influx in people accessing this site for either the café or tourist accommodation.

8.3 Building Height

The proposed building height is 48.29 metres to the top of the plant screening with the site being in an area of the City that has a height limitation of 53 metres. The building is below the maximum height allowed for the site along with being below the Obstacle Limitation Surface and therefore no referral was required to the Airports Authority.

It is noted that the site is adjacent the main Street Adelaide Zone which has substantially lower height limitations, however there is no requirements for a transition down to lower developments in the locality, therefore the development is considered to meet the Development Plan requirements in relation to building height.

8.4 Design and Appearance

The Capital City Zone seeks buildings to reflect innovative design approaches and contemporary architecture that responses appropriately to the locality and context. There is a strong emphasis placed on creating interesting pedestrian environments and ground floor activation through careful building articulation and fenestration, frequent openings in building facades and other features.

The location of this site at the end of a rather narrow public road, having two street frontages and facing onto the rear of properties fronting King William Street provides a challenging set of circumstances for this development to appropriately activate the ground floor. The application includes a café to the north-eastern corner of the site and whilst it does not spill out onto the street (due to the location of a fire hydrant and narrow footpath) there is still an aspect of activation to this frontage. The rear of the site has been designed with a chamfered corner to enable entry from George Parade and the un-named road. The area has potential to be widened significantly with the neighbouring development should it occur, however even without this the chamfered edge here provides a link to George Parade which is not in place at the moment.

The proposed development has a level of support from the Government Architect, in particular the linking of George Parade and the un-named public road through to Toms Court. The development is a single tower that has no podium element (not that one is called for by the Development Plan) with balconies protruding out from the eastern and western elevations. The Government Architect has considered this design appropriate for the location of the site. The Government Architect has suggested a finer level of detail that reflects the surrounding built form in the locality. It was suggested that the use of raw and simple materials could be used to strengthen the character of the

development. The applicant has chosen not to consider this in their design due to maintenance concerns.

There is some concern from the Government Architect in relation to the west facing rooms within the development and the lack of shading devices being fitted. There was a positive change through the design process in the addition of the windows to the north western corner of the development. These windows are a positive step in achieving natural light to the rooms on this north-western corner as well as providing additional passive surveillance to George Parade. The windows will also provide a break in the built form to this edge of the development to provide visual interest when viewing the development from George Parade.

In relation occupant amenity and more specifically storage for apartments there is an area allocated on level 2 of the building along with cupboards within the units will adequately supply the required $6m^3$ and $8m^3$ for the studio and 1 bedroom products. The café and motel uses have storage areas on level 1 and 2, there will also be a bag store on the ground floor associated with the Motel use. The storage areas proposed are considered to adequately meet the needs of the future operators of the motel and café.

The apartment sizes for the 1 bedroom product meet the Development Plan requirements for a minimum floor area of $50m^2$, however it is noted that the Studio apartments fall short on the minimum floor area by $1.6m^2$. The shortfall of the studios is minor in nature and it is noted that there is a balcony attached (whilst minimal) that is not required for studios that will have a positive effect on the amenity of the occupants. There is no minimum floor area required for the motel rooms, and the design proposed appears to adequately meet the needs of future occupants. The inclusion of balconies for a majority of the rooms is considered a good amenity offering to the market that often doesn't include any outdoor space for motel/tourist accommodation rooms.

The proposed development is considered to have been designed with reasonable activation to the three street frontages and to have considered the locality. Whilst there is some refinement suggested by the Government Architect the application is considered to, on balance, display sufficient architectural merit to meet the Development Plan provisions in relation to Design and Appearance.

8.5 Traffic Impact, Access and Parking

The Capital City Zone does not prescribe a minimum parking requirement. The proposal does not include any provisions for onsite parking. There are several multi-level car parking buildings within the immediate vicinity that could be utilised by patrons of the motel.

The applicant engaged Tonkin Consulting to review the traffic implications that could arise from the site. As discussed further in the report the waste truck movements are to be accommodated within the existing Toms Court carriage way by virtue of a 3 point turn utilising the un-named road mid-way along Toms Court. The other vehicles proposed to be accessing the site are delivery vehicles for the café and motel uses and taxi/uber pick up and drop offs for the motel use.

The traffic report estimates pick-up and drop offs for the motel use to be in the vicinity of 60-90 trips per day - they have provided a discounted rate to general guidelines on the basis of there not being any car-parking provided on site and therefore customers will drive themselves to a car-park and then walk the remaining distance to the development. There is also a reference to the close proximity of the site to public transport options on King William Street and this providing further justification for the discounted rate.

The manoeuvring of vehicles in Toms Court has been adequately indicated within the Traffic report and Council have not raised any concern with the manoeuvres that regularly occur in other laneways across the city.

In relation to pick up and drop offs for the proposed development it should be noted that Toms Court is just over 60 metres in length and George Parade is of a similar length so it is not unreasonable for customers to be dropped off on Halifax or Carrington Streets and walking the remaining distance to the Motel entrance. That being said the use of Toms Court for passenger vehicles is possible and there are two 2 hour parking spaces on Toms Court and a Loading zone immediately adjacent the front entrance to the site. It should also be noted that there is a GoGet CarShare Pod park in the car parking space on Halifax immediately adjacent the Toms Court intersection that may be used for either tenants or customers for the proposed building.

Overall the proposed development in not providing on-site car parking meets the Development Plan principles and objectives. The application utilised the existing infrastructure in the locality to adequately service the subject site and whilst not ideal to have to walk to the motel lobby the distance of 60 metres is not unreasonable from the main roads of Carrington and Halifax Street. The development is considered to satisfactorily meet the Development Plan requirements around traffic and car parking.

The proposed development includes an area internal to the building for bicycle parking and one at the rear of the site adjacent the un-named public road. The Development Plan provisions in relation to bicycle parking numbers has been adequately met and the location of the parks within the building are appropriate to meet safety requirements.

8.6 Environmental Factors

8.6.1 Crime Prevention

The Development Plan generally seeks development to integrate and attempt to facilitate natural passive surveillance, clear lines of sight and appropriate lighting within the design of the building to reduce potential crime. The proposed development achieves this by providing balconies to both sides of the building to provide passive surveillance over Toms Court, George Parade and the un-named road to the east. The ground floor is reasonably open and provides visual links to the front and rear of the site with an active use of a café at the north western corner of the building. The site has existing street lights adjacent the site on Toms Court and there are no potential hiding spots as the development covers the whole site. The design of the development is considered to integrate well to the locality and not adversely impact on security in the vicinity of the site.

8.6.2 Noise Emissions

Council Wide PDC 93 (Noise Emissions) seeks mechanical or plant equipment to be designed, sited and screened to minimise noise impacts on adjacent premises and properties in accordance with the provisions set out within the Development Plan.

The application includes plant on the roof and on level 1 and 2 of the building, with this plant proposed to be adequately screened from view and appropriately acoustically treated. The application has supplied a noise assessment from

Sonus that states that the air conditioners if placed on the roof will not cause any adverse impacts on the rooms within the site nor external to the site.

The acoustic report undertakes an assessment to ensure that the occupants of the building will not be impacted on by traffic noise from King William Street. The report recommends that all windows and sliding doors be constructed with 6.38mm thick laminated glass with acoustic seals. Given this recommendation it is suggested that a condition be included in any consent granted for the development with one being attached to the recommendation of this report. With this condition attached the proposed development is considered to meet the relevant sections of the Development Plan in relation to Noise.

8.6.3 Waste Management

Council Wide Waste Management policies and objectives collectively encourages the use of a dedicated area for on-site waste collection and sorting of recyclable materials, that does not create unacceptable levels of smell and detrimentally affect established amenity.

The applicant has engaged Colby Industries to prepare a waste management plan for the proposed development. This plan has been prepared in consultation with City of Adelaide representatives and has been supported by Council staff. Waste collection is to occur via a private collection company, with waste proposed to be stored on the south western corner of the ground level of the building with a direct roller door access provided to the un-named public road. Waste within the building is to be manually transported to the ground floor refuse area, with no chute system proposed. The refuse area has a hard refuse storage area and space for the required 7 bins (5 x 660L skip and 2 x 240L Wheelie bins). The report concludes that there would need to be twice weekly collections which is not excessive. It is noted that the area allocated for bin storage is adequate and unable to be expanded further without significantly compromising the design of the ground floor.

There are two collection point options suggested with one off Toms Court in front of the building and the other to George Parade. The two options have some difficulties for truck manoeuvring however waste collection currently occurs in these locations so should be acceptable.

Option 1 (Toms Court) requires a truck to enter in a forward direction from Halifax Street and make a three point turning manoeuvre at the un-named road and reverse the remainder of the length of Toms Court. The waste would be required to be taken through the building and out the front door for collection.

Option 2 (George Parade) requires the Development of the Trims site and utilising the widened area of George Parade for the truck, with the waste then being taken through the rear of the building to the collection point.

Due to the fact that the Trims site has not been developed Option 1 will be the Waste collection method until such time as the Trims Site is developed. The Waste Management Plan suitably justifies a waste management solution and is considered to satisfactorily address the Development Plan criteria around waste management.

8.6.4 Energy Efficiency

The Council Wide Energy Efficiency policies and objectives seek developments to be compatible with long term sustainability of the environment and minimise consumption of non-renewal resources and utilities.

The proposed development is incorporating ecologically sustainable design techniques including, high performance wall, floor and roof insulation, Energy efficient glazing, balcony overhangs to provide shading, LED lighting throughout, water efficient fittings and fixtures and highly efficient air conditioners.

The design of the building and the internal fitting/fixtures are considered to adequately address the Development Plan requirements in relation to Energy efficiency.

8.6.5 Wind Analysis

The development plan provisions encourages developments over 21 metres in building height to be designed to reduce potential wind impacts on adjacent properties and the pedestrian environment. The policy provision in the Development Plan encourages the use of podiums, canopies and placement of building as design initiatives that could mitigate potential wind impacts.

The applicant has engaged Windtech to undertake an assessment of the general pedestrian wind environment based on the proposed development. The conclusions of this report are that the existing buildings surrounding the development site will assist in shielding the pedestrian environment and the potential downwash from the proposed development is minimised by the narrow aspects of the frontages. The inclusions of balconies to the eastern and western elevations with full height impermeable blade walls on the balcony edged provide suitable wind mitigation measures. The proposed development is considered to have been designed appropriately to avoid adverse wind impacts on the pedestrian environment.

8.6.6 Stormwater

The applicant has engaged PT Design to provide commentary around stormwater management from the site. The letter indicates that the site being fully developed will have its stormwater designed to spread discharge to Toms Court and George Parade, noting that there is no underground stormwater system adjacent the site. The consultant has indicated that further stormwater design will be determined during detailed design. No issues were raised by Council in relation to this matter and a condition requiring the stormwater management plan to be developed and provided to SCAP prior to Development Approval being granted.

8.6.7 Site Contamination

The applicant has undertaken a preliminary site investigation and whilst this was based on an earlier design outcome for the site the recommendations of the report remain valid as the proposal continues to involve a construction across the whole of the site. The recommendations of the report are such that the development as proposed there is a low likelihood of contamination that would preclude the development of the site. It does however conclude that screening level soil sampling and testing should be done to confirm this assessment once demolition of the site has occurred.

Based on the recommendations of the preliminary site history report the site is suitable for the proposed development and is considered to meet the objective and principle of Development Control relating to contaminated sites.

8.7 Signage

There is no signage currently proposed for the building, however the application includes two areas on the northern and southern side walls allocating space for future signage panels. The location of the signage areas is reasonable and the only real opportunity on the building to provide signage that will be visible from the public realm and not to have an adverse impact on the accommodation portion of the building.

The Development Plan considers the inclusion of signage on commercial buildings, which this will be by virtue of the Motel component. A future application will be required for the signs, however the indicative location and size is reasonable in the context of this site.

9. CONCLUSION

The City of Adelaide Development Plan is generally silent on specific planning provisions pertaining to short term tourist accommodation or motel. Given the use and nature of the proposed development including motel Council Wide policy provisions were applied to the assessment of this application to assist in the assessment of this portion of the application.

The proposed development is considered acceptable in scale and height, with the design and appearance of the proposed development generally responding well to the context of the locality. Whilst the Government Architect has suggested further refinements to the design of the building there is considered to be adequate merit to the design to warrant support for the design as proposed.

When assessed against the relevant Development Plan policies the proposal generally satisfies the policy provisions. The proposal is consistent with the desired character of the Capital City Zone and is not considered to result in or cause unacceptable impacts on the locality. Accordingly, the proposal warrant Development Plan consent subject to conditions.

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 City of Adelaide Development Plan.

3) RESOLVE to grant Development Plan Consent to the proposal by Karidis Corporation for the demolition of the existing building and construction of a new 14 storey building comprising ground level shop (cafe) and service functions, 64 motel rooms (levels 1 to 12), and four serviced/residential apartments (level 13) at 20 Toms Court, ADELAIDE subject to the following conditions of consent.

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/A042/18.

   Plans by ADS Architects with job number 17/JN1331

Drawing Title	Drawing No.	Revision	Date
Site Plan	SK01	C	23.04.18
Ground Floor Plan	SK02	D	23.04.18
Level 1 Floor Plan	SK03	C	23.04.18
Level 2 Floor Plan	SK04	D	23.04.18
Levels 3,4,6,8,10,11,12 Floor Plan	SK05	B	23.04.18
Levels 5 & 9 Floor Plan with accessible room	SK06	D	23.04.18
Level 13 Floor Plan	SD07	c	23.04.18
Roof Plan	SD08	a	11.03.18
East Elevation	SK09	B	23.04.18
North Elevation	SK10	C	23.04.18
West Elevation	SK11	D	23.04.18
South Elevation	SK12	B	23.04.18
Section A-A	SK13	A	23.04.18
Balustrade Details	SK14		23.04.18

2. Prior to Development Approval being granted a detailed materials schedule and sample board shall be prepared in consultation with the Government Architect and supplied to the reasonable satisfaction of the State Commission Assessment Panel.

3. Prior to development approval being granted for superstructure works a Stormwater Management Plan shall be developed in consultation with the City of Adelaide and shall be submitted to the reasonable satisfaction of the State Commission Assessment Panel.

4. Prior to the commencement of construction, a dilapidation report (i.e. condition survey) prepared by a qualified engineer shall be provided to the State Commission Assessment Panel to ensure the stability and protection of adjoining buildings, structures and Council assets.

5. 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 State Commission Assessment Panel prior to any superstructure works.

6. All external lighting on the site shall be designed and constructed to conform to Australian Standard (AS 4282-1997).

7. All bicycle parking spaces shall be designed and constructed in accordance with Australian Standard 2890.3-2015.

8. Any lighting under the balcony on the public roadways shall be installed in accordance with Council's guideline entitled "Under Verandah/Awning Lighting Guidelines" at all times to the reasonable satisfaction of the SCAP and prior to the occupation or use of the Development. Such lighting shall be operational during the hours of darkness at all times.

9. 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.

10. The acoustic attenuation measures recommended in the Acoustic Design Report, dated March 2018 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.

11. 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.

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. Approval for the proposed building height and construction methodology is required by the Commonwealth Secretary for the Department of Transport and Regional Services in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996.

e. A Construction Environment Management Plan (CEMP) shall be prepared in collaboration with the City Adelaide and be implemented in accordance with current industry standards – including the Local Nuisance and Litter Control Act 2016, 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 construction.
    - The management plan should incorporate, without being limited to the following matters:
    - timing, staging and methodology of the construction process and working hours;
    - Traffic management strategies;
    - control and management of construction noise, vibration, dust and mud;
    - management of infrastructure services during construction and re-establishment of local amenity and landscaping;
    - stormwater and groundwater management during construction;
    - site security, fencing and safety and management of impacts on local amenity for residents, traffic and pedestrians;
    - disposal of construction waste, any hazardous waste and refuse in an appropriate manner according to the nature of the waste;
    - protection and cleaning of roads and pathways; and
    - overall site clean-up

f. An Encroachment Permit will be separately issued for the proposed encroachment into the public realm when Development Approval is granted. In particular, your attention is drawn to the following:

- An annual fee may be charged in line with the Encroachment Policy;
- Permit renewals are issued on an annual basis for those encroachments that attract a fee; and
- Unauthorised encroachments will be required to be removed.

g. Any activity in the public realm, whether it be on the road or footpath, requires a City Works Permit. 48 hours' notice is required before commencement of any activity. The City Works Guidelines detailing the requirements for various activities, a complete list of fees and charges and an application form can all be found on Council's website at www.cityofadelaide.com.au. When applying for a City Works Permit you will be required to supply the following information with the completed application form:
   - A Traffic Management Plan (a map which details the location of the works, street, property line, hoarding/mesh, lighting, pedestrian signs, spotters, distances etc.);
   - Description of equipment to be used;
   - A copy of the relevant Public Liability Insurance Certificate (minimum cover of $20 Million required); and
   - Copies of consultation with any affected stakeholders including businesses or residents.

   Upfront payment is required for all City Works applications, which can be received by Council via the following:
   - Email: cityworks@cityofadelaide.com.au
   - Fax: 8203 7674
   - In Person: 25 Pirie Street, Adelaide

h. The applicant should 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.

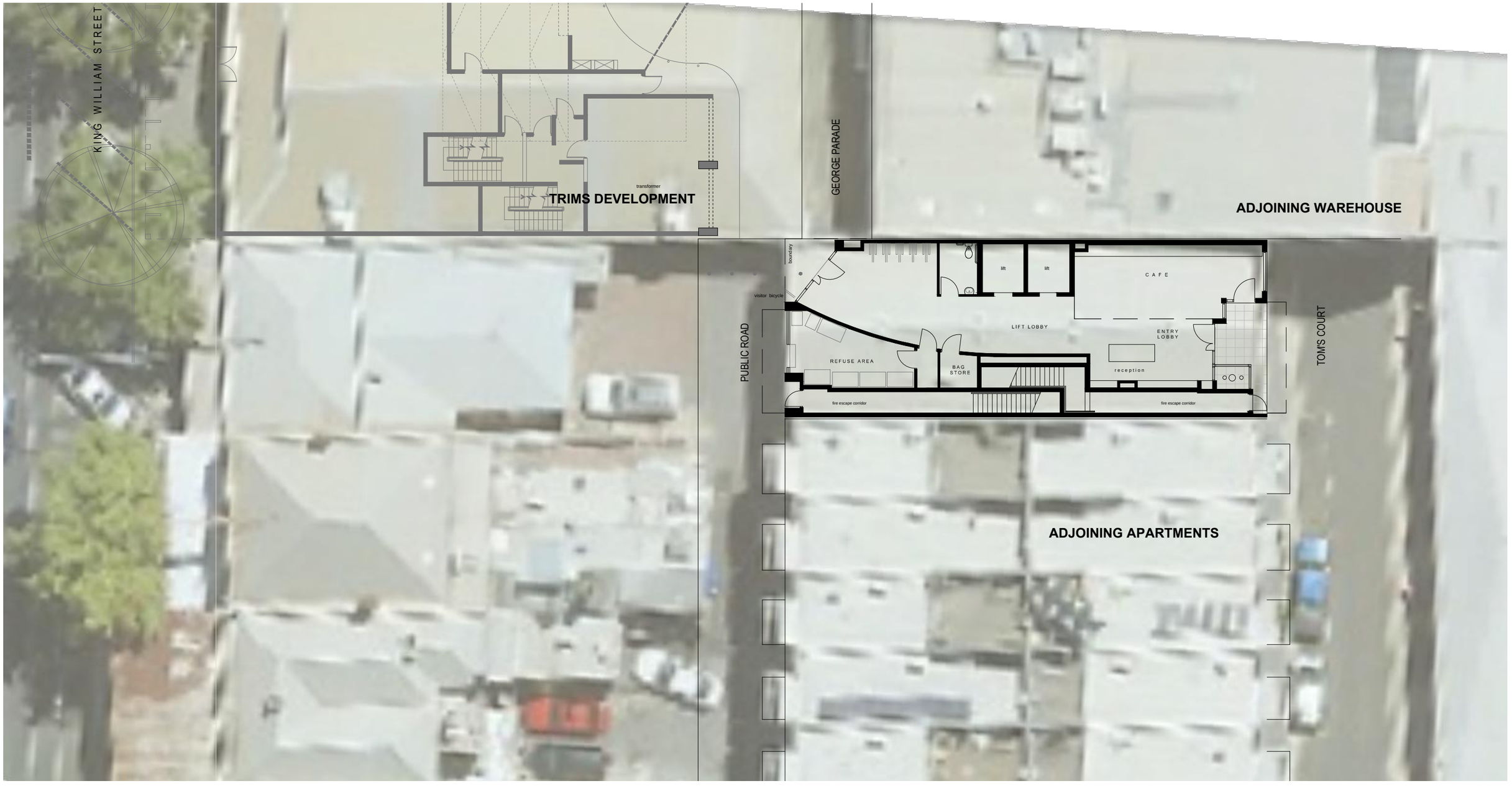
i. As work is being undertaken on or near the boundary, the applicant should ensure that the boundaries are clearly defined, by a Licensed Surveyor, prior to the commencement of any building work.

j. 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.

k. All new crossovers or alterations to existing crossovers incorporated in the development will require approval by the City of Adelaide in accordance with the relevant standards and specifications detailed in the Council's City Works Guidelines.

l. The finished floor level of the ground floor level at the entry points to the development including the waste area entry and exit points shall match the existing public realm levels unless otherwise agreed to in writing by the City of Adelaide.

Brett Miller
TEAM LEADER – INNER METRO DEVELOPMENT ASSESSMENT
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE



SITE PLAN

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

20 Toms Court Adelaide SA 5000

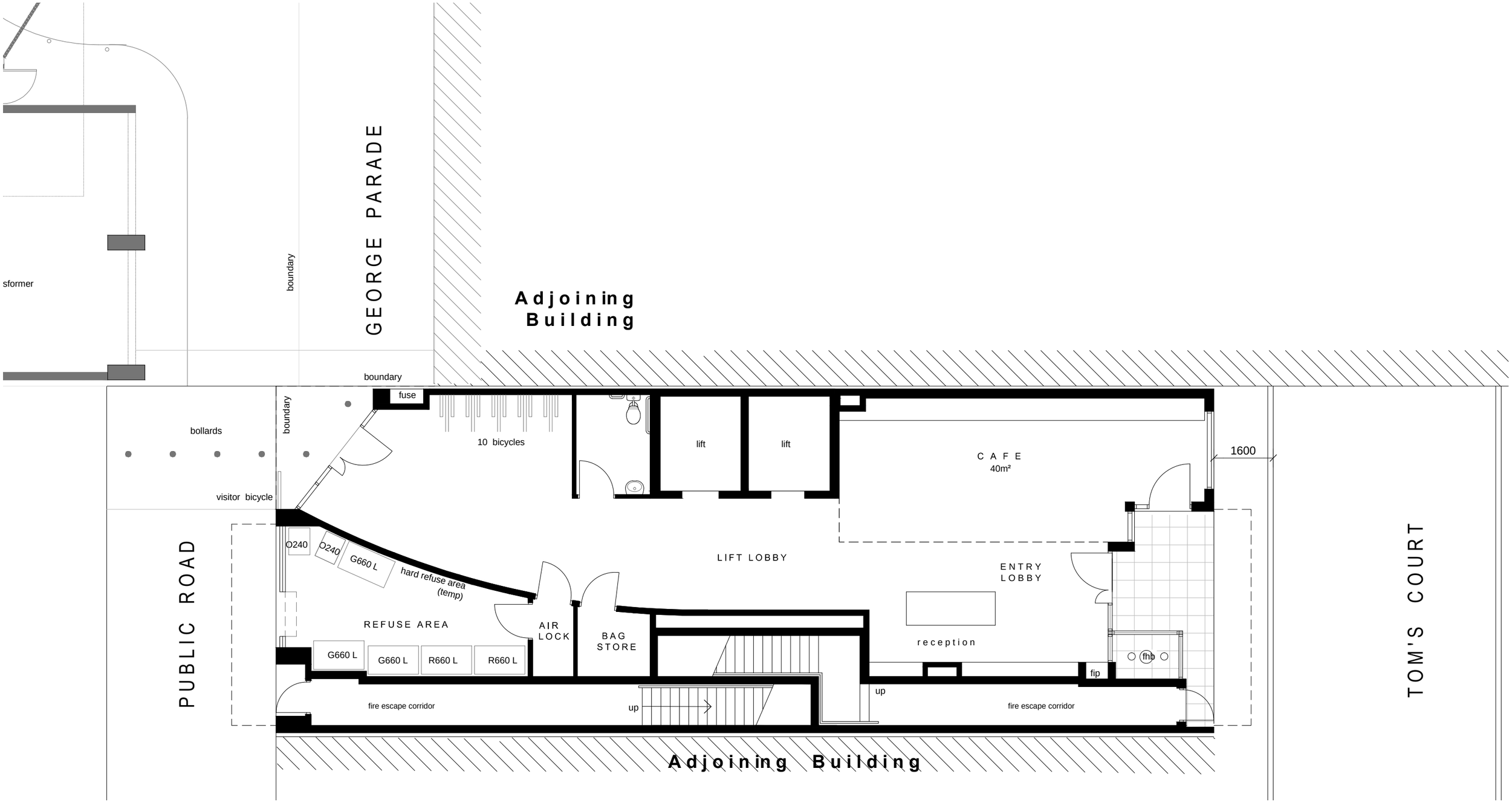
ADS Architects

1

23.04.18

17/JN1331/SK01/C

PLANNING APPROVAL



GROUND FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1

Scale 1:100 at A3

2

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

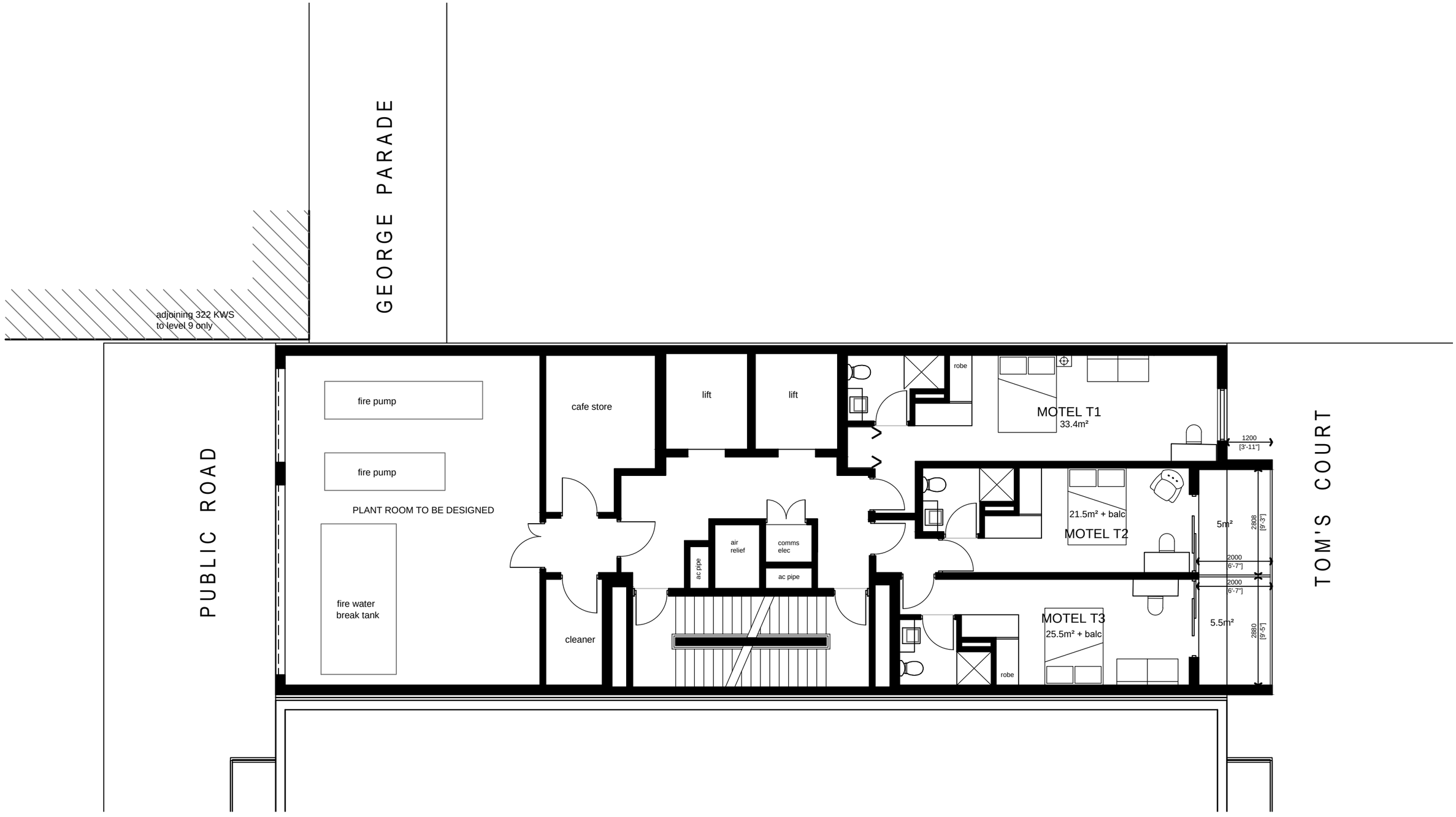
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK02/D

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVEL 1 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

3

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

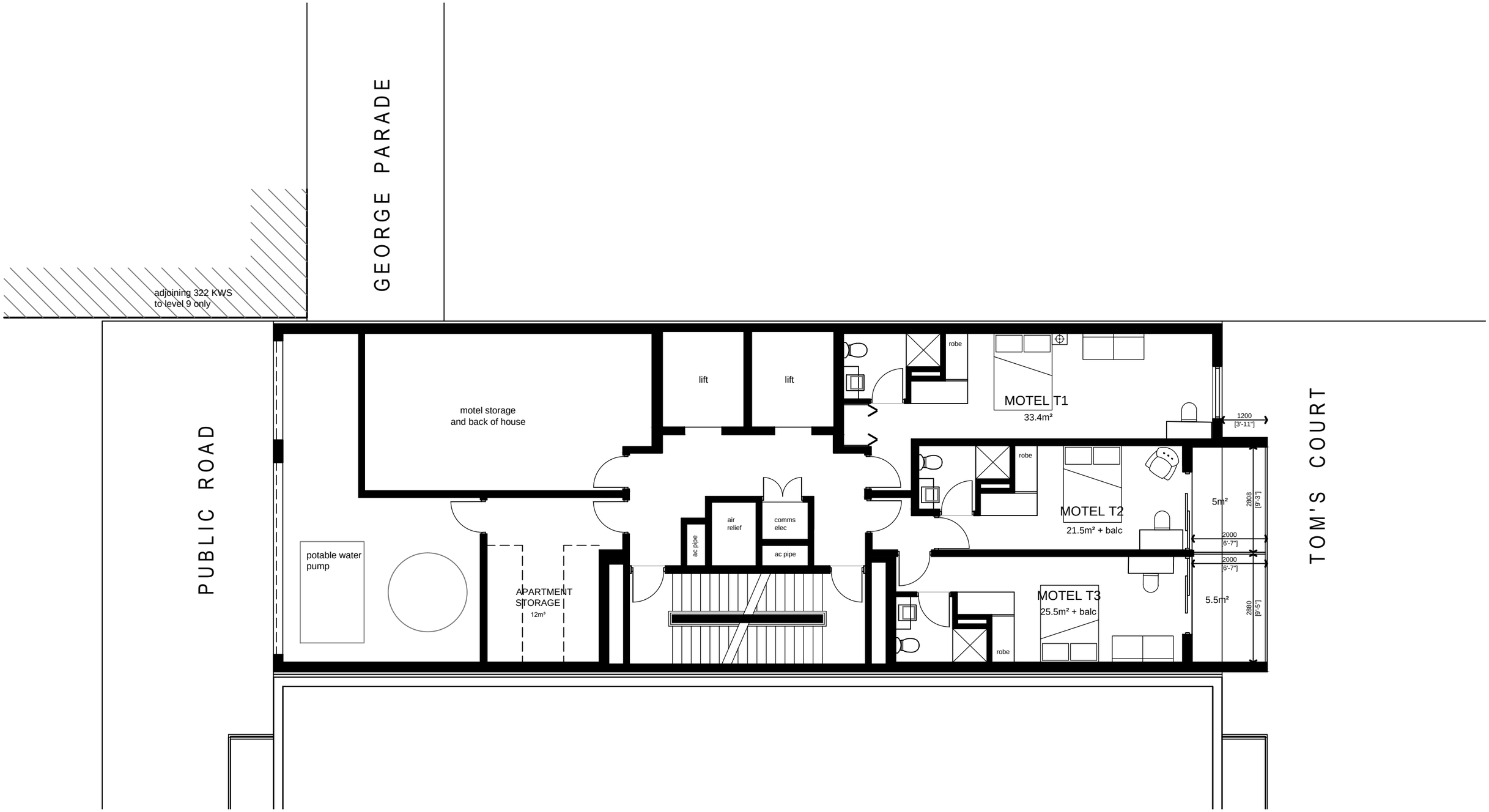
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK03/C

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVEL 2 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

4

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

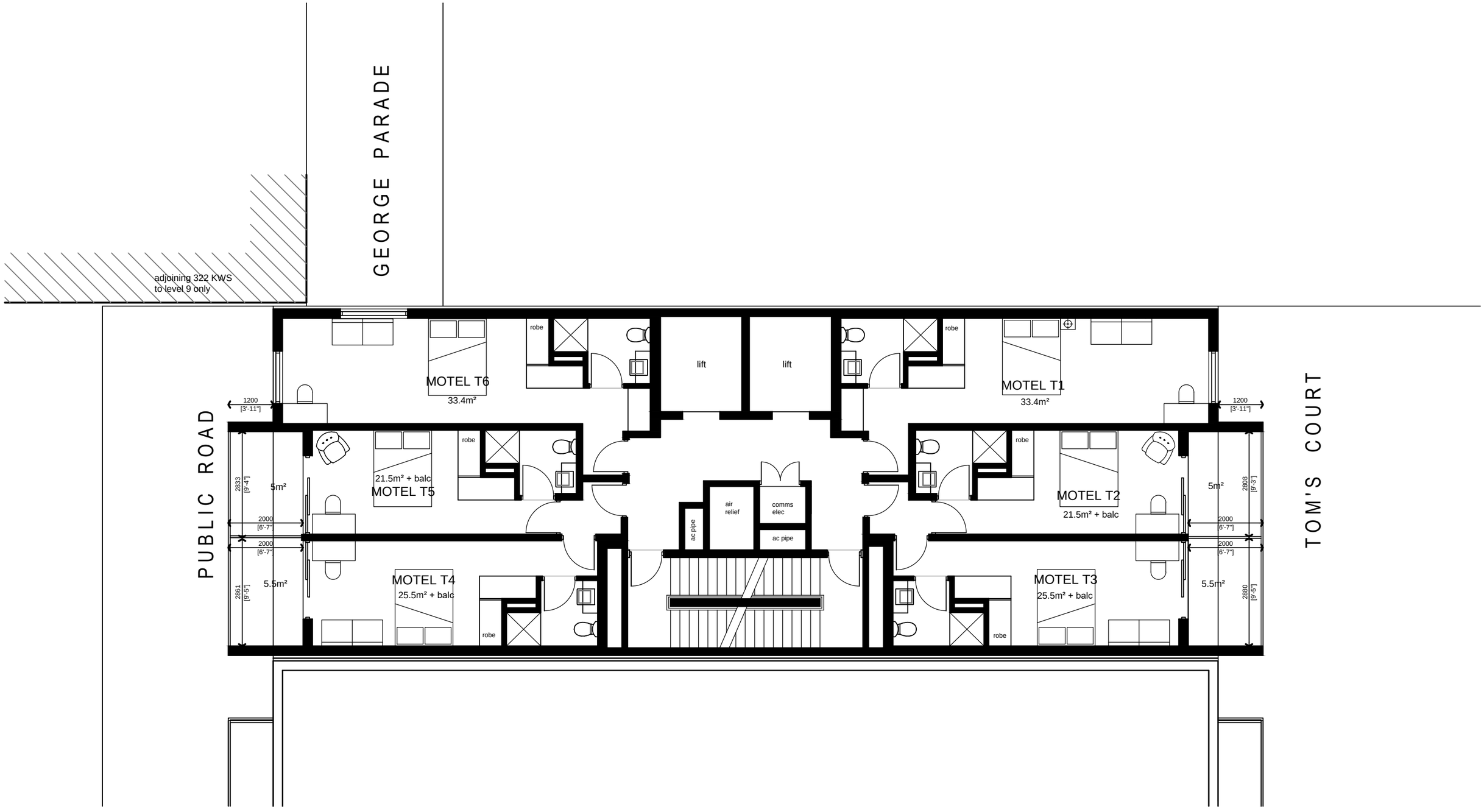
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK04/D

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVELS 3, 4, 6, 7, 8, 10, 11, 12 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

5

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

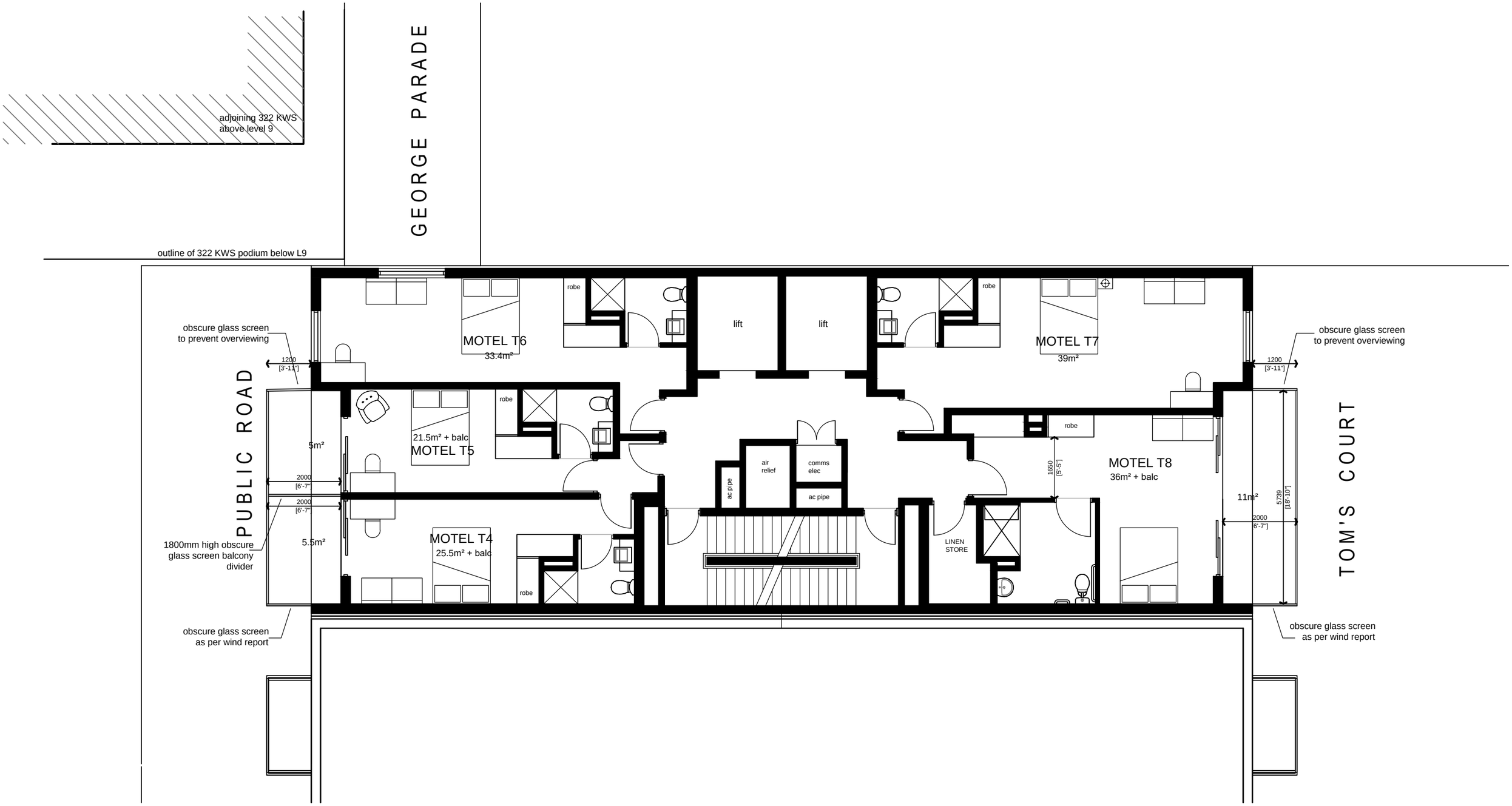
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK05/B

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVELS 5&9 FLOOR PLAN with accessible room

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

6

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

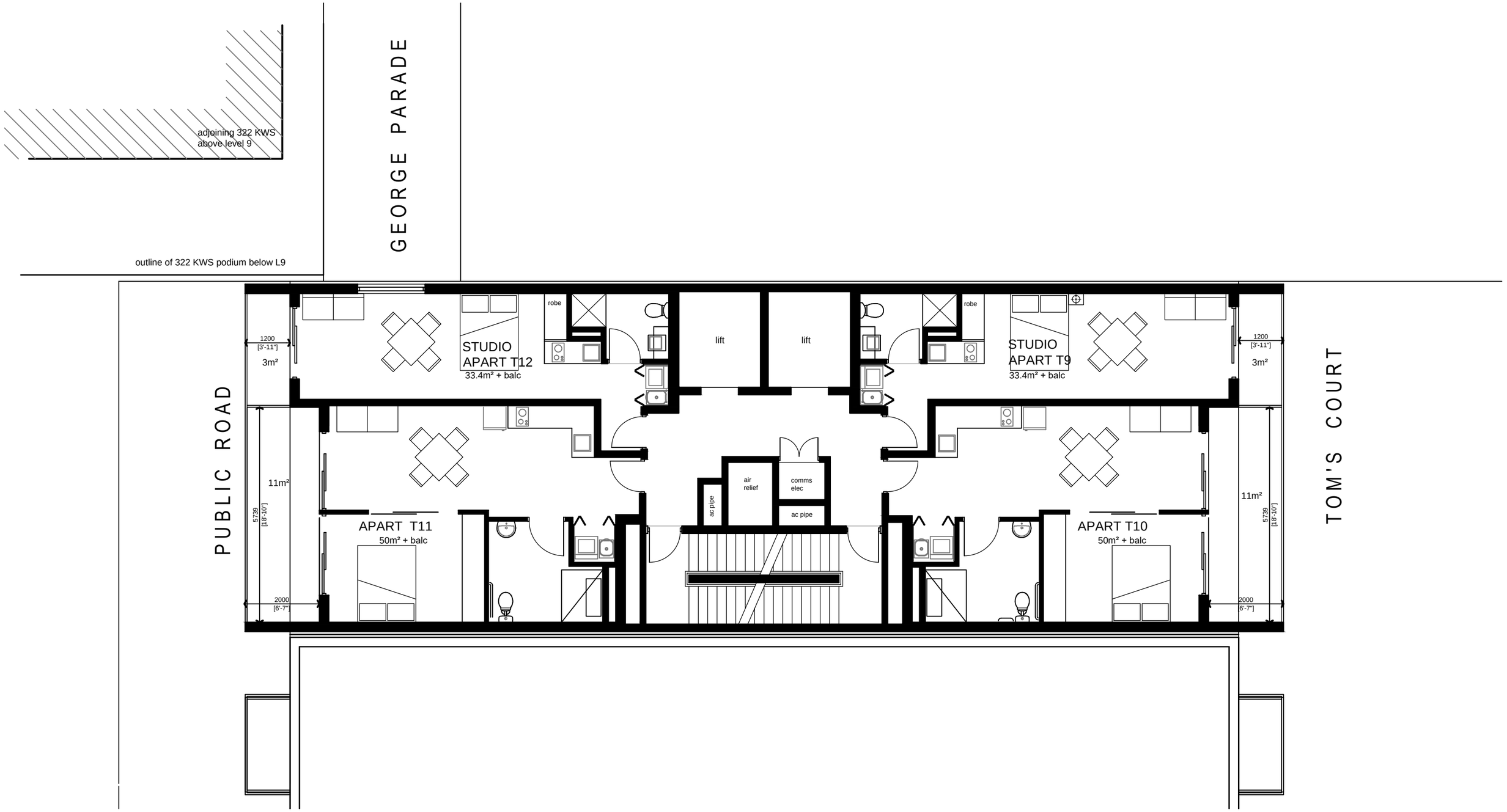
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK06/D

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVEL 13 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

7

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

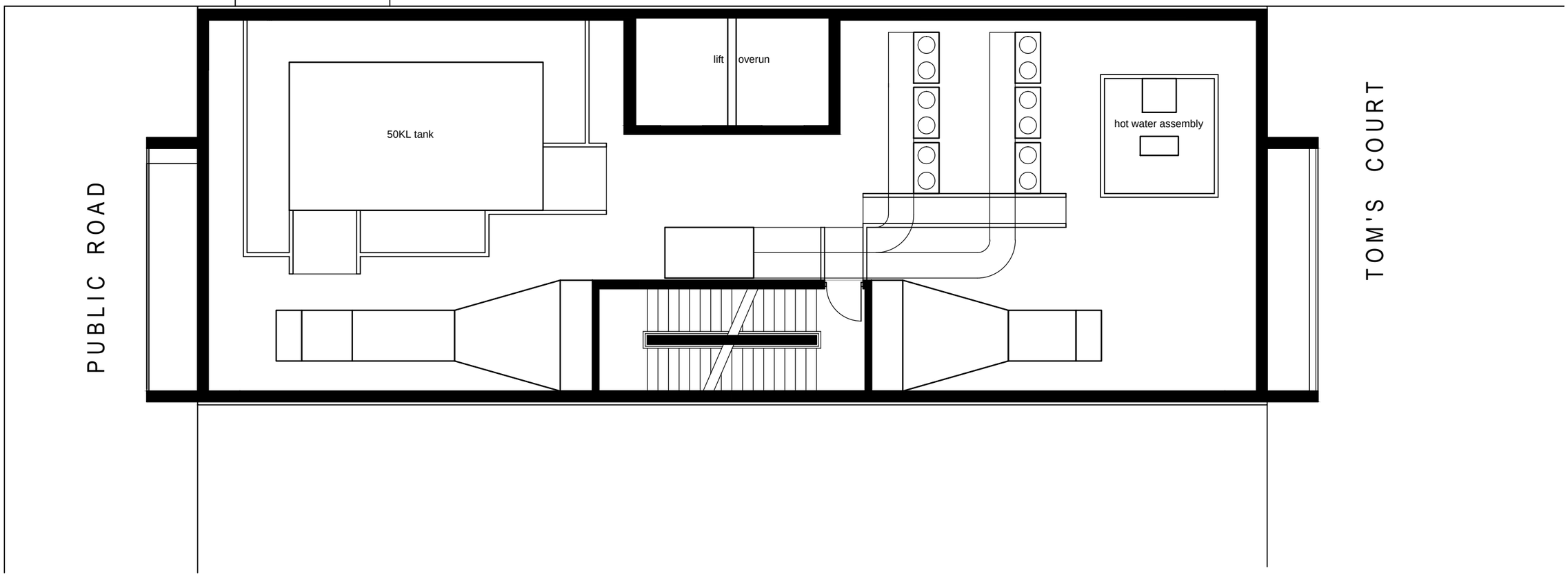
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SD07c

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



ROOF PLAN

0 1 2 5m

Scale 1:50 at A1

Scale 1:100 at A3

8

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

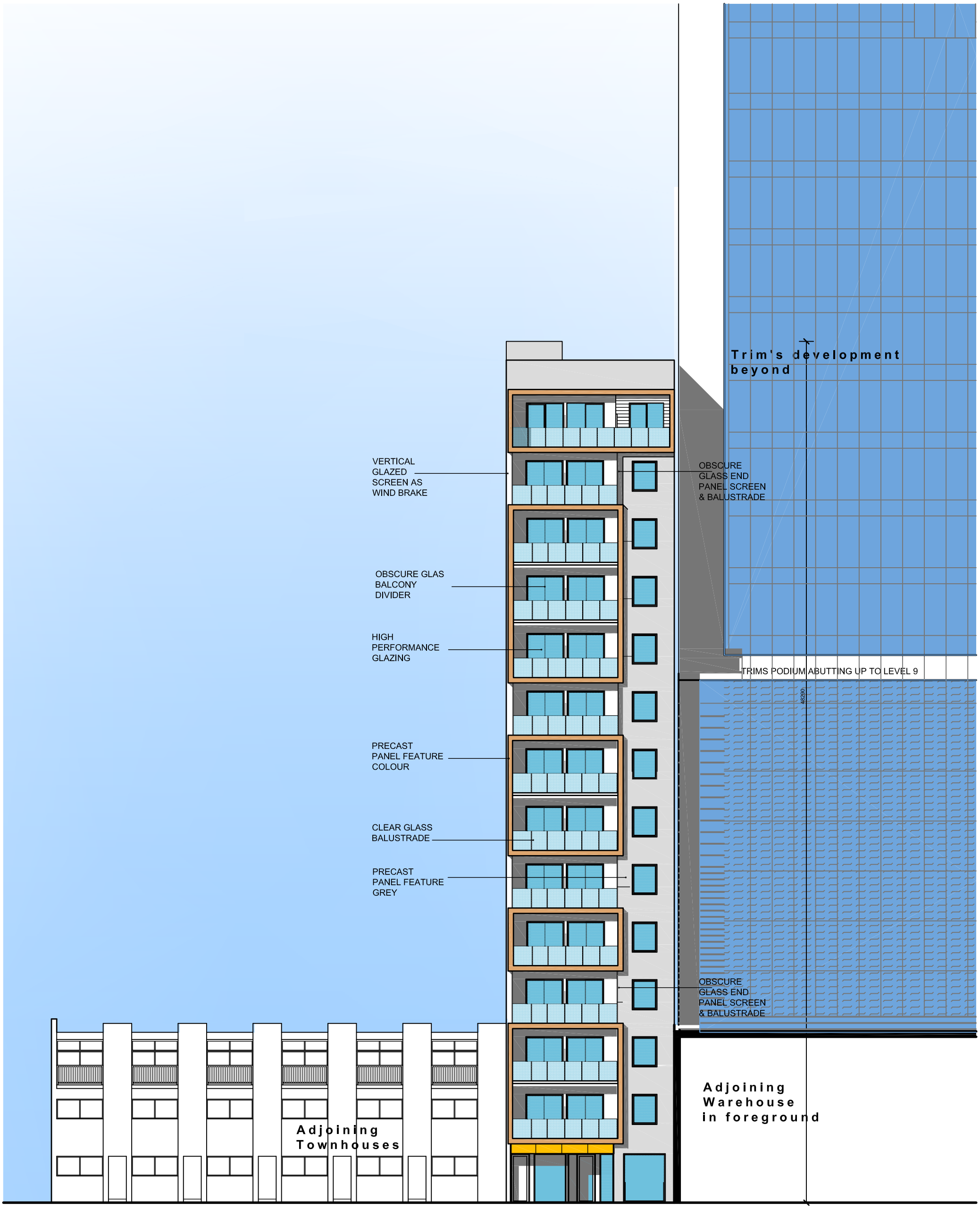
20 Toms Court Adelaide SA 5000

11.03.18

17/JN1331/SD08a

DESIGN REVIEW

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



EAST ELEVATION

0 1 2 5 10m

Scale 1:100 at A1
Scale 1:200 at A3

9

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

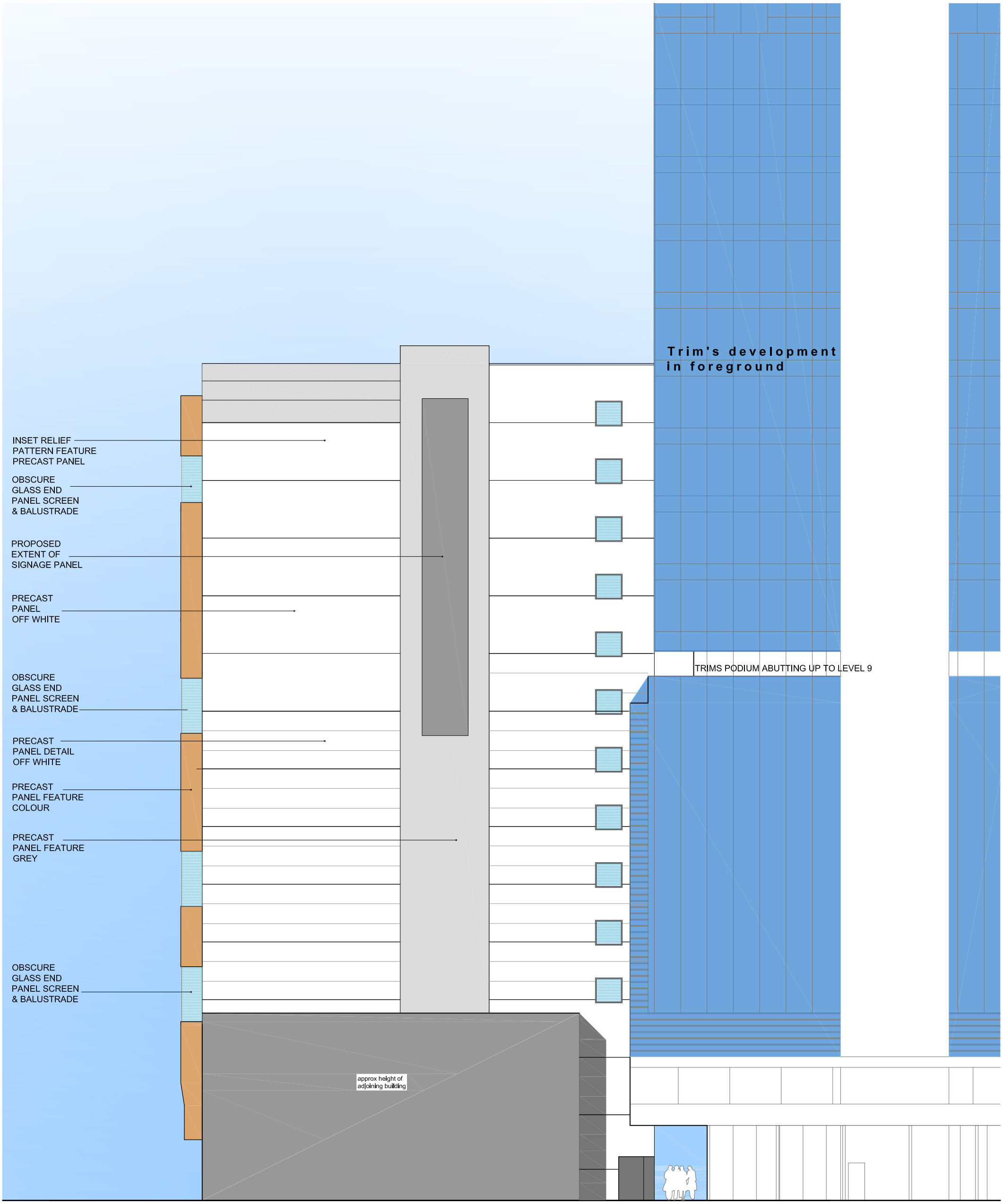
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK09/B

