WLPP No.	Item 1
DA No.	DA-2017/1577
Proposal	Mixed use development -demolition of existing structures and the construction of a mixed use development consisting of 2 commercial tenancies, 35 apartments over basement parking for 50 cars
Property	Lot 11 DP 1171213, 27 Flinders Street, WOLLONGONG NSW 2500
Applicant	Arthur Zouglis – Artro Management
Responsible Team	Development Assessment and Certification - City Centre Team (NL)

ASSESSMENT REPORT AND RECOMMENDATION

Executive Summary

Reason for consideration by Wollongong Local Planning Panel - Determination

The proposal has been referred to Local Planning Panel pursuant to clause 2.19(1) (a) of the Environmental Planning and Assessment Act 1979. Under Schedule 2 of the Local Planning Panels Direction of 1 March 2018, the development is sensitive development being more than 4 storeys in height and SEPP 65- Design Quality of Apartment Buildings applies (clause 4), has received in excess of 10 submissions (clause 2b) and exceeds the height limit under WLEP 2009 by greater than 10% (18%) (Clause 3).

Proposal

The application was lodged on 24 November 2017 and proposes the demolition of the existing building and construction of a six storey mixed use development with two commercial tenancies and 35 residential units.

Permissibility

The site is zoned B6 Enterprise Corridor pursuant to Wollongong Local Environmental Plan 2009. The proposal has been submitted as a shop top housing development which is permissible in the zone with development consent.

Consultation and submissions

The proposal was notified on three occasions in accordance with Council notification policy receiving a total of 22 submissions following public exhibition (some of which are repeated submissions following re-exhibition of amended plans). The concerns raised are discussed at section 2.8 of the assessment report.

Main Issues

The main issues are as follows:

- Breach of the maximum height limit under Wollongong Local Environmental Plan 2009
- Non-compliant with building separation under SEPP 65
- Context and setting
- Design excellence
- Non-compliant side setbacks under Wollongong Development Control Plan 2009
- Traffic impacts

RECOMMENDATION

It is recommended that the proposal be **refused** for the reasons outlined at Attachment 8.

1 APPLICATION OVERVIEW

1.1 PLANNING CONTROLS

The following planning controls apply to the proposal:

State Environmental Planning Policies:

- State Environmental Planning Policy No. 55 – Remediation of Land
- State environmental planning policy (infrastructure) 2007
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- SEPP 71 Coastal Protection (Applicable at time of lodgement, since repealed but did not apply to the city centre)
- SEPP Coastal Management 2016 (Draft at time of lodgement)

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan (WDCP) 2009

Other policies

- Wollongong Section 94A Development Contributions Plan
- Apartment Design Guide (ADG)

1.2 DETAILED DESCRIPTION OF PROPOSAL

The proposal comprises the following:

Site preparation

- Demolition of existing single storey commercial building and associated at grade hard stand parking areas.
- Excavation for one level of basement car parking

Building details

- The building is a six storey shop top housing development comprising one level of basement car parking, ground and first level commercial space
- 35 residential units are proposed, made up of 12 one bedroom (including 4 adaptable), 21 two bedroom and 3 three bedroom units,

Traffic, parking and servicing

- Vehicular access is provided from Flinders Street via a 6m wide driveway
- On-site waste servicing provided
- Total of 50 car parking spaces including 7 commercial parking spaces (including 1 accessible), 7 resident visitor spaces and 36 residential spaces

1.3 BACKGROUND

Pre-lodgement meeting PL-2017/180 was held on 1 November 2017. The development application was submitted prior to receiving the minutes from that meeting.

The Design Review Panel (DRP) reviewed the proposal on three occasions (30 January 2017, 17 April 2018 and 19 June 2018). The proposal was amended in response to previous DRP recommendations

however there remain significant concerns with the proposal as outlined in the latest DRP minutes at Attachment 5.

Customer service actions

There are no outstanding customer service requests of relevance to the development.

1.4 SITE DESCRIPTION

The site is located at 27 Flinders Street, Wollongong and the title reference is Lot 11 DP 1171213.

The site is regular in shape with a fall of approximately 9m from east to west.

A small shed is located on the land as well as at grade hard stand car parking area.

Adjoining development is as follows:

- Lot 1 DP 218881 to the north is occupied by a single storey commercial building and at grade car park currently occupied by a car electrics business.
- Lot 1 DP 214579 to the north wraps around Lot 1 DP 218881 adjoining the subject site to the rear. That site currently contains a 2-3 storey motel building. A large shop top housing development was recently approved on the land in DA-2015/884 following a Land and Environment Court appeal.
- To the south of the site are 4 adjoining properties.
  - On the corner of Flinders and Gipps Street is a single storey commercial building and at grade car parking occupied by a car dealership.
  - Lot 20 DP 805953 and Lot 50 DP 633116 contain a three storey multi-dwelling development, approved in DA-1998/737.
  - Lot 30 DP 736774 contains a single storey dual occupancy development, approved in DA-1993/280.
  - Lot 31 DP 736774 contains a single storey multi-dwelling development with enclosed garages located on the boundary with the subject site.
  - Lot 52 DP 567214 to the east of the site contains a 2-3 storey multi-dwelling development approved in DA-1979 332.
  - Lot 52 DP 567214 to the east of the site is low to high density residential development.

The Flinders Street corridor is characterised by a mixture of largely commercial development however there are have been a number of larger mixed use buildings approved recently, one of which is currently under construction on the opposite side of the road.

Property constraints

There are no restrictions on the title. There is a bus stop located in the street frontage adjacent to the site.

Figure 1: Site analysis with building heights in storeys (approved but unbuilt in brackets)

1.5 SUBMISSIONS

The application was notified on three occasions in accordance with WDCP 2009 Appendix 1: Public Notification and Advertising and included a notice in The Advertiser. 10 objections were received following the initial public exhibition from 8 December to 27 December 2018. The application was renotified between 6 April and 26 April 2018 following receipt of amended plans and received 10 submissions. The application was renotified between 13 July and 1 August 2018 following receipt of further amended plans and received 2 submissions. The consolidated issues are discussed below.

Concern	Comment
The proposal is not a permitted land use in the B6 zone and does not satisfy the definition of shop top housing.	The categorisation of the development as shop top housing is accepted by Council in this instance and further discussed in Wollongong Local Environmental Plan 2009.
The proposal is inconsistent with the B6 zone objectives	Council has concerns regarding consistency with the zone objectives. However, shop top housing is a permitted land use but there is no specified minimum proportion to be provided as commercial space.
The site does not meet the minimum 24m site width required in the DCP for mixed use development	Noted. This is a contributing factor in regard to off-site impacts such as overshadowing and bulk and scale.
The development will significantly overshadow the townhouses located to the south.	The submitted show analysis demonstrates that proposal will adversely impact the adjoining development to the south. This is discussed in further detail under Wollongong Development Control Plan 2009 below.

Concern	Comment
The proposal will result in significant overlooking and privacy impacts on existing development.	Overlooking and privacy are considered to be valid concerns in this instance given the non-compliant ADG and WDCP setbacks.
The proposal will devalue the townhouse development to the south (Lot 50 DP 633116 and Lot 20 DP 805953).	This is not a matter for consideration under Section 4.15.
The proposal exceeds the maximum height limit without justification.	The planning controls provide guidance around the kind of built form that could be reasonably expected. Whilst the extent of the height variation has been reduced from the original scheme, there remains an exceedance of the maximum height of 16m by approximately 2.5m or 18%. This is not supported in this instance as discussed at clause 4.6 of WLEP 2009 below.
The minimum solar access requirements for units within the development will not be achieved.	The proponent has provided suns eye solar access diagrams indicating compliance with the minimum standards within the development will be achieved.
Traffic generated by the development will adversely impact on Flinders Street causing congestion and safety issues.	There remain concerns regarding the impact of the proposal on Flinders Street as outlined at section 1.6.2 below.
The car parking is insufficient	The numerical requirements for car parking have been met by the proposal.
The development will compound existing lack of on-street parking in the locality.	As mentioned above the proposal meets the minimum parking requirements. Concerns around lack of on-street parking are outside the scope of this assessment and a matter for traffic committee.
The site is too narrow to accommodate the huge floor space proposed.	As mentioned above, this is a contributing factor in regard to off-site impacts. However, the floor space does not exceed that permitted under Wollongong Local Environmental Plan 2009.
Non-compliant side and rear setbacks.	The variations to separation / setback requirements are not supported in this instance.
The proposal does not comply with the DCP requirements for deep soil landscaping and does not outline how landscaped areas will be maintained	The landscaped areas proposed satisfy Council controls and Council's Landscape Officer has provided a satisfactory review of the proposal.
The proposed development significantly detract from the operation of existing car dealership Corban Car dealer, which has been using the proposed land for vehicle storage and show room for decades.	This is not a matter for consideration under Section 4.15.

Concern	Comment
The proposal does not clearly separate and distinguish commercial and residential entries and vertical circulation.	The lift closest to Flinders Street is shared by the residential and commercial space. This is contrary to the controls which recommend separation of commercial and residential circulation within mixed use buildings.
The proposal is out of character with the surrounding area.	The design of the proposal is not considered to adequately respond to existing and potential future development on adjoining land.

1.6 CONSULTATION

1.6.1 INTERNAL CONSULTATION

Geotechnical Engineer

Council's Geotechnical Officer has reviewed the application and has provided a satisfactory referral.

Stormwater Engineer

Council's Stormwater Officer has reviewed the application and raised the following issues:

- The proposal is not designed to accept and cater for upslope runoff.
- Additional survey has not been provided of adjoining properties to determine the extent of upslope overland flow that contributes to the site.
- The development will be unable to achieve DDA compliant ramp grades within the site from the front property boundary. In this regard, sections have not been provided from the top of kerb to the finished floor level for the lobby and tenancy entries.

Landscape Architect

Council's Landscape Officer has reviewed the application and given a satisfactory referral. Conditions of consent were recommended were the application to be supported.

Traffic Engineer

Council's Traffic Officer has reviewed the application and has raised the following issues

- Recent layout changes have not been incorporated into the swept path assessment.
- The swept paths show a conflict point at the top and bottom of the basement ramp (vehicles unable to pass each other) which could lead to vehicles backing up on approach to the ramp and on the ramp itself. Mirrors are not considered to be sufficient to address these conflicts.
- A letter of agreement from a private waste contractor has not been provided confirming that the waste vehicle is of sufficient size and is available and able to enter and exit the site.
- The security arrangements of the basement are not acceptable as it is not considered appropriate to leave the roller door open during the day.

Design Review Panel

The Design Review Panel reviewed the proposal on three occasions (30 January 2017, 17 April 2018 and 19 June 2018). The proposal has been amended in response to the DRP recommendations however there remain significant concerns with the proposal as outlined in the DRP latest minutes at Attachment 5 and summarised below:

The panel have consistently recommended that an alternative design strategy be developed for this site to address concerns raised regarding both the northern and southern interfaces with neighbours. These most recent developments have improved the proposals southern interface. However, no

meaningful developments have been made to proposals interface with its northern neighbour. The panel remains of the opinion that an alternative design strategy must be developed.

The latest amended plans do not respond to the recommendations and suggestions of the DRP and the proposal is not supported by the DRP in its current form.

1.6.2 EXTERNAL CONSULTATION

Roads and Maritime Services (RMS)

The RMS reviewed the proposal in respect of potential impact on a classified road (Flinders Street) as required under SEPP Infrastructure. The RMS advise in their letter of response of 23 May 2018 that electronic copies of SIDRA files have not been submitted and their concerns have yet to be satisfactorily addressed by the applicant.

Endeavour Energy

Endeavour Energy were referred the application under the provisions of clause 45 of SEPP Infrastructure. Endeavour has not raised any objection to the development in this regard; subject to resolution the awning distance from overhead lines which if not met may require the existing overhead power to be re-located underground.

It is noted that the registered proprietor of 34-48 Flinders Street Wollongong has given written consent to the creation of easement(s) to facilitate the location of a pad mount substation and reticulation of electricity supply on 34-48 Flinders (across the road) in order to service the development scheme. This would require the provision of private infrastructure under the road. It is considered that inadequate information has been provided in respect of the precise location and mechanism for locating the proposed pad mount substation on a separate lot.

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 – 4.15 EVALUATION

2.1 SECTION 4.15 1(A)(I) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

The applicant provided an Environmental Site Assessment Report (ESA) prepared by a suitably qualified consultant. Whilst not specifically referred to as a preliminary site investigation in accordance with SEPP55, the aim of the report at page one states; *to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil and groundwater contamination conditions*. The assessment included a review of historical site information, soil sampling from 8 locations and groundwater sampling from one location. The ESA at page 38 considers that no further investigation is considered necessary with regards to site suitability; however, validation sampling will be required following excavation of the hydrocarbon impacted soils in the west section of the site to confirm the VENM classification of the natural soil across the remainder of the site. Subject to these requirements being met the report concludes that the site is suitable for the proposed development,

The following validation sampling is recommended to address the data gaps and to better manage the risks:

1. Undertake a Hazardous Materials Assessment (Hazmat) for the existing shed prior to the commencement of demolition work; and

2. Undertaken validation sampling following removal of the hydrocarbon impacted natural soils in the west section of the site to confirm the waste classification of the remaining natural soil at the site.

If the application were to progress, these requirements could be reflected in conditions of consent.

2.1.2 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

The application was referred to the RMS in accordance with clause 101. The RMS reviewed the proposal and raised a number of concerns with the detail provided in respect of potential impacts of the development on the function of Flinders Street as outlined in section 2.1.2 above.

In terms of clause 102, Flinders Street does not have daily traffic volume exceeding 40,000 vehicles.

2.1.3 STATE ENVIRONMENTAL PLANNING POLICY NO 65—DESIGN QUALITY OF RESIDENTIAL APARTMENT DEVELOPMENT

SEPP 65 aims to deliver a better living environment for the residents within residential apartment developments and enhance the streetscapes and neighbourhoods in which these buildings are located.

The development meets the definition of a residential flat building as it is more than 3-storeys and comprises more than 4 dwellings and accordingly the provisions of SEPP 65 apply. The application is accompanied by a statement by a qualified designer in accordance with Clauses 50(1A) & 50(1AB) of the Environmental Planning and Environment Regulation 2000.

The proposal has been considered by Council's Design Review Panel in accordance with Clause 28 and Schedule 1. The Panel are not supportive of the proposal in its current form and are not satisfied the Schedule 1 Design quality principles have been met as outlined at Attachment 5.

Principle 1: Context and neighbourhood character

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

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

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

The built environment in the locality is characterised by a mixture of building types, scales and architectural styles. The area is also one undergoing transition towards higher density development. In this respect, the proposal is reflective of the changing nature of the locality.

However, the design of the building in respect to non-complying elements such as height, bulk, and setbacks is considered to undermine a suitable response to existing and potential future development in the locality.

Principle 2: Built form and scale

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

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

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

As noted above, the proposal does not comply with some key controls around built form. The non-complying elements are not supported in the current form as they are considered to result in unreasonable adverse impacts on existing and potential future development on adjoining land.

Principle 3: Density

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

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

The density of the development complies with the maximum FSR applicable to the land. The building height permitted for the land is however exceeded and there remain concerns around traffic impacts on the street network.

Principle 4: Sustainability

Good design combines positive environmental, social and economic outcomes.

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

The proposal is considered acceptable with regard to sustainable design as follows:-

- The building achieves the minimum cross ventilation and solar access requirements.
- The landscaped areas are to be watered from rainwater harvesting.
- BASIX targets are met.
- A Site Waste Management and Minimisation Plan has been provided indicating appropriate management and disposal of any excavated materials.
- The proposal will not have an unreasonable impact on any heritage items or environmentally sensitive areas.

Principle 5: Landscape

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

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

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

The proposal provides a large landscaped podium area on level 5 as well as a secondary one on level 2. The size of the communal open space meets the minimum requirements and the design is considered to provide suitable amenity to residents. The design further includes an upgrade to the footpath for the full frontage of the site as well as street tree planting.

Principle 6: Amenity

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

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

The development does not provide compliant building setbacks or separation required by the ADG in order to provide for equitable sharing of building separation distances with neighbouring sites. The proposal results in unreasonable overshadowing and potential future conflicts with future development on adjoining land

Principle 7: Safety

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

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

Concerns are raised in regard to the open alley-like fire egress pathway to south of the building as well as the lift closest to Flinders Street being shared between commercial and residential occupants.

Principle 8: Housing diversity and social interaction

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

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

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

The proposal provides a mix of unit sizes and layouts appropriate to the locality. Provision has also been made for adaptable units as per the requirements of the ADG and Wollongong DCP 2009. There are opportunities for informal social interaction within the communal open space.

Principle 9: Aesthetics

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

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

The development as viewed from the street and the north is generally considered to exhibit architectural merit with respect to materials, finishes and articulation. The proposal has however yet to satisfy the Design Review Panel that it exhibits design excellence and the south elevation is considered to be excessively bulky.

A full assessment of the application against the Apartment Design Guide (*ADG*) is contained at Attachment 6 however the non-complying aspects are discussed below.

Apartment Design Guide

Standards/controls	*Comment*
Part 3 – Siting the development	
3B Orientation	

Standards/controls	*Comment*
Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid-winter	
Solar access to living rooms, balconies and private open spaces of neighbours should be considered.	There are significant overshadowing impacts to the properties to the south which is exacerbated by the proposal not meeting height and setback requirements.
If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	The proposal will significantly reduce solar access to properties to the south of the site. The proposal also has non-compliant building separation and setbacks whilst exceeding the height limit.
Overshadowing should be minimised to the south or downhill by increased upper level setbacks	The setbacks are not increased for the higher levels as required.
3D Communal and public open space	
Objective 3D-3 Communal open space is designed to maximise safety	
Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy.	Passive surveillance of the level 5 communal open space is not provided.
3E Deep soil zones	
Objective 3E-1 Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	
Minimum 7% of site area and minimum 6m dimension.	A deep soil zone is provided however the location at the rear of the site is not considered ideal given the maintenance of that area appears to fall to one unit and the area is otherwise inaccessible.
3F Visual privacy	
Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.	
Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are follows. • up to 12m (4 storeys) 6m (habitable rooms or balconies, 3m (non-habitable rooms)	Separation distances between the building and adjoining development do not comply.
Generally one step in the built form as the height increases due to building separations is desirable.	Has not been provided.
Windows should be offset from the windows of adjacent buildings	The building is designed with the majority of the units oriented towards the northern boundary. This is not considered to have been adequately justified in relation to the impact on potential future development on the adjoining sites and inherent privacy,

Standards/controls	*Comment*
	overlooking and overshadowing impacts.

Part 4 – Designing the building

4H Acoustic privacy

Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout

Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses	The proposal does not comply with building separation controls.

4M Facades

Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area

Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	The street elevation is satisfactory however the southern elevation is considered to be large and bulky and appropriately relate to adjoining buildings.

4O Landscape design

Objective 4O-1 Landscape design is viable and sustainable

Ongoing maintenance plans should be prepared	The proposal generally complies but does not outline how landscaped areas will be maintained.

4Q Universal design

Objective 4Q-1, Universal design features are included in apartment design to promote flexible housing for all community members

Developments achieve a benchmark of 20% of the total apartments incorporating the Liveable Housing Guideline's silver level universal design features	The requirement that 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features has not been demonstrated.

4S Mixed use

Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents

Residential circulation areas should be clearly defined. Design solutions may include: • residential entries are separated from commercial entries and directly accessible from the street • commercial service areas are separated from residential components • residential car parking and communal facilities are separated or secured • security at entries and safe pedestrian routes are provided • concealment opportunities are avoided	The lift closest to Flinders Street is shared between the commercial and residential components contrary to recommendations they be separated. The fire egress along the southern side of the building is considered to be a concealment opportunity.

2.1.4 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

In accordance with Schedule 1 of the Regulations and SEPP 2004 a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

2.1.5 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned B6 Enterprise Corridor.

Clause 2.3 – Zone objectives and land use table

The objectives of the zone are as follows:

- *To promote businesses along main roads and to encourage a mix of compatible uses.*
- *To provide a range of employment uses (including business, office, retail and light industrial uses).*
- *To maintain the economic strength of centres by limiting retailing activity.*
- *To encourage activities which will contribute to the economic and employment growth of Wollongong.*
- *To allow some diversity of activities that will not:*
  (a) significantly detract from the operation of existing or proposed development, or
  (b) significantly detract from the amenity of nearby residents, or
  (c) have an adverse impact upon the efficient operation of the surrounding road system.

The proposal is not considered to have regard to the objectives of the zone as it will adversely impact on the amenity of nearby residents.

The land use table permits the following uses in the zone.

> *Advertising structures; Bulky goods premises; Business premises; Car parks; Centre-based child care facilities; Community facilities; Depots; Entertainment facilities; Environmental facilities; Garden centres; Hardware and building supplies; Heavy industrial storage establishments; Hotel or motel accommodation; Industrial retail outlets; Landscaping material supplies; Light industries; Office premises; Passenger transport facilities; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreational facilities (outdoor); Registered clubs; Respite day care centres; Roads; Service stations; Serviced apartments; Sex services premises;* ***Shop top housing****; Storage premises; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres*

The proposal has been categorised by the proponent as a *shop top housing* as defined below which is permissible in the zone with development consent. There is conjecture in some submissions as to whether the proposal satisfies the definition for this development due to the arrangement of the commercial and residential space. Primarily, there are residential components at natural ground level and there are residential components not located directly above ground floor retail or business components.

This issue has been the subject of a variety of court proceedings. In accepting the current proposal as satisfying the definition of shop top housing, reference is made to Arco Iris Trading Pty Ltd v North Sydney Council [2015] NSWLEC 1113. The finding of these proceedings noted “there did not need to be a true directly vertical correlation between the shop top housing and the qualifying premises at the lower level.”

Clause 1.4 Definitions

shop top housing means one or more dwellings located above ground floor retail premises or business premises.

Part 4 Principal development standards

Clause 4.3 Height of buildings

The building height exceeds the maximum of 16m permitted for the site by approximately 2.5m as shown in Figure 2 below.

Figure 2: South elevation

A written variation request has been submitted in accordance with clause 4.6 in this regard. The variation request is not supported in this instance as discussed below.

Clause 4.4 Floor space ratio

(1) The objectives of this clause are as follows:

(a) to provide an appropriate correlation between the size of a site and the extent of any development on that site,

(b) to establish the maximum development density and intensity of land use, taking into account the availability of infrastructure to service that site and the vehicle and pedestrian traffic the development will generate,

(c) to ensure buildings are compatible with the bulk and scale of the locality.

Clause 4.4A Floor space ratio – Wollongong city centre

Site area: 1783.1m²

Level	Commercial	Residential
Basement		25.9
Ground floor	47.2	73
Level 1	141.9	383.9
Level 2		613.9
Level 3		600.7
Level 4		613.9
Level 5		423.7
Level 6		322.9
An additional 8 car parking spaces are proposed and are therefore		

included in GFA calculations

Total	189 (5.8%)	(94.1%)
		3,058
Overall GFA	**3,247**	

Site area of any size and a street frontage equal to or greater than 20 metres

(4) The maximum floor space ratio for a building on land within a business zone under this Plan, that is to be used for a mixture of residential purposes and other purposes, is:

(NRFSRxNR/100) + (RFSRxR/100):1

where:

NR is the percentage of the floor space of the building used for purposes other than residential purposes. (5.8)

NRFSR is the maximum floor space ratio determined in accordance with this clause if the building was to be used only for purposes other than residential purposes. (3)

R is the percentage of the floor space of the building used for residential purposes. (94.1)

RFSR is the maximum floor space ratio determined in accordance with this clause if the building was to be used only for residential purposes. (2.5)

(3 x 0.058) + (2.5 x 0.941) = 2.53:1

0.174 + 2.3525 = 2.5265 maximum permitted FSR

Total GFA: 3,247 (+ additional 8 car parking spaces (8 x 18 = 144m²) = 3,391

FSR proposed: 3,391/1,783.1 = 1.9:1

Clause 4.6

WLEP 2009 clause 4.6 proposed development departure assessment

Development departure	1. Clause 4.3 Building Height: The maximum height permitted is 16m and the building reaches a height of approximately 18.9m which results in a variation to the height control to a maximum of 18% to the numeric standard.
Is the planning control in question a development standard	Yes

4.6 (3) Written request submitted by applicant contains a justification:

That compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and	Yes, the applicant submitted a written Clause 4.6 variation upon lodgement. The applicant subsequently submitted another Clause 4.6 variation from a different consultant in May 2018. This assessment is based on the May variation. The applicant's Clause 4.6 Statement (Attachment 4) is based on the following rationale (summarised): • The height exceedance is not uniform across the site and the majority of the building envelope is compliant with the height control

	• Those portions of the building exceeding the height limit do not contribute additional floor space. • The objectives of clause 4.3 are incompatible with the proposed mixed use development form and unreasonably restrict the achievement of the allowable GFA. Insisting on strict compliance would result in the deletion of the rooftop terrace thereby removing a highly meritorious design element of the proposal and would result in the project being unviable • The objectives of clause 4.3 align the height control to high quality urban form. The DRP has specifically noted that the design elements and external appearance of the proposal has high architectural merit. • The building will maintain sky views and solar access to the Flinders Street footpath enhancing the Flinders Street pedestrian environment with new paving, landscaping and awning protection meeting the objectives of clause 4.3 • The building height of 16m is not compatible with a mixed use built form. • The proposal will not detract from the amenity of surrounding neighbours; • The portions of the building that are non-compliant will not be perceptible in the streetscape and the broader neighbourhood context and setting.
That there are sufficient environmental planning grounds to justify contravening the development standard.	The sufficient planning grounds to justify contravening the height standard are outlined in the applicant's Clause 4.6 Statement. In summary the sufficient environmental planning grounds presented in support of the proposal are: • Future building scale within the streetscape will be dominated by the taller buildings on the western side of the road and the proposed non-compliance represented by the proposal will be imperceptible in the streetscape • The selected option is more effective at achieving solar access in midwinter to the neighbouring townhouses to the south than other permissible building form options. • The proposal does not achieve the permitted maximum floor space ratio with the GFA being 1,265m2 less than the allowable floor space.
4.6 (4) (a) Consent authority is satisfied that:	
The applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and	No the applicant's request does not adequately address the matters required to be demonstrated by subclause 3. *Compliance with the development standard is unreasonable or unnecessary*. It is not considered that there are sufficient environmental planning grounds to justify contravening the standard.

	Compliance with the standard is considered to be necessary in this instance. There are impacts associated with the non-compliance regarding building separation and setbacks that are exacerbated by the non-compliance. The non-complying part of the building will be distinguishable in the streetscape and adjoining development. *There are sufficient environmental planning grounds* No, it is not considered that there are sufficient environmental planning grounds to justify contravening the standard. The relevant environmental planning grounds need to be particular to this proposed development, not merely grounds that would apply to any similar development on the site or in the vicinity, because this wouldn't promote the proper and orderly development of land as contemplated by the planning controls which are an objective of the EPA Act (S1.3(c)). A better outcome is not achieved in this instance by allowing flexibility in the application of the standard. Complying with the standard would facilitate a built form which responds to the site attributes minimising adverse impacts arising from non-compliant height, building separation/setbacks and overshadowing. The applicant argues that insisting on compliance would result in the project being unviable which not a relevant matter for consideration. It may make this particular scheme unviable however that is not a matter for Council to take into consideration as there are a variety of built forms and compositions that could be accommodated on the site. The applicant also argues that strict compliance would result in the building being one storey less than the anticipated built form as exemplified by the approved development at No.19-23 Flinders Street. The anticipated built form is influenced by the planning controls. As well as height, the proposal seeks to vary setbacks/separation distances and is hence not considered to represent the anticipated built form. It is also argued by the applicant that insisting on strict compliance would result in the deletion of the rooftop terrace thereby removing a highly meritorious design element of the proposal. Designing a building to not comply and then arguing that complying would result in removal of certain elements is not a justification for a non-compliant proposal.
The proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and	No, the requested variation is not considered to be consistent with the objectives of clause 4.3 or the zone objectives. *Wehbe v Pittwater Council [2007] NSWLEC 827 at [42]* shows how development could achieve the objectives of the development standard. This is discussed below: • *the underlying objective or purpose is not relevant to the development with the consequence that compliance is unnecessary*

N/A

- *the underlying objective or purpose would be defeated or thwarted if compliance was required with the consequence that compliance is unreasonable.*

  The objectives of the standard are not considered to be thwarted through compliance. Not achieving the maximum FSR is not considered to be justification as that standard is a maximum, not a minimum requirement.

- *the development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable.*

  The development standard has not been abandoned and is consistently enforced by Council.

- *the zoning of particular land is unreasonable or inappropriate so that a development standard appropriate for that zoning was also unreasonable or unnecessary as it applied to that land and that "compliance with the standard in that case would also be unreasonable or unnecessary.*

  N/A

<u>Objectives of clause 4.3</u>

(a) to establish the maximum height limit in which buildings can be designed and floor space can be achieved,

The applicant argues that the height variation allows the development to achieve an FSR that is closer to the maximum permitted under clause 4.4A of the LEP. Clause 4.4A specifies a maximum FSR rather than prescribing a minimum. Where a site is particularly constrained, as is the current case, the maximum FSR applicable cannot always be realised. This in itself is not considered to justify varying the standard.

(b) to permit building heights that encourage high quality urban form,

Compliance with the applicable controls should promote high quality urban form. In particular the Design Quality Principles of SEPP 65 and design excellence as required under clause 7.18 of the LEP. As discussed elsewhere in this report, the proposal is not considered to exhibit design excellence nor are the Design Quality Principles of SEPP 65 considered to have been satisfied. The most recent Design Review Panel commentary reinforces this.

(c) to ensure buildings and public areas continue to have views of the sky and receive exposure to sunlight.

The building adversely overshadows adjoining development to the south and proper consideration has not been given to the impact of the proposal on future development on adjoining land. A compliant form would have a lesser

	impact. Objectives of the B6 zone • *To promote businesses along main roads and to encourage a mix of compatible uses.* Compliance with the height would not impede the achievement of this objective. • *To provide a range of employment uses (including business, office, retail and light industrial uses).* Compliance with the height would not impede the achievement of this objective. • *To maintain the economic strength of centres by limiting retailing activity.* This objective has no bearing on the height of the building. • *To encourage activities which will contribute to the economic and employment growth of Wollongong.* Compliance with the height would not impede the achievement of this objective. • *To allow some diversity of activities that will not:* *(a) significantly detract from the operation of existing or proposed development, or* *(b) significantly detract from the amenity of nearby residents, or* The proposal is considered to detract from the amenity of adjacent residents. *(c) have an adverse impact upon the efficient operation of the surrounding road system.* The height is not considered to be a factor in this regard.
The concurrence of the Secretary has been obtained.	Assumed concurrence applicable.

Part 5 Miscellaneous provisions

Clause 5.5 Development in the coastal zone

Clause 5.5 was repealed at the commencement of SEPP (Coastal Management) 2018 however prior to this, consideration was given to matters prescribed by Clause 5.5. No concerns are raised in relation to impacts of the proposed development on the coastal zone values. The site is some distance from the foreshore and is not identified as being impacted by coastal hazards. There are not expected to be any adverse impacts on the coastal environment or public access to the foreshore as a result of the application. The development will not impede or diminish access to the coastal foreshore; will be serviced by reticulated water and sewerage services; will appropriately manage stormwater and will not be significantly affected by coastal hazards, or either have a significant impact on coastal hazards, or increase the risk of coastal hazards in relation to any other land.

Part 7 Local provisions – general

Clause 7.1 Public utility infrastructure

Endeavour Energy were referred the application pursuant to Subdivision 2 Development likely to affect an electricity transmission or distribution network (cl. 45) of SEPP Infrastructure 2007. See commentary at section 1.6.2 above in this regard. Inadequate information has been provided in respect of the precise location and mechanism for locating the proposed pad mount substation on a separate lot across the road.

Clause 7.3 Flood planning area

The site is not identified as being located at or below the "flood planning level".

Clause 7.5 Acid Sulfate Soils

The proposal is identified as being affected by class 5 acid sulphate soils. An acid sulphate soils management plan is not required as the proposal does not involve Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

Clause 7.13 Ground floor development on land within business zones

The proposal provides an active use at ground floor level in accordance with this control.

Clause 7.18 Design excellence in Wollongong city centre and at key sites

The proposal is within the Wollongong city centre and clause 7.18 applies.

(3) Development consent must not be granted to development to which this clause applies unless, in the opinion of the consent authority, the proposed development exhibits design excellence.

The DRP are not satisfied that the proposal in its current form exhibits design excellence. It is considered that the proposal does not exhibit design excellence as discussed in further detail below:

(4) In considering whether development to which this clause applies exhibits design excellence, the consent authority must have regard to the following matters:

(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,

The building is considered to have architectural merit in respect of materials finishes.

(b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,

Noting the non-compliances with setbacks, separation and height, the general appearance of the building is acceptable in terms of the public domain. The proposal would involve upgrade of the footpath and reinvigorate an otherwise dilapidated site.

(c) whether the proposed development detrimentally impacts on view corridors,

The proposal does not impact on significant view corridors.

(d) whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,

N/A

(e) how the proposed development addresses the following matters:

(i) the suitability of the land for development,

The land is not considered suitable for the development in its current form in consideration of the non-compliances with the height and separation controls and the amenity impacts on adjoining property.

(ii) existing and proposed uses and use mix,

The objectives and land use table for the B6 zone are generally more oriented towards business activities. The proposal provides only minimal commercial space with the majority of the development being residential.

(iii) heritage issues and streetscape constraints,

No concerns.

(iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,

N/A

(v) bulk, massing and modulation of buildings,

The bulk of the building is unacceptable in respect of height and building separation.

(vi) street frontage heights,

N/A

(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,

Overshadowing of the property to the south is unacceptable.

(viii) the achievement of the principles of ecologically sustainable development,

Ecologically sustainable development is broadly defined as follows; *using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased (Department of the Environment)*.

