Apartment Design Guide - Detailed Assessment

level, services locations and planting.

Standards/controls Comment Compliance Part 3 Siting the development 3A Site analysis Υ Site analysis uses the following key elements Site analysis undertaken by the applicant. to demonstrate that design decisions have Site plan, site photos, site survey, been based on opportunities and constraints elevations, sections and SEE supporting of the site conditions and their relationship to analysis provided. the surrounding context: Site location plan Aerial photograph Local context plan Site context and survey plan Streetscape elevations and sections Analysis A written statement explaining how the design of the proposed development has responded to the site analysis must accompany the development application. Υ **3B Orientation** Buildings must be oriented to maximise East West orientated block. norther orientation, response to desired Apartments designed to capture solar character, promote amenity for the occupant access (eastern elevation apartments am, and adjoining properties, retain trees and western elevation apartments pm). open spaces and respond to contextual Building faces, addresses and accessible constraints such as overshadowing and from the street on the two frontages noise. (Young and Belmore Street). Objective 3B-1: Shadow diagrams submitted with application. Existing commercial property Building types and layouts respond to the immediately adjoining to the south at 36streetscape and site while optimising solar access within the development 40 Young St would be impacted. This is an existing commercial building with Objective 3B-2 recent strata subdivision approval. Main Overshadowing of neighbouring properties is windows to the property would continue to obtain solar access between 9am to minimised during mid- winter 12pm. Southern 2 residential dwellings: 43 Belmore and 42 neighbouring properties would both continue to receive 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June. 3C Public domain interface Υ Key components to consider when designing Active street frontage on both Belmore the interface include entries, private terraces and Young Street to be provided. Public or balconies, fences and walls, changes in domain to be treated with footpath paving

and street tree planting in accordance

The design of these elements can influence the real or perceived safety and security of residents, opportunities for social interaction and the identity of the development when viewed from the public domain with Council's City Centre Public Domain Technical Manual. Conditions recommended to ensure public domain outcome achieved.

Objective 3C-1:

Transition between private and public domain is achieved without compromising safety and security

Objective 3C-2:

Amenity of the public domain is retained and enhanced

3D Communal and public open space

Objective 3D-1

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping

Design Criteria

- 1.Communal open space has a minimum area of 25% of the site area
- 2. 50% direct sunlight provided to principal usable part of communal open space for a minimum of 2 hours between 9am and 3pm on 21 June

DRP panel 17 February considered separate communal open space provided for Hotel and residents as acceptable.

32% provided by applicant.

50% direct sunlight for minimum of 2hrs to be met.

3E Deep soil zones

Objective 3E-1

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.

100% site coverage of building in City Centre location. No deep soil area provided. Landscape areas provided on Lower ground, level 1, level 5 (Hotel), level 6 (Hotel), level 16 (Residential).

Street trees are also required to each frontage. Council's landscape officer recommends four trees along Belmore Street frontage and three along Young Street.

N/A

Υ

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 amenity.

Design Criteria:

Y with variation

 Minimum required separation distances from buildings to the side and rear boundaries are as follows:

| Building height | Habitable rooms and balconies | Non- habitable rooms |
|-------------------------|-------------------------------------|----------------------------|
| up to 12m (4 storeys) | 6m | 3m |
| up to 25m (5-8 storeys) | 9m | 4.5m |
| over 25m (9+ storeys) | 12m | 6m |

- All residential above 25m
- L12-16 min 12.13m to wall off northern boundary. 12.14m to wall off southern boundary
- Variation sought to northern and southern boundary setback for L7-11 Unit 2 min 6.05m from northern boundary and Unit 5 min 6.015m from southern boundary, unit 1 and unit 6 both 11.6m from side boundary. Narrow vertical windows treated with obscured class in kitchen and dining area only on those northern and southern elevations. Balcony screens also proposed on northern and southern elevations for L7-11. The setback encroachment is limited to the Young Street orientation of the building. The building width is reduced on the Belmore Street (western elevation). Objectives of 3F are considered would continue to be achieved as adequate levels of internal and external privacy would be achieved via the applicant's proposed northern and southern elevation window treatments and balcony screens.

The DRP concluded at the February 2017 meeting that Tower, setbacks and building separation are well considered and positioned for existing and future context.

Υ

3G Pedestrian access and entries

Objective 3G-1

Building entries and pedestrian access connects to and addresses the public domain

Design Guidance

- Multiple entries should be provided to activate the street edge.
- Buildings entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries.

Objective 3G-2

Access, entries and pathways are accessible and easy to identify

Design Guidance

 Building access areas should be clearly visible from the public domain and communal spaces Multiple accessible entries provided to both street frontages.

 Steps and ramps should be integrated into the overall building and landscape design.