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



NORTH ELEVATION

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

10

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

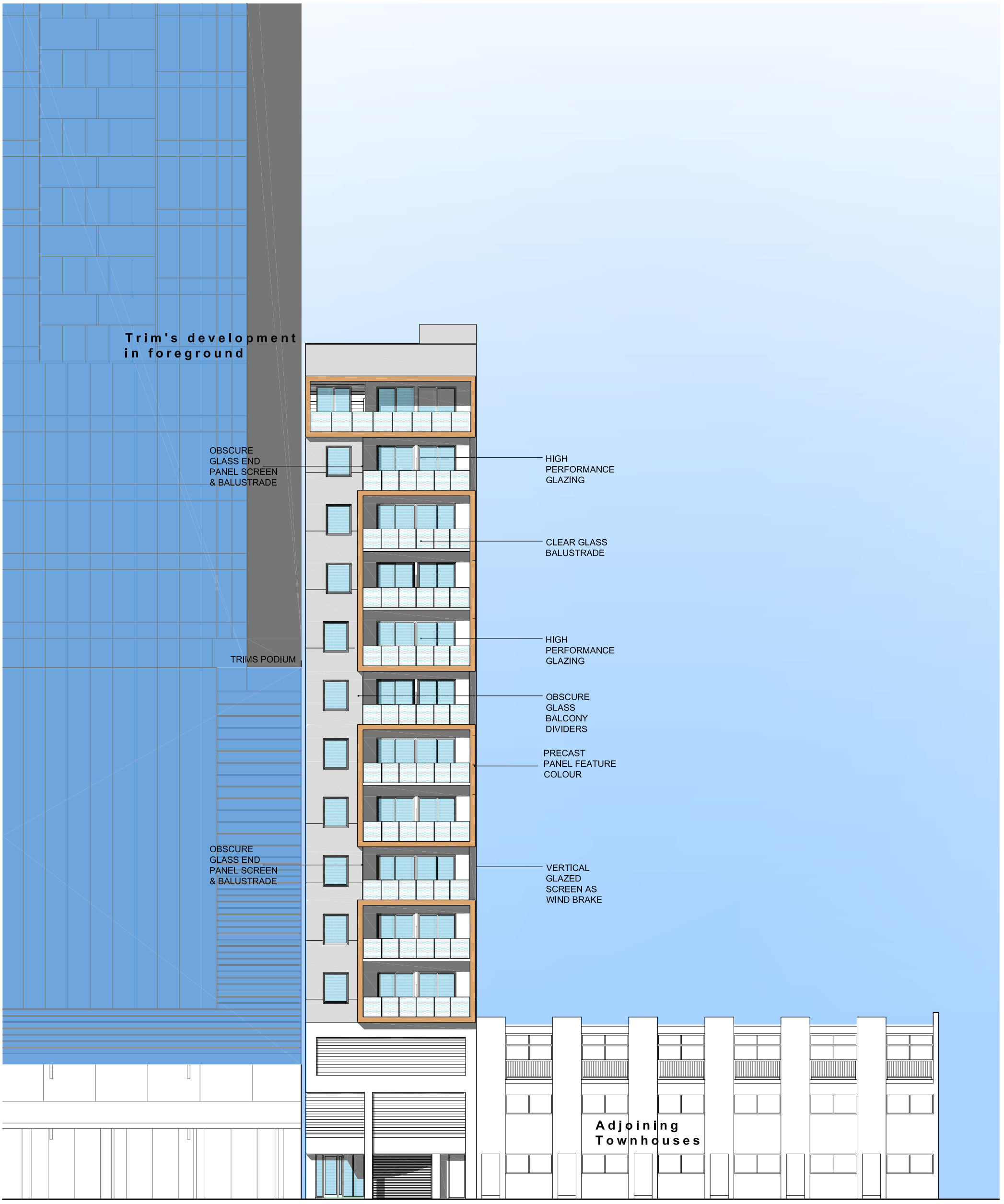
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK10/C

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



WEST ELEVATION

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

11

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

20 Toms Court Adelaide SA 5000

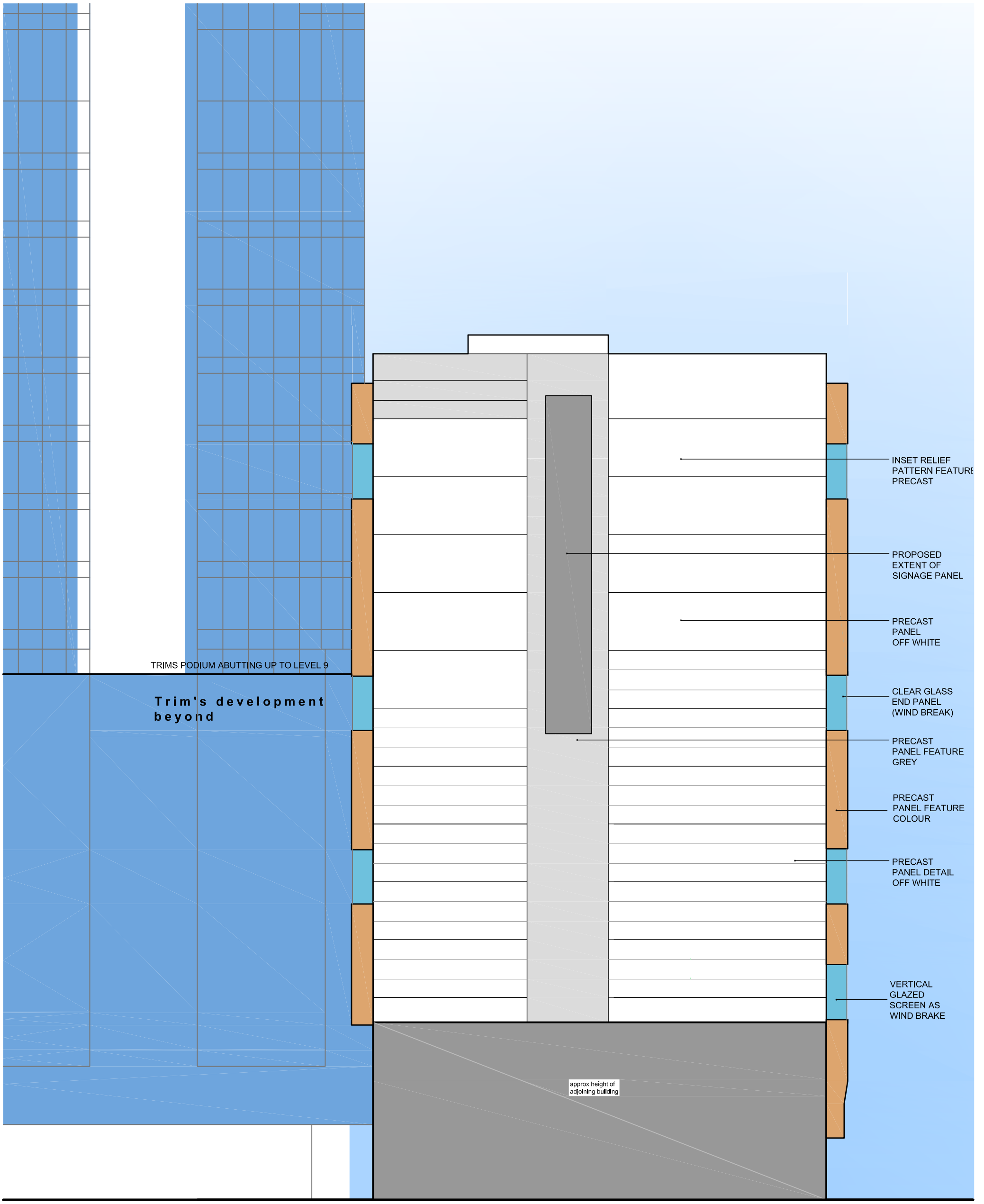
23.04.18

17/JN1331/SK11/D

PLANNING APPROVAL

ADS Architects

93 Gilles Street Adelaide 5000 T:82232244



SOUTH ELEVATION

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

12

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

20 Toms Court Adelaide SA 5000

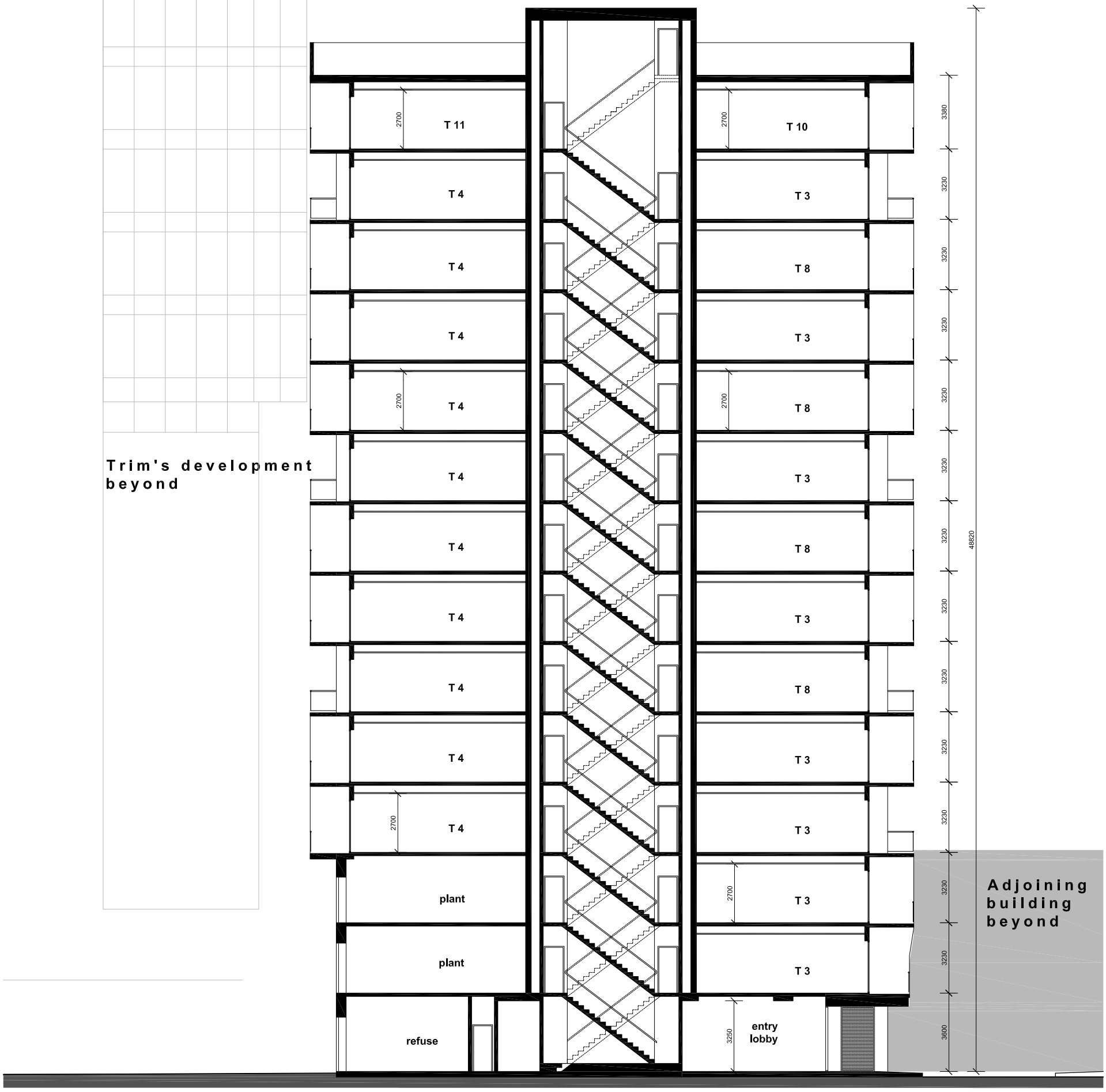
23.04.18

17/JN1331/SK12/B

PLANNING APPROVAL

ADS Architects

93 Gilles Street Adelaide 5000 T:82232244



Trim's development beyond

SECTION A-A

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

13

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

20 Toms Court Adelaide SA 5000

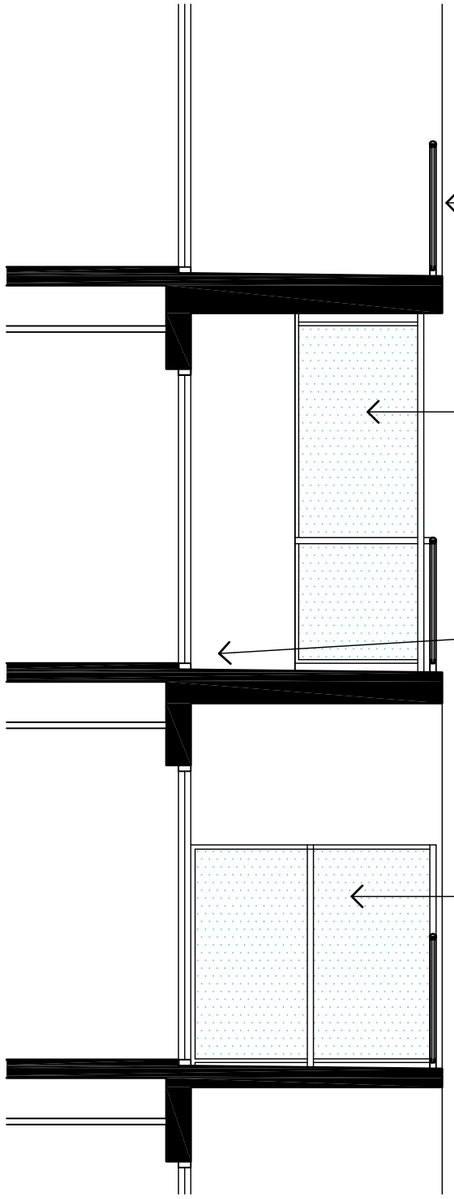
23.04.18

17/JN1331/SK13/A

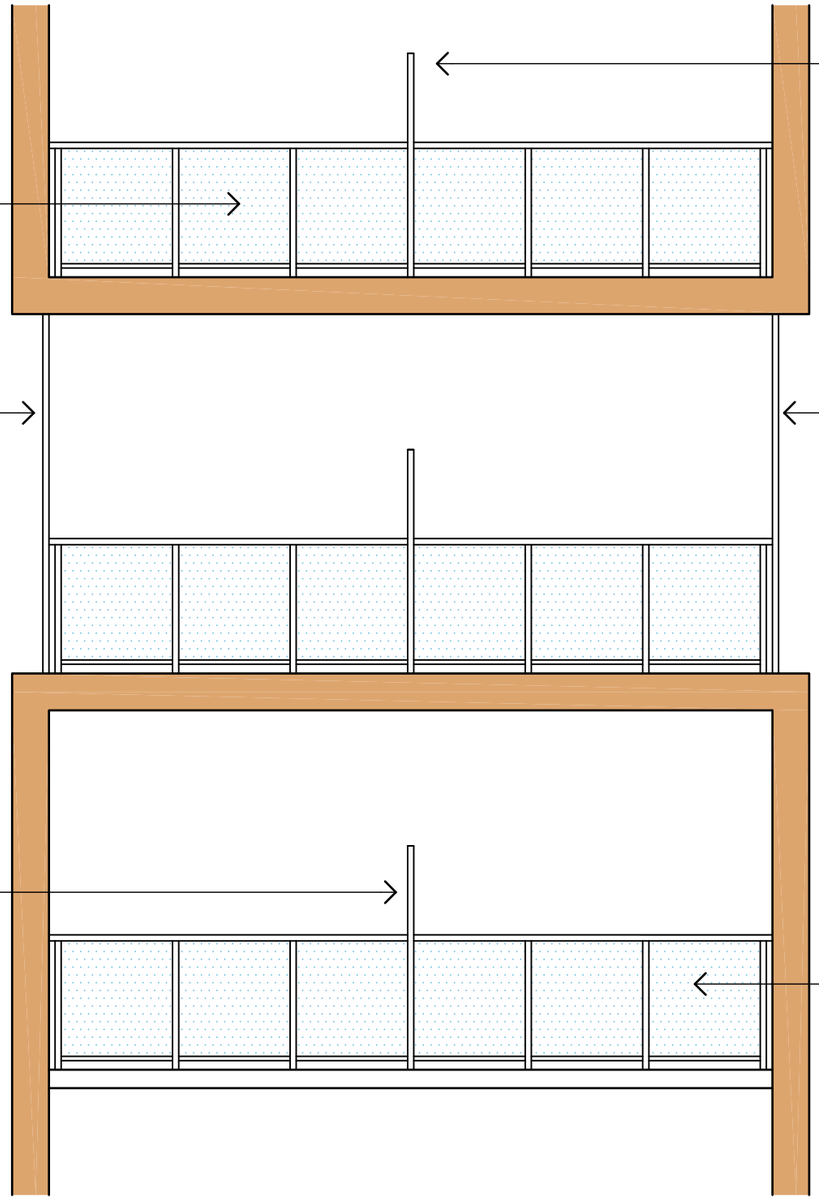
PLANNING APPROVAL

ADS Architects

93 Gilles Street Adelaide 5000 T:82232244



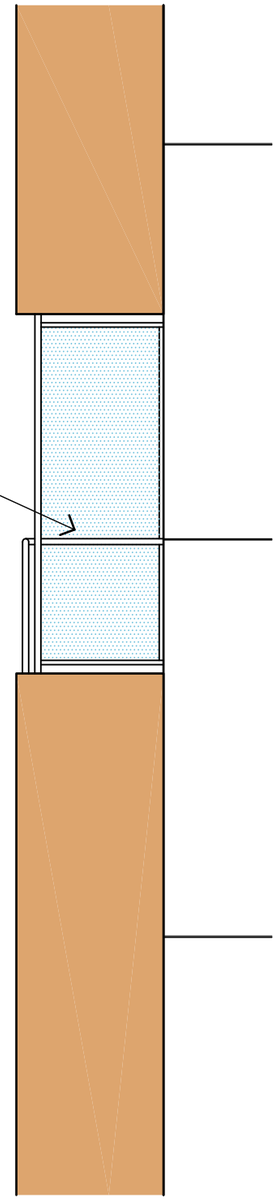
Typical Section



Front Elevation

0 1 2m

Scale 1:50 at A3



Side Elevation

BALUSTRADE DETAILS

TOMS COURT APARTMENTS

20 Toms Court Adelaide SA 5000

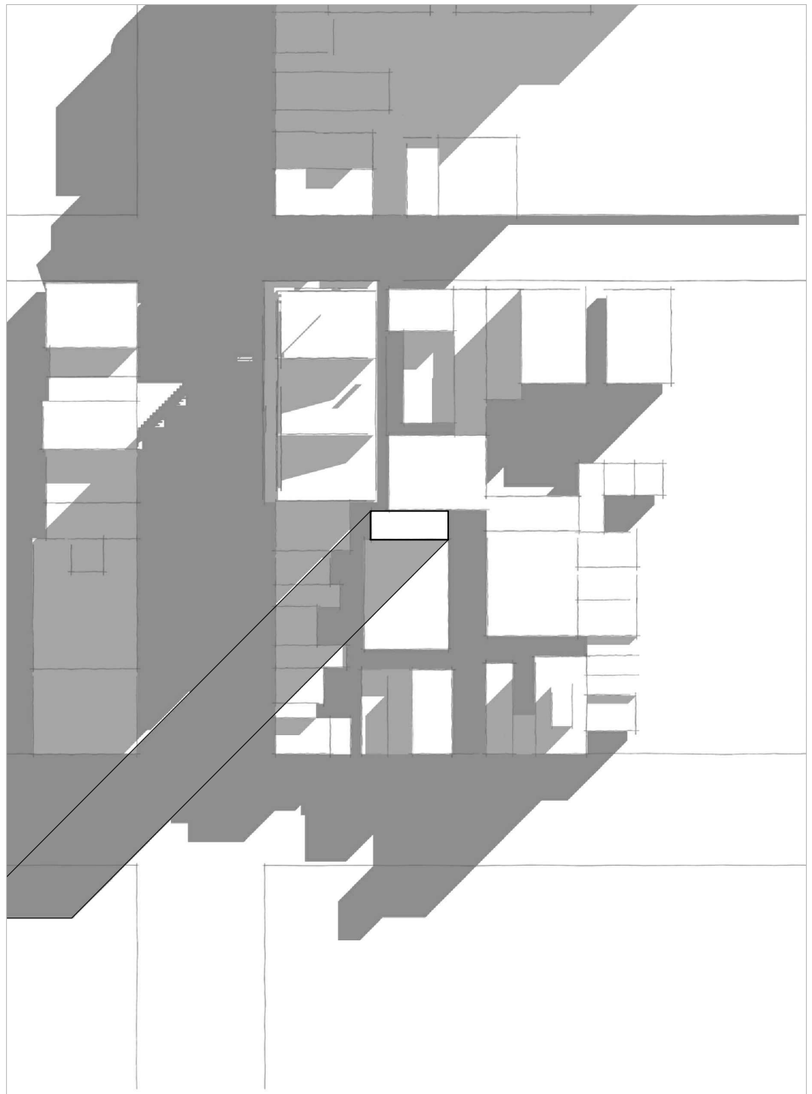
14

23.04.18

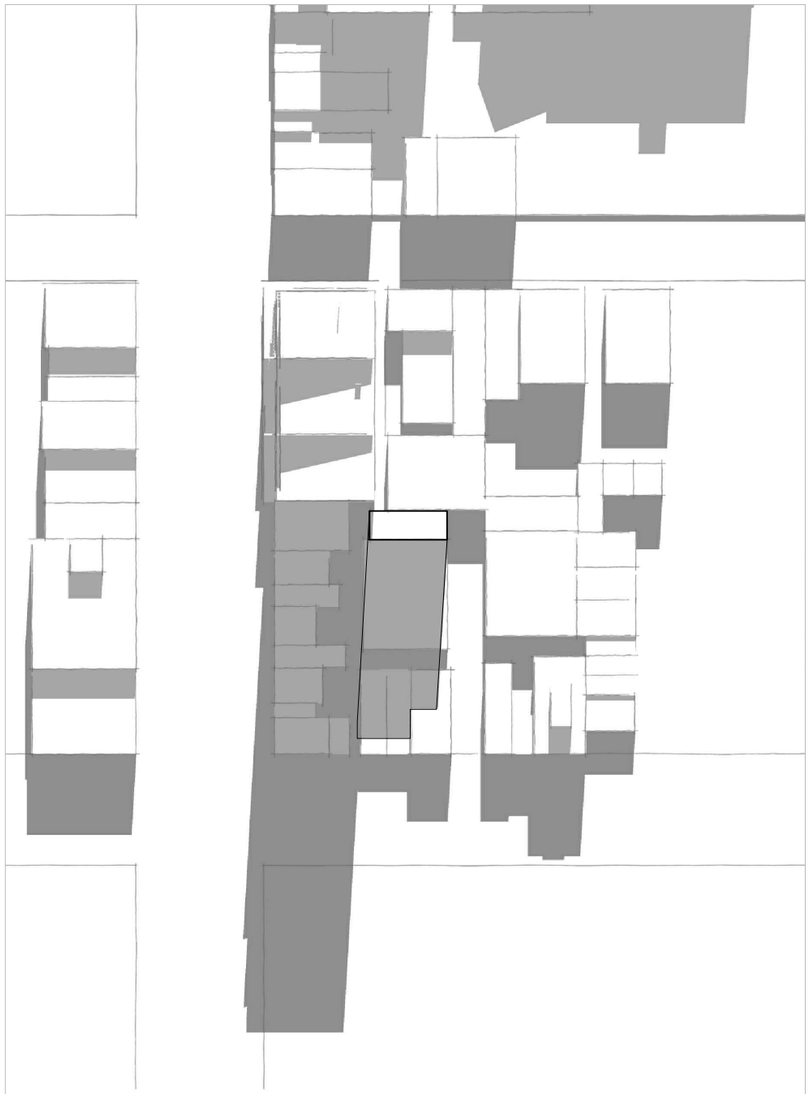
17/JN1331/SK14

PLANNING APPROVAL

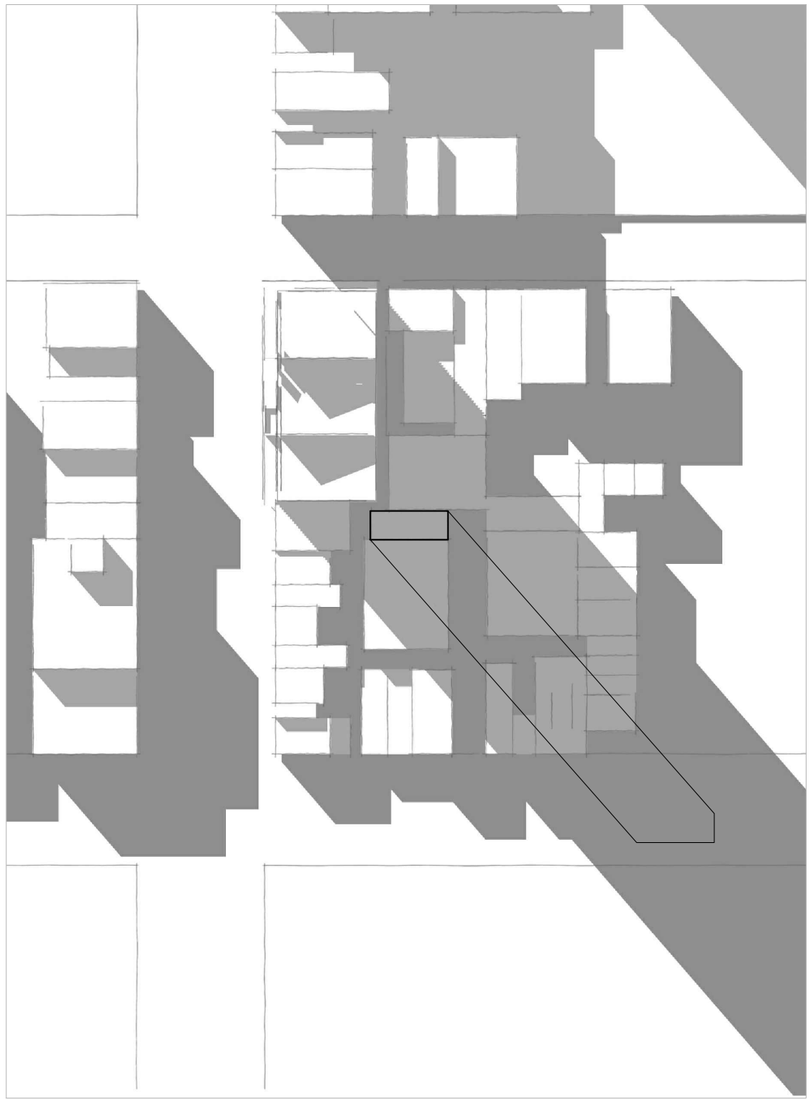
ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



21st June - 9:00 am



21st June - 12:00 am



21st June - 3:00 pm

SHADOW DIAGRAM ON 21st JUNE

0 10 20 50m

scale 1:1000 at A1

scale 1:2000 at A3

15

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

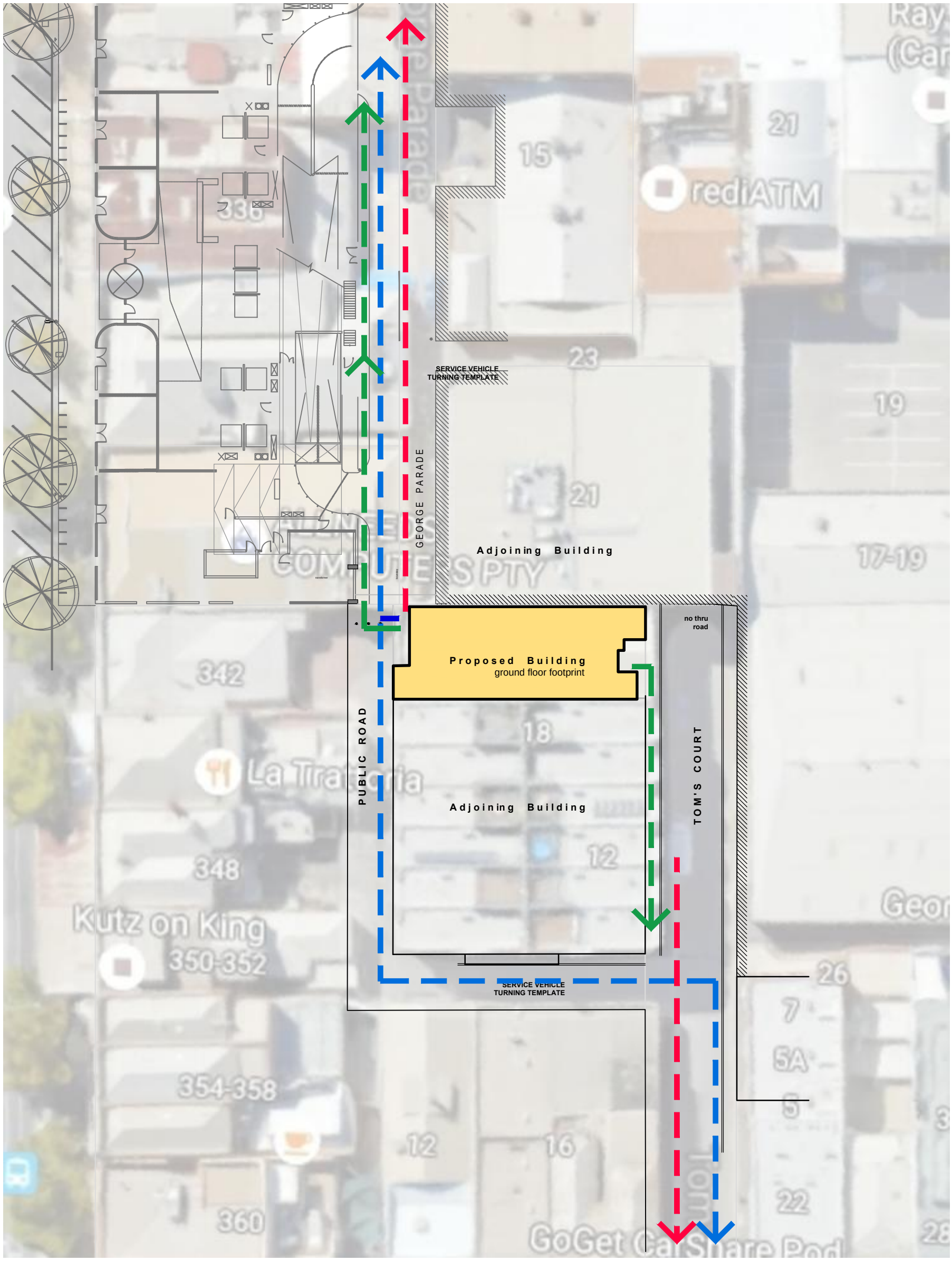
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK15

PLANNING APPROVAL

ADS Architects



SITE PLAN

0 1 2 5 10 15m

Scale 1:200 at A1

Scale 1:400 at A3

services vehicles

bikes

pedestrians

MOVEMENT ANALYSIS

TOMS COURT MOTEL, SERVICED APARTMENT / APARTMENTS

20 Toms Court Adelaide SA 5000

16

23.04.18

17/JN1331/SK16

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

LOCALITY & CONTEXT

17

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

20 Toms Court Adelaide SA 5000

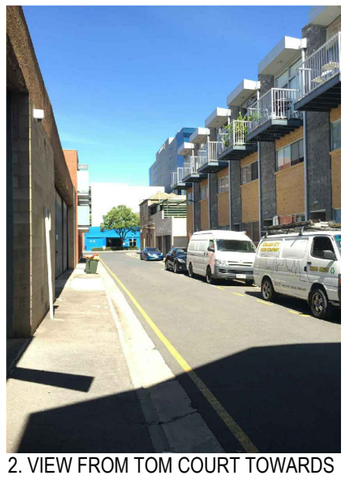
23.04.18

17/JN1331/SK17

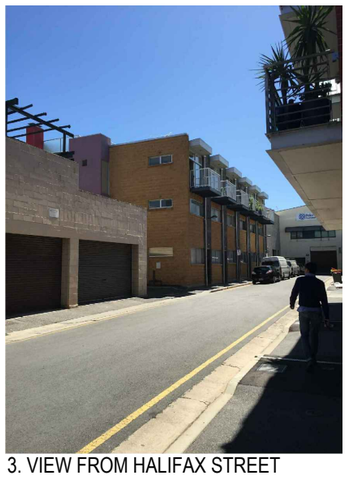
PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

1. VIEW FROM CORNER KING WILLIAM STREET & CARRINGTON STREET

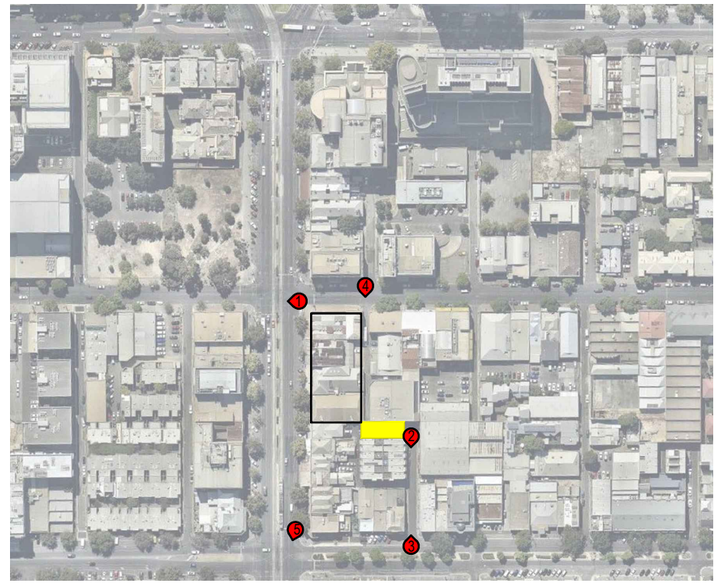


2. VIEW FROM TOM COURT TOWARDS HALIFAX STREET

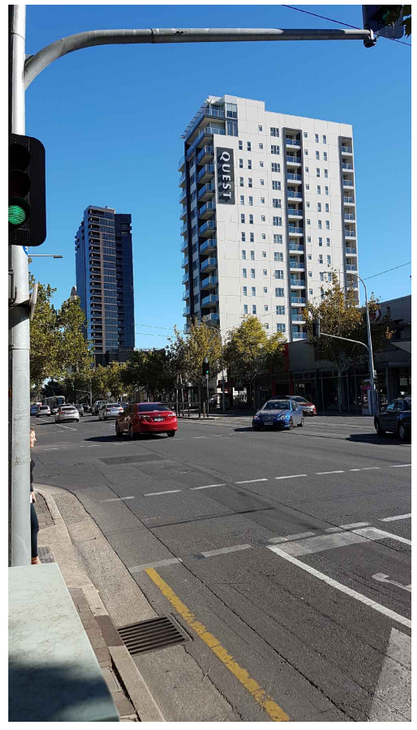


3. VIEW FROM HALIFAX STREET TOWARDS TOM COURT

4. VIEW FROM CARRINGTON STREET TOWARD GEORGE PARADE



SITE CONTEXT PHOTOS 01



5. VIEW FROM KING WILLIAM ST LOOKING SOUTH

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS 18

20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK18

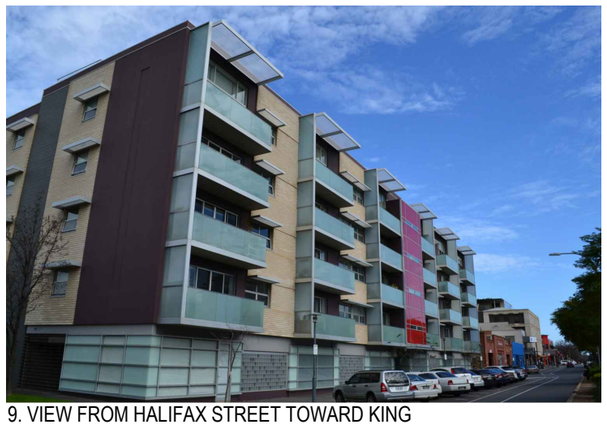
PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

6. VIEW FROM KING WILLIAM STREET

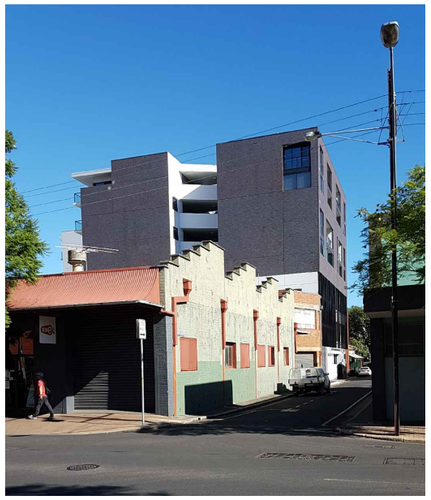
7. VIEW FROM CORNER KING WILLIAM STREET & CARRINGTON STREET

8. VIEW FROM CORNER KING WILLIAM STREET & HALIFAX STREET

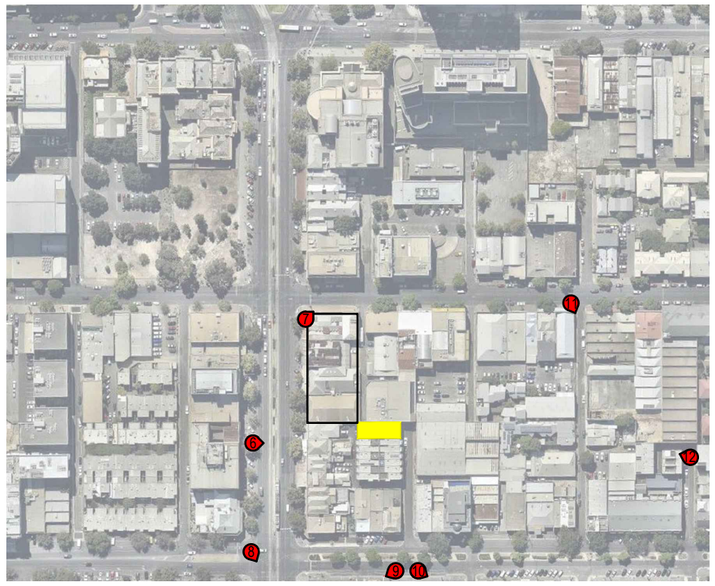


9. VIEW FROM HALIFAX STREET TOWARD KING WILLIAM STREET

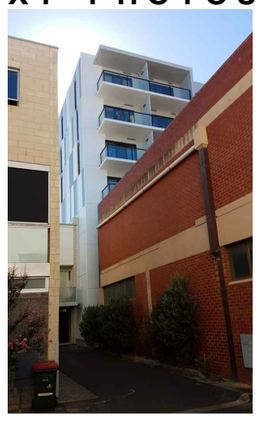
10. VIEW FROM HALIFAX STREET



11. VIEW FROM HALIFAX



SITE CONTEXT PHOTOS 02



12. VIEW FROM SYDNEY STREET

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

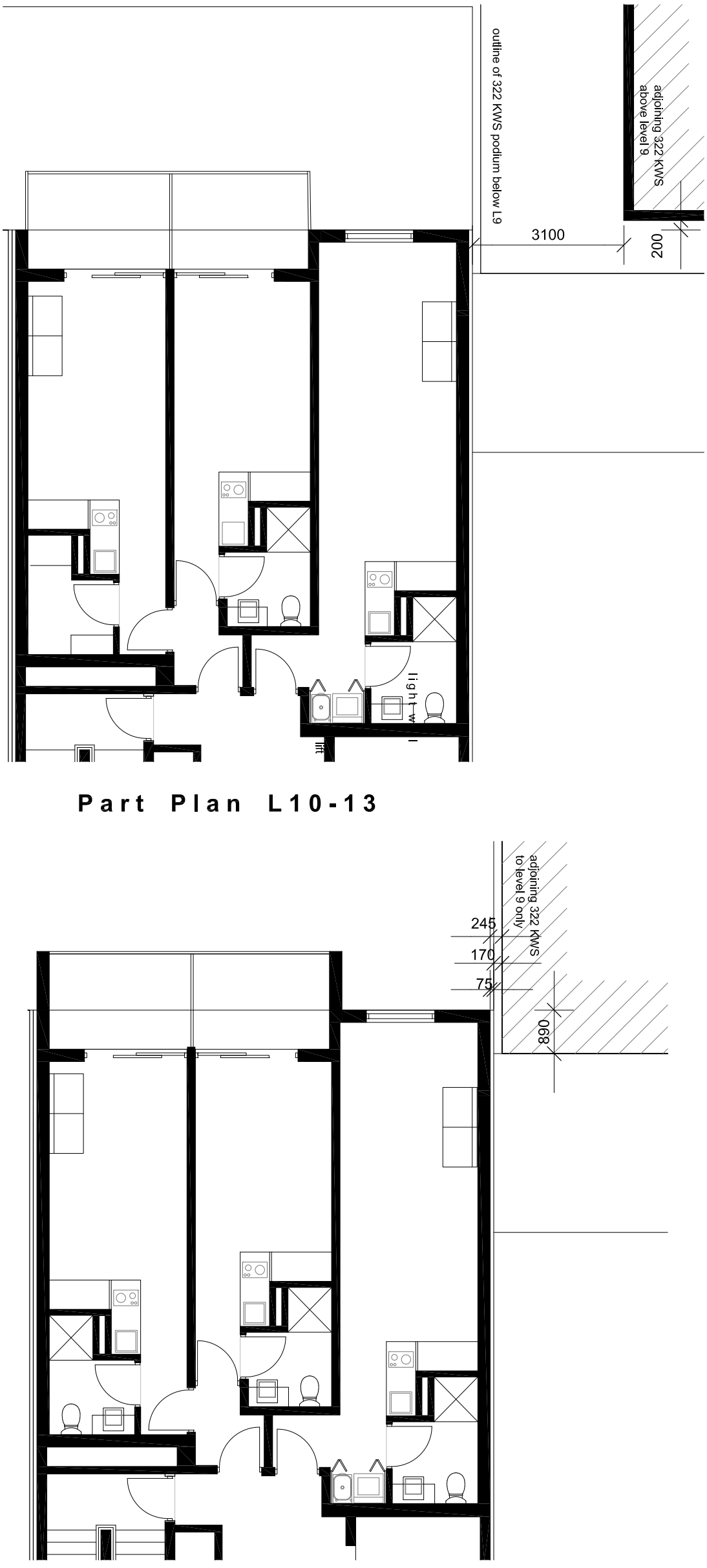
20 Toms Court Adelaide SA 5000

05.02.18

17/JN1331/SK19

DESIGN REVIEW

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



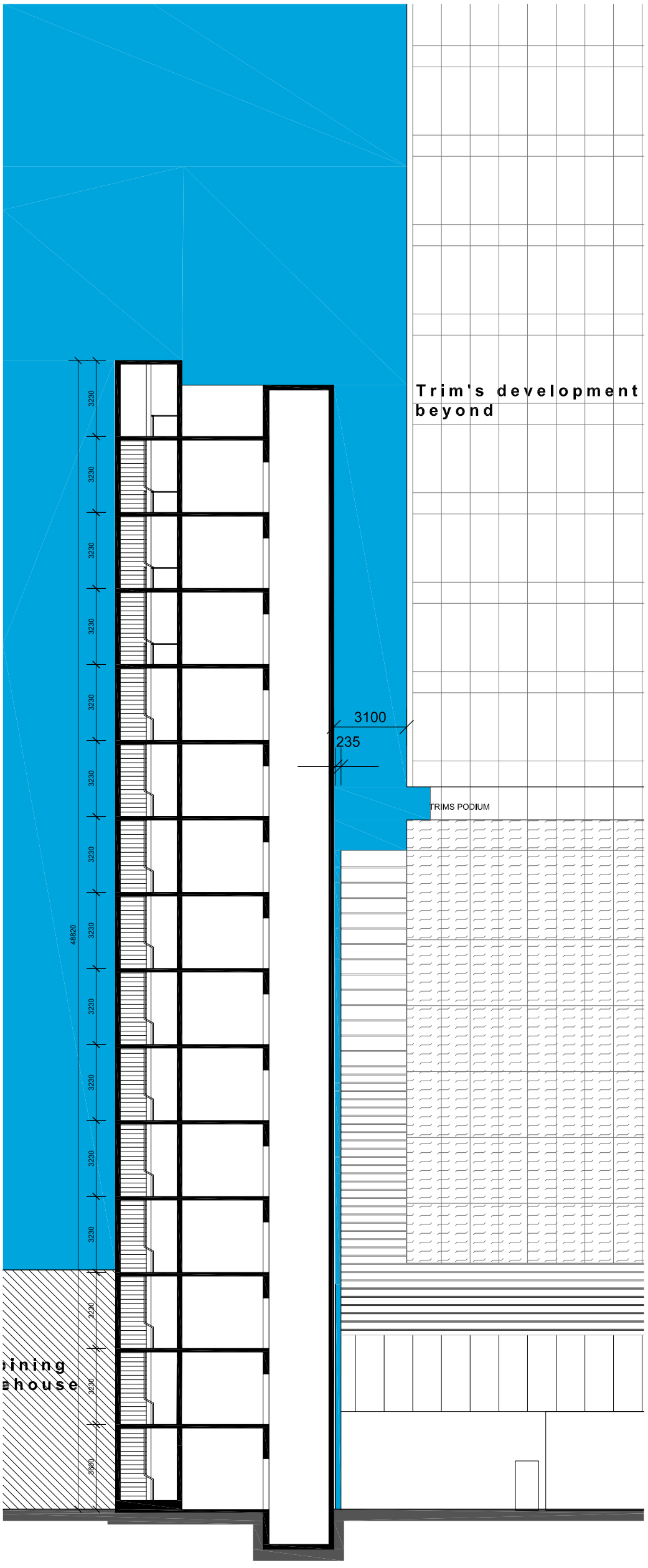
Part Plan L10-13

Part Plan L3-9

0 1 2 5m

Scale 1:50 at A1

Scale 1:100 at A3



Section Looking West

0 1 2 5 10m

Scale 1:100 at A1

Scale 1:200 at A3

TRIMS INTERFACE

TOMS COURT APARTMENTS

20 Toms Court Adelaide SA 5000

20

23.04.18

17/JN1331/SK20

PLANNING APPROVAL

ADS Architects

93 Gilles Street Adelaide 5000 T:82232244

VIEW FROM TOMS COURT
Looking north west

TOMS COURT APARTMENTS

20 Toms Court Adelaide SA 5000

21

23.04.18

17/JN1331/SK21/A

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

VIEW LOOKING NORTH EAST

TOMS COURT APARTMENTS

20 Toms Court Adelaide SA 5000

22

23.04.18

17/JN1331/SK22/A

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

A P A R T M E N T S T O R A G E S U M M A R Y

T10 & T11 (1bed) requires 8m³, provided **8m³**

T9 & T12 (studio) requires 6m³, provided **4.0m³**

Communal storage area at Level 2 provides **12m³**

This storage space will be managed and allocated by the corporation

93 Gilles Street Adelaide South Australia 5000 Telephone : 08 8223 2244 Facsimile : 08 8223 2260
Email : nic @ adsarchitects . com . au

DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

COUNCIL: City of Adelaide

APPLICANT: Karidis Corporation

Postal Address: 49 Angas Street
ADELAIDE SA 5000

Owner: PK Property (SA) Pty Ltd

Postal Address: (as above)

BUILDER: TBC

Postal Address: _____

_____ Licence No: _____

CONTACT PERSON FOR FURTHER INFORMATION

Name: Greg Maughan

Telephone: (08) 8414 7900 [work] 0450 514 687 [Ah]

Fax: (08) 8231 0374 [work] _____ [Ah]

EXISTING USE: Commercial warehouse

FOR OFFICE USE

Development No: _____

Previous Development No: _____

Assessment No: _____

☐ Complying
☐ Non Complying
☐ Notification Cat 2
☐ Notification Cat 3
☐ Referrals/Concurrences
☐ DA Commission
☐
☐

Application forwarded to DA

Commission/Council on

/ /

Decision: _____

Type: _____

Date: / /

	Decision required	Fees	Receipt No	Date
Planning:				
Building:				
Land Division:				
Additional:				
Development Approval				

DESCRIPTION OF PROPOSED DEVELOPMENT: 14 storey building (inclusive of ground level) comprising ground floor shop, motel rooms (levels 1 to 12) and Serviced and Residential Apartments (Level 13)

LOCATION OF PROPOSED DEVELOPMENT: _____

House No: 20 Lot No: ____ Street: Toms Court Town/Suburb: Adelaide

Section No [full/part] _____ Hundred: _____ Volume: 5950 Folio: 644

Section No [full/part] _____ Hundred: _____ Volume: _____ Folio: _____

LAND DIVISION:

Site Area [m^2] _____ Reserve Area [m^2] _____ No of existing allotments _____

Number of additional allotments [excluding road and reserve]: _____ Lease: **YES** ☐ **NO** ☐

BUILDING RULES CLASSIFICATION SOUGHT: _____ Present classification: _____

If Class 5,6,78 or 9 classification is sought, state the proposed number of employees: Male: ____ Female: _____

If Class 9a classification is sought, state the number o persons for whom accommodation is provided: _____

If Class 9b classification is sought, state the proposed number of occupants of the various spaces at the premises: _____

DOES EITHER SCHEDULE 21 OR 22 OF THE DEVELOPMENT REGULATIONS 2008 APPLY? **YES** ☐ **NO** ☑

HAS THE CONSTRUCTION INDUSTRY TRAINING FUND ACT 2008 LEVY BEEN PAID? **YES** ☐ **NO** ☑

DEVELOPMENT COST [do not include any fit-out costs]: $10,100,000

I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.