The proposal is considered satisfactory with regard to core objectives of ESD which are as follows:

- to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations
- to provide for equity within and between generations
- to protect biological diversity and maintain essential ecological processes and life-support systems

(ix) pedestrian, cycle, vehicular and service access, circulation and requirements,

Satisfactory manoeuvring is provided on site for servicing vehicles and standard vehicles. The requisite number of car, motorbike and bicycle parking is provided.

(x) impact on, and any proposed improvements to, the public domain.

The proposal involves improvements to the public domain.

Part 8 Local provisions—Wollongong city centre

Clause 8.1 Objectives for development in Wollongong city centre

The objectives of this control are as follows:

(a) to promote the economic revitalisation of the Wollongong city centre,

(b) to strengthen the regional position of the Wollongong city centre as a multifunctional and innovative centre that encourages employment and economic growth,
(c) to protect and enhance the vitality, identity and diversity of the Wollongong city centre,
(d) to promote employment, residential, recreational and tourism opportunities within the Wollongong city centre,
(e) to facilitate the development of building design excellence appropriate to a regional city,
(f) to promote housing choice and housing affordability,
(g) to encourage responsible management, development and conservation of natural and man-made resources and to ensure that the Wollongong city centre achieves sustainable social, economic and environmental outcomes,
(h) to protect and enhance the environmentally sensitive areas and natural and cultural heritage of the Wollongong city centre for the benefit of present and future generations.

The proposal is not considered to satisfy the design excellence provisions.

Clause 8.4 Minimum building street frontage

The site has at least one street frontage which is greater than 20m which complies.

2.2 SECTION 4.15 1(A)(II) ANY PROPOSED INSTRUMENT

State Environmental Planning Policy (Coastal Management) 2016

Draft State Environmental Planning Policy (Coastal Management) 2016 and associated maps had been exhibited at the time of lodgement of the application and the policy (dated 2018) has now been gazetted. Maps published with the SEPP indicate the land is located in the Coastal Environment area

Division 3 clause 13 applies to coastal environment areas. Consent must not be granted unless the consent authority has considered matters set out in subclause 1 and 2. These matters include impacts on vegetation, marine life and water quality, vegetation, Aboriginal heritage and community access. The development is designed, sited and will be managed to avoid an adverse impact referred to in subclause 1. All matters detailed in subclause 1 and 2 are considered satisfactory.

Division 5 includes general provisions for development in the coastal zone. Clause 16 applies to development in the coastal zone generally and states that development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land. The proposal is not expected to increase the risk of coastal hazards on the subject land or any other land.

2.3 SECTION 4.15 1(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

The development has been assessed against the relevant chapters of WDCP2009. A full compliance table can be found at Attachment 7 to this report, only the variations are discussed below.

CHAPTER A1 – INTRODUCTION

The proposal seeks variations to the minimum site width and side setbacks required under the DCP.

8 Variations to development controls in the DCP

Chapter B3: Mixed Use Development

(a) The control being varied;

Clause 4.1 Minimum site width for mixed use development.

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

The site has a width of 20.16m; a site width of 24m is required by this control. Consolidation with adjoining land to achieve a compliant width is not considered reasonable or feasible in the circumstances. Land to the south is strata subdivided and land the large lot to the north has a DA approved for shop top housing. Consolidating with the adjoining lot or lots with frontage to Flinders Street would partly address the issue however would still leave the rear two thirds non-compliant.

(c) Demonstrate how the objectives are met with the proposed variations;

The objectives of the control are as follows:

(a) To allow for development of sites which are of sufficient width to accommodate the required building envelope, car parking and landscaping requirements.
(b) To allow for development of sites only where the land is not significantly constrained by flood, geotechnical or other environmental hazards.
(c) To promote the efficient utilisation of land.
(d) To encourage amalgamation of allotments to provide for improved design outcomes including greater solar access and amenity.

The proposal does not comply with the building envelope controls in respect of height and setbacks. Solar access and general amenity of properties to the south of the site are also compromised by the development. The non-compliant site width is considered to exacerbate these issues.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

The variation to the site width is considered to be a contributing factor to non-compliant building setbacks and separation, which are in turn considered to result in adverse impacts on adjoining land. A compliant site width would facilitate a built form outcome that would not rely upon non-complying setbacks for its viability.

Chapter D13 – Wollongong City Centre

(a) The control being varied;

Clause 2.5 Side and Rear Building Setbacks and Building Separation

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

Residential uses up to 12m in height *(up to and incl. level 4)*

- habitable rooms with openings and balconies
  6m (side) / 6m (rear)
- non-habitable rooms and habitable rooms without openings
  3 (side) / 4.5 (rear)

3m proposed to habitable rooms with openings and balconies.

Residential uses between 12m & 24m *(level 5 and 6)*

- habitable rooms with openings and balconies
  9m (side and rear)
- non-habitable rooms and habitable rooms without openings
  6m (side and rear)

3m proposed to habitable rooms with openings and balconies

Variations to the northern boundary are requested in conjunction with the approved development on the adjoining rear lot (Lot 1 DP 214579). Assuming that development was to proceed, the portion of the building adjacent to that development may be considered. However, the narrower site width is a contributing factor to non-compliant side setback requirements.

(c) Demonstrate how the objectives are met with the proposed variations;

The objectives of this control are as follows:

a) To ensure an appropriate level of amenity for building occupants in terms of daylight, outlook, view sharing, ventilation, wind mitigation, and privacy.
b) To achieve usable and pleasant streets and public domain areas in terms of wind mitigation and daylight access.

The reduced setbacks compromise amenity of occupants of the adjoining residential developments to the south. Further, the reduced setbacks do not give sufficient consideration to potential redevelopment of adjoining land replicating the setbacks proposed by the development. Were this to occur, it would likely compromise the daylight, outlook, views and privacy of the occupants of the proposed building as well as potentially future development on adjoining land.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

See discussion above.

2.3.2 WOLLONGONG SECTION 94A DEVELOPMENT CONTRIBUTIONS PLAN

The estimated cost of works is $13.7 million and a levy of 1% would be applicable under this plan as the threshold value is $100,000. An additional 1% levy is applicable as the site is located within the city centre.

2.4 SECTION 4.15 1(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 93F, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 93F

There are no planning agreements entered into or any draft agreement offered to enter into under S93F which affect the development.

2.5 SECTION 4.15 1(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

92 What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent would be applicable in respect of demolition.

The coastal zone applies to the seaward part of the LGA at this location.

2.6 SECTION 4.15 1(B) THE LIKELY IMPACTS OF DEVELOPMENT

Context and Setting:

The planning principle established in Project Venture Developments v Pittwater Council [2005] NSWLEC 191 provides guidance to whether the proposal is compatible with the context and setting. It was established in that case that the most appropriate meaning of 'compatible' in an urban context is capable of existing together in harmony: Where compatibility between a building and its surroundings is desirable, its two major aspects are physical impact and visual impact. In order to test whether a proposal is compatible with its context, two questions should be asked.

1. Are the proposal's physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites.
2. Is the proposal's appearance in harmony with the buildings around it and the character of the street?

The physical impacts on surrounding development arising from the proposal in this instance are considered to be unacceptable. This includes impacts on privacy, overshadowing, bulk and scale,

visual impacts and acoustic impacts as discussed elsewhere in this report. The physical impacts are also harder to support where the building does not meet the minimum standards for this type of development with respect to height and separation/setbacks.

The matter of whether the proposals appearance is in harmony with adjoining buildings and the street character is more subjective. It is noted that the area is one undergoing transition and that existing built form adjoining the site is of a lesser scale than permitted under the current planning controls. It is therefore unreasonable for those existing developments to dictate the built form for the subject site where it is consistent with the applicable planning controls. However, the development does not satisfy key built form controls for this type of development as discussed in the body of this report and is therefore not considered the development meets this test.

In consideration of these matters, the proposal is not considered to have been designed with regard to the context and setting.

Access, Transport and Traffic:

The proposal provides the car parking required by the planning controls. Suitable on-site waste servicing arrangements are provided. There are however outstanding concerns regarding traffic movements into and out of the site as outlined by Council and the RMS.

Public Domain:

The proposal would result in improvements to the public domain by renewing the footpath for the frontage and activating an underdeveloped lot.

Utilities:

The proposal is not envisaged to place an unreasonable demand on utilities supply. Existing utilities are adequate to service the proposal but subject to an easement for a pad mount substation.

Heritage:

No heritage items will be impacted by the proposal.

Other land resources:

The proposal in its current form is not considered to contribute to orderly development of the site and may impact upon any valuable land resources.

Water:

The site is presently serviced by Sydney Water, which can be readily extended to meet the requirements of the proposed development. The proposal is not envisaged to have unreasonable water consumption.

Soils:

No concerns are raised in respect of impacts on soils.

Air and Microclimate:

The proposal is not expected to have any negative impact on air or microclimate.

Flora and Fauna:

There is no vegetation removal proposed.

Waste:

Could be managed via condition.

Energy:

The proposal is not expected to have unreasonable energy consumption.

Noise and vibration:

Could be managed via conditions.

Natural hazards:

There are no natural hazards affecting the site that would preclude the proposal.

Technological hazards:

There are no technological hazards affecting the site that would preclude the proposal.

Safety, Security and Crime Prevention:

This application is generally acceptable with respect of the principles of CPTED with the exception of the fire egress along the south side of the building and shared lift for commercial and residential.

Social Impact:

Generally speaking, the proposal is not expected to result in adverse social impacts.

Economic Impact:

The proposal is not expected to create any negative economic impact.

Site Design and Internal Design:

The application does not comply with the maximum height or with building separation/setback requirements.

Construction:

Could be managed via conditions

Cumulative Impacts:

The variations proposed are considered to result in an adverse cumulative impact.

2.7 SECTION 4.15 1(C) THE SUITABILITY OF THE SITE FOR DEVELOPMENT

Does the proposal fit in the locality?

The proposal is not considered to fit in the locality as is evidenced by the non-compliances with the height and setbacks and offsite impacts associated with these variations.

Are the site attributes conducive to development?

The narrow width and slope of the site are constraints on development of the land. The variations are generally sought as a result of these two factors. However, these are not considered to be constraints that justify the particular built form response, particularly where the variations are considered to result in adverse offsite impacts. In this regard, the site attributes are not considered conducive to the particular built for proposed or particularly unique to the site.

2.8 SECTION 4.15 1(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

A number of submissions were received following public exhibition of the proposal as discussed at section 1.5 of this report.

2.9 SECTION 4.15 1(E) THE PUBLIC INTEREST

The application is considered to have unreasonable adverse impacts on the amenity of adjoining development. The proposal involves unjustifiable variations to height and building separation controls. The proposal would set undesirable precedent for other development if approved. Overall, the proposal is not considered to be in the public interest.

3 CONCLUSION

The application has been assessed as unsatisfactory having regard to the Heads of Consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, the provisions of Wollongong Local Environmental Plan 2009, SEPP 65, ADG and all relevant Council DCP's, Codes and Policies.

Shop top housing is permitted on the site under WLEP2009 but the proposal is considered to be inconsistent with the objectives of the B6 Enterprise corridor zone. The proposal involves a variation to the building height standard under WLEP2009. A variation request has been provided for the noncompliance in accordance with Clause 4.6 of WLEP2009 but is not supported in this instance. The development also involves variations to the ADG and WDCP 2009 with regard to building separation and setback controls. These variations have not been adequately justified, and not supported in this instance.

Internal and external referrals are not all satisfactory and many of the issues raised in the submissions are considered to have merit. The DRP still has significant concerns with the proposal and it is considered that the proposed development has not been designed appropriately given the nature and characteristics of the site.

Approval is likely to result in significant adverse impacts on the character or amenity of the surrounding area.

4 RECOMMENDATION

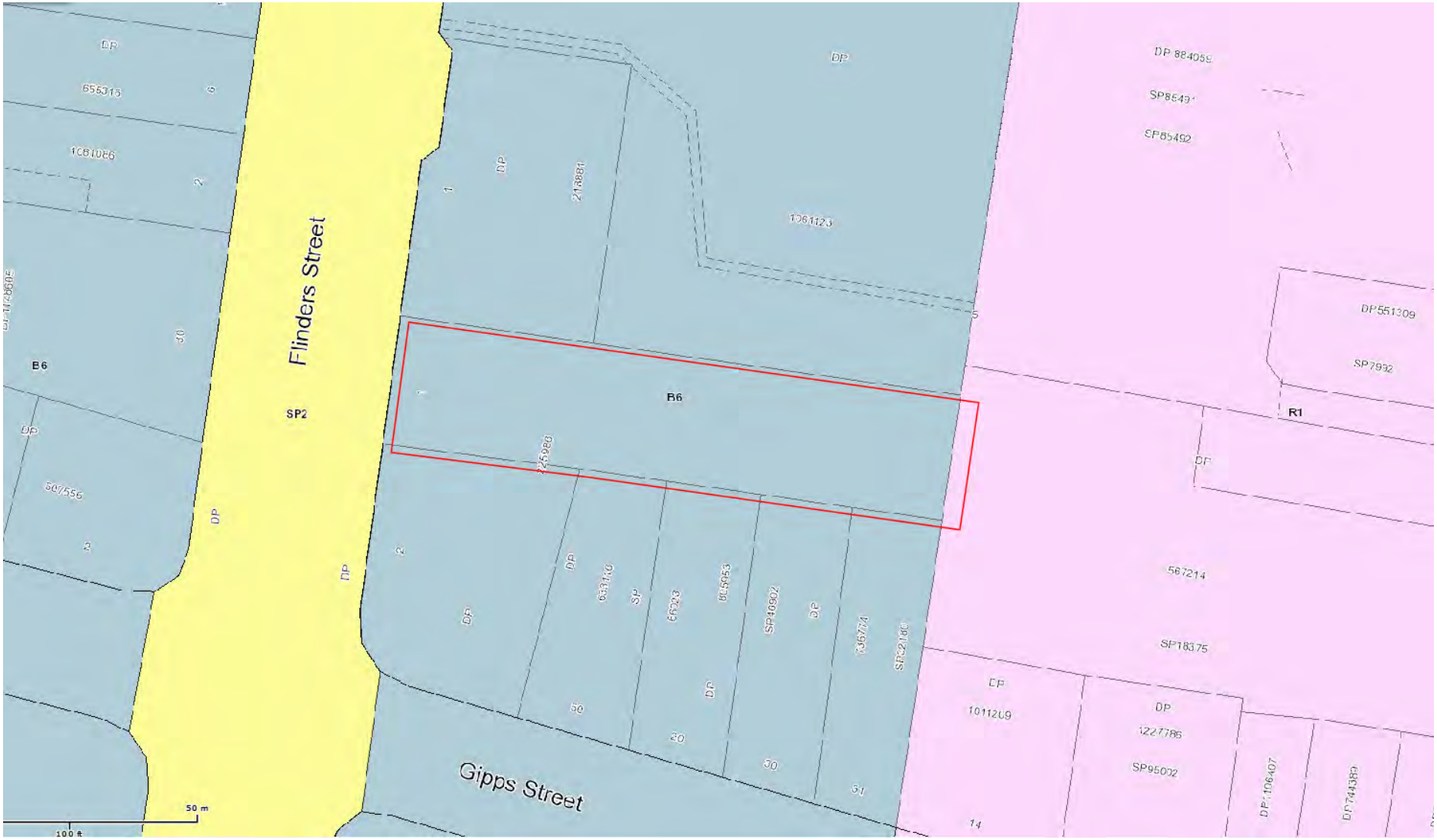
The proposal is recommended to be refused for the reasons contained at Attachment 8

5 ATTACHMENTS

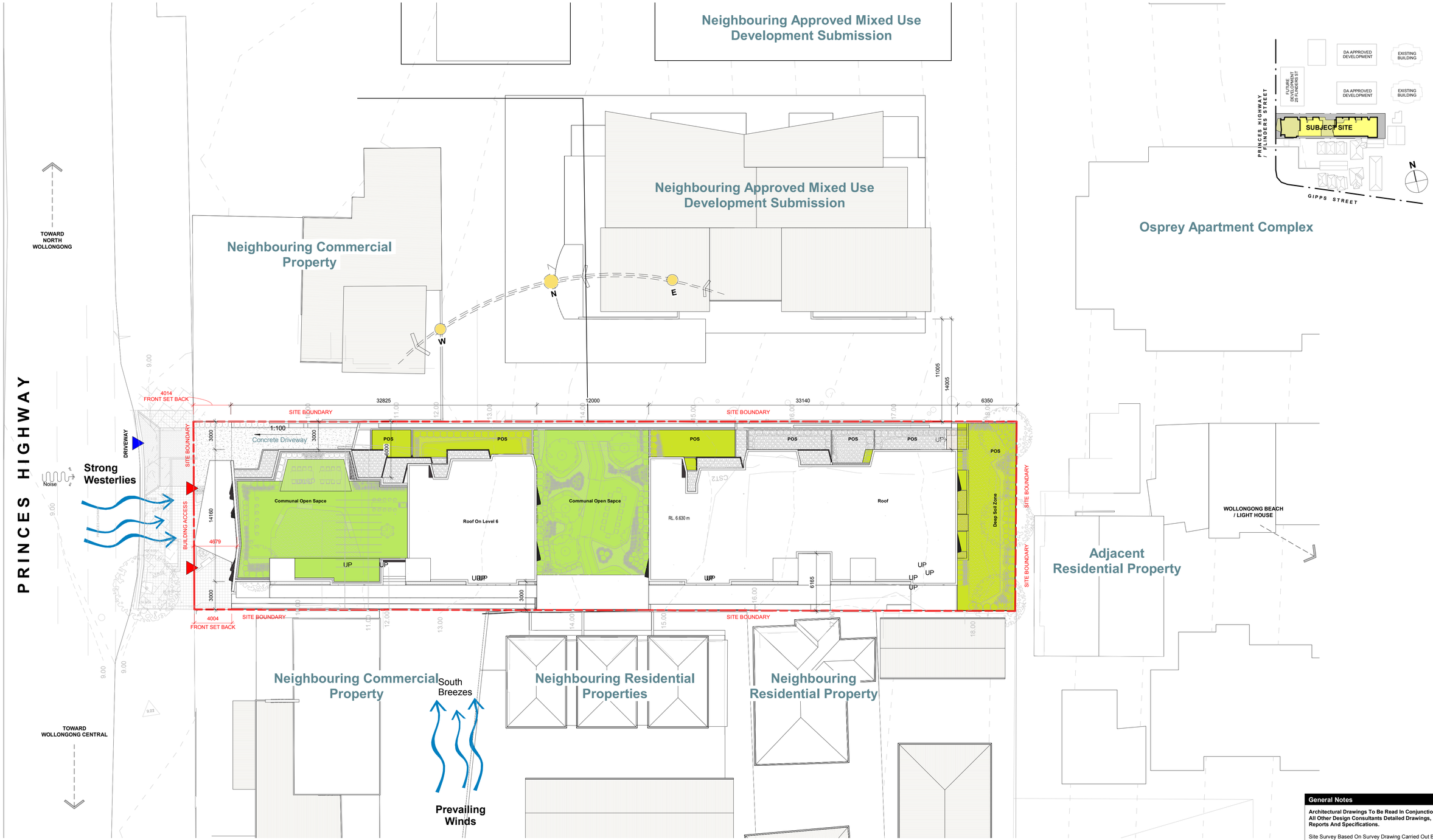
1. Aerial photograph
2. Wollongong Local Environmental Plan 2009 zoning map
3. Plans
4. Clause 4.6 variation request
5. Design Review Panel commentary (19 June 2018)
6. SEPP 65 compliance table
7. WDCP 2009 compliance table
8. Draft reasons for refusal

Attachment 1 – Aerial photograph

Attachment 2 – WLEP zoning map



Attachment 3 - Plans



1 Site Plan
1 : 200

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

All Levels Indicated Taken To Australian Height Datum (AHD)
Levels Prefixed With ***RL.** Are Interpreted From Existing Survey Information. Final Levels To Be Determined On Detail Review Of Existing Footpath Levels

Drawings Are **Not** To Be Scaled From. Use Only Figured Dimensions Where Indicated

DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
A	Issue for DA	20.11.17
B	Revised Issue for DA	09.03.18
C	Revised Issue for DA	15.03.18
D	Revised DA	15.05.18
E	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE: SITE ANALYSIS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.010 E

27 Flinders Street & Current Locality

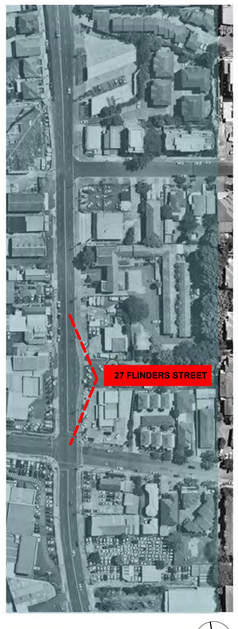
Nearby Mixed-use Developments

Enterprise Corridor (WDCP2009 Part D, 1.1, 11)

– will promote business activity along Flinders Street, particularly business uses requiring larger footprint buildings and good vehicular access and exposure. The area will cater also for the complementary business, office, retail and light industrial uses. The importance of Flinders Street (the Princes Highway) as a business address is reinforced by **increasing the scale and activation of buildings along the street,** with service uses such as parking and goods storage away from street frontages. Residential development incorporated in mixed use developments, is encouraged within walking distance of the North Wollongong rail station. The character of the area will be of an attractive city boulevard lined with trees and high quality buildings of medium scale with large showroom windows fronting the street with landscaped setbacks.

27 Flinders Street & Future Locality

Suit architectural gesture to Enterprise Corridor



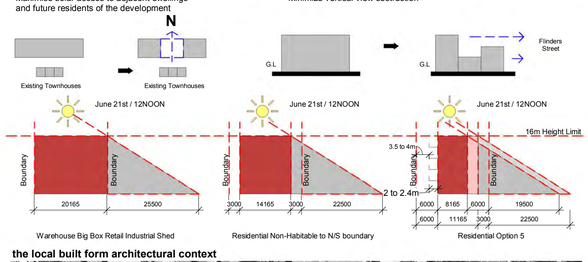
Feature Elements

Assume and measure a recognizable point along Flinders Street

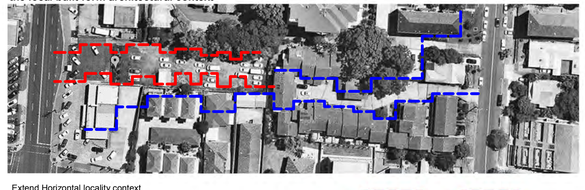
Planning

Segregate a planning block to several masses to maximize horizontal views and solar access for future and existing residences

Maximise solar access to adjacent dwellings and future residents of the development



the local built form architectural context

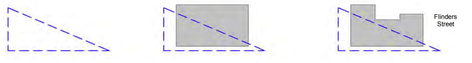


Extend Horizontal locality context

Express locality context vertically

Maximise open spaces between and on the segregated masses

Maximize Natural form capacity



Existing Natural Slope

Difficult to have simple mass on slope

Split mass, create gesture and maximize views for future residences

Maximise North facing apartments

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

All Levels Indicated Taken To Australian Height Datum (AHD)
Levels Prefixed With ***RL.** Are Interpreted From Existing Survey Information, Final Levels To Be Determined On Detail Review Of Existing Footpath Levels

Drawings Are **Not** To Be Scaled From. Use Only Figured Dimensions Where Indicated

DEVELOPMENT APPLICATION

Rev	Description	Date
A	Revised DA	15.05.18

NOT For Construction

NORDON · JAGO ARCHITECTS

LEVEL 4, 111-117 DEVONSHIRE STREET, SURRY HILLS, NSW 2010 T.02 9318 8400 F.02 9318 8480
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.12.rvt

TITLE	LOCALITY ANALYSIS	JOB No. QLL00117
		DATE 11.07.17
		SCALE A1 @ As indicated
		DWG No. DA.005 A

General Notes

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Rev	Description	Date
A	Revised DA	15.05.18

NOT For Construction

27 Flinders Street, Wollongong

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TITLE

CONTEXTUAL STUDY PLAN

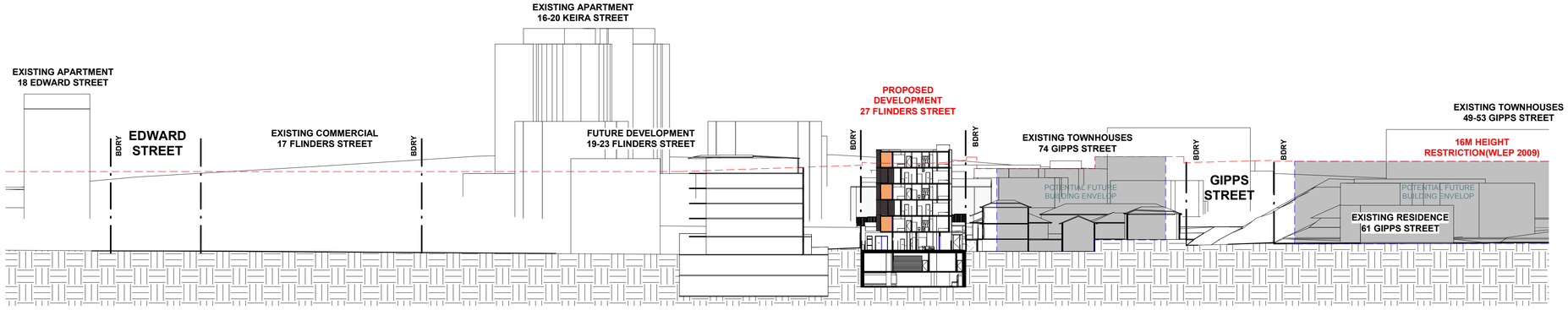
JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.006 A

NORDON · JAGO ARCHITECTS

LEVEL 4, 111-117 DEVONSHIRE STREET, SURRY HILLS, NSW 2010 T.02 9318 8400 F.02 9318 8480
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

A CONTEXT SITE SECTION A - A

1 : 500



B CONTEXT SITE SECTION B - B

1 : 500

General Notes

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DEVELOPMENT APPLICATION

Rev	Description	Date
A	Revised DA	15.05.18

NOT For Construction

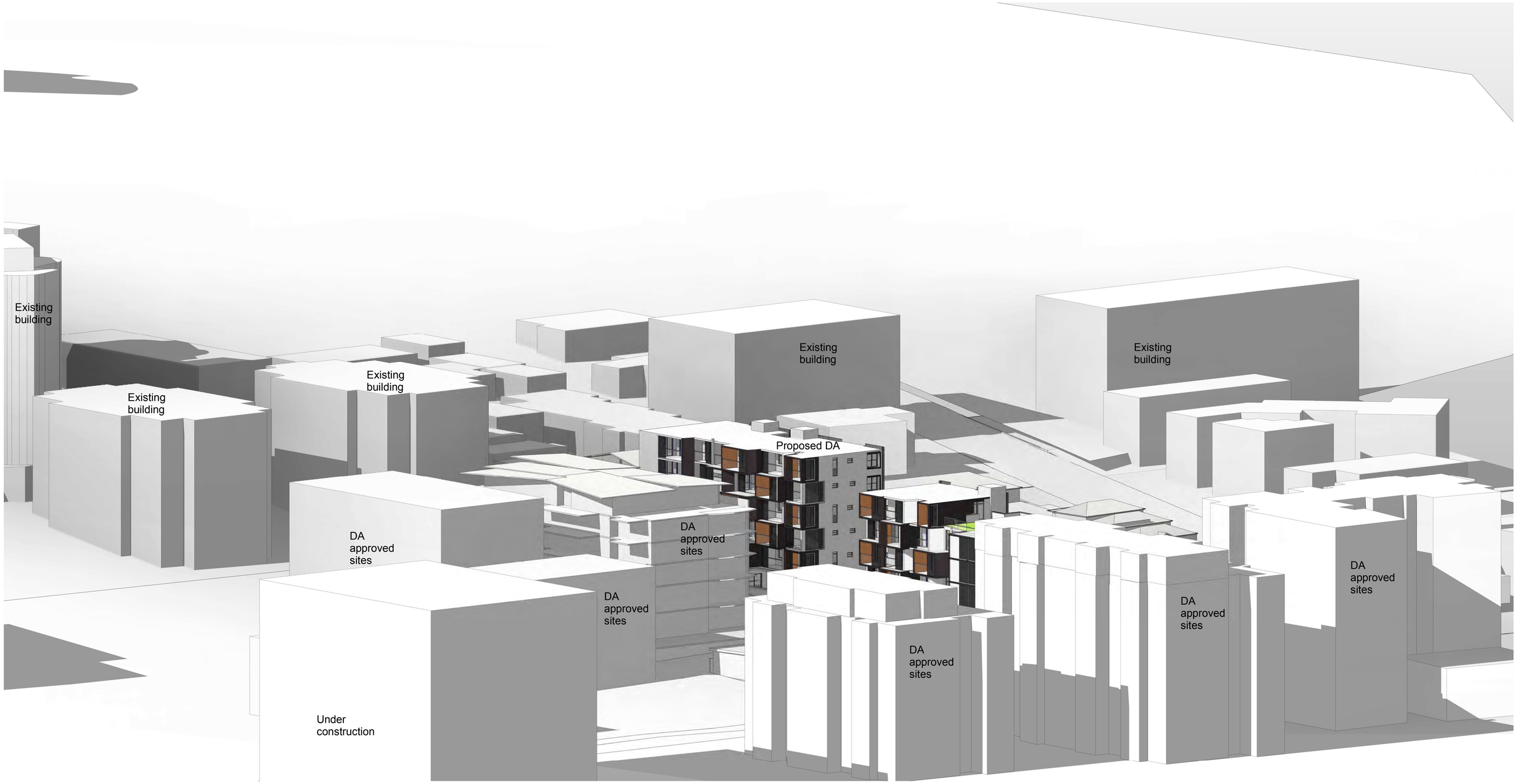
27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.12.rvt

TITLE: CONTEXTUAL STUDY SECTIONS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.007 A

NORDON · JAGO ARCHITECTS
LEVEL 4, 111-117 DEVONSHIRE STREET, SURRY HILLS, NSW 2010 T.02 9318 8400 F.02 9318 8480
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926



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DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
A	Revised Issue for DA	09.03.18
B	Revised DA	15.05.18
C	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNANDNSW 2038 - T 02 9564 8800 F 02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

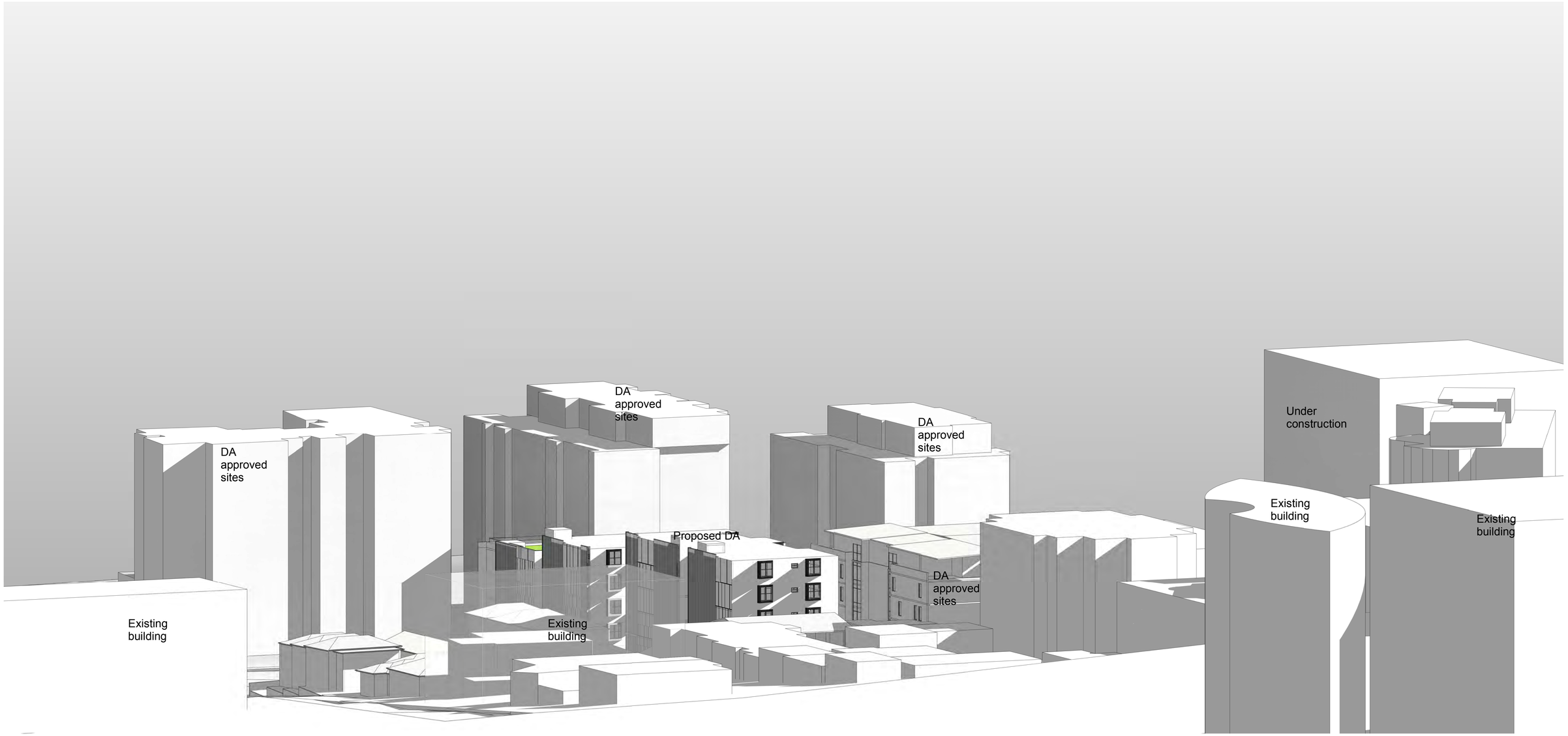
27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE

SITE ANALYSIS - 3D MASS STUDY 1

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ 1 : 100
DWG No.	DA.008 C



General Notes

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DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
A	Revised Issue for DA	09.03.18
B	Revised DA	15.05.18
C	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNANDNSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

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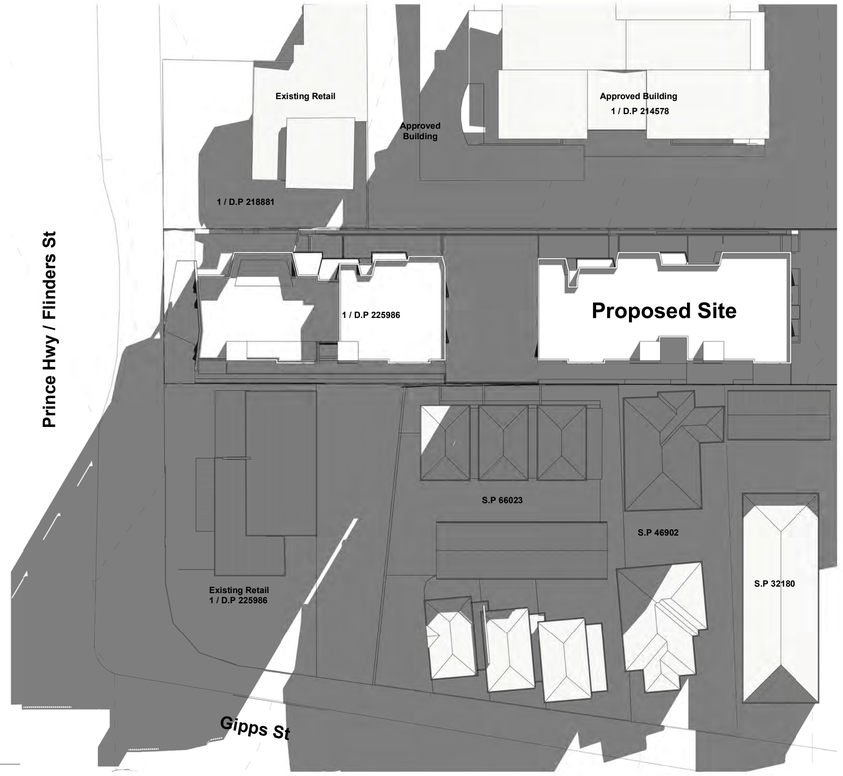
TITLE

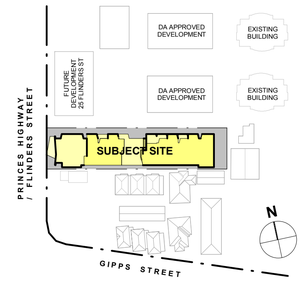
SITE ANALYSIS - 3D MASS STUDY 2

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ 1 : 100
DWG No.	DA.009 C



1 9:00 On 21 June
1 : 400

2 10:00 On 21 June
1 : 400



3 11:00 On 21 June
1 : 400

4 12:00 On 21 June
1 : 400

General Notes

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DEVELOPMENT APPLICATION **NOT For Construction**

Rev	Description	Date
A	Issue for DA	20.11.17
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D	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

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TITLE

SHADOW - WINTER STUDY 9AM - 12PM

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.037 D

5 13:00 On 21 June
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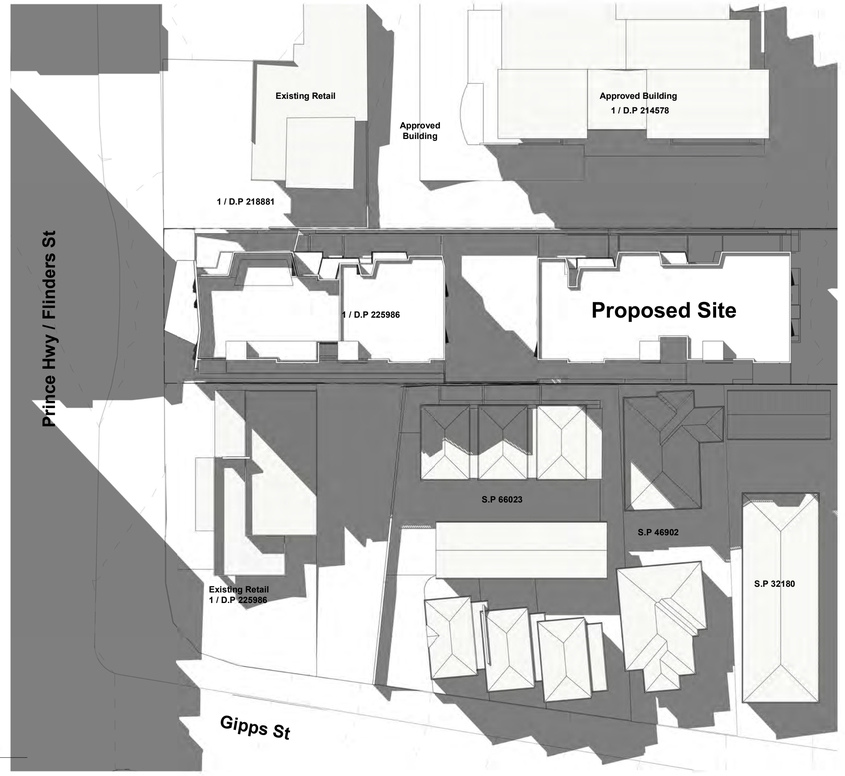
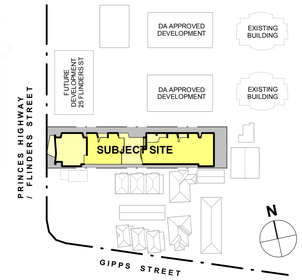


6 14:00 On 21 June
1 : 400



7 15:00 On 21 June
1 : 400

General Notes

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Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

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DEVELOPMENT APPLICATION

NOT For Construction

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NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
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27 Flinders Street, Wollongong

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TITLE SHADOW - WINTER STUDY 1PM - 3PM

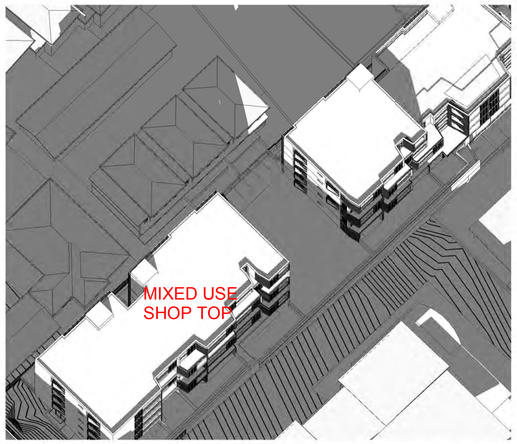
JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.038 D

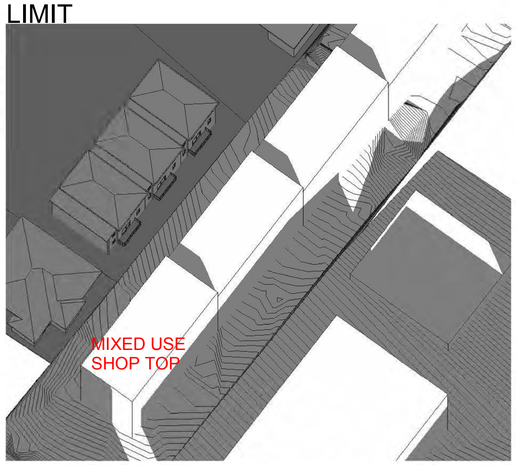
REVISED DA

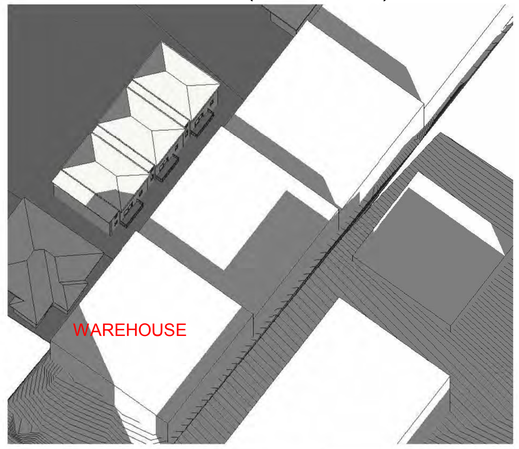
ADG SETBACKS - PERMISSIBLE HEIGHT LIMIT

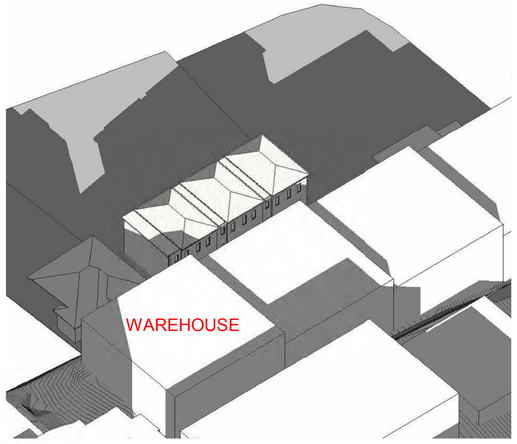
8.5M (2 STOREY) HEIGHT LIMIT, 1.2M SIDE SETBACKS

JUNE 22ND 9AM

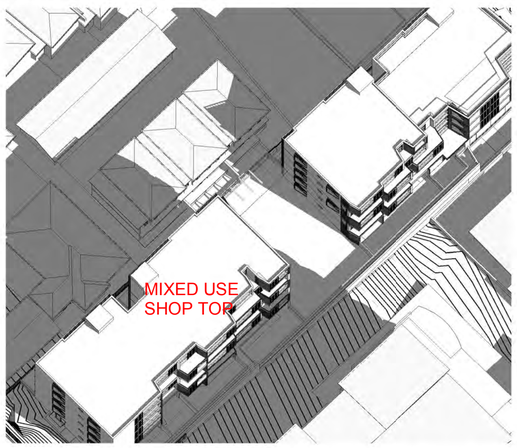


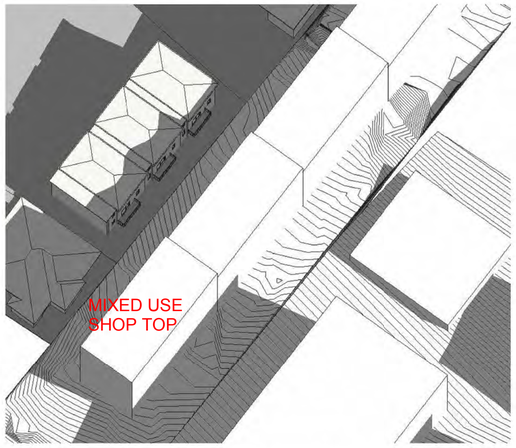


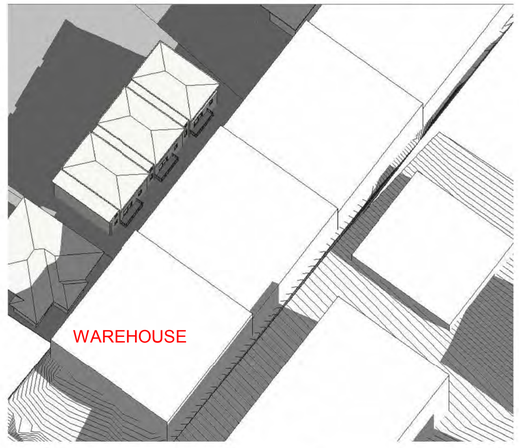


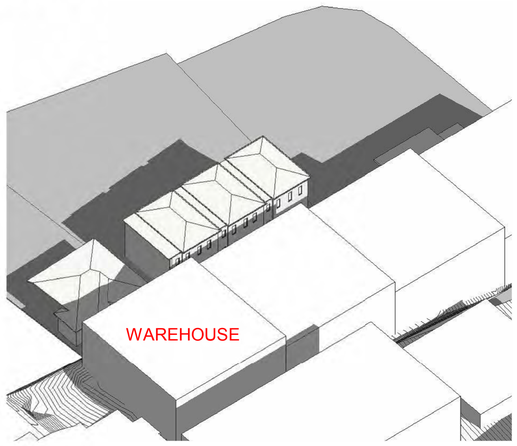


JUNE 22ND 12NOON

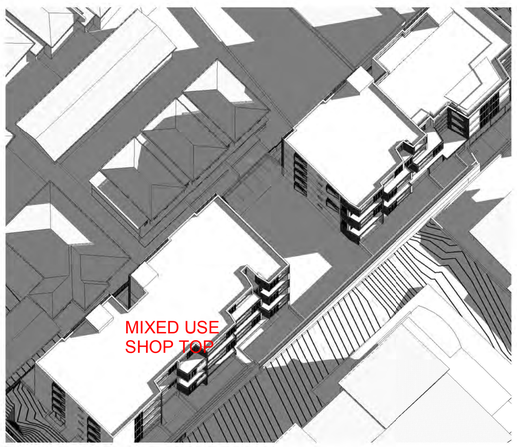


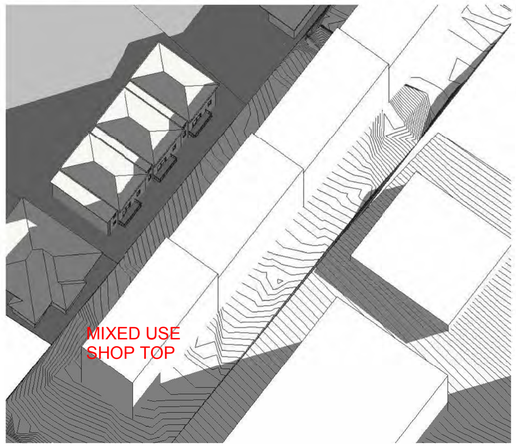


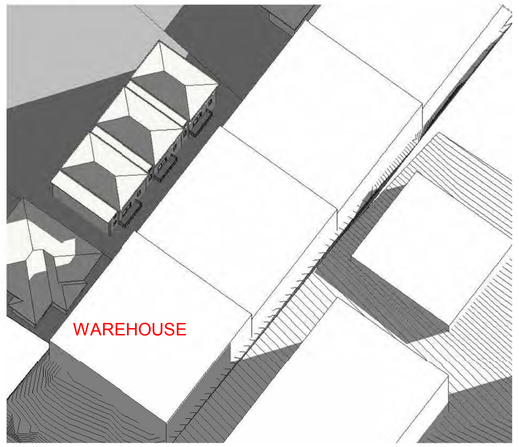


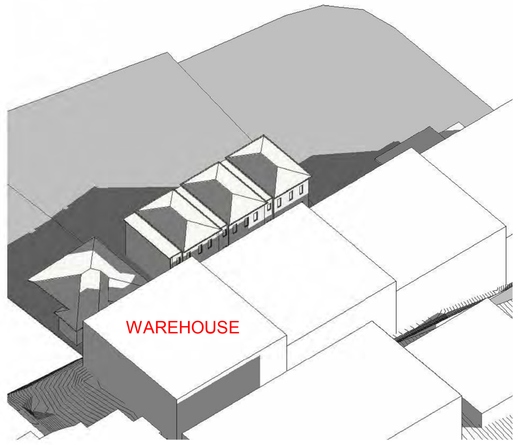


JUNE 22ND 3PM









	OPTION A - CURRENT DA	OPTION B - COMPLIANT SETBACKS, WITH SAME 16 M HEIGHT LIMIT	OPTION C - 2 STOREY PROPOSAL WITH 1.2M SIDE SETBACKS
HEIGHT	HEIGHT VARY FROM 7.2M (CENTRAL GAP) TO 19M (LIFT OVER RUN TOWER B)	HEIGHT FOR MASSING EXERCISE IS 16M.	HEIGHT FOR MASSING EXERCISE IS 8.5M
SHADOWS & SOLAR	AS DEPICTED IN THE IMAGES SOLAR ACCESS TO THE SOUTH NEIGHBOR IS SUBSTANTIALLY MORE WITH CURRENT DA AS COMPARED TO OTHER COMPLIANT OPTIONS.	AS DEPICTED IN THE IMAGES SOLAR ACCESS TO THE SOUTH NEIGHBOR IS NIL	AS DEPICTED IN THE IMAGES SOLAR ACCESS TO THE SOUTH NEIGHBOR IS NIL TO GROUND FLOOR LIVING AREAS. FIRST FLOOR WINDOWS (POSSIBLE BEDROOM AND BATHROOM WINDOWS) OF WESTERN TOWNHOUSE ONLY GET SUNLIGHT IN AFTERNOON

DEVELOPMENT APPLICATION

Rev	Description	Date
A	Issue for DA	20.11.17
B	Revised Issue for DA	09.03.18
C	Revised Issue for DA	15.03.18
D	Revised issue for DA	21.03.18
E	Revised DA	15.05.18
F	Revised Issue For Review	25.06.18

NOT For Construction

27 Flinders Street, Wollongong

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TITLE

SOLAR COMPARISON

JOB No. QLL00117

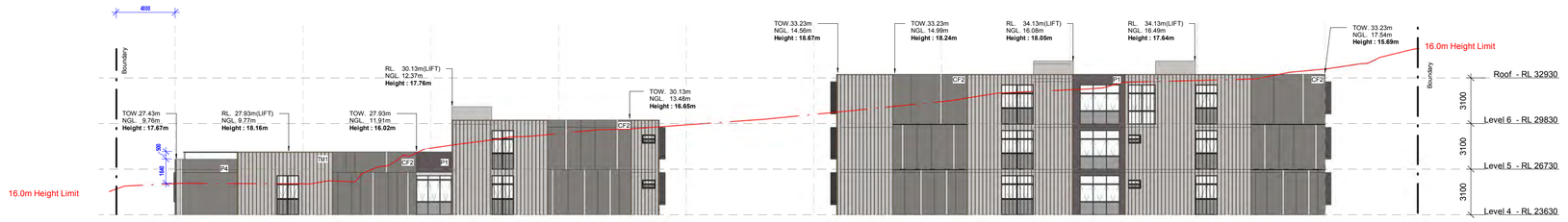
DATE 11.07.17

SCALE A1 @

DWG No. DA.039 F

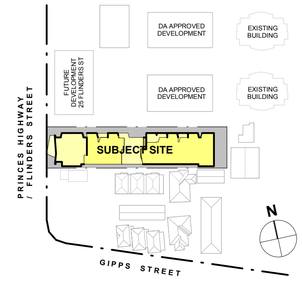
NORDON · JAGO ARCHITECTS

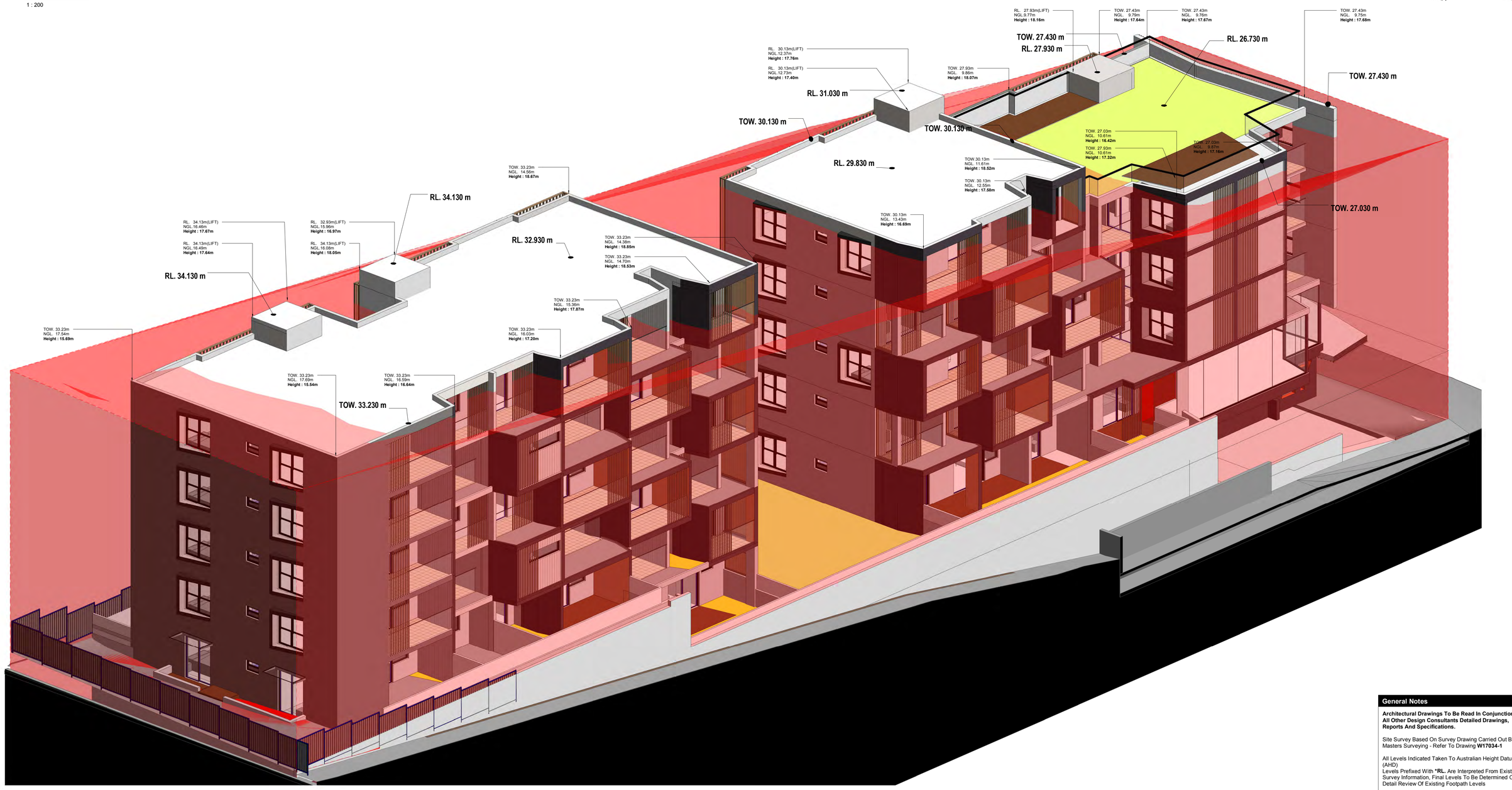
LEVEL 4, 111-117 DEVONSHIRE STREET, SURRY HILLS, NSW 2010 T.02 9318 8400 F.02 9318 8480
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926



South Elevation

1 : 200





Height Blanket Volume Diagram

1 : 100

General Notes

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DEVELOPMENT APPLICATION

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NORDON · JAGO ARCHITECTS

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27 Flinders Street, Wollongong

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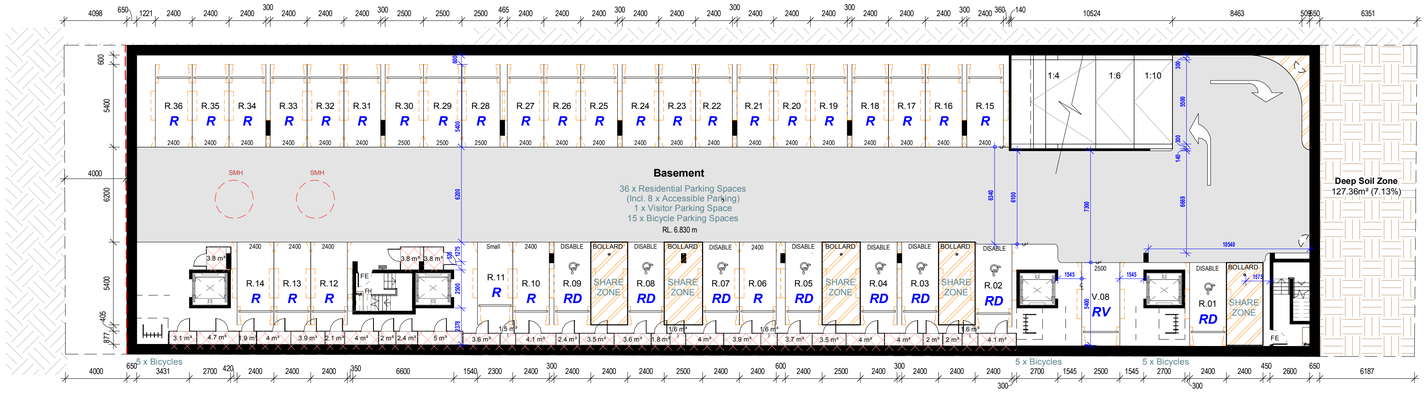
TITLE

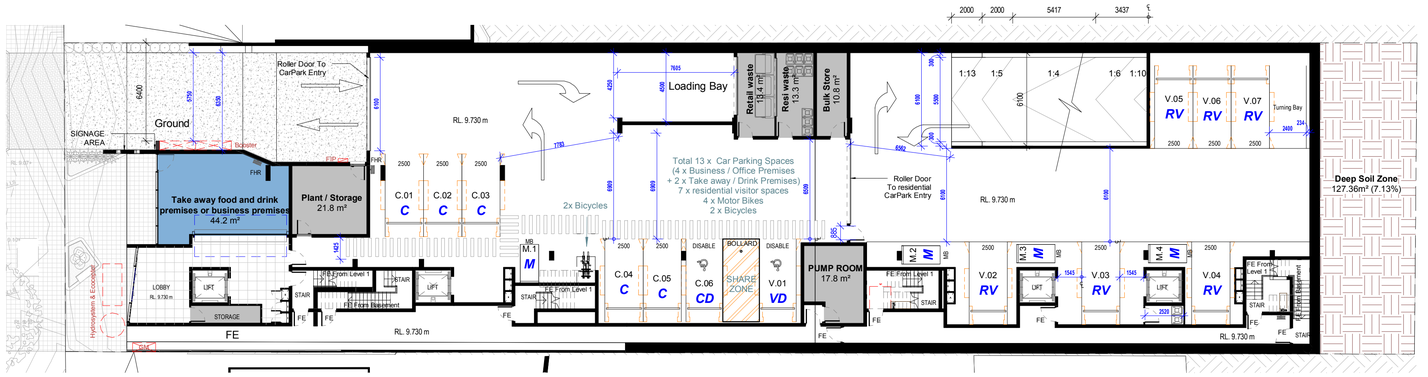
HEIGHT ANALYSIS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.040 E



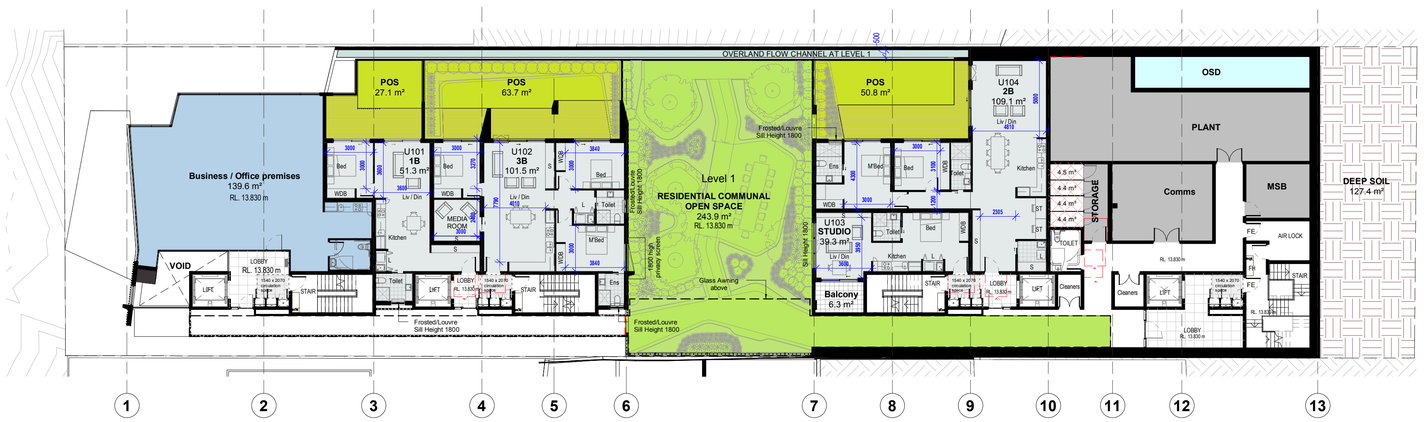
1 Basement

1 : 200



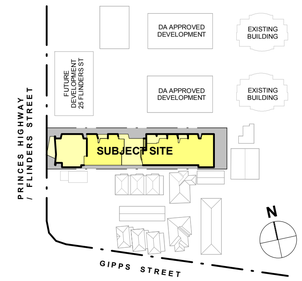
2 Ground

1 : 200



3 Level 1

1 : 200



May 2018 — BSA Reference: 12639

Building Sustainability Assessments Ph: (02) 4562 3439
enquiries@buildingsustainability.net.au www. buildingsustainability.net.au

Important Note

The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.
If different construction elements are applied then the Assessor Certificate is no longer valid.

Thermal Performance Specifications (does not apply to garage)

External Wall Construction	*Added Insulation*
150mm Concrete with internal stud and plasterboard	R1.5
Internal Wall Construction	*Added Insulation*
Plasterboard on studs (internal to units)	none
Plasterboard+studs+shaft liner+studs+Plasterboard (party walls between units)	R2.0 + R2.0
Plasterboard+studs+shaft liner+studs+Plasterboard (adjacent to common areas)	R2.0 + R2.0
Ceiling Construction	*Added Insulation*
Plasterboard	R3.0 to ceilings adjacent to roof and decks above
Roof Construction Colour	*Added Insulation*
Concrete Any	none
Floor Construction Covering	*Added Insulation*
Concrete As drawn	none

Windows	*Glass and frame type*	*U Value*	*SHGC Range*	*Area sq m*
ALM-001-01 A	Aluminium Type A Single clear	*6.70*	*0.51 - 0.63*	As drawn
ALM-002-01 A	Aluminium Type B Single clear	*6.70*	*0.63 - 0.77*	As drawn

Type A windows are awning windows, bifolds, casements, tilt 'n turn' windows, entry doors: French doors
Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvres

Skylights	*Glass and frame type*	*U Value*	*SHGC*	*Area sq m*

U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified

External Window Shading *(eaves, verandahs, pergolas, awnings etc)*

All shade elements modelled as drawn

Ceiling Penetrations *(downlights, exhaust fans, flues etc)*

No adjustment has been made for losses to insulation arising from ceiling penetrations.

Keynote Legend

Key	Description
2400	2400 Width Car Parking Space Compliance with AS2890.1
2500	2500 Width Car Parking Space Compliance with AS2890.2
Bed	Apartment Bedroom
DISABLE	Disabled Car Park Compliance With AS2890.6(2009)
Ens	Ensuite
FH	Fire Hydrant - Refer To Hydraulic Engineers Details
FHR	Fire Hose Reel (Installation To Comply To AS2441) - Refer To Hydraulic Engineers Details
Kitchen	Apartment Kitchen For Unit. Details TBC.
L	Laundry
Liv / Din	Living Room and Dinning Room
MBed	Master Bedroom
MB	Motor Cycle Parking Space
S	Storage
Small	Small Car Parking Space 2300x5000.
ST	Study Area
Toilet	Toilet
Turning Bay	Turning Bay.