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

Design Guidance

- Car park entries should be located behind the building line
- Access point locations should avoid headlight glare to habitable rooms
- Garbage collection, loading and service areas should be screened
- Vehicle and pedestrian access should be clearly separated to improve safety.
- Where possible, vehicle access points should not dominate the streetscape and be limited to the minimum width possible.

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

Design Criteria

 On land zoned B3 or B4 and located within 400m of land zoned B3 and B4, the minimum car parking requirement for residents and visitors is set out in the Guide for Traffic Generating Development, or Council's car parking requirement, whichever is less.

The carparking needs for a development must be provided off street.

Objective 3J-2

Parking and facilities are provided for other modes of transport

Design Guidance

- Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters
- Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common

Single access off Belmore street. Initially the applicant proposed two access points. The single access point is supported as it would minimise pedestrian conflict, Belmore Street traffic disturbance and allow more active uses at street level.

Υ

Υ

The applicant has provided adequate parking to meet Council's requirements, which are in accordance with the Metropolitan Sub Regional car parking rates in the RTA Guide to Traffic Generating Development for the residential component of the development and the using the Chapter E3, DCP2009 specified rates for the commercial component of the development. Parking to be provided in 4 levels of basement parking, including:

Hotel and Business

- 113 car parking spaces (including 3 disabled car parking spaces)
- 6 motorbike parking spaces
- 3 bicycle spaces

Residential

areas.

- 39 residential car parking spaces (metropolitan sub-regional centre rate) including 5 spaces capable of adaption for people with disabilities
- 10 visitor car parking spaces
- 3 motorbike parking spaces
- 16 secure residential bicycle spaces
- 4 visitor bicycle spaces

Objective 3J-3

Car park design and access is safe and secure

Design Guidance

- Supporting facilities within car parks (garbage rooms, storage areas, car wash bays) can be accessed without crossing parking spaces
- A clearly defined and visible lobby or waiting area should be provided to lifts and stairs.
- Permeable roller doors allow for natural ventilation and improve the safety of car parking areas by enabling passive surveillance.

Objective 3J-4

Visual and environmental impact of underground car parking are minimised

Part 4 - Designing the building - Amenity

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

Design Criteria

- 1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of two (2) hours direct sunlight between 9am and 3pm in midwinter in Wollongong LGA.
- 2. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter

Council's traffic officer has considered the application and recommended a condition of consent to ensure safety measures are implemented in the basement car parking, including: the provision of suitable barriers, linemarking and painted signage delineating vehicular flow movements within the car parking areas.

In addition to maximise visibility a condition is recommended to ensure basement car park ceiling is painted white.

Parking in 4 levels of basement parking.

Y

89% 2 hour sunlight.

0% south facing.

 $3 \text{ bed} - 90\text{m}^2$

The minimum internal areas include only 1 bathroom. Additional bathrooms

increase the minimum internal areas by 5m² each.

Every habitable room must have a window in an external wall with a total minimum glass area of at least 10% of the floor area of the room

All habitable rooms proposed windows to BCA requirements.

Objective 4D-2

Environmental performance of the apartment is maximised

Design Criteria:

- 1. Habitable room depths are limited to a maximum of 2.5 x ceiling height
- 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.

Design Criteria:

- Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excl wardrobe space)
- 2. Bedrooms have minimum dimension of 3m (excl wardrobe)
- 3. Living rooms have minimum width of:
 - 3.6m for studio and 1 bed apartments and
 - 4m for 2+ beds.
- 4. The width of the crossover or cross through apartments are at least 4m internally to avoid deep narrow apartment layouts.

Design Guidance:

- Access to bedrooms, bathrooms and laundries is separated from living areas
- Minimum 1.5m length for bedroom wardrobes
- Main bedroom apartment: minimum 1.8m long x 0.6m deep x 2.1m high wardrobe
- Apartment layouts allow for flexibility over time, including furniture removal, spaces for a range of activities and privacy levels within the apartments.

4E Private open space and balconies

Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity

All rooms depths 6.8m comply.

28 (61%) units comply. 18 units have a minor non compliance with a 8.5m depths. DRP supportive of the final design. Main living areas orientated to the primary outlooks east (Young Street) and West (Belmore Street).

Minor variation

All bedroom minimum areas comply.

Υ

All apartment balconies size comply and are appropriately located accessible from living areas and design considered acceptable by DRP.

1. Minimum balcony depths are:

| Dwelling type | Minimum area | Minimum depth |
|-----------------------|------------------|------------------|
| Studio apartments | 4m² | - |
| 1 bedroom apartments | 8m² | 2m |
| 2 bedroom apartments | 10m ² | 2m |
| 3+ bedroom apartments | 12m ² | 2.4m |

The minimum balcony depth to be counted as contributing to the balcony area is 1m.