SIGNATURE: _____ Dated: 03 / 05 / 2018.

G.S. MAUGHAN

FOR + ON BEHALF OF THE KARIDIS CORPORATION.

Title Register Search

LANDS TITLES OFFICE, ADELAIDE

For a Certificate of Title issued pursuant to the Real Property Act 1886

REGISTER SEARCH OF CERTIFICATE OF TITLE * VOLUME 5950 FOLIO 644 *

COST	: $25.75 (GST exempt)	PARENT TITLE	: CT 5725/613
REGION	: EMAIL	AUTHORITY	: RT 10220368
AGENT	: HOHO BOX NO : 042	DATE OF ISSUE	: 07/10/2005
SEARCHED ON	: 16/05/2014 AT : 11:22:09	EDITION	: 4

REGISTERED PROPRIETOR IN FEE SIMPLE

PK PROPERTY (SA) PTY. LTD. OF 49 ANGAS STREET ADELAIDE SA 5000

DESCRIPTION OF LAND

ALLOTMENT 654 FILED PLAN 182306
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

EASEMENTS

NIL

SCHEDULE OF ENDORSEMENTS

12107742 MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.

NOTATIONS

DOCUMENTS AFFECTING THIS TITLE

NIL

REGISTRAR-GENERAL'S NOTES

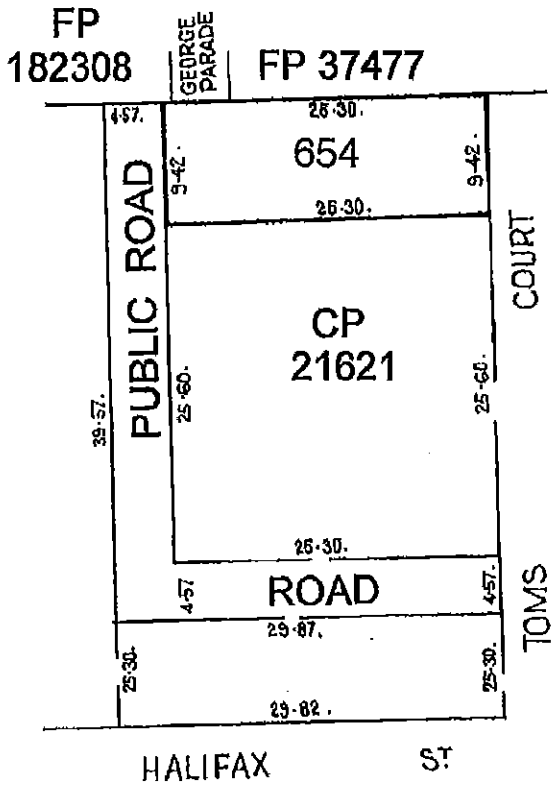
NIL

END OF TEXT.

LANDS TITLES OFFICE ADELAIDE SOUTH AUSTRALIA

DIAGRAM FOR CERTIFICATE OF TITLE VOLUME 5950 FOLIO 644

SEARCH DATE : 16/05/2014 TIME: 11:22:09



0 5 10 15 20 Metres

DESIGN STATEMENT

20 TOMS COURT MOTEL

The proposal consists of a 14 storey motel (top floor level 13 as apartments) building with central core aimed at an affordable price point that positively contributes to the activation of this part of the city and as such durability, maintenance, operational costs, material selections and finishes have been carefully considered. The site parameters, size and access constraints derived a boundary to boundary development providing an integrated response to amenity, context and urban design without adverse impact.

The division of the overall massing both vertically (through elemental detail) and horizontally (by expression of the selected elements) achieves a contextual integrity. This includes the broader articulation of the elevations into clearly defined smaller elements. The articulation of full height balcony recesses add light penetration and natural ventilation deep into the internal habitable spaces, an integrated coordinated appearance.

The massing and scale of the building is addressed through the use of articulated facades, semi-recessed balconies, graded colour and precast concrete with panel relief. The proposal presents an expression of strength and solidity juxtaposed to the lightness and glass of 322 King William Street as a backdrop. The materials palette is respectful and compatible with Toms Court, a building expression which is restrained and well proportioned.

The panel relief lines to the otherwise blank pre-cast concrete north and south, provides visual relief to these façades and blurs the traditional delineation of floors, treating these walls as a composition and artistic element.

Balconies with large Low Emissivity glass window panels provide substantial natural light with overhangs to reduce solar gain.

The building will be finished in a combination of solid painted wall panels, natural anodised aluminium framed doors and windows and glazed balustrades. Feature panels are utilised as surrounds to the balconies to provide further depth and articulation.

From a streetscape perspective the building has well proportioned fenestration patterns, which reflect the rectangular proportions and rhythm consistent with surrounding residential allotments. The ‘box frames’ are influenced by and a reflection of window architraves of surrounding cottages, a contemporary interpretation of traditional window awnings and the cubic forms of residential buildings in the locality.

The boundary alignment reinforces the established pattern of development with the cafe shopfront and glazed lobby façade physically and visually opening development at ground floor creating a connection to the rear lane and George Parade. This link achieving active street interface, positively contributing to the CEPTD objectives for Toms court and in particular the rear lane access, a benefit which few other sites deliver to Toms Court providing a better amenity for the residents and public realm.

Refuse bins are located at the rear of the building, resident and and visitor bicycle parking is also catered for.

ekistics

20 TOMS COURT ADELAIDE

Planning Statement

Prepared for:
Karidis Corporation Ltd

Date:
03 May 2018

ekistics

Proprietary Information Statement

Document Control

Revision	Description	Author	Date
V1	Draft Planning Statement	RG	26 April 2018
V2	Revised Planning Statement	RAD	30 April 2018
F	Final Planning Statement	RG	3 May 2018

Approved by:  Robert Gagetti, Associate 3 May 2018

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1. Executive Summary

Category	Details
PROJECT DESCRIPTION	Demolition of existing commercial building and construction of mixed use development comprising ground floor commercial cafe tenancy, 64 motel rooms (levels 1 to 12) and four (4) Residential Apartments (Level 13)
ADDRESS OF SITE	20 Toms Court, Adelaide, SA 5000
CERTIFICATES OF TITLE	• Certificate of Title Volume 5950 Folio 644 (Allotment 654, Deposited Plan 182306)
EASEMENTS/ENCUMBRANCES	Not Applicable
SITE AREA	238.33m^2
FRONTAGE	• Toms Court (primary frontage) – 9.42 metres • Unnamed public road – 9.42 metres • George Parade (Private Road) – 3.66 metres
LOCAL GOVERNMENT	Adelaide City Council
RELEVANT AUTHORITY	State Commission Assessment Panel (SCAP)
DEVELOPMENT PLAN	Adelaide (City) Development Plan (consolidated 20 June 2017)
ZONING	Capital City Zone
POLICY AREA/PRECINCT	N/A
EXISTING USE	Two (2) storey commercial building (Warehouse / Store)
ASSESSMENT PATHWAY	Consent use based on merit
REFERRALS/CONCURRENCES	• South Australia Government Architect (ODASA) • City of Adelaide (Informal)
PUBLIC NOTIFICATION	Category 1
PRE LODGEMENT PLANNING MEETINGS	• 15 December 2017 • 20 February 2018 • 18 April 2018
DESIGN REVIEW MEETINGS	• 21 March 2018
APPLICANT	Karidis Corporation Ltd
CONTACT PERSON	Richard Dwyer, Ekistics Planning and Design (08) 7231 0286 rdwyer@ekistics.com.au
OUR REFERENCE	00571-003

2. Introduction

2.1 Background

This report has been prepared on behalf of the Karidis Corporation Ltd ["Karidis"] in support of a development application to construct a 14 storey mixed use building comprising a ground level cafe tenancy of 40m^2, a 64-room motel on levels 1 to 12 inclusive and four (4) dwellings in the form of Residential Apartments and Serviced Apartments on level 13.

The development seeks to capitalise on the close proximity of public transport infrastructure by providing bicycle facilities in lieu of private vehicle parking. The provision of Motel and Serviced Apartments will also provide short-term accommodation for South Australian visitors, contributing to the objective of providing a broad range of accommodation within the City Centre to cater for a variety of living needs.

affordable housing that will appeal to a broader sector of the housing market, whilst motel rooms will accommodate short-term stays for South Australian visitors.

This Planning Statement seeks to provide relevant information about the subject land and locality, describes the nature of the proposed development and provides an assessment of the development application against the relevant provisions of the Adelaide (City) Development Plan. This Planning Statement has been prepared to assist the State Commission Assessment Panel (SCAP) in its assessment and determination of the development application.

For the purposes of this Planning Statement, The Adelaide (City) Development Plan (Consolidated 20 June 2017) will be referred to as the 'Development Plan', the *Development Act*, 1993 will be referred to as the 'Act' and the *Development Regulations*, 2008 will be referred to as the 'Regulations'.

This Planning Statement has been prepared on the basis of the plans and documentation identified below:

- **Appendix 1**: Certificate of Title
- **Appendix 2:** ADS Architects:
  - site plans;
  - elevations;
  - sectional drawings;
  - floor plans;
  - locality and movement analysis;
  - shadow diagrams;
  - Design Response Statement;
  - storage summary; and
  - perspectives
- **Appendix 3:** ADS Architects Apartment Light and Ventilation Summary
- **Appendix 4:** Sonus Noise Assessment

- **Appendix 5:** Lucid Consulting ESD Report
- **Appendix 6:** Tonkin Consulting Traffic Review
- **Appendix 7:** Colby Industries Waste Management Plan
- **Appendix 8:** Windtech Pedestrian and Environment Statement
- **Appendix 9:** PT Design Stormwater Methodology
- **Appendix 10:** Lucid Consulting Services Utilities Infrastructure Report
- **Appendix 11:** Mott MacDonald Preliminary Environmental Site History Assessment
- **Appendix 12:** Adelaide (City) Council Minutes (Encroachments Approval)
- **Appendix 13:** Griffins Lawyers Legal Advice
- **Appendix 14:** Government Architect Referral Comments
- **Appendix 15:** RLB Quantity Surveyors Report

An architectural plan drawing schedule pertaining to ***Appendix 2*** is identified below in Table 2.1.

Table 2.1 *Drawing Schedule*

	Revision	Description
17/JN/1331/SK01	C	Site Plan
17/JN/1331/SK02	D	Floor Plan (Ground floor plan)
17/JN/1331/SK03	C	Floor Plans (Level 1)
17/JN/1331/SK04	D	Floor Plans (Level 2)
17/JN/1331/SK05	B	Floor Plans (Levels 2, 4, 6, 7, 8, 10, 11, 12)
17/JN/1331/SK06	D	Floor Plans (Levels 5 & 9)
17/JN/1331/SD07	C	Floor Plans (Level 13)
17/JN/1331/SD08	A	Roof plan
17/JN/1331/SK09	B	East Elevation
17/JN/1331/SK10+	C	North Elevation
17/JN/1331/SK11	D	West Elevation
17/JN/1331/SK12	B	South Elevation
17/JN/1331/SK13	A	Sectional Drawing
17/JN/1331/SK14	-	Balustrade Details
17/JN/1331/SK15	-	Shadow Diagram
17/JN/1331/SK16	-	Movement Analysis
17/JN/1331/SK17	-	Locality and Context
17/JN/1331/Sk18	-	Site Context Photos 01
17/JN/1331/SD19	-	Site Context Photos 02
17/JN/1331/SK20	-	Trims Interface Plan
17/JN/1331/SK21	A	North west perspective
17/JN/1331/SK22	A	North east perspective
Apartment Storage Summary	-	Storage Calculation Summary
Design Response	-	Architects Design Response Statement

2.2 Pre-Lodgement Process

The Applicant elected to participate in the 'Pre-lodgement' case management process offered by the Department of Planning Transport and Infrastructure (DPTI). This involved:

- Pre-lodgement planning (PLP) meeting # 1 held on Friday 15 December 2017;
- Pre-lodgement planning (PLP) meeting # 2 held on Tuesday 20 February 2018;
- Desktop Design Review hosted by the Office for Design + Architecture (ODASA) held on 23 March 2018;
- Pre-lodgement planning (PLP) meeting # 3 held on 18 April 2018.

In addition to the above-mentioned meetings, the following additional PLP and ODASA meetings were previously held in relation to D.A 020/A026/17 involving the construction of a 17 storey mixed use building:

- Pre-lodgement planning (PLP) meeting # 1 held on Monday 1 August 2016;
- Design Review Meeting # 1 hosted by the Office for Design + Architecture (ODASA) held on 7 September 2016;
- Pre-lodgement planning (PLP) meeting # 2 held on 24 January 2017;
- Pre-lodgement planning (PLP) meeting # 3 held on 15 March 2017; and
- Design Review Meeting # 2 (Desktop review) hosted by the Office for Design + Architecture SA (ODASA) held on 5 April 2017.

The feedback provided via these sessions has informed the design development of the project.

3. Site and Locality

3.1 Subject Site

The subject site is recognised as 20 Toms Court, Adelaide, and is a rectangular site with a total area of 238.33m^2 comprising dimensions of 9.42 metres and 25.30 metres.

The following table presents the legal identifier for the single allotment which forms the subject 'site':

Table 3.1 *Subject site identifier*

Address	Allotment	Certificate of Title
20 Toms Court	654 of Deposited Plan 182306	CT Volume 5950 Folio 644

The subject site is located at the far northern end of Toms Court. The land also has an approximate frontage to George Parade (Private Road) of 3.66 metres and a frontage of 9.42 metres to an unnamed public road/lane to the west which serves as a service lane and vehicle access way for buildings fronting both Toms Court and King William Road.

The subject site currently accommodates a two-storey commercial warehouse /store building of masonry construction (refer to ***Figure 3.1*** over-page).

Figure 3.1 *Images of the Subject site*

The location of the subject site is illustrated spatially in ***Figure 3.2***.

Figure 3.2 *Subject Site*

3.2 Locality

3.2.1 *Adjacent Road Network*

Toms Court

The subject site fronts Toms Court, which is a narrow no-thru-road that connects to Halifax Street. The subject site is located at the apex of this dead-end street.

Toms Court incorporates sealed pedestrian footpaths located on both sides of the road.

We understand that existing traffic volumes on Toms Court are likely to be less than 100 vehicles per day.

Unnamed Public Road

The unnamed public road connects with Toms Court, provides vehicle access to the adjoining townhouses fronting Toms Court and acts as a service lane for a number of businesses fronting King William Street.

George Parade

George Parade functions as a private road under the care and control of the Police Credit Union.

It is a narrow single lane road with existing traffic volumes likely to be less than 100 vehicles per day. 3.66 metres of the sites northern boundary fronts George Parade and the building has been designed to accommodate through connection from George Parade to the unnamed public road to maximise pedestrian permeability.

3.2.2 *Building Heights and Composition*

The surrounding context is currently characterised by a mixture of one (1), two (2) and three (3) storey buildings either backing onto, or fronting Toms Court, and George Parade.

The former Inner Metropolitan Development Assessment Committee (IMDAC) previously approved a 31-storey mixed use development to the immediate north-west of the site at 322-340 King William Road, Adelaide (referred to as the 'Echelon' development). This adjoining site is under the ownership and control of Karidis Corporation. However the development authorisation (DA 020/M043/16) has not yet been enacted.

The height and scale of surrounding development in the broader locality is illustrated in ***Figure 3.3*** and demonstrates that built form generally varies from two (2) to five (5) storeys in the immediate locality and up to 26 storeys (i.e. VUE Apartments) at the southern end of King William Street.

Within the broader locality of the subject site there are three (3) local heritage buildings and two (2) State heritage listed buildings as listed below and illustrated within ***Figure 3.4:***

- State Heritage Place – 34 Carrington Street Adelaide: Bars Chambers (former dwelling).
- State Heritage Place – 353 King Willian Street Adelaide:
- Local Heritage Place – 318-320 King William Street/2-10 Carrington Street Adelaide:
- Local Heritage Place - 348-352 King William Street Adelaide: Former Shops and Dwellings; External form, in particular the fabric and detailing of King William Street façade. Excludes any later additions.

- Local Heritage (Townscape)- 16-18 Halifax Street Adelaide: Halifax House

Figure 3.3 *Building Heights in the extended Locality*

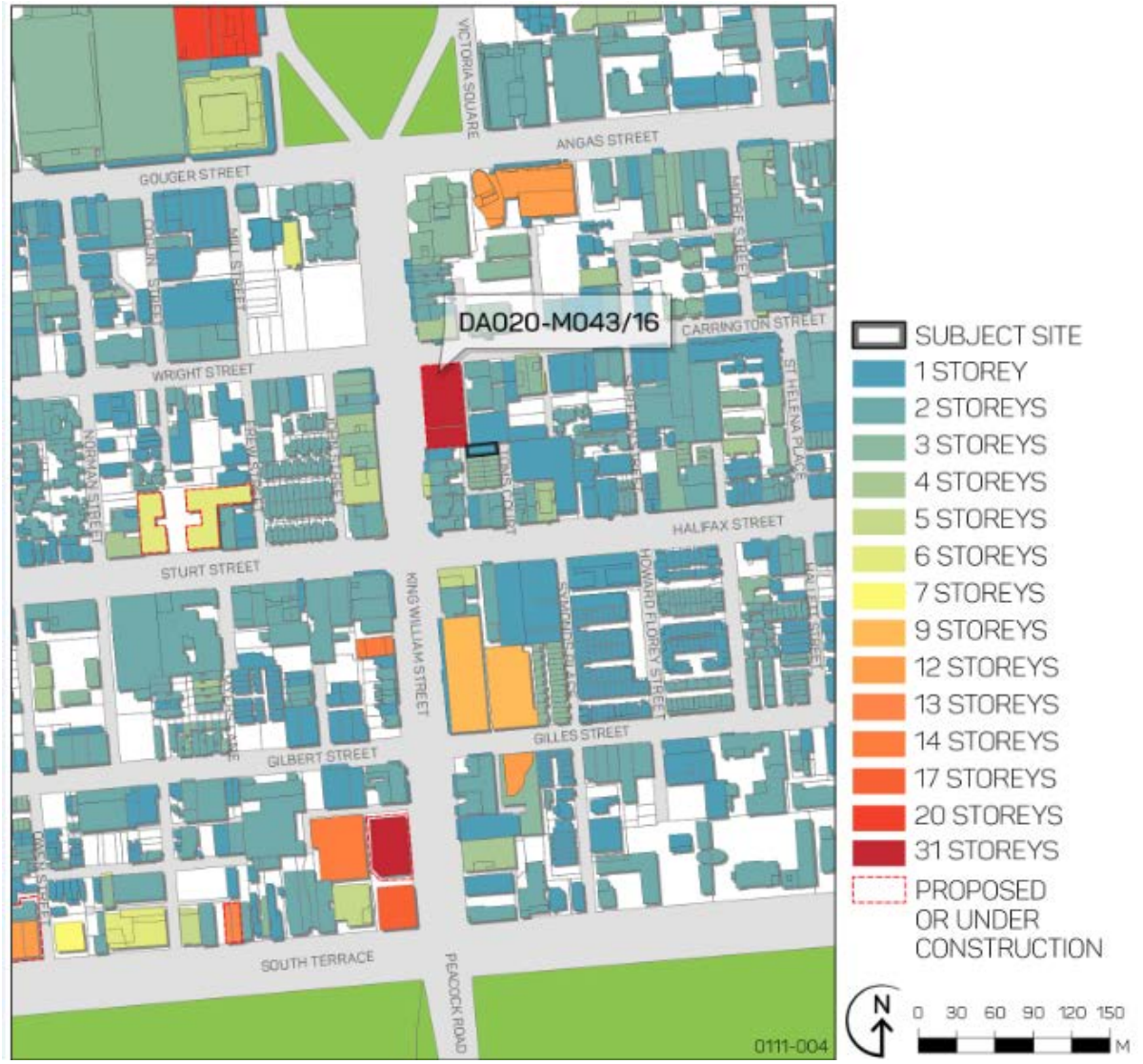
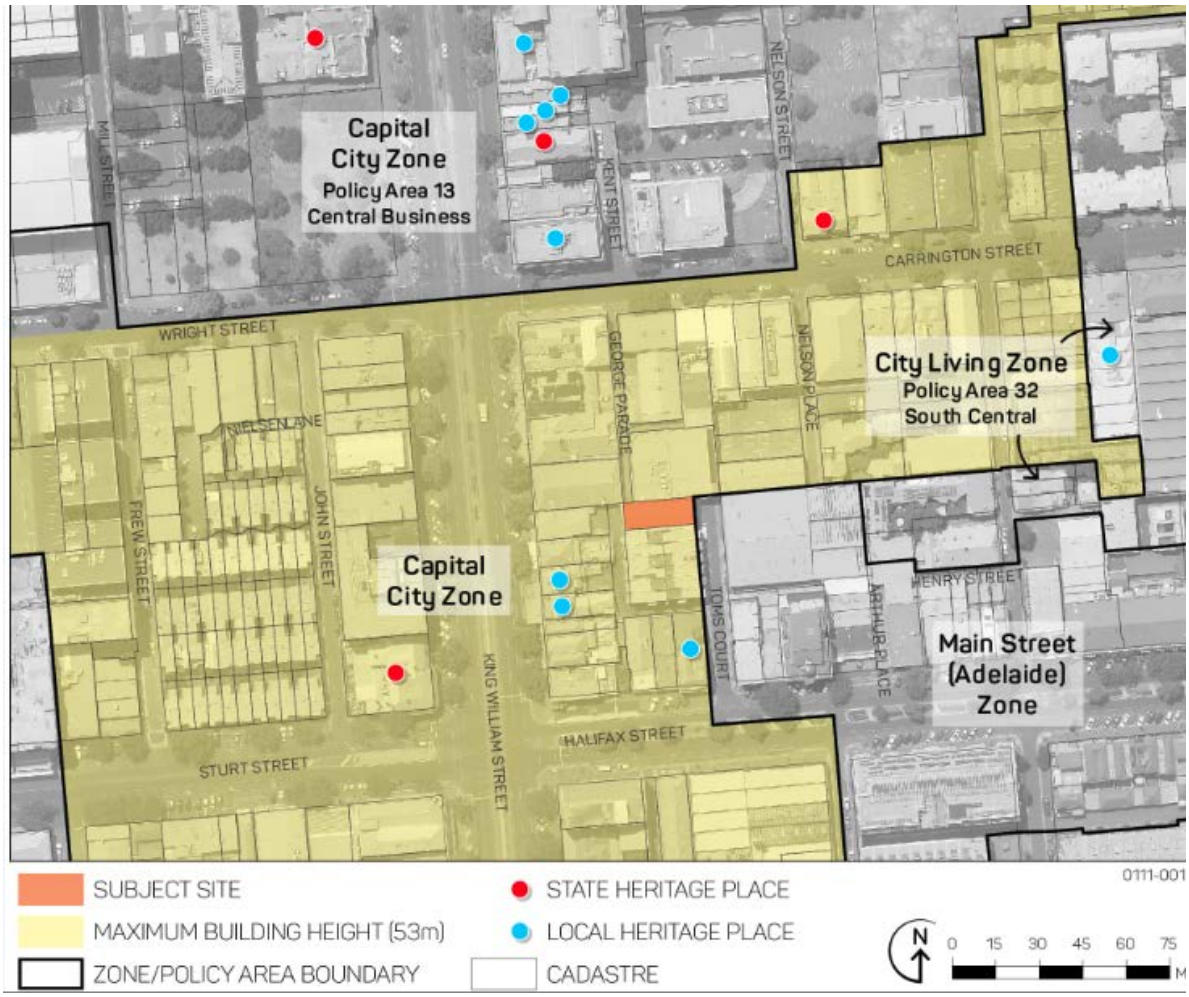


Figure 3.4 *Heritage place locality plan*



3.2.3 *Land Use*

With the exception of institutional land uses (including the Irish Association Inc. to the north of the site and on the corner of Carrington Street and George Parade), buildings within the immediate locality and fronting George Parade, Toms Court and the unnamed road are generally of a retail, commercial or residential nature (refer to ***Figure 3.5***).

When enacted, the development of the adjoining Echelon development by the Karidis Corporation (DA 020/M043/16) will introduce a 31-storey mixed use development to the immediate north-west of the site which will comprise residential apartments, serviced apartments, retail shops, restaurants, offices, community facilities (common rooms), a swimming pool as well as ancillary and non-ancillary car parking.

Figure 3.5 *Land Use Configuration in Extended Locality*

Images of the subject site and surrounds are provided in ***Figure 3.6.***

Figure 3.6 *Images of the Subject Site and Surrounds*

4. Proposed Development

4.1 Overview

The proposed development involves demolition of an existing commercial building and the construction of a 14 storey (inclusive of ground floor) mixed use building comprising a ground level café tenancy of 40m^2, 64 motel rooms on level 1 to 12 (inclusive) and four (4) dwellings in the form of Residential Apartments and Serviced Apartments on level 13, with associated amenities and common areas. A detailed summary of each floor level is provided below:

- Ground Level:
  - building lobby/entrance from Toms Court (with co-located fire indicator panel in glass enclosure) and secondary rear entrance from the adjacent un-named public road;
  - café tenancy comprising an area of 40m^2, opening onto the entry lobby pedestrian access directly from Toms Court;
  - refuse enclosure (with associated airlock), directly access from the unnamed road, and designed with a storage capacity to accommodate:
    - 3 X 660L waste bins;
    - 2 x 660L Recycling bins;
    - 2 x 240 Organic Waste MGB; plus
    - A temporary hard refuse area.
  - ten (10) bicycle racks situated within the building, adjacent the secondary access point, together with one (1) bicycle rack situated beneath the covered portico, in-front of building's secondary entry.
  - a large foyer, which provides direct access to the lift lobby, unisex bathroom and bag storage room for motel patrons;
  - an internal stairwell, lift lobby and two (2) lifts providing access to levels 1 to 13; and
  - fire escape corridor with direct access via Tom's Court and the unnamed public road.
- Level 1:
  - a service room (fire pump & services), café storage room and cleaners room, separated from the lift lobby by a security door accessible only by motel and café employee and building caretakers;
  - utility room (for communication and electrical infrastructure); and
  - three (3) motel rooms (T1, 2 and 3) accessible via two (2) lifts and a stairwell.
- Level 2:
  - motel storage and 'back-of-house' rooms;
  - storage room for Level 13 apartments;
  - service room (potable water pump);
  - utility room; and
  - three (3) motel rooms (T1, 2 and 3) accessible via two (2) lifts and a stairwell.

- **Level 3, 4, 6, 7, 8, 10, 11 and 12**
  - each level comprising six (6) motel rooms (T1, 2, 3, 4, 5 & 6) with associated balconies (T2, 3, 4 & 5 only), accessible via two (2) lifts and a stairwell; and
  - a utility room.
- **Level 5 & 9:**
  - Both levels comprising five (5) motel rooms (T4, 5, 6, 7 & 8) with associated balconies (T4, 5 & 8 only) accessible via two (2) lifts and stairwell; and
  - A utility room and linen storage area.
- **Level 13**
  - four (4) Residential/Serviced Apartments including two (2) studio apartments (T9 and 12), and two (2) one bedroom apartments with associated balconies (T10 and T11), accessible via two (2) lifts and a stairwell; and
  - a utility room.

Whilst signage does not form part of this development application, the northern, southern and western elevations identify the intended location of future signage panels.

4.2 Staging

Noting the scale of the development, the application for Building Rules Consent will be staged. The likely staging is identified as follows:

- **Stage 1**: Demolition;
- **Stage 2:** Substructure;
- **Stage 3**: Structure; and
- **Stage 4**: Services and Architectural.

Notwithstanding, the development in its entirety will be substantially completed within three (3) years of the issuing of Development Approval as prescribed by Regulation 48(1)(b) of the Regulations.

Proposed Plans for development have been prepared by ADS Architects and are attached in ***Appendix 2***.

4.3 Built Form and Building Configuration

The development comprises a single building with a building envelope that occupies the entire site.

The building will comprise 14 storeys (inclusive of the ground level) and will reach a maximum height of 48.29 metres above ground level.

The development will accommodate a total of 40m^2 of café tenancy, 64 motel rooms located on levels 1 to 12, and four (4) Residential/Serviced Apartments situated on Level 13. The balance of the building will be allocated to communal areas including lifts, lobby's, storage areas, refuse areas, stairwells and lifts.

The proposed motel room and apartment configuration is identified in ***Table 4.1*** over-page.

Table 4.1 *Apartment Schedule*

Level	Motel and Apartment floor plan description		No. Rooms/Apartments	Total Area per room/apartment
1	**T1 Motel Room**			
	• Single bedroom (studio) • Single bathroom	• Floor Area (33.4m²)	1	33.4m²
	T2 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (21.5m²) • Balcony (5m²)	1	26.5m²
	T3 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (25.5m²) • Balcony (5.5m²)	1	31m²
2	**T1 Motel Room**			
	• Single bedroom (studio) • Single bathroom	• Floor Area (33.4m²)	1	33.4m²
	T2 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (21.5m²) • Balcony (5m²)	1	26.5m²
	T3 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (25.5m²) • Balcony (5.5m²)	1	31m²
3, 4, 5, 7, 8, 10, 11 & 12	**T1 Motel Room**			
	• Single bedroom (studio) • Single bathroom	• Floor Area (33.4m²)	1	33.4m²
	T2 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (21.5m²) • Balcony (5m²)	1	26.5m²
	T3 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (25.5m²) • Balcony (5.5m²)	1	31m²
	T4 Motel Room			
	• Single bedroom (studio) • Single bathroom	• Living area (25.5m²) • Balcony (5.5m²)	1	31m²
	T5 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (21.5m²) • Balcony (5m²)	1	26.5m²
	T6 Motel Room			
	• Single bedroom (studio) • Single bathroom	• Floor Area (33.4m²)	1	33.4m²

Table 4.1 *Apartment Schedule (cont.)*

Level	Motel and Apartment floor plan description		No. Rooms/Apartments	Total Area per room/apartment
5 and 9	**T4 Motel Room**			
	• Single bedroom (studio) • Single bathroom	• Living area (25.5m²) • Balcony (5.5m²)	1	31m²
	T5 Motel Room			
	• Single Bedroom (studio) • Single bathroom	• Floor Area (21.5m²) • Balcony (5m²)	1	26.5m²
	T6 Motel Room			
	• Single bedroom (studio) • Single bathroom	• Floor Area (33.4m²)	1	33.4m²
	T7 Motel Room			
	• Single bedroom (studio) • Single bathroom	• Floor Area (39m²)	1	39m²
	T8 Motel Room			
	• Single bedroom (studio) • Single bathroom	• Floor Area (36m²) • Balcony (11m²)	1	47m²
	TOTAL ROOMS		**64**	
13	**T9 and T 12 Apartment**			
	• Single bedroom (studio) • Single bathroom • Kitchen	• Floor Area (33.4m²) • Balcony (3m²)	2	36.4m²
	T10 and T11 Apartment			
	• Single bedroom • Single bathroom • Kitchen	• Floor Area (50m²) • Balcony (11m²)	2	61m²
	TOTAL APARTMENTS		**4**	

4.4 Access

An overview on the nature and volume of vehicle movements to be generated by the development is summarised in the Tonkin Traffic Review contained within ***Appendix 6***.

The site enjoys frontages to two public roads (Toms Court and an unnamed road) and George Parade (private road).

The building will abut all three frontages but will contain a primary frontage to Toms Court with pedestrian and bicycle access available from all three roads. Toms Court will provide direct access to the entry lobby and ground floor cafe whilst the secondary frontage will provide shared 'rear' building entry will provide access to the building from George Parade and the unnamed road.

4.4.1 *Waste*

The Waste Management Plan attached as ***Appendix 7*** provides a summary of the waste management process for the development. Waste collection will occur from Toms Court or George Parade as summarised below.

- **Option 1** involves service vehicles accessing the site via Toms Court in a forward direction before performing a three-point-turn (utilising the unnamed road) and reversing a short distance up to the frontage of the building. Waste stored within communal hard waste area will be transported to Toms Court via the foyer.
- **Option 2** involves service vehicles accessing George Parade in a forward direction from Carrington Street, performing a three-point-turn at the southern vehicle access point (to be created as part of the Trims development) before reversing a short distance to the refuse collection point. The waste refuse storage area is situated near the refuse collection point to reduce the distance of travel between storage and collection areas, and the angled designed of the north-western corner of the ground level building façade provides direct connection to refuse storage area for waste contractors accessing the site via George Parade. Service vehicles will exit George Parade in a forward direction.

George Parade is not a public road and rights of access to the subject site are contingent upon the formalisation of legal rights of access (i.e. Rights of Way) over this access lane as well as the construction of the adjoining and approved 31 storey mixed use development. Accordingly, Option 1 demonstrates that the development has been designed to accommodate waste collection vehicle access to the site via Toms Court. Option 2 has been provided as a viable alternative following enactment and construction of the adjoining 31 storey mixed use development by the Karidis Corporation (Echelon).

A comprehensive assessment of the waste management system can be found within Section 6.12 of this Planning Statement.

4.4.2 *Service Delivery Vehicles*

The proposed development will attract service vehicle deliveries associated with the operation of the motel and café. Service vehicles are expected to access the site in a forward direction via Toms Court. Vehicles are then expected to perform a 2-point turn by reversing a short distance into the unnamed public road, before travelling out and along Toms Court in a forward direction.

4.4.3 *Domestic Vehicles*

The motel use will attract a limited number domestic vehicle (taxi) movements. It is anticipated that domestic vehicles will either perform a 3 or point turn at the end of the Toms Court, with the number of vehicle movements required largely influenced by whether kerb side parking spaces opposite the site are occupied.

Alternatively, taxies may perform a 2-point turn by reversing along Toms Court, into the unnamed public road before and travelling out and along Toms Court in a forward direction.

Further analysis on traffic and access related matters are discussed in Section 6.10 of this Planning Statement.

5. Procedural Matters

5.1 Nature of Development

The development application involves the demolition of an existing commercial building and construction of a 14-storey (inclusive of ground level) mixed use building comprising a ground level café tenancy of 40m^2, 64 motel rooms on levels 1 to 12 (inclusive) and four (4) dwellings in the form of Residential Apartments and Serviced Apartments on level 13.

5.1.1 *Residential and Serviced Apartments*

The apartments proposed for level 13 comfortably fall within the definition of a 'Residential Flat Building' as defined by Schedule 1 of the Regulations:

> ***residential flat building*** *means a single building in which there are 2 or more dwellings, but does not include a semi-detached dwelling, a row dwelling or a group dwelling*

In addition to the definitions contained within the Regulations, Schedule 1 of the Development Plan also provides definitions for various terms used within the Development Plan. The term *'medium to high scale residential or serviced apartment development'* is defined by Schedule 1 to mean '*residential or serviced apartment development of 4 or more building levels*'.

We note that planning policy with the Development Plan does not generally distinguish between residential and serviced apartments for the purposes of the planning assessment. Further, serviced and residential apartments are both forms of 'Residential Flat Buildings' and as such, the use of dwellings for long or short term accommodation does not constitute a change in the use of apartments.

Accordingly, we are of the opinion that an application for residential and serviced apartments does not impact on the assessment of the application. Our opinion on this matter has been informed by the legal opinion prepared by Griffins Lawyers (***Appendix 12***) which concludes that:

> *There is no legal impediment to an approval allowing the proposed building to be used as both residential and serviced accommodation apartments on a joint basis.*
>
> *Such a joint use is not uncommon in the CBD and elsewhere*

5.1.2 *Café*

Schedule 1 of the Development Regulations defines a 'Shop' as follows:

> ***shop*** *means—*
>
> *(a) premises used primarily for the sale by retail, rental or display of goods, foodstuffs, merchandise or materials; or*
>
> *(b) a restaurant; or*
>
> *(c) a bulky goods outlet or a retail showroom; or*
>
> *(d) a personal service establishment,*

but does not include—

(e) a hotel; or

(f) a motor repair station; or

(g) a petrol filling station; or

(h) a plant nursery where there is no sale by retail; or

(i) a timber yard; or

(j) service trade premises; or

(k) service industry;

Further to the above definition, the café is a form of 'shop' as the land use involves the sale by retail of foodstuffs. The café is also considered to be a form of 'restaurant' in that the tenancy will primarily include dine-in facilities to service patrons of the motel use.

5.1.3 *Motel*

Schedule 1 defines a 'motel' as follows:

> ***motel*** *means a building or group of buildings providing temporary accommodation for more than 5 travellers, and includes an associated restaurant facility, but does not include a hotel or residential flat building;*

Given the absence of kitchen facilities, the rooms proposed for levels 1 to 12 can only be used for temporary accommodation. Patrons will make use of room service offered by the motel, meals prepared by the café, or the various take away and dine-in restaurants found within the immediate locality of the subject site.

The concierge stationed at the reception lobby may also coordinate the provision of other motel related services (i.e. laundry services, transportation etc.).

Considering the temporary nature of the accommodation, and because the development includes an associated ground floor café, the development includes the establishment of a 'Motel' as defined by the Regulations.

5.2 Assessment Pathway

Further to the above discussion, the development includes three distinct land use elements including a Residential Flat Building (comprising four apartments), 'Motel' and a 'Shop'.

Each land use component is neither listed as 'complying' or 'non-complying' within Zone PDC 38 and 39. Accordingly, we are of the opinion the application constitutes a 'consent on-merit' proposal.

5.3 Relevant Authority

A copy of the Quantity Surveyors Report confirming the value of the development is attached as ***Appendix 15***.

Given the development involves the construction of a building that will exceed $10M in the City of Adelaide, the Relevant Authority is the State Commission Assessment Panel (SCAP), pursuant to Section 4B of Schedule 10 of the *Development Regulations*, 2008.

5.4 Other Consents

The application includes the construction of cantilevered balconies that will overhang Toms Court and the unnamed public road. Accordingly, the application has been assessed by the Adelaide City Council against the provisions of the '*Encroachment Policy and Operating Guidelines'*.

At its meeting held on 28th March 2017, the Council endorsed the encroachment of balconies over the public realm subject to the Development Plan Consent being granted by the former DAC for the development. A copy of the Council minutes are attached to this report (***Appendix 11***).

Although the original encroachments consent related to a different building design, by email dated 19 December 2017, a Council delegate (Ms. J Benson) advised that a further consent of Council for the revised development now proposed was not required. A copy this email correspondence is also contained within ***Appendix 11***.

5.5 Public Notification

In accordance with Principle of Development Control 37(a) within the Capital City Zone, the application constitutes a **Category 1** form of development for the purposes of Public Notification (i.e. public notification not required).

5.6 Referrals

5.6.1 *Government Architect*

The application will require referral to the Government Architect pursuant to Schedule 8 of the Regulations given it involves development within the area of the Corporation of the City of Adelaide for which the SCAP is the Relevant Authority under Schedule 10 of Clause 4B of the Regulations.

The Government Architect has an 8-week referral period and the SCAP must have 'regard' to the referral response of the Government Architect.

A copy of the comments provided by the Government Architect can be found in ***Appendix 14***.

6. Development Plan Assessment

6.1 Overview

The subject site is located within the **Capital City Zone,** with the eastern boundary of the site fronting the **Main Street (Adelaide) Zone**, as identified within the Adelaide (City) Development Plan, consolidated 20 June 2017. ***Figure 3.4*** illustrates the subject site, relevant zone and adjoining zones and policy areas.

A primary objective of the of Capital City Zone is for '*A vibrant mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living*'.

A primary objective of the adjoining Main Street (Adelaide) Zone is for *'a shopping and commercial main street supported by medium and high density residential development'.*

In terms of Development Plan considerations, the following list identifies those provisions considered most relevant to the assessment of the proposed development.

Table 6.1 *Relevant Development Plan Provisions*

ZONE & POLICY AREA		
Capital City Zone		
Desired Character Statement		
OBJ: 1, 2, 3, 4 ,5, 6, 7 & 8		
PDC: 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 21, 22, 26, 27 & 28		
Main Street Adelaide Zone (Adjoining Zone)		
Desired Character Statement		
OBJ: 1, 2, 3, 4 & 5		
PDC: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25 & 26		
COUNCIL WIDE		
Living Culture	**Energy Efficiency**	**Demolition**
OBJ: 1 & 3	OBJ: 30	OBJ: 53
PDC: 1	PDC: 106, 107, 108, 109, 111, 112, 113 & 114	PDC: 203
City Living	**Micro-climate and Sunlight**	**Transport and Access**
OBJ: 6, 7 & 8	OBJ: 33 & 34	OBJ: 60
PDC: 5, 6 & 7	PDC: 119, 120, 122 & 125	PDC: 224

COUNCIL WIDE (cont.)		
Medium to High Scale Residential/Serviced Apartment (Level 13) OBJ: 22 PDC:48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 80 & 81	**Stormwater Management** OBJ: 35, 36, 37, 38 & 39 PDC: 126, 127, 128, 129, 130 & 131	**Pedestrian Access** OBJ: 61, 62 & 63 PDC: 230, 231 & 232
Crime Prevention Through Urban Design OBJ: 24 PDC: 82, 83, 84 & 85	**Infrastructure** OBJ: 40 & 41 PDC: 132, 133, 134 & 135	**Bicycle Access** OBJ: 64 & 65 PDC: 233, 234, 235, 236, 237 & 238
Noise Emissions OBJ: 26 & 27 PDC: 93, 94, 95, 96, 97, 98 & 99	**Heritage and Conservation** OBJ: 42 & 43 PDC: 140	**Public Transport** OBJ: 66 PDC: 239 & 240
Waste Management OBJ: 28 PDC: 101, 102, 103 & 104	**Built Form and Townscape** OBJ: 46, 47 & 48 PDC: 167, 168, 169, 171, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189 & 190	**Traffic and Vehicle Access** OBJ: 68, 69 & 70 PDC: 241, 242, 243, 247 & 249
Sky and Roof Lines OBJ: 49 PDC: 192, 193, 194 & 195	**Car Parking** OBJ: 71 PDC: 252	**Economic Growth and Land Use** OBJ: 73, 74, 75 & 76 PDC: 266, 270 & 271
Contaminated Sites OBJ: 29 PDC 105	**Active Street Frontages** OBJ: 50 & 51 PDC: 196, 197, 198 & 199	

Maps & Plans

- Adelaide (City) Zones Map Adel/24
- Adelaide (City) Policy Areas Map Adel/55
- Adelaide (City) City Road Network Map Adel/1 (Overlay 1)
- Adelaide (City) Pedestrian Network Map Adel/1 (Overlay 2)
- Adelaide (City) Bicycle Network Map Adel/1 (Overlay 3)
- Adelaide (City) Public Transport Network Map Adel/1 (Overlay 4)
- Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5)
- Adelaide (City) Affordable Housing Map Adel/1 (Overlay 15a)
- Adelaide (City) Building Heights Concept Plan Figure CC/1

Tables

- Table Adel/1 State Heritage Places
- Table Adel/2 Local Heritage Places
- Table Adel/6 Bicycle Parking Provisions
- Table Adel/7 On-Site Car Parking Provisions

Overlays

- Overlay 1 – Affordable Housing

An assessment of the Development Application against the key provisions of the Zone as well as Council Wide policies follows.

6.2 Land Use

The following provisions of the Adelaide City Development Plan are considered most relevant to the assessment of desired land use outcomes for the site and locality more generally:

Capital City Zone

OBJ 2 *A vibrant mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living.*

Council Wide

OBJ 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.*

OBJ 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.*

OBJ 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.*

OBJ 73 *The role of the City enhanced as:*

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

(g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

OBJ 76 *A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia*

PDC 5 *Development should comprise of a range of housing types, tenures and cost, to meet the widely differing social and economic needs of residents.*

PDC 266 *Development, particularly within the Capital City and Institutional Zones, is encouraged to:*

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City

PDC 1 lists the following 'envisaged' land uses and dwelling types for the Zone:

- *Dwelling;*
- *Residential flat building;*
- *Serviced Apartment;*
- *Motel;*
- *Shop or groups of shops.*

The development includes a mix of serviced and residential apartments, a motel comprising 64 rooms and a café ('shop'). All proposed uses are envisaged within the Capital City Zone.

Importantly, the development also proposes a mix of complementary land uses, with occupants of apartments and motel patrons expected to be the main customer base for the ground level cafe.

The proposed motel aligns with the desired outcomes of Objective 73 which encourages the provision of short term and temporary residential accommodation for visitors to South Australia.

For the reasons outlined above, the proposed development is highly aligned with the land use outcomes contemplated for the Zone.

6.3 Built Form, Design and Materials

6.3.1 *Building Height and Scale*

The following Zone and Council Wide provisions of the Development Plan are considered particularly relevant to the assessment of building height and scale:

Capital City Zone

PDC 21 *Development should not exceed the maximum building height shown in Concept Plan Figures CC/1 and 2….*

PDC 22 *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.*

Council Wide

OBJ 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.*

PDC 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….*

PDC 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.*

PDC 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.*

The development proposes a total building height (above existing ground level) of 48.29 metres. Pursuant to the Adelaide (City) Development Plan (Building Heights Concept Plan Figure CC/1) the maximum building should not exceed 53 metres. Accordingly, the development satisfies the requirements of Zone PDC 21 and 22 in that the development proposes a building height which is at the upper limit of the maximum recommended building height referenced within Concept Plan Figure CC/1.

In considering the building height and scale and its impact on the character of the locality, it is important to note the proximity of the recently approved Trims development (Echelon) situated at 322-340 King William Street which comprises 31 storeys and a maximum building height of 113.9 metres. The streetscape perspectives contained within ***Appendix 2*** demonstrate that the proposed development will provide an appropriate transition down in height from the adjoining Echelon development and (conversely) an appropriate transition up from lower buildings to the south and west, including those situated within the Main Street (Adelaide) Zone, where Zone PDC 13 contemplates building heights up to 22 metres (other than where the airport's operations require a lesser height or the development is located on a site greater than 1,500m^2).

We also note the following comments provided by the Government Architect (letter dated 23 March 2018):

> *The proposal at 20 Toms Court is for a building 14 levels with an above grounds height of 48.82 [now marginally lower at 48.29]. I support the proposed height and massing, as in my view the proposed scale and proportions are appropriate for the location.*

For the reasons outlined above, we are of the opinion that the building height accords with the relevant provisions of the Development Plan and will provide an appropriate transition in scale and building height from the high density built form outcome to be delivered by the recently approved Echelon development, to the lower scale development outcomes envisaged within the adjoining Main Street (Adelaide) Zone.

The requirements of Figure CC/1 should also be read in conjunction with *Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5).* The subject site is situated approximately mid-way between the 100m and 110m Australian Height Datum (AHD) contours, and the Obstacle Limitation Surface (OLS) is considered to be in the order of 107 AHD.

Based on an existing ground level of 45.22m and a proposed building height of 48.29m, the proposed development will have a total height in the order of 93.51m AHD and will not exceed the OLS threshold of

107m AHD. On this basis the proposed development does not require referral to the Department of Transport and Regional Services (via Adelaide Airport) and the proposed development should not adversely affect the long term operational, safety and commercial requirements of Adelaide International Airport.

Accordingly, the proposed building height satisfies and does not offend PDC 172:

> ***PDC 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.*

6.3.2 *Building Setbacks*

The following Capital City provisions provide guidance in relation to building setbacks:

Capital City Zone

> ***PDC 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.*
>
> ***PDC 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 width of the street and achieves a suitable level of enclosure to the public realm;*
>
> *(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 wind tunnelling and downward drafts)……*
>
> ***PDC 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.*

Council Wide

PDC 178 *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.*

In addition to the provisions quoted above, the following commentary found within the Desired Character Statement is also relevant to the assessment of building setbacks:

> *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*
>
> and
>
> *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*

The site context analysis prepared by ADS Architects illustrates that Toms Court is characterised by buildings abutting frontages creating a continuous 'hard-edge' built form outcome and enclosed lane-way. In accordance with Zone PDC 11, the development has been designed to continue the existing building alignment with eastern and western facades sited to abut both public roads.

The ground level building setback will extend to upper levels to create a singular building form which aligns with the vertical composition of other buildings located within Toms Court. We note that this building design, which does not incorporate a podium with recessed upper level setbacks, is also supported by the Government Architect, who has stated (in correspondence dated 23 March 2018) that:

> *The proposed development is a solid singular form without a podium, which I consider to be appropriate for the location*

In our opinion, proposed building setbacks above the street wall will achieve a built form outcome which complements the existing character of the locality and will assist to achieve the desired character of the Zone by creating a sense of enclosure and intimate space in Toms Court and the unnamed public road.

6.3.3 *Building design and articulation*

The following objectives and PDC's are considered particularly relevant to the design outcomes contemplated by the Development Plan:

Zone

OBJ 5 *Innovative design approaches and contemporary architecture that respond to a building's context.*

OBJ 6 *Buildings that reinforce the gridded layout of Adelaide's streets and respond to the underlying built-form framework of the City.*

PDC 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.*

Council Wide

OBJ 48 *Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment*

OBJ 49 *Innovative and interesting skylines which contribute to the overall design and performance of the building*

PDC 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.

PDC 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.*

PDC 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.*

A schedule of external finishes, streetscape perspectives and a design statement prepared by ADS Architects is contained within ***Appendix 2.***

Streetscape perspectives of the building are illustrated in Figure 6.1 Below.

Figure 6.1 *Streetscape Perspectives*

North west perspective

North-east perspective

Key design features of the development are summarized below:

- Pre-cast coloured panel features applied to eastern and western facades of the building and around balconies and windows to enhance visual interest;
- A clearly distinguishable upper level characterised by extensive fenestration and the use of horizontal precast feature walling extending around the upper level of the northern elevation;
- Recessed living room windows and cantilevered balconies to created staggered building lines;

- Precast panel features comprising horizontal elements along the northern and southern elevations to create visual interest and reduce building mass;
- Natural anodised louvres to the western elevations of levels 1 and 2 to screen mechanical plant;
- Windows along the northern elevation of levels 3 to 13 to reduce building mass, maximise access to northern sun and accommodate passive surveillance of George Parade;
- The use of complementary colours (i.e. grey and off-white), offset by the precast orange feature border surrounding balconies and windows; and
- A building alignment which abuts the street edge, maintaining visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of building setbacks within the street.

Further to the above discussion, we are of the opinion that the development exhibits a high level of architectural merit which responds well to the context of the locality and includes appropriate levels of varied (yet complementary) building materials and colours to enhance articulation and visual interest. Accordingly, in our opinion the development is considered to be highly aligned within the relevant design related provisions of the Development Plan.

6.4 Apartment Design and Amenity (level 13)

Key outcomes for medium to high scale residential development are conveyed within Council Wide Objective 22:

OBJ 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.