Parking Legend

Key	Parking Type
C	Commercial Car Park
CD	Commercial Disable Car Park
M	Motor Cycle Parking
R	Resident Car Park
R	Resident Car Park (Small Car Only)
RD	Resident Disabled Car Park
RV	Resident Visitor Carpark
VD	Resident Visitor Disable Car Park

STORAGE CALCULATION

REQUIREMENTS

LEVEL / TYPE	UNIT	SEPP 65		BASEMENT
STUDIO	5	4m³ / UNIT	20 m³	****At least 50% of the required storage is to be located within the apartment. (SEPP65 Obj. 4G-1)**
1 BED	7	6m³ / UNIT	42 m³	
2 BED & 2 BED+S	21	8m³ / UNIT	168 m³	
3 BED	3	10m³ / UNIT	30 m³	
TOTAL	**36**		**260 m³**	**Max. 130 m³**

TOTAL VOLUME OF **REQUIRED STORAGE FOR RESIDENTIAL UNITS**
: **260 m³ (Min.130 m³** WITHIN APARTMENTS **& 130 m³** IN BASEMENT)

TOTAL VOLUME OF **PROVIDED STORAGE FOR RESIDENTIAL UNITS**
: **269.1 m³ (150.7 m³** WITHIN APARTMENTS **& 118.4 m³** IN BASEMENT)

STORAGE CAL. (BASEMENT)

RP	Level	Storage Vol.
Basement Storage	Basement	100.9 m³
Basement: 32		100.9 m³
Basement Storage	Level 1	17.5 m³
Level 1: 4		17.5 m³
TOTAL VOLUME OF STORAGE (BASEMENT): 36		118.4 m³

STORAGE CAL. (WITHIN UNITS)

Level	Unit	Unit Type	Vol. of Storage
Level 1	U101	1B	3.2 m³
Level 1	U102	3B	5.4 m³
Level 1	U103	STUDIO	2.2 m³
Level 1	U104	2B	6.2 m³
Level 1			17 m³
Level 2	U201	2B	4.1 m³
Level 2	U202	1B+	4.2 m³
Level 2	U203	1B	3.7 m³
Level 2	U204	2B	4.5 m³
Level 2	U205	2B	4.1 m³
Level 2	U206	2B	4 m³
Level 2	U207	L/H Studio	4 m³
Level 2	U208	NAU 2B	4.3 m³
Level 2			32.9 m³
Level 3	U301	2B	4.1 m³
Level 3	U302	1B+	4.2 m³
Level 3	U303	1B	4.7 m³
Level 3	U304	2B	4.2 m³
Level 3	U305	2B+	4.6 m³
Level 3	U306	2B	4.4 m³
Level 3	U307	L/H Studio	2.4 m³
Level 3	U308	NAU 2B	4.3 m³
Level 3			32.8 m³
Level 4	U401	2B	4.1 m³
Level 4	U402	1B	4.2 m³
Level 4	U403	1B	3.7 m³
Level 4	U404	2B	4.5 m³
Level 4	U405	2B	4.1 m³
Level 4	U406	2B	4 m³
Level 4	U407	L/H Studio	4 m³
Level 4	U408	NAU 2B	4.3 m³
Level 4			32.9 m³
Level 5	U501	3B	5.3 m³
Level 5	U502	2B	4.6 m³
Level 5	U503	2B	4.4 m³
Level 5	U504	L/H Studio	2.4 m³
Level 5	U505	NAU 2B	4.3 m³
Level 5			20.9 m³
Level 6	U601	2B	4.1 m³
Level 6	U602	2B	4 m³
Level 6	U603	3B	6.1 m³
Level 6			14.2 m³
TOTAL VOLUME OF STORAGE (UNITS)			150.7 m³

PARKING CALCULATION

CAR PARKING CALCULATION

LEVEL / TYPE	UNIT	DCP REQUIREMENT		VISITOR
STUDIO	5	0.75 / UNIT	3.75	VISITOR PARKING SPACES ARE REQUIRED AS WOLLONGONG COUNCIL'S DCP : 1 PER 5 UNITS
1 BED	7	0.75 / UNIT	5.25	
2 BED & 2 BED+S	21	1 / UNIT	21	
3 BED	3	1.25 / UNIT	3.75	
TOTAL	**36**		**34**	**8**

TOTAL NUMBER OF **REQUIRED RESIDENTIAL CAR PARKING SPACES**
: **42** (INCLUDING **9** x DISABLED PARKING & **8** X VISITOR PARKING)

TOTAL NUMBER OF **PROVIDED RESIDENTIAL CAR PARKING SPACES**
: **44** (INCLUDING **9** x DISABLED PARKING & **8** X VISITOR PARKING)

TOTAL NUMBER OF **REQUIRED COMMERCIAL CAR PARKING SPACES**
: **6** SPACES FOR **185** m²
(BUSINESS / OFFICE PREMISES, **1** SPACE / **40**m²
& TAKE AWAY, **1** SPACE / **25**m²)

TOTAL NUMBER OF **PROVIDED COMMERCIAL CAR PARKING SPACES**
: **6** SPACES (INCLUDE **1** x DISABLED PARKING)

- NUMBER OF **BICYCLE PARKING SPACES** PROVIDED AS REQUIRED
: TOTAL REQUIRED **16** SPACES (PROVIDED **17** SPACES)
- RESIDENTIAL : 1 SPACE / 3 UNITS = **12** SPACES (**12** SPACES PROVIDED)
- VISITOR : 1 SPACE / 12 UNITS = **3** SPACES (**3** SPACES PROVIDED)
- COMMERCIAL : 1 SPACE / 200m² (RETAIL&FOOD AND DRINK PREMISES)
= **1** SPACES (**2** SPACES PROVIDED)

- NUMBER OF **MOTOR CYCLE PARKING SPACES** PROVIDED AS REQUIRED
: TOTAL REQUIRED **4** SPACES (PROVIDED **4** SPACES)
- RESIDENTIAL : 1 SPACE / 15 UNITS = **3** SPACES (**3** SPACES PROVIDED)
- COMMERCIAL : 1 SPACE / 25 CAR PARKING SPACE
= **1** SPACES (**1** SPACES PROVIDED)

Parking Schedule - Residential

Parking Type	Key	Level
Resident Car Park	R	Basement
Basement: 27		
Resident Car Park: 27		
Resident Car Park (Small Car Only)	R	Basement
Basement: 1		
Resident Car Park (Small Car Only): 1		
Resident Disabled Car Park	RD	Basement
Basement: 8		
Resident Disabled Car Park: 8		
Resident Visitor Carpark	RV	Basement
Basement: 1		
Resident Visitor Carpark	RV	Ground
Ground: 6		
Resident Visitor Carpark: 7		
Resident Visitor Disable Car Park	VD	Ground
Ground: 1		
Resident Visitor Disable Car Park: 1		
Total Number Of Residential Parking: 44		

Parking Schedule - Commercial

Parking Type	Key	Level
Commercial Car Park	C	Ground
Ground: 5		
Commercial Car Park: 5		
Commercial Disable Car Park	CD	Ground
Ground: 1		
Commercial Disable Car Park: 1		
Total Number Of Tenancy Parking: 6		

Parking Schedule - Motor Cycle

Parking Type	Level	Comments
Motor Cycle Parking	Ground	
Ground: 4		
Motor Cycle Parking: 4		

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

All Levels Indicated Taken To Australian Height Datum (AHD)
Levels Prefixed With ***RL.** Are Interpreted From Existing Survey Information, Final Levels To Be Determined On Detail Review Of Existing Footpath Levels

Drawings Are **Not** To Be Scaled From. Use Only Figured Dimensions Where Indicated

DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
B	Revised Issue for DA	09.03.18
C	Revised Issue for DA	15.03.18
D	Revised issue for DA	21.03.18
E	Revised DA	15.05.18
F	Revised As Per Clients Comments	28.05.18
G	Revised Issue For Review	18.06.18
H	Revised Issue For Review	25.06.18
I	Issue For DA	26.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE

BASEMENT TO LEVEL 1

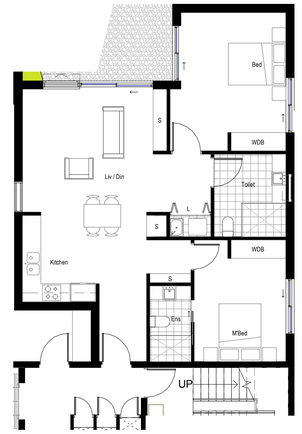
JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.101 I


A
DA.103
LEVEL 2
Balcony 10.3 m²
U201 2B 75.5 m²
Balcony 8.2 m²
U202 1B+ 59.0 m²
Balcony 8.0 m²
U203 1B 50.9 m²
Balcony 12.3 m²
U204 2B 77.7 m²
Balcony 4.9 m²
Balcony 6.9 m²
Balcony 10.9 m²
U205 2B 80.8 m²
U206 2B 75.4 m²
POS 41.0 m²
POS 21.7 m²
POS 150.7 m²
U207 L/H Studio 44.0 m²
U208 NA/U 2B 80.0 m²
Frosted/Louvre Sill Height 1800
Glass Awning
Deep Soil Zone 127.4 m²
8945
7170
7070
4710
4710
12270
5100
5100
5080
4200
4520
8870

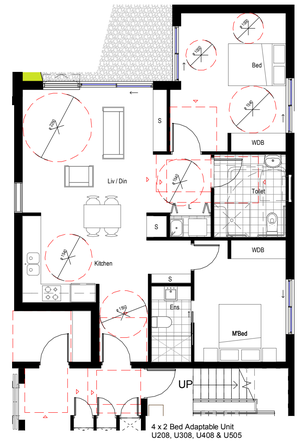
1 **Level 2**
1 : 200

2 **Level 3**
1 : 200

3 **Level 4**
1 : 200

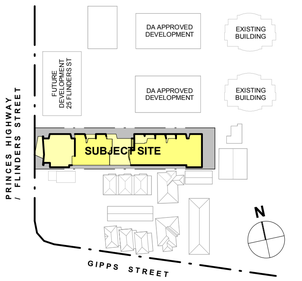


A **NA/U 2 Bed - Pre Adaptable**
1 : 100



4 x 2 Bed Adaptable Unit
U208, U308, U408 & U505

A1 **NA/U 2 Bed - Post Adaptable**
1 : 100



May 2018	BSA Reference: 12639
Building Sustainability Assessments	Ph: (02) 4862 3439
enquiries@buildingsustainability.net.au	www. buildingsustainability.net.au

Important Note

The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.
If different construction elements are applied then the Assessor Certificate is no longer valid.

Thermal Performance Specifications (does not apply to garage)

External Wall Construction		*Added Insulation*
150mm Concrete with internal stud and plasterboard		R1.5
Internal Wall Construction		*Added Insulation*
Plasterboard on studs (internal to units)		none
Plasterboard+studs+shaft liner+studs+Plasterboard (party walls between units)		R2.0 + R2.0
Plasterboard+studs+shaft liner+studs+Plasterboard (adjacent to common areas)		R2.0 + R2.0
Ceiling Construction		*Added Insulation*
Plasterboard		R3.0 to ceilings adjacent to roof and decks above
Roof Construction	*Colour*	*Added Insulation*
Concrete	Any	none
Floor Construction	*Covering*	*Added Insulation*
Concrete	As drawn	none

Windows	*Glass and frame type*	*U Value*	*SHGC Range*	*Area sq m*
ALM-001-01 A	Aluminium Type A Single clear	6.70	0.51 - 0.63	As drawn
ALM-002-01 A	Aluminium Type B Single clear	6.70	0.63 - 0.77	As drawn

Type A windows are awning windows, bifolds, casements, tilt 'n 'turn' windows, entry doors, french doors
Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvres

Skylights	*Glass and frame type*	*U Value SHGC*	*Area sq m*

U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified

External Window Shading	*(eaves, verandahs, pergolas, awnings etc)*	
All shade elements modelled as drawn		
Ceiling Penetrations	*(downlights, exhaust fans, flues etc)*	
No adjustment has been made for losses to insulation arising from ceiling penetrations.		

STORAGE CALCULATION

REQUIREMENTS

LEVEL TYPE	UNIT	SEPP 65		BASEMENT
STUDIO	5	4m³ / UNIT	20 m³	******At least 50% of the required storage is to be located within the apartment. (SEPP65 Obj. 4G-1)
1 BED	7	6m³ / UNIT	42 m³	
2 BED & 2 BED+S	21	8m³ / UNIT	168 m³	
3 BED	3	10m³ / UNIT	30 m³	
TOTAL	**36**		**260 m³**	**Max. 130 m³**

TOTAL VOLUME OF **REQUIRED STORAGE FOR RESIDENTIAL UNITS**
260 m³ (Min.130 m³ WITHIN APARTMENTS & **130 m³** IN BASEMENT)

TOTAL VOLUME OF **PROVIDED STORAGE FOR RESIDENTIAL UNITS**
269.1 m³ (150.7 m³ WITHIN APARTMENTS & **118.4 m³** IN BASEMENT)

STORAGE CAL. (WITHIN UNITS)

Level	Unit	Unit Type	Vol. of Storage
Level 1	U101	1B	3.2 m³
Level 1	U102	3B	5.4 m³
Level 1	U103	STUDIO	2.2 m³
Level 1	U104	2B	6.2 m³
Level 1			17 m³
Level 2	U201	2B	4.1 m³
Level 2	U202	1B+	4.2 m³
Level 2	U203	1B	3.7 m³
Level 2	U204	2B	4.5 m³
Level 2	U205	2B	4.1 m³
Level 2	U206	2B	4 m³
Level 2	U207	L/H Studio	4 m³
Level 2	U208	NA/U 2B	4.3 m³
Level 2			32.9 m³
Level 3	U301	2B	4.1 m³
Level 3	U302	1B+	4.2 m³
Level 3	U303	1B	4.7 m³
Level 3	U304	2B	4.2 m³
Level 3	U305	2B+	4.6 m³
Level 3	U306	2B	4.4 m³
Level 3	U307	L/H Studio	2.4 m³
Level 3	U308	NA/U 2B	4.3 m³
Level 3			32.8 m³
Level 4	U401	2B	4.1 m³
Level 4	U402	1B	4.2 m³
Level 4	U403	1B	3.7 m³
Level 4	U404	2B	4.5 m³
Level 4	U405	2B	4.1 m³
Level 4	U406	2B	4 m³
Level 4	U407	L/H Studio	4 m³
Level 4	U408	NA/U 2B	4.3 m³
Level 4			32.9 m³
Level 5	U501	3B	5.3 m³
Level 5	U502	2B	4.6 m³
Level 5	U503	2B	4.4 m³
Level 5	U504	L/H Studio	2.4 m³
Level 5	U505	NA/U 2B	4.3 m³
Level 5			20.9 m³
Level 6	U601	2B	4.1 m³
Level 6	U602	2B	4 m³
Level 6	U603	3B	6.1 m³
Level 6			14.2 m³
TOTAL VOLUME OF STORAGE (UNITS)			150.7 m³

UNIT SCHEDULE

Level	Unit	Type	Area	SOLAR ACCESS	CROSS VENT.
Level 1					
Level 1	U101	1B	51.3 m²	3	Yes
Level 1	U102	3B	101.5 m²	3	Yes
Level 1	U103	STUDIO	39.3 m²	1	No
Level 1	U104	2B	109.1 m²	0.5	No
4					
Level 2					
Level 2	U201	2B	75.5 m²	3	Yes
Level 2	U202	1B+	59.0 m²	3	No
Level 2	U203	1B	50.9 m²	3	Yes
Level 2	U204	2B	77.7 m²	3	Yes
Level 2	U205	2B	80.8 m²	0.5	Yes
Level 2	U206	2B	75.4 m²	0	Yes
Level 2	U207	L/H Studio	44.0 m²	1.5	Yes
Level 2	U208	NA/U 2B	80.0 m²	1	Yes
8					
Level 3					
Level 3	U301	2B	75.5 m²	3	Yes
Level 3	U302	1B+	59.0 m²	3	No
Level 3	U303	1B	55.0 m²	3	Yes
Level 3	U304	2B	77.7 m²	3	Yes
Level 3	U305	2B+	79.9 m²	3	Yes
Level 3	U306	2B	75.3 m²	3	Yes
Level 3	U307	L/H Studio	39.8 m²	3	Yes
Level 3	U308	NA/U 2B	80.2 m²	3	Yes
8					
Level 4					
Level 4	U401	2B	75.5 m²	3	Yes
Level 4	U402	1B	59.0 m²	3	No
Level 4	U403	1B	50.9 m²	3	Yes
Level 4	U404	2B	77.7 m²	3	Yes
Level 4	U405	2B	81.9 m²	3	Yes
Level 4	U406	2B	75.5 m²	3	Yes
Level 4	U407	L/H Studio	44.0 m²	3	Yes
Level 4	U408	NA/U 2B	80.2 m²	3	Yes
8					
Level 5					
Level 5	U501	3B	94.8 m²	3	Yes
Level 5	U502	2B	79.9 m²	3	Yes
Level 5	U503	2B	75.3 m²	3	Yes
Level 5	U504	L/H Studio	39.8 m²	3	Yes
Level 5	U505	NA/U 2B	80.2 m²	3	Yes
5					
Level 6					
Level 6	U601	2B	81.9 m²	3	Yes
Level 6	U602	2B	75.5 m²	3	Yes
Level 6	U603	3B	118.2 m²	3	Yes
3					

Total Unit Number: 36

‡ **NA/U** - Adaptable Unit
‡ **L/H** - Silver Level Livable Housing Unit

Keynote Legend

Key	Description
Bed	Apartment Bedroom
Ens	Ensuite
FH	Fire Hydrant - Refer To Hydraulic Engineers Details
Kitchen	Apartment Kitchen For Unit. Details TBC.
L	Laundry
Liv / Din	Living Room and Dinning Room
MBed	Master Bedroom
S	Storage
ST	Study Area
Toilet	Toilet
WDB	Wardrobe

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

All Levels Indicated Taken To Australian Height Datum (AHD)
Levels Prefixed With ***RL.** Are Interpreted From Existing Survey Information, Final Levels To Be Determined On Detail Review Of Existing Footpath Levels

Drawings Are **Not** To Be Scaled From. Use Only Figured Dimensions Where Indicated

DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
D	Revised issue for DA	21.03.18
E	Revised DA	15.05.18
F	Revised As Per Clients Comments	28.05.18
G	Revised As Per Client Comments	29.05.18
H	Revised issue	31.05.18
I	Revised Issue For Review	18.06.18
J	Revised Issue For Review	25.06.18
K	Issue For DA	26.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNANDALE NSW 2038 - T 02 9564 8800 F 02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

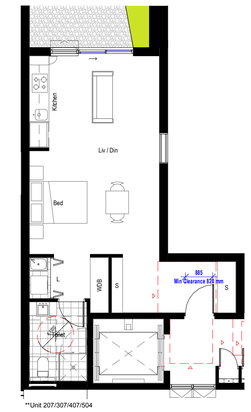
D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE

RESIDENTIAL LEVEL 2 - 4

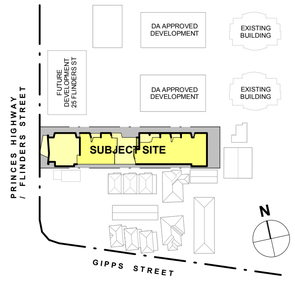
JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.102 K

1 **Level 5**
1 : 200

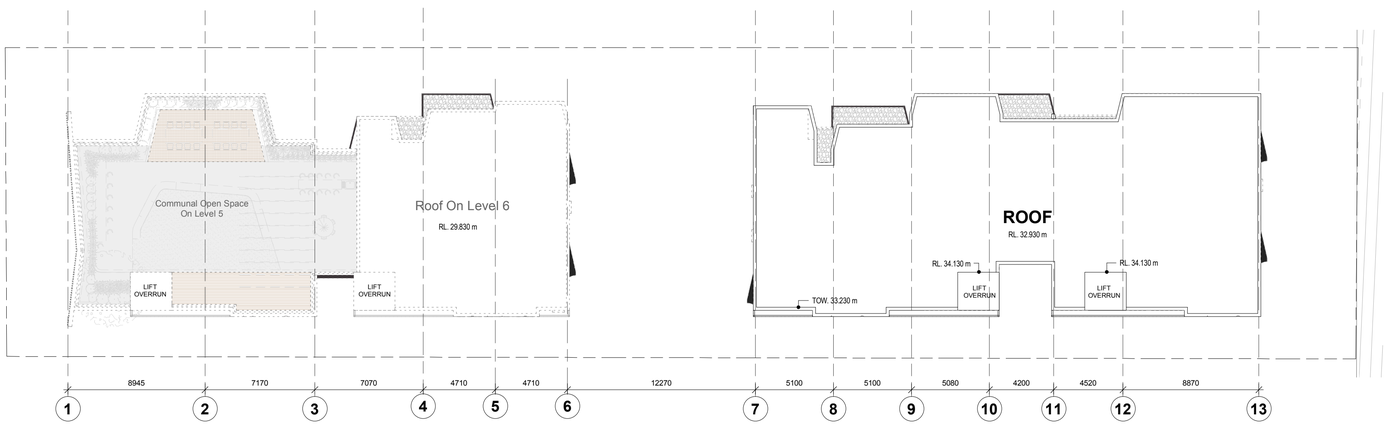


****Unit 207/307/407/504**

A **Livable Housing Studio**
1 : 100



2 **Level 6**
1 : 200



3 **Roof**
1 : 200

UNIT MIX CALCULATION

UNIT MIX NUMBERS

LEVEL / TYPE	LV.1	LV.2	LV.3	LV.4	LV.5	LV.6	SUM	%
STUDIO	1	1	1	1	1	-	5	14%
1 BED	1	2	2	2	-	-	7	19%
2 BED & 2 BED+S	1	5	5	5	3	2	21	58%
3 BED	1	-	-	-	1	1	3	8%
TOTAL	4	8	8	8	5	3	36	

- REQUIRED ADAPTABLE UNITS : **4** UNITS
  (10 % OF TOTAL NUMBER OF UNITS,WOLLONGONG DCP)
- REQUIRED SILVER LEVEL LIVABLE HOUSING : **4** UNITS
  (10 % OF TOTAL NUMBER OF UNITS,WOLLONGONG DCP)

- PROVIDED SILVER LEVEL LIVABLE HOUSING UNIT : **4 x** UNITS PROVIDED.
  (U203, U207, U403, U505, U601 & U603)
- PROVIDED ADAPTABLE UNITS : **4 x** UNITS PROVIDED.
  (U308, U408, U506 & U605)

May 2018 — BSA Reference: 12639
Building Sustainability Assessments Ph: (02) 4962 3439
enquiries@buildingsustainability.net.au www. buildingsustainability.net.au

Important Note

The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.
If different construction elements are applied then the Assessor Certificate is no longer valid.

Thermal Performance Specifications (does not apply to garage)

External Wall Construction		*Added Insulation*
150mm Concrete with internal stud and plasterboard		R1.5
Internal Wall Construction		*Added Insulation*
Plasterboard on studs (internal to units)		none
Plasterboard+studs+shaft liner+studs+Plasterboard (party walls between units)		R2.0 + R2.0
Plasterboard+studs+shaft liner+studs+Plasterboard (adjacent to common areas)		R2.0 + R2.0
Ceiling Construction		*Added Insulation*
Plasterboard		R3.0 to ceilings adjacent to roof and decks above
Roof Construction	*Colour*	*Added Insulation*
Concrete	Any	none
Floor Construction	*Covering*	*Added Insulation*
Concrete	As drawn	none

Windows	*Glass and frame type*	*U Value*	*SHGC Range*	*Area sq m*
ALM-001-01 A	Aluminium Type A Single clear	6.70	0.51 - 0.63	As drawn
ALM-002-01 A	Aluminium Type B Single clear	6.70	0.63 - 0.77	As drawn

Type A windows are awning windows, bifolds, casements, tilt 'n 'turn' windows, entry doors, french doors
Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvres

Skylights	*Glass and frame type*	*U Value SHGC*	*Area sq m*

U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified

External Window Shading	*(eaves, verandahs, pergolas, awnings etc)*
All shade elements modelled as drawn	
Ceiling Penetrations	*(downlights, exhaust fans, flues etc)*
No adjustment has been made for losses to insulation arising from ceiling penetrations.	

Keynote Legend

Key	Description
Bed	Apartment Bedroom
Ens	Ensuite
Kitchen	Apartment Kitchen For Unit. Details TBC.
L	Laundry
Liv / Din	Living Room and Dinning Room
M'Bed	Master Bedroom
S	Storage
Toilet	Toilet
WDB	Wardrobe

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

All Levels Indicated Taken To Australian Height Datum (AHD)
Levels Prefixed With ***RL.** Are Interpreted From Existing Survey Information, Final Levels To Be Determined On Detail Review Of Existing Footpath Levels

Drawings Are **Not** To Be Scaled From. Use Only Figured Dimensions Where Indicated

DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
B	Revised Issue for DA	09.03.18
C	Revised Issue for DA	15.03.18
D	Revised issue for DA	21.03.18
E	Revised DA	15.05.18
F	Revised As Per Clients Comments	28.05.18
G	Revised issue	31.05.18
H	Revised Issue For Review	18.06.18
I	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS
CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

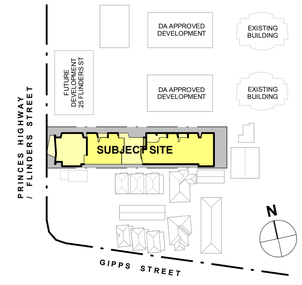
TITLE

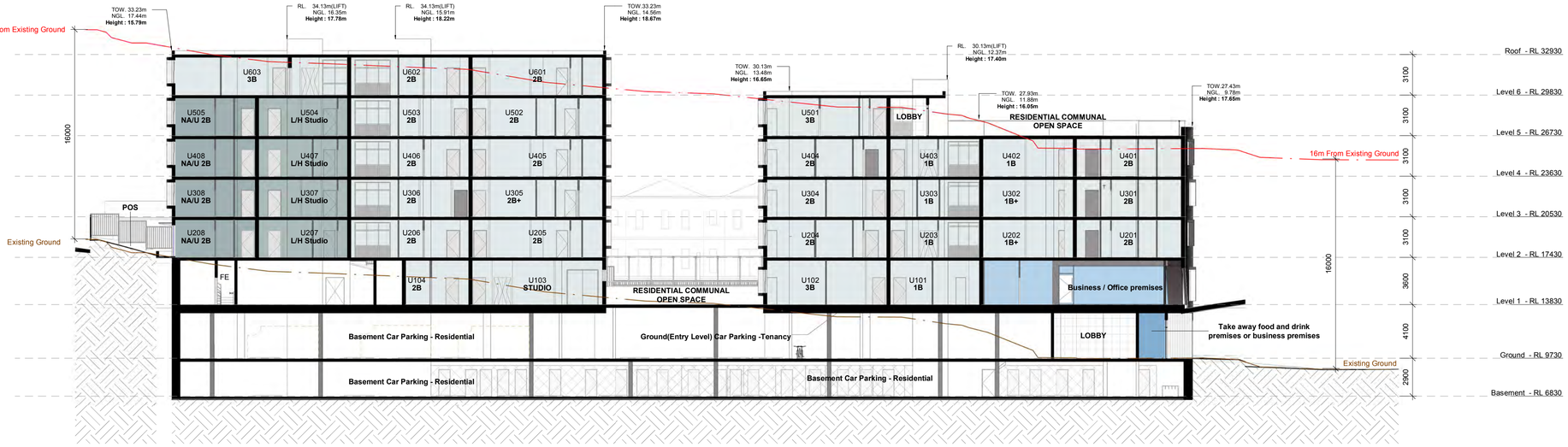
RESIDENTIAL LEVEL 5 & 6, ROOF

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.103 I

1 **DA Section 1**

1 : 200





2 **DA Section 2**

1 : 200

May 2018		BSA Reference: 12639
Building Sustainability Assessments		Ph: (02) 4962 3439
enquiries@buildingsustainability.net.au		www. buildingsustainability.net.au
Important Note		
The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification.		
If different construction elements are applied then the Assessor Certificate is no longer valid.		
Thermal Performance Specifications (does not apply to garage)		
External Wall Construction		*Added Insulation*
150mm Concrete with internal stud and plasterboard		R1.5
Internal Wall Construction		*Added Insulation*
Plasterboard on studs (internal to units)		none
Plasterboard+studs+shaft liner+studs+Plasterboard (party walls between units)		R2.0 + R2.0
Plasterboard+studs+shaft liner+studs+Plasterboard (adjacent to common areas)		R2.0 + R2.0
Ceiling Construction		*Added Insulation*
Plasterboard		R3.0 to ceilings adjacent to roof and decks above
Roof Construction	*Colour*	*Added Insulation*
Concrete	Any	none
Floor Construction	*Covering*	*Added Insulation*
Concrete	As drawn	none

Windows	*Glass and frame type*	*U Value*	*SHGC Range*	*Area sq m*
ALM-001-01 A	Aluminium Type A Single clear	*6.70*	*0.51 - 0.63*	As drawn
ALM-002-01 A	Aluminium Type B Single clear	*6.70*	*0.63 - 0.77*	As drawn

Type A windows are awning windows, bifolds, casements, tilt 'n 'turn' windows, entry doors, french doors
Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvres

Skylights	*Glass and frame type*	*U Value*	*SHGC*	*Area sq m*

U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is within the range specified

External Window Shading *(eaves, verandahs, pergolas, awnings etc)*
All shade elements modelled as drawn
Ceiling Penetrations *(downlights, exhaust fans, flues etc)*
No adjustment has been made for losses to insulation arising from ceiling penetrations.

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

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DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
A	Issue for DA	20.11.17
B	Revised Issue for DA	09.03.18
C	Revised Issue for DA	15.03.18
D	Revised issue for DA	21.03.18
E	Revised DA	15.05.18
F	Revised As Per Clients Comments	28.05.18
G	Revised Issue For Review	18.06.18
H	Revised Issue For Review	25.06.18

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

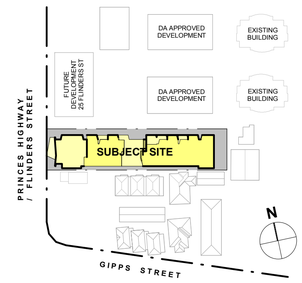
TITLE

SECTIONS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.200 H

SE **South Elevation**
1 : 200

EE **East Elevation**
1 : 200



South Elevation Screen example

NE **North Elevation**
1 : 200

WE **West Elevation - Proposed Streetscape**
1 : 200

Material Finishes:

CL1
Type: Axon™ Cladding
Supplier: James Hardie or Equivalent
Colour: Dulux - Dieskau or Equivalent

CL2
Type: Axon™ Cladding
Supplier: James Hardie or Equivalent
Colour: Dulux - Double Bass or Equivalent

P1
Type: Exterior Paint
Supplier: Dulux or Equivalent
Colour: Double Bass or Equivalent

P2
Type: Exterior Paint
Supplier: Dulux or Equivalent
Colour: Dieskau or Equivalent

P3
Type: Exterior Paint
Supplier: Dulux or Equivalent
Colour: Malay Grey or Equivalent

P4
Type: Exterior Paint
Supplier: Dulux or Equivalent
Colour: Silkwort or Equivalent

CF1
Finish: Off-Form Concrete

CF2
Concrete with Reveals Profile
Wall Finish: P3
Reveals Finish: P4

PC1
Type: Powder Coat
Supplier: Colorbond or Equivalent
Colour: Classic Night Sky or Equivalent

TM1
Type: Timber Look Aluminum Cladding
Colour: Western Red Cedar or Equivalent

GL01
Finish: Frameless Glass

General Notes

Architectural Drawings To Be Read In Conjunction With All Other Design Consultants Detailed Drawings, Reports And Specifications.

Site Survey Based On Survey Drawing Carried Out By Masters Surveying - Refer To Drawing **W17034-1**

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May 2018 — BSA Reference: 12639
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Ceiling Penetrations	*(downlights, exhaust fans, flues etc)*
No adjustment has been made for losses to insulation arising from ceiling penetrations.	