 Ground level apartment POS must have minimum rea of 15m² and min. depth of 3m

Objective 4E-2

Primary private open space and balconies are appropriately located to enhance liveability for residents

Objective 4E-3

Primary private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building

Objective 4E-4

Private open space and balcony design maximises safety

4F Common circulation and spaces

Objective 4F-1

Common circulation spaces achieve good amenity and properly service the number of apartments.

Design Criteria

- 1. The maximum number of apartments off a circulation core on a single level is eight
- 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.

Design Guidance

- Long corridors greater than 12m in length should be articulated through the use of windows or seating.
- Primary living rooms or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces should be controlled.

1b units - 15 to 17m2

2b units - 12, 17 and 19m²

3b units - 17m²

All meet minimum depth requirements.

Υ

6 apartments maximum off a circulation core (L7-L11).

2 residential lifts proposed for 46 units.

Corridors comply. Voids on eastern elevation provide window to corridors L8-L11.

No apartment window opens onto corridors.

Objective 4F-2

Common circulation spaces promote safety and provide for social interaction between residents

4G Storage

Objective 4G-1

Adequate, well designed storage is provided in each apartment

 In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided

| Dwelling type | Storage size volume |
|-----------------------|---------------------|
| Studio apartments | 4m³ |
| 1 bedroom apartments | 6m³ |
| 2 bedroom apartments | 8m³ |
| 3+ bedroom apartments | 10m³ |

At least 50% of the required storage is to be located within the apartment

Objective 4G-2

Additional storage is conveniently located, accessible and nominated for individual apartments

Design Guidance:

 Storage not located within apartments should be allocated to specific apartments.

4H Acoustic privacy

Objective 4H-1

Noise transfer is minimised through the siting of buildings and building layout

Objective 4H-2

Noise impacts are mitigated within apartments through layout and acoustic treatments

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 Adequate storage provided and at least 50% of area required to be provided within apartments.

Within apartments storage:

 $1br - 4m^2$

 $2br - 4.5m^2$

 $3br - 5m^2$

Large Lower Ground area dedicated for residential storage with storage baskets available to be dedicated to each apartment. Recommend condition to ensure apartment dedication occurs.

Compliant building separation (see also LEP2009 assessment at Section 3.1.6, Clause 8.6.

Enclosed Hotel Gym on L6 proposed above open Hotel communal open space area on Level 5. All major noise sources located in basement at least 3m away from bedrooms.

Acoustic report submitted with the application prepared by Acoustic Engineers has been considered by Council's environmental officer as

Υ

Υ

Υ

Design Guidance

 Minimise impacts through design solutions such as physical separation from the noise or pollution source,

Objective 4J-2

Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission

Design guidance:

 Design solutions include limiting openings to noise sources & providing seals to prevent noise transfer.

Part 4 – Designing the building - Configuration

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

Design guidance

- A variety of apartment types is provided
- The apartment mix is appropriate, taking into consideration the location of public transport, market demands, demand for affordable housing, different cultural/social groups
- Flexible apartment configurations are provided to support diverse household types and stages of life

Objective 4K-2

The apartment mix is distributed to suitable locations within the building

Design guidance

 Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available acceptable. A number of conditions are recommended to ensure potential noise and environmental impacts are avoided / managed. In summary conditions recommended:

- centralised mechanical exhaust ventilation must be provided to the building and all commercial kitchens as per AS4674-2004, AS1668.2-1991 and the grease filters to comply with AS1530.1.
- suitable acoustic enclosure for outdoor refrigeration system including air conditioners suitable to comply with the noise guidelines.
- ducting within the building must be mounted on vibration reducing pads to minimise vibration effect for residential and commercial spaces to comply with the vibration guidelines.
- Acoustic glazing in accordance with BCA acoustic requirements.

Variation and mix of apartments proposed 1, 2 and 3 bedroom. DRP supports proposed housing mix appropriate for City Centre locality.

6 x adaptable units proposed (13%).

3 bedroom units proposed on top two levels.

Υ

N/A **4L Ground floor apartments** N/A no ground level apartments. Υ **4M Facades** Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area Design guidance The proposal is considered to be of a To ensure that building elements are high quality with regard to its appearance. integrated into the overall building form A mixture of materials and finishes is and façade design provided and the bulk of the development is suitably articulated. The front building facades should include a composition of varied building The DRP suggested at their meeting of elements, textures, materials, detail and 17 February 2017 that the rear elevation colour and a defined base, middle and louvres be removed and this level made top of building. consistent with the levels above. Building services should be integrated Following the meeting the applicant within the overall facade amended the rear elevation to