The following discussion considers the design of the level 13 residential and serviced apartments having regard to the provisions of the Development Plan relating Medium to High Scale Residential/Serviced Apartments.

6.4.1 *Apartment Design*

The Development Plan seeks to ensure apartments are appropriately sized to accommodate a high-quality living environment which maximises residential amenity:

PDC 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.*

Studio Apartments T9 and T12 will accommodate internal living areas of 33.4m^2, which fall marginally short of the 35m^2 minimum prescribed by PDC 70. Apartments T10 and T11 will provide an internal floor area of 50m^2, satisfying the minimum requirements for single bedroom apartments prescribed by PDC 70.

The shortfall in floor area for the studio apartments is considered a minor departure from the requirements of PDC 70. Each studio apartment will be equipped with 3m^2 covered and partially enclosed balconies which can be accessed directly from the internal living areas. The balconies are an extension of the existing internal living areas and compensate for the minor shortfall in apartment size.

Importantly, we note that Council Wide PDC 59 does not prescribe a minimum amount of private open space for studio apartments. Accordingly, the provision of 3m^2 balconies exceed the open space requirements for these apartments.

The combination of serviced and residential apartments, and the variety in apartment styles and sizes will also accommodate a variety of living needs as contemplated by Objective 22.

6.4.2 *Light and Ventilation Considerations*

Council Wide PDC 50 suggests that *"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"*.

The apartment light and ventilation summary prepared by ADS Architects (***Appendix 3***) demonstrates that each apartment has been designed to comply with the requirements of Section F (Light and Ventilation) of the Building Code of Australia (BCA). This section of the BCA stipulates that a minimum of 10% of natural light shall be provided to each habitable room together with 5% ventilation to each internal living area.

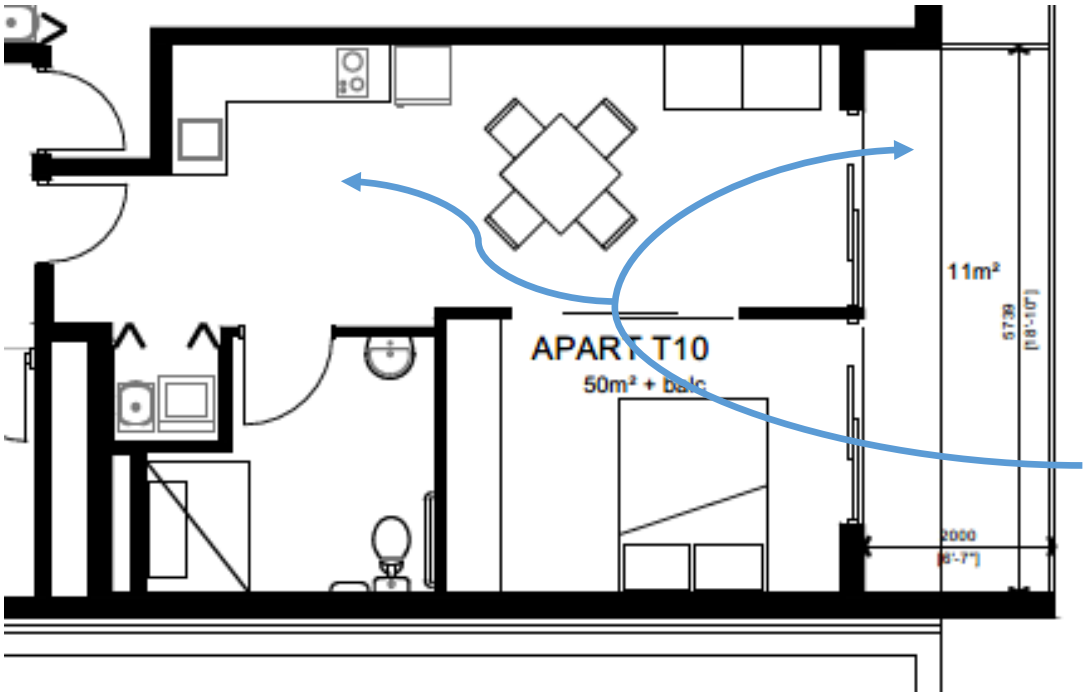
The large expanse of glazing to apartment frontages will maximise the level of natural sunlight provided to T9 and T12 apartments throughout the morning and afternoon periods, respectively.

The additional window proposed for the northern elevation will also increase the level of natural light available to the T12 apartment. The northern windows for Levels 3 to 12 will also maximise the level of natural light available to motel rooms at lower levels.

T10 and T11 apartments are also orientated to the east and west, respectively. Access to natural sunlight for the internal living areas and bedrooms for these apartments will also be maximised by the large expanse of glazing occupying the majority of each apartment frontage.

In accordance with Council Wide PDC 58, the location and design of sliding doors and internal openings will also assist to maximise the level of cross ventilation experienced by T10 and T11 apartments, as illustrated in the Figure 6.2 over page.

Figure 6.2 *Cross ventilation diagram*



All habitable rooms (including bedrooms, living rooms and kitchens) will be located within 8 metres of sliding doors to maximise access to natural light and facilitate ventilation in accordance with City Living PDC 54.

We note that Building Code setback requirements relating to the creation of openings along the northern elevation will limit the level of natural cross ventilation experienced by both studio apartments. Notwithstanding, and as discussed above, sliding doors and large openings for both apartments.

Further to the above discussion the development has been designed optimise access to nature light and cross ventilation for the level 13 apartments.

6.4.3 *Private Open Space*

The following Council Wide Objectives and PDC's are considered most relevant to the design (accessibility, dimension and quantity) of private open space:

PDC 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….

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.

PDC 60 *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.*

PDC 61 *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.*

PDC 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.

A combination of studio and single bedroom apartments are proposed for Level 13. Each studio apartment will be provided with a balcony comprising an area of $3m^2$, whilst a balcony comprising an area of $11m^2$ with a minimum dimension of 2 metres is proposed for each single bedroom apartment. Accordingly, the quantity of private open space proposed for all apartments exceeds the minimum open space area and dimension requirements prescribed by PDC 59 and PDC 61.

Each apartment will be provided with highly functional open space, sited in one location, directly accessible from living areas and bedrooms and sheltered by recessed porticos and cantilevered upper level balconies in accordance with PDC 60 and 62.

Finally, air-conditioning condenser units for all apartments will be located at roof level, thereby maximising the amount of functional open space available on each balcony.

Accordingly, the design, location and quantity of open space provided for all level 13 apartments accords with the relevant private open space provisions prescribed by the Development Plan.

6.4.4 *Storage*

The following Council Wide Objective and Principles of Development Control of the Development Plan are considered most relevant to storage facilities for occupants of the Residential and Serviced Apartments located on level 13:

PDC 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.

PDC 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.

Apartment storage calculations prepared by ADS Architects are provided within ***Appendix 2*** and confirm that T10 and T11 apartments will be provided with domestic storage levels which meet the minimum rates prescribed by PDC 81.

The additional storage capacity required for T9 and T12 apartments (i.e. $2m^3$ per apartment) will be provided within the communal storage area located on level 2. This area communal storage area is also expected to be used for bulkier items unsuitable for storage within individual apartments.

In accordance with PDC 80, a communal letterbox area for Level 13 apartments will be situated within the entry lobby of the building, whilst a fully enclosed refuse and bicycle storage area will be situated at the western end of the building.

6.5 Wind Impact

Council Wide Principle of Development Control 125 is considered most relevant to the assessment of wind impacts generated by the proposed development.

Council Wide

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.*

An assessment of the likely impact of the proposed design on the local wind environment has been undertaken by Windtech Consultants Pty Ltd (***Appendix 7***).

The study analysed the wind effect on balcony areas and the pedestrian environment within Toms Court and the unnamed public road. The following is a summary of the findings of the wind report:

- The pedestrian footpaths will be shielded by adjoining buildings, whilst the narrow frontage of proposed building, and its east-west orientation will minimise the downwash effects of wind;
- Recessed balconies with full height barriers to their short perimeter edges, and shielding provided by adjoining buildings will mitigate the impact of wind on motel and apartment balcony areas;
- Only marginal wind impacts will be experienced within the pedestrian environment along the unnamed public road and on each western facing balcony, as the adjoining Echelon development (when constructed) will provide additional shielding to the pedestrian footpath and balconies from prevailing north-westerly winds; and
- The narrow western building aspect and full height barriers proposed along the short-ends of all balconies will offset potential adverse impacts of accelerated wind movements between the proposed building and the south-eastern corner of the Trims development.

The Windtech Report concludes that *"that wind conditions within the ground level pedestrian footpaths and the various motel and private balconies are expected to be acceptable for their intended use"*.

The proposed development therefore satisfies the requirements of Council Wide PDC 125 as potential wind tunnel effects from the proposed development have been minimised through appropriate architectural design treatments.

6.6 Street Activation

The Desired Character Statement for the Capital City Zone contemplates non-residential development at ground level and building designs which encourage active street frontages:

> *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.*
>
> *……*
>
> *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.*
>
> *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…..At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters.*
>
> *…….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.*

The following Zone and Council Wide provisions support the vision articulated within the Desired Character Statement:

Zone

PDC 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*

PDC 8 *Buildings should present an attractive pedestrian-oriented frontage that adds interest and vitality to City streets and laneways.*

PDC 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.*

Council Wide

OBJ 3 *Development that enhances the public environment and provides interest at street level.*

OBJ 50 *Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality's desired character.*

PDC 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.*

PDC 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.*

PDC 199 *Residential development should be designed to create interesting pedestrian environments and resident surveillance of any street, access way and driveway*

The intended use of the ground level commercial tenancy directly aligns with the land use outcomes referenced within the Desired Character Statement, including retail uses (i.e. shops, cafes etc.) at ground level to maximise levels of activation.

It is expected that the ground level cafe tenancy will be used primarily by residents and patrons of the apartments and motel rooms and the complementary nature of all proposed uses will further assist to enhance ground level activity within Toms Court, as contemplated by Objective 50 and PDC 196.

Activation at ground level will also be enhanced by particular design features including large full height windows, a large recessed and covered building entry (to provide shelter from the elements and clearly articulate the building's entry) and direct access from Toms Court to the café tenancy.

The development has also been designed with a secondary frontage to the unnamed public road providing pedestrian access to the lift lobby and reception area. The internal layout of the building has therefore been carefully configured to encourage pedestrian activity along the unnamed public road and George Parade.

The secondary building frontage also includes a large quantity of glazing, a covered building entry and angled façade, orientated north-west to address the future Echelon Building. These design elements will also assist to maximise the level of activation to the buildings secondary frontage.

Private open space and cantilevered balconies for lower level motel rooms will also overlook Toms Court, further strengthening the buildings relationship with the public realm.

On this basis, we are of the opinion that the design of the building and land uses proposed will encourage pedestrian activity and strengthen the public/private realm relationship.

6.7 Acoustics Considerations

Council Wide Objective 27 seeks to ensure noise sensitive development is protected from unreasonable levels of noise generated by other land uses within the locality:

OBJ 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.*

Council Wide Principles of Development Control 68, 93, 94, 95 and 97 are also applicable to the attainment of this objective and generally seek to ensure development incorporates appropriate design strategies to mitigate the impacts of internal and external noise sources.

The Noise Assessment report prepared by Sonus (***Appendix 4***) considers the impacts of noise generated by traffic travelling along King William Street together with the operation of mechanical plant equipment.

Traffic noise was assessed against the performance requirements prescribed within *Minister's Specification SA 78B (SA78B)* and is illustrated in Figure 6.3.

Figure 6.3 *Internal sound criteria (SA78B)*

Type of room	Internal sound criteria		Applicable time period
	Building design target averaged over the total number of such rooms in the building	Maximum allowable for individual rooms in the building	
Bedroom	30 dB(A) $L_{eq, 9hr}$	35 dB(A) $L_{eq, 9hr}$	Night (10pm to 7am)
Habitable room, other than a bedroom	35 dB(A) $L_{eq, 15hr}$	40 dB(A) $L_{eq, 15hr}$	Day (7am to 10pm)

Noise level predictions were identified using noise modelling software which was calibrated using the measured results for traffic noise on King William Street. The following noise levels were predicted along the building's western façade (post acoustic treatments):

- Daytime noise level ($L_{Aeq,15hr}$) of 59 dB(A);
- Night-time noise level ($L_{Aeq,15hr}$) of 52dB(a).

To achieve compliance with the SA78B, the Sonus report recommends the use of 6.38mm thick laminated glass with acoustic seals for all western elevation sliding doors and windows. This requirement may be addressed via an appropriately worded condition attached to the Development Plan Consent.

Although not discussed within the Sonus report, noise generated by activities associated with service vehicle movements (i.e. the collection and movement of waste bins etc.) may be addressed via an appropriately worded planning condition requiring such activities to only occur between the hours of 7:00am and 10:00pm Monday to Saturday, and 9:00am to 10:00pm Sundays and Public Holidays. The imposition of such a condition would ensure compliance with requirements of Council Wide PDC 94.-

Environmental PDC 93 is applicable to the assessment of noise generated by mechanical plant equipment:

> ***PDC 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.*

Proposed air-conditioning condenser units will be placed at roof level and will therefore be sufficiently separated from all adjoining noise sensitive receivers. Accordingly, the Sonus Report concludes that *"no specific acoustic treatment measures will be required to ensure the above criteria are achieved at nearby residences".*

Other equipment will also be stored within mechanical plant rooms located on levels 1 and 2. These rooms will be completely enclosed and separated from motel rooms by communal areas (i.e. stairwell, lobby, lifts, communal storage areas etc).

For the reasons outlined above, the design of the development is considered to satisfy the requirements of the Council Wide PDC 93.

Noise generated by mechanical plant may be addressed via an appropriately worded condition requiring mechanical plant to operate in accordance with the noise criteria prescribed on Page 5 of the Sonus Report namely:

- *An average $L_{Aeq,15min}$ of 55 Db(A) during the daytime (7am to 10pm);*
- *An average $L_{Aeq,\ 15min}$ of 45 Db(a) during the night-time (10om to 7am); and*
- *A noise level which does not exceed the lowest equivalent ($L_{Aeq,15min}$) measured noise levels in the existing environment.*

The impact of noise generated by road traffic, service vehicles and mechanical equipment can therefore be suitably addressed through appropriately worded conditions relating to building materials acoustic screens and the operation and management of service vehicles. Subject to such conditions, the development is capable of being designed to satisfy the Minister's Specification SA 78B.

6.8 Privacy

Council Wide PDC 66 and 67 are considered most relevant to the assessment of visual privacy in a medium to high scale residential apartment building.

PDC 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.*

PDC 67 *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.*

Although the above-mentioned provisions are only applicable to the level 13 apartments, in the absence of any other guiding principles within the Development Plan, we have also considered these provisions when assessing the impact overlooking from motel rooms proposed for levels 1 to 12.

Views to the east and west from balconies, living room and bedroom windows will overlook commercial development. Accordingly, screening along the eastern and western ends of apartment and motel room balconies is not required.

Full height balcony screens are proposed along the northern and southern ends of all motel and apartment balconies to obstruct direct views into roof top private open space of the adjoining townhouse development to the north, and the private open space of south facing residential apartments proposed for the Echelon development.

Similarly, overlooking between apartment and motel balconies will be addressed through the use of 1.8 metre high privacy screens (i.e. obscured glazing or similar).

Windows proposed along the northern elevation will provide outward views from living areas of motels and apartments located on levels 3 to 13 inclusive. We note residential apartments proposed for the approved Echelon building are located on levels 19 to 29, six stories above the level 13 apartments. Accordingly, the impact of overlooking from the northern elevation windows will be negligible and as such, it is considered appropriate for these windows to remain clear. Importantly we note that clear glazing to the northern windows are also required to maximise the level of passive surveillance of George Parade.

For the reasons discussed above, we are of the opinion that development has been appropriately designed to address unreasonable levels of overlooking between apartments and motel rooms, and private open space of the existing and proposed adjoining residential development to the south and north respectively.

6.9 Overshadowing

Council Wide PDC 119 and 102 are particularly relevant to the assessment of overshadowing of adjoining buildings:

> ***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 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.*

Shadow diagrams for the development are contained within ***Appendix 2.***

We note that the above-mentioned Council Wide overshadowing provisions are to be read in conjunction with the more prescriptive zone-specific provisions seeking to optimise building heights within the Zone. As previously discussed, Concept Plan Figure CC/1 prescribes a maximum building height of 53 metres, whilst Zone PDC 22 stipulates that development should have *"optimal height and floor space yields to take*

advantage of the premium City locality". These desired objectives cannot be achieved without the development overshadowing adjoining residential properties to the south.

In this regard it is important to note that the introductory text for the Capital City Zone specifically states that the zone provisions *"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".*

On this basis, it is our opinion that the level of shadow cast by the proposed development is acceptable, taking into consideration the building height objectives for the Zone, the context and character of the locality and the recent approval of the adjoining Echelon development (31 storeys).

6.10 Parking and Movement Considerations

6.10.1 *Parking Requirements*

The Development Plan does not prescribe a minimum off-street parking rate for residential development, motels or shops situated within the Capital City Zone. Instead the zone provisions contemplate that development will make use of the conveniently located public transport system and infrastructure found within the City.

The subject site is within walking and cycling distance of essential services and facilities. The site is also situated in close proximity to public transport infrastructure including the Free City tram service which runs along King William Street and the Free City Connector bus service which loops the City in a clockwise and anticlockwise manner.

The location analysis plan prepared by ADS Architects (***Appendix 2***) illustrates the relationship of the development with key pedestrian and cycling routes. To accommodate bicycle movements, a total of eleven bicycle racks will be provided, including ten racks located within the building, adjacent the secondary access point, and one rack situated beneath the covered portico, in-front of building's secondary entry. Cyclists will access the racks either directly from George Parade, or from Toms Court via the building's main entry.

The provision of 11 bicycle parking racks satisfies the bicycle parking provisions prescribed within *Table Adel/6: Bicycle Parking Provisions* as summarised in Table 6.3 over-page.

Table 6.3 *Bicycle Parking Provision*

TYPE OF DEVELOPMENT	BICYCLE PARKING RATE FOR EMPLOYEES AND/OR RESIDENTS	BICYCLE PARKING RATE FOR CUSTOMERS, VISITORS AND/OR SHOPPERS	TOTAL PARKING
Café	1 per 20 employees	1 per 50 seats	
	1 space	*1 space*	*2 spaces*
Motel	1 per 20 employees	2 for the first 40 rooms, plus 1 for every additional 40 rooms	
	1 space	*3 spaces*	*4 spaces*
Apartments < 150m^2	1 per dwelling	1 for every 10 dwellings	
	4 spaces	1 space	*5 spaces* *11 spaces*

The provision of eleven bicycle racks therefore accords with relevant bicycle parking provisions of the Development Plan, and most notably Council Wide Objective to 65 and PDC 234:

OBJ 60 *Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.*

PDC 234 *An adequate supply of onsite 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*

The operation of the motel and café will generate additional domestic and service vehicle movements along Toms Court. Accordingly, the development has also been assessed against the following Traffic and Vehicle Access provisions of the Development Plan:

OBJ 74 *Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.*

PDC 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.*

PDC 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.

A traffic generation and access analysis has been carried out by Tonkin Consulting and is attached to the Planning Statement as ***Appendix 6***.

6.10.2 *Traffic Generation*

The Tonkin review estimates a realistic trip generation rate of between 60-90 movements per day (i.e. 30-45 arrivals and departures). A 50% trip discount rate has been applied in recognition of the fact that at least 50% of motel patrons are expected to use private vehicles (i.e. hire cars) and park in nearby public parking facilities. Alternatively, motel patrons may choose to make use of public transport services which run along King William Road.

The Tonkin review also estimates that approximately 15-22 vehicle movements will occur during the peak period between 2pm and 6pm, which equates to approximately 4-6 vehicle movements per hour during this period. Taking into consideration the relatively low number of additional vehicle movements to be generated throughout the peak period, Tonkin conclude that the *"additional volume should not have any impact on the capacity of the road".*

6.10.3 *Vehicle Movements*

The Tonkin Analysis also considers the accessibility of the site for the various types of vehicles likely to access the development.

Refuse Vehicles (Trucks)

A private contractor is to be engaged to perform waste collection services on a twice weekly basis (for general waste, recycling and organic material). Refuse vehicles will access the site either by Toms Court (Option 1) or George Parade (Option 2).

The Tonkin Report (***Appendix 6***) indicates Option 1 will involve garbage trucks reversing down Toms Court to collect bins temporarily stored for collection adjacent the buildings main frontage to Toms Court. Waste stored within communal hard waste area will be transported to Toms Court via the foyer/reception area. Refuse vehicles will then exit the site and travel along Toms Court in a forward direction.

Tonkin conclude that the refuse vehicle movements proposed for Option 1 are acceptable from a traffic perspective, noting proposed vehicle movements will replicate the movements of existing refuse vehicles servicing other developments located within Toms Court. These vehicle movements are largely unavoidable given the design of Toms Court and the constraints of the site.

Swept turning paths illustrating the above-mentioned vehicle movement are found as attachments to the Tonkin Traffic Review and Colby Industries Waste Management Plan (***Appendix 6*** *and* ***Appendix 7***).

Option 2 involves service vehicles accessing George Parade in a forward direction from Carrington Street, performing a three-point-turn at the southern vehicle access point (to be created as part of the Echelon development) before reversing a short distance to the refuse collection point. The waste refuse storage area

is situated in close proximity to the refuse collection point to reduce the distance of travel between storage and collection areas. Service vehicles will exit George Parade in a forward direction. Swept turning paths for Option 2 are attached as an appendix to the Colby Industries Waste Management Plan.

We understand that other businesses with rear access to the unnamed public road are currently using private contractors for the collection of waste. We confirm that the applicant proposes to the explore the feasibility of utilising the services of the same waste contractors to minimise the number of additional service vehicle movements along Toms Court.

Service Delivery Vehicles

The café and motel will be serviced by vehicles up to (but no larger than) 8.8 metre MRV's, and it is expected that these vehicles will approach the site in a forward direction. Upon departure, service vehicles will reverse a short distance along Toms Court and into the unnamed public road, before moving existing onto Toms Court in forward direction. The Tonkin analysis concludes that movements of delivery vehicles accessing the site are acceptable, taking into consideration the low number of trips predicted.

Domestic Vehicle Movements

The Tonkin Report identifies several options for domestic vehicles accessing the site.

Option 1 involves domestic vehicles accessing the site in a forward direct and performing either a three or five-point turn at the end of Toms Court, in-front of the subject site.

Alternatively, domestic vehicles will approach the site in a forward direction and exit the site by reversing back into the unnamed public road before driving back out onto Toms Court in a forward direction.

In relation to Option 1, the three-point turn will be achievable if no other vehicles are parked on the opposite side of Toms Court (directly in front of the subject site). If these spaces are occupied, domestic vehicles will be required to perform a five-point turn.

Taking into consideration the low traffic and pedestrian volumes expected, Tonkin conclude that the above-mentioned vehicle movements (i.e. the 3-5-point turn or reverse side turn) can occur within minimal impact on the functionality and safety of Toms Court.

Further to the above discussion on likely vehicle movements and having regard to the analysis performed by Tonkin Consulting, we are of the opinion that the development can be accessed by both service and domestic vehicles, and that the expected vehicle movements are acceptable, taking into consideration constraints of the site and low volume of additional traffic to be generated by the proposed development.

6.11 Energy Efficiency and Sustainability

Council Wide Objectives 30 and 33 are considered relevant to the assessment of energy efficiency and sustainability:

Council Wide – Energy Efficiency

OBJ 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.*

OBJ 33 *Buildings which are designed and sited to be energy efficient and to maximise micro-climatic and solar access impacts on land or other buildings.*

The development has also been assessed against Council Wide PDC 106, 107, 108, 109, 111, 112, 113 and 114 which include specific design criteria aimed at achieving sustainable development outcomes.

Lucid Consulting Australia have prepared a 'Sustainability Report' providing an overview of the sustainability initiatives incorporated within the proposed mixed-use development (refer to ***Appendix 5***).

The sustainability objectives of the development have been based upon adopting 'best practice' environmental design standards designed to satisfy the objectives of the Development Plan by achieving the following:

- Reduced energy and water consumption;
- Reduced ecological footprint;
- Improved thermal comfort and air quality; and
- Improved occupant well-being.

ESD initiatives incorporated into the design of the building include the following:

- A thermal building envelope, including wall, floor and roof insulation R-values which meet best practice guidelines;
- High performance glazing with a low solar heat gain coefficient;
- Level 13 apartment NaTHERS energy ratings which exceed the requirements of the Building Code;
- Use of cantilevered balconies and recessed open space to provide shade to eastern and western facades;
- Energy efficient massing with minimal exposed ceilings and floors;
- LED lighting throughout the building; and
- High efficiency air-conditioning equipment with non-ozone depleting refrigerants.

Further details on the ESD initiatives are discussed within the Sustainability Report.

On this basis we are of the opinion that the development has been designed to satisfy the applicable energy efficiency provisions of the Development Plan.

6.12 Waste Management

The following Council Wide Objective and Principles of Development Control of the Development Plan are considered most relevant to waste management:

OBJ 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.*

PDC 101 *A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.*

PDC 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.*

PDC 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

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

A Waste Management Plan has been prepared by Colby Industries *(**Appendix 7**).*

The refuse storage facility is located to the rear of the building adjacent the unnamed road. This road is a service lane used by buildings fronting both King William Street and Toms Court. The proposed waste room will be enclosed on all sides and equipped with a fan to assist with odour management. The refuse storage room has generally been designed to minimise impacts on external environments as required by Council Wide PDC 80.

The Waste Management Report prepared by Colby includes calculations on predicted levels of waste creation and concludes that the waste storage area has been designed to accommodate predicted levels of waste generation.

Local disposal points will be situated within each apartment and motel room and residents and motel room cleaning contractors will be responsible for transferring waste from apartments and motel rooms to the central storage area.

Similarly, café employees will also be responsible for transferring waste to the central storage point.

As previously discussed, a private contractor is to be engaged to perform waste collection services on a twice weekly basis (for general waste, recycling and organic material). Additional 'on-call' collections of Hard/E-

Waste is expected to occur up to twice a month (subject to demand). As previously discussed service vehicles will access the site either by Toms Court (Option 1) or George Parade (Option 2).

The Waste Management Report also recommends several operational strategies which will ensure waste is appropriately managed on an ongoing basis (refer to Section 5.7 and Section 6 of the Waste Management Report)

Accordingly, the Waste Management Report identifies an appropriate waste management strategy for the development. On this basis we are of the opinion that the design of the refuse storage area and method of waste collection and disposal accords with the relevant waste management provisions of the Development Plan.

6.13 Stormwater Management

The following Council Wide Principles of Development Control of the Development Plan are considered most relevant to stormwater management:

Council Wide – Stormwater Management

OBJ 35 *Development which maximises the use of stormwater.*

OBJ 36 *Development designed and located to protect stormwater from pollution sources*

OBJ 37 *Development designed and located to protect or enhance the environmental values of receiving waters.*

OBJ 39 *Development designed and located to prevent or minimise the risk of downstream flooding.*

PDC 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.*

PDC 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.*

PDC 128 *Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.*

PDC 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.*

PDC 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.

PT Design have performed a preliminary review of the stormwater management requirements for the development (***Appendix 9***). The findings of these preliminary investigations confirm that there is no formal underground council stormwater system immediately adjacent the property. The closest council pit is located at the end of each of the adjoining streets. On this basis, all stormwater must discharge directly to the street water table fronting the property.

Accordingly, stormwater from the site will be shared between Toms Court and George parade with the final design, location and discharge rates to be determined as part of the detailed design process.

The analysis performed by PT Design also confirms that the levels of Toms Court and George Parade fall away from the site and that the finished floor level of the proposed building can be designed to match the existing footpath levels.

PT Design also confirm that there can be no major overland stormwater flows past the site which is at the highest point of the stormwater system.

The correspondence prepared by PT Design, although somewhat general in nature does indicate that the development is capable of being designed to satisfy the applicable stormwater management provisions within the Development Plan with stormwater from the post development site almost identical to pre-development site conditions.

6.14 Crime Prevention

The following Council Wide Objective and Principles of Development Control of the Development Plan are considered most relevant with respect to Crime Prevention Through Environmental Design.

OBJ 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.

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:*

(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.*

PDC 83 *Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.*

PDC 84 *To maximise security and safety, buildings should be designed to minimise access between roofs, balconies and windows of adjacent buildings.*

The ground level building façade fronting Toms Court is free of entrapment areas and will primarily be constructed of full height glazing to provide clear and unobstructed views from the lobby and reception area of Toms Court. The design of the eastern façade will be lit during evening hours to clearly identify the buildings main point of entry.

The building's secondary entry has been orientated to front the George Parade/Public Lane junction, and clear full height glazing to the building entry will facilitate clear and unobstructed views of this area. The building's secondary entry is also free of entrapment and hiding spaces.

Structural building columns extending forward of the fire escape door will potentially create an entrapment spot. Because the fire escape door will be used infrequently, activity in this area will also be limited and the impact of this entrapment spot is considered negligible. Convex mirrors will also be installed to provide views of this area to pedestrians travelling along the public lane.

Internally, the café will open onto the entry lobby and reception area. The café and motel will generate additional activity extending into the evening, and café and motel employees will provide an effective, ongoing form of informal surveillance of ground level activity.

The ground floor layout has also been designed to provide a visual link between Toms Court the public lane and will optimise views of publicly accessible ground floor spaces, including the lift lobby and the building's secondary access.

Cantilevered balconies with glass balustrading together with living and bedroom windows to the eastern and western elevations will maximise passive surveillance of the public realm.

Finally, convex mirrors will be installed within the fire escape route and stairwell to enhance corner visibility.

Accordingly, for the reasons outlined above, the development has been designed to address applicable CPTED provisions of the Development Plan.

6.15 Environment (Site History)

The following Council Wide Objective and PDC's are considered most relevant with respect to site contamination.

OBJ 29 *A safe and healthy living and working environment*

PDC 105 *Where there is evidence of, or reasonable suspicion that land, buildings and/or water, including underground water, may have been contaminated, or there is evidence of past potentially contaminating activity/ies, development should only occur where it is demonstrated that the land, buildings and/or water can be made suitable for its intended use prior to commencement of that use.*

A preliminary Environmental Site History Assessment has been undertaken by Mott MacDonald (***Appendix 14).*** This assessment was undertaken to assess the potential for gross or widespread soil contamination resulting from previous land uses which may impact on the suitability of the land for residential purposes.

The report concludes that the likelihood of widespread soil and/or water contamination is low:

> *Therefore, based on the environmental information obtained to date, Mott MacDonald is of the opinion that the likelihood of gross or widespread soil contamination existing in soils and groundwater at the site (at concentrations likely to preclude the proposed land use) is low. However, it is recommended that screening level soil sampling and testing be conducted to confirm this assessment once site demolition has occurred."*

Further, the report makes the following conclusions with respect to the impact of contaminated land on future development of the site for residential purposes:

> *The site currently comprises commercial buildings. Groundwater is not proposed for abstraction at the site. The proposed building construction would largely eliminate most of the potential exposure pathway between soil/groundwater and residents.*

For the reasons discussed above, the site history assessment performed by Mott MacDonald indicates that the site is suitable for its intended use.

6.16 Site Services and Infrastructure

The following Council Wide Objectives and PDC's are considered most relevant with respect to the provision of service infrastructure in support of the building.

OBJ 41 *Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.*

PDC 132 *Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.*

PDC 133 *Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.*

PDC 134 *Infrastructure and utility services, including provision for the supply of water, gas and electricity should be put in common trenches or conduits.*

PDC 135 *Development should only occur where it has access to adequate utilities and services, including:*

(a) electricity supply;

(b) water supply;

(c) drainage and stormwater systems;

(d) effluent disposal systems;

(e) formed all-weather public roads;

(f) telecommunications services; and

(g) gas services.

As demonstrated in the 'Service Utilities Infrastructure Report' prepared by Lucid Consulting Australia (refer to ***Appendix 10***) the site can be efficiently and economically connected to all essential service utilities including, roads, water, gas, electricity, sewer, stormwater and telecommunications.

7. Conclusion

The development application seeks to demolish an existing commercial building, and to construct a 14 storey (inclusive of ground) mixed use building comprising a ground level cafe tenancy of 40m^2, a 64-room motel on levels 1 to 12 inclusive and four (4) dwellings in the form of Residential Apartments and Serviced Apartments on level 13.

This Planning Statement has assessed the development against the relevant provisions of the Development Plan. Further to this assessment, it is our view that the proposed development represents logical and orderly development that deserves favourable consideration for assessment for the reasons summarised below:

- The proposed nature of development which involves the provision of long term and short-term accommodation and ground level café is directly aligned with the key land use Objectives and PDC's of the Capital City Zone;
- The motel and proposed café will encourage streetscape activation within Toms Court;
- In lieu of providing private parking spaces, the development will rely upon alternative forms of transport including walking, cycling and public transport;
- The provision of eleven (11) dedicated bicycle spaces provided for residents, motel patrons and employees satisfies the quantitative bicycle parking rate prescribed within the Development Plan;
- The proposed development will not adversely affect the long-term operational, safety and commercial requirements of the Adelaide International Airport;
- An independent wind assessment has demonstrated that potential wind tunnel effects from the proposed development have been minimised through appropriate architectural design treatments and shielding provided by existing and proposed development;
- ESD initiatives have been included within the design of the development to optimise energy efficiency and enhance apartment amenity;
- The development will not adversely impact on the amenity of the locality by way of unreasonable levels of overlooking or overshadowing, particularly taking into consideration the Development Plan Objectives to accommodate buildings reaching a height of 53 storeys;
- The traffic analysis performed by Tonkin Consulting confirms that:
  - the volume of additional traffic to be generated by the development will be negligible and will not unreasonably impact on the surrounding road network; and
  - the nature of vehicle movements to be performed are acceptable, considering the low traffic volumes to be generated, the constraints of the site and existing road layout.
- The use of building materials and acoustic screens recommended within the Sonus Report will address the interface impacts associated with traffic and mechanical plant noise;
- A Waste Management Plan confirms that the waste storage area for the development has been designed to accommodate the quantity and type of wastes expected to be generated on site (i.e.

general waste, recycling, organic waste etc.) with waste transfer pathways adequately designed to facilitate waste disposal with frequent waste collection from the building by private contractors;

- Stormwater generated by the development is capable of being managed in accordance with the applicable stormwater provisions within Council's Development Plan;
- Preliminary Site History investigations by Mott Macdonald have confirmed that the likelihood of gross or widespread soil contamination existing in soils and groundwater at the site (at concentrations likely to preclude the proposed land use) is low and that the proposed building construction would largely eliminate most of the potential exposure pathway between soil/groundwater and residents; and
- The site can be efficiently and economically connected to all essential service utilities including, roads, water, gas, electricity, sewer, stormwater and telecommunications.

The proposal is therefore assessed as one which warrants the granting of Development Plan Consent.

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MOTEL APARTMENT LIGHT & VENTILATION SUMMARY

All Motel Rooms and Apartments comply with Section F (Light and Ventilation) of the BCA with respect to the provision of natural light (10% of habitable room) and ventilation (5% of habitable room).

T1 & T6

BCA light requirement of 1.8m²

Window provides **2.2m²**

BCA ventilation requirement of 0.9m²

Window provides **2.2m²**

T2 & T5

BCA light requirement of 1.3m²

Balcony sliding door provides **4m²**

BCA ventilation requirement of 0.65m²

Balcony sliding door provides **2m²**

T3 & T4

BCA light requirement of 1.5m²

Balcony sliding door provides **4m²**

BCA ventilation requirement of 0.75m²

Balcony sliding door provides **2m²**

T7

BCA light requirement of 2.2m²

Window provides **2.2m²**

BCA ventilation requirement of 1.1m²

Window provides **2.2m²**

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T8

BCA light requirement of **2.1m²**

Balcony sliding door provides **8m²**

BCA ventilation requirement of **1.1m²**

Balcony sliding door provides **4m²**

T9 & T12

BCA light requirement of **1.9m²**

Balcony sliding door provides **4m²**

BCA ventilation requirement of **0.95m²**

Balcony sliding door provides **2m²**

T10 & T11

Bedroom:

BCA light requirement of **1.2m²**

Balcony sliding door provides **4m²**

BCA ventilation requirement of **0.6m²**

Balcony sliding door provides **2m²**

Habitable space:

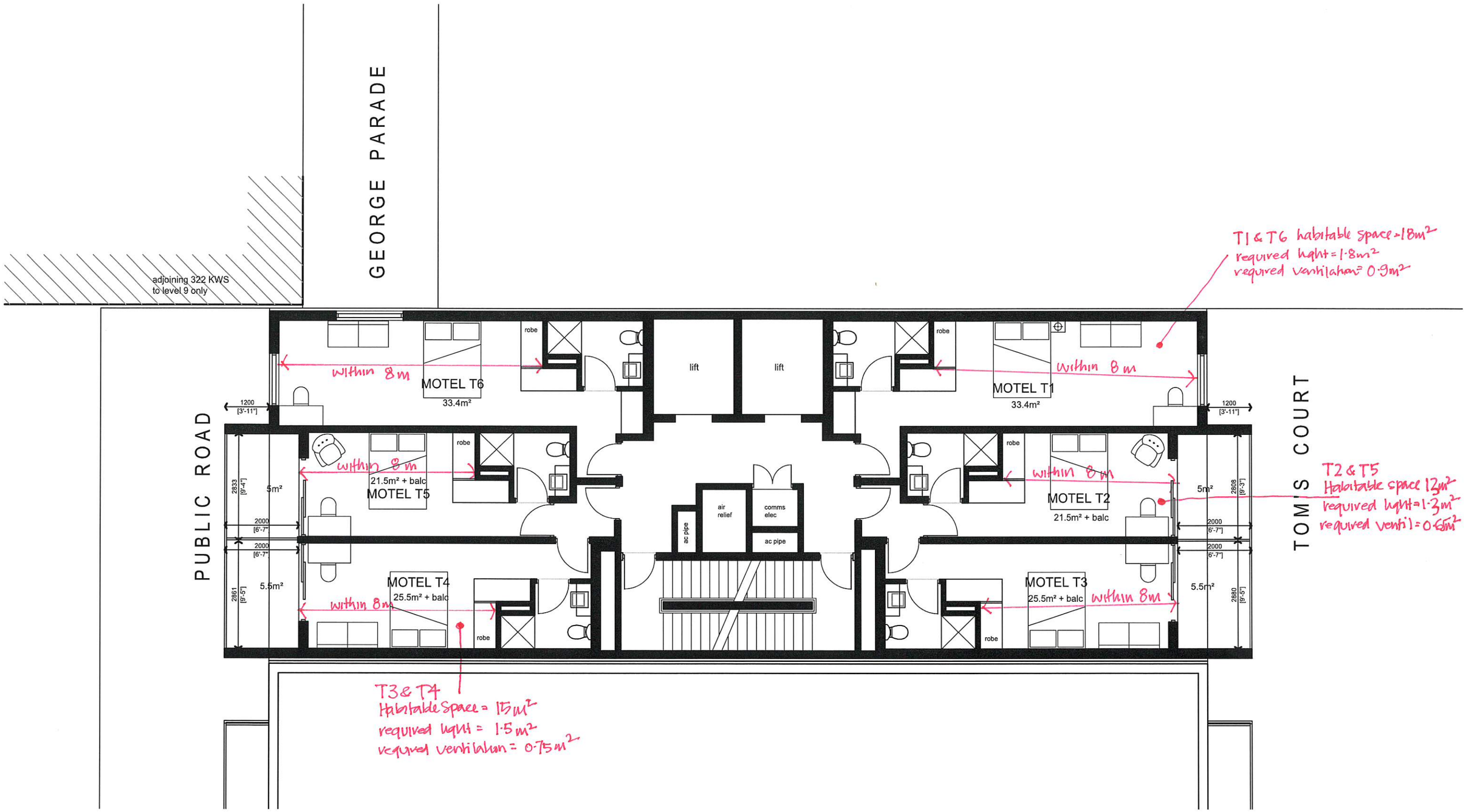
BCA light requirement of **1.8m²**

Balcony sliding door provides **4m²**

BCA ventilation requirement of **0.9m²**

Balcony sliding door provides **2m²**

93 Gilles Street Adelaide South Australia 5000 Telephone : 08 8223 2244 Facsimile : 08 8223 2260
Email : nic @ adsarchitects . com . au



LEVELS 3, 4, 6, 7, 8, 10, 11, 12 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

5

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

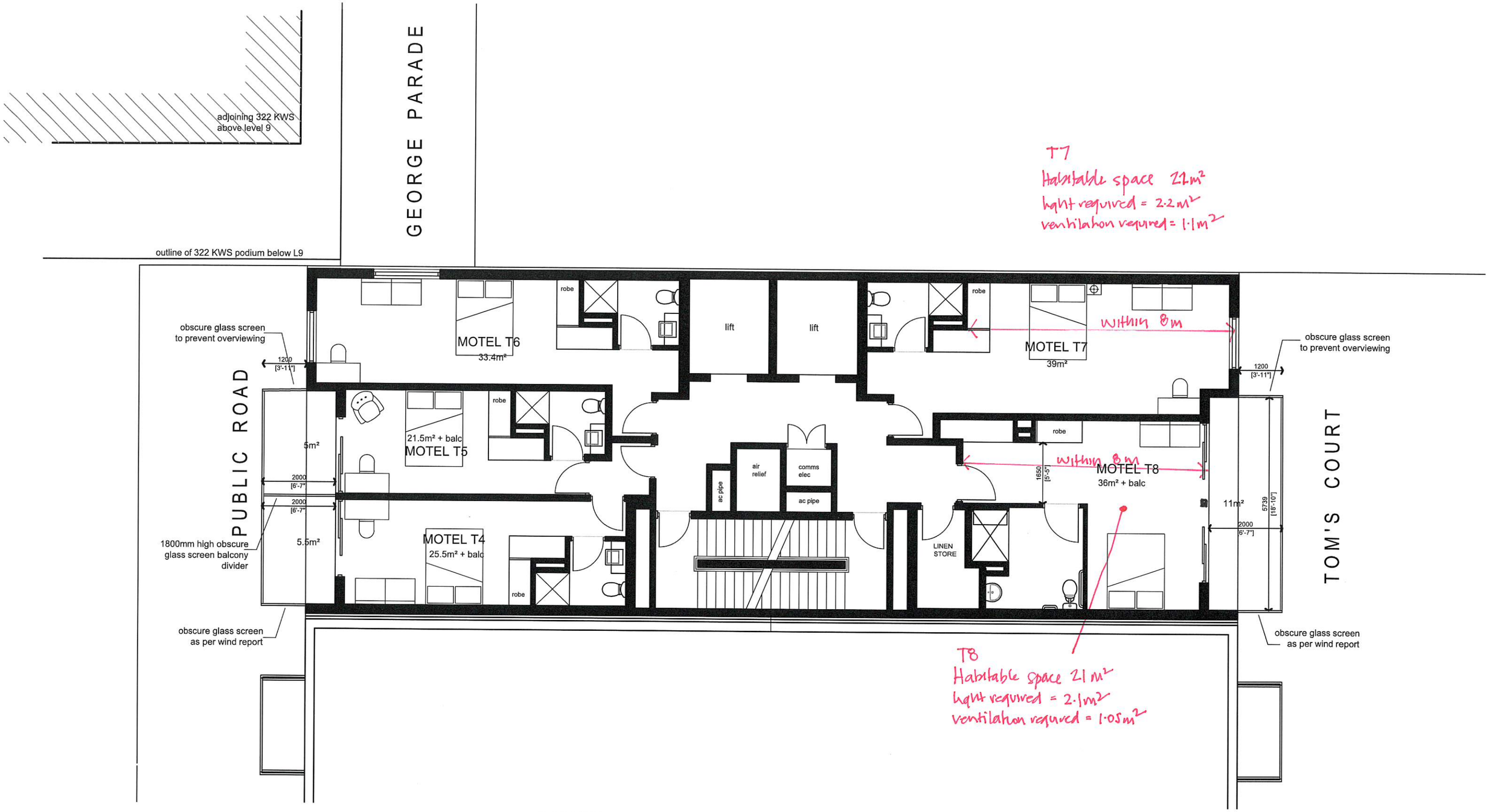
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK05/B

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



T7
Habitable space 21m²
light required = 2·2m²
ventilation required = 1·1m²

T8
Habitable space 21 m²
light required = 2·1m²
ventilation required = 1·05m²

LEVELS 5&9 FLOOR PLAN with accessible room

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

6

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

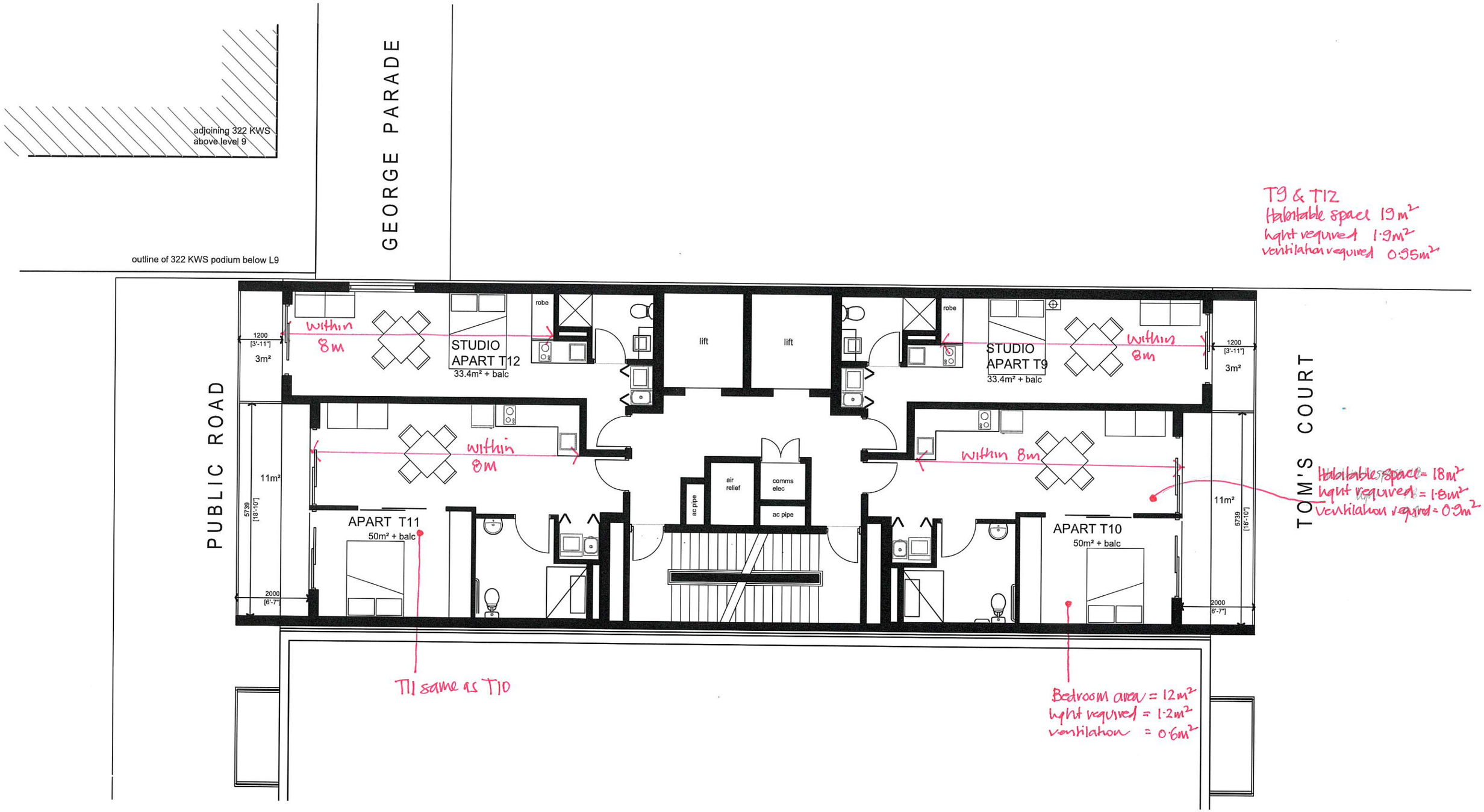
20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SK06/D

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244



LEVEL 13 FLOOR PLAN

0 1 2 5m

Scale 1:50 at A1
Scale 1:100 at A3

7

TOMS COURT MOTEL, SERVICED APARTMENTS / APARTMENTS

20 Toms Court Adelaide SA 5000

23.04.18

17/JN1331/SD07c

PLANNING APPROVAL

ADS Architects
93 Gilles Street Adelaide 5000 T:82232244

Toms Court Hotel and Apartments

Noise Assessment

March 2018

sonus.

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INTRODUCTION

An acoustic assessment has been made for the proposed Toms Court Hotel and Apartments, located at 20 Toms Court, Adelaide.

The proposed development comprises 14 levels of hotel units and apartments. Specifically, the proposal includes 62 hotel units, 2 studio apartments and 2 one bedroom apartments.

The assessment has considered the following noise sources:

- external noise from traffic on surrounding roads; and
- mechanical plant noise from the proposed development.

The assessment has been based on:

- ADS Architects drawings with reference numbers "15/JN1331/CD03/E", "15/JN1331/CD04/E", "15/JN1331/CD05/D", "15/JN1331/CD06/F", "15/JN1331/CD07/C", "15/JN1331/CD08/B"; and
- continuous noise monitoring conducted at 336 King William Street, from Tuesday 28 to Wednesday 29 June 2016.

The proposed development is located within the "Capital City Zone" of the City of Adelaide Development Plan. The City of Adelaide Development Plan includes specific acoustic provisions for developments of this nature. The relevant Objectives and Principles of Development Control are provided in Appendix A.

TRAFFIC

Criteria

The primary noise source in the vicinity of the site is traffic on King William Street. The appropriate criteria for noise intrusion into an apartment can be derived from the relevant provisions of the Adelaide City Council Development Plan and the contemporary State Government approach provided by the Minister's Specification SA 78B.

Minister's Specification SA 78B

The intent of *Minister's Specification SA 78B* (SA78B) is to protect the occupants of residential buildings from the sound intrusion of road corridors and from mixed use activity. To this end, SA78B establishes "performance requirements" to be met by a development.

SA78B introduces mandatory requirements under the Building Code of Australia (BCA) depending primarily on "designation" in the Development Plan. The development site is not designated, nonetheless SA78B provides the most contemporary objective noise criteria, which satisfy the general intent of the Development Plan provisions. Therefore it is proposed that the criteria of SA78B be adopted for this project. The design basis of SA78B is to provide a facade which achieves the following internal sound criteria:

Type of room	**Internal sound criteria**		**Applicable time period**
	Building design target averaged over the total number of such rooms in the building	**Maximum allowable for individual rooms in the building**	
Bedroom	30 dB(A) $L_{eq, 9hr}$	35 dB(A) $L_{eq, 9hr}$	Night (10pm to 7am)
Habitable room, other than a bedroom	35 dB(A) $L_{eq, 15hr}$	40 dB(A) $L_{eq, 15hr}$	Day (7am to 10pm)

Assessment

Noise levels within the proposed hotel units and apartments have been predicted using a noise propagation model in the SoundPlan noise modelling software, which was calibrated using the measured results for traffic noise on King William Street. Based on the model, the following noise levels are predicted at the development facade:

- daytime noise level ($L_{Aeq, 15hr}$) of 59 dB(A) at the western building facade; and
- night-time noise level ($L_{Aeq, 9hr}$) of 52 dB(A) at the western building facade.

Based on the above, it is recommended that all windows and sliding doors are constructed from minimum 6.38mm thick laminated glass in a system with acoustic seals. With this glazing, the noise level in the hotel rooms and apartments will be no greater than 35 dB(A) during the day and 30 dB(A) at night. This will ensure that the Minister's Specification design criteria are achieved throughout the development.