DEVELOPMENT APPLICATION

NOT For Construction

Rev	Description	Date
E	Modified Incorrect Boundary On Elevations	16.04.18
F	Revised DA	15.05.18
G	Revised As Per Clients Comments	28.05.18
H	Revised As Per Client Comments	29.05.18
I	Revised issue	31.05.18
J	Revised Issue For Review	18.06.18
K	Revised Issue For Review	25.06.18
L	Issue For DA	26.06.18

NORDON · JAGO ARCHITECTS
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STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE: ELEVATIONS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @ As indicated
DWG No.	DA.300 L

1 Isometric View SW

2 Isometric NE

NORDON · JAGO ARCHITECTS

CNR PARRAMATTA RD & JOHNSTON ST - PO BOX 254 - ANNAND-NSW 2038 - T.02 9564 8800 F.02 9517 2833
STEPHEN J. NORDON REGISTRATION No. NSW - 4704 GRAHAM P. JAGO REGISTRATION No. NSW - 4926

Rev	Description	Date
A	Revised issue	31.05.18
B	Revised Issue For Review	18.06.18
C	Revised Issue For Review	25.06.18

NOT For Construction

PRELIMINARY ISSUE

27 Flinders Street, Wollongong

D:\00 NJA LF\QLL00117\QLL00117_DA_LF_V18_DMK_18.06.20 After 3rd UDRP.rvt

TITLE

ISOMETRIC VIEWS

JOB No.	QLL00117
DATE	11.07.17
SCALE	A1 @
DWG No.	DA.900 C

MASTER PLAN - L1 BUSINESS PREMISES + L2 RESIDENTIAL

ARCADIA
LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:150 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10

MASTER PLAN - COMMUNAL ROOFTOP

ARCADIA
LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:150 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10

DETAIL PLAN // BUSINESS PREMISES LEVEL 1

0 1.5 3 4.5 6 7.5M

SCALE 1:75 @ A1

1. RAISED CONCRETE PLANTERS
2. INTEGRATED TIMBER SEATING
3. FLEXIBLE FURNITURE
4. ELAEOCARPUS RETICULATUS STREET TREE
5. FIRE EGRESS
6. UNIT PAVING TYPE 1
7. FOOTPATH TO MEET WCC DPTM
8. EXISTING BUS STOP

ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:75 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10

DETAIL PLAN // RESIDENTIAL LEVEL 1

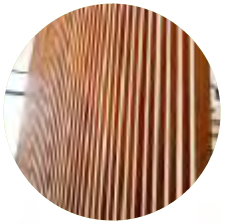
1. TIMBER LOUNGE SEATING
2. FEATURE PLANTING IN RAISED PLANTERS
3. SCREEN PLANTING
4. COMMUNAL MEETING SPACE
5. RAISED DECKING
6. LOW LEVEL PLANTING
7. PASSIVE CONGREGATION PODS
8. TIMBER SCREEN

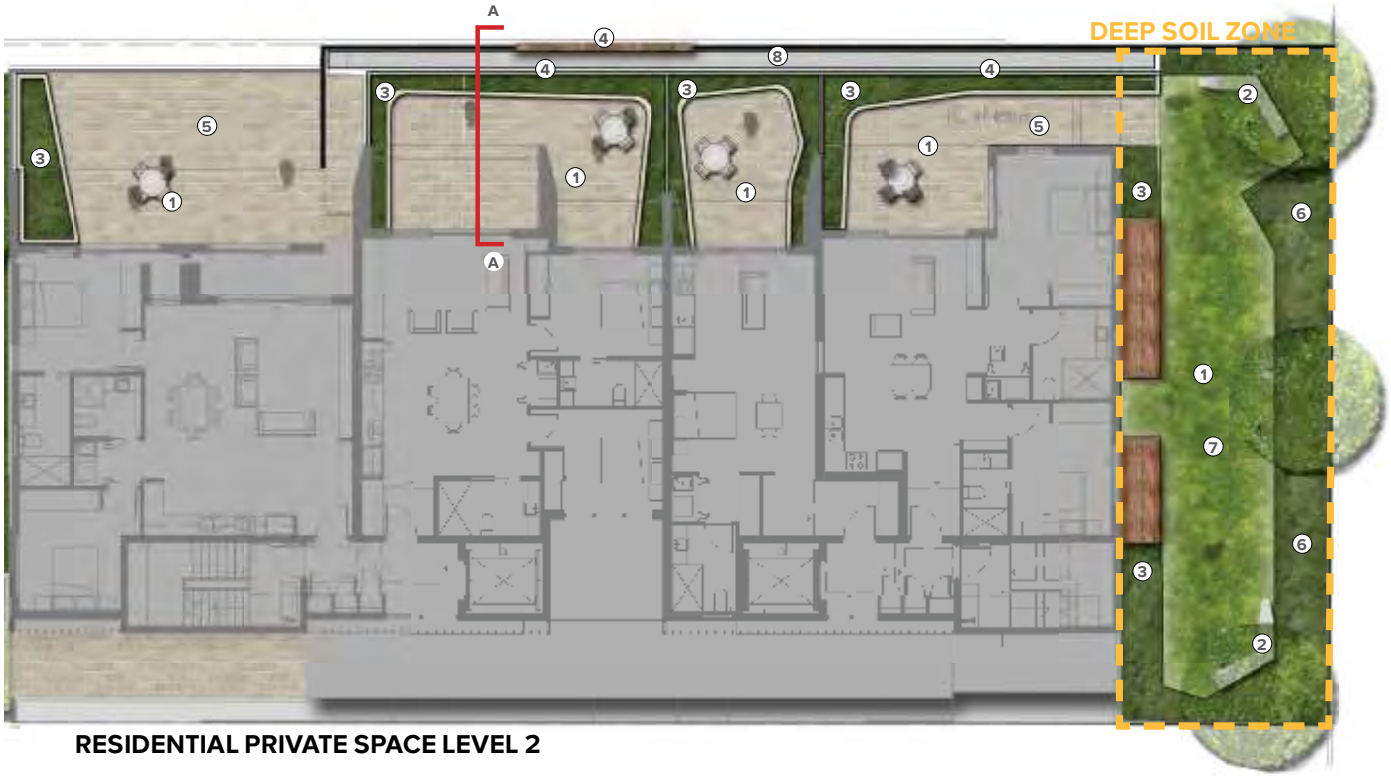
ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

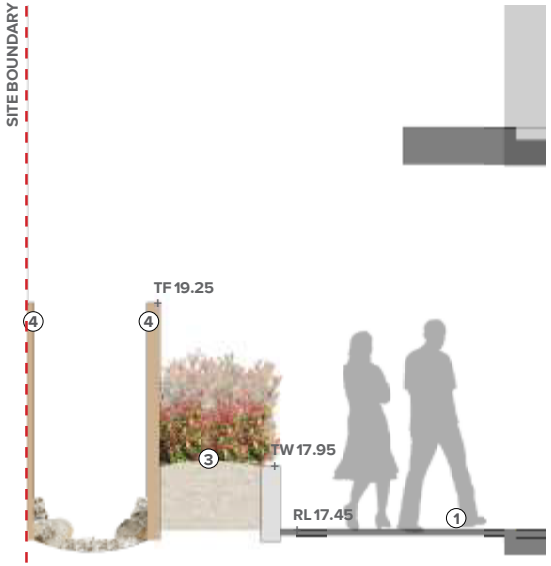
PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:75 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10

DETAIL PLAN // RESIDENTIAL LEVEL 2





RESIDENTIAL PRIVATE SPACE LEVEL 2



SECTION AA - LEVEL 2 COURTYARD SECTION - 1:20 @ A1

1. PRIVATE OPEN SPACE
2. CONCRETE SEATING BENCHES
3. SCREEN PLANTING
4. VERTICAL TIMBER BALUSTRADE
5. PAVING TYPE 1
6. MASS PLANTING ON GRADE
7. TURF
8. OVERLAND FLOW

0 1.5 3 4.5 6 7.5M

SCALE 1:75 @ A1

ARCADIA LANDSCAPE ARCHITECTURE

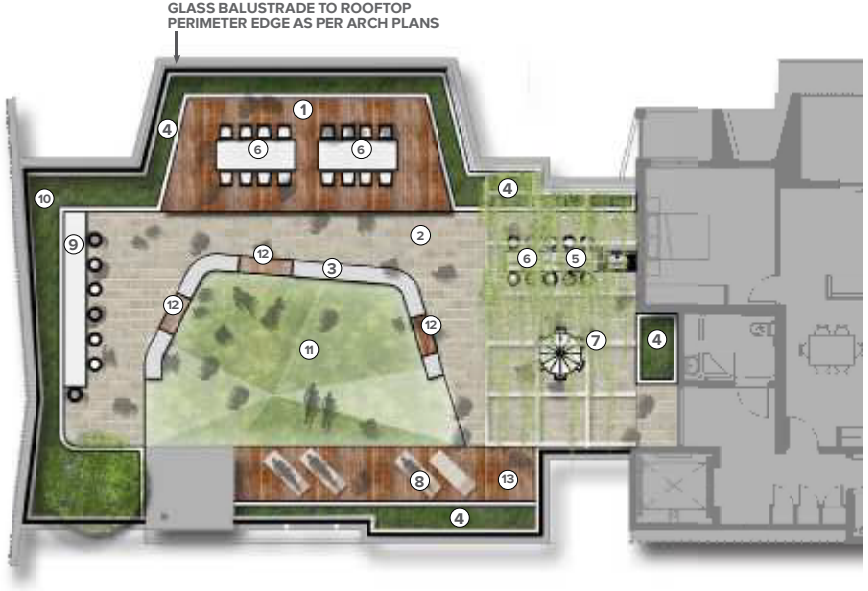
27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:75 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10

DETAIL PLAN // COMMUNAL ROOF LEVEL 5

⑤

⑧



0 1.5 3 4.5 6 7.5M

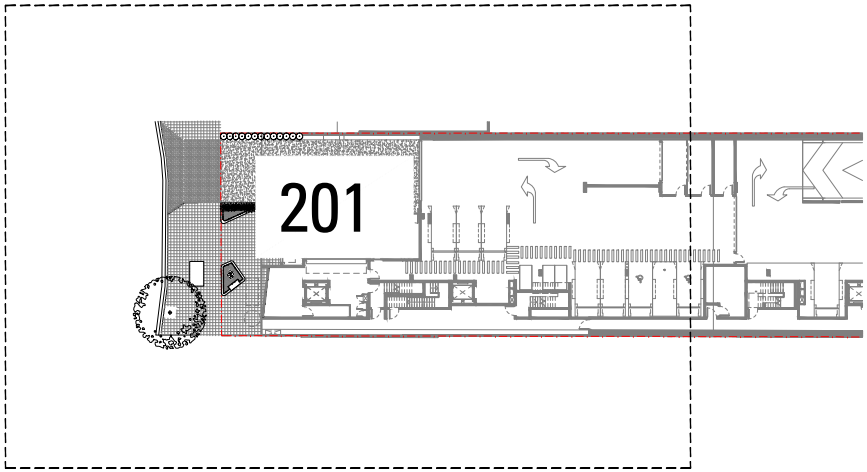
SCALE 1:75 @ A1

① RAISED TIMBER DECKING
② PAVING TYPE 1
③ CONCRETE SEATING BENCHES
④ RAISED PLANTERS
⑤ COVERED BBQ BENCH
⑥ COMMUNAL DINING TABLE
⑦ PERGOLA STRUCTURE
⑧ LOUNGE DECK CHAIRS
⑨ COMMUNAL STUDY NOOK
⑩ LOW LEVEL PLANTING
⑪ MOUNDING TURF
⑫ INTEGRATED TIMBER SEATING
⑬ FLUSH DECKING

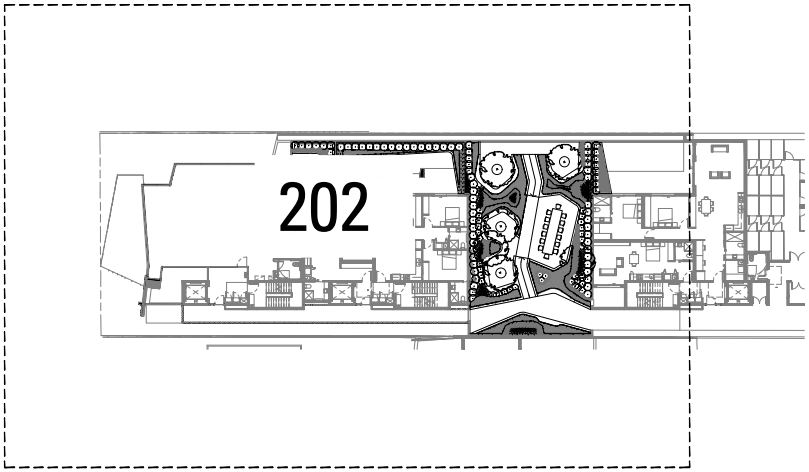
ARCADIA
LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

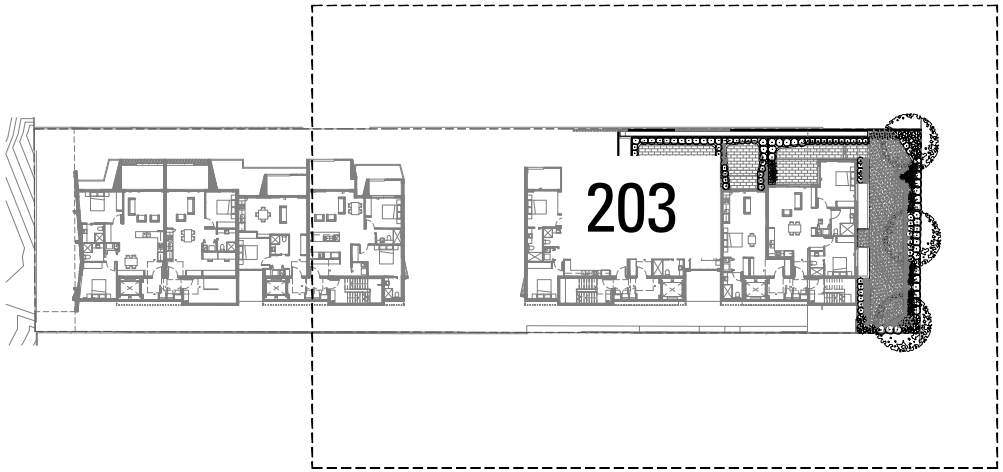
PREPARED BY	Arcadia Landscape Architecture	**DATE**	June 2018
CLIENT	Artro Management	**SCALE**	1:75 @ A1
ARCHITECT	Nordon Jago	**ISSUE**	10



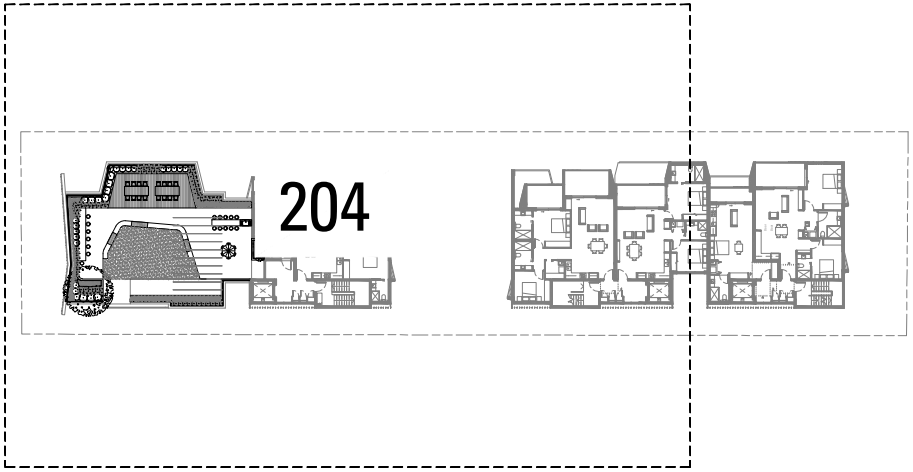
BUSINESS PREMISES LEVEL 1



RESIDENTIAL PRIVATE OPEN SPACE LEVEL 1



RESIDENTIAL LEVEL 2



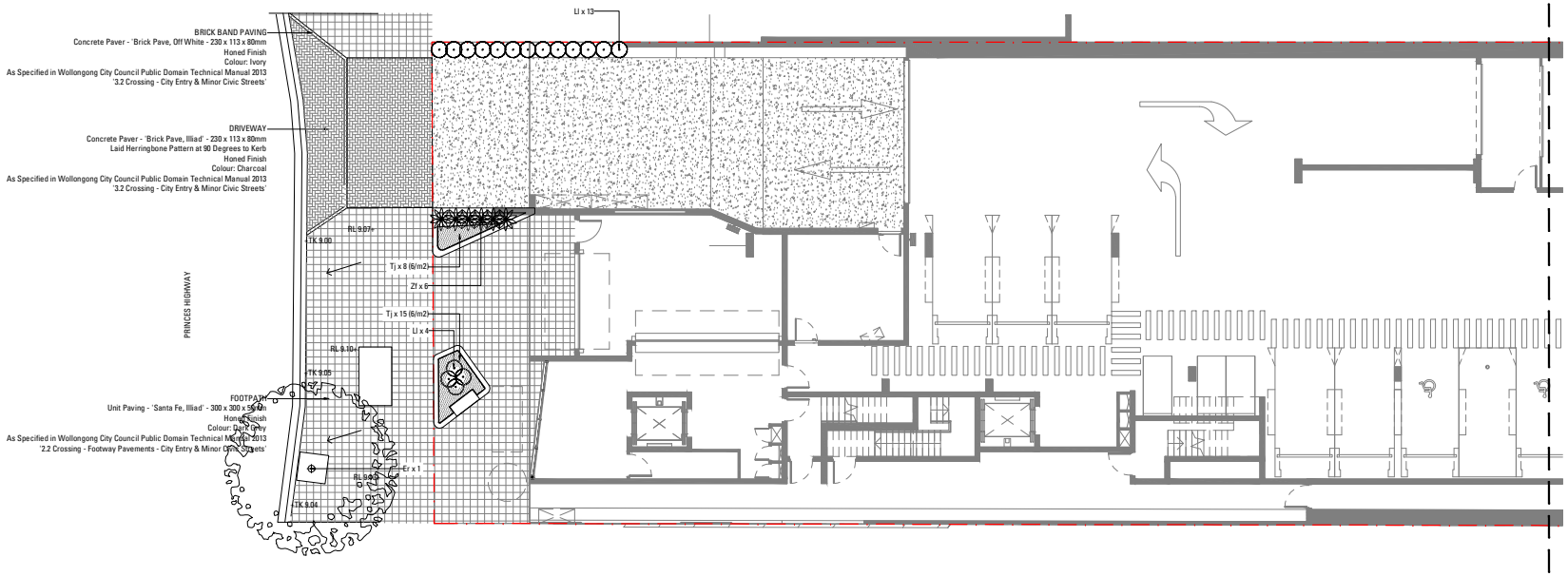
COMMUNAL ROOFTOP LEVEL 5

ARCADIA
LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	DATE	June 2018
CLIENT	Artro Management	SCALE	1:250 @ A1
ARCHITECT	Nordon Jago	ISSUE	10

DETAIL LANDSCAPE PLAN



LEGEND

- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE RETAINED
- PROPOSED FEATURE TREE PLANTING
- PROPOSED SHRUB AND ACCENT PLANTING
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED CONCRETE PAVING
- PROPOSED PAVING TYPE 1
- PROPOSED PAVING TYPE 2
- RETAINING WALL
  Refer Architects Drawings
- FENCE TYPE 1
  1800mm High

BUSINESS PREMISES LEVEL 1

1:100 @ A1

ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	DATE	June 2018
CLIENT	Artro Management	SCALE	1:100 @ A1
ARCHITECT	Nordon Jago	ISSUE	10

DETAIL LANDSCAPE PLAN

LEGEND

- EXISTING TREES TO BE REMOVED
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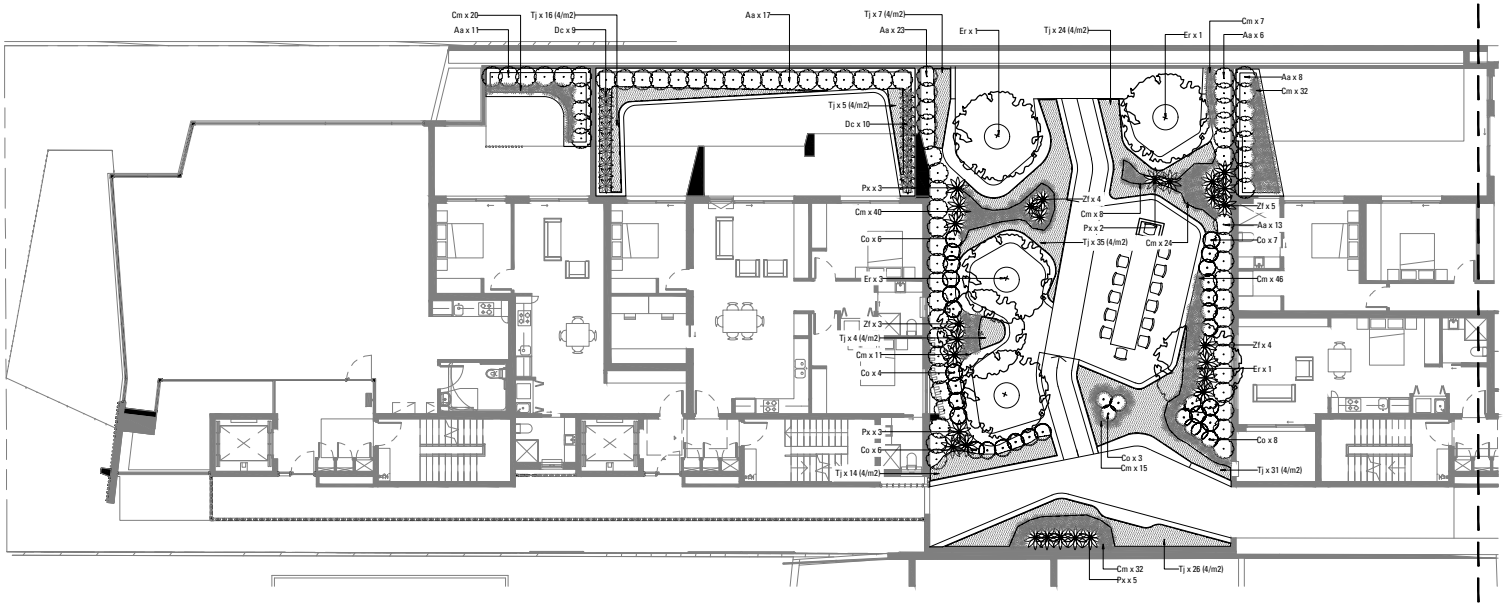
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED CONCRETE PAVING
- PROPOSED PAVING TYPE 1
- PROPOSED PAVING TYPE 2
- RETAINING WALL
  Refer Architects Drawings



RESIDENTIAL PRIVATE OPEN SPACE LEVEL 1

1:100 @ A1

ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	DATE	June 2018
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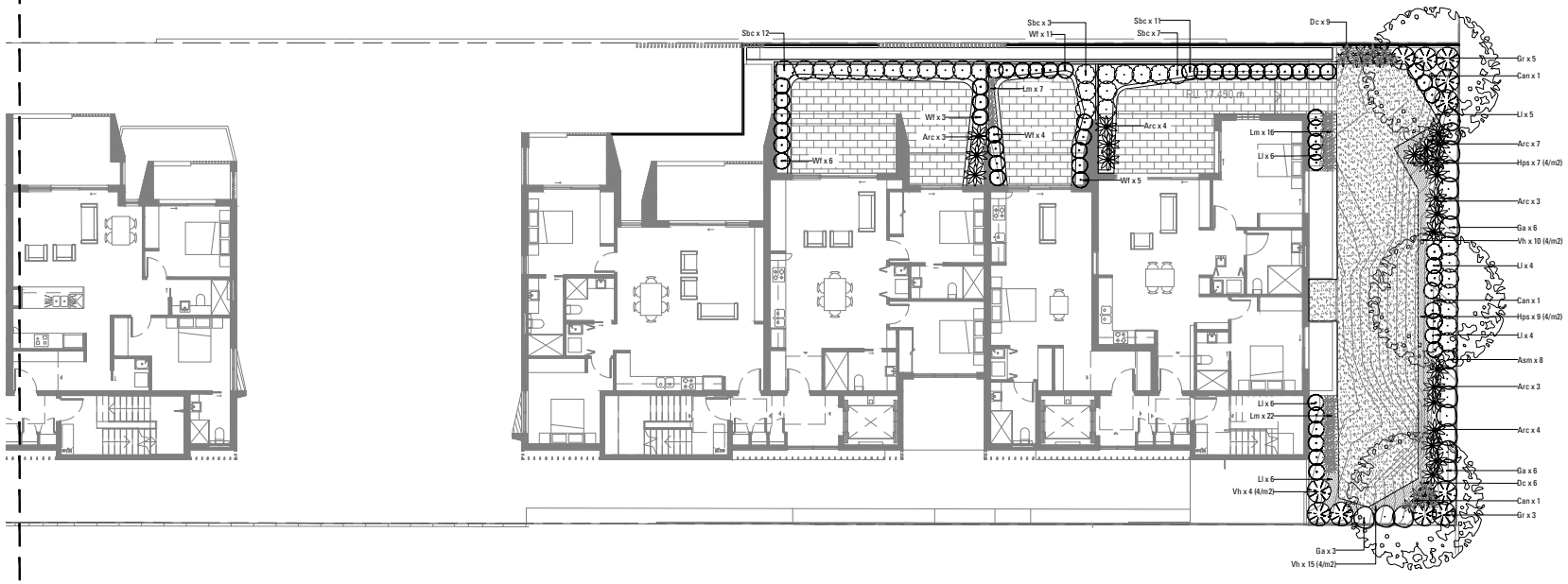
ARCHITECT	Nordon Jago	ISSUE	10

DETAIL LANDSCAPE PLAN



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- PROPOSED PAVING TYPE 1
- PROPOSED PAVING TYPE 2
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RESIDENTIAL LEVEL 2

1:100 @ A1

ARCADIA LANDSCAPE ARCHITECTURE

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- PROPOSED PAVING TYPE 1
- PROPOSED PAVING TYPE 2
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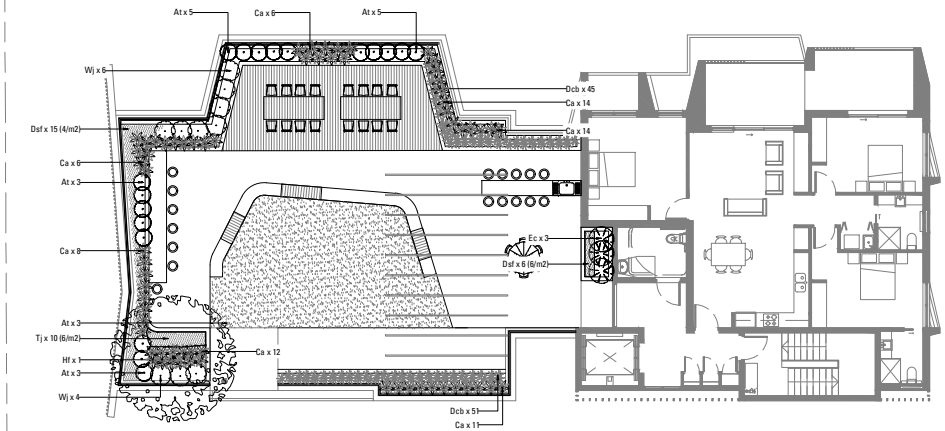
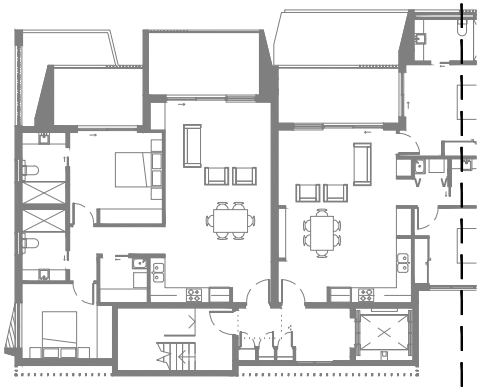




COMMUNAL ROOFTOP LEVEL 5

1:100 @ A1

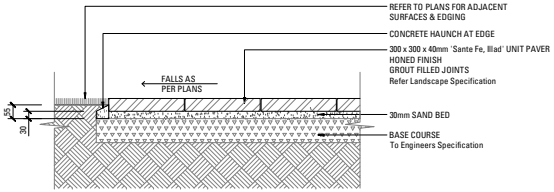
ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

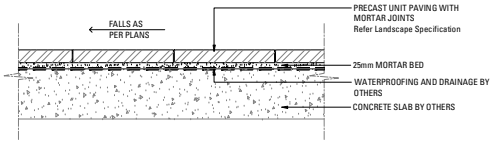
PREPARED BY	Arcadia Landscape Architecture	DATE	June 2018
CLIENT	Artro Management	SCALE	1:100 @ A1
ARCHITECT	Nordon Jago	ISSUE	10

17-476 27 FLINDERS STREET RECOMMENDED PLANT SCHEDULE

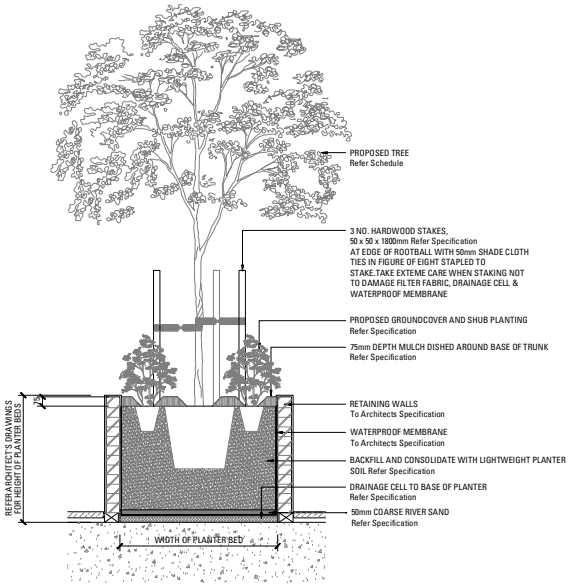
CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w/dia)	PROPOSED POT SIZE	
	TREES & PALMS				
Cun	Cupaniopsis anacardioides	Tuckeroo	10 x 10	100L	5
Er	Elaeocarpus reticulatus	Blueberry Ash	8 x 3	100L	9
Hi	Hymenosporum flavum	Native Frangipani	8 x 5	100L	1
	SHRUBS & ACCENTS				
Acr	Anthropodium cirratum	New Zealand fringed lily	1 x 0.5	300mm	24
At	Anigozanthos 'Tango'	Kangaroo Paw	1 x 1	150mm	19
Acm	Acmena smithii minor	Dwarf Lilly Pilly	3 x 2	300mm	9
Cla	Carex appressa	Tall Sedge	1 x 1	150mm	71
Cle	Clivea miniata	Bush Lily	1 x 1	150mm	235
Co	Cordyline terminalis	Cordyline	1.2 x 1.2	200mm	24
Di	Dianella caerulea	Flax Lily	0.5 x 0.5	200mm	24
Dcb	Dianella caerulea 'Cassa Blue'	Cassa Blue Flax Lily	0.8 x 0.8	150mm	86
Ele	Echium candicans	Pride of Madeira	1.2 x 1.2	200mm	3
Gla	Gardenia augusta 'Florida'	Gardenia	1.5 x 1.5	200mm	19
Gr	Grevillea banksii	Red Silky Oak	2 x 2	200mm	11
Pa	Rhododendron 'Kurume'	Kurume	1 x 1	300mm	18
Sluc	Syzygium 'Bush Christmas'	Bush Christmas Lilly Pilly	3 x 2	200mm	58
Wf	Westringia fruticosa	Coastal Rosemary	1.5 x 1.5	300mm	24
	GRASSES & RUSHES				
Lm	Liriope muscari	Lilyturf	0.5 x 0.5	150mm	45
Ll	Lomandra longifolia	Spiny-Headed Mat Rush	1 x 1	150mm	41
	FERNS & CYCADS				
An	Asplenium australasicum	Birds Nest Fern	1.5 x 1.5	200mm	76
Zl	Zamia furfuracea	Cardboard Plant	1.5 x 1.5	200mm	23
	GROUNDCOVERS & CLIMBERS				
Dsf	Dichondra repens 'Silver Falls'	Kidney Weed	0.2 x spreading	150mm	21
Hpu	Hardenbergia 'Purple Spray'	Purple Spray	0.5 x 1	150mm	18
Tj	Trachelospermum jasminoides	Star Jasmine	0.5 x 1	150mm	186
Vh	Viola hederacea	Native Violet	0.2 x 0.5	150mm	24



01 501 FOOTPATH UNIT PAVERS ON GRADE
SCALE 1:10



02 501 PRECAST UNIT PAVERS ON SLAB
SCALE 1:10



03 501 RAISED PLANTER BED FOR ROOF TERRACE - SECTION
SCALE 1:20

LANDSCAPE SPECIFICATION NOTES

SERVICES
BEFORE LANDSCAPE WORK IS COMMENCED THE LANDSCAPE CONTRACTOR IS TO ESTABLISH THE POSITION OF ALL SERVICE LINES AND ENSURE TREE PLANTING IS CARRIED OUT AT LEAST 3 METRES AWAY FROM THESE SERVICES. SERVICE LIDS, VENTS AND HYDRANTS SHALL BE LEFT EXPOSED AND NOT COVERED BY ANY LANDSCAPE FINISHES (TURFING, PAVING, GARDEN BEDS ETC.) FINISH ADJOINING SURFACES FLUSH WITH PIT LIDS.

ABORIST MANAGEMENT OF TREE PROTECTION
A QUALIFIED AND APPROVED ABORIST IS TO BE CONTRACTED TO UNDERTAKE OR MANAGE THE INSTALLATION OF PROTECTIVE FENCING, AND TO UNDERTAKE SUCH MEASURES AS HE DEEMS APPROPRIATE TO PRESERVE THE SUBJECT TREES TO BE RETAINED. THE ARBORIST IS TO BE RETAINED FOR THE ENTIRE CONTRACT PERIOD TO UNDERTAKE ONGOING MANAGEMENT AND REVIEW OF THE TREES.

DRAINAGE CELL AND FILTER FABRIC
FOR ON-SLAB AREAS INSTALL AN APPROVED 'DRAINAGE CELL' PRODUCT TO COMPREHENSIVELY COVER THE BOTTOM OF ALL PLANTERS. OVER DRAINAGE CELL TO ON-SLAB AREAS, A POLYFELT GEOTEXTILE LINING (AS SUPPLIED BY 'POLYFELT TS' OR APPROVED EQUIVALENT) IS TO BE INSTALLED TO COVER THE BOTTOM OF ALL PLANTERS, TURNED UP 300MM AND TAPED TO THE PLANTER SIDES TO ENSURE SOIL MIX DOES NOT ESCAPE INTO DRAINAGE OUTLETS/HOLES. INSTALL MIN. 50MM COARSE RIVER SAND OVER ALL GEOTEXTILE LINING PRIOR TO INSTALLATION OF SOIL MIX.

PLANTING MIXTURE
SHALL BE HOMOGENOUS BLEND OF SOIL AND ADDITIVES IN THE FOLLOWING PROPORTIONS:
EXISTING SITE SOIL IF SUITABLE OR
IMPORTED TOPSOIL 50%
COMPOST 30%
D/W SAND 20%
SOIL TESTING OF EXISTING SITE SOIL IS TO BE UNDERTAKEN TO ASSESS SUITABILITY OF USE AS PLANTING TOPSOIL AND COMPLIANCE WITH AUSTRALIAN STANDARDS.

MULCH APPLICATION
PLACE MULCH TO THE REQUIRED DEPTH, (REFER TO DRAWINGS) CLEAR OF PLANT STEMS, AND RAKE TO AN EVEN SURFACE FINISHING 25MM BELOW ADJOINING LEVELS. ENSURE MULCH IS WATERED IN AND TAMPED DOWN DURING INSTALLATION.

MULCH TYPE
PINE BARK: FROM MATURE TREES, GRADED IN SIZE FROM 15MM TO 30MM, FREE FROM WOOD SLIVERS. DARK BROWN IN COLOUR AND TEXTURE.

COMPOST
SHALL BE WELL ROTTED VEGETATIVE MATERIAL OR ANIMAL MANURE, OR OTHER APPROVED MATERIAL, FREE FROM HARMFUL CHEMICALS, GRASS AND WEED GROWTH AND WITH NEUTRAL PH. PROVIDE A CERTIFICATE OF PROOF OF PH UPON REQUEST.

PLANT MATERIAL
ALL PLANTS SUPPLIED ARE TO CONFORM WITH THOSE SPECIES LISTED IN THE PLANT SCHEDULE ON THE DRAWINGS. GENERALLY PLANTS SHALL BE VIGOROUS, WELL ESTABLISHED, HARDENED OFF, OF GOOD FORM CONSISTENT WITH SPECIES OR VARIETY, NOT SOFT OR FORCED, FREE FROM DISEASE OR INSECT PESTS WITH LARGE HEALTHY ROOT SYSTEMS AND NO EVIDENCE OF HAVING BEEN RESTRICTED OR DAMAGED. TREES SHALL HAVE A LEADING SHOOT. IMMEDIATELY REJECT DRIED OUT, DAMAGED OR UNHEALTHY PLANT MATERIAL BEFORE PLANTING. ALL STOCK IS TO BE CONTAINER GROWN FOR A MINIMUM OF SIX (6) MONTHS PRIOR TO DELIVERY TO SITE

FERTILISER MASS PLANTING AREAS:
FERTILISER SHALL BE 'NUTRICOTE' OR APPROVED EQUIVALENT' IN GRANULE FORM INTENDED FOR SLOW RELEASE OF PLANT NUTRIENTS OVER A PERIOD OF APPROXIMATELY NINE MONTHS. THOROUGHLY MIX FERTILISER WITH PLANTING MIXTURE AT THE RECOMMENDED RATE, PRIOR TO INSTALLING PLANTS.

STAKING AND TYING
STAKES SHALL BE STRAIGHT HARDWOOD, FREE FROM KNOTS AND TWISTS, POINTED AT ONE END AND
SIZED ACCORDING TO SIZE
OF PLANTS TO BE STAKED.
A. 5-15 LITRE SIZE PLANT 1X(1200X25X25MM)
B. 25-75 LITRE SIZE PLANT 2X(1500X38X38MM)
C. 100-GREATER THAN 200LITRE 2X(1800X50X50MM)
TIES SHALL BE 50MM WIDE HESSIAN WEBBING OR APPROVED EQUIVALENT NAILED OR STAPLED TO STAKE. DRIVE STAKES A MINIMUM ONE THIRD OF THEIR LENGTH, AVOIDING DAMAGE TO THE ROOT SYSTEM, ON THE WINDWARD SIDE OF THE PLANT.