MECHANICAL PLANT

Criteria

Council-wide Principle 93 of the Adelaide City Development Plan provides objective criteria for noise from mechanical plant and equipment at a development, and provides the ability to increase the criteria in the circumstance of a high background noise environment.

Based on Principle 93, the relevant criteria for mechanical plant noise from the development at the closest noise sensitive receivers are the greater of:

- an average $L_{Aeq,15min}$ of 55 dB(A) during the daytime (7am to 10pm);
- an average $L_{Aeq,15min}$ of 45 dB(A) during the night-time (10pm to 7am); and
- a noise level which does not exceed the lowest equivalent ($L_{Aeq,15min}$) measured noise levels in the existing environment.

Assessment

At the development application stage of a project, the mechanical plant is generally not designed or selected, and therefore detailed noise level predictions cannot be made. In these circumstances, it is appropriate that a detailed assessment of mechanical plant noise be carried out following the final selection of equipment, during the detailed design stage of the project.

While noise from mechanical plant has not been assessed at this stage, it is understood that the air-conditioning condensing units will be located on the roof. As a result, it is likely that no specific acoustic treatment measures will be required to ensure the above criteria are achieved at nearby residences.

APPENDIX A – Adelaide City Council Development Plan Provisions

Council-Wide Provisions

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.*

PDC 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.*

PDC 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.

PDC 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.*

PDC 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 ($L_{90,15\ min}$) 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.

APPENDIX B – Site Locality Plan and Traffic Measurement Location

LEGEND

- Development Site
- Logging Location

ekistics

Appendix 5. ESD Report

Lucid Consulting

LUCID
CONSULTING AUSTRALIA

20 TOMS COURT, ADELAIDE

SUSTAINABILITY REPORT

Date: 20 April 2018

Document Number: LCE11865-004B

DOCUMENTATION ISSUE REGISTER

REVISION	DESCRIPTION	DATE ISSUED	ENGINEER	REVIEWED
-	Issued for Client Approval	29 November 2016	RC	RC
A	Updated for Motel Scheme	12 April 2018	JN	JN
B	Minor Revisions	20 April 2018	JN	PC

1 INTRODUCTION

1.1 PROJECT OVERVIEW

The proposed residential development at 20 Toms court (Adelaide) is a mixed use Class 2, Class 3 and Class 6 development under the National Construction Code, and comprises:

- Ground floor: Entry lobby, back of house/deliveries space, bin room and commercial tenancy (mixed class 3 and class 6)
- First floor: 3 x motel suites, a plant room, a storage room and a cleaner's closet (class 3)
- Second floor: 3 x motel suites, a plant room and hotel storage (class 3)
- Third, fourth, sixth, seventh, eighth, tenth, eleventh, twelfth floors: 6 x motel suites per level (class 3)
- Fifth, ninth, 5 x motel suites per level including one DDA hotel suite per floor (class 3)
- Thirteenth Floor: 4 apartments (class 2)

In summary a total of 64 motel suites (Class 3) and 4 residential apartments (Class 2) will be provided in the building.

Figure 1 – Site Location Plan (Source: Google maps)

1.2 OBJECTIVES

This report outlines the sustainability initiatives that are proposed for the development.

The intent of each initiative is to add value to the project by improving the environmental performance of the development. Collectively, these initiatives will: -

- Reduce energy and water consumption;

- Reduce the ecological footprint of the building and its occupants;
- Improve thermal comfort and air quality within the building; and
- Improve occupant well-being.

1.3 ECOLOGICALLY SUSTAINABLE DESIGN

The following initiatives have been adopted and incorporated into the design of the building: -

- High performance building envelope; wall, floor and roof insulation R-values to meet best practice guidelines
- Energy efficient glazing selected with consideration of building-specific features and climatic conditions
- Apartment (thirteenth floor only) NatHERS energy ratings to exceed BCA minimum requirement
- Use of large balconies to shade glazing on western and eastern facades
- Energy efficient massing with minimal exposed ceilings and floors (L3 to L13 are identical)
- LED lighting throughout
- Water efficient fittings and fixtures
- High efficiency air conditioning equipment with non-ozone depleting refrigerants

The following initiatives are the primary Ecologically Sustainable Design (ESD) features of the Toms Court development and are described in further detail in this report:

- Efficient building thermal envelope;
- Provision of shading and energy efficient glazing;
- Energy efficiency initiatives

2 PRIMARY SUSTAINABILITY INITIATIVES

2.1 EFFICIENT BUILDING THERMAL ENVELOPE

An efficient building envelope is a highly robust feature as its benefits will be constant throughout the life of the building and are largely independent of the behaviour of the occupants. The performance of wall, floor and ceiling/roof insulation is to meet best practice guidelines.

Specification of glazing units will consider the thermal requirements of each hotel and apartment, the orientation of the building, and the Adelaide climate. As a result, the sole occupancy units benefit from free heating provided by the sun during winter while solar heat gains are minimised during summer.

The massing has been optimised and the floor layout of Levels 3 to 13 are the same, which minimises the area of exposed floors and ceilings within the sole occupancy units. Insulation will be applied to all exposed surfaces including ceiling slab soffit of the foyer and fire escape corridor.

2.2 PROVISION OF SHADING AND ENERGY EFFICIENT GLAZING

In this proposed development, the entirety of the glazing, is oriented either east or west. As such, it is important to provide shading to the windows to minimise solar loads in summer.

As such, shading has been a key consideration during the design of the motel suite and apartment layouts. The following strategy that has been implemented for the western and eastern facade:-

- set-back of windows from the facade using balconies, which provides effective shading in summer.

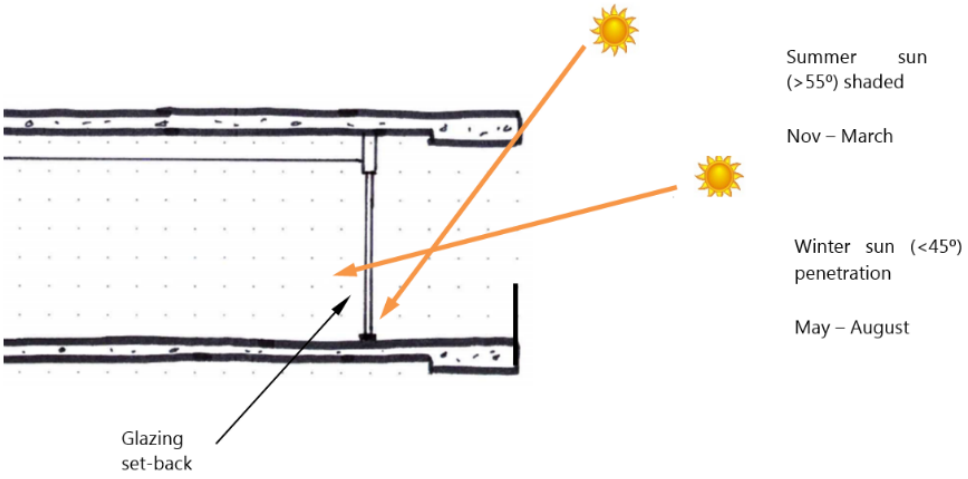


Figure 2 - Typical shading strategy on western and eastern facades

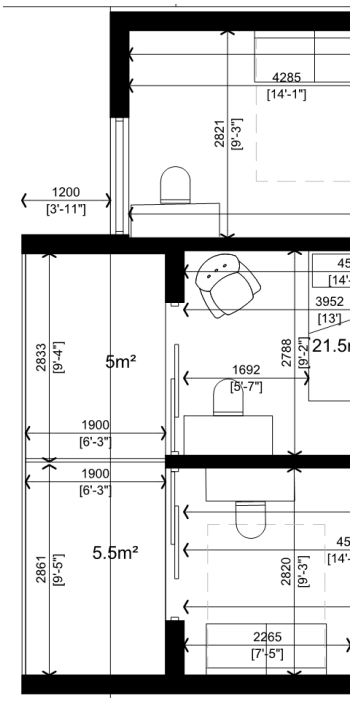


Figure 3 - Extract from floor plans indicating the set-back of glazing from the western facade/boundary.

This shading strategy and the use of high performance low-E coating significantly reduce the solar gains and cooling loads in summer. The below motel suites and apartments have no external shading, however, they benefit from the high level of solar control provided by the proposed glazing systems:

- Motel Suites 1
- Motel Suites 1A
- Motel Suites 6
- Apartment 1B
- Apartment 6A

2.3 ENERGY EFFICIENCY INITIATIVES

In the proposed development, there are several energy efficiency initiatives being proposed to complement the passive design features:-

- High efficiency heat recovery air conditioning systems to take advantage of the opposing thermal zones on the east and west facades
- Low energy luminaires such as LED fittings used throughout the building
- Water efficient fixtures and fittings to reduce the water consumption below the average dwelling water consumption. Refer to the below table for the average water consumption to be improved upon:-

Equipment	Average Dwelling	
	Flow Rate	Daily Consumption (per person)
Taps	9.0 L/min	48 L
WC's	8.0 L/flush	48 L
Showers	15.0 L/min	135 L
Total		231 L

20180444_Toms Court Traffic Review

27 April 2018

Greg Maughan
Development Manager
Karidis Corporation
49 Angas Street
ADELAIDE SA 5000

Email gregm@karidis.com.au

Dear Greg

TOMS COURT

Tonkin Consulting has reviewed the likely traffic implications of the proposed development of a hotel in Toms Court. Specific consideration has been given to the traffic generation and turning movements. No consideration has been given to pedestrian/cycling movements or other accessibility needs. We have also considered Council's pre-development comments and offer the following comments.

Traffic Generation

Expected traffic generation estimates have been based on the following:

- 2 trips per week for garbage collection (as advised by Karidis)
- 2-3 trips per week for deliveries 8.8m service vehicle (as advised by Karidis)
- 2-3 trips vehicle trips per day per room (1 arrival and 1 departure per day) for standard vehicles.

Based on typical trip generation guidelines there could be up to 124-186 trips per day associated with the hotel rooms (standard vehicle/taxi). This is based on 2-3 trips per day per room and is based on high turnover with full capacity. However, we believe this number can be reduced by at least 50% on the basis that there is not a car park associated with the development, and assuming that half of the customers will drive themselves and park at a nearby car park. These people would then walk to the development thus not creating a vehicle trip. We also note the close proximity of public transport in King William Road that will support trips throughout the day.

Accordingly, we feel that a trip generation of 60-90 trips per day to be more realistic (ie 30-45 arrivals and departures). If 50% of these trips occur in a peak between (say 2pm – 6pm) then the 15-22 arrival and departure movements will occur during this period which equates to around 4-6 vehicles per hour (arriving and departing). This additional volume should not have any impact on the capacity of the road.

Turning movements

Garbage Trucks

City of Adelaide (CoA) have advised that existing garbage trucks reverse down Toms Court to collect rubbish bins from the eastern side of the road at the end of the street. We believe this arrangement will have to apply for garbage collection (twice per week) for the proposed development. It will be impractical for a garbage truck to drive forward into Toms Court and then turn around in front of the hotel or by using the lane. Given existing garbage trucks reverse into the street, we are comfortable supporting this movement.

Service Delivery Vehicles

The 8.8m service vehicle (delivery van) is too long to turn at the end of the street, as it is longer than the street is wide (6.3m). Refer attached drawings. As such, service vehicles will have to reverse into the lane that branches off of Toms Court (shown on the design attached) and drive out forwards. While this is not an ideal situation, it is not altogether uncommon in inner city laneways. Given the low number of trips predicted we think this is an acceptable arrangement.

Passenger Vehicles

There are two options for the turning movements for a standard vehicle. Either a 3-5 point turn at the end of the street, or the vehicle will be required to reverse back into the lane off of Toms Court, then drive out forwards.

With vehicles parked on the western kerb line a 3 point turn is achievable. We have confirmed this on site in a typical passenger car. This arrangement already exists as vehicles currently parking on the western side of Toms Court need to undertake this manoeuvre.

However, if the kerbside spaces are occupied, drivers may need to undertake a 5-point turn as their starting position will be the middle of the Court (as shown attached).

While neither arrangement (3-5 point turn or the reverse side turn) is an ideal outcome, the peak hour movements are relatively low. We also note that traffic and pedestrian volumes at the end of the street are likely to be relatively low, so there will probably be minimal conflict caused by the manoeuvring vehicles.

City of Adelaide Comments

While Council raised concerns over the 3-5 point turns at the end of Toms Court, we reiterate that actual traffic volumes are expected to be relatively low, and that these manoeuvres are already required by vehicles parked in the street, where vehicle speeds will also be very low. There will be no “on-coming traffic” as the movements will be made at the end of the court, where pedestrian activity is also expected to be low.

Existing On Street parking

We note there are two (2 hour) on street parks and 1 loading zone between the side lane and front of the development. We have presumed that these will remain in place.

City of Adelaide Comments

We believe Council would be reluctant to remove the 2 hour parks given the adjacent residential developments, and the loading zone will obviously be useful for the proposed hotel development. Council noted that no on-street parking surveys have been undertaken to demonstrate how often these spaces will be available. Given the expected low impact of the development, we do not believe parking surveys are required at this time.

Summary

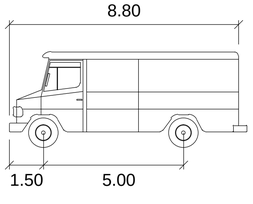
Based on estimated trip generation rates applicable for a hotel, we have estimated that the development could generate 30-45 vehicle movements (arrivals and departures) per day. Garbage collection and service deliveries are likely to be less than 5 trips per week. We believe this trip generation is acceptable for the street environment.

The width of Toms Court is relatively narrow and vehicles will need to undertake a 3-5 point manoeuvre to turn around at the end of the street. Larger vehicles will either need to reverse into the street (per CoA garbage collection processes), or use the Toms Court side lane to turn-around. These movements are also in line with current practices.

Yours faithfully
TONKIN CONSULTING

PC SIMONS
Senior Project Manager

Enc turning movements



SERVICE VEHICLE

		meters
Width	:	2.50
Track	:	2.50
Lock to Lock Time	:	6.0
Steering Angle	:	38.7

Figure 1

Imagery supplied by Metromap

COORDINATES TO MGA94 ZONE54 ALL LEVELS TO A.H.D.

REV	AMENDMENT / REASON FOR ISSUE	DATE	DES.	DWN.	DWGCHK.	VERIFIED	APPROVED

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Survey Date:	
Scale:	1:100
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KARIDIS CORPORATION
TOMS COURT TRAFFIC DA
SWEPT PATH ANALYSIS
8.8m SERVICE VEHICLE - CHECK VEHICLE

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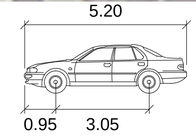

PASSENGER-CAR

		meters
Width	:	1.94
Track	:	1.84
Lock to Lock Time	:	6.0
Steering Angle	:	33.6

Figure 2

Imagery supplied by Metromap
COORDINATES TO MGA94 ZONE54
ALL LEVELS TO A.H.D.

REV	AMENDMENT / REASON FOR ISSUE	DATE	DES.	DWN.	DWGCHK.	VERIFIED	APPROVED

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KARIDIS CORPORATION
TOMS COURT TRAFFIC DA
SWEPT PATH ANALYSIS
STANDARD PASSENGER CAR - DESIGN VEHICLE

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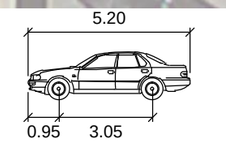

PASSENGER-CAR

		meters
Width	:	1.94
Track	:	1.84
Lock to Lock Time	:	6.0
Steering Angle	:	33.6

Figure 2

Imagery supplied by Metromap
COORDINATES TO MGA94 ZONE54
ALL LEVELS TO A.H.D.

REV	AMENDMENT / REASON FOR ISSUE	DATE	DES.	DWN.	DWGCHK.	VERIFIED	APPROVED

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KARIDIS CORPORATIOI
TOMS COURT TRAFFIC D/
SWEPT PATH ANALYSI
STANDARD PASSENGER CAR - DESIGN VEHICLI

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24 Anstey Crescent,
Marleston, SA 5033
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Waste Management Plan

Proposed Development at:

20 Toms Court, Adelaide

Prepared for: Karidis Corporation Ltd

FINAL

REISSUED: 25 April 2018

- IMPORTANT NOTES-

This document has been prepared by Colby Industries for a specific purpose and client (as named in this document) and is intended to be used solely for that purpose by that client.

The information contained within this document is based upon sources, experimentation and methodology which at the time of preparing this document were believed to be reasonably reliable and the accuracy of this information subsequent to this date may not necessarily be valid.

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Document verification

Description	Waste Management Plan for proposed development at: 20 Toms Court, Adelaide		
Version	FINAL (REISSUES PER PLANS 11.04.18)		
Issued	25 April 2018		
Verification	Prepared by	Checked by	Approved by
Name	C. Colby		C Colby
Signature			

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1 Introduction

This document provides a waste management plan (WMP) to support planning assessment of the proposed development (the "Development") by Karidis Corporation at 20 Toms Court, Adelaide. The WMP describes the waste management system (WMS) proposed for the development, and explains how the WMS will manage waste to achieve regulatory and design objectives. The content of the WMP is aligned to that recommended by the South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Zero Waste SA, 2014) (viz. Appendix D).

2 Status of this document

This WMP is based on building plans provided by the Developer (dated 11.04.18). Consultation has been previously undertaken with Adelaide City Council, to seek their views and comments (D. Bland, 2016).

3 Proposed Development

3.1 Developer (& project design team)

The table below gives the name and contact details for the Developer and relevant members of the project design team.

Table 3-1: Developer & relevant project design team members

Developer:	Karidis Corporation Ltd (49 Angas Street, Adelaide SA 5000)
Architect:	ADS Architects (93 Gilles St, Adelaide, SA 5000)

3.2 Land use details

The proposed residential development is located on a *ca.* 225m^2 site at 20 Toms Court, Adelaide – see Figure 3-1 overleaf. The site is bounded on the Eastern side by Toms Court and on the Western side by a public street (unnamed), which is accessible from Toms Court. On its North-Western corner, the site abuts Georges Parade (a private lane accessible from Carrington St).

The development would cover the complete site and is a 14-storey (single) tower with 64 Motel units (Levels 1-12) and 4 Residential Apartments (Level 13), with Motel Reception and (light) Café at Ground Level (see Figure 5-1 on pg. 9). Table 3-2 below summarizes the development metrics by Land Use for the Development. The Development is very space constrained with limited area at Ground level and only a 9m frontage onto Toms Court. *{Cont. overleaf below Figure 3-1}*

Table 3-2: Development metrics – summary

Land Use		Location	WRGR Description*	Development Metric(s)	
Motel Units	*Reception Area/Office*	Ground	Offices	15	m^2 NFA
	Café	Ground	Café^	40	m^2 NFA
	Motel Units	Levels 1-12	Hotel Accommodation	64	Units
Residential Apartments		Level 13	High Density Residential Dwelling	4	Dwellings
				4	Bedrooms

* Recommended WRGR Description for relevant land use from State Guidelines (Zero Waste SA, 2014)

^ Light Café, no full-service restaurant

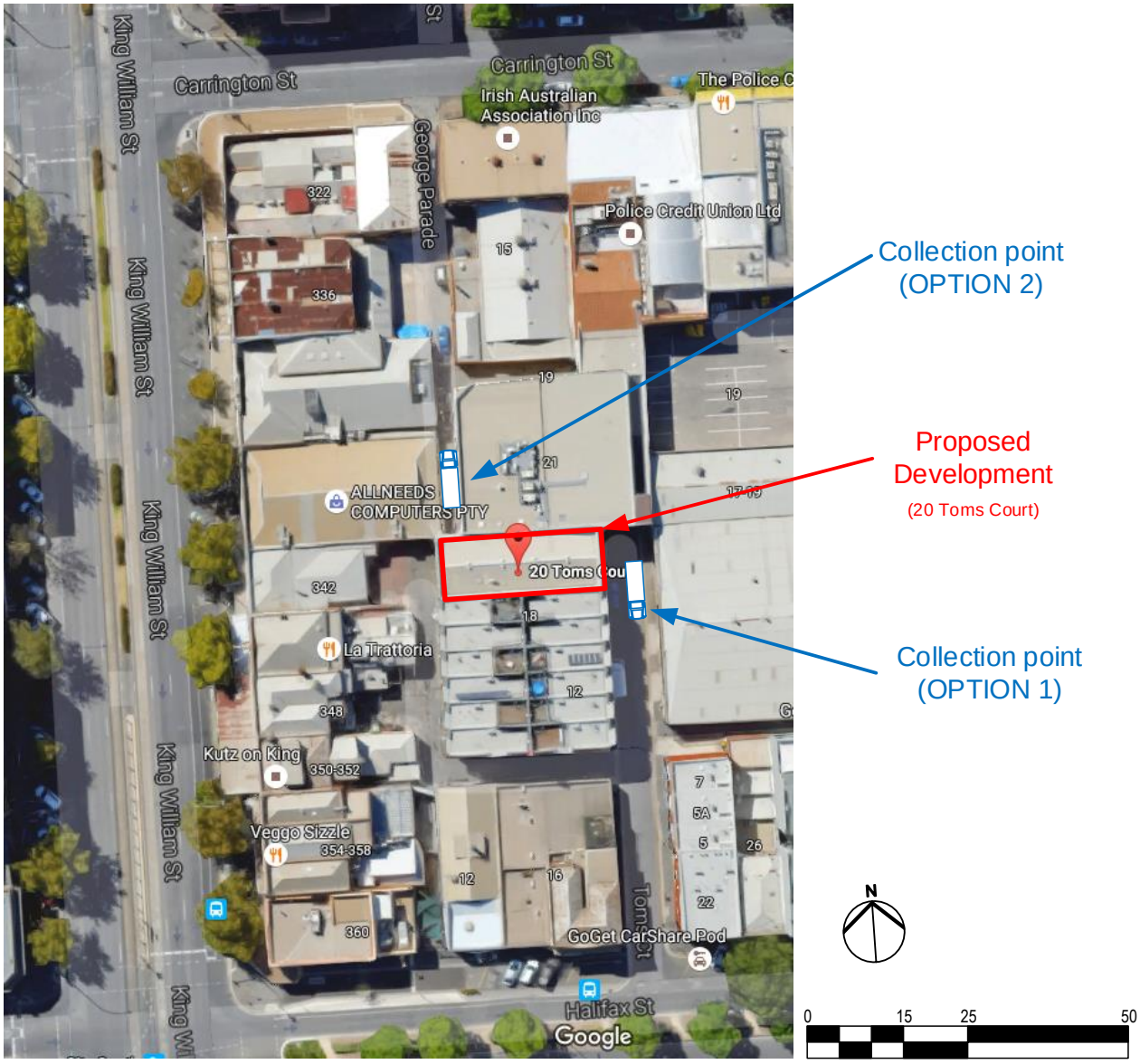

Figure 3-1: Subject site for proposed development, including location of waste collection in Toms Court

Two options are being considered for waste collection from the Development:

1. ***Toms Court collection point*** – Collection trucks would enter Toms Court from Halifax St (in a forward direction), perform a three-point turn (at the access point to the unnamed public lane), and reverse further into Toms Court until in front of the proposed development, where it would park (for collection to occur). The truck would then exit from Toms Court in a forward direction back onto Halifax St. *[It is noted that waste collection trucks already access Toms Court to deliver collection services (via unnamed rear private lane) for nearby commercial premises on King William St.]*
2. ***Georges Parade*** – If the nearby Trims (or 322-336 King William St) development proceeds, collection trucks would be able to park in the proposed collection point(s) for this new development in (a widened) Georges Parade. Under this option, bins would be transferred from the rear of the Development to the Georges Parade collection point(s) via connecting (unnamed) private lane.

4 Design assumptions

4.1 Stakeholder consultation

The Developer has provided guidance (as set out above and below) for the waste management arrangements at the Development. Preliminary consultation has been undertaken with Council (D. Bland, 2016), and their comments and feedback are noted below.

4.2 Collection services (& access)

The major Motel component of the Development is a commercial activity, and hence waste collection would be a private service. There is a minor residential component to the Development, which could be accommodated by Council collection services (kerbside or rear-lift).

In previous discussion of this matter with Council (D. Bland, 2016), their preference for collection access to the Development would be via Georges Parade, and not Toms Court due to perceived complication of reversing side-lifting and/or rear-lift trucks at this location. Bins would ideally be presented on street or in a room with directly immediate on-street access to the collection point.

In addition, there is a preference by the Developer to provide primary access for the Development via Toms Court and activate this street frontage. The Toms Court frontage, however, is a limited (*ca.* 9m) and it would be challenging to locate an internal bin storage area with access door and/or present bins on street and/or for collection access by waste trucks at this location.

The Georges Parade collection point, on the other hand. is in a private lane, and it would be necessary for the Developer to secure access rights for waste collection (from relevant third parties).

In view of the above, it was recommended that:

- The few residents in the Development should dispose of their waste to a single shared waste system operated by the Motel to minimise waste collection events (rather than operate another separate and small waste system for residential waste).
- Waste collection would ideally be from Georges Parade, but a Toms Court option needed to be accommodated if this was not possible.
    - Collection truck access for both these options has therefore been assessed (by the traffic consultant) with swept path turning circles appended to this report (see Appendix 2).
- Collection services to the site would be provided by a private contractor.
    - This would enable more frequent waste collection, reducing bin storage footprint needed at Ground Level.
    - A private waste contractor would also be more flexible in providing a pull-in, pull-out service, enabling the bin storage area to be located within the Development and avoiding the need to potentially present bins on street for collection.

4.3 Regulatory compliance & design requirements

Design and operation of the WMS for the proposed development is subject to:

- The South Australian Environment Protection (Waste to Resources) Policy 2010 (W2REPP) (Government of South Australia, 2011):
    - *Waste must be subject to resource recovery processes, which can include source separation, before disposal to landfill.*
    - *A weekly collection of general waste from residential premises is expected.*
- Adelaide (City) Development Plan (Department of Planning, Transport & Infrastructure, 2017)

    - *Identifies among other things the need to provide areas to store waste and recyclable materials, appropriate to the size and type of development, screened from public, which minimises disturbance to residents and provides for service vehicle access.*
- South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Zero Waste SA, 2014)
    - *Provides guidance on expected design and operation of waste management systems for medium to high density residential and mixed use developments.*

The above have been considered in developing this WMP.

4.4 Design & operating provisions

The following site design and /or operational requirements or provisions have there been proposed and agreed with the Developer.

- ***Local disposal points*** – Shared waste area at Ground Level, direct local disposal to bins (by Motel cleaners or staff or residents with access via building Lift and corridors).
- ***Bin storage areas*** – Shared waste area (in separate room) at Ground Level (with ventilation for odour control).
- ***Collection*** – Private contractor with pull-in, pull-out service from above bin storage area, with collection from (as outlined in Sections 3.2 and 4.2 above).
    - Option 1: Toms Court (if access the Georges Parade no available); or
    - Option 2: Georges Parade (if access to Georges Parade can be secured).
- ***Hard waste collection*** – Direct from Motel areas, resident dwellings or from temporary set-down area at Ground Level.
    - Residents may be able to access the Council at-call hard waste collection service if suitable location to place waste can be agreed, see: www.cityofadelaide.com.au/city-living/home-property-management/waste-recycling/hard-refuse/
- ***Bin washing*** – Conducted off-site by private contractor.

The above arrangements reflect a balance between system cost, space constraints at Ground Level, activating the development's frontage on Toms Court, and providing convenience for residents. The following comments are made in this regard.

- *Waste chutes* – These would normally be recommended for a multi-level development above four storeys, but are:
    - Significant cost to install including separate fire-rated duct;
    - Additional space (and therefore cost) for local disposal points;
    - Additional space (and therefore cost) at Ground level for discharge and separate set of bins for this purpose;
    - The small size of this proposed development results in relatively short travel and convenient distances for the few residents to travel from their Level 13 apartments to lift, then from lift at Ground level to waste storage area; and
    - Motel cleaners would transport waste and recycling from Motel units on other levels to Ground Floor for disposal in the waste room.
- *On-site bin wash area* – This is an infrequent activity, e.g. quarterly, and may be even less frequent when general waste and food organics are bagged before disposal, bins are collected frequently, and manual bin wipe down is practiced during collection. On-site bin washing also requires an additional space, e.g. up to 10m^2, specialized cleaning equipment and drain, regular bin monitoring, handling large and heavy bins, and labour costs. A reasonable and safer approach for smaller developments can be to outsource this to the private waste contractor, who

would monitor the bins when collecting them, can manually wipe them down if and as needed, and take them away off-site for cleaning when needed.

5 Waste Management System

5.1 Services

Table 5-1 below summarizes the proposed waste and recycling collection services to the Development. The same services would be available to all the different land uses.

Table 5-1: Proposed services for Development

Service Type	Residential	Motel		
		Reception Area/Office	**Café**	***Motel Units***
Routine (regularly scheduled)	• General Waste • Recycling • Food Organics	• General Waste • Recycling/Paper	• General Waste • Recycling • Food Organics • Recycled deposit container (option) • Cooking oil (option)	• General Waste • Recycling
On-call (as needed)	• Hard waste/E-waste	• Hard/E-waste • Printer Cartridges • Batteries • Confidential paper (if elected)		
Maintenance (waste removed by contractor)	• Lighting (where applicable)	• Lighting • Sanitary (Ground Level toilet)		
External (off-site disposal)	• Lighting • Printer • Cartridges Batteries			

5.2 Sizing (generation volumes)

Table 5-2 overleaf summarizes estimated waste and recycling volumes in Litres/week. These volumes are based on generation rates (WRGRs) recommended by the South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Zero Waste SA, 2014), assuming the most relevant 'Land Use Activity' Classification (viz. Appendix C). For the Café land use, WRGRs were discounted (see Table footnote) to reflect that this tenancy will be a "light café" situation, not a full-service restaurant (which the WRGR values for this land use in the SABPG would ordinarily reflect). Volumes for Lighting and Printer Cartridge/Battery waste are not estimated (NE) as no metrics are readily available for this purpose; volumes for these items, however, will be minor relative to other waste / recycling services, and provision is made in this WMP for handling and management of these waste materials.

5.3 Storage

The main waste storage area would be a separate room at Ground Level – see Figure 5-1 two pages overleaf. This room is isolated from the Ground Level Entry Lobby but accessible by residents and Motel cleaners and staff. Table 5-3 overleaf includes a Site Schedule that gives the recommended bins to store waste / recycling in this area (for Routine Services) based on proposed collection frequencies. These recommended bins are shown on Figure 5-1, to demonstrate there is sufficient storage and access space to accommodate the required arrangement.

Table 5-2: Estimated waste & recycling volumes (in Litres/week). NE: Not Estimated*

Waste / Recycling Service	Residential	Motel		
		Offices & Reception Area	*Café^*	*Motel Units*
	L/week	*L/week*	*L/week*	*L/week*
General Waste	120	26	500	2912
Dry Comingled Recycling	100	23	450	1344
Food/Garden Organics	40		560	
Hard waste	28	2.1	2.8	224
E-waste	5.0	0.4	0.5	40
Sanitary	NE	NE	NE	NE
Lighting waste	NE	NE	NE	NE
Printer Cartridges/Batteries	NE	NE	NE	NE
TOTAL	293	51	1513	4520

* Based on recommended WRGR for High Density Residential Dwelling (inc. student accommodation) in State Guidelines (Zero Waste SA, 2014)

^ WRGRs for Café/restaurant land use in SABPG were discounted as follows to reflect light café situation: General Waste – 40% reduction; Recycling – 20% reduction; Organics – 50% reduction.

Table 5-3: Site Schedule: Waste storage bins & collection frequency for services to Development

Waste Storage Area(s)	Land Use(s)	Routine Service	Estimated Max. Waste/Recycling Volumes (L/wk)	Provider	Collection Frequency (Events/week)	Max. Bins/Items Stored & Collected (per Event)		
						No.	*Size (L)*	*Type*
Shared Ground Level Waste Store	***All Land Uses (Shared)***	General Waste	3,520	Private contractor	Twice weekly	3	660	Skip
		Recycling	1,920			2	660	Skip
		Food Organics	600			2	240	MGB

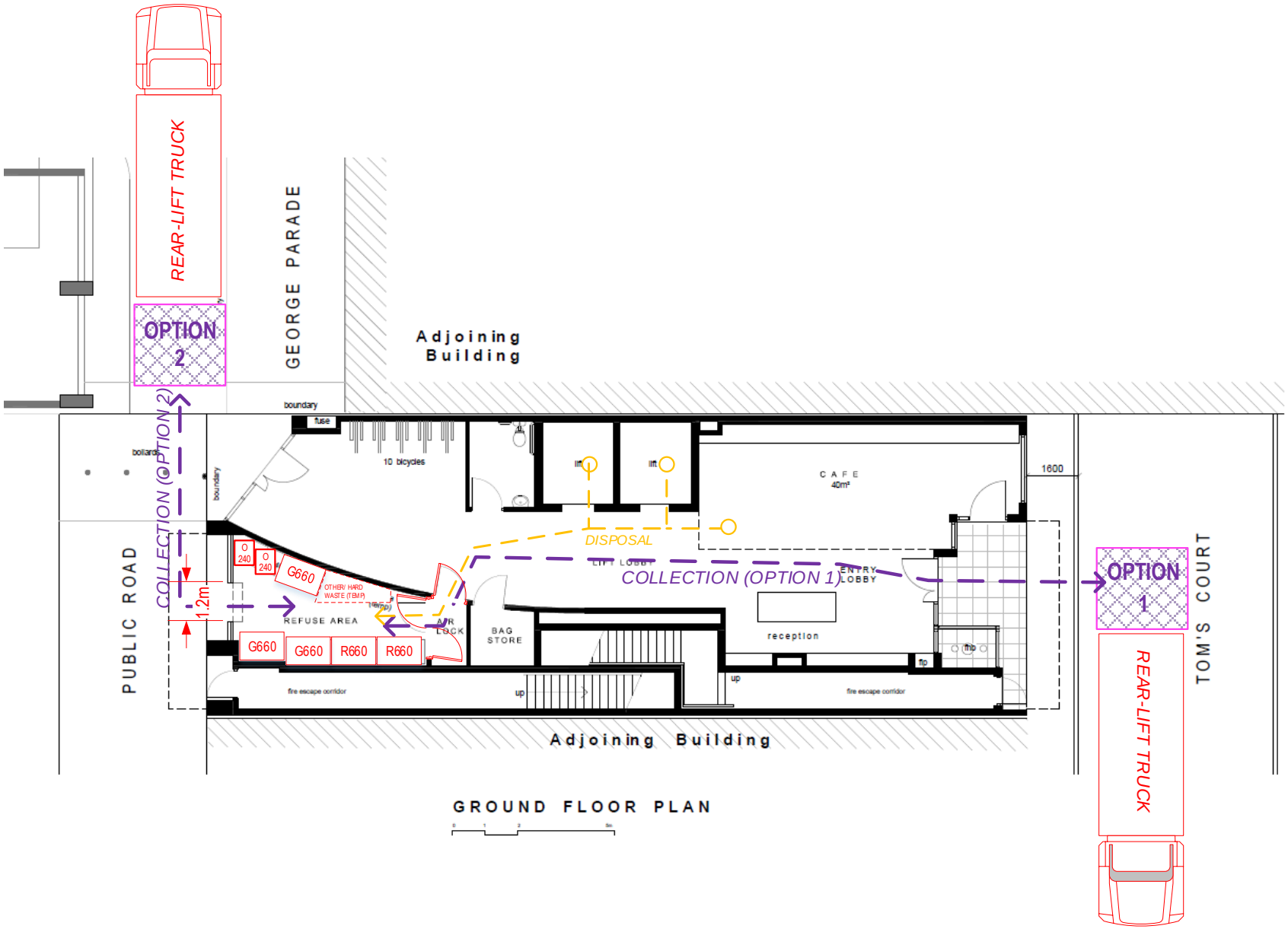

Figure 5-1: Waste storage area at Ground level for proposed development, including options for waste collection from Toms Court or Georges Parade– Concept only

5.4 Operation

5.4.1 Routine Services

Table 5-4 below summarizes the proposed WMS for the Routine services[1]. Residents would be provided with a 3-bin kerbside-equivalent service (general waste, recycling, food organics). Residents and Motel cleaners and/or staff would dispose of waste and recycling into bins located in the shared waste storage area at Ground Level. A private waste contractor would empty these bins on a weekly or twice weekly basis. During collection events, the private waste contractor would collect bins from the waste storage, take them to the collection point (in Toms Court or Georges Parade), empty them, then return the bins to the waste storage.

Table 5-4: Proposed WMS operation – Residential Routine Services

Step	Residential and Motel units, Café & Reception
STEP 1 – User Storage	• Residents and Motel cleaners and/or staff would sort and separate waste and recycling for disposal. Waste/recycling items would be placed into appropriate bins (mobile bins or bins with carry handles for transport to the Ground Level waste room). Examples of appropriate bins include: ○ Residents (Level 13) ▪ 20L General Waste Bin; ▪ 20-40LComingled Recycling Bin; and ▪ 6/8L Organics bench-top or under-desk caddy. ○ Motel units (Levels 1-12) ▪ 10-20L General Waste Bin; and ▪ 20-30LComingled Recycling Bin. ○ Motel Reception/Office ▪ 20L under desk paper bin; ▪ Bin station with 20-40L bins for general waste and/ or recyclables; ▪ Separate confidential paper bin in stationery/photocopying area (if elected). ○ Motel Café ▪ 40-60L General waste & recycling bins; ▪ 20-30L Food organics bins; ▪ Set-down area for cardboard waste; and/or ▪ Bin Storage for other waste/recyclable streams.
STEP 2 - Disposal pathway	• Residents and Motel cleaners and/or staff would carry or transport waste and recycling via corridors and / or lift to shared waste storage area at Ground Level.
STEP 3 – Local Disposal Point	• Ground Level waste storage room with ▪ 3×660L Waste skip bins ▪ 2×660L Recycling skip bins ▪ 2×240L Organic waste MGBs ▪ Space for storage of other waste/recyclable items (e.g. deposit containers, batteries, printer cartridges, etc.)
STEP 4 – Transfer pathway	
STEP 5 – Central storage area	
STEP 6 – Collection pathway	• Option 1 – Toms Court: Pull-in, pull-out of bins by waste contractor from waste storage area to collection point on Toms Court • Option 2: Georges Parade: Pull-in, pull-out of bins by waste contractor from waste storage area to collection point on Georges Parade
STEP 7 –Collection	• Location – ▪ Option 1: Toms Court ▪ Option 2: Georges Parade
	• Frequency – All Services – Twice Weekly

[1] These steps and activities are presented in line with the 7-step waste management framework recommended in the South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Zero Waste SA, 2014).

5.4.2 On-call

5.4.2.1 Hard/E-Waste

Hard /E-waste storage and collection for all land-use activities would be managed by residents and/or tenants themselves. They would be required to organize with a private waste contractor for direct collection from their premises. The waste contractor would remove the hard waste and take it via corridors, Lift and Entry Lobby to collection point (see Figure 5-1) for loading on a Pantech-type truck.

A (small) temporary hard waste storage area, however, is available at Ground Level. This temporary area can be used by residents with permission of the Property Manager to place waste for collection when pre-arranged with a waste contractor.

The Building User Manual for Residents and Tenants will include advice on availability and / or organizing Hard /E-waste collection services.

Level 13 Residents may be able to access Council's at-call hard waste collection service if suitable location to place waste can be identified. The Property Manager should inquire with Council when the building becomes operational, see: www.cityofadelaide.com.au/city-living/home-property-management/waste-recycling/hard-refuse/.

5.4.2.2 Other

In addition, the Motel would organize at-call services for:

- Printer cartridges;
- Batteries; and
- Confidential paper bin (if service elected).

The storage for some of above items would be in the Reception/Office area or Waste Room.

5.4.3 External

Residents would be able to dispose of smaller waste items, such as printer cartridges, batteries and lighting, to publicly available external drop off points, which accept these materials.

The Building User Manual for Residents will include advice on external drop-off points.

5.4.4 Maintenance

From time to time, waste would be generated from maintenance activities (e.g. lighting replacement, repair work, etc.). These waste materials would be handled and disposed of by the contractor undertaking these services. [Dedicated on-site storage for these waste materials is therefore not needed.]

In addition, the Motel may have sanitary bins in the Ground Level toilet area. Collection and disposal of this waste would be contracted out to a maintenance service provider.

5.5 Presentation & collection

5.5.1 Collection access

Collection trucks would park in Toms Court or Georges Parade to collect waste form the proposed development (see Figure 5-1).

For the Toms Court collection point option, the trucks would enter in a forward direction from Halifax St, conduct a three-point turn at the (existing) access point to the unnamed public lane, then reverse into the Toms Court and park in front of the development (so that collection services can be delivered). Appendix 2 includes a swept path drawing with turning circles to illustrate collection truck access to this collection point.

For Georges Parade collection point option, the truck would enter from Carrington St in forward direction, perform a three-point turn at the Southern vehicular access point to the proposed Trims Development, then park towards the Southern end of Georges Parade[2]. Bins would be collected from the rear of the development and carted to the collection point via the unnamed rear private lane for emptying, then returned by the same path to the waste storage area. Appendix 2 includes a swept path drawing with turning circles to illustrate collection truck access to this collection point.

5.5.2 Collection vehicles

Table 5-5 below summarizes the type and size of collection trucks that would collect waste and/or recycling at the Development. These dimensions allow for most types of standard waste collection vehicles commonly used by commercial waste contractors in Adelaide.

The Community Corporation for 20 Toms Court will need to confirm with waste contractors when organizing services that their collection trucks can meet the access arrangements that have been provided for (via Toms Court and/or Georges Parade).

Table 5-5: Dimensions and clearance requirements for waste trucks servicing at this development

Type of Vehicle	Rear-lift truck	Pan-tech/skip/ flat-bed truck
Vehicle Dimensions	3.5m (h) x 2.7m (w) x 8.2-10m (l) (final dimensions depend on truck selection)	3.5 to <4m (h) x 2.7m (w) x 8-10m (l) (final dimensions on waste contractor and/or truck selection)
Vehicle turning circle	18-25m (depending on truck selection)	15 -25m (depending on truck selection)
Travel/Access provisions:	See Vehicle Dimensions above Vertical Clearance: 3.6-3.8m (depending on truck selection)	See Vehicle Dimensions above Vertical Clearance: 3.5 to <4m (depending on truck selection)
Operating provisions (when parked & loading)	Parking Space Length: 10-12m Vertical Clearance: Up to 3.9m (depending on truck selection & allowing for rear loading)	Parking Space Length: 10-14m Vertical Clearance: < 4m (depending on truck selection & allowing for rear bin / waste loading)

5.5.3 Collection Frequency

Table 5-3 included the collections required for the Routine (scheduled) services to the Development. There would be twice weekly collection of General Waste, Recycling and Organics. In addition, there could be periodic on-call collections for Hard/E-waste, which may occur once to twice a month (but frequency would depend on site demands). If the same waste contractor already providing services to nearby commercial properties or the proposed Trims development is used, this would avoid additional waste collection trucks impacting in traffic in the City and at these locations.

5.5.4 Collection Duration

Routine collection events to the proposed Development may range from 10 to 15 minutes. There are only up to 2 bins per service and the distance from waste storage area to collection point (in Toms Court or Georges Parade) is very short (<20-30m). The duration of a Hard waste collection events may be up to 10-30 min depending on type and number of items being loaded and where they need to be collected from.

[2] The expansion of Georges Parade will be made by an under-croft running the length of the proposed Trims development to Carrington St. The clearance of this under-croft is 4.2m which would accommodate waste collection trucks.

5.5.5 Collection scheduling

Collection events should be scheduled to occur outside of peak access hours to minimize associated traffic impacts on access via Toms Court and/or Georges Parade to nearby properties, as well as at times to minimize impacts on local amenity. These collection times should be determined before the building becomes operational based on advice from a Traffic Engineer, in consultation with Council, selected waste contractor, and other relevant authorities or stakeholders. Scheduling of collection will need to comply with the Environment Protection (Noise) Policy 2007 (South Australian Government, 2008) to avoid adverse impact on amenity. Final scheduling arrangements will be embedded into the waste collection contract agreement(s).

5.6 Transfer pathways

The transfer pathways for the WMS are described in Table 5-4 and the collection transfer pathway is also illustrated in Figure 5-1. The following is provided as a guide for sizing and designing these transfer pathways.

- *Disposal pathways –*
  - *User disposal – less than 30m and free of steps, no grades greater than 1:15, and cater for mobility impaired users.*
  - *Local disposal points to central storage – sufficient width to accommodate relevant bins or waste loads being transferred, free of steps, with no grades greater than 1:12*
  - *Collection – less than 15m with no grades greater than 1:10*
- *Corridor widths –*
  - *240L MGBs or smaller bins / loads – min. 1,000 mm (min. 1,200mm preferred)*
  - *660L skips and/or waste loads – min. 1,500mm*
- *Doors –*
  - *Local disposal access – 800mm*
  - *Transfer pathways– Appropriate to the size of bin to be transported, e.g.*
    - *240L MGB – min. 800mm*
    - *660L skip – min. 1,000mm (1,200mm recommended)*
- *Floors – Hard surfaces where bins and skips are to be carted*
- *Lifts – All lifts should be sized to allow for bulky hard waste items.*

These requirements for transfer pathways in the Development appear to be generally satisfied in current plans. All transfer pathways shall be reviewed and confirmed at detailed design stage to ensure they are appropriate. This will include size and type of service lift and sizing of access doors and corridors.

5.7 Other facility design and operating requirements

5.7.1 Detailed design

The Developer will obtain appropriate engineering advice and design data for waste management equipment and associated infrastructure and building services (e.g. electrical, water, ventilation, etc.) from relevant suppliers to finalize design specifications and spatials during building detailed design, to ensure that the waste management system can be installed and function and operate as proposed in this WMP. This will include the achieving following design and operating requirements or outcomes. Council may also provide advice and assistance with design of these facilities.

5.7.2 User Storage

Residents will need appropriate bins located in their kitchens for local storage of waste and recycling. These bins will need to be equipped with carry handles and suitable for safely transporting waste and recycling from dwellings to the waste storage room at Ground Level. Council provides examples and advice on the type of bins that are suitable (see Appendix 1), which should be followed.

User storage for other land uses should be decided during detailed design in conjunction with the Architect and Motel operator.

5.7.3 Signage

Appropriate signage will be used at the disposal points in the waste storage area to ensure correct disposal of waste and recyclable materials. These will conform to the signage requirements recommended in the South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Zero Waste SA, 2014). Council should be consulted and may also provide advice and assistance with signage that is required (see Appendix 2 for examples).

5.7.4 Collection bin design and colours

Colours of bins used for collection will conform to the Australian Standard for Mobile Waste Containers (AS 4213). Adelaide City Council should be consulted on selection of bin colours.

5.7.5 Bin cleaning

Bin cleaning will be contracted out to an external provider (to perform off-site). Bins removed for cleaning will be temporarily replaced with a spare (of same size and type). Collection contractors should allow for manually wiping bins down during collection events when needed and an appropriate interim method to keep bins clean.

5.7.6 Vermin, hygiene & odour management (including ventilation requirement)

An inspection and cleaning regime will be implemented by the Community Corporation to ensure that surfaces and floors in the waste storage area are kept clean and hygienic and free of loose waste and recycling materials. This will include:

- Surface clean and sanitize floors, surfaces and walls on a weekly basis; and
- Ensuring that any spillages are cleaned up immediately and sanitized.

To minimize odours emanating from bins, bin lids should be closed after use. This requirement should be part of resident and Motel operator obligations included in By-Laws and/or tenant lease / rental agreements.

It is recommended that a CCTV system is installed to facilitate compliance and correct use of the shared waste storage area by residents.

The waste storage area will be equipped with an extraction fan, venting to atmosphere, to prevent odour build up. The vent location will be selected to avoid impact on residents, tenants and/or neighbours. The waste storage area shall also be air-conditioned to maintain it at moderate temperatures (<25°C) during hot weather conditions, to minimize odours that might be generated by putrescible matter.

5.7.7 Handling Peak Periods

This WMS and its storage areas for waste have been designed to handle typical peak week generation rates of waste and recyclables. However, there may be some periods during the year (e.g. Christmas, Easter), when volumes might potentially exceed these design values. An additional collection (e.g. three in one week) can be scheduled during these periods.

5.7.8 Grease trap waste

This liquid waste stream is not considered in this report, and if relevant to the proposed development, will be addressed separately as part of Building Services assessment.

6 Operation and management

6.1 Management & Operating Responsibility

The Community Corporation will be responsible for managing and operating the WMS for the Development (including appointing property management staff).

6.2 Communication strategy

Provision will be made to provide education and training in use of the WMS as follows. Adelaide City Council should be consulted and may aid with providing communication advice and education support on waste management for this purpose.

6.2.1 Residents, tenants &/or Motel cleaners and staff

This will include:

- Waste management advice / instructions in resident's Building User Manual located in each apartment;
- First-day training when new resident or Motel cleaner and/or staff member arrives (including expected or required waste and recycling management and disposal practices);
- Annual follow-up reminder/refresher notices which may include results of audit/monitoring (if conducted).

6.2.2 Property Management staff

A separate training and education program for property management staff appointed by the Community Corporation will be undertaken, to ensure that they are able to effectively perform waste management responsibilities, including training and hygiene and odour inspection and management activities and managing temporary Hard/E-waste area.

6.3 Building User Manual

The Building User Manual for residents will include:

- Roles and responsibilities for residents, Property Management staff and collection contractors;
- Instructions for correctly using the waste storage area and disposing of waste and recycling in the bins provided;
- Relevant health and safety advice; and
- Contact information for further information, questions and issues or to report problems.

6.4 Community Title arrangements

Obligations for residents, Motel operator and/or property owners to comply with requirements for proper waste management (in line with this WMP) will be written into the By-Laws.

6.5 Emergency response plan

Property Management will develop an emergency response plan to manage waste or related issues at the proposed Development, including for the following specific events.

- Collection service(s) not available
- Power and ventilation failure

6.6 Waste audits

Waste contractors may specify minimum levels of contamination in Recycling and Organic waste collected from the development. The Community Corporation may therefore need to undertake audits (which may be performed by the waste contractor or independently) to confirm that these contamination levels are not exceeded. In event that they are, the Community Corporation may need to organize for additional training and regular monitoring of resident use of the waste management system to ensure compliance.

7 References

D. Bland, C. -W. (2016, October 27). Waste Management options - 20 Toms Court. (C. Colby, Interviewer)

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Government of South Australia. (2011, November 24). Environment Protection (Waste to Resources) Policy 2010.

South Australian Government. (2008). *Environment Protection (Noise) Policy 2007 under the Environment Protection Act 1993, Version: 31.3.2008.* Retrieved from http://www.legislation.sa.gov.au/

Zero Waste SA. (2014). South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments.

Appendix 1: Council Tenancy Guide to Waste & Recycling

Appendix 2: Collection truck swept path modelling & turning circles for collection point Option 1 – Toms Court & Option 2 – Georges Parade

(see separately attached PDF file)

PEDESTRIAN WIND ENVIRONMENT STATEMENT

20 TOMS COURT, ADELAIDE

WD592-02F01(REV1)- WS REPORT

APRIL 23, 2018

Prepared for:

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DOCUMENT CONTROL

Date	Revision History	Issued Revision	Prepared By (initials)	Instructed By (initials)	Reviewed & Authorised by (initials)
March 23, 2018	Updated for latest design.	0	TH	KP	TH
April 23, 2018	Updated for latest design.	1	TH	KP	TH

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EXECUTIVE SUMMARY

This report is in relation to the proposed development located at 20 Toms Court, Adelaide, and presents an opinion on the likely impact of the proposed design on the local wind environment to the critical outdoor areas within and around the subject development. The effect of wind activity is examined for the four predominant wind directions for the Adelaide region; namely the north-easterly, south-westerly, westerly and north-westerly winds. The analysis of the wind effects relating to the proposed development was carried out in the context of the local wind climate, building morphology and land topography.

The conclusions of this report are drawn from our extensive experience in this field and are based on an examination of the architectural drawings which have been prepared by the project architect ADS Architects, received on April, 2018. No wind tunnel testing has been undertaken for the subject development, and hence 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 on our extensive experience in the study of wind environment effects.

The results of this assessment indicate that wind conditions within the ground level pedestrian footpaths and the various motel and private balconies are expected to be acceptable for their intended uses. The pedestrian footpaths benefits from the shielding provided by the subject and neighbouring buildings and the narrow aspects fronting the footpaths minimises the potential down-wash wind effects off the building façade. Similarly the private balconies benefits from the shielding from the subject and neighbouring buildings, as well as incorporating effective wind mitigation elements into the design of the balconies. These include recessing the balconies into the building footprint and full-height impermeable blade walls along the short perimeter edges of the balconies.

The inclusion of the proposed high-rise towers located at 322-336 King William Street to the north is expected to provide additional shielding to the outdoor trafficable areas along the western aspect of the site to the prevailing north-westerly winds and a marginal impact to the outdoor trafficable areas along the eastern aspect of the site. The wind conditions within the various outdoor trafficable areas however are expected to be acceptable for its intended uses with the inclusion of the proposed high-rise towers at 322-336 King William Street.

Furthermore, as a general note, the use of loose glass-tops and light-weight sheets or covers (including loose BBQ lids) is not appropriate on high-rise outdoor balconies or terraces. Lightweight furniture is not recommended unless it is securely attached to the balcony or terrace floor slab.

1 DESCRIPTION OF THE DEVELOPMENT AND SURROUNDINGS

The development site is located at 20 Toms Court, Adelaide, and is bound by Toms Court to the east, George Parade and a Public Road to the west, and low-rise neighbouring buildings to the north and south varying up to three storeys in height. It should be noted the neighbouring building to the north located at 322-336 King William Street is proposed to be redeveloped into two 31 storey high mixed used towers. Surrounding the immediate vicinity of the site are low-rise commercial and retail buildings varying up to three storeys in height. The site is located near the centre of the Adelaide CBD that is comprised predominantly low to mid commercial/retail buildings and with open parkland and high-rise towers interspersed throughout. A survey of the local land topography indicates a general decline towards the north of the site to the River Torrens. An aerial image of the site and the surroundings is shown in Figure 1.

The proposed development consists of a 14 storey high mixed-use building with a commercial tenancy, lobby area and refuse/bicycle storage area proposed on the ground floor, residential tenancies on the top floor and motel tenancies on the remaining floors.

The critical trafficable outdoor areas associated with the proposed development, which are the focus of this assessment with regards to wind effects, are detailed as follows:

- The ground level pedestrian footpaths along the Public Road and Toms Court.
- Motel and Private balconies throughout the development.

Figure 1: Aerial Image of the Site Location

2 WIND CLIMATE OF THE ADELAIDE REGION

The Adelaide region is governed by four principle wind directions, and these can potentially affect the subject development. These winds prevail from the north-east, south-west, west and north-west. A summary of the principal time of occurrence of these winds throughout the year is presented in Table 1. This summary is based on an analysis of data recorded from 1955 to 2002 obtained by the Bureau of Meteorology from the meteorological observation station located at Adelaide Airport.

Table 1: Principal Time of Occurrence of Winds for the Adelaide Region

Month	Wind Direction			
	South-Westerly	Westerly	North-Westerly	North-Easterly
Summer	X			
Autumn	X	X		X
Winter	X	X	X	X
Spring	X	X		X

A directional plot of the annual and weekly recurrence winds for the Adelaide region is shown in Figure 2. The frequency of occurrence of these winds is also shown in Figure 2. This plot has been produced based on an analysis of 48 years of recorded directional mean wind speed data (from 1955 to 2016) obtained from the meteorological observation station located at Adelaide Airport.

The strongest winds in Adelaide tend to occur during the spring season and are predominantly from the south-westerly through to the westerly and the north-easterly directions. Westerly through to north-westerly winds do not occur frequently, however when they do occur they tend to be fairly strong, which is usually during the afternoons of the winter months. Winds from the south-west are by far the most frequent and occur throughout the entire year.

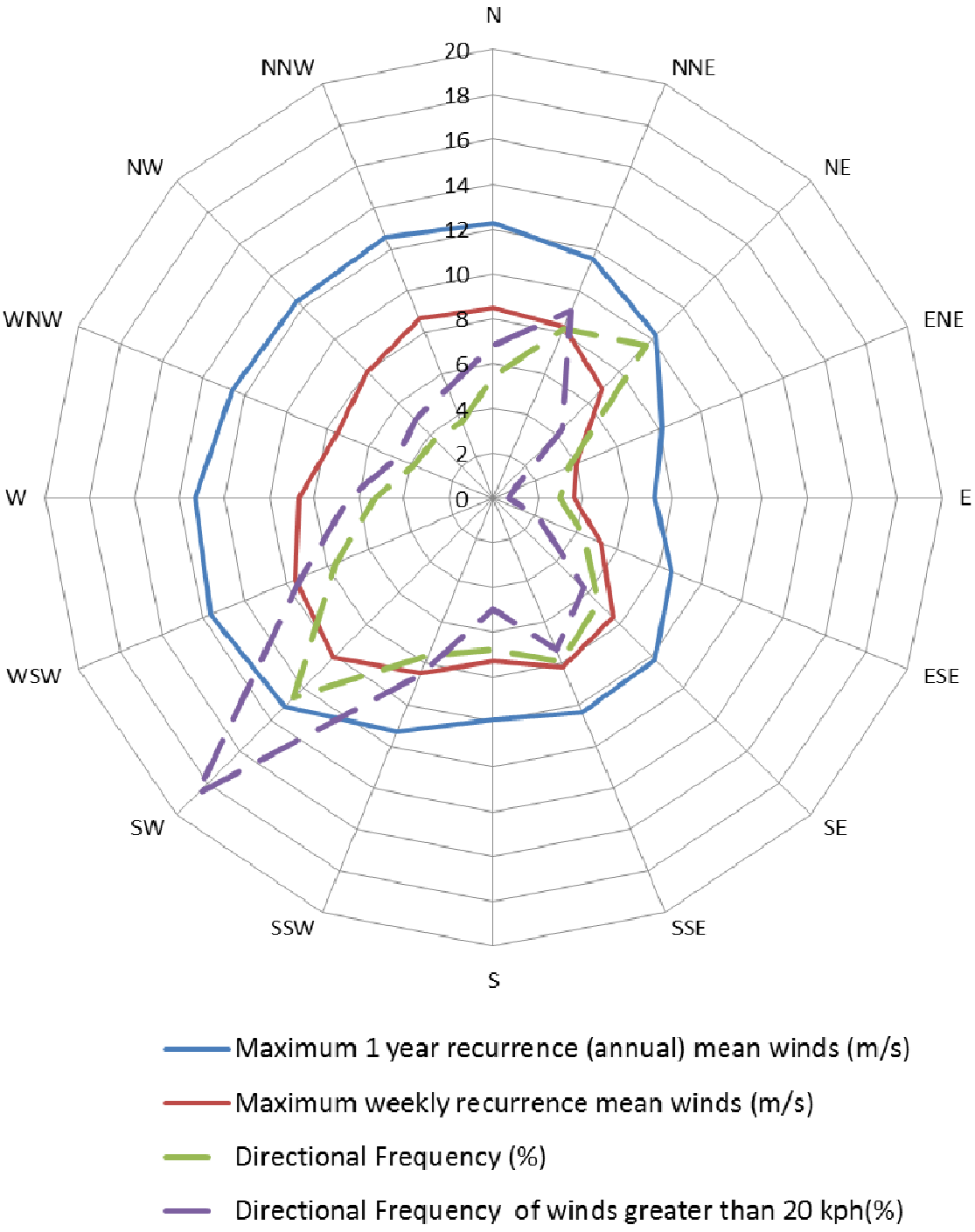


Figure 2: Annual and Weekly Recurrence Mean Wind Speeds, and Frequencies of Occurrence, for the Adelaide Region

3 WIND EFFECTS ON PEOPLE

The acceptability of wind in any area is dependent upon its use. For example, people walking or window-shopping will tolerate higher wind speeds than those seated at an outdoor restaurant. Various other researchers, such as Davenport, Lawson, Melbourne, Penwarden, etc, have published criteria for pedestrian comfort for pedestrians in outdoor spaces for various types of activities. Some Councils and Local Government Authorities have adopted elements of some of these into their planning control requirements in Australia.

The following table is an example, which was developed by Penwarden in 1975, and describes the effects of various wind intensities on people. Note that the applicability column relates to the indicated wind conditions occurring frequently (exceeded approximately once per week on average). Higher ranges of wind speeds can be tolerated for rarer events.

Table 2: Summary of Wind Effects on People (Penwarden, 1975)

Type of Winds	Mean Wind Speed (m/s)	Effects	Applicability
Calm, light air	0 - 1.5	Calm, no noticeable wind.	Generally acceptable for Stationary, long exposure activities such as in outdoor restaurants, landscaped gardens and open air theatres.
Light breeze	1.6 - 3.3	Wind felt on face.	
Gentle breeze	3.4 - 5.4	Hair is disturbed, Clothing flaps.	
Moderate breeze	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	8.0 - 10.7	Force of wind felt on body.	Acceptable as a main pedestrian thoroughfare
Strong breeze	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	13.9 - 17.1	Inconvenience felt when walking.	
Gale	17.2 -20.7	Generally impedes progress, Great difficulty with balance.	Unacceptable as a public accessway.
Strong gale	20.8 - 24.4	People blown over by gusts.	Completely unacceptable.

It should be noted that wind speeds can only be accurately quantified with a wind tunnel study. This assessment addresses only the general wind effects and any localised effects that are identifiable by visual inspection and the acceptability of the conditions for outdoor areas are determined based on their intended use (rather than referencing specific wind speeds). Any recommendations in this report are made only in-principle and are based on our extensive experience in the study of wind environment effects.

4 RESULTS AND DISCUSSION

The expected wind conditions are discussed in the following sub-sections of this report for the various outdoor areas within and around the subject development for each of the four predominant wind directions for the Adelaide region. The interaction between the wind and the building morphology in the area is considered and important features taken into account including the distances between the surrounding buildings and the proposed building form, their overall heights and bulk, as well as the surrounding landform. Note that only the potentially critical wind effects are discussed in this report.

4.1 Pedestrian Footpaths along the Public Road and Toms Court

The wind conditions on the pedestrian footpath along the Public Road and Toms Court frontage of the site is expected to be acceptable for its intended uses due to the shielding provided by the subject and neighbouring buildings. Downwash effects from the subject building to the ground level pedestrian footpaths of the Public Road and Toms Court are expected to be minimal due to the alignment of the building with the narrow aspects of the tower facing the west and east respectively.

The inclusion of the proposed high-rise towers located at 322-336 King William Street to the north is expected to provide additional shielding to the pedestrian footpath along the Public Road to the prevailing north-westerly winds and a marginal impact to the pedestrian footpath along Toms Court. The westerly winds may potentially be exacerbated due to the corner accelerations around the proposed towers, however suitable conditions are expected to be maintained along the pedestrian footpath due to the narrow western aspect minimising the potential adverse wind effects.

4.2 Motel and Private Balconies

The wind conditions for the various motel and private balconies are expected to be tolerable for their intended use due to the shielding provided by the subject building, recessed design into the building footprint and the effective use of wind mitigating devices into the design of the development such as the inclusion of full-height impermeable blade walls along the short perimeter edge. The inclusion of the proposed balustrades along the perimeter of the balconies is expected to further enhance the wind conditions. Hence these features are recommended to be retained in the final design of the development.

The inclusion of the proposed high-rise towers located at 322-336 King William Street to the north is expected to provide additional shielding to the private balconies along the western aspect to the prevailing north-westerly winds and a marginal impact to the private balconies along the eastern aspect of the tower. However with the inclusion of the full-height impermeable blade walls along the short perimeter edge of the balconies as indicated in the architectural drawings the wind conditions within the private balconies are expected to be tolerable for its intended uses.

Furthermore, as a general note, the use of loose glass-tops and light-weight sheets or covers (including loose BBQ lids) is not appropriate on high-rise outdoor balconies or terraces. Lightweight furniture is not recommended unless it is securely attached to the balcony or terrace floor slab.

LUCID
CONSULTING AUSTRALIA

RESIDENTIAL DEVELOPMENT

20 TOMS COURT, ADELAIDE

Project No: LCE11865

Sustainability Report

April 2018

1 INTRODUCTION

1.1 PROJECT OVERVIEW

The proposed residential development at 20 Toms court (Adelaide) is a mixed use Class 2, Class 3 and Class 6 development under the National Construction Code, and comprises:

- Ground floor: Entry lobby, back of house/deliveries space, bin room and commercial tenancy (mixed class 3 and class 6)
- First floor: 3 hotel suites, a plant room, a storage room and a cleaner's closet (class 3)
- Second floor: 3 hotel suites, a plant room and hotel storage (class 3)
- Third, fourth, sixth, eighth, tenth, twelfth floors: 6 hotel suites (class 3)
- Fifth, seventh, ninth, eleventh: 5 hotel suites including one DDA hotel suite per floor (class 3)
- Thirteenth Floor: 4 apartments (class 2)
- A total of 62 hotel suites in the building (class 3)
- A total of 4 apartments in the building (class 2)

The following figure shows the site's location.

Site plan showing location of proposed building (Source: Google maps)

1.2 OBJECTIVES

This report outlines the sustainability initiatives that are proposed for the development.

The intent of each initiative is to add value to the project by improving the environmental performance of the development. Collectively, these initiatives will: -

- Reduce energy and water consumption;
- Reduce the ecological footprint of the building and its occupants;
- Improve thermal comfort and air quality within the building; and
- Improve occupant well-being.

1.3 ECOLOGICALLY SUSTAINABLE DESIGN

The following initiatives have been adopted and incorporated into the design of the building: -

- High performance building envelope; wall, floor and roof insulation R-values to meet best practice guidelines
- Energy efficient glazing selected with consideration of building-specific features and climatic conditions
- Apartment (thirteenth floor only) NatHERS energy ratings to exceed BCA minimum requirement
- Use of large balconies to shade glazing on western and eastern facades
- Energy efficient massing with minimal exposed ceilings and floors (L3 to L13 are identical)
- LED lighting throughout
- Water efficient fittings and fixtures
- High efficiency air conditioning equipment with non-ozone depleting refrigerants

The following initiatives are the primary Ecologically Sustainable Design (ESD) features of the Queen Street apartment development and are described in further detail in this report:

- Efficient building thermal envelope;
- Provision of shading;
- Energy efficiency initiatives

2 PRIMARY SUSTAINABILITY INITIATIVES

2.1 EFFICIENT BUILDING THERMAL ENVELOPE

An efficient building envelope is a highly robust feature as its benefits will be constant throughout the life of the building and are largely independent of the behaviour of the occupants. The performance of wall, floor and ceiling/roof insulation is to meet best practice guidelines.

Specification of glazing units will consider the thermal requirements of each hotel and apartment, the orientation of the building, and the Adelaide climate. As a result, apartments benefit from free heating provided by the sun during winter while solar heat gains are minimised during summer.

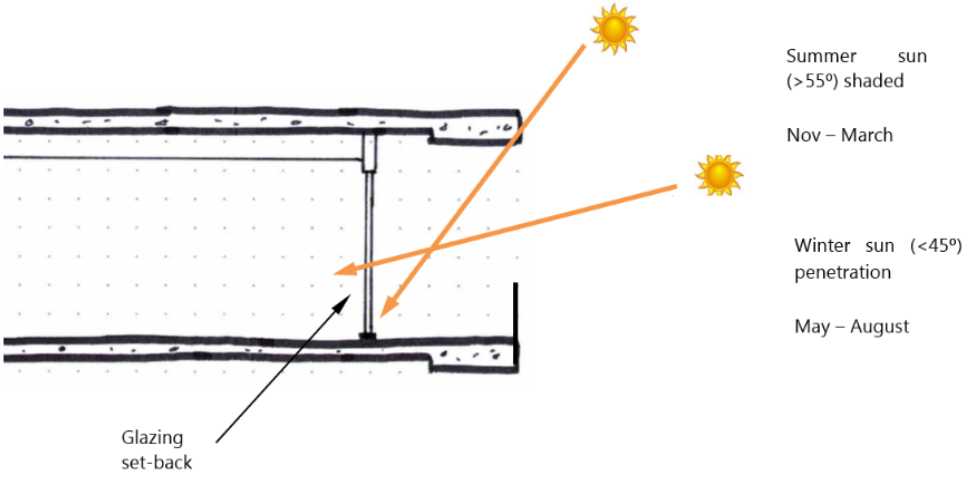
The massing has been optimised and the floor layout of Levels 3 to 13 are the same, which minimises the area of exposed floors and ceilings within apartments. Insulation will be applied to all exposed surfaces including ceiling slab soffit of the foyer and fire escape corridor.

2.2 PROVISION OF SHADING

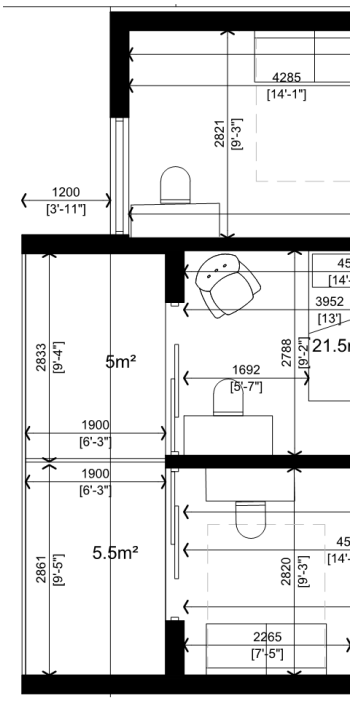
In this proposed development, the entirety of the glazing, is oriented either east or west. As such, it is important to provide shading to the windows to minimise solar loads in summer.

As such, shading has been a key consideration during the design of the apartment layouts. The following strategy that has been implemented for the western and eastern facade:-

- set-back of windows from the facade using balconies, which provides effective shading in summer.



Typical shading strategy on western and eastern facades



Extract from floor plans showing the set-back of glazing from the western facade/boundary.

This shading strategy and the use of high performance low-E coating significantly reduce the solar gains and cooling loads in summer. Hotel suites and apartment 1, facing east and hotel suites 6 and apartment 4, facing west at Level 2 to 13 have no external shading however they benefit from the high level of solar control provided by the proposed glazing systems.

2.3 ENERGY EFFICIENCY INITIATIVES

In the proposed development, there are several energy efficiency initiatives being proposed to complement the passive design features:-

- High efficiency heat recovery air conditioning systems to take advantage of the opposing thermal zones on the east and west facades
- Low energy luminaires such as LED fittings used throughout the building
- Water efficient fixtures and fittings to reduce the water consumption below the average dwelling water consumption. Refer to the below table for the average water consumption to be improved upon:-

Equipment	Average Dwelling	
	Flow Rate	Daily Consumption (per person)
Taps	9.0 L/min	48 L
WC's	8.0 L/flush	48 L
Showers	15.0 L/min	135 L
Total		231 L

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02/03/2017

Karidis Corporation Ltd
49 Angas Street
ADELAIDE SA 5000

19215-3-LET-MP-MP

Dear Greg

20 TOMS COURT, ADELAIDE

The Karidis Group propose to develop the afore mentioned site with a new apartment building. This letter explains the manner in which the stormwater will be managed from the site.

The site is flanked by existing buildings to the northern and southern boundaries and a private road to the west. The site is proposed to front onto Toms Court to the east and also has street connection to George Parade in the north-western corner of the site.

The levels of Toms Court and George Parade fall away from this particular site. As such we can set the FFL of the proposed building to match the existing footpath levels. There can be no major overland stormwater flows flowing past the site as we are at the highest point of the stormwater system. The exact FFL will be determined during detailed design when survey information becomes available.

There is no formal underground council stormwater system immediately adjacent the property. The closest council catch pit is located at the end of each of the adjoining streets. Given this all stormwater must discharge directly to the street water table fronting the property. We will endeavour to share as much of the stormwater between Toms Court and George Parade. The final discharge locations and rates will be determined during detail design in the future.

Whilst the above summary is somewhat generic in the information provided, it gives a firm direction on how the stormwater will be managed moving forward. In effect, the manner in which the stormwater from the post development site will be almost identical to the pre-devloped site conditions.

If you have any questions in regards to any of the above, please contact the undersigned on the information provided

Yours faithfully
PT DESIGN

MATTHEW PRIMER
CIVIL DESIGNER

LUCID
CONSULTING AUSTRALIA

20 TOMS COURT, ADELAIDE

SERVICES UTILITIES INFRASTRUCTURE REPORT

Date: 19 April 2018

Document Number: LCE11865-002B

DOCUMENTATION ISSUE REGISTER

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-	Issued for Client Approval	29 November 2016	GC / ST	PC
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B	Minor Revisions	19 April 2018	PC	PC

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1 INTRODUCTION

The purpose of this report is to provide preliminary information in relation to the Services Utilities infrastructure located adjacent the subject development site, and to confirm that sufficient investigations have been carried out with the Services Utilities to verify that sufficient capacity is available or can be made available to service the proposed residential development at 20 Toms Court, Adelaide.

1.1 PROJECT OVERVIEW

The proposed multi-storey residential development will be configured as follows;

Ground Level:	Entry Lobby + Café
	Lift Lobby
	Bag Store
	Ablutions Area
	Refuse Area
	Motel Back-of-House and Office area
Level 1:	3 x Motel Suites
	Café Store
	Cleaners Room
	Fire Pump Room
Levels 2	3 x Motel Suites
	Motel Storage & Back of House
	Hydraulic Services Plantroom
Levels 3 -12 inclusive:	Motel accommodation – total 58 Motel suites comprising;
	8 x levels – 6 Motel Suites per level 2 x levels – 5 Motel Suites per level
Level 13	4 x Apartments (Class 2)

In summary the proposed residential development will comprise a total number of 64 Motel suites and 4 apartments.

2 ELECTRICAL INFRASTRUCTURE

2.1 EXISTING SA POWER NETWORKS SERVICES

2.1.1 EXISTING BUILDING SUPPLY

The existing building is currently fed via an underground low voltage connection derived from South Australian Power Networks (SAPN) underground infrastructure located in Toms Court, to the east of the allotment. The existing supply is estimated to be 63 amps three phase. The existing power supply terminates onto a fuse enclosure mounted at high level on the eastern façade of the building with outgoing sub mains cabling from the service fuse enclosure extending to the building switchboard.

Figure 1: Existing 3phase supply to existing building

2.1.2 OTHER EXISTING SA POWER NETWORKS ASSETS

The nearest SAPN high voltage infrastructure is located within George Parade.

The George Parade underground high voltage infrastructure supplies a 500kVA SAPN pad mounted transformer located within the Police Credit Union building. George Parade is a privately-owned carriageway forming part of the Police Credit Union building (PCUB) landholding and for which the associated Land Title includes easement rights over George Parade for 'Electricity Supply'. SAPN have also acknowledged that they have easement rights over George Parade.

Customers in Toms Court are serviced by a low voltage underground connection off Halifax Street.

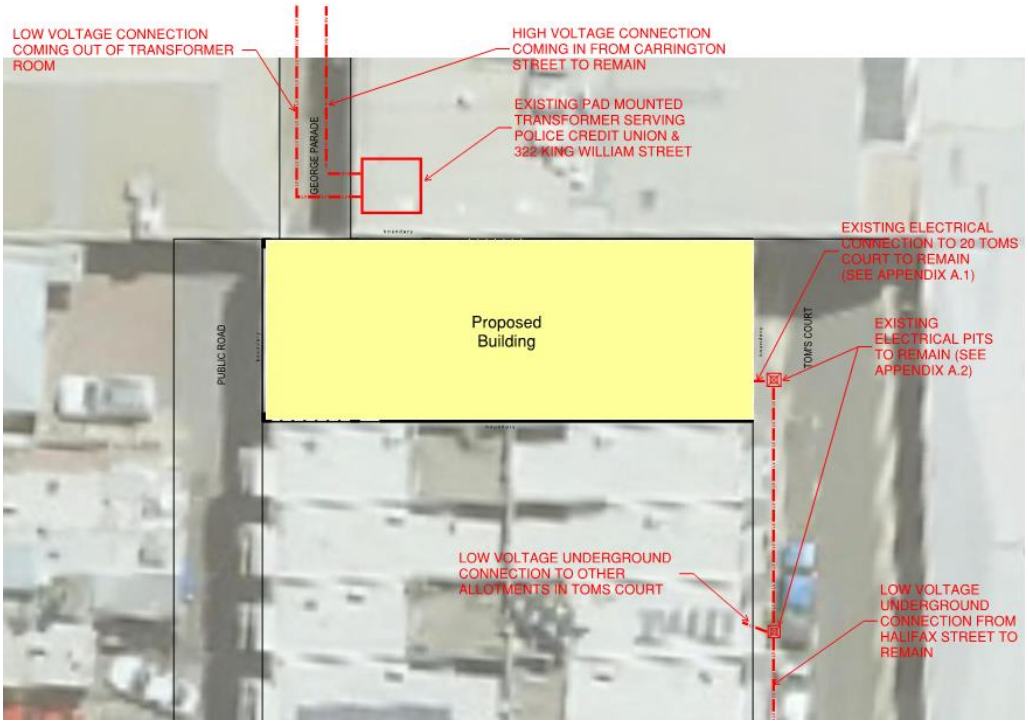

Figure 2: Existing 3 phase supply to existing building

2.2 EXISTING STREET LIGHTING

Two (2) and three (3) off existing street lights located to the west and east of the development site respectively will not be affected by the planned development, as the lights are not a part of the existing building (Figure 3).

It is not proposed to modify the street lighting, nor will the construction of the building affect the serviceability of the existing lights.

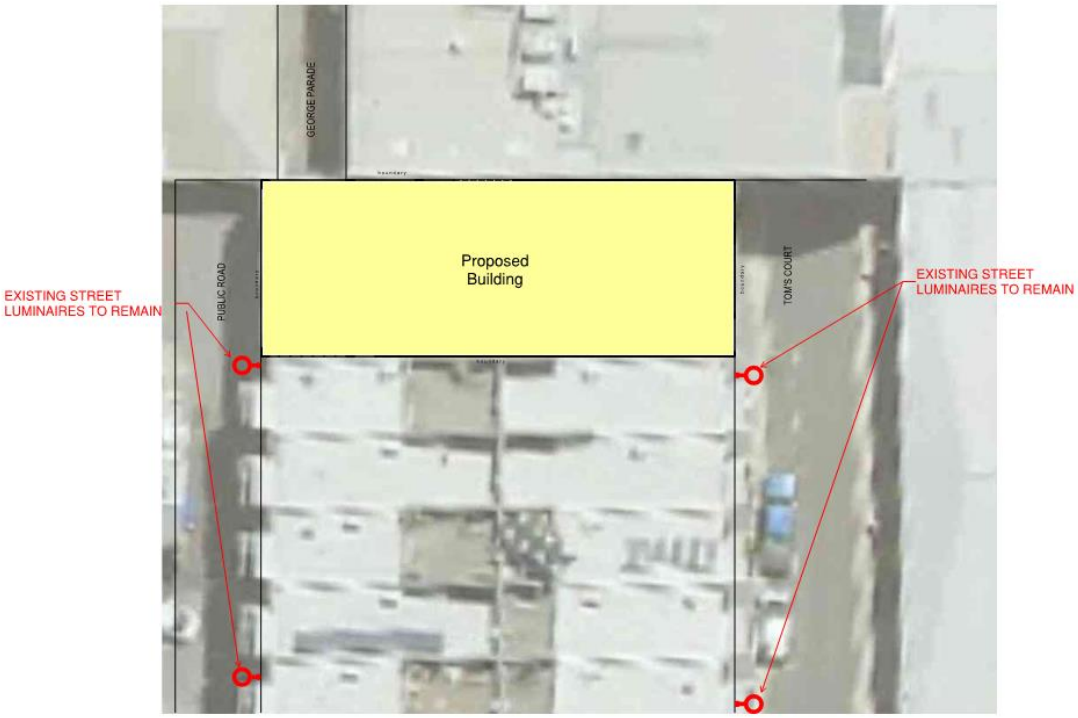

Figure 3: Existing street lighting for Toms Court

2.3 PROPOSED SA POWER NETWORKS SUPPLY

The load of the proposed building is estimated to be in the order of 250 amps three phase. As this is significantly larger than the existing supply, reuse of the existing power supply connection is not possible.

Lucid met with the SA Power Networks assigned project officer to review possible options for supplying power to the proposed new building. The following options were reviewed;

1. **New On-site Transformer -** The establishment of a new on-site transformer on the site. It was agreed that with such a small site footprint area, this option would be very onerous on the ground floor spatial planning and as such this option has been discounted.
2. **Upgrade Existing Transformer in Toms Court** – This option was confirmed by SAPN as not being technically feasible from the existing SA Power Networks infrastructure. This option would **require** replacement of the existing transformer in the neighbouring PCUB building which is not feasible with the current transformer room size. This option would be costly and would require agreement from the various stakeholders connected to transformer. This option will not be pursued.
3. **New Low Voltage Supply** – This option consists of connecting to the existing transformer located within the PCUB and extending a new low voltage cable from the existing PCUB transformer. SAPN have assessed the current load on this transformer and have confirmed that subject to **the** load associated with the existing power supply connection to 322 King William Street being disconnected from this transformer, there will be sufficient capacity to cater for 20 Toms Court. The client Karidis Corporation, who also owns the currently vacant 322 King William Street allotment has confirmed that disconnection of the existing power supply from this connection point is acceptable and they will make other arrangements to service the vacant building.

Option 3 is the preferred solution and has been confirmed by SA Power Networks as being technically acceptable. Option 3 involves the least disruption to the existing SAPN network and is considered the optimum solution. SA Power Networks have also confirmed that the building load will be limited to 350 amps three phase (maximum) with no scope to increase the load in the future. This is considered acceptable. Refer Figure 4 below for details of proposed power supply arrangement to service the new building.

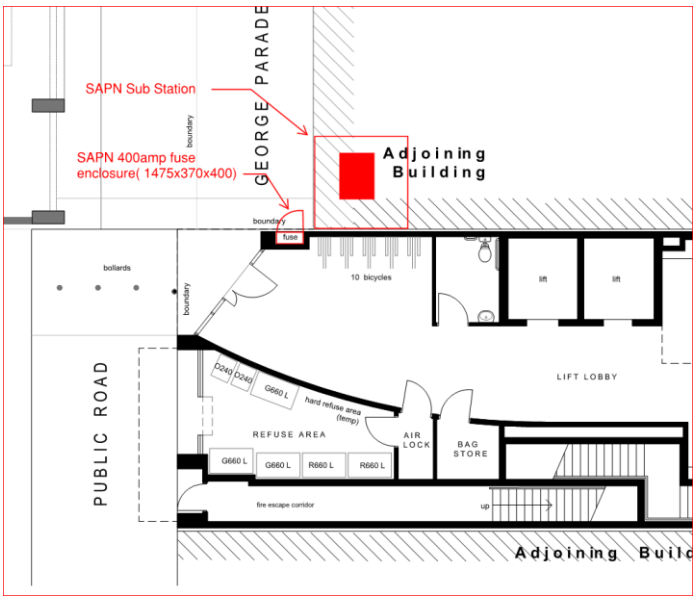

Figure 4: Proposed Electrical Supply Arrangement

3 COMMUNICATIONS INFRASTRUCTURE

3.1 EXISTING COMMUNICATIONS INFRASTRUCTURE

Underground communication conduits are located within Toms court. The existing underground communications cables provided to the development site as shown in figure 5. Telstra have provided two 30mm Galvanised Iron conduits (GI30) containing a 10-pair and 2 x 10-pair and a 30-pair cable respectively between 5 and 4-pits, 40.7m apart in Toms Court. Telstra have also provided two 30mm Galvanised Iron conduits (GI30) containing M741-750-pair and 10PR-pair and a 2x10PR-pair cable respectively between 3 and 5-pits, 32.2m apart in Toms Court. A 15mm Galvanised Iron (GI15) conduit is provided to the development site containing a 10-pair cable from a 3-pit, terminating at 6m (figure 5).

The nearest existing NBN Co fibre cabling is located along King William Street with an existing pit connection at the corner of King William and Halifax Street intersection. The proposed development at 20 Toms Court will comprise of 64 Motel Suites (1 x NBN connection) and 4 apartments (4 x NBN connections) and 2 x Lift phone lines (2 x NBN connections). Total 7 x NBN connections.

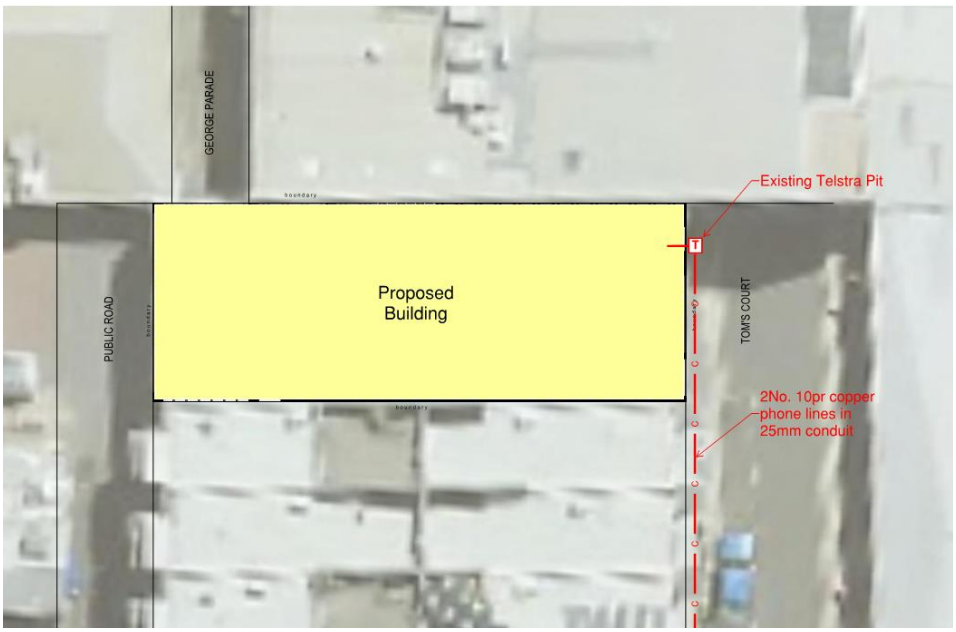

Figure 5: Existing communications infrastructure

3.2 PROPOSED COMMUNICATIONS INFRASTRUCTURE

New developments within the CBD are to be submitted to NBN for consideration for a fibre optic connection for phone and internet services. Other providers are available; however, they are generally at a higher cost than NBN as NBN services are government subsidised.

An application has been lodged with NBN and verbal advice receive that the project will be accepted as an NBN site. NBN will assess the existing street infrastructure and determine the most efficient method of providing a connection to the site. Upon completion of detail design, NBN will confirm whether backhaul charges are applicable in addition to standard NBN connection fees.

4 SEWER INFRASTRUCTURE

4.1 EXISTING SEWER INFRASTRUCTURE

SA Water Corporation (SAWC) were requested to investigate the capacity of the existing waste water (sewer) infrastructure adjacent the subject development site, based on advice in relation to increased site fixture loading as related to the planned residential development. SA Water Corporation have since confirmed that the infrastructure has sufficient capacity to cater for the development without need for upgrade to the existing street sewer mains.

Current discussions with SAWC are based on the establishment of a new sewer connection to service the development via connection to the existing sewer mains located in the Public Road adjacent Toms Court. Preliminary assessment indicates that one (1) new 150mm sewer connection is required to service the development via connection to the sewer mains located in the Public Road.

The existing 100mm diameter sewer connection currently servicing the subject development site is unsuitable for reuse and will be disconnected by SA Water Corporation.

4.2 SEWER CONNECTION

The proposed new 150mm sewer connection to service this development will incorporate a government inspection point in the adjoining council reserve in the Public Road on the western side of the building. Refer Figure 6 below for details of existing SAWC sewer infrastructure located in the western Public Road abutting the rear of the proposed building at 20 Toms Court, Adelaide.

SAWC have confirmed approval and costing for the upgrade to the sewer connection.

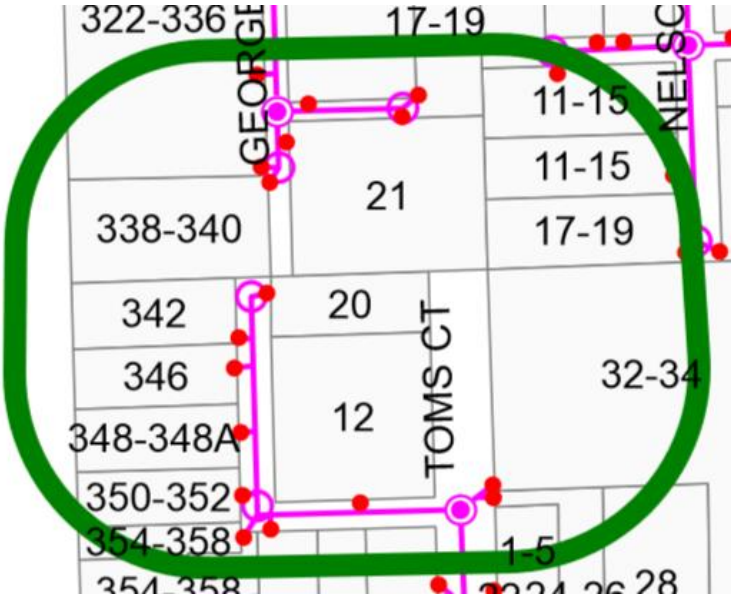

Figure 6: Existing SA Water Sewer Map

5 DOMESTIC COLD WATER INFRASTRUCTURE

5.1 EXISTING DOMESTIC COLD WATER INFRASTRUCTURE AND PROPOSED UPGRADE

SA Water Corporation (SAWC) were requested to investigate the capacity of the existing town water mains infrastructure adjacent the subject development site, based on advice in relation to increased site peak water demand, as related to the planned development. SA Water Corporation.

SAWC have since confirmed that they are applying the requirements of the Water Services of Australia Associated (WSAA) requirements to all projects. WSAA technical standards stipulate that for buildings in excess of 8 storeys, the minimum size of towns mains that a water and fire connection can be derived from is 200mm diameter. Accordingly, SA Water Corporation have confirmed costs to upgrade the existing towns mains in Toms Court from 100mm to 200mm diameter.

The existing building is currently serviced via one (1) off 20mm water meter with connection to the 100mm towns water main in adjacent Toms Court. The Toms Court water main is fed from a 200mm SA Water Corporation town's main in Halifax Street.

The existing water meter will be disconnected by SAWC following temporary use to serve builder's site amenities.

SAWC will establish one (1) off new 50 mm diameter domestic water connection to the site. The new connection will be derived off the proposed upgraded water main in Toms Court.

The new water meter will be housed in a cast iron footpath box by SAWC. The incoming water mains extending from the proposed new 50mm water meter will extend to a break tank and associated domestic cold water pressure pump assembly. The pressure pump will service the upper residential levels while the ground floor Café and common area facilities on ground floor will be serviced directly off town's mains water pressure.

SAWC have approved and provided preliminary cost advice for the proposed new water connection and disconnection of existing redundant service. Refer Figure 7 for details of proposed servicing arrangement.

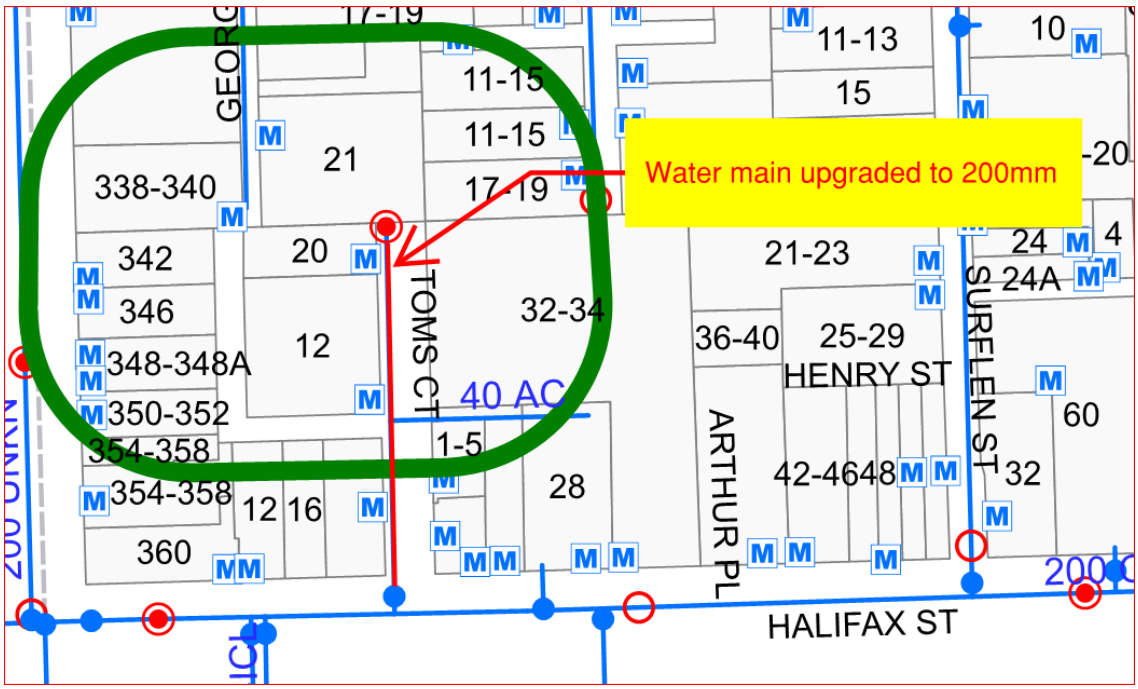

Figure 7: Proposed Upgrade to SAWC infrastructure and new DCW connection in Toms Court.

6 EXISTING NATURAL GAS INFRASTRUCTURE & PROPOSED UPGRADE

An existing 63mm gas main is located in both Toms Court to the east and the Public Road to the west of the subject development site. The natural gas mains infrastructure in the vicinity of the development site is low pressure.

It is proposed to extend the tail end of the 63mm diameter gas main in the Public Road and provide a new gas connection on the western side of the site to a proposed gas meter enclosure which will be established in the western wall of the building (rear of Refuse Room).

The pipework shall enter the development in a 150mm x 150mm rebate created in the structure, traversing from the Public Road to the authority gas meter enclosure, in accordance with APA requirements.

The gas meter vented enclosure will house a single gas meter which will service the following fixtures;

- Motel central gas fired hot water system

APA Group have confirmed that a suitably sized NG service connection to cater for the development's natural gas loading, can be derived from the existing low pressure gas mains in the Public Road. Refer Figure 8 below for details of existing APA natural gas infrastructure in the vicinity of the development site.

Preliminary advice from APA is that the meter enclosure size to service the development will be 1200mm Wide x 1500mm High x 800mm deep, pending formal application.

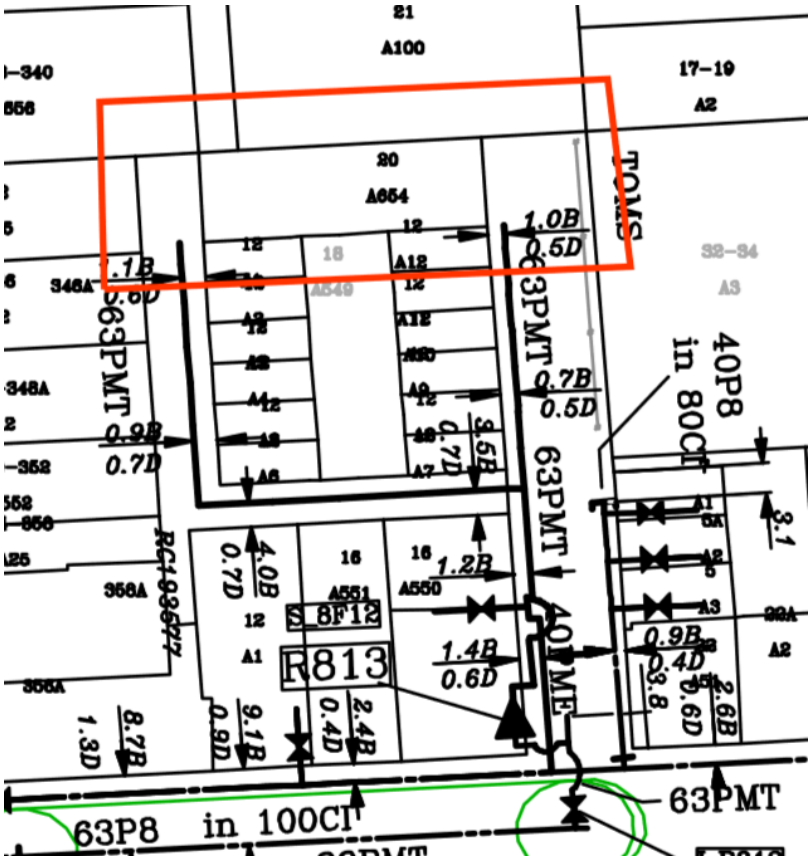

Figure 8: Existing APA Natural Gas Mains Located in Toms Court and adjoining Public Road.

7 FIRE SERVICES INFRASTRUCTURE

The site fire protection services will be serviced by a new 150mm connection to the proposed upgraded 200mm SA Water Corporation towns mains in Tom's Court adjacent the subject development site. As per Domestic Cold Water clause above, SAWC will undertake an upgrade to the existing 100mm towns mains in Toms Court to 200mm, extending to the required location for the fire and domestic cold water tappings to the site.

The building fire protection system will include an on-site fire water storage tank located at roof top level with a capacity of 50 kilolitres(kL) (subject to final hydraulic calculations).

The site fire protection services will incorporate the following:

- SAMFS booster location located adjacent front entry, off Tom's Court with 24/7 access for the SAMFS;
- A Fire Indicator Panel located within the ground floor foyer area with 24/7 access for the SAMFS;
- A fire pump room located on the Level 1 incorporating two (2) off diesel fire pumps to service hydrants and sprinklers located in the building plus an additional diesel fire pump to provide make-up water (quick in-fill) to the roof mounted tanks.
- A 2 x 25 kilolitre (KL) fire water tank located on the roof of the building to supply half (1/2) hour of hydrant requirements and half (1/2) hour of fire sprinkler requirements.

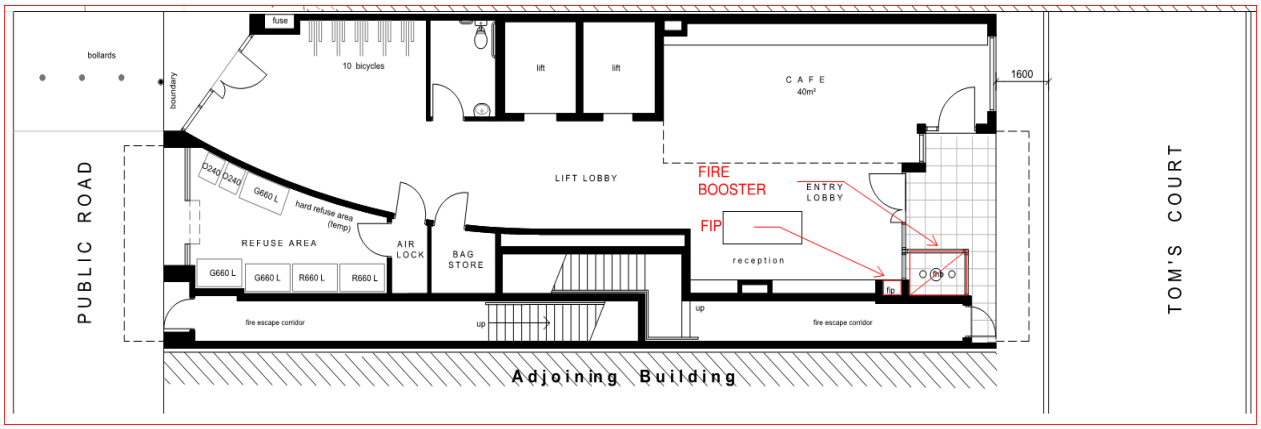

Figure 9: Fire Services Ground Floor

MOTT MACDONALD

Preliminary Environmental Site History Assessment

20 Tom's Court, Adelaide, South Australia

18 May 2017

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Preliminary Environmental Site History Assessment

20 Tom's Court, Adelaide, South Australia

18 May 2017

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
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0	15/05/2017	CC	AK	AK	Draft for client review
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Information class: Standard

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1 Introduction

1.1 Background

Mott MacDonald Australia Pty Ltd (Mott MacDonald) was commissioned by Karidis Corporation Ltd to conduct preliminary environmental site history research for the land defined as 20 Toms Court, Adelaide, South Australia (CT5950/644) ('the site'). A copy of the applicable Certificate of Title is provided in Appendix A.

The site is situated in the Adelaide City Council local government area. The site context is provided in Figure 1.1 and an aerial photograph showing the site is provided in Figure 1.2.

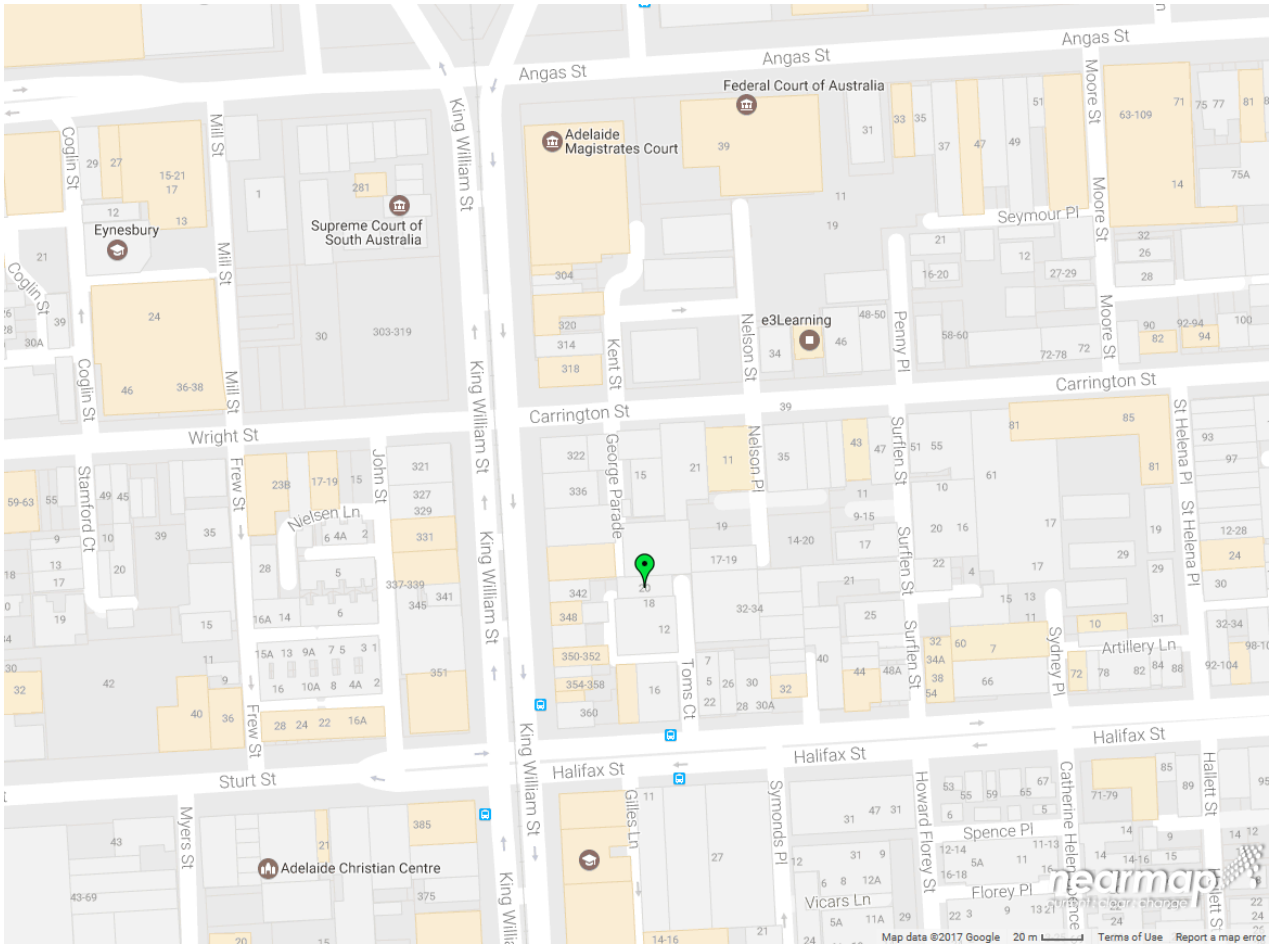

Figure 1.1: Site location and context (source: NearMap)

Figure 1.2: Aerial photograph showing the approximate site boundary (source: http://maps.sa.gov.au/plb/, 2016)

1.2 Proposed development

The proposed development would comprise an eleven story apartment building, including a lift shaft.