IRRIGATION SYSTEM
SUPPLY AN AUTOMATIC WATERING SYSTEM USING 'TORO IRRIGATION SYSTEM' OR SIMILAR APPROVED, WITH MICRO-JET SPRINKLER HEADS AND LOW DENSITY, RUBBER MODIFIED POLYPROPYLENE RETICULATION, TO INCLUDE FILTERS, BENDS JUNCTIONS, ENDS AND OTHER ANCILLARY EQUIPMENT. THE LANDSCAPER SHALL NOMINATE HIS SOURCE OF SUPPLY FOR THE WATERING SYSTEM AND OBTAIN APPROVAL FROM THE SUPERINTENDENT BEFORE PLACING ORDERS FOR EQUIPMENT OR SUPPLY.

A SCHEMATIC PLAN OF THE PROPOSED IRRIGATION SYSTEM IS TO BE PREPARED BY THE CONTRACTOR, SHOWING SOLENOIDS, PIPE DIAMETERS, AND ALL NOZZLE AND TRICKLE ATTACHMENT TYPES (INCLUDING SPRAY/HEAD ANGLE), FOR REVIEW BY THE SUPERINTENDENT PRIOR TO INSTALLATION

THE CONTRACTOR IS TO LIASE WITH THE HYDRAULIC ENGINEER AND COUNCIL AS NECESSARY, TO ENSURE THE THE IRRIGATION SYSTEM CONFORMS WITH ALL THE COUNCIL AND WATER BOARD CODES AND REQUIREMENTS.

PROVIDE AN AUTOMATIC CONTROLLER THAT PROVIDES FOR TWO WEEK SCHEDULING AND HOURLY MULTI-CYCLE OPERATION. THE CONTROLLER SHALL MANUAL OVERRIDE. PROGRAMMING SHALL BE UNDERTAKEN BY THE CONTRACTOR WHO SHALL ADVISE ON THE OPERATION OF THE SYSTEM.

PROVISION OF SECURE HOUSING FOR THE AUTOMATIC IRRIGATION CONTROLLER TO BE LOCATED IN ASSOCIATION WITH THE LANDSCAPE CONTRACTOR AND LOCATION CONFIRMED BY THE SUPERINTENDENT. WIRING TO CONNECT REMOTE SOLENOID LOCATIONS IS TO BE PROVIDED. THE CONTROLLER SHALL BE LOCATED IN A DRY PLACE, PROTECTED FROM THE WEATHER, AND ALL CABLE CONNECTIONS SHALL BE MADE WITH WATERPROOF CONNECTORS.

WATER SUPPLY POINTS TO BE SUPPLIED BY BUILDER

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE AND GUARANTEE SATISFACTORY OPERATION OF THE IRRIGATION SYSTEM.

AFTER THE SYSTEM HAS BEEN INSTALLED TO THE SATISFACTION OF THE SUPERINTENDENT, THE INSTALLATION SHALL BE TESTED UNDER KNOWN WORKING CONDITIONS. ACCEPTANCE OF THE INSTALLED PLANT AND EQUIPMENT SHALL BE SUBJECT TO THESE BEING SATISFACTORY.

TREATED PINE TIMBER EDGING
TIMBER EDGE: 100 X 25MM CCA TREATED RADIATA PINE TIMBER STAKES: 65 X 50 X 500MM CCA TREATED RADIATA PINE-SHARPENED AT ONE END. INSTALL IN LOCATIONS SHOWN ON THE DRAWINGS FLUSH TO FINISHED SURFACE LEVELS.

LANDSCAPE MAINTENANCE PROGRAM

MAINTENANCE SHALL MEAN THE CARE AND MAINTENANCE OF THE LANDSCAPE WORKS BY ACCEPTED HORTICULTURAL PRACTICE AS RECTIFYING ANY DEFECTS THAT BECOME APPARENT IN THE LANDSCAPE WORKS UNDER NORMAL USE. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, WATERING, MOWING, FERTILISING, RESEEDING, RETURFING, WEEDING, PEST AND DISEASE CONTROL, STAKING AND TYING, REPLANTING, CULTIVATION, PRUNING, AERATING, RENOVATING, TOP DRESSING, MAINTAINING THE SITE IN A NEAT AND TIDY CONDITION AS FOLLOWS:-

GENERAL
THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. THE MAINTENANCE PERIOD SHALL COMMENCE AT PRACTICAL COMPLETION AND CONTINUE FOR A PERIOD OF TWENTY SIX (26) WEEKS.

WATERING
GRASS, TREES AND GARDEN AREAS SHALL BE WATERED REGULARLY SO AS TO ENSURE CONTINUOUS HEALTHY GROWTH.

RUBBISH REMOVAL
DURING THE TERM OF THE MAINTENANCE PERIOD THE LANDSCAPE CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

REPLACEMENTS
THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

STAKES AND TIES
THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES, AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

PRUNING
TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PRUNING WILL BE DIRECTED AT THE MAINTENANCE OF THE DENSE FOLIAGE OR MISCELLANEOUS PRUNING AND BENEFICIAL TO THE CONDITION OF THE PLANTS. ANY DAMAGED GROWTH SHALL BE PRUNED. ALL PRUNED MATERIAL SHALL BE REMOVED FROM THE SITE.

MULCHED SURFACES
ALL MULCHED SURFACES SHALL BE MAINTAINED IN A CLEAN AND TIDY CONDITION AND BE REINSTATED IF NECESSARY TO ENSURE THAT A DEPTH OF 75MM IS MAINTAINED. ENSURE MULCH IS KEPT CLEAR OF PLANT STEMS AT ALL TIMES.

PEST AND DISEASED CONTROL
THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

WEED ERADICATION
ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (EG. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE, AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

SOIL SUBSIDENCE
ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.

ARCADIA LANDSCAPE ARCHITECTURE

27 FLINDERS STREET WOLLONGONG
DEVELOPMENT APPLICATION

PREPARED BY	Arcadia Landscape Architecture	DATE	June 2018
CLIENT	Artro Management	SCALE	
ARCHITECT	Nordon Jago	ISSUE	10

Attachment 4

Clause 4.6 Variation Request

27 Flinders Street, Wollongong

8201807501

Prepared for
ARTRO Management

18 May 2018

Cardno
Shaping the Future

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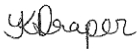
Author: 

Kaeley Draper
Town Planner

Approved By: 

Sophie Perry
Senior Planner

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0	11/05/2018	Draft	KMD	SP
1	16/05/2018	Final Draft	KMD	DGS
2	18/05/2018	Final	SLP	DGS

Table of Contents

Figures

1 Background

1.1 Overview

This Clause 4.6 Variation Request has been prepared in support of the proposed mixed use development to accompany the DA 2017/1577 for 27 Flinders Street, Wollongong currently lodged with Council. This Variation Request relates to the accompanying amended plans for the proposed development which involves the demolition of existing structures and the erection of a mixed use building containing 36 apartments, business and retail tenancies, ancillary car parking and storage, landscaping and services.

The assessment of the proposal includes development standards identified in *Wollongong Local Environmental Plan 2009* (LEP). Clause 4.6 of LEP 2009 provides for an appropriate degree of flexibility in the application of development standards where better development outcomes specific to the circumstances result from allowing flexibility.

The proposal does not comply with the height controls included within Clause 4.3 of the LEP 2009. The development standard for height of buildings is not excluded by Clause 4.6(8). Consequently, a written request is required to vary the development standard subject to Clause 4.6(3). This report constitutes the applicants written request to justify the non-compliance with the development standard for height of buildings.

The report includes:

- General overview of Clause 4.6
- Detailed consideration of the maximum height control and objectives
- Consideration of the objectives for development in Zone B6
- Analysis of the environmental planning grounds for the variation
- Summary justification in the scope of Clause 4.6.

1.2 Site and Surrounds

The subject site is located at 27 Flinders Street, Wollongong, and is legally described as Lot 1 DP 225986. The site has an area of approximately 1,783.1m^2, with a width of 20.16m and a depth of 88m. The site is generally rectangular in shape and rises approximately 9m from its frontage to the rear boundary. The existing ground levels have been substantially altered with retaining walls and earthworks.

The site has been used for parking of vehicles ancillary to the adjoining vehicle sales premises to the south and consists of a large grassed area at the rear and a paved surfaced within the front portion of the site fronting Flinders Street. Access to the site is provided via a vehicle crossing off Flinders Street. Flinders Street is a classified road.

Potable water, reticulated sewer, electricity, gas and telecommunications are available to the site.

The site is within Zone B6 Enterprise Corridor. A wide range of land uses are permissible in the zone as follows:

> *Advertising structures; Bulky goods premises; Business premises; Car parks; Centre-based child care facilities; Community facilities; Depots; Entertainment facilities; Environmental facilities; Garden centres; Hardware and building supplies; Heavy industrial storage establishments; Hotel or motel accommodation; Industrial retail outlets; Landscaping material supplies; Light industries; Office premises; Passenger transport facilities; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreational facilities (outdoor); Registered clubs; Respite day care centres; Roads; Service stations; Serviced apartments; Sex services premises; Shop top housing; Storage premises; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres*

The Flinders Street Enterprise Corridor is undergoing transition in built form, character and land use. Many nearby sites have development approved for mixed uses at higher density. The existing residential

developments adjacent to the southern boundary of the site are forms of land use no longer permitted in Zone B6 and will, in the longer term, become an anomaly in the locality. The adjoining bulky goods retail premises to the north of the site and the car sales and hire premises south of the site have notable redevelopment potential and are unlikely to persist in the longer term.

The adjoining site to the north east is No.19-23 Flinders Street and is the subject of a development consent issued on 8 September 2016 for a mixed use development. This approval included support for a variation to the height of buildings control.

1.3 Consequences of Non-compliance

Parts of the proposed building are non-compliant with the height of building control under the LEP 2009. The number of storeys, bulk and scale of the proposal are consistent with that anticipated by the planning controls and consistent with desired future built form for the Flinders Street corridor. Non-compliance is a consequence of the particular combination of site features, design requirements, layout and functionality to result in a clever and skilful architectural scheme most suited to the site and its context and setting.

The non-compliance with building height will not have negative consequences for:

- the streetscape and desired future character of the Flinders Street Enterprise Corridor
- the provision of retail and business land uses that activate Flinders Street
- the safe movement of vehicles and pedestrians to, from and within the site
- the achievement of high amenity apartments with a variety of layouts and sizes and outstanding solar access and natural cross ventilation
- consolidated open space areas that provide solar access and a variety of passive and active outdoor opportunities for residents and visitors
- a high quality architectural design and finish to the mixed use building
- the functional and secure separation and, where appropriate, integration of residential and non-residential uses.

2 Clause 4.6 Variation Statement

A variation to *Clause 4.3 – Height of Buildings* within LEP 2009 is sought for the proposed mixed use development at 27 Flinders Street, Wollongong. This document is the formal written request to vary the height of buildings development standard for the proposal at 27 Flinders Street, Wollongong.

The development is permissible under the *B6 – Enterprise Corridor* zone that applies to the land. Parts of the building exceed the 16m height of buildings control. Consequently, the proposal is seeking a variation to the numeric standard pursuant to the LEP Clause 4.6.

Clause 4.6 provides a mechanism to seek variations to the development standards included in the LEP.

Clause 4.6(3) states the following criteria:

> *"(3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:*
>
> *(a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
>
> *(b) that there are sufficient environmental planning grounds to justify contravening the development standard."*

Clause 4.6(4) then states that the consent authority needs to be satisfied that:

> *"the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out."*

In accordance with Planning Circular PS18-003 issued on 21 February 2018, the Wollongong Independent Hearing and Assessment Panel has assumed concurrence from the Secretary of the Department of Planning and Environment for determining applications seeking a variation to numeric development standards for height of buildings where the variation exceeds 10% effective from 1 March 2018.

Supporting justifications and responses are provided in this request to demonstrate that the proposed variation meets the objectives of the control, the objectives for development in Zone B6, are not contrary to the public interest and that strict compliance with the numeric standard is both unreasonable and unnecessary in this instance.

This submission will demonstrate that the variation request is well founded by addressing the requirements of Clause 4.6 (3) and (4). It is also noted that the extent of variation afforded by Clause 4.6(2) is not numerically limited.

Accordingly, the following sections of this report detail the control and the extent of the departure and specifically address the following requirements of Clause 4.6:

- That the proposal is not contrary to the public interest by demonstrating consistency with the development standard objectives and the zone objectives (Clause 4.6 (4) (a) (ii)).
- Identification of sufficient environmental planning grounds to justify contravening the development standard (Clause 4.6 (3) (b)).
- That compliance with the development standard in unreasonable and unnecessary in the circumstances of the case (Clause 4.6 (3) (a)).

3 Clause 4.3 – Height of Buildings and Planning Provisions

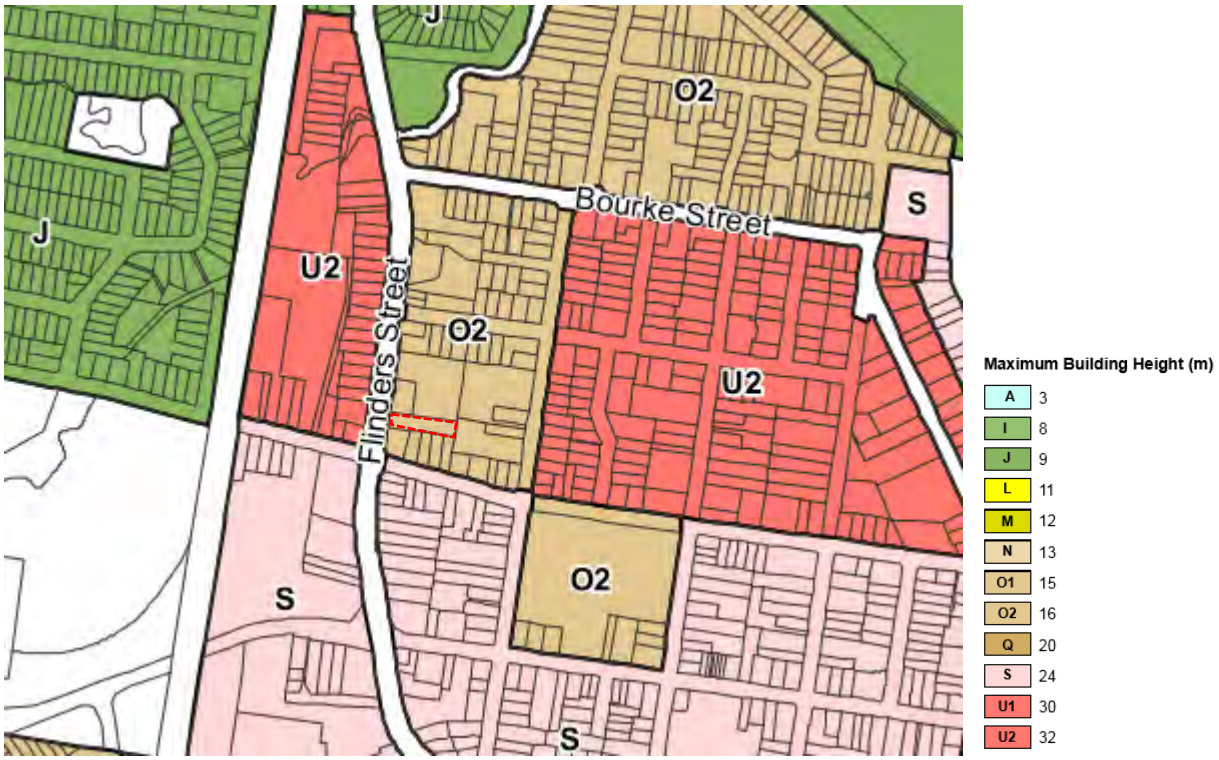
3.1 Overview

Clause 4.3 of LEP 2009 provides numerical building height controls for all developments within the Wollongong LGA. This is achieved through the following control:

> *(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map*

The building height that applies to the site is 16m as shown in **Figure 3-1** with the subject site outlined dashed red.

Figure 3-1 Extract from LEP 2009 Height of Building Map HOB_025

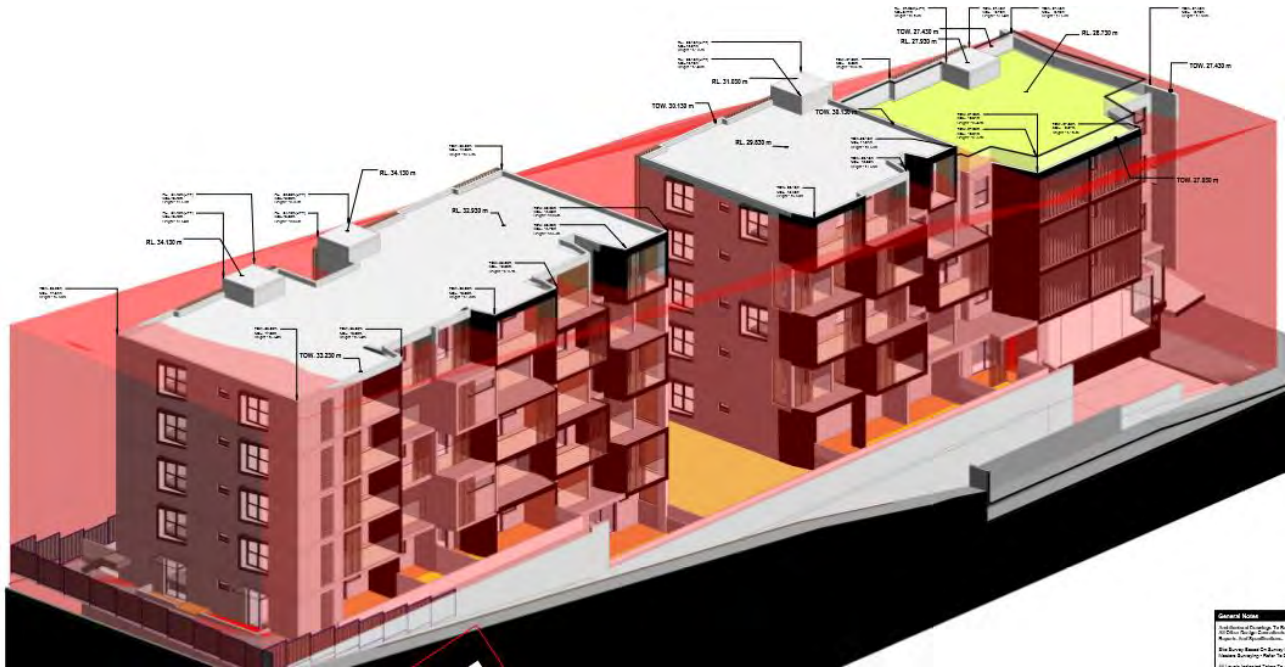


The site and surrounding land is subject to a 16m height control. Height limits ranging from 9m to 32m apply to land in the Flinders Street *B6 – Enterprise Corridor* zone. Adjoining land to the east in Zone R1 General Residential is subject to a 16m height control.

The highest point of the proposed building is 18.88m being the top of the parapet to the western edge of the roof of the eastern building. The maximum percentage variation to the 16m height control is 18%, an exceedance of 2.88m. The proposal is seeking to formally vary the 16m height control. Parts of the building are compliant with the height control. A height blanket diagram is included in **Figure 3.2**.

The height exceedance is not uniform across the site and the majority of the building envelope is compliant with the height control. Substantial areas where the building is below the height limit. Those portions of the building exceeding the height limit do not contribute additional floor space. The central void area represents approximately 20% of the potential building envelope. The provision of a central void demonstrates that the proposal is a more skilful and thoughtful distribution of building mass across the site. The central break in the building form results in 1,265.2m^2 of floor space having been fortfeited.

Figure 3-3 Height blanket diagram for proposed mixed use development 27 Flinders St



Sections of the proposed building that exceed the height control are as follows:

- The top edge of the parapet across the front façade. The parapet extends 700mm above the rooftop terrace surface and is lower than the glass balustrade behind the parapet.
- The floor level, planter box edges and balustrades of the roof top terrace. The floor level of the terrace is between 420mm and 970mm above the 16m height limit
- The four lift overruns exceed the 16m height control by 2.16m, 1.76m, 2.22m and 1.88m (east to west).
- The roof above apartments at Level 5 of the western building exceed the 16m height control. The highest point of the roof of the western building is 18.22m. The parapet extends 300mm above the top of the roof contributing minimal additional building height.
- The roof above apartments at Level 6 of the eastern building is partly compliant with the height control. The highest point of the roof of the eastern building is 18.58m. The parapet extends 300mm above the top of the roof contributing minimal additional building height.

Objectives of the Height of Buildings Standard

Clause 4.3 of LEP 2009 has the following objectives:

A. To establish the maximum height limit in which buildings can be designed and floor space can be achieved,

B. To permit building heights that encourage high quality urban form,

C. To ensure buildings and public areas continue to have views of the sky and receive exposure to sunlight.

The proposal is consistent with the objectives for controlling building height in the following ways:

> Objective A

Objective A seeks to apply a height control which also enables floor space ratio (FSR) to be achieved. The LEP allows a maximum FSR of 2.53:1. The proposed FSR is 1.82:1 representing a difference of 1,265.2m^2 of gross floor area (GFA) relinquished by the proposal due to matters specific to the site and efforts to arrange building mass in a manner which best suits the site and surrounds. Objective A is incompatible with the proposed mixed use development form on this site and unreasonably restricts the achievement of the allowable GFA.

- Objective B

  Objective B aligns the height control to high quality urban form. The Design Review Panel has specifically noted that the design elements and external appearance of the proposal has high architectural merit.

  The height limit of 16m applies to a wide variety of building forms permitted in Zone B6 including warehouses, bulky goods premises, storage facilities, depots and clubs. A 16m height control also applies to land in Zone R1 adjoining the site to the east and upslope from the site. Consistent and strict application of the 16m height control to all permissible built forms could in fact have a variety of detrimental outcomes for the streetscape and built form of the neighbourhood. For example, a warehouse or bulky goods premises built to a height of 16m and FSR of 3:1 on the subject site has been modelled in urban design options and shadow impact analysis submitted with this development application. Urban design outcomes of the proposal are far superior to those for a warehouse or bulky goods premises on the site.

  The same can be said for the streetscape and neighbourhood on a broader scale. There are existing buildings throughout the neighbourhood and particularly upslope from the site that exceed the 16m height control. Insisting on strict compliance with the 16m height control for all future development would be anomalous with the variety of buildings that currently contribute to the character of built form in the neighbourhood and within the area subject to a 16m height control as shown in **Figure 3.1**.

  The building height of 16m is not compatible with a mixed use built form. A mixed use building designed in accordance with the ADG requirements and Control 4.6.2(8) for mixed use building design in DCP Chapter B3 has height requirements as follows:

  - ground level and Level 1 floor to ceiling heights of 3.3m (plus 300mm allowance for slab construction) and
  - apartments with minimum floor to floor heights of 3.1m.

  A 16m height control does not readily translate to these abovementioned minimum dimensions.

- Objective C

  Objective C seeks to ensure sky views from buildings and public spaces and to achieve solar access to buildings and public spaces. The proposed building will maintain sky views and solar access to the Flinders Street footpath reserve and will enhance the Flinders Street pedestrian environment with new paving, landscaping and awning protection. A central communal open space area within the proposal at Level 1 (equivalent to ground level in the centre of the site) has been demonstrated in the urban design options and shadow impact analysis to provide a suitable solar access and sky view corridor for the neighbouring townhouses to the south at No.74-78 Gipps Street. For these reasons it is considered that the proposal is consistent with Objective C.

Objectives for development in Zone B6 Enterprise Corridor

The proposed shop top housing development aligns with the zoning objectives in the following ways:

- The development will provide retail and business floor space and ancillary uses within the building and below the proposed apartments
- Employment generating tenancies will be provided on site and located at the street frontage to optimise activation of the Enterprise Corridor along Flinders Street and to protect the amenity of apartments from traffic noise and vibrations
- Food and drink premises are ideally suited to the ground floor 44.2m^2 tenancy. A larger business premises (139.6m^2) is to be accommodated on the first floor.
- The layout will not detract from the amenity of surrounding neighbours. The layout places business/retail premises at the front of the site to ensure residential uses (which are more compatible) are adjacent to each other at the rear portion of the site.

> The mixed-use nature of the proposal will contribute to the vitality within the City Centre, which will provide for long term economic and employment growth.

Overall, it is considered that the proposal aligns with the objectives of the B6 zoning.

Local Planning Controls

Of relevance are the comments by *Roseth SC in Veloshin v Randwick Council [2007] NSWLEC 428* as follows:

> *"30 The debate about height and bulk can be meaningful only against the background of local planning controls, such as maximum height, floor space ratio, site coverage and setbacks."*

In this case, the proposal is 1,265.2m^2 less than the maximum permitted GFA. The site coverage is compliant and ADG separation distances have been achieved. Setbacks from side and rear boundaries are greater than for other forms of permissible development such as warehouses, bulky goods showrooms and storage facilities. As described elsewhere in this Clause 4.6 request, the building bulk, scale and massing will not be out of character with the desired future form in the locality. This is demonstrated by the massing diagrams prepared by Nordon Jago Architects and submitted with the application. An extract of the massing diagram is included in **Figure 3.4.**

Figure 3-4 Extract from massing diagram for No. 27 Flinders St

4 Environmental Planning Grounds

Having regard to Clause 4.6(3)(b) and the need to demonstrate that there are sufficient environmental planning grounds to justify contravening the development standard, the assessment of this numeric non-compliance is guided by the decision of the NSW Land and Environment Court (LEC) in *Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 90* and further guidance is gained from the decision in *Moskovich v Waverley Council [2016] NSWLEC 1015*.

The partial non-compliance with the height control should be considered in accordance with the following environmental planning considerations:

- ***Desired Future Character and Streetscape Appearance***

  The Flinders Street enterprise corridor and surrounds is currently an eclectic mix of residential, industrial and commercial uses varying in scale and height from the bulky goods warehouses and vehicle repair workshops, residential flat buildings up to eight storeys and single storey commercial, light industrial buildings and dwellings.

  The proposal is within the Wollongong City Centre and subject to specific development controls that facilitate redevelopment. FSRs up to 3:1 are permitted for non-residential buildings. The future character of the Flinders Street enterprise corridor is anticipated to include a mix of large, bulky buildings for warehouses, depots, bulk goods and storage premises as well as mixed use developments with active ground level uses and residential apartments above.

  Comments by Roseth SC in Project Venture Developments Pty Ltd v Pittwater Council [2005] NSWLEC 191 are of relevance in considering a Clause 4.6 variation for sites within localities undergoing transition and are as follows:

  > *"32 Where the planning controls are aimed at creating a new character, the existing character is of less relevance. The controls then indicate the nature of the new character desired. The question to be asked is: 'Is the proposal consistent with the bulk and character intended by the planning controls?'"*

  In this case the intended height control more closely matches the proposed building height than a building one storey less than the proposal. Furthermore the anticipated future scale of buildings in the locality is comparable or higher than the height of the proposed building.

  The height of buildings control for the western side of Flinders Street is 32m (see **Figure 3.1**) substantially greater than the control for the subject site. Deferred Commencement Development Consent DA2013/1007 was issued on 27 October 2014 for a mixed use development directly opposite the subject site at No.34-48 Flinders Street. Photomontages of the approved development are shown in **Figure 4.1**. Future building scale within the streetscape will be dominated by the taller buildings on the western side of the road and the proposed non-compliance represented by the proposal will be imperceptible in the streetscape.

Figure 4-1 Photomontages approved with Development consent DA2013/2007 No.34-48 Flinders St

Development Consent granted in September 2016 for the neighbouring property No.19-23 Flinders Street north east of the site relates to a mixed use development with three buildings above a shared basement as shown in **Figure 4.2**. The approved development at No.19-23 Flinders Street will have the appearance of a five to six storey building as viewed from Flinders Street. The approval included a variation to the height of buildings control similar to that sought by the proposal.

Figure 4-2 West elevation and photomontages approved for No.19-23 Flinders St

Figure 4.2 includes the outline of the eight storey residential flat building at 16-20 Kiera Street located upslope from the site.

The proposal (as shown in **Figure 4.3**) will have the appearance of a five storey building as viewed from Flinders Street and the height will be compatible with the approved neighbouring building at No.19-23 Flinders Street (see massing diagram extract in **Figure 3.4**).

Figure 4-3 West elevation and photomontage for proposed development No.27 Flinders St

> ***Critical Design Elements and Site Features***

(i) Existing Ground Level Exaggerates Building Height

The definition of building height makes reference to *"the vertical distance from ground level (existing) to the highest point of the building".* The existing ground level within the site includes several

retaining walls and a ramp which create an inconsistent gradient within the site. The artificial modifications to the slope of the site exaggerate the measurement of building height where the natural ground surface has been cut. If the natural slope were to be referenced in the measurement of building height, the non-compliance would be limited to the central area of the building and the front and rear would be compliant.

(ii) Vehicle access determines minimum ground level clearance

The proposal must comply with minimum vehicle access clearance heights to enable on-site servicing and manoeuvring by a Medium Rigid Vehicle. Grades of the vehicle access and egress and finished footpath levels also dictate the length of the driveway and the level of the threshold crossing. Compliance with these standard design elements determines the finished floor level at ground level and first floor levels of the building.

(iii) Vehicle grades, on-site parking capacity and slope determine basement levels

The proposal accommodates the required number of car parking spaces and vehicle servicing areas. The ramp grades, parking and aisle dimensions and floor to ceiling clearances combined with the number of spaces to be accommodated must be applied to the sloping site in a manner which is also compatible with containing the basement below ground and creating a podium level close to existing ground levels.

(iv) Minimum floor to ceiling and floor to floor height

As stated above, the ADG requires a minimum floor to floor height of 3.1m for apartments and Control 4.6.2(8) to Wollongong DCP Chapter B3 requires ground and first floor levels of mixed use buildings to have floor to ceiling height of 3.5m. The proposal achieves these minimum dimensions to provide optimum amenity for apartments and optimum functionality for retail and business premises.

(v) Roof top terrace a positive design element

The roof top terrace would be largely compliant with the height control if the natural slope of the site was the reference point to determine building height. Nonetheless the roof top terrace is an outstanding positive design element to the development. The roof top terrace provides a high quality accessible and secure common open space area that will receive year-round solar access and has multifunctional spaces. The terrace is well separated from neighbouring properties to protect amenity and privacy. A planter bed to the full perimeter will prevent overlooking and achieve noise attenuation for neighbours. Glass balustrades and planting will improve the aesthetic treatment of the top edge of the building softening the built form with planting and light weight materials and improving the visual appearance of the building in the streetscape. The minor non-compliance to achieve a roof top terrace has planning merit.

(vi) Front Parapet is a positive design element

- The front parapet is an important element of the architectural appearance of the building overall and balances the fin walls which project from the sides of the façade to assist with noise attenuation. This noise attenuation will be effective for apartments within the site as well as for reducing noise for residential neighbours further east and south. The parapet adds design interest to the front façade, does not contribute notably to shadow and allows the primary outlook from the roof top terrace to be focussed towards the escarpment views to the west and to the public road corridor of Flinders Street

The minor non-compliance of the front parapet has planning merit for its contribution to the balanced architectural proportions of the façade.

(vii) Lift access on southern façade a positive design element

The lifts are located on the southern edge of the building to optimise solar access for living rooms and private open space areas of the new apartments. Lifts and access cores on the southern side of the building also protect the privacy for neighbours to the south with blank walls and louvred windows preventing overlooking and direct lines of sight to the southern neighbour.

(viii) Spatial distribution of Lift Overruns is a positive design element

The lift overruns are spaced regularly along the building length and make a minor contribution to the shadow profile of the building in comparison to a group of lift shafts.

(ix) Building Massing option is a positive design element

An urban design analysis, massing option diagrams, shadow analysis and Section 3.2.5 to the Statement of Environmental Effects, various options for the building envelope were examined in developing the scheme. The reasons for the selection of the proposed built form include:

- Building proportions compatible with the streetscape and local character
- North facing living areas and private open space areas for all apartments
- Minimal floor plate area dedicated to common circulation
- A variety of apartment sizes and layouts
- A central open space area that has high utility for passive recreation, enhances separation between apartments within the site, optimises the effective solar access corridor north-south through the site and extending north along the boundary between No.25 and No.19-23 Flinders Street and with a finished level that does not overlook neighbouring townhouses to the south.

(x) Solar access outcomes optimised by building massing

As demonstrated in the shadow analysis diagrams in **Figure 4.4** and the sun-eye diagrams in **Figure 4.5**, the selected option is more effective at achieving solar access in midwinter to the neighbouring townhouses to the south than other permissible building form options.

Figure 4-4 Shadow analysis for proposed development No.27 Flinders St

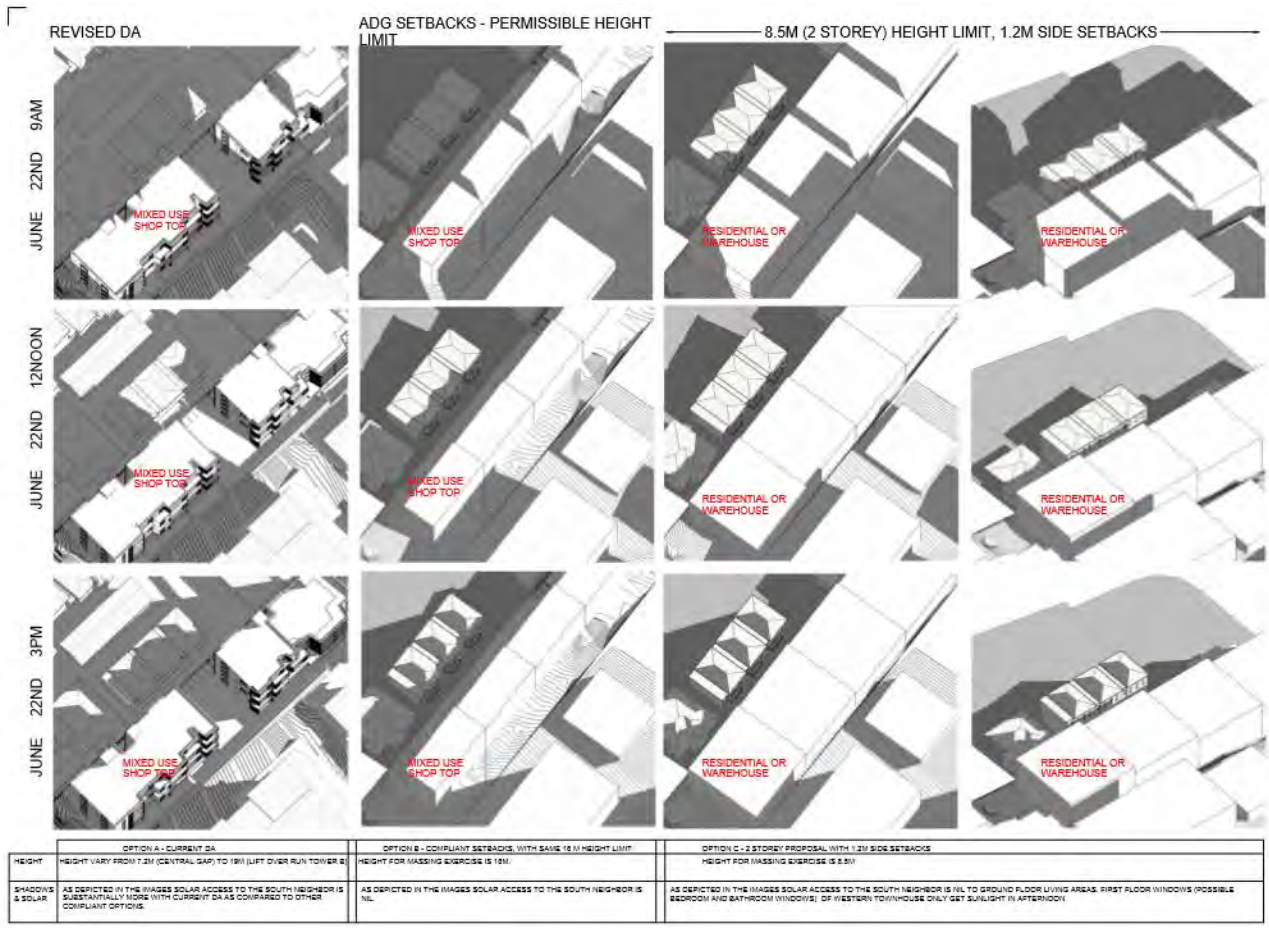
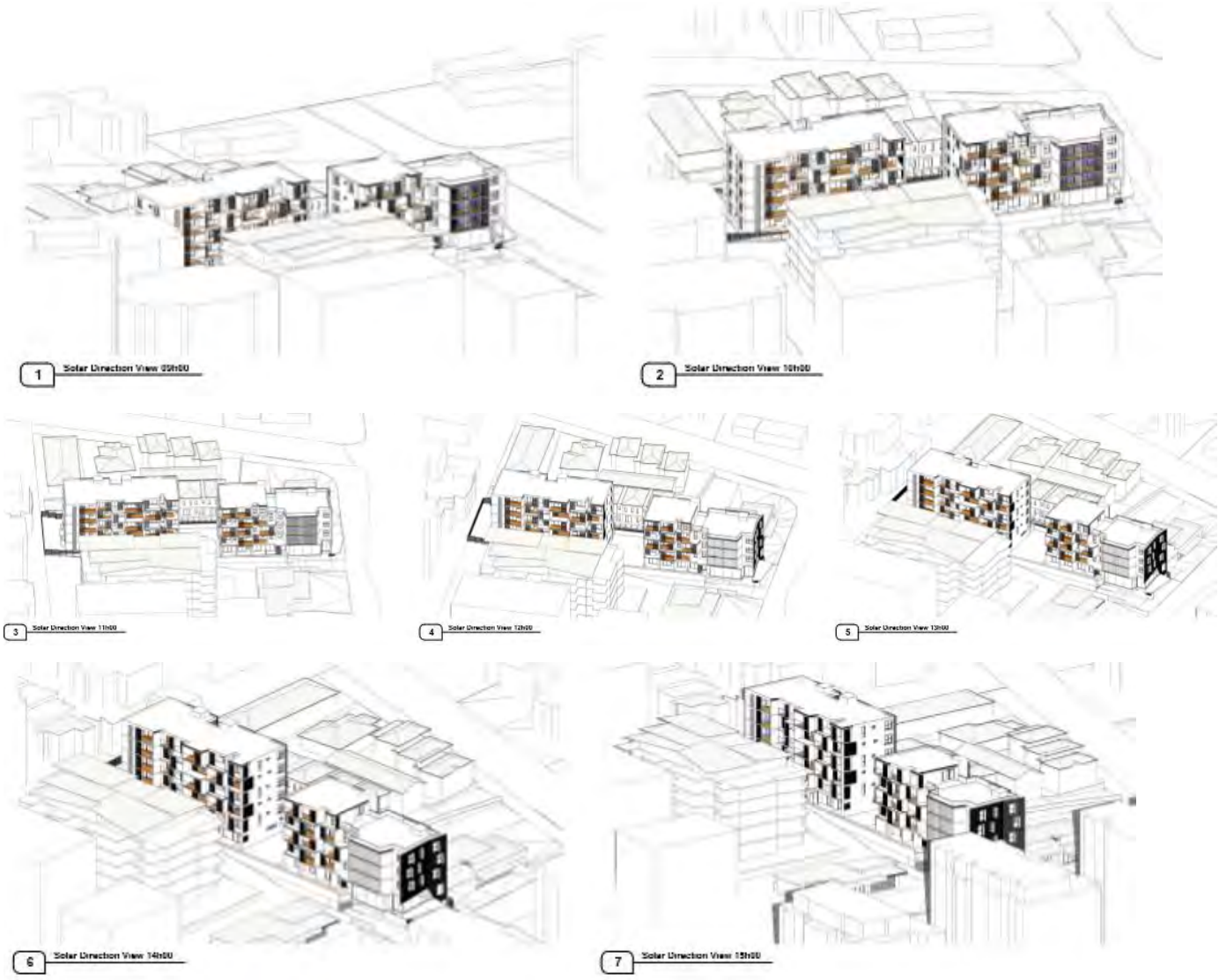


Figure 4-5 Sun eye diagrams for proposed development No.27 Flinders St



> ***Feasible Redevelopment potential***

The proposal is an urban brownfield redevelopment of an underutilised site that will provide for additional business and retail opportunities, as well as housing choice and variety within the Wollongong City Centre locality. The site has capacity for connection of all essential services, is adjacent to a bus stop and within walking distance to North Wollongong Railway Station, schools and Beaton Park Leisure Centre and sportsfields.

The proposal does not achieve the permitted maximum floor space ratio with the GFA being 1,265m^2 less than the allowable floor space. The scale of the development has been tailored to the topography and dimensions of the site providing building envelopes which best suit the site and its setting.

To insist on strict compliance with the height control would require deletion of the uppermost level of both the east and west buildings and would result in the project being economically unfeasible.

The non-compliance with the maximum height control is considered appropriate for this proposal on environmental planning grounds.

4.2 Public Interest

The non-compliance of the proposal should be considered in concert with the following public benefits:

> The site represents an important redevelopment opportunity in Wollongong City Centre

> The proposal provides a variety of apartment sizes and layouts consistent with market analysis
> The proposal will include significant streetscape upgrades in line with Council's Public Domain Plan.
> The provision of additional residential and commercial floor space within the Wollongong City Centre.
> The proposal ensures the development of an underutilised lot that will improve the amenity and activate the area, with resulting safety benefits.
> The construction will generate significant short term employment opportunities within the Illawarra and many ongoing opportunities through the commercial floor space
> The proposal is not antipathetic to the objectives for building height control and for development in Zone B6
> The non-compliance is specific to the site and the essential and desirable design elements of the building and will not set an undesirable precedent.

The non-compliance with the maximum height control is considered appropriate for this proposal based on the public interest.

4.3 Unreasonable and Unnecessary

It is unreasonable and unnecessary for the proposal to comply with the maximum height standard as:

> the proposal is consistent with the relevant objectives of the control for building height
> the proposal demonstrates excellence in architecture and urban design and will be compatible with the desired future streetscape and character of development in the Flinders Street enterprise corridor
> the proposal has been designed with consideration to the context and setting of existing and anticipated surrounding development
> the portions of the building that are non-compliant will not be perceptible in the streetscape and the broader neighbourhood context and setting.
> insisting on strict compliance would result in the building being one storey less than the anticipated built form as exemplified by the approved development at No.19-23 Flinders Street
> insisting on strict compliance would result in the deletion of the rooftop terrace thereby removing a highly meritorious design element of the proposal
> insisting on compliance would result in the project being unviable.

Compliance with the maximum height control is considered unreasonable and unnecessary for this proposal.

4.4 Matters of State and Regional Planning Significance

The proposed variation does not raise any matters of regional or state significance. The variation will not be contrary to the public interest. The variation will not undermine the application of the development standard as the circumstances constitute appropriate flexibility based on the specific circumstances of the case. The combination of site features and development form are unique to this site in the Flinders Street enterprise corridor and the proposed building height will be imperceptible as a non-compliance in the future streetscape and the desired future built form in the locality.

4.5 Consistency in Application of Flexibility

As stated previously, the magnitude of the proposed variation to the height of buildings control requested is similar to that granted as part of the approval of the neighbouring development at No.19-23 Flinders Street.

Council can take guidance on the proposed variation to the height standard from recent Land and Environment Court decisions. The following recent decisions demonstrate where the Court has dealt with a request involving similar circumstances to the current application.

- In *Micaul Holdings Pty Ltd v Randwick City Council* [2015] NSWLEC 1386 the land was subject to a maximum height of buildings of 9.5 metres. The proposed building height was 14.5 metres. The Court upheld the clause 4.6 variation request partly on the basis of the topography of the site, which included a difference in grade of up to 7.5 metres along one boundary. The Commissioner's decision was the

subject of an appeal, which was dismissed by the Chief Judge of the Court (*Randwick City Council v Micaul Holdings Pty Ltd* [2016] NSWLEC 7).

- In *MGT 6 Pty Ltd v The Council of the City of Sydney* [2017] NSWLEC 1211 the Court upheld a request under clause 4.6 to vary the height standard applying from a maximum permitted under the LEP (27 m) to a maximum proposed height of 29.35 m (a variation of 2.35 metres), to accommodate a lift overrun intended to provide access to roof top communal open space. The Court accepted the site specific constraints and the provision of high amenity communal open space for the residents into the future consistent with the ADG and the provision of accessibility, justified the variation.

- In *Roselands Star Pty Ltd v Canterbury-Bankstown Council* [2018] NSWLEC 1010 the Court upheld a request to vary a maximum height limit by up to 700 mm. The Court noted that a fully compliant building built within the permitted building envelope would significantly overshadow properties to the south, and that the proposed building height and design was a better environmental planning outcome. It was argued that:
    - *"The design of the proposal in this manner will provide and protect significantly more solar access to the adjoining properties than would a development that maximised the available building envelope prescribed by CDCP 2012."*

5 Conclusion

The proposal seeks to formally vary the 16m height control to a maximum of 18% to the numeric standard. The variations represent an appropriate degree of flexibility with the maximum point of exceedance in the centre of the building footprint and the scale of variation imperceptible in the desired future streetscape and character of the Flinders Street enterprise corridor.

The non-compliance results from concerted effort between the Applicant and Council's Architectural Design Review Panel to achieve a building envelope that optimises compliance with all relevant controls, objectives, guidelines and standards as well as considers the relationship with existing and likely future neighbouring built forms.

Flexibility in the application of the height control is considered reasonable and has planning merit to achieve better outcomes suited to the circumstances of the site and surrounds. The proposed building height is considered to be well-founded as it responds to the existing slope of the site, stepping in the built form, compliant grades and levels for access, required floor to ceiling heights and a scale of development consistent with the desired streetscape. The massing, separation and layout in combination with fine grained treatments represents the clever application of design and architecture to achieve positive environmental planning outcomes and justifies the height variation in this case.

Attachment 5 - Design Review Panel Commentary

Wollongong Design Review Panel
Meeting minutes and recommendations DA-2017/1577

Time & date	19 June 2018
Meeting location	Wollongong City Council Administration offices
Panel members	David Jarvis
	Iain Stewart
	Marc Deuschle
Apologies	
Council staff	Mark Riordan – Manager Development Assessment & Certification Pier Panozzo, Manager City Centre & Major Development Nigel Lamb, Senior Development Project Officer
Guests/ representatives of the applicant	Arthur Zouglis – ARTRO Management Sachin Wakhare - -Nordon Jago Architects Kristen Magagnino – Quill Holdings Pty Ltd Geoff Baker - GBDC Pty Ltd Deborah Sutherland – Cardno Sydney Sophie Perry – Cardno Wollongong
Declarations of Interest	Nil
Item number	2
DA number	DA-2017/1577
Reasons for consideration by DRP	Clause 28 SEPP65, Clause 7.18 WLEP 2009
Determination pathway	Local Planning Panel (IHAP) Section 4(b) of Schedule 2 of the Local Planning Panels Direction of 1 March 2018, as the Development is sensitive development
Property address	27 Flinders Street Wollongong
Proposal	Mixed use development -demolition of existing structures and the construction of a mixed use development consisting of 5 commercial tenancies, 39 apartments over basement parking for 66 cars
Applicant or applicant's representative address to the design review panel	
Background	The site was previously inspected by the Panel 30 January 2018 and reviewed by the Panel on 30 January and 17 April 2018.
Design quality principals SEPP65	
Context and Neighbourhood Character	A more detailed analysis of the context of the site has been provided. The analysis more clearly shows the proposed building (DA approved) that adjoins the site's north eastern boundary. But does not show how a potential built form would relate to the north western portion of the site. No rational explanation has been provided as to why the significant proposed non- compliance with ADG set back control is acceptable for the western building. As currently proposed this building will clearly impact the potential built form on the adjoining site to the north and be vulnerable to loss of amenity when the neighbouring site is developed. The current approach is not acceptable. The rational provided for non- compliant northern set back to the eastern building is the significant setback provided by the proposed neighbour (DA approved) to the north. Whilst this condition may provide some justification for a more lenient approach to the set-back, it does not justify configuring each unit to be orientated

	directly towards its neighbour. An alternative approach would utilise the northern aspect to provide controlled solar access whilst allowing an orientation / outlook towards the escarpment to the west.
Built Form and Scale	In response to the panel's previous comments the external walkway located 1m from the sites southern boundary has been replaced by four compact lobbies serving two units per floor. This development has improved the building's interface with its southern neighbour. However, the efficiency (both spatial and economic) of providing four vertical circulation cores to a building of this size is questionable. Reviewing the exclusively northern orientation of residential units and orienting units east and west may help to rationalise vertical circulation. While the continuous north facing built form has been slightly refined, the interface with the north is largely the same. This is not acceptable. The panel continues to recommend a completely revised built form strategy, that re-orientates the outlook of living areas and balconies away from the northern boundary. As noted in the first DRP Report, *"with 3m setbacks to the north, the proposal will completely overlook its adjoining property and create adverse visual and acoustic impacts.* The originally proposed built form was unacceptable due to its many non-compliances, amenity issues and impacts on adjoining sites. It exceeded the building height significantly, did not meet the building separation requirements in 3F-1 of the ADG and introduced visual and acoustic privacy issues (ADG 4H-1). These issues remain a concern to the panel. An alternative configuration that could be considered: Organize each four unit block with a single core in the centre, to provide four corner units. Each of these units can be cross ventilated and three of the four should be capable of receiving in excess of 2 hours solar access (between 9am and 3pm, mid-winter). The two western units should be narrower than the eastern units to provide the eastern units with an outlook to the west towards the escarpment. Where facades are orientated to the west and east they can be open and provide out look where they are orientated back towards side boundaries they should be more defensive to limit potential privacy issues. Any habitable rooms which are solely north facing need to be set back 6m from the boundary, any habitable rooms with dual aspect and closer to the north boundary than 6m should be sufficiently screened to preserve visual privacy. Given the evident site constraints, potential impact upon neighbours and the density proposed, there is no justification for the proposed breach of height. A clear urban design strategy must be used to generate the proposed built form and justify proposed setbacks. Setbacks from boundaries, orientation of habitable rooms and positions balconies

	must respond to the specific constraints and opportunities of this site.
Density	As noted in the previous DRP Reports, *"It should be noted that with the number of constraints on the site (width, slope, depth, etc), the density allowed for the site would be virtually impossible to achieve within 5 storeys - without almost completely filling it."* The original and revised proposal both demonstrate that the site is highly constrained and cannot be approached in the manner proposed. As stated in the last DRP report: *"The proposal demonstrates that the density sought cannot be achieved on the site, without numerous ADG non-compliances, compromised amenity, contravention of limits set by the height plane, and severe impacts on adjoining properties."* It is acknowledged that the current proposal provides less FSR than the maximum permissible on this site. However, further reductions may be necessary to provide an appropriate solution for this site.
Sustainability	The revised proposal is now capable of compliance with the minimum ADG cross ventilation requirements. No other sustainability issues were discussed; however, a raft of well integrated sustainability measures will be required from a proposal of this scale, including: A rainwater tank should be provided to service the podium planting. Species selection for any plantings should aim to support council's commitment to maintaining local biodiversity and natural landscapes, and preventing future weed problems.
Landscape	As per previous recommendations, the paving in the public domain should be reviewed as there are 4 different paving materials shown, all within a very small area (refer dwg 107). This should be limited to 1 or 2. The public domain landscape sees three uses addressing the street. The carpark entry, a retail tenancy and the residential lobby. The wall between the carpark entry and the retail tenancy should be pulled back to allow views from the north to the retail frontage. There are CPTED concerns relating to this wall also. The two planters in the public domain do not appear to be creating valuable space for the retail or the lobby entry respectively. Pedestrian desire lines should be considered to both the retail and the lobby from both directions; and the spaces these planters create should be more in keeping with the likely use of each frontage. Consider an indicative table layout (assuming the retail is a cafe as shown) and see how the permanent landscape could flexibly achieve this.

	The courtyard on level 1 has been improved and feels more like a residential courtyard now. The idea of small pods and a larger space are good, but their arrangement should be better considered. Consider the larger space pushed up against the northern edge to take full advantage of this aspect. Consider reducing the number of smaller spaces to two or three and makes sure they do not align with windows. Not sure if there is a need for a communal meeting space with large table so if the space is moved to the north, perhaps this could be a more casual space. The small wedge in the SW corner should be planting - move the planter wall to align with the building pathway. The residential POS is still a concern given it is the DSZ for the project. How to prevent a future resident from paving this needs to be demonstrated. Consider keeping it as COS by placing a sign (outlining potential safety issues) at an entry on the southern edge of the space rather than risking losing this as a DSZ. The lawn in this space may struggle given the contours shown in this space and the solar access. It needs to be demonstrated how this will work. The communal rooftop on level 5 shows a large variety of uses which is commended. The large quantity of tables is questioned and whether or not these are all needed given that the BBQ already has seating. Perhaps the northern deck could serve another function. The southern deck should be considered with planting to its north and a glass balustrade to its south to allow views from the building edge. The width of this timber deck needs to allow for circulation and seating which it currently does now. The large concrete bench and lawn adjacent again feels a little commercial in nature, given it is a residential space, perhaps the long bench could be removed or replaced by more appropriate options.
Amenity	The numerous amenity concerns have previously been raised by the panel. The revised design has addressed some of these issues. However, issues that remain a concern to the panel are: - *non-compliance with building separation,* - *severe impacts on adjoining properties,* - *visual and acoustic privacy,* The window less study areas proposed in several units provide an unacceptable level of amenity. ADG requires a window to be visible from any point within a habitable room.
Safety	
Housing Diversity and Social Interaction	The proposal will potentially provide a reasonable mix of uses for this precinct. However, ideally more commercial space would be provided.
Aesthetics	As noted in the previous DRP report :

	"While the aesthetics of the north facing façade is interesting, it cannot be justified three metres from a side boundary"". The built form strategy needs to be resolved before any aesthetic consideration can be provided. Servicing of the building should be considered at this stage of the design process. The location of service risers, carpark exhausts, AC condensers, down pipes and fire hydrant boosters should be accommodated. More detail information will be required with the DA application, to demonstrate the detail intent of the design. A dimensioned 1:50 section should be provided. All materials should be clearly identified.
Design Excellence WLEP2009	
Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	Further development required.
Whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,	Further development required.
Whether the proposed development detrimentally impacts on view corridors,	
Whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,	N/A
How the development addresses the following:	
the suitability of the land for development,	Challenging topography and narrow dimension of the site make this a challenging site. Though this site is developable in isolation it is not capable of realising the full extent of its permissible FSR.
existing and proposed uses and use mix	Appropriate location for this mix of uses, ideally more commercial space would be provided.
heritage issues and streetscape constraints,	Streetscape not optimized
the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban	Non-compliant side setbacks will create major impacts on both properties and crate enormous visual and acoustic privacy issues.

form,	
bulk, massing and modulation of buildings	Further development required.
street frontage heights	Refinements required to meet height controls.
environmental impacts such as sustainable design, overshadowing, wind and reflectivity	Further development required.
the achievement of the principles of ecologically sustainable development	Improvements made, but further development required.
pedestrian, cycle, vehicular and service access, circulation and requirements	
impact on, and any proposed improvements to, the public domain	Further development required.
Recommendations	The panel have consistently recommended that an alternative design strategy be developed for this site to address concerns raised regarding both the norther and southern interfaces with neighbours. These most recent developments have improved the proposals southern interface. However, no meaningful developments have been made to proposals interface with its northern neighbour. The panel remains of the opinion that an alternative design strategy must be developed. The proposal is not supported by the panel in its current form.

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Apartment Design Guide

Standards/controls	*Comment*
Part 2 – Developing the controls	
2E Building depth	
Maximum 12-18m building depth	Complies
2F Building separation	
Minimum separation distances for buildings are:	
Up to four storeys (approximately 12m): *see 12m plane at Figure 5 above.*	Sides between 2.64/3m (non habitable) and 6 (habitable)
• 12m between habitable rooms/balconies	Separation at rear is approximately 9m
• 9m between habitable and non-habitable rooms	
• 6m between non-habitable rooms	
Five to eight storeys (approximately 25m): *(from level 5 rear and level 4 front)*	Sides between 3 (non habitable) and 6 (habitable)
• 18m between habitable rooms/balconies	
• 12m between habitable and non-habitable rooms	
• 9m between non-habitable rooms	
2G Street setbacks	
In mixed use buildings a zero street setback is appropriate	A 4m street setback is required under Chapter D13 of WDCP 2009 and the development complies.
Part 3 Siting the development	
3A Site analysis	
Site analysis to include	A site analysis has been provided.
• Site location plan	
• Aerial photograph	
• Local context plan	
• Site context and survey plan	
• Streetscape elevations and sections	
• Analysis	
3B Orientation	
Objective 3B-1	
Building types and layouts respond to the streetscape and site while optimising solar access within the development	The proposal provides compliant solar access to the units within the development and has a satisfactory street address.
Objective 3B-2	
Overshadowing of neighbouring properties is minimised during mid-winter	
Living areas, private open space and communal	Solar access minimums are achieved for units

Standards/controls	*Comment*
open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access	within the development.
Solar access to living rooms, balconies and private open spaces of neighbours should be considered.	There are significant overshadowing impacts to the properties to the south whilst not meeting height and setback requirements.
Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	N/A
If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	The proposal will significantly reduce solar access to properties to the south of the site. The proposal also has non-compliant building separation and setbacks whilst exceeding the height limit.
Overshadowing should be minimised to the south or downhill by increased upper level setbacks	The setbacks are not increased for the higher levels as required under this policy.
It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development	This is not really possible on the subject site due to the narrow width.
A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	This is not achieved.
<u>3C Public domain interface</u>	
Objective 3C-1	
Transition between private and public domain is achieved without compromising safety and security	The development is considered to provide an acceptable interface with the public domain.
Objective 3C-2	
Amenity of the public domain is retained and enhanced	• mailboxes suitably located • car parking access acceptable • street trees are to be provided • the footpath along for the frontage will be renewed • the level change between the footpath and internal floor levels is appropriately graded • The substation is located away from the primary frontage and does not detract from aesthetic of the building
<u>3D Communal and public open space</u>	
Objective 3D-1	
An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	Communal open space is provided on level 1 and level 5 with combined area in excess of 25% of the site area.

Standards/controls	*Comment*
	The communal open space areas have a northerly orientation and maximise solar access.
Objective 3D-2	
Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	Satisfactory.
Objective 3D-3	
Communal open space is designed to maximise safety	Passive surveillance of the level 5 communal open space is not provided.
Objective 3D-4	
Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	N/A
3E Deep soil zones	
Objective 3E-1	
Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	
Minimum 7% of site area and minimum 6m dimension.	A deep soil zone is provided however the location at the rear of the site is not considered ideal given the maintenance of that area appears to fall to one unit and the area is otherwise inaccessible.
3F Visual privacy	
Objective 3F-1	
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.	Separation distances between the building and adjoining development do not comply.
The following setbacks are required:	
• up to 12m (4 storeys) 6m (habitable rooms or balconies	Does not comply.
• 3m (non-habitable rooms)	
Generally one step in the built form as the height increases due to building separations is desirable.	Has not been provided.
Objective 3F-2	
Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space	Communal open space, common areas and access paths are separated from private open space and windows into apartments.
• Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows.	Complies

Standards/controls	*Comment*
• Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	Satisfactory
• Balconies and private terraces should be located in front of living rooms to increase internal privacy	Satisfactory
• Windows should be offset from the windows of adjacent buildings	The building is designed with the majority of the units oriented towards the northern boundary. This is not considered to have been adequately justified in relation to potential future development on the adjoining sites and inherent privacy, overlooking and overshadowing impacts.
• Recessed balconies and/or vertical fins should be used between adjacent balconies	Satisfactory
3G Pedestrian access and entries	
Objective 3G-1	
Building entries and pedestrian access connects to and addresses the public domain	Satisfactory
Objective 3G-2	
Access, entries and pathways are accessible and easy to identify	Entries are clearly visible from the public domain. Level changes are minimised Ramping is integrated into the design
Objective 3G-3	
Large sites provide pedestrian links for access to streets and connection to destinations	N/A
3H Vehicle access	
Objective 3H-1	
Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	There is only one car park entry which does not exceed the maximum requirement for width. Waste servicing is proposed to occur on site. There is a change in surface treatment at the crossover into the car park.
3J Bicycle and car parking	
Objective 3J-1	
Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	The minimum car parking requirement applicable for residents and visitors is that set out in the RMS Guide to Traffic Generating Developments. The development complies in this regard.
Objective 3J-2	
Parking and facilities are provided for other modes of transport	Motorbike parking complies with Council requirements.

Standards/controls	*Comment*
	Secure undercover bicycle parking is provided.
Objective 3J-3	
Car park design and access is safe and secure	Separation is provided between commercial and residential car parking areas. No concerns are raised in relation to the principles of CPTED.
Objective 3J-4	
Visual and environmental impacts of underground car parking are minimised	Parking is primarily underground.
Objective 3J-5	
Visual and environmental impacts of on-grade car parking are minimised	N/A
Objective 3J-6	
Visual and environmental impacts of above ground enclosed car parking are minimised	N/A
Part 4	
4A Solar and daylight access	
Objective 4A-1	
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	Satisfactory
Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter.	Complies
A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	None.
The design maximises north aspect and the number of single aspect south facing apartments is minimised Single aspect, single storey apartments should have a northerly or easterly aspect\	Satisfactory
Living areas are best located to the north and service areas to the south and west of apartments	Satisfactory
Objective 4A-2	
Daylight access is maximised where sunlight is limited	The majority of units have a northerly aspect.
Objective 4A-3	
Design incorporates shading and glare control, particularly for warmer months	The units are not overly exposed to western sun and balconies are provided with blade walls to shield from harsh afternoon sun.

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Standards/controls	*Comment*
4B Natural ventilation	
Objective 4B-1	
The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms.	Satisfactory
Depths of habitable rooms support natural ventilation.	
The area of unobstructed window openings should be equal to at least 5% of the floor area served.	
Objective 4B-2	
The layout and design of single aspect apartments maximises natural ventilation	Single aspect units comply with the maximum depth controls.
Objective 4B-3	
At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.	Approximately 83% of the apartments are naturally cross ventilated.
	Floor to ceiling heights and depths of units meet the minimum requirements.
Overall depth of a cross-over or cross-through apartment does not exceed 18m	Complies
4C Ceiling heights	
Objective 4C-1	
Ceiling height achieves sufficient natural ventilation and daylight access	
Minimum 2.7m floor to ceiling for habitable	Complies
Objective 4C-2	
Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	Satisfactory
Objective 4C-3	
Ceiling heights contribute to the flexibility of building use over the life of the building	
Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses	Level 1 floor to ceiling height is approximately ~3.4m.

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Standards/controls	*Comment*
4D Apartment size and layout	
Objective 4D-1	
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	Apartments meet the recommended minimum areas. Habitable rooms have windows in external walls of a minimum of 10% of the floor area of the rooms. Windows are visible from all points within habitable rooms. Kitchens are not located in the main circulation space of larger apartments.
Minimum internal areas are as follows: • Studio 35m² • 1 bedroom 50m² • 2 bedroom 70m² • 3 bedroom 90m²	Complies
Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	Complies
Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)	Complies
A window should be visible from any point in a habitable room	Complies
Objective 4D-2	
Environmental performance of the apartment is maximised	
Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Complies
In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Generally compliant.
Objective 4D-3	
Apartment layouts are designed to accommodate a variety of household activities and needs	Satisfactory
Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space)	Y
Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Y

Standards/controls	*Comment*
Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for studio and 1 bedroom apartments • 4m for 2 and 3 bedroom apartments	Y
Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	Y
All bedrooms allow a minimum length of 1.5m for robes The main bedrooms are provided with wardrobes a minimum of 1.8m long, 0.6m deep and 2.1m high.	Y
Apartment layouts allow flexibility over time.	Y
4E Private open space and balconies	
Objective 4E-1	
Apartments provide appropriately sized private open space and balconies to enhance residential amenity	Primary balconies meet the minimum 2m dimension and minimum area requirements.
Balconies to meet the following: • Studio apartments 4m² • 1 bedroom apartments 8m² 2m dimension • 2 bedroom apartments 10m² 2m dimension • 3+ bedroom apartments 12m² 2.4m dimension	Complies
Objective 4E-2	
Primary private open space and balconies are appropriately located to enhance liveability for residents	• Primary open space and balconies are located adjacent to the living rooms, dining rooms or kitchens • Majority of private open spaces and balconies have a northerly aspect.
Objective 4E-3	
Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	Satisfactory
Objective 4E-4	
Private open space and balcony design maximises safety	Satisfactory
4F Common circulation and spaces	
Objective 4F-1	
Common circulation spaces achieve good amenity and properly service the number of apartments	A maximum of 8 apartments has access off a circulation core on each level. The maximum number of apartments sharing a single lift is does not exceed 40. Natural light is provided to lobby areas.

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Standards/controls	*Comment*
Objective 4F-2	
Common circulation spaces promote safety and provide for social interaction between residents	Satisfactory
4G Storage	
Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: • 1 bedroom apartments 6m³ • 2 bedroom apartments 8m³ • 3+ bedroom apartments 10m³ At least 50% located within the apartment.
Objective 4G-2	
Additional storage is conveniently located, accessible and nominated for individual apartments	A storage facility containing individual store areas for all units is located in the car parking areas.
4H Acoustic privacy	
Objective 4H-1	
Noise transfer is minimised through the siting of buildings and building layout	Noisy areas are located next to or above each other and quieter areas next to or above quieter areas. Noise sources are separated from bedrooms.
Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses	The proposal does not comply with building separation controls.
Window and door openings are generally orientated away from noise sources	Satisfactory
Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas	Satisfactory
Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources	Satisfactory
The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	Satisfactory
Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms	Satisfactory
Objective 4H-2	
Noise impacts are mitigated within apartments through layout and acoustic treatments	Internal layout designed to minimise noise transference between units. Construction is to comply with the recommendations in the acoustic report.