The building would comprise a concrete slab underlain by base course gravel and fortecon plastic. The site would therefore be sealed which would impede access to subsurface soils once developed and groundwater is not proposed for abstraction at the site.

Refer to Figure 1.3 and Figure 1.4 for the proposed building ground and first floor development plans respectively.

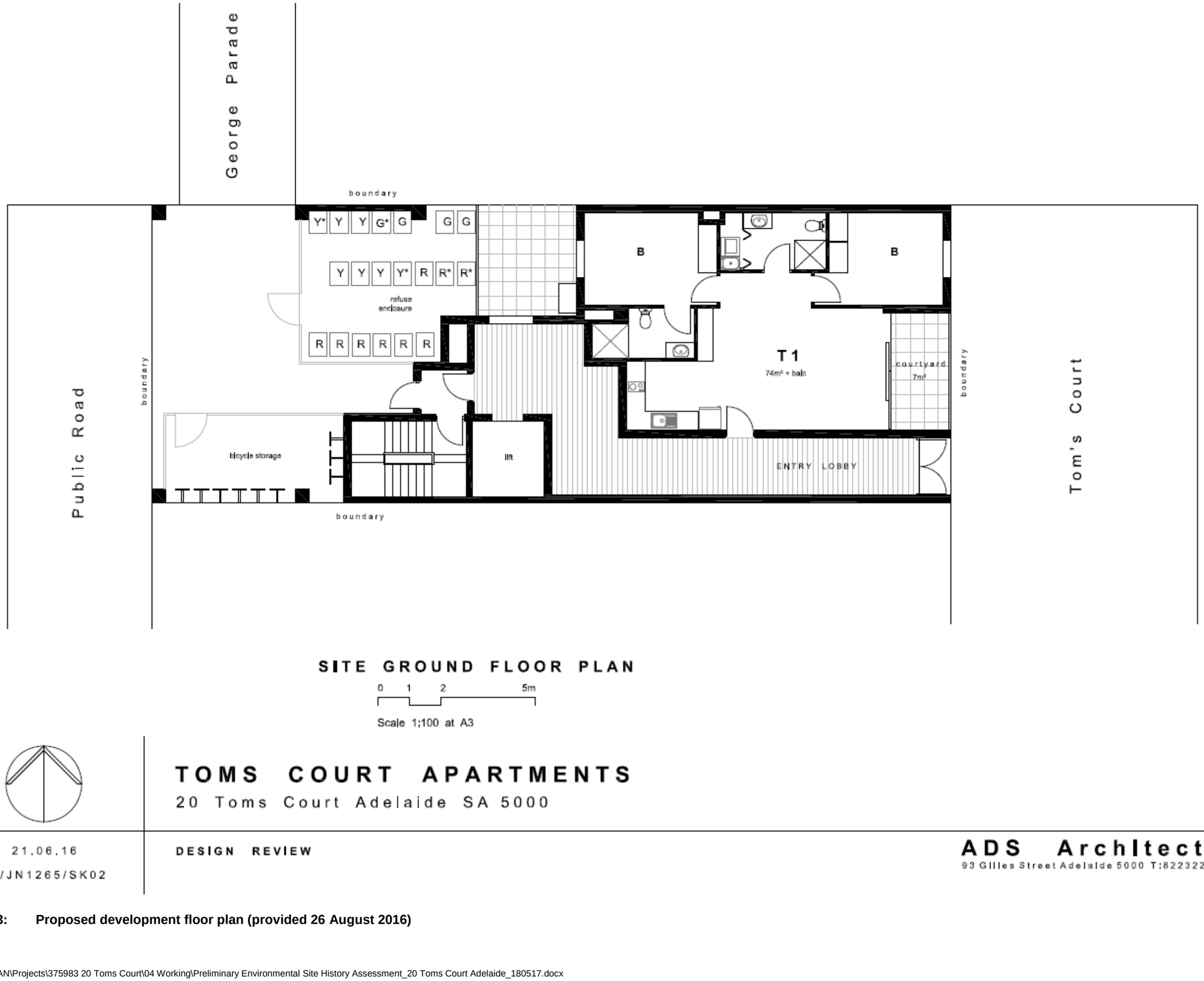

Figure 1.3: Proposed development floor plan (provided 26 August 2016)

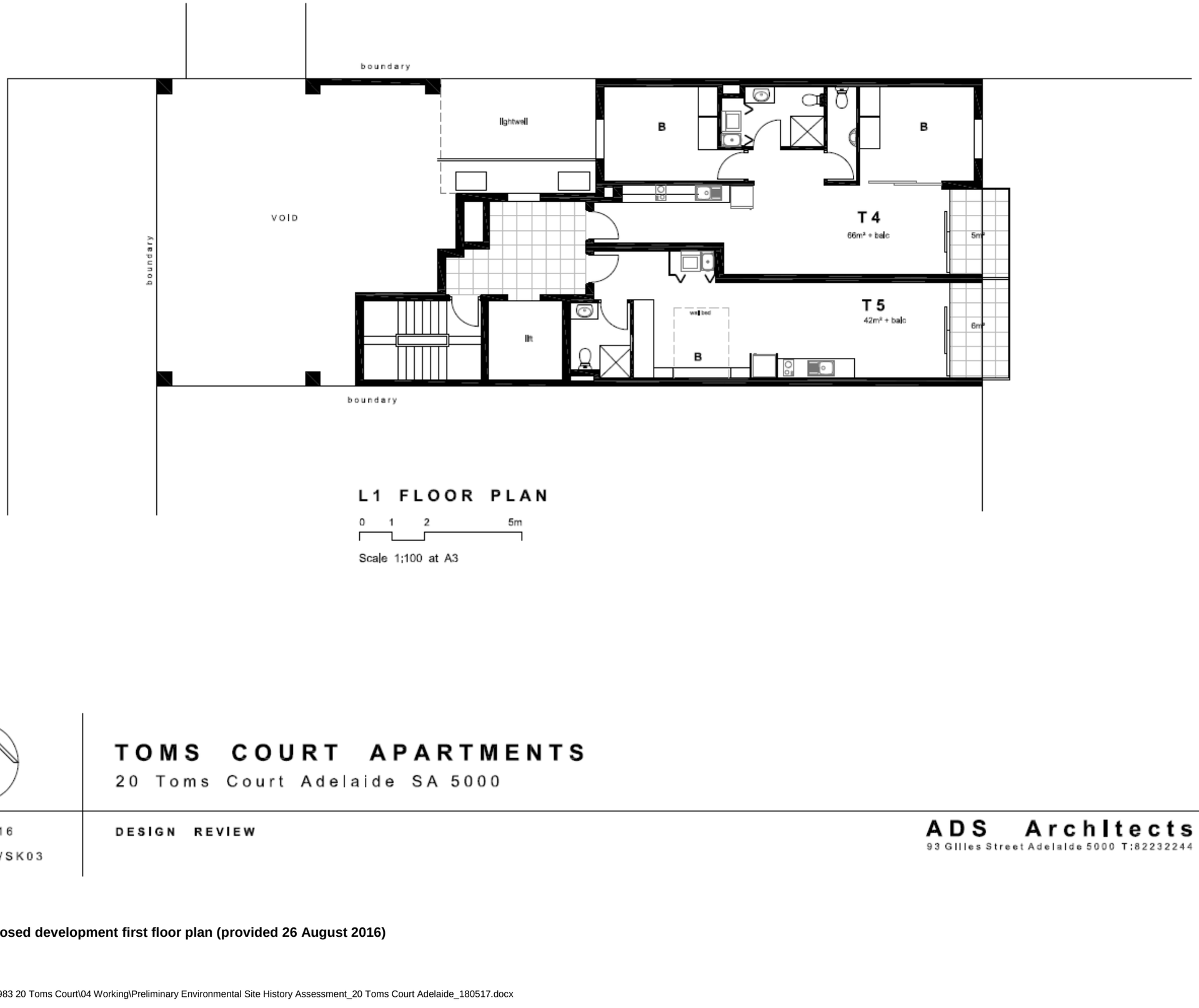

Figure 1.4: Proposed development first floor plan (provided 26 August 2016)

1.3 Aim

The aim was to assess the potential for gross or widespread soil contamination to exist as a result of current or previous land uses at the site and whether there are issues likely to present potential liabilities or constraints for the proposed future development.

1.4 Scope of work

The site history assessment included consideration of information from the following sources:

- Site walkover
- Client provided proposed building floor plans and asbestos certificate of inspection
- Safework SA Dangerous Goods Licence Search
- Environment Protection Authority (EPA) Section 7 Search
- Department of Planning, Transport and Infrastructure (DPTI) Property Assist Certificate of Title search
- Department of Environment, Water and Natural Resources (DEWNR) Mapland historical aerial photograph search
- Department of Environment, Water and Natural Resources Groundwater Database search
- Historical certificate of title search via the Department of Planning, Transport and Infrastructure South Australian Integrated Land Information System (SALIS)

2 Regulatory and assessment framework

2.1 Site contamination

Soil contamination has the potential to impact adversely on human health and the environment; however in order for a significant or identifiable risk to be present, there must be an exposure pathway. The exposure pathway comprises the following:

- Source – The presence of a substance that may cause harm.
- Receptor – The presence of a receptor which might be harmed at an exposure point.
- Pathway – The existence of a means or mechanism of exposing a receptor to the source.

In the absence of a plausible exposure pathway there can be minimal risk. Therefore, the presence of 'something measureable' i.e. concentrations of a chemical or presence of asbestos does not necessarily imply that there is measurable human harm. It is necessary to have a significant source of contamination, an appropriate or effective pathway for this to be presented to a receptor, and the receptor must have a negative response to this exposure.

Hence, the nature and importance of sources, receptors and exposure routes will vary with every site, situation, intended end use and environmental setting.

It should also be noted that management measures to address any aspect of the above can reduce the significance of any risks.

2.2 Adelaide (City) Development Plan (Consolidated – 24 September 2015)

The Adelaide (City) Development Plan (Consolidated – 24 September 2015) contains the following provisions in relation to contaminated sites:

OBJECTIVE
Objective 29: A safe and healthy living and working environment.

PRINCIPLES OF DEVELOPMENT CONTROL

105 Where there is evidence of, or reasonable suspicion that land, buildings and/or water, including underground water, may have been contaminated, or there is evidence of past potentially contaminating activity/ies, development should only occur where it is demonstrated that the land, buildings and/or water can be made suitable for its intended use prior to commencement of that use.

Note: Information of the suitability of land for the proposed land use should be provided as part of the development application and should include:

(a) the provision of a report of the land use history and condition of the site;

(b) where the report reveals that contamination is suspected or identified, a detailed site assessment report that determines whether site contamination poses an actual or potential risk to human health and the environment, either on or off the site, of sufficient magnitude to warrant remediation appropriate to the proposed land use;

(c) where remediation is warranted, a remediation and/or management strategy prepared in consultation with an independent Environmental Auditor, Contaminated Land, endorsed by the EPA;

(d) a site audit report, prepared by an independent Environmental Auditor, Contaminated Land, endorsed by the EPA, that states that in the opinion of the Auditor, the site is suitable for the intended uses(s), or for certain stated uses(s) and also states any conditions pertaining to the use(s).

2.3 Environment Protection Act, 1993

In South Australia, the assessment, management and remediation of site contamination is regulated by the *Environment Protection Act 1993* (EP Act). The EP Act defines site contamination in section 5B as follows:

> *(1) For the purposes of this Act, site contamination exists at a site if—*
>
> > *(a) chemical substances are present on or below the surface of the site in concentrations above the background concentrations (if any); and*
> >
> > *(b) the chemical substances have, at least in part, come to be present there as a result of an activity at the site or elsewhere; and*
> >
> > *(c) the presence of the chemical substances in those concentrations has resulted in—*
> >
> > > *(i) actual or potential harm to the health or safety of human beings that is not trivial, taking into account current or proposed land uses; or*
> > >
> > > *(ii) actual or potential harm to water that is not trivial; or*
> > >
> > > *(iii) other actual or potential environmental harm that is not trivial, taking into account current or proposed land uses.*
>
> *(2) For the purposes of this Act, environmental harm is caused by the presence of chemical substances—*
>
> > *(a) whether the harm is a direct or indirect result of the presence of the chemical substances; and*
> >
> > *(b) whether the harm results from the presence of the chemical substances alone or the combined effects of the presence of the chemical substances and other factors.*
>
> *(3) For the purposes of this Act, site contamination does not exist at a site if circumstances of a kind prescribed by regulation apply to the site.*

Based on the above, the first stage in determining whether or not site contamination exists is to assess whether chemical substances have been added to the site through an activity and whether these substances are above background concentrations. The second stage is to assess whether the chemical substances have resulted in actual or potential harm to the health or safety of human beings or the environment that is not trivial.

The professional assessment of site contamination and consequential risk to human health and the environment is guided by the *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM), Australian Standards and several guidelines prepared the EPA. The NEPM operates as an environment protection policy under the EP Act.

If site contamination is determined to be present at a site, the EP Act provides mechanisms to assign responsibility for the contamination and appropriate assessment and/or remediation of the contamination.

2.4 Assessment guidelines

The scope of works and methodology adopted for the site history research were generally based on the guidance provided in the following documents:

- ANZECC/NHMR.C (1992). Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites.
- NEPC (1999), National Environment Protection (Assessment of Site Contamination) Measure, December 1999 (ASC NEPM) as amended in 2013
- Edwards J.W., Van Alphen M. and Langley A. (1994). Identification and Assessment of Contaminated Land: Improving Site History Appraisal. Contaminated Sites Monograph Series No 3, SA Health Commission, Adelaide.
- Standards Australia. Guide to the investigation and sampling of sites with potentially contaminated soil – AS 4482.1-2005.

3 Site description

3.1 Site walkover and photographs

A site visit was conducted on 31 August 2016 by a Mott MacDonald representative.

The rectangular site is approximately 228m^2 in plan area and was occupied by a warehouse facility which was being used to store office furniture.

The site was sealed with a concrete floor. There were no obvious signs of machinery use or chemical storage. There was no observed evidence of underground fuel storage tanks, staining, odour or other potentially contaminating activities. However, it is noted that access within and around the site was restricted due to the storage of items.

Photographs are shown in Photos 3.1-3.4.

Photo 3.1: Inside of site building

Photo 3.2: Inside of site building

Photo 3.3: Outside of site building

Photo 3.4: Inside of site building

3.2 Aesthetic considerations

Aesthetic considerations relate to the presence of low-concern or non-hazardous inert foreign material (refuse) in soil or fill resulting from human activity. Construction and demolition waste materials, some of which are inert and non-hazardous and are widely distributed in urban areas, soils with discolouration from relatively inert chemical waste (for example ferric metals) or residual odour (for example, natural sulphur odour) are included in this category.

There are no specific numeric aesthetic guidelines; however site assessment requires balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity. The following observations were made in relation to aesthetic issues at the site:

- There were no significant odours (e.g. strong residual petroleum hydrocarbon odours)
- There was no hydrocarbon sheen on the site surface
- There were no discoloured chemical deposits or stains with chemical waste.
- There was no putrescible refuse, including material that may generate hazardous levels of methane such as a deep-fill profile of green waste or large quantities of timber waste

3.3 Surrounding land use

The site is located to the east of King William Street and is accessed from the north (Carrington Street) via George Parade (narrow service lane). The eastern and western boundaries of the site are also accessed from the south (Halifax Street) via Toms Court. The surrounding area is generally level. Observations of the land use surrounding the site are provided below:

- North: Immediately to the north of the site is the rear of the Police Credit Union Building (commercial) on Carrington Street, beyond which are double to multiple storey commercial premises.
- East: Immediately opposite Toms Court to the left appear to be large warehouse buildings. Further east appears to be mixed commercial and residential land use. There is a significant amount of redevelopment for high density residential use in the areas to the east of the site.
- West: The rear of multiple storey commercial buildings lining King William Street.
- South: Double storey high density housing immediately to the south along Toms Court, with residential and commercial buildings lining Halifax Street further to the south.

The surrounding area is generally level.

3.4 Regional geology and hydrogeology

A summary of the regional geology and hydrogeology is presented in Table 3.1.

Table 3.1: Regional geology and hydrogeology

Source	Detail
Geology	
South Australia 1: 250 000 Scanned Geological Maps Published and Unpublished. Department for Manufacturing, Innovation, Trade, Resources and Energy. Version 2008:2.	Pooraka Formation. Pale red-brown sandy clay containing carbonate of the LOVEDAY SOIL. Gravel lenses near ranges. Small outcrops of older calcrete and veneers of younger sand and soil are not differentiated.
Hydrogeology	
Department of Environment, Water and Natural Resources Groundwater Database (refer to Appendix B)	The DEWNR groundwater database indicates that there are 51 groundwater wells within a 0.2km radius of the site. The recorded standing water levels (SWL) vary between 3.6-18mbgl, with an average of 15mbgl. The average well depth is 15mbgl. Total dissolved solid (TDS) concentrations were recorded in 1965 at two wells as 171mg/kg and 4,426mg/kg, however no other TDS data is recorded. The wells are listed as being for the following purposes (with the remainder unrecorded): INV: 4 wells DRN: 24 wells MON: 6 wells OBS: 1 well No groundwater wells are recorded as occurring on the site. The groundwater data report and plan showing the location of groundwater wells are provided in Appendix B.

The closest major surface waterbody to the site is the Torrens River, located approximately 1.5km north of the site. The Gulf St Vincent is located approximately 9.4km west of the site. The regional inferred groundwater flow direction is expected to be westerly.

3.5 History of ownership

A history of ownership search was conducted through the DPTI South Australian Integrated Land Information System (SALIS) website[1] for CT5950/644. The search results are summarised in Table 3.2.

Table 3.2: Ownership summary

Title reference	Date	Name	Details
5950/644	7/10/2005	**PK Property (SA) Pty Ltd**	Adelaide
5725/613	17/1/2000	Diane Judith Bell Chambers	Torrens Park
	1/9/1999	Lease to **Trims Finance Company Pty Ltd**	
4041/666	11/6/1975	Leslie William Baohm, **Company Director**	Mitcham
	17/6/1980	Transfer to Judith Anne Baohm, **Married Woman**	Mitcham
	12/4/1998	Transfer to Leslie William Baohm, **Company Director**	Mitcham
1977/10	12/4/1948	William Donnithorne, **Retired**	Norwood
	5/3/1948	Transfer to Kenneth Clifford Steers, **Dealer**	Kent Town
	15/8/1958	Lease to **Alfa-Laval Separator Company (SA) Pty Ltd**	10 year lease
	1/6/1970	Lease to **Warlan Pty Ltd**	5 year lease
	13/2/1973	Underlease to **Eddys Investments Pty Ltd**	Approx. 3.5 year lease
	21/8/1974	Transfer to Leslie William Baohm, **Company Director**	Mitcham
	24/3/1975	Transfer to Leslie William Baohm, **Company Director**	Mitcham
1099/38	15/8/1918	James Henry Appledore, **Gardener**	Adelaide
	14/11/1922	Transfer to William Donnithorne, **Out of Business**	Adelaide
	19/12/1923	Lease to NC Cleveland and Co. Ltd (later named changed to **Motor Distributors Ltd**)	10 year lease
	5/5/1924	Transfer of lease to **Butler Nicholson Ltd**	Adelaide
	15/10/1928	Transfer of lease to **The All British Motor House Ltd**	Adelaide
	30/10/1934	Transfer to William Donnithorne, Solicitor and Hazel Donnitorne, **Nursing Sister**	Adelaide

Source: Lands Title Office, Department of Planning, Transport and Infrastructure, Government of South Australia

3.6 Aerial photographs

Selected aerial photographs of the area were assessed at approximately 10 year intervals from 1949. The aerial photograph data and observations are presented in Table 3.3 and copies of the photographs are provided in Appendix C.

Table 3.3: Historical aerial photograph review

Year	Notes
1949	The aerial photograph is presented in black and white. The site appears to be occupied by one building. The surrounding urban area is densely developed with what appears to be predominantly commercial land use. Bitumen roads bound the east and west of the site.
1959	The aerial photograph is presented in black and white. The site appears to be generally similar to the previous aerial photograph. The surrounding area appears to be similar to that of the previous photograph, however with the noticeable exception of buildings to the south and south-east of the building. Industrial style saw tooth roof buildings appear to have been constructed to the north-east, east and south-east of the site.
1968	The aerial photograph is presented in black and white. The site appears to be generally similar to the previous aerial photograph.

[1] https://www.sailis.sa.gov.au/home/public

Year	Notes
	The surrounding area has changed significantly from that of the previous photograph. New buildings have been constructed to the north and east of the site and a carpark has been constructed to the south of the site. The industrial style saw tooth roof building to the east remains.
1979	The aerial photograph is presented in colour. The site appears to be generally similar to the previous aerial photograph. The surrounding area appears to be generally similar to the previous aerial photograph. The saw tooth roof building to the south-east of the site still remains. A shed-type building has been removed from the carpark to the north-east of the site and the carpark extended to include this area.
1989	The aerial photograph is presented in colour. The building appears to have been upgraded since the previous photograph, however continues to cover the full extent of the site. The surrounding area appears to be generally similar to the previous aerial photograph. A unit appears to have been added to the building to the north of the site. The saw tooth roof building to the south-east of the site still remains.
1999	The aerial photograph is presented in colour. The site appears to be generally similar to the previous aerial photograph. The surrounding area appears to be generally similar to the previous aerial photograph, with many of the sites to the west appearing to have been upgraded. The saw tooth roof building to the south-east of the site still remains.
2005	The aerial photograph is presented in colour. The site appears to be generally similar to the previous aerial photograph. Further upgrades have been made to increase the density of the surrounding buildings, particularly to the west and south of the site. The carpark to the south has been replaced with what appears to be a number of unit buildings. The saw tooth roof building to the south-east of the site still remains.

3.7 Dangerous goods search

Safework SA indicated that there are no dangerous goods licences recorded at the site (refer to Appendix D).

3.8 EPA Section 7 search

A Section 7 search was made under the *Land and Business (Sales and Conveyancing) Act 1994*. The information indicates that no current environmental Performance Agreements, Environment Protection Orders or Clean-up Orders are registered on the site and no known wastes are listed or have been produced on the site.

3.9 SA EPA Public Register Directory

The SA EPA Public Register Directory – Site contamination index was searched. This index lists notifications and reports received by the EPA since 1 July 2009 under the *Environment Protection Act 1993*, including S83A notification, Audit notification, Audit termination and Audit reports. Listings that are located potentially within 150m of the site are presented in Table 3.4.

Table 3.4: SA EPA Public Register Directory results

Notificaton No.	Type	Address	Potentially Contaminating Activity	Distance
61099 - 01	S83A Notification	Halifax Street and adjacent allotments ADELAIDE SA 5000	Works depots	Address not recorded
60923 - 01 35-37	S83A Notification	Wright Street ADELAIDE SA 5000	Not recorded	~150m

3.10 Almanacs and directories research

A search of publicly available almanacs and directories via the State Library of South Australia was conducted for the site[2].

The first South Australian directory was published by Robert Thomas of the *South Australian Register* newspaper in 1839. The last directory was published by the Melbourne-based stationers, Sands and McDougall in 1973. The directories included mercantile, ecclesiastical, legal, and other occupational and trade listings. This eventually developed into a 'trades and professions' section. In 1873, Josiah Boothby introduced a street by street listing for the city at the front of the directory. He compiled a list of businesses and private dwellings by location, which continued being published in all subsequent directories until 1973 by Sands and McDougall.

It is noted that street numbers in the city have been changed on occasion, in particular in the mid-1880s when the pattern of odd and even numbering was standardised, and again in 1920 to incorporate the subdivisions of city acres which had taken place since settlement. This therefore makes site identification difficult to define in some instances and/or misleading. It is also noted that inclusion of business details within the almanacs was not mandatory and therefore the absence of a site address in these directories does not necessarily mean that a business was not present at the site.

The site address was searched for in the directories for each year from 1864 to 1973 inclusively. The search did not produce any commercial or residential information due to information associated with the western side of Toms Court often not being provided and there was a high degree of uncertainty associated with the site's street number throughout this time. 20 Toms Court was not found to be referenced directly and there was insufficient information to suggest that the number allocated to the site had changed. The possibility that the site used to front onto George Parade was investigated, however there was insufficient evidence to suggest that this was the case.

3.11 Acid sulphate soils

Acid sulphate soils as listed in Appendix A of the SA EPA Guidelines Site Contamination – Acid Sulphate Soil Materials (2007) are unlikely to be present at the site.

3.12 Asbestos register

A Certificate of Inspection for Asbestos is available for the site (prepared by AEC Environmental in December 2013). The report is presented in Appendix F and concludes that the inspection that was carried out did not identify any asbestos in the building.

3.13 Areas of environmental interest

Based on this environmental site history research, the chemicals presented in Table 3.4 are indicative of the potential historical and current land uses of CT5950/644.

The chemicals listed in Table 3.4 are based on AS 4482.1-2005 Appendix J 'Chemical Contaminants Listed by Industry Type', Planning Advisory Notice 20 (PAN 20) Appendix 1 'Examples of potentially contaminating activities and industries' and the Environment Protection Regulations 2009 (EP Regs).

[2] Available at: http://guides.slsa.sa.gov.au/

Table 3.5: Summary of potential areas and chemicals of interest

Activity of interest	Chemicals of environmental interest	Medium of interest
Potential fill of unknown origin	Broad analyte screen	Shallow soil
Potential termite treatment	Pesticides, heavy metals	Shallow soil
Potential adjacent industrial land uses to the east of the site	Broad analyte screen	Soil and groundwater
Potential previous land use by: • Motor Distributors Ltd • All British Motor House Ltd • Alfa-Laval Separator Company (SA) Pty Ltd	Hydrocarbons, heavy metals, solvents, BTEX, polycyclic aromatic hydrocarbons (PAH)	Soil and groundwater

These chemicals of environmental interest are not a prescriptive list for any further exploratory intrusive assessment that may be conducted, nor a statement of the presence of these chemicals, but rather a list to be given consideration. Analytes to be tested for if further assessment is conducted should be selected based on site specific observations and conditions made during intrusive assessment. In addition, screening level testing may be conducted for analytes which are considered to represent the generally accepted basic suite of chemicals which may then give rise to the need for more detailed or varied analysis.

4 Conceptual site model

It is understood that the proposed development would comprise an eleven story apartment building, including a lift shaft. The building would comprise a concrete slab underlain by base course gravel and fortecon plastic. The site would be sealed which would impede access to subsurface soils once developed and groundwater is not proposed for abstraction at the site.

There was no evidence of staining, odour or potentially contaminating activities observed during the site walkover.

The average recorded standing water level within a 0.2km radius of the site is 15mbgl. No wells are registered for sensitive use within this radius (e.g. for the purposes of domestic use). No groundwater wells are recorded as occurring on the site.

The closest major surface waterbody to the site is the Torrens River, located approximately 1.5km north of the site. The Gulf St Vincent is located approximately 9.4km west of the site. The regional inferred groundwater flow direction is expected to be westerly.

A SafeWork SA dangerous substances search and Section 7 EPA search found no current licences, environmental Performance Agreements, Environment Protection Orders or Clean-up Orders registered on the site and no known wastes are listed or have been produced on the site.

No Audit notification, Audit termination or Audit reports are recorded within 150m of the site.

This site history assessment identified the historical activities of interest in Table 4.1 as generally having potentially occurred at the site.

Table 4.1: Summary of potential areas and chemicals of interest

Activity of interest	Chemicals of environmental interest	Medium of interest
Potential fill of unknown origin	Broad analyte screen	Shallow soil
Potential termite treatment	Pesticides, heavy metals	Shallow soil
Potential adjacent industrial land uses to the east of the site	Broad analyte screen	Soil and groundwater
Potential previous land use by: • Motor Distributors Ltd • All British Motor House Ltd • Alfa-Laval Separator Company (SA) Pty Ltd	Hydrocarbons, heavy metals, solvents, BTEX, polycyclic aromatic hydrocarbons (PAH)	Soil and groundwater

The results of this site history research indicate that there is information based on the nature and timeline of previous land uses to indicate the potential for soil and/or groundwater contamination to be present at the site.

5 Recommendations

The site currently comprises commercial buildings. Groundwater is not proposed for abstraction at the site. The proposed building construction would largely eliminate most of the potential exposure pathway between soil/groundwater and residents.

No visual or olfactory signs of contamination were observed during the site visit. The site history research shows that there is potential for the site to have been previously occupied and/or surrounded by land uses that had the potential to contaminate the site; however there is no confirmation or further detail readily available about these land uses to confirm their nature.

Therefore, based on the environmental information obtained to date, Mott MacDonald is of the opinion that the likelihood of gross or widespread soil contamination existing in soils and groundwater at the site (at concentrations likely to preclude the proposed land use) is low. However, it is recommended that screening level soil sampling and testing be conducted to confirm this assessment once site demolition has occurred. Soil removed from the site is to be classified for reuse or disposal options via a testing program taking into account EPA requirements and the site history outlined in this report.

6 Limitations

Mott MacDonald Australia Pty Ltd (Mott MacDonald) has prepared this report based on generally accepted practices and standards in operation at the time that it was prepared. No other warranty is made as to the professional advice included in this report. All parties should satisfy themselves that the scope of work conducted and reported herein meets their specific needs before relying on this document.

Mott MacDonald believes that its opinions have been developed according to the professional standard of care for the environmental consulting profession at the date of this document. That standard of care may change as new methods and practices of exploration, testing, analysis and remediation develop in the future, which may produce different results.

Environmental conditions are created by natural processes and human activity, and as such may change over time e.g. groundwater levels may rise or fall, contamination may migrate and fill may be added to the site. This report therefore presents a point in time assessment of the site, and as such can only be valid for the time at which the investigation was undertaken.

Any investigation such as that contained in this report can examine only a fraction of the subsurface conditions at the site. There remains a risk that pockets of contamination or other hazards may not be identified as investigations are necessarily based on sampling at localised points. Certain indicators or evidence of hazardous substances or conditions may have been outside the portion of the subsurface investigated or monitored, and thus may not have been identified or their full significance appreciated. As such, the identified environmental conditions reported are only valid at the points of direct sampling and any derived or interpolated conditions may differ from these targeted locations and cannot be assumed to be indicative of the remainder of the site.

The methodology adopted and the sources of information used are outlined in this report. Mott MacDonald has limited its investigation to the scope agreed for this contract and it is possible that additional sampling and analysis could produce different results and/or opinions. Mott MacDonald has made no independent verification of this information beyond the agreed scope of works and assumes no responsibility for any inaccuracies or omissions.

This assessment assumes that the proposed development meets requirements as outlined in the Building Code of Australia and Australian Standards. If these recommendations are not met, there is potential for the exposure and therefore risk to building users to be higher than that presented in this assessment.

The soil descriptions contained in this report have not been prepared for engineering design purposes and the reinstatement of any sampling locations were not conducted in accordance with any supervised filling or geotechnical standard. The term suitable has been used in the context of a request from the planning authority and means that the concentrations reported did not exceed the guideline concentrations adopted for the proposed land use/exposure pathway.

This report does not include the assessment or consideration of hazardous building materials, including asbestos. Such materials should be assessed and managed by a qualified and licensed assessor/contractor.

In general, the available scientific information pertaining to contamination is insufficient to provide a thorough understanding of all of the potential toxic properties of chemicals to which humans may be exposed. The majority of the toxicological knowledge of chemicals comes from experiments with laboratory animals, where there may be interspecies differences in chemical absorption, metabolism, excretion and toxic response. There may also be uncertainties concerning the relevance of animal studies using exposure routes that differ from human exposure routes. In addition, the frequent necessity to extrapolate results of short-term or subchronic animal studies to humans exposed over a lifetime has inherent uncertainty. Therefore, in order to conduct an environmental assessment, it is necessary to take into account these inherent uncertainties and extrapolate information from the data that is available, considered current and endorsed as acceptable for the assessment of risks to human health. There is therefore inherent uncertainty in the process, and to compensate for uncertainty, conservative assumptions are often made that result in an overestimation rather than an underestimation of risk.

All advice, opinions or recommendations contained in this document should be read and relied upon only in the context of the document as a whole. This report does not purport to give legal advice as this can only be given by qualified legal practitioners. This document does not represent a Site Contamination Audit Report.

Appendices

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A. Certificate of Title

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search
Date/Time	08/09/2016 02:25PM
Customer Reference	Toms Court
Order ID	20160908008192
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 5950 Folio 644

REAL PROPERTY ACT, 1886
South Australia

Parent Title(s)	CT 5725/613
Dealing(s) Creating Title	RT 10220368
Title Issued	07/10/2005
Edition	4
Edition Issued	23/04/2014

Estate Type

FEE SIMPLE

Registered Proprietor

PK PROPERTY (SA) PTY. LTD. (ACN: 167 217 665)
OF 49 ANGAS STREET ADELAIDE SA 5000

Description of Land

ALLOTMENT 654 FILED PLAN 182306
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
12107742	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.

Notations

Dealings Affecting Title

NIL

Priority Notices

NIL

Notations on Plan

NIL

Registrar-General's Notes

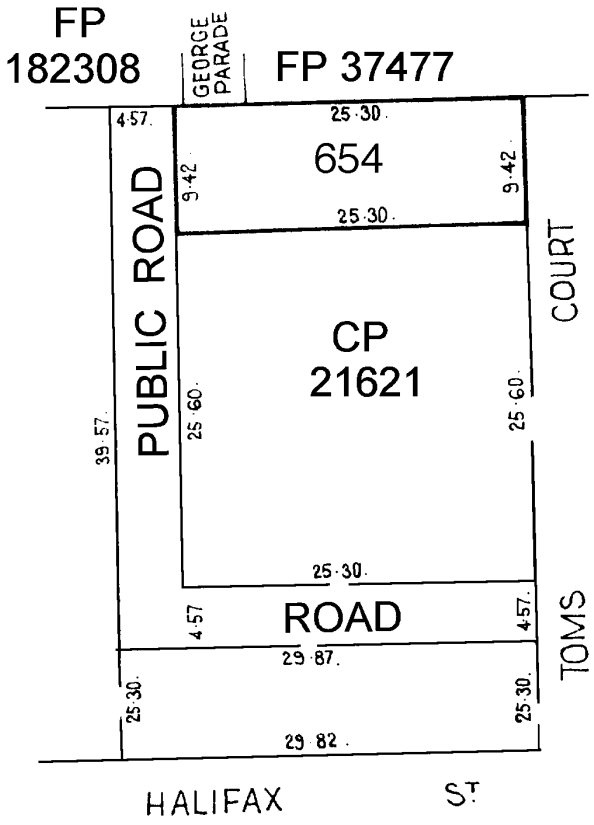
NIL

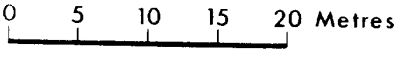
Administrative Interests

NIL

* Denotes the dealing has been re-lodged.

Product	Register Search
Date/Time	08/09/2016 02:25PM
Customer Reference	Toms Court
Order ID	20160908008192
Cost	$27.75





B. Groundwater database results

Government of South Australia

WaterConnect

Circle Centre -34.932214,138.600898, Radius 0.200km

WaterConnect

Groundwater Data Report

Government of South Australia
Department of Environment, Water and Natural Resources

Circle Centre -34.932214,138.600898, Radius 0.200km

Unit No	Date	Max Depth (m)	Latest Depth (m)	SWL (m)	SWL Date	Purpose	Cased To (m)	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Status	Permit No
6628-313	12/04/1965	21.34	21.34	16.76	12/04/1965	DRN							
6628-314	13/04/1965	9.45	9.45										
6628-315	04/05/1965	22.86	22.86	16.61	04/05/1965	DRN	18.77	0.45	04/05/1965				
6628-316	15/04/1965	10.67	10.67			DRN							
6628-317	22/04/1965	21.34	21.34	16.76	22/04/1965	DRN							
6628-318	31/05/1965	21.34	21.34	16.46	31/05/1965	DRN	19.41						
6628-319	25/05/1965	23.47	23.47	16.46	25/05/1965	DRN	19.2	0.45	25/05/1965				
6628-320	17/05/1965	21.34	21.34	16.76	17/05/1965	DRN	18.69	0.45	17/05/1965				
6628-321	11/05/1965	22.86	22.86	16.56	11/05/1965	DRN	19.2	0.45	11/05/1965				
6628-323	03/06/1965	6.1	6.1			DRN							
6628-324	01/06/1965	6.1	6.1			DRN							
6628-325	02/06/1965	6.4	6.4			DRN							
6628-326	05/05/1965	4.88	4.88			DRN							
6628-327	07/05/1965	7.01	7.01			DRN							
6628-328	14/05/1965	6.1	6.1			DRN							
6628-329		18.82				DRN				171	01/01/1934		
6628-330		21.59				DRN				4426	01/01/1935		
6628-331	07/04/1965	21.34	21.34	16.46	07/04/1965	DRN		0.03	07/04/1965				
6628-332	04/06/1965	6.1	6.1			DRN							
6628-333	07/06/1965	6.1	6.1			DRN							
6628-334	08/06/1965	6.1	6.1			DRN							
6628-335	08/06/1965	6.1	6.1			DRN							
6628-336	10/06/1965	6.1	6.1			DRN							
6628-340	16/06/1965	0.61	0.61			DRN							
6628-342	08/09/1955	12.19	12.19									UKN	
6628-343	06/09/1955	12.19	12.19									UKN	
6628-344	25/05/1960	5.94	5.94										
6628-345	25/05/1960	6.1	6.1										
6628-351	04/01/1968	28.04	28.04									UKN	
6628-352	10/01/1968	21.51	21.51				21.34					UKN	
6628-353	10/01/1968	21.49					21.49					UKN	
6628-354	18/01/1968	19.51	19.51				19.51					UKN	
6628-506	16/06/1965	0.61	0.61			DRN							
6628-639	27/09/1963	6.55	6.55									ABD	
6628-18401	29/01/1996	22	22	17	29/01/1996	OBS	22						36995
6628-20242	13/04/2000	13	13			MON	5						52351
6628-20243	13/04/2000	12	12			MON	6						52353

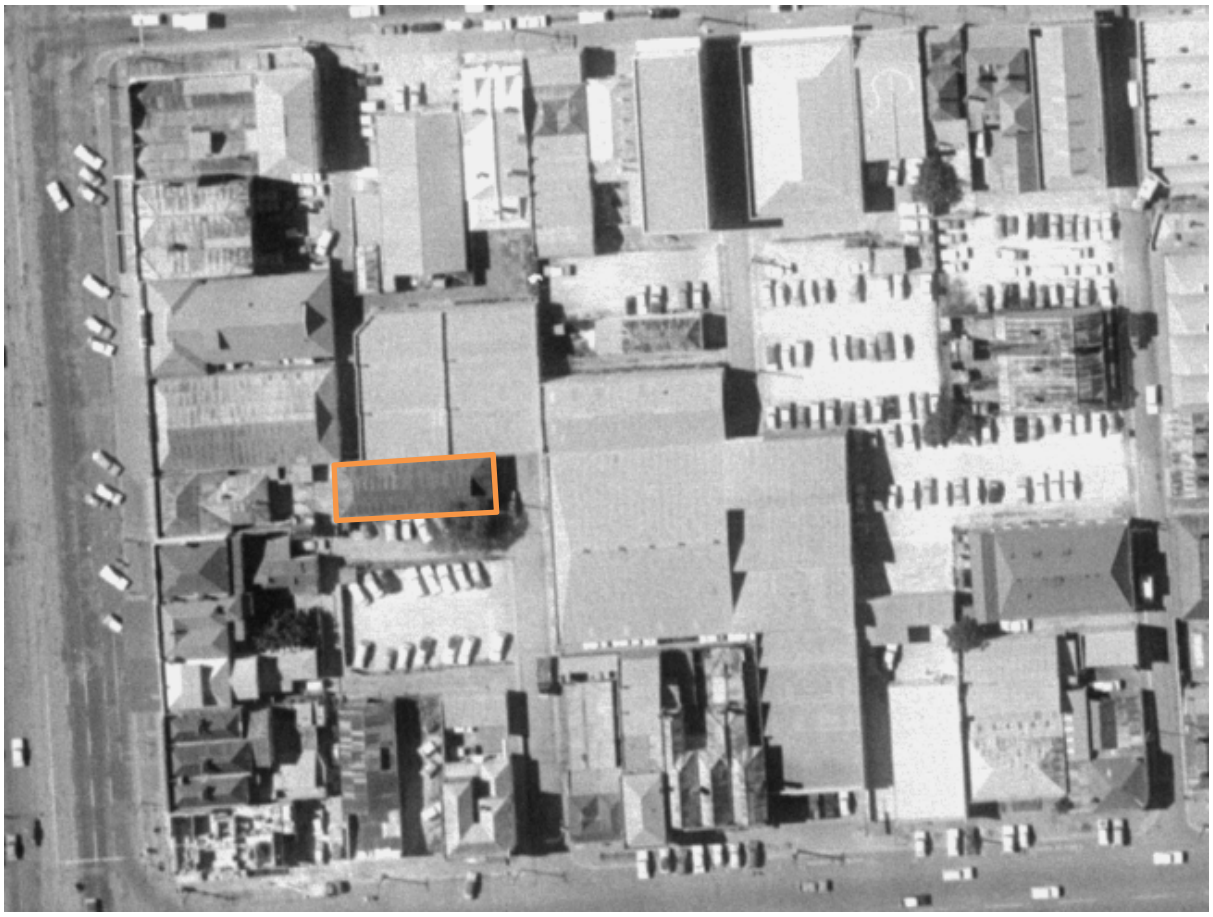
Unit No	Date	Max Depth (m)	Latest Depth (m)	SWL (m)	SWL Date	Purpose	Cased To (m)	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Status	Permit No
6628-20244	13/04/2000	12	12			MON	12						52354
6628-20245	17/04/2000	13	13			MON	13						52355
6628-20246	20/04/2000	13	13			MON	13						52356
6628-20325	24/03/2000	12	12	9.5	24/03/2000	MON	5.75						52358
6628-24568	02/04/2009	15	15			INV	9						161312
6628-26440			0									BKF	217438
6628-26444			0									BKF	217439
6628-26445			0									BKF	217440
6628-26448			0									BKF	217437
6628-26893	15/12/2011	7	7	3.6	15/12/2011	INV	3						208854
6628-26996	14/11/2013	40	0			INV						BKF	227788
6628-26998	19/11/2013	40	0									BKF	227791
6628-26999	21/11/2013	40	20	18	21/11/2013	INV	15.5						227789
6628-27000	27/11/2013	40	0									BKF	227786

51 records

C. Historical aerial photographs

Photograph 1: Aerial image showing the approximate location of the site in 1949 (Source: DEWNR).

Photograph 2: Aerial image showing the approximate location of the site in 1959 (Source: DEWNR).



Photograph 3: Aerial image showing the approximate location of the site in 1968 (Source: DEWNR).

Photograph 4: Aerial image showing the approximate location of the site in 1979 (Source: DEWNR).

Photograph 5: Aerial image showing the approximate location of the site in 1989 (Source: DEWNR).

Photograph 6: Aerial image showing the approximate location of the site in 1999 (Source: DEWNR).

Photograph 7: Aerial image showing the approximate location of the site in 2005 (Source: DEWNR).

D. Dangerous goods licence results

Government of South Australia
SafeWork SA

Attorney-General's Department

Licensing, Customer Services Team

Level 4 World Park A
33 Richmond Road
Keswick SA 5035

GPO Box 465
Adelaide SA 5001

DX 715 Adelaide

Phone 1300 365 255
Fax 08 8303 9903
Email licensing.safework@sa.gov.au

ABN 50-560-588-327

www.safework.sa.gov.au

31 August 2016

Rebecca Lucock
Mott MacDonald Australia
22 King William Street
ADELAIDE SA 5000

Dear Ms Lucock

DANGEROUS SUBSTANCES LICENCE SEARCH

PROPERTY DETAILS: ADDRESS OF SITE 20 Toms Court, Adelaide SA 5000

Further to your Application for a Dangerous Substance Search dated **26/8/2016** for the abovementioned site, I advise that there are no current or historical records for this site.

Yours sincerely

MANAGER
LICENSING, CUSTOMER SERVICES TEAM
SAFEWORK SA

E. Section 7 search results

Environment Protection Authority
www.epa.sa.gov.au

EPA South Australia
GPO Box 2607 Adelaide SA 5001
250 Victoria Square Adelaide SA
T (08) 8204 2000 F (08) 8204 2020
Country areas 1800 623 445

Mott MacDonald
PO BOX 3400 Rundle Mall
ADELAIDE SA 5000

Rebecca.Lucock@mottmac.com.au

Contact: Section 7
Telephone: (08) 8204 2026
Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

02 September, 2016

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5950 Folio 644
Address	20 Toms Court, ADELAIDE SA 5000

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – ***Land and Business (Sale and Conveyancing) Regulations 2010***

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO

h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO
b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO

d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

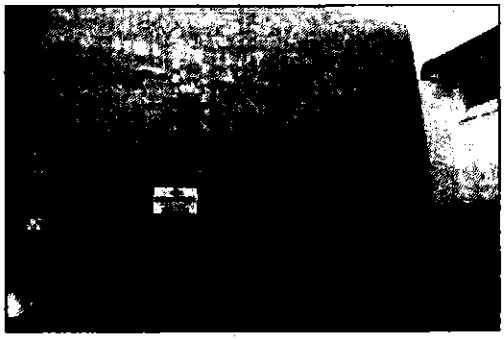
F. Certificate of inspection for asbestos

AEC Environmental

A GREENCAP CONSULTING COMPANY

CERTIFICATE OF INSPECTION FOR ASBESTOS No. 7234C

20 TOMS COURT ADELAIDE SOUTH AUSTRALIA



Prepared for:

Diane Bellchambers
338-340 King William Street
Adelaide SA 5000

Date: December 2013
Register No: 7234C
Our Ref: JR/sm/

Prepared by:
AEC Environmental Pty Ltd

Written/Submitted by:

Jason Roberts
Senior Technical Officer

AEC Environmental Pty Ltd
12 Greenhill Road, Wayville SA 5034
P O Box 582, Unley SA 5061
Ph: 08 8299 9955 Fax: 088299 9954
Email: aec@aecaust.com.au
Web: www.aecaust.com.au

1.0 INTRODUCTION

On instructions from Diane Bellchambers (the "client"), AEC Environmental Pty Ltd conducted an inspection of 20 Toms Court, Adelaide.

The property was inspected in December 2013. The inspection procedure used was in accordance with the South Australian Work Health & Safety Regulations 2012, Chapter 8 Asbestos, Part 3 Management of Asbestos and Associated Risks. All reasonable steps have been taken to identify asbestos containing materials (ACM) in the building. Inaccessible areas and areas requiring destruction or demolition have not been inspected. An intrusive or destructive audit is required if demolition or significant alterations are contemplated.

2.0 PURPOSE OF AN ASBESTOS REGISTER

An asbestos register inspection survey is a non-destructive audit to identify accessible and visually evident asbestos containing materials (ACM). The purpose of an asbestos register is to ensure that persons conducting a business or undertaking, (which includes workers, contractors, clients and other stakeholders) and persons with management or control of a workplace, are aware of the location, type, condition and risk, in order to avoid inadvertent disturbance of the ACM.

Importantly, an asbestos register details the type condition and location of accessible asbestos materials to assist with the adoption of appropriate & regulatory asbestos management practices.

It is a requirement of asbestos management regulations that regular inspections of the asbestos are conducted by a competent person, firstly to identify the type, condition and location of asbestos and secondly to assess any changes in the state of the asbestos.

It is important to note that this report is not intended for use as a pre demolition or pre refurbishment survey. If demolition, significant alterations or refurbishment incorporating demolition or structural disturbance is contemplated, please contact AEC for information regarding recommendations relevant to an intrusive audit.

3.0 REGULATORY FRAMEWORK FOR ASBESTOS MANAGEMENT

On the 1st January 2013, The South Australian Work Health & Safety Act 2012 came into effect together with the South Australian Work Health & Safety Regulations 2012. The regulations proclaim that a Person with Management or Control of a Workplace must ensure that an asbestos register is prepared and is kept and accessible at the workplace. Additionally, a Person Conducting a Business or Undertaking (PCBU) must ensure that exposure of a person to airborne asbestos is eliminated so far as is reasonably practicable.

Furthermore, a Person with Management or Control of a Workplace must ensure that a written Asbestos Management Plan (AMP) is prepared and is available and accessible, with established policies and procedures for the management of asbestos at a workplace, together with procedures for detailing incidents or emergencies involving asbestos containing materials at the workplace. These policies should be strictly adhered to and enforced by the Person with Management and Control of a Workplace and other persons (as defined) so that safe work practices in relation to asbestos management are in place as prescribed and required under the regulations.

Please contact AEC for assistance with the development of an Asbestos Management Plan.

A copy of the register must be kept at the workplace and be available for inspection by:

- Workers who have carried out, carries out or intends to carry out work at the workplace
- Health and Safety Representatives
- A person conducting a business or undertaking who has carried out, carries out or intends to carry out, work at the workplace, (e.g. Contractors)
- A person conducting a business or undertaking who has required, requires, or intends to require work to be carried out at the workplace
- Inspectors of the Department of the Premier and Cabinet, SafeWork SA

4.0 INSPECTION REPORT

An inspection of the buildings was undertaken using a systematic procedure developed by AEC Environmental Pty Ltd. Identification of asbestos and/or products containing asbestos cannot be carried out with any known in-situ measuring instrument and final confirmation of asbestos can only be done under microscopic examination. The inspection procedure developed relies on identifying asbestos bearing materials by visual means. Representative samples of materials that are considered to contain asbestos are often taken for analysis to confirm the presence of asbestos.

No samples were taken for laboratory analysis.

5.0 LIMITATIONS

Asbestos is known to have been used in some 3,000 building products, the most common being in fibre cement products, vinyl flooring, electrical switchboards and insulation materials to hot water and steam pipes. However, asbestos can also be found in many other products located in **inaccessible components** of buildings, plant and equipment including the following areas:

- Interior parts of air conditioning systems;
- Wall cavities, slabs, underside of floors;
- Interior workings of plant and equipment;
- Services, in ceiling or floor spaces or underground;
- Wall "chased" lagged pipework;
- Floor coverings subsequently overlaid; and
- Where asbestos products have been removed (eg vinyl floor coverings), then residue may exist under skirting boards and/or subsequently laid floor coverings.