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Standards/controls	*Comment*
4J Noise and pollution	
Objective 4J-1	
In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	Satisfactory
Objective 4J-2	
Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	Construction is to comply with the recommendations in the acoustic report.
4K Apartment mix	
Objective 4K-1	
A range of apartment types and sizes is provided to cater for different household types now and into the future	A mix of unit sizes is provided.
Objective 4K-2	
The apartment mix is distributed to suitable locations within the building	Satisfactory
4L Ground floor apartments	
	N/A
4M Facades	
Objective 4M-1	
Building facades provide visual interest along the street while respecting the character of the local area	The street elevation is satisfactory however the southern elevation is considered to be large and bulky.
Objective 4M-2	
Building functions are expressed by the façade	Building entries are clearly defined. The apartment layout is expressed externally.
4N Roof design	
Objective 4N-1	
Roof treatments are integrated into the building design and positively respond to the street	Satisfactory
Objective 4N-2	
Opportunities to use roof space for residential accommodation and open space are maximised	The roof area incorporates a communal open space.
Objective 4N-3	
Roof design incorporates sustainability features	Satisfactory

Attachment 6 - DA-2017/1577 – SEPP 65 compliance table

Standards/controls	*Comment*
4O Landscape design	
Objective 4O-1	
Landscape design is viable and sustainable	Acceptable landscaped areas have been provided. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided a satisfactory referral subject to conditions of consent.
Objective 4O-2	
Landscape design contributes to the streetscape and amenity	Street trees are to be provided along the frontage and new footpath which will improve the amenity of the public domain.
4P Planting on structures	
Objective 4P-1	
Appropriate soil profiles are provided	The planting on structure is considered to be of a type and scale which provides amenity to residents of the building. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided conditions of consent.
Objective 4P-2	
Plant growth is optimised with appropriate selection and maintenance	
Objective 4P-3	
Planting on structures contributes to the quality and amenity of communal and public open spaces	
4Q Universal design	
Objective 4Q-1	
Universal design features are included in apartment design to promote flexible housing for all community members	The requirement that 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features has not been demonstrated.
Objective 4Q-2	
A variety of apartments with adaptable designs are provided	Satisfactory
Objective 4Q-3	
Apartment layouts are flexible and accommodate a range of lifestyle needs	Satisfactory
4R Adaptive reuse	
	N/A
4S Mixed use	
Objective 4S-1	
Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	The development provides commercial on the ground floor and first floor and an active frontage in accordance with Council requirements.
Objective 4S-2	
Residential levels of the building are integrated within the development, and safety and amenity is	The lift closest to Flinders Street is shared between the commercial and residential components contrary to recommendations they

Standards/controls	*Comment*
maximised for residents	be separated. The fire egress along the southern side of the building is considered to be a concealment opportunity.
4T Awnings and signage	
Objective 4T-1	
Awnings are well located and complement and integrate with the building design	Satisfactory.
Objective 4T-2	
Signage responds to the context and desired streetscape character	N/A
4U Energy efficiency	
Objective 4U-1	
Development incorporates passive environmental design	Satisfactory natural light is provided to habitable rooms.
Objective 4U-2	
Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	A BASIX Certificate has been provided which outlines mechanisms to achieve the minimum thermal comfort targets. Balconies are recessed providing shade to adjacent living spaces during hotter periods of the day. The layout of units provides satisfactory orientation to achieve solar access in cooler months.
Objective 4U-3	
Adequate natural ventilation minimises the need for mechanical ventilation	The development meets the minimum natural ventilation requirements.
4V Water management and conservation	
Objective 4V-1	
Potable water use is minimised	The development will comply with BASIX requirements with regard to water use. Landscaped areas will be watered from rainwater harvesting.
Objective 4V-2	
Urban stormwater is treated on site before being discharged to receiving waters	N/A
Objective 4V-3	
Flood management systems are integrated into site design	N/A
4W Waste management	
Objective 4W-1	
Waste storage facilities are designed to minimise impacts on the streetscape, building entry and	Waste areas are within the car park area and screened from public view.

Standards/controls	*Comment*
amenity of residents	
Objective 4W-2	
Domestic waste is minimised by providing safe and convenient source separation and recycling	Separate general and recyclable waste bins are to be provided.
4X Building maintenance	
Objective 4X-1	
Building design detail provides protection from weathering	Satisfactory
Objective 4X-2	
Systems and access enable ease of maintenance	Satisfactory
Objective 4X-3	
Material selection reduces ongoing maintenance costs	Satisfactory

Attachment 7 - DA-2017/1577 – WDCP 2009 compliance table

CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development through compliance with BASIX requirements.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

Applicable controls in this chapter are addressed below.

4.0 General Residential controls

4.13 Fire Brigade Servicing

The Hydraulic and Wet Fire Services Infrastructure Report submitted with the application concluded that an onsite pumps will be required to assist the fire services. The location of this is illustrated on the plans.

4.14 Services

Satisfactory

4.19 Development near railway corridors and major roads

See discussion at SEPP Infrastructure.

6 Residential flat buildings

Controls in this section are considered to be addressed elsewhere in the DCP.

CHAPTER B3: MIXED USE DEVELOPMENT

4.1 Minimum Site Width

A minimum site width of 24m is recommended for mixed use development. The proposal does not comply as discussed at Chapter A1.

4.2 Maximum Floor Space Ratio / Density

The FSR complies as discussed at clause 4.4A of WLEP 2009.

4.3 Building Height

The building height does not comply as discussed at WLEP.

4.6 Built Form

The new building is not considered to be in harmony with the buildings around it.

The siting, form and height of the building is not considered to be sympathetic with adjoining buildings.

4.7 Active Street Frontages

Provided

4.8 Awnings

Provided

4.9 Car Parking

See Chapter E3.

4.10 Basement Car Parking

See Chapter E3.

4.11 Driveways

See Chapter E3.

4.12 Landscaping

Satisfactory

4.13 Communal Open Space

Satisfactory

4.14 Private Open Space

See discussion in Chapter D13 and SEPP 65.

4.15 Solar Access

See discussion in Chapter D13 and SEPP 65.

4.16 Visual privacy

See discussion in Chapter D13 and SEPP 65.

4.17 Acoustic privacy

See discussion in Chapter D13 and SEPP 65.

4.18 Adaptable Housing

See discussion in Chapter D13 and SEPP 65.

4.19 Residential Component - Apartment Mix and Layout

See discussion in Chapter D13 and SEPP 65.

4.20 Natural Ventilation

See discussion in Chapter D13 and SEPP 65.

4.21 Adaptive Re-use

See discussion in Chapter D13 and SEPP 65.

4.22 Crime Prevention Through Environmental Design (Safety and Security)

See Chapter E2.

5 GENERAL REQUIREMENTS FOR ALL MIXED USE DEVELOPMENT

Controls in this section are either addressed elsewhere in this report or are not applicable.

CHAPTER B4 – DEVELOPMENT IN BUSINESS ZONES

The development is located in a business zone and as such this chapter is applicable to the development. An assessment against the relevant sections is outlined below.

9 General design requirements for retail and business premises developments

Control	Comment
9.2 Development Controls	
9.2.1 Floor Configuration	
The ground floor of developments is to be set at a level determined with reference to existing/required footpath levels in order to provide for an even transition between the building and the footpath and provide cross fall grades on footpaths that meet Council's standards.	Satisfactory
Any retail premises of less than 200m² in gross floor area should generally have a depth to width ratio ranging between 1:1 and a maximum 3:1.	Satisfactory

Control	Comment
The maximum building depth for any ground floor retail or commercial office development shall be 20 metres with openings on one side only. The maximum building depth for any retail or office building with openings on two or more side is 30 metres.	Complies
Any residential storeys in a building shall have a maximum building depth of 18 metres	Complies
The floor to ceiling height of the ground floor development in a B1 or B3 zone shall be a minimum 3.3 metres, in order to allow flexibility in retail and / or other business tenancies in the future.	Complies
9.2.2 Building Appearance	
For large buildings including multi-storey mixed use buildings, the treatment of the facades should be designed to provide character, visual legibility and human scale and to delineate the distinct uses.	Satisfactory
Facades facing each street or lane should be composed as at least three distinct layers.	Generally satisfactory
The street corners of any new corner building should be strengthened by massing and building articulation to both street frontages.	N/A
The profile of parapets and roof top elements should be integrated in the overall roof design of the building.	Satisfactory.
Highly reflective finishes, reflective glass and curtain wall glazing are not permitted above ground floor level.	Satisfactory
The reflectivity of glazing shall be restricted to less than 20%.	N/A
9.2.3 Building Alignment	
The design of corner buildings should reflect the geometry of the road, topographical conditions of the immediate locality and sight lines.	Satisfactory
Buildings should be aligned with footpaths to create spatial enclosure and a sense of place.	
Buildings shall be designed for retail or business uses only at the ground floor of a building.	
9.2.4 Active Street Frontages	
All new retail, business or mixed use buildings are required to provide ground level active street frontages.	Complies
Buildings should contain no more than 5 metres of ground floor wall without a door or window. Windows should make up at least 50% of the ground floor front wall.	Complies
Buildings with frontages to retail streets are to contribute to the liveliness and vitality of those streets	Satisfactory
All street frontage windows at ground level are to have clear glazing.	Satisfactory
9.2.5 Urban Design / Streetscape Appearance	
The horizontal form of any building should also be broken up vertically, in order to provide visual relief and interest to the development.	Satisfactory

Control	Comment
Highly reflective finishes are not permitted above ground floor level.	N/A
9.2.6 Pedestrian Access	
Direct pedestrian access and visual inspection should be provided from the front of the building, to encourage active street frontage to retail shops and business premises.	Provided
9.2.7 Awnings	
Awnings required along street frontage	Provided
solid cantilevered / suspended steel box type section with a minimum soffit height of 3.2 metres	Complies
Under awning lighting is required for the majority of retail and business centres in the LGA,	Could be addressed through conditions of consent.
provide adequate shade and shelter for pedestrians.	Satisfactory
weather sealed	Satisfactory
setback a minimum of 600 millimetres from the kerb line	Complies
9.2.8 Public Domain – Footpath Paving	
Footpath paving treatment should be consistent with the relevant Public Domain Technical Manual	New footpath is to be installed by the developer in accordance with the Public Domain Technical Manual for the street frontage.
9.2.9 Solar access and overshadowing	
Shadow diagrams for the 9.00 am, 12 noon and 3.00 pm 21 June winter solstice periods required	Provided
9.2.10 Shower and Change Facilities & Parenting Facilities in Large Business Premises / Commercial Office Buildings	
N/A	
9.2.12 Wind Impact Assessment	
For any building involving a height of 32 metres or more, a wind impact assessment report will be required to be submitted with the Development Application.	N/A
Any building involving a height greater than 50 metres, a wind tunnel assessment will also be required to be included in the wind impact assessment report.	
9.2.13 Access, Car parking and Servicing	
See Chapter E3	
9.2.14 Access for People with a Disability	
See Chapter E1	
9.2.15 Land Consolidation	
Where a development spans several allotments, consolidation of these allotments will be required as a condition of consent.	N/A

Control	Comment
13 Works in the public domain To ensure new footpath paving and / or other public domain works are carried out in accordance with Council's public domain design and construction specifications.	New footpath is to be installed by the developer for the full frontage in accordance with the public domain technical manual.

CHAPTER D13 – WOLLONGONG CITY CENTRE

2 Building form

Objectives/controls	*Comment*
2.2 Building to street alignment and street setbacks	
4m minimum setback	Complies
2.3 Street frontage heights in commercial core	
N/A	
2.4 Building depth and bulk	
18m maximum building depth recommended.	Complies
2.5 Side and rear building setbacks and building separation	
Residential uses up to 12m in height • habitable rooms with openings and balconies 6 (side) / 6 (rear) • non-habitable rooms and habitable rooms without openings 3 (side) / 4.5 (rear)	Does not comply – see discussion at Chapter A1.
Residential uses between 12m & 24m • habitable rooms with openings and balconies 9m (side and rear) • non-habitable rooms and habitable rooms without openings 6m (side and rear)	Does not comply – see discussion at Chapter A1.
2.6 Mixed used buildings	
a) Provide flexible building layouts which allow variable tenancies or uses on the first two floors of a building above the ground floor.	Satisfactory
b) Minimum floor to ceiling heights are 3.3 metres for commercial office and 3.6 metres for active public uses, such as retail and restaurants in the B3 Commercial Core zone. In the B4 Mixed Use zone, the ground floor and first levels of a building shall incorporate a minimum 3 metre floor to ceiling height clearance, to maximise the flexibility in the future use of the building.	Satisfactory
c) Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.	Satisfactory
d) Locate clearly demarcated residential entries directly from the public street.	Satisfactory
e) Clearly separate and distinguish commercial and residential entries and vertical circulation.	The commercial and residential lobby areas and lift at the front of the building are not separate.

Objectives/controls	*Comment*
f) Provide security access controls to all entrances into private areas, including car parks and internal courtyards.	Satisfactory
g) Provide safe pedestrian routes through the site, where required.	Generally satisfactory
h) Front buildings onto major streets with active uses.	Complies
i) Avoid the use of blank building walls at the ground level.	Complies
j) For mixed use buildings that include food and drink premises uses, the location of kitchen ventilation systems shall be indicated on plans and situated to avoid amenity impacts to residents.	N/A
2.7 Deep soil zone	
deep soil zone comprising minimum 15% of the total site area preferably provided in one continuous block and shall have a minimum dimension (width or length) of 6 metres.	The proposal incorporates a 6m deep soil zone to the rear of the site
For residential components in mixed use developments in the Commercial Core, Mixed Use (city edge) and Enterprise zones, the amount of deep soil zone may be reduced commensurate with the extent of non-residential uses. Where non-residential components result in full site coverage and there is no capacity for water infiltration, the deep soil component must be provided on structure, in accordance with the provisions of Section 2.8 and 2.9. In such cases, compensatory stormwater management measures must be integrated within the development to minimise stormwater runoff.	
2.8 Landscape design	
a) To ensure landscaping is integrated into the design of development.	Satisfactory landscaped areas are provided.
b) To add value and quality of life for residents and occupants within a development in terms of privacy, outlook, views and recreational opportunities.	
c) To improve stormwater quality and control run-off.	
d) To improve the microclimate and solar performance within the development.	
e) To improve urban air quality and contribute to biodiversity.	
2.9 Green roofs, green walls and planting on structures	
a) To contribute to the quality and amenity of open space on roof tops and internal courtyards.	Satisfactory
b) To encourage the establishment and healthy growth of trees in urban areas.	
c) To encourage the use of green walls and roofs in communal open space, and to enhance the environmental performance of the development.	
2.10 Sun access planes	
N/A	
2.11 Development on classified roads	
a) Consent must not be granted to the development of land that	Access can only be provided from

Objectives/controls	*Comment*
has a frontage to a classified road unless the consent authority is satisfied that:	Flinders Street.
b) Where practicable, vehicular access to the land is provided by a road other than the classified road; and	
c) The safety, efficiency and ongoing operation of the classified road will not be adversely affected by the proposed development as a result of:	The RMS have reviewed the proposal twice in regard to the potential impacts on the function of the classified road and have outstanding concerns.
i) The design of the vehicular access to the land, or	
ii) The emission of smoke or dust from the proposed development, or	
iii) The nature, volume or frequency of vehicles using the classified road to gain access to the land, and	
d) The development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the proposed development.	An acoustic report has been provided in relation to impacts of road noise on the residents of the building. That report made a number of recommendations in order to achieve the target noise levels which could be included in any consent granted.

3 Pedestrian amenity

Objectives/controls	*Comment*
3.2 Permeability	
N/A	
3.3 Active street frontages	
a) To promote pedestrian activity and safety in the public domain.	Complies
b) To maximise active street fronts in Wollongong city centre.	
c) To define areas where active streets are required or are desirable.	
3.4 Safety and security	
a) Ensure that the building design allows for casual surveillance of accessways, entries and driveways.	Y
b) Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks.	The fire exit to south of building is considered to be a concealment opportunity.
c) Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.	Complies
d) Where private open space is located within the front building alignment any front fencing must be of a design and/or height which allows for passive surveillance of the street.	N/A
e) Provide adequate lighting of all pedestrian access ways, parking areas and building entries. Such lighting should be on a timer or movement detector to reduce energy consumption and glare nuisance.	Satisfactory

Objectives/controls	*Comment*
f) Provide clear lines of sight and well-lit routes throughout the development.	Satisfactory
g) Where a pedestrian pathway is provided from the street, allow for casual surveillance of the pathway.	N/A
h) For large scale retail and commercial development with a GFA of over 5,000m², provide a 'safety by design' assessment in accordance with the CPTED principles.	N/A
i) Provide security access controls where appropriate.	Satisfactory
j) Ensure building entrance(s) including pathways, lanes and arcades for larger scale retail and commercial developments are directed to signalised intersections rather than mid-block in the Commercial zone, Mixed Use (city edge) and Enterprise Corridor zones.	N/A
3.5 Awnings	
	N/A
3.6 Vehicular footpath crossings	
• additional vehicle entry points will not be permitted along the subject section of Flinders Street.	N/A
• up to 5.4m crossover permitted	~6m crossover – considered satisfactory given high volume traffic along Flinders and provision of sufficient turning areas.
• Vehicle entries are to have high quality finishes to walls and ceilings as well as high standard detailing.	Satisfactory
3.7 Pedestrian overpasses, underpasses and encroachments	
	N/A
3.8 Building exteriors	
a) Contribute positively to the streetscape and public domain by means of high quality architecture and robust selection of materials and finishes.	Satisfactory
b) Provide richness of detail and architectural interest especially at visually prominent parts of buildings such as lower levels and roof tops.	Satisfactory
c) Present appropriate design responses to nearby development that complement the streetscape.	The design response is not considered to be an appropriate response to nearby development or the streetscape. This is discussed elsewhere in this report in respect of matters such as height, setbacks, bulk and scale, privacy and overshadowing.
e) Maintain a pedestrian scale in the articulation and detailing of the lower levels of the building.	Satisfactory
f) Contribute to a visually interesting skyline.	Satisfactory

Objectives/controls	*Comment*
a) Adjoining buildings (particularly heritage buildings) are to be considered in the design of new buildings in terms of:	Satisfactory
i) Appropriate alignment and street frontage heights.	
ii) Setbacks above street frontage heights.	
iii) Appropriate materials and finishes selection.	
iv) Façade proportions including horizontal or vertical emphasis.	
v) The provision of enclosed corners at street intersections.	
b) Balconies and terraces should be provided, particularly where buildings overlook parks and on low rise parts of buildings. Gardens on the top of setback areas of buildings are encouraged.	Satisfactory
c) Articulate facades so that they address the street and add visual interest.	Satisfactory
d) External walls should be constructed of high quality and durable materials and finishes with 'self-cleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass.	Satisfactory
e) Finishes with high maintenance costs, those susceptible to degradation or corrosion from a coastal or industrial environment or finishes that result in unacceptable amenity impacts, such as reflective glass, are to be avoided.	Satisfactory
f) To assist articulation and visual interest, avoid expanses of any single material.	
g) Limit opaque or blank walls for ground floor uses to 30% of the street frontage.	
h) Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass.	
i) Highly reflective finishes and curtain wall glazing are not permitted above ground floor level (see Section 5.3).	
j) A materials sample board and schedule is required to be submitted with applications for development over $1 million or for that part of any development built to the street edge.	
k) Minor projections up to 450mm from building walls in accordance with those permitted by the Building Code of Australia may extend into the public space providing it does not fall within the definition of gross floor area and there is a public benefit, such as:	
i) Expressed cornice lines that assist in enhancing the streetscape,	
ii) Projections such as entry canopies that add visual interest and amenity, and	
iii) Provided that the projections do not detract from significant views and vistas (see Figure 3.12).	
l) The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.	

Objectives/controls	*Comment*
3.9 Advertising and signage	
	N/A
3.10 Views and view corridors	
	N/A

4 Access, parking and servicing

Objectives/controls	*Comment*
4.2 Pedestrian access and mobility	
a) Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity.	Satisfactory
b) The design of facilities (including car parking requirements) for disabled persons must comply with the relevant Australian Standard (AS 1428 Pt 1 and 2, AS 2890 Pt 1, or as amended) and the Disability Discrimination Act 1992 (as amended).	Satisfactory
c) The development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor.	Satisfactory
d) The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.	Satisfactory
e) Pedestrian access ways, entry paths and lobbies must use durable materials commensurate with the standard of the adjoining public domain (street) with appropriate slip resistant materials, tactile surfaces and contrasting colours in accordance with Council's Public Domain Technical Manual.	Satisfactory
f) Building entrance levels and footpaths must comply with the longitudinal and cross grades specified in AS 1428.1:2001, AS/NZS 2890.1:2004 and the Disability Discrimination Act.	Satisfactory
4.3 Vehicular driveways and manoeuvring areas	
a) Driveways should be:	Satisfactory
i) Provided from lanes and secondary streets rather than the primary street, wherever practical. ii) Located taking into account any services within the road reserve, such as power poles, drainage pits and existing street trees.	
iii) Located a minimum of 6 metres from the perpendicular of any intersection of any two roads.	
iv) If adjacent to a residential development setback a minimum of 1.5m from the relevant side property boundary.	

Objectives/controls	*Comment*
b) Vehicle access is to be designed to:	Satisfactory
i) Minimise the impact on the street, site layout and the building façade design; and ii) If located off a primary street frontage, integrated into the building design.	
c) All vehicles must be able to enter and leave the site in a forward direction without the need to make more than a three point turn.	
d) Design of driveway crossings must be in accordance with Council's standard Vehicle Entrance Designs, with any works within the footpath and road reserve subject to a s138 Roads Act approval.	
e) Driveway widths must comply with the relevant Australian Standards.	
f) Car space dimensions must comply with the relevant Australian Standards.	
g) Driveway grades, vehicular ramp width/grades and passing bays must be in accordance with the relevant Australian Standard, (AS 2990.1).	
h) Vehicular ramps less than 20m long within developments and parking stations must have a maximum grade of 1 in 5 (20%). Ramp widths and design must be in accordance with AS 2890.1.	
i) Access ways to underground parking should not be located adjacent to doors or windows of the habitable rooms of any residential development.	
j) For residential development in the General Residential zone, use semi-pervious materials for all uncovered parts of driveways/spaces to provide for some stormwater infiltration.	
<u>4.4 On-site parking</u>	
a) On-site parking must meet the relevant Australian Standard (AS2890.1 2004 – Parking facilities, or as amended).	The requisite number of car parking spaces is provided. Spaces and manoeuvring areas comply with Australian Standards.
b) Council may require the provision of a supporting geotechnical report prepared by an appropriately qualified professional as information to accompany a development application to Council.	A geotechnical report was submitted outlining comments and recommendations on excavation, retention, footings and the like.
c) Car parking and associated internal manoeuvring areas which are surplus to Council's specified parking requirements will count towards the gross floor area, but not for the purpose of determining the necessary parking.	See calculation at clause 4.4A of WLEP 2009.
d) Any car parking provided in a building above ground level is to have a minimum floor to ceiling height of 2.8m so it can be adapted to another use in the future.	N/A
e) On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP.	Satisfactory

Objectives/controls	*Comment*
4.5 Site facilities and services	
Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development.	Location of mailboxes to be shown on plans
All development is to adequately accommodate waste handling and storage on-site. The size, location and handling procedures for all waste, including recyclables, is to be determined in accordance with Council waste policies and advice from relevant waste handling contractors.	Waste rooms provided for residential and commercial components. On site waste collection proposed and turning templates have been provided.
Where waste volumes require a common collection, storage and handling area, this is to be located within a basement or enclosed carpark,	Satisfactory
The provision of utility services and access for regular servicing and maintenance must be considered at the concept stage of site development.	It is proposed that the substation for the development be provided on a separate lot on the opposite side of Flinders Street. Consent from that owner has been provided with the application for this to occur. The mechanism as to how this would occur has not been adequately addressed.

5 Environmental management

Objectives/controls	*Comment*
5.2 Energy efficiency and conservation	
Residential component to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX).	Complies
Non-residential to incorporate efficient mechanical heating and cooling, improved efficiency of water systems, and reduce reliance on artificial lighting.	Satisfactory
5.3 Water conservation	
Residential component to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX).	
Water saving measures are to be incorporated into non-residential components.	• BASIX commitments are met • Water efficient plants and/or, indigenous vegetation are to be used in landscaped areas • Non-potable water is generally required to be used for watering gardens and landscape features. This could be addressed in any amendments to the design.

5.4 Reflectivity	
	N/A
5.5 Wind mitigation	
	N/A
5.6 Waste and recycling	
Development applications for all non-residential development must be accompanied by a waste management plan	Provided.
On-site waste collection and storage area required	Provided.

6 Residential development standards

Objectives/controls	*Comment*
6.1 SEPP 65	
See above.	
6.2 Housing choice and mix	
Studio and one bedroom units must not be less than 10%	33%
Three or more bedroom units must not be less than 10%	6%
10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents.	11% provided.
To be e accompanied by certification from an accredited Access Consultant	Provided.
Car parking and garages allocated to adaptable dwellings must comply with the requirements of the relevant Australian Standard for disabled parking spaces.	Complies
For all residential apartment / flat buildings, 10% of all dwellings (or at least 1 dwelling) must be designed to achieve the Silver Standards of the Livable Housing Design Guideline (Livable Housing Australia 2015).	Not detailed on submitted plans.
2.7m minimum for all habitable rooms on all floors	Provided.
6.6 Basement Carparks	
roof of basement podium, measured to the top of any solid wall located on the podium, not to be greater than 1.2m above natural or finished ground level	Complies
Where the height of the basement podium (measured to the top of any solid wall located on the podium) is less than 1.2m above natural or finished ground level (whichever distance is greater), the basement podium may extend to the property boundary.	Complies
Where parking is provided in a basement, ventilation structures for the basement parking and air conditioning units must be orientated away from windows of habitable rooms and private open space areas. Ventilation grills must be integrated into the design of the façade of the building to minimise their visual impact.	Detail of car park ventilation has not been provided.
6.7 Communal open space	
5m² per dwelling communal open space required	Provided.

Objectives/controls	*Comment*
easily accessible and within a reasonable distance from apartments, be integrated with site landscaping, allow for casual social interaction and be capable of accommodating recreational activities.	Satisfactory
Must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
6.8 Private open space	
The courtyard/terrace for the ground level dwellings must have a minimum area of 25m² and a width of 2 metres. This area must be separated from boundaries by at least 1.5m with a vegetated landscaping bed and must not encroach upon deep soil zone landscaping areas.	Complies
The primary private open area of at least 70% of the dwellings within a residential apartment building must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
Private open space should be sited in a location which provides privacy, solar access, and pleasing outlook and has a limited impact on neighbours.	The potential future impact has not been considered in terms of privacy/overlooking in relation to orientation of all balconies towards side boundary with non-compliant setbacks.
direct extensions of the living areas of the dwellings they serve.	Y
Avoid locating the primary balconies where they address side setbacks.	See above.
balcony must have a minimum area of 12m2 open space a minimum depth of 2.4 metres.	The SEPP overrides the requirements of the DCP in respect of minimum dimensions for POS areas.
primary balcony of at least 70% of the dwellings within a multi dwelling housing development shall receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
6.9 Overshadowing	
The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents.	The proposal will significantly overshadow the adjoining properties to the south.
Adjacent residential buildings and their public spaces must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.	Not achieved.
6.10 Solar access	
Residential apartment buildings must aim to maximise their level of northern exposure to optimise the number of dwellings having a northern aspect. Where a northern aspect is available, the living spaces and balconies of such apartments must typically be orientated towards the north.	Complies

Objectives/controls	*Comment*
Shading devices should be utilised where necessary, particularly where windows of habitable rooms are located on the western elevation.	N/A
The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10%	Complies
Provide vertical shading to eastern and western windows.	Complies
6.11 Natural ventilation	
Building depth of between 10 and 18m	Complies
minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated.	Complies
Twenty five percent (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8m from a window.	Satisfactory.
Single aspect apartments must be limited in depth to 8m from a window.	Complies
6.12 Visual privacy	
New buildings should be sited and oriented to maximise visual privacy between buildings through compliance with minimum front, side and rear setback / building separation requirements.	The building does not satisfy minimum side setback and building separation requirements.
The internal layout of buildings should be designed to minimise any direct overlooking impacts occurring upon habitable rooms and private balcony / open space courtyards, wherever possible by separating communal open space and public domain areas from windows of rooms, particularly sleeping room and living room areas.	Satisfactory
Buildings are to be designed to increase privacy without compromising access to sunlight and natural ventilation through the following measures: (a) Off-setting of windows in new buildings from windows in existing adjoining building(s). (b) Recessed balconies and / or vertical fin elements between adjoining balconies to improve visual privacy. (c) Provision of solid, semi-solid or dark tinted glazed balustrading to balconies. (d) Provision of louvers or screen panels to windows and / or balconies. (e) Provision of perimeter landscaped screen / deep soil planting. (f) Incorporating planter boxes onto apartment balconies to improve visual separation between apartments within the development and adjoining buildings. (g) Provision of pergolas or shading devices to limit overlooking of lower apartments or private open space courtyards / balconies.	The windows and balconies are primarily oriented towards the northern boundary and is not considered to give proper consideration for potential impacts of future development on the adjoining land to the north. It is noted that the approved development on Lot 1 DP 214579 (DA-2015/884 at Attachment 8) has generous setbacks from the boundary with the subject property. However, that development may not be built and further the building separation requirements of the SEPP are not achieved at the upper levels if it were. 18m would be required and there would be only approximately 14m.

Objectives/controls	*Comment*
6.13 Acoustic Privacy	
Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments	Satisfactory
All residential apartments within a mixed use development should be designed and constructed with double-glazed windows and / or laminated windows, solid walls, sealing of air gaps around doors and windows as well as insulating building elements for doors, walls, roofs and ceilings etc.;	Satisfactory or conditionable
Noise transmission from common corridors or outside the building is to be minimised by providing seals at entry doors.	Satisfactory or conditionable
6.14 Storage	
One bed $3m^2$ / $3m^3$	Satisfactory
Two bed $4m^2$ / $8m^3$	
Three or more $5m^2$ / $10m^3$	

7 Planning controls for special areas

The site is located in the Enterprise Corridor zone identified in figure 7.1 and the controls of relevance are addressed below.

7.3 Non-residential development in the enterprise corridor zone

b) Preferred areas for residential and mixed development are in 400m radius of North Wollongong Railway Station, to the eastern side of the area, abutting the general residential zone, and near open space areas (refer figure 7A).

c) Preferred areas for commercial, retail and enterprise uses are fronting Flinders Street and on the southern part of the zone away from open space.

8 Works in the public domain

New footpath paving and street trees are to be provided along the frontage in accordance with Council's Public Domain Technical Manual.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

Accessible parking is provided in accordance with Council requirements.

Level access into and within the development is provided.

Accessible units are provided in accordance with Council requirements.

If the development were to be approved, it would be required to comply with the BCA and Access to Premises Standards.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The fire egress located on the south side of building is considered to be a concealment opportunity.

The lift closest to the street is shared between the commercial and residential components contrary to controls requiring they be separate.

Passive surveillance of the street and common areas is provided.

CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

Car parking

	GFA	Parking rate	Required	Provided
Commercial				
GFA	184m²	1/40m²	4.6 (5)	7
Bicycle		1/200m² GFA staff	189/200 = 1	2
		1/750m² visitor	189/750 = 1	
Motorbike		1/25 parking spaces	5/25 = 1	1
Residential				
GFA	**2,679m²**			
1 bed	**12**	0.6 / unit*	7.2	
2 bed	21	0.9 / unit*	18.9	
3 bed	3	1.4 / unit*	4.2	
				36
Resident visitor		0.2 per unit*	36 x 0.2 = 7.2	7
Total			42.1	50
Motorbike		1/15 dwellings	36/15 = 2.4(3)	3
Bicycle		1/3 dwellings (resi)	36/3 = 12	15
		1/12 dwellings (visitor)	36/12 = 3	

**RMS Guide to Traffic Generating Development*

Traffic generation

The RMS raised concern regarding the potential traffic impacts on Flinders Street. Those concerns are yet to have been adequately addressed as outlined at section 1.4.2 of this report.

Access

Suitable vehicle access is provided from Flinders Street.

Servicing

On-site servicing is provided for and turning templates have been submitted demonstrating forwards entry and egress can be achieved.

CHAPTER E6: LANDSCAPING

Suitable landscaped areas are provided in accordance with this chapter.

CHAPTER E7: WASTE MANAGEMENT

A Site Waste Minimisation and Management Plan has been provided.

Separate waste storage areas are provided for both the residential and commercial components.

On-site waste servicing is proposed and turning templates provided demonstrating on-site manoeuvring can be achieved.

CHAPTER E9 HOARDINGS AND CRANES

Matters relating to use of any hoardings or cranes could be addressed through conditions of consent if the application were to be approved.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposed excavation for basement car parking is considered acceptable with regard to this chapter.

CHAPTER E21 DEMOLITION AND ASBESTOS MANAGEMENT

Matters relating to demolition could be addressed through conditions of consent if the application were to be approved.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Matters relating to demolition could be addressed through conditions of consent if the application were to be approved.

Attachment 8 – Draft Reasons for Refusal

1. Pursuant to the provisions of Section 4.15 (1)(a)(i) of the Environmental Planning and Assessment Act 1979, the proposed development:

   i. exceeds the maximum height limit under Clause 4.3 of Wollongong Local Environmental Plan 2009.

   ii. does not have regard to the objectives of the B6 Enterprise Corridor Zone under Wollongong Local Environmental Plan 2009 in that the proposal is considered to significantly detract from the amenity of nearby residents.

   iii. does not have regard to Wollongong Local Environmental Plan 2009 with respect to clause 7.1 in that inadequate information has been provided in respect of the mechanism for locating the proposed pad mount substation on a separate lot.

   iv. does not exhibit design excellence as required under Wollongong Local Environmental Plan 2009 clause 7.18.

   v. does not have regard to State Environmental Planning Policy No 65 Design Quality of Residential Apartment Development with respect to minimum building separation controls, Design Quality Principles in Schedule 1, safety and security in that the lift closest to the street frontage is shared between residents and commercial tenants. Further, there is a long recessed fire egress along the southern boundary of the site which is considered to be a concealment opportunity.

2. Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development:

   i. does not have regard to the provisions of Wollongong Development Control Plan 2009, Chapter D13, Section 2.5 Side and Rear Building Setbacks and Building Separation.

   ii. does not demonstrate how the car park will be ventilated as required by Wollongong Development Control Plan 2009 Chapter D13, Section 6.6

3. Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979 it is considered that:

   i. insufficient documentation has been provided in order to demonstrate the proposal will not adversely impact on the functioning of Flinders Street in respect of traffic movements into and out of the site.

   ii. inadequate consideration has been given to how the rear deep soil zone is to be maintained given access is limited to one unit

   iii. the proposed development is excessive in bulk and scale and would adversely impact upon the amenity of adjoining development

4. Pursuant to the provisions of Section 4.15 (1)(c) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development site is not suitable for the proposed development due to the numerous non-compliances with the applicable planning controls.

5. Pursuant to the provisions of Section 4.15 (1)(e) of the Environmental Planning and Assessment Act 1979 it is considered that in the circumstances of the case, approval of the development would set an undesirable precedent for similar inappropriate development and is therefore not in the public interest.