Whilst this report provides approximate measurements and quantities of some materials found, we stress that they are approximate only. Accurate details would require a further visit to the site.

The work involved in preparing an Asbestos Register is based on visual inspection of the building and/or plant and equipment. As well, representative samples of suspect materials are collected and reasonable assumptions are made from those samples. These samples may not be a true representation of every element, part or component of the area of material concerned. Further, it is becoming increasingly apparent that some building materials containing asbestos have been removed and replaced by non-asbestos containing materials, particularly cement sheeting. In numerous cases only partial removal has occurred, leaving asbestos product remaining and this is often painted. While appropriate sampling has occurred the only sure determinant is to sample and analyse every section or piece in question. Full clarification would require a further visit to the site to obtain and analyse appropriate samples.

This asbestos register includes known asbestos building products detected in the course of the inspection. Additionally, where applicable, assumptions made on where asbestos is likely to be found are also stated. In some cases, builders have been known to mix asbestos into materials that would not normally contain asbestos (e.g. mortar, plaster, renders etc.) and, unless stated otherwise, these have not been sampled during the course of this survey. If an inaccessible area is suspected of having asbestos, it may need further verification. The decision regarding this will remain purely at the discretion of the client.

It is important to note that this report is not intended for use as a pre demolition or pre refurbishment survey. If demolition, significant alterations or refurbishment incorporating demolition or structural disturbance is contemplated, please contact AEC for information regarding recommendations relevant to an intrusive audit.

There is no known instrument available for in-situ asbestos detection. Asbestos is a naturally occurring mineral of inert characteristics. **For the above reasons, including the inaccessibility of many asbestos products, no guarantee can be given, express or implied, that the inspection will reveal all the asbestos containing materials that may be located in the workplace described in this report.**

This report should be read in conjunction with any other asbestos related reports and or communication / documentation prepared for the property. No individual section of this report should be read in isolation without taking the whole report into account. If the report is to be copied for whatever reason the whole of the report should be included.

6.0 CONCLUSION

The inspection carried out **did not identify any asbestos in the building.**

As stated in section 5 of this report, if any demolition or significant alterations are proposed, an intrusive audit is required. The limitations outlined in Section 5 of this report, specifically in regard to the inaccessibility of some asbestos products, should also be taken into account.

GRIFFINS
LAWYERS

Our Ref: 85630JNM

1 March 2017

Mr Greg Maughan
Development Manager
Karidis Corporation Ltd
49 Angas Street
ADELAIDE SA 5000

By Post & By Email: gregm@karidis.com.au

Dear Greg

20 Toms Court, Adelaide

I refer to your email of 15 February 2017.

The PLP meeting Minutes of 24 January 2017 seeks the following from the Karidis Corporation as the Applicant for consent:

> *"Confirm whether ultimate application can propose both residential and serviced accommodation use of apartments."*

The Minutes under the heading "Land Use" set out the background to the request.

I advise as follows:

1. On 8 January 2016 the Adelaide City Council (the Council) granted Development Approval to the Karidis Corporation for a change in use of a residential flat building with residential apartments to a joint mixed residential use comprising residential and serviced apartments at 22 Hume Street, Adelaide (DA/365/2012/A).

   I **enclose** a copy of the Decision Notification Form.

2. In *Paradise Development (Investments) Pty Ltd v D.C. Yorke Peninsula* (2008) SASC 139 Justice Debelle made the following comments:

   > *"there is no material difference for planning purposes between an apartment and a serviced holiday apartment. Both form part of a residential flat building…[S]erviced holiday apartments are in fact residential flat buildings. Expressed another way, residential flat buildings will contain apartments owned by those who reside permanently in the apartment as well as by those who own the apartment and let it to tenants for short or long terms."*

49 Flinders Street Adelaide SA 5000 GPO Box 2077 Adelaide SA 5001 telephone + 61 8 8410 2020 facsimile + 61 8 8410 1920 email@griffins.com.au
GMG Legal Services Pty Ltd an Incorporated Legal Practice ABN 19 074 972 231
www.griffins.com.au

3. In the *Oaks Hotels & Resorts Pty Ltd v City of Holdfast Bay* (2010) SAERDC the ERD Court granted approval for the change of use of 69 existing apartments from residential apartments to serviced apartments. The complex (Liberty Towers) comprised a total of 253 apartments. The effect of the decision is that the Court approved joint use of the building for both residential and serviced apartments.

4. I note the Minutes referred to earlier made the following comments:

> *"Land Use*
>
> - *Question regarding the possibility of application proposing and consent being granted for all apartments to be used as residential or serviced:*
>
> - *proponent contends this is possible by virtue of the Adelaide City Development Plan treating residential and serviced apartments identically*
>
> - *proponent recognises that there are different Building Code requirements applying to residential and serviced accommodation – intends to gain Building Rules Consent for the 'worst case scenario' (requirements applying to serviced apartments are more onerous) to enable switch between residential and serviced accommodation)*
>
> - *proponent's legal advice is to the effect that this would be similar to a commonly used process of categorising multiple land uses within the same building*
>
> - *DPTI Planning open to the proponent providing a legal opinion regarding this*
>
> - *Irrespective of whether legal opinion provided or not, DPTI Planning to confirm position after further consideration"*

5. In the <u>*Oaks* decision</u> above the ERD Court noted:

> *"30. The Development Plan for the Zone in question uses the term "residential flat building" and it also refers to "serviced apartments and other forms of tourist accommodation" and "apartments for residential purposes and visitor accommodation". It seems to us that the commercially managed apartments proposed are likely to have slightly different impacts upon the amenity of the locality from the impacts of a motel and a residential flat building are different."*

In other words the joint uses must be considered having regard to all relevant provisions of the Development Plan applicable to each. That is part of the planning assessment of the proposal. We note that the Development Plan uses the terminology "medium to high scale residential or serviced apartments" through the Plan. Serviced apartments are not separately referred to unless "non complying" (not relevant here).

6. As indicated in the Minutes any future Building Rules Consent must include BCA requirements relating to <u>both</u> uses sought. That is a matter to be considered during the Building Rules application.

Summary

There is no legal impediment to an approval allowing the proposed building to be used as both residential and serviced accommodation apartments on a joint basis.

Such joint use is not uncommon in the CBD and elsewhere.

Yours faithfully
GRIFFINS LAWYERS

JOHN MCELHINNEY
Direct email: jmcelhinney@griffins.com.au
Direct line: (08) 8113 5119
Mobile: 0418 821 563

Encl. Decision Notification Form

RLB | Rider Levett Bucknall

Rider Levett Bucknall SA Pty Ltd
ABN 96 008 129 324

Level 1, 8 Leigh Street
Adelaide SA 5000
Australia

Tel: +61 8 8100 1200
Fax: +61 8 8100 1288
Email: adelaide@au.rlb.com

30th April 2018

Karidis Corporation Ltd
49 Angas Street
ADELAIDE SA 5000

Attention: Mr Greg Maughan
Development Manager

Dear Greg,

TOMS COURT APARTMENT AND MOTEL MIXED USE DEVELOPMENT
DEVELOPMENT APPLICATION CONSTRUCTION COST

Further to your request and based on the documentation provided to Rider Levett Bucknall, we advise that the indicative development construction costs associated with the proposed 'Mixed Use' project at 20 Toms Court, Adelaide totals **$10,100,000** (excluding GST).

We trust this is of assistance, however should you require further clarification please don't hesitate to contact our office.

Yours faithfully,

John Drillis
Managing Director
Rider Levett Bucknall
john.drillis@au.rlb.com

OFFICE FOR DESIGN + ARCHITECTURE SA

File No:
2014/11234/01

Ref No:
12803114

14 June 2018

Mr Brett Miller
A/Unit Manager, State Assessment
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

brett.miller@sa.gov.au

For the attention of the State Commission Assessment Panel

20 Toms Court, Adelaide

Further to the referral DA 020/A042/18 received 22 May 2018 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I am pleased to provide the following comments informed by the Design Review process for your consideration.

The proposal was presented at one Desktop Review session. A previous scheme for the site was presented at one Design Review session and one Desktop Review session. A pre-lodgement agreement was not reached in advance of lodgement.

The proposal is for a 14 storey mixed use building comprising a ground level cafe tenancy, 64 motel rooms and four apartments. In principle I support residential development in the area, and welcome the benefit the increased daily population could bring to the precinct. In my view, this site presents a rare opportunity to provide a unique accommodation offering in the centre of the city.

The subject site is located on the north west side of Toms Court, a public lane located east of King William Street with access from Halifax Street. Toms Court terminates at the north end of the lane, with car park access to the existing Police Credit Union building. The site has dual frontage to Toms Court to the east and a rear public lane to the west. The site is also adjacent George Parade, a private lane to the north. The subject site is rectangular in shape with a total approximate land size of 230 square metres and a narrow frontage of approximately 9.5 metres. The surrounding area is characterised by a mixture of one to three storey commercial and residential buildings fronting onto Toms Court. The public lane to the west of Toms Court serves as the rear laneway for King William Street commercial tenancies as well as access to the residential development located to the south of the subject site. This existing three storey residential development includes balconies that project over the footpath at level two.

A new mixed use development located to the north west of 20 Toms Court received Development Approval in December 2016. This proposal also for Karidis Corporation is located at 322-340 King William Street, the former Trim's site, and

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26-28 Leigh Street
Adelaide SA 5000

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Government of South Australia

OFFICE FOR
DESIGN +
ARCHITECTURE SA

File No:
2014/11234/01

Ref No:
12803114

comprises a nine storey (29 metre) podium of retail/commercial tenancies to ground and first floor, with seven levels of car parking above. Two towers are located above the podium that include office space, residential accommodation and communal facilities. The development has an overall above ground height of 112-114 metres.

The proposal at 20 Toms Court is for a building of 14 levels with an above ground height of 48.29 metres. I support the proposed height and massing, as in my view the proposed scale and built form proportions are appropriate for the location. The north west corner of the building converges with the south east corner of the Trim's development. I recommend ongoing development of the interface condition with the Trim's site including consideration of rebates/negative joints with the view to collectively resolve any technical and composition issues of the junction as they arise.

The proposal intends to visually and physically open the development at ground level and provide a connection between Toms Court and the rear public lane and George Parade. In principle, I support the approach to improve the amenity and security of the laneways by connecting George Parade and the public lane, and creating a new visual and physical link between Toms Court and the public lane.

The main access to the development is proposed from Toms Court through a public foyer which also includes a cafe tenancy. While this offers a degree of interaction with the street and is supported in principle, I recommend further design refinement during the next phase of design development to maximise opportunities to activate Toms Court. This includes a review of the structural solution, to increase the extent of glazing to the street frontages to improve security and activation, and consideration of interaction between the entry lobby, cafe and linkage to the public lane in terms of overlapping functions, security requirements, interior fitout and furniture. I support the provision of an accessible washroom facility at ground floor level. I also acknowledge the intent to rationalise the planning of the ground floor fire egress and rear service areas to reflect the ambition of a visual connection through to the rear public lane. While I also support the increased ceiling height of the ground floor level to provide a more generous volume for the entrance, I recommend consideration of additional height to further assist in providing a meaningful visual and physical connection between Toms Court and the public lane.

The proposed building is a solid singular form without a podium, which I consider to be appropriate for the location. The building may remain exposed indefinitely because of its height, and as such, creating a building that is restrained and well-proportioned is critical to the overall success of the project. In my view, the development should respond further to the established context and finer grain and robust character of Toms Court including the adjacent three storey apartment building, in addition to the new Trims development. To that end, I recommend the use of raw and simple materials to strengthen the character of the development and be suitable for the robust surrounding conditions. I also recommend use of materials with finishes and colours integral to the fabric rather than applied and/or painted finishes, to consider longevity, durability and ease of maintenance. I recommend further consideration of a holistic and integrated strategy for materials, colour, branding, signage and articulation of the development with the view to reflect the simplicity of the solid singular form with expressed balcony elements to the east and west and provide a strong identity for the motel within the city.

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File No:
2014/11234/01

Ref No:
12803114

Levels one and two comprise three motel rooms fronting to Toms Court and services, cafe and apartment store areas to the west of the site. Two lifts are provided to each level with services adjacent the south fire stair. I recommend further exploration of opportunities to provide natural light to the foyer space to increase amenity for occupants and staff. Additionally, in my opinion, an opportunity exists to expose services in a considered manner with a view to maximise usable floor area. This may also assist with strengthening the character and unique identity of the development.

Above level two are 10 levels of motel rooms, with alternate floors of six or five motel rooms per floor with the inclusion of an accessible room on levels five, seven, nine and 11. I strongly support the inclusion of accessible rooms and recommend further rationalisation of the foyer requirements and internal room planning to consolidate functions to ensure accessibility to all facilities within the rooms. I also recommend consideration of services arrangements with a view to providing living areas with generous ceiling heights and the provision of level thresholds from living areas to balconies to provide universal access and a genuine extension of the interior to exterior spaces.

Level 13 comprises four residential dwellings in the form of two studio apartments and two one bedroom apartments. I note the two studio apartments have a shortfall of 1.6 square metres with regards to the minimum internal floor areas prescribed in the Development Plan. Acknowledging the site constraints, in my view, the opportunity exists to rationalise the internal planning to consolidate overlapping functions such as the laundry and kitchen, and optimise the amenity, usability and floor area of the apartments.

I support the provision of windows to the development at the north west corner of the building to maximise northerly aspect with views, natural light and opportunities for passive surveillance to George Parade. The proposal includes glazing with a low-E coating to mitigate solar heat loads. The bedroom windows to the west and north elevations are not proposed to have solar shading. I recommend consideration of integrated shading devices to the west and north windows rather than the reliance on glazing performance to address solar loads.

The balconies on each level encroach onto the footpath and street. I acknowledge the balcony encroachments have been endorsed by Adelaide City Council and commend the design team for early engagement with Council to ensure a viable outcome has been submitted for consideration. The balconies require full height glazing screens to the south east and south west corners of the building to manage anticipated wind loads and potential overlooking to neighbouring properties. In my opinion, glazed balustrades are not consistent with the existing character of the surrounding context with regards to materiality. I recommend further consideration of alternative balustrade options that better respond to the fine grain character of the area and address ongoing maintenance issues. In my view, the materiality and articulation of the apartment development located immediately south could assist in informing the architectural expression of the balcony balustrades. I also strongly recommend development of a management strategy to implement the wind assessment report recommendations of securing loose furniture to ensure public and resident safety.

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OFFICE FOR DESIGN + ARCHITECTURE SA

File No:
2014/11234/01

Ref No:
12803114

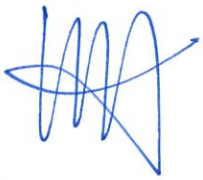
As the balconies are the main elements of the street elevations, I am encouraged by the decision to maintain the balconies free of any services equipment and support the provision of plant services areas to the rear of the building on the first and second floors. As the services requirements develop, I recommend the ongoing exploration of opportunities to relocate additional services from within the building to the rooftop to assist with maximising floor space at the lower levels.

The proposal includes the provision of 10 secure bicycle parking spaces and no car parking spaces. I support the decision to remove car parking from the development, given the site's location and land use. I also support the provision of bicycle parking spaces within the Front of House areas to assist in activating the ground floor foyer space and encourage use.

To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider particular aspects of the project which would benefit from protection as part of the planning permission such as:

- A high quality of external materials with finishes and colours integral to the fabric rather than applied and/or painted finishes.
- Development of a holistic and integrated strategy for architectural expression, branding and signage.
- Further rationalisation of internal layouts to ensure accessibility to all facilities within the accessible motel rooms.
- Consideration of services arrangements with a view to providing living areas with generous ceiling heights and the provision of level thresholds from living areas to balconies to provide universal access and a genuine extension of the interior to exterior spaces.
- Provision of integrated shading devices to the west and north windows.
- Materiality and detailing of the balcony balustrades and screens to ensure an integrated and contextual design outcome.
- Development of a management strategy to implement the wind assessment report recommendations of securing loose furniture to ensure public and resident safety.

Yours sincerely



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CITY OF ADELAIDE

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Enquiries: Janaki Benson 8203 7122
Reference: S10/32/2018

21 June 2018

045

State Commission Assessment Panel
GPO Box 1815
Adelaide SA 5001

Attention: State Commission Assessment Panel

Dear Sir/Madam

Application: S10/32/2018
Applicant: KARIDIS CORPORATION P/L
Address: 20 Toms Court, ADELAIDE SA 5000
Description: Demolition of existing commercial building and construction of mixed use development comprising ground floor commercial cafe tenancy, 64 motel rooms (levels 1 to 12) and four (4) Residential Apartments (Level 13)

Council has the following comment(s) to make on the above application:

TECHNICAL COMMENTS

STORMWATER

- Stormwater runoff from the proposed motel development must be contained within the property boundaries, collected, and discharged to the Toms Court road reserve.
- Councils stormwater management systems (minor and major rainfall events) have been designed to manage gravitational flows only. Any proposed siphonic roof drainage systems must be designed to attenuate discharge flows to Councils stormwater management systems to equivalent gravitational flows.
- Any proposed grated inlet pits or stormwater openings within the building must be designed with an adequate freeboard to the 1% AEP flood level assumed to be 100 mm above existing surface levels in Toms Court adjacent to the property boundary line.

ROADS / FOOTPATHS

- Any damage caused to CoA's road, footpath and kerbing

ENGINEERING	infrastructure during development will be the responsibility of the developer to rectify to a standard that equals or improves the pre-development condition. • CoA will inspect the works after completion for standards and specification compliance. • Existing crossovers and new crossovers highlighted under this development. All new or alterations to existing crossovers firstly require CoA approval outside of the DA process. These need to be to CoA's standards and specifications via the City Works Guidelines. • Any disused crossovers resulting from the development are to be reinstated to equivalent footpath levels to CoA standards and specifications. • Existing boundary (back of path) levels must not be modified. Finished floor levels should be based around retaining the existing back of path levels subject to the following: -If the level difference between top of kerb and back of path is less than 50 mm -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. • Any modifications to kerbing existing and new are to be designed and constructed to CoA standards and specifications. • Bollard installation on unnamed public road off Toms Court is not supported by CoA as it may impede existing vehicle access properties.
LIGHTING / ELECTRICAL / CCTV	• The proposed development works will not impact on the public lighting within the proximity of the development site. Both Tom Court and the minor laneway behind are lit by City of Adelaide wall mounted lighting on the building directly adjacent the development site. • All works to be undertaken to be fit for purpose in the public realm. • 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 Councils' requirements. The works shall be carried out to meet Councils' requirements and all costs borne directly by the developer. • 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 Councils' requirements. The works shall be carried out to meet Councils' requirements and all costs borne directly by the developer. • 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 Councils review and records. • If new canopies are to be constructed as part of these works, then lighting to meet CoA's under veranda requirements shall be installed. • Existing underground services shall be identified and marked in the locality prior to undertaking any excavation works. • All damage to CoA's 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 Councils requirements and the cost of the developer. • If building mounted lit signage is to be installed onto the building, further review and approvals will be required by City of Adelaide. • All assets to be handed over to CoA to own and maintain shall be constructed to Councils' requirements and applicable legislative standards and requirements. All equipment gifted shall be Councils standards and applicable requirements.
TRAFFIC / TRANSPORT	The location of the bollards proposed to be on the public road would not be supported as this location would require a Section 32 of the Road Traffic Act. This process would take approximately 6-12 months and may not proceed after public consultation. Recommendation to locate bollards on private property/private road.
WASTE	From review of the supporting documentation and previous engagement with the proponent's waste consultant, Council supports the proposed development.

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:

LAND USE	• The definition of a 'Motel' in the *Development Regulations 2008* relies on an associated '…restaurant facility'. In the event the proposal does not provide an associated restaurant facility (café at ground in this case), the motel rooms (levels 1-12) will fail to meet the definition of Motel and result in undersized apartments.

- Adaptability in the future from motel to residential/serviced apartments will also be hard to achieve and somewhat undesirable given the small room sizes proposed for the motel rooms.

ENCROACHMENTS	The proposed encroachments have been considered by Council, at its meeting held 28 March 2017, and supported.
BUILDING TRANSFORMER	The application should demonstrate that the building does not need its own transformer (or an appropriate location if needed) in the event the adjacent building (Trim's development on King William) is not constructed. If needed, it is likely the transformer will need to be located at ground and result in a poor presentation given the narrowness of the site.
STAGING	It is noted the development is to occur in stages, with demolition sought for stage 1. Demolition in isolation is not supported given there is no legal commitment that all stages will occur. The Development Plan seeks re-assurance that there is a commitment to building work to ensure vacant sites do not result in the City.

Yours faithfully

Rebecca Rutschack
MANAGER - PLANNING ASSESSMENT

KARIDIS CORPORATION LIMITED
BUILDING BETTER CITIES

Serviced Apartment Operations
Retirement Village Operations
Student Accommodation
Industrial Development
Property Management
Property Development
Project Management
Car Park Operations
Property Investment
Commercial Offices
Joint Ventures
Retail Spaces

02 July 2018

Department of Planning, Transport and Infrastructure

Att: Mr Brett Miller

GPO Box 1815

Adelaide SA 5001

Via Email : brett.miller@sa.gov.au

RE: 20 TOMS COURT

Dear Brett,

Further to the issue of the Adelaide City Council referral comments we respond to the pertinent points raised in their letter dated 21 June 2018 as follows:

ENGINEERING

- *Bollard installation on unnamed public road off Toms Court is not supported by CoA as it may impede existing vehicle access properties.*

KCL Response: The four bollards shown in the unnamed Public Road off Tom's Court do not form part of this application. It is noted that these bollards have been shown as an overlay only to show the interface with the approved Echelon Development Ref: Development Number 020/M043/16 V1.

TRAFFIC /TRANSPORT

- *The location of the bollards proposed to be on the public road would not be supported as this location would require a Section 32 of the Road Traffic Act. This process would take approximately 6-12 months and may not proceed after public consultation. Recommendation to locate bollards on private property/private road.*

KCL Response: As above and note that the 2 bollards shown within the site near the Public Lane entry will be installed as part of this development application.

LAND USE

- *The definition of a 'Motel' in the Development Regulations 2008 relies on an associated '…restaurant facility'. In the event the proposal does not provide an associated restaurant facility (café at ground in this case), the motel rooms (levels 1-12) will fail to meet the definition of Motel and result in undersized apartments.*

KCL Response: As advised at Pre-Lodgement Meeting No.3 we confirm that the commercial tenancy on the Ground Floor will be a Café (restaurant) as nominated on the plans.

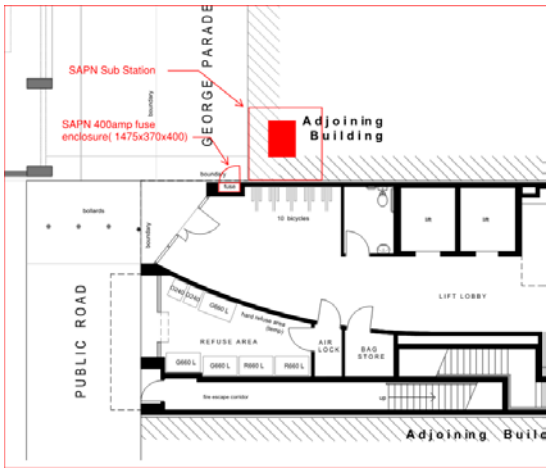
- *Adaptability in the future from motel to residential/serviced apartments will also be hard to achieve and somewhat undesirable given the small room sizes proposed for the motel rooms.*

KCL Response: We recognise that any potential future adaptation from Motel room to residential/ serviced apartments would require a separate development application and approval.

BUILDING TRANSFORMER

- *The application should demonstrate that the building does not need its own transformer (or an appropriate location if needed) in the event the adjacent building (Trim's development on King William) is not constructed. If needed, it is likely the transformer will need to be located at ground and result in a poor presentation given the narrowness of the site.*

KCL Response: No transformer is required for the building - SAPN have assessed and confirmed the capacity for our proposed power supply option of connecting to the existing transformer located within the PCUB and extending a new low voltage cable from the existing PCUB transformer as per below figure.



KARIDIS CORPORATION LIMITED
BUILDING BETTER CITIES

Should you have any queries regarding the above please do not hesitate to contact the undersigned.

Yours faithfully

Greg Maughan

DEVELOPMENT MANAGER

Karidis Corporation Ltd. ABN 79 007 844 144 www.karidis.com.au
Adelaide: 49 Angas Street, Adelaide, South Australia 5000 Australia. Telephone: +61 8 8414 7900 Facsimile: +61 8 8231 0374
Melbourne: Saffron Grove, 8 Saffron Drive, Hallam, Victoria 3803 Australia. Telephone 1300 669 523

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.

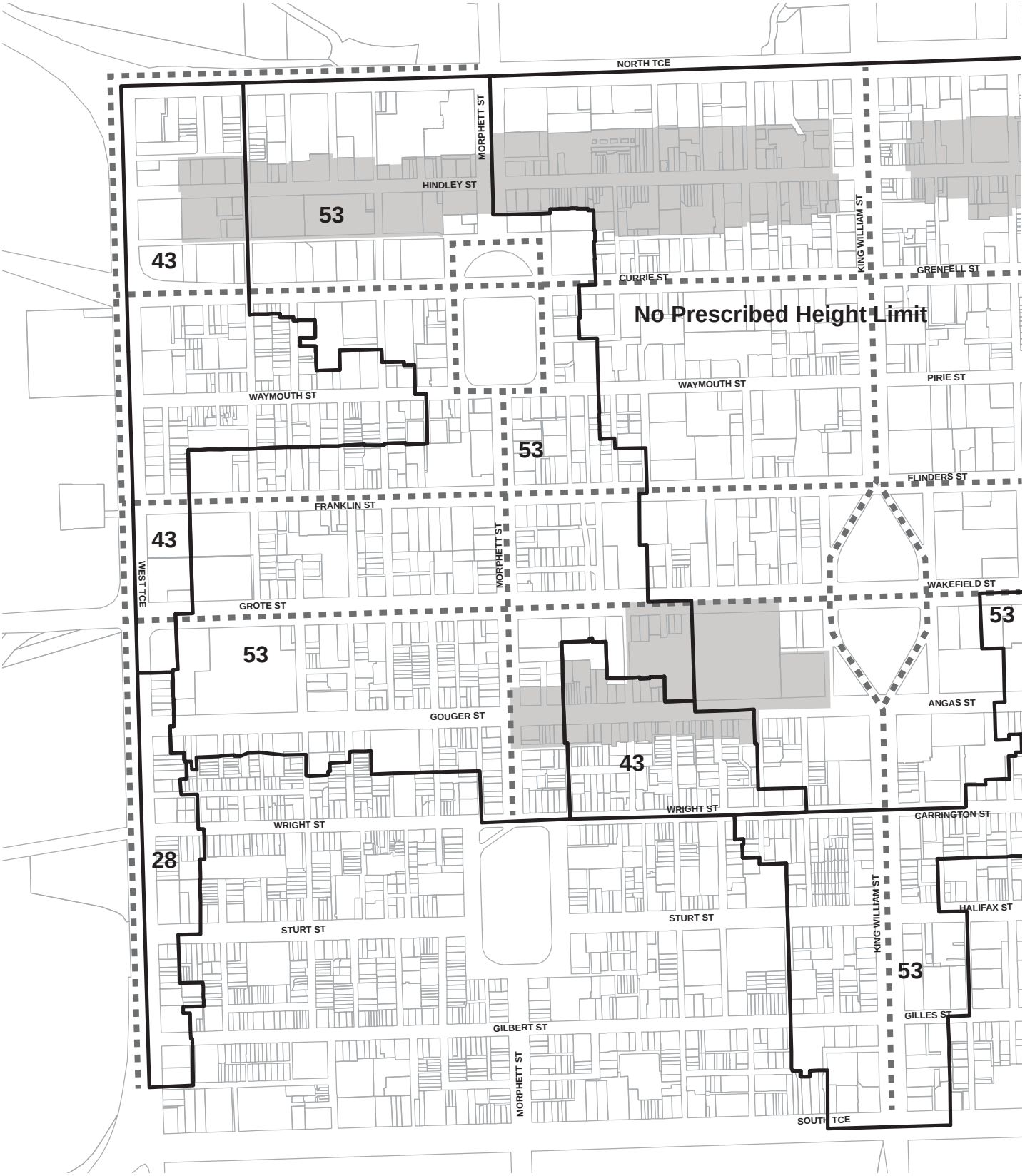
(g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas 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.



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1:8000

0 120 240 360 480 600 metres

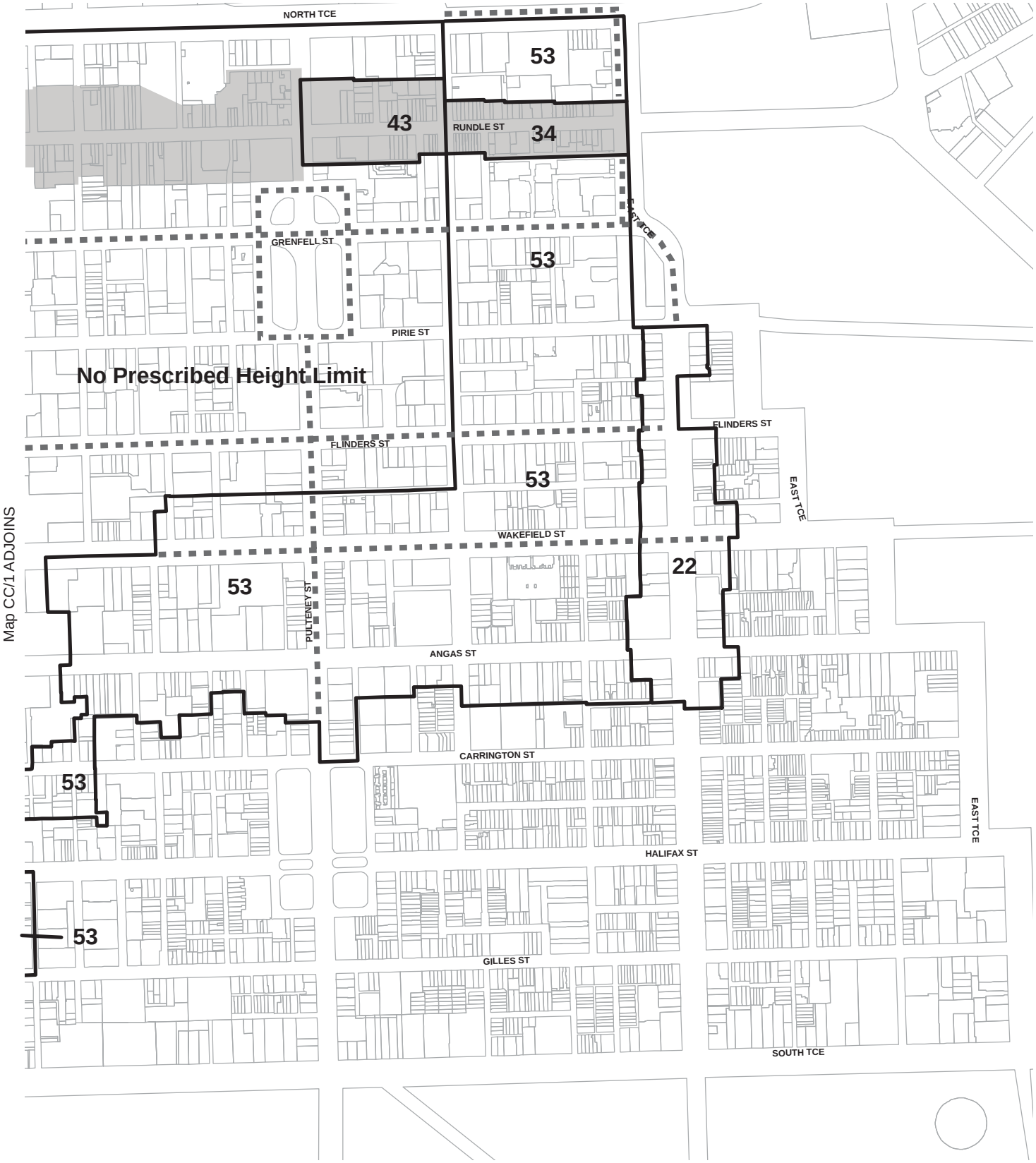
Maximum Building Height (metres) within Capital City zoned land
Note: Airport Building Height Restrictions Apply. Refer Map Adel/1 (Overlay 5).

City Boulevards and Terraces

Policy Areas of a 'Main Street' type

ADELAIDE (CITY) BUILDING HEIGHTS Concept Plan Figure CC/1

Consolidated - 20 June 2017



N

1:8000

0 120 240 360 480 600 metres

Maximum Building Height (Metres)
within Capital City Zoned land
Note: Airport Building Height Restrictions Apply.
Refer Map Adel/1 (Overlay 5).

City Boulevards and Terraces

Policy Areas of a 'main Street' type

ADELAIDE (CITY)
BUILDING HEIGHTS
Concept Plan Figure CC/2

Consolidated - 20 June 2017

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 set-backs.

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 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.

22 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.

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) 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.

36 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.

37 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.

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

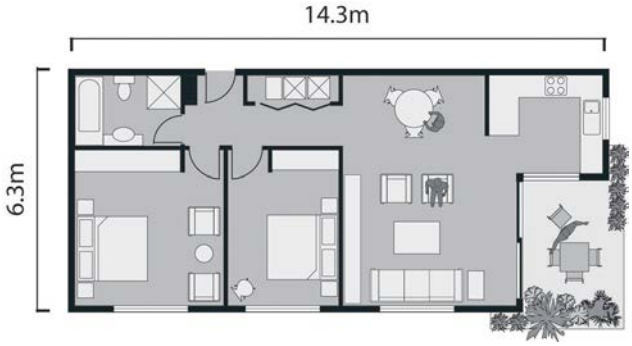


Figure 50.1 - two bedroom corner dwelling.

(b) double aspect dwelling/apartment.

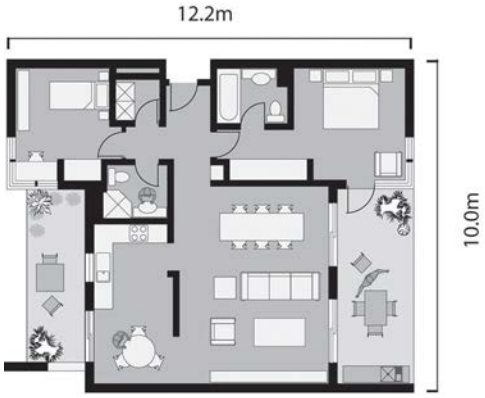


Figure 50.2 - two bedroom double aspect dwelling/apartment.

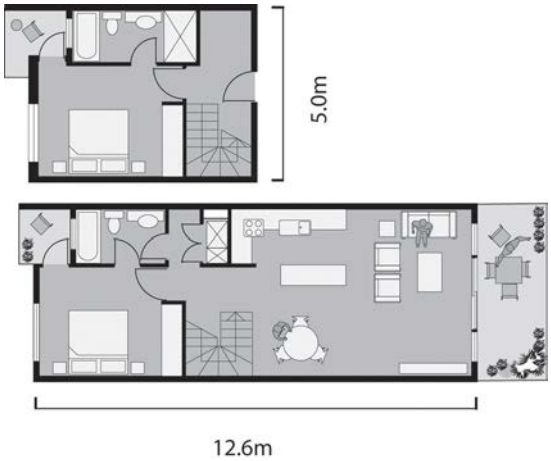


Figure 50.3 - two bedroom double aspect dwelling/apartment.

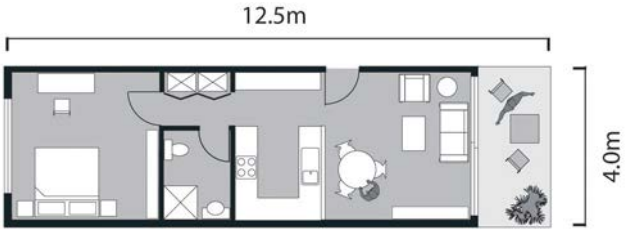


Figure 50.4 - one bedroom double aspect dwelling/apartment.

(c) split level dwelling/apartment.

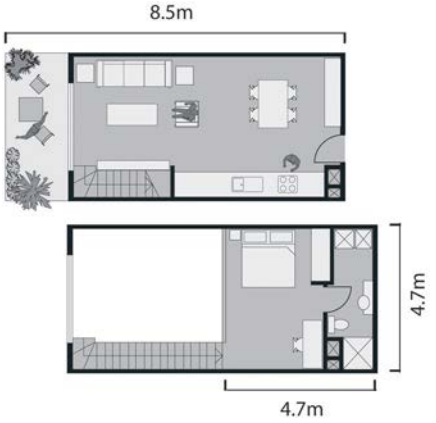


Figure 50.5 - one bedroom split level dwelling/apartment.

(d) shallow, single aspect dwelling/apartment limited in depth to 8 metres from a window

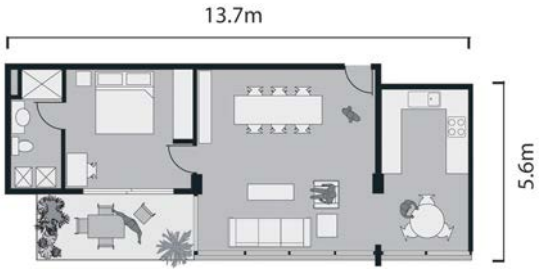


Figure 50.6 - one bedroom single aspect dwelling/apartment.

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:*

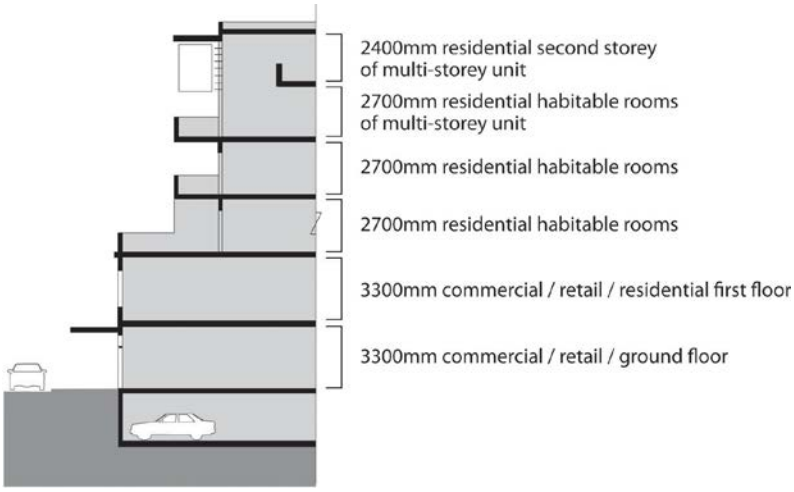


Figure 52.1 - appropriate ceiling heights for mixed use buildings.

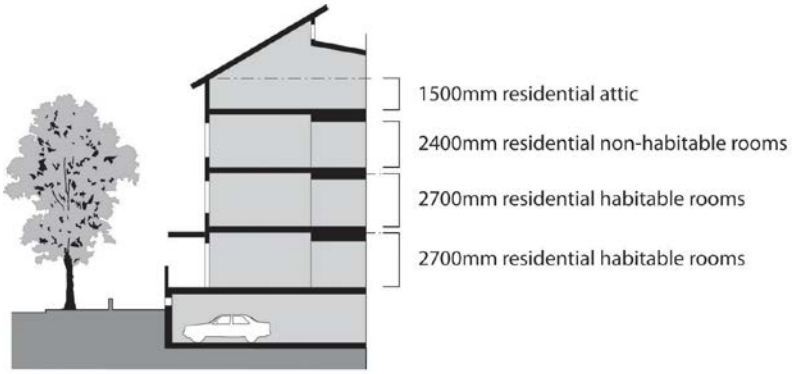


Figure 52.2 - appropriate ceiling heights for medium to high scale residential or serviced apartment development.

53 All new medium to high scale residential or serviced apartment development should have direct ventilation and natural light.

54 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.

56 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):*

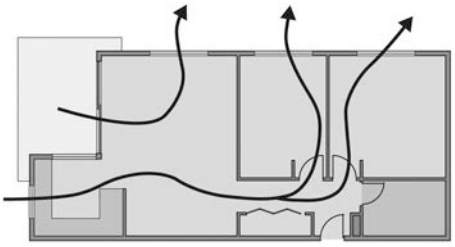


Figure 58.1 - effective layout for an upper level corner dwelling/apartment.

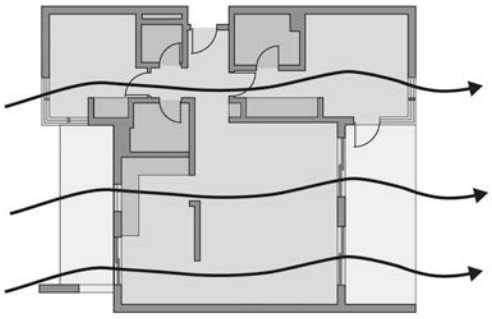


Figure 58.2 - optimal layout allowing air flow directly from one side of a dwelling/apartment to the other.

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.

60 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.

61 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:*

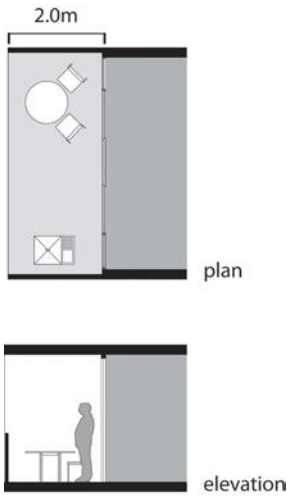


Figure 61.1 - a minimum depth of 2 metres

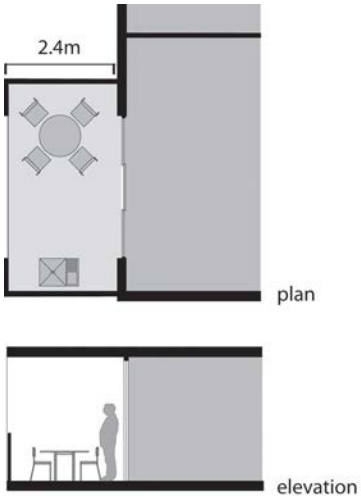


Figure 61.2 - a 2.4 metre deep balcony is needed for a table and four chairs.

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.

67 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

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.

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

73 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.

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.

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.

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 ($L_{10,\ 15\ min}$) is:

(i) less than 8 dB above the level of background noise[2] ($L_{90,15\ min}$) in any octave band of the sound spectrum; and

(ii) less than 5 dB(A) above the level of background noise ($L_{A\ 90,15\ min}$) 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 ($L_{10,\ 15\ min}$) less than 8 dB above the level of background noise ($L_{90,15\ min}$) in any octave band of the sound spectrum; and

(ii) music noise ($L_{A10,\ 15\ min}$) 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; 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:

(a) 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;

(c) 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.

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 ($L_{90,15\ min}$) 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

(l) 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'.*

Contaminated Sites

OBJECTIVE

Objective 29: A safe and healthy living and working environment**.**

PRINCIPLES OF DEVELOPMENT CONTROL

105 Where there is evidence of, or reasonable suspicion that land, buildings and/or water, including underground water, may have been contaminated, or there is evidence of past potentially contaminating activity/ies, development should only occur where it is demonstrated that the land, buildings and/or water can be made suitable for its intended use prior to commencement of that use.

Note: Information of the suitability of land for the proposed land use should be provided as part of the development application and should include:

(a) the provision of a report of the land use history and condition of the site;

(b) where the report reveals that contamination is suspected or identified, a detailed site assessment report that determines whether site contamination poses an actual or potential risk to human health and the environment, either on or off the site, of sufficient magnitude to warrant remediation appropriate to the proposed land use;

(c) where remediation is warranted, a remediation and/or management strategy prepared in consultation with an independent Environmental Auditor, Contaminated Land, endorsed by the EPA;

(d) a site audit report, prepared by an independent Environmental Auditor, Contaminated Land, endorsed by the EPA, that states that in the opinion of the Auditor, the site is suitable for the intended uses(s), or for certain stated uses(s) and also states any conditions pertaining to the use(s).

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.

Design Techniques *(these are ONE WAY of meeting part of the above Principle)*

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^o west and 30^o 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.

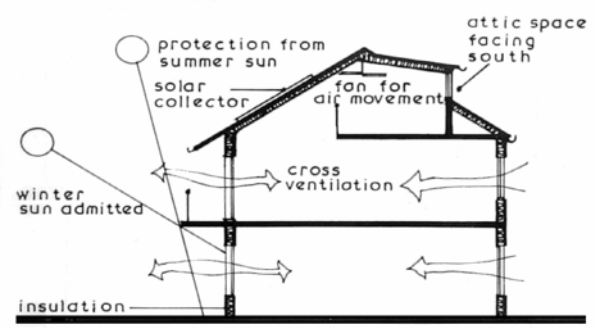


Figure 106.1 - appropriate orientation and design for residential development

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;

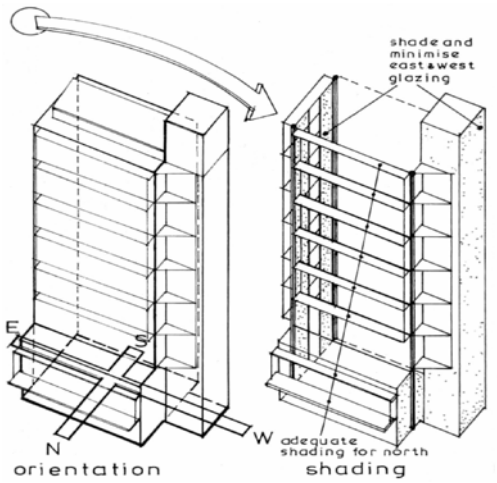


Figure 108.1 - appropriate orientation and shading for commercial buildings.

(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^o east and 20^o west of north respectively; and

(b) has a pitch of greater than 18^o.

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.

Design Techniques *(these are ONE WAY of meeting part of the above Principle)*

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.

Residential Development

113 New residential development and residential extensions should be designed to minimise energy consumption and limit greenhouse gas emissions.

114 Development is encouraged to avoid heat loss by incorporating treatments, such as double glazing of windows along the southern elevation, or by minimizing the extent of windows facing south.

Renewable Energy

OBJECTIVES

Objective 31: The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

Objective 32: Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

116 Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.

117 Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.

118 Renewable energy facilities, including wind farms, and ancillary development such as substations, maintenance sheds, access roads and connecting power-lines (including to the National Electricity Grid) should be located, sited, designed and operated in a manner which:

(a) avoids or minimises detracting from the character, landscape quality, visual significance or amenity of the area;

(b) utilises elements of the landscape, materials and finishes to minimise visual impact;

(c) avoids or minimises adverse impact on areas of native vegetation, conservation, environmental, geological, tourism or built or natural heritage value;

(d) does not impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips;

(e) avoids or minimises nuisance or hazard to nearby property owners/occupiers, road users and wildlife by way of:

(i) shadowing, flickering, reflection and blade glint impacts;

(ii) noise;

(iii) interference to television and radio signals;

(iv) modification to vegetation, soils and habitats; and

(v) bird and bat strike.

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.

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.

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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

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.

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).

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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

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.

Advertising

OBJECTIVE

Objective 56: Outdoor advertisements that are designed and located to:

(a) reinforce the desired character and amenity of the locality within which it is located and rectify existing unsatisfactory situations;

(b) be concise and efficient in communicating with the public, avoiding a proliferation of confusing and cluttered displays or a large number of advertisements; and

(c) not create a hazard.

PRINCIPLES OF DEVELOPMENT CONTROL

211 Advertisements should be designed to respect and enhance the desired character and amenity of the locality by the means listed below:

(a) the scale, type, design, location, materials, colour, style and illumination of any advertisements should be compatible with the design and character of the buildings and land to which it is related, and should be in accordance with provisions for the Zone and Policy Area in which it is situated and any relevant adjacent Zones or Policy Areas;

(b) advertisements should be integrated with the architectural form, style and colour of buildings and wherever possible, requirements for advertisements should be considered in the design of new buildings;

(c) advertisements should be artistically interesting in terms of graphics and construction with intricacy and individuality in design encouraged while maintaining consistency in design and style where co-ordinated advertisements are appropriate;

(d) structural supports should be concealed from public view or of minimal visual impact;

(e) advertisements on individual premises should be co-ordinated in terms of type and design and should be limited in number to minimize visual clutter;

(f) advertisements should be displayed on fascia signs or located below canopy level;

(g) advertisements on buildings or sites occupied by a number of tenants should be co-ordinated, complementary and the number kept to a minimum; and

(h) advertisements on or adjacent to a heritage place should be designed and located to respect the heritage value of the heritage place.

212 Advertisements are inappropriate on premises used for a dwelling. This does not include business plates associated with a home activity which does not exceed 0.2 square metres.

213 In the City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone, advertisements should not detrimentally affect residential amenity and advertisements at roof level where the building forms the backdrop (i.e. plant room) are inappropriate.

214 Product advertisements illustrating products sold on the premises in conjunction with the business name should not exceed 25 percent of the area of any advertisement.

215 Development of vending machines, automatic teller machines and fast food outlets should:

(a) be consistent with the relevant Zone and Policy Area provisions;

(b) maintain the character and continuity of activity along street frontages;

(c) maintain good visibility from the street or public places for security; and

(d) not impede pedestrian movement.

216 Advertisements relating to vending machines and automatic teller machines should be restrained in size and style.

217 Advertisements should not endanger public safety or detrimentally affect the amenity of adjacent premises by reason of their location, position, construction or design and should:

(a) not emit excessive glare or reflection from internal or external illumination;

(b) not obscure road users' and pedestrians' views of vehicles, pedestrians or potentially hazardous road features;

(c) not cause confusion with, or reduce the effectiveness of traffic control devices;

(d) have a clearance between the footpath and base or underside of projecting signage of at least 2.5 metres for permanent advertisements and 2.3 metres for temporary advertisements, and between the kerb face and outside edge of the sign of at least 600 millimetres; and

(e) permit safe and convenient pedestrian movement.

218 Temporary advertisement hoardings or shrouds required for the screening of construction sites or for creating visual interest should occur only where they are:

(a) of a high standard of design;

(b) displayed only during the period of construction;

(c) comprised of high quality opaque, solid and non-reflective material that is durable, low maintenance and appropriate to the City context;

(d) required to conceal wiring and conduits; and

(e) do not create undue risk to public or private safety.

[*] *Public spaces includes streets, lanes, squares, parks, gardens, building forecourts and atria internal to a building.*

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

(a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;

(b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;

(c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;

(d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;

(e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

(g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

Objective 75: Development which reinforces clusters and nodes of activity and distinctive local character.

Objective 76: A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia.

PRINCIPLES OF DEVELOPMENT CONTROL

266 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

(a) provide a range of shopping facilities in locations that are readily accessible;

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;

(c) maximise opportunities for co-location, multiple use and sharing of facilities;

(d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and

(e) have minimal impact on the amenity of residential areas.

267 The Institutional Zones should develop:

(a) with a function and quality in providing leisure, transport, cultural, government, educational and health facilities in an “Institutional” setting on land in public ownership;

(b) by being characterised by a transition of fine public buildings in a landscaped setting between the intense built form marking the edge of the Capital City Zone on the southern side of North Terrace to the Torrens Valley in the Park Lands Zone;

(c) with commercial activities being ancillary to the cultural and institutional functions of the Zones; and

(d) with improved pedestrian movement and integration across North Terrace.

268 Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.

269 Tourist facilities should be compatible with the prevailing character of the area, within close proximity to public transport facilities and well designed and sited.

270 Development located either abutting, straddling or within 20 metres of a Zone or Policy Area boundary should provide for a transition and reasonable gradation from the character desired from one to the other.

271 Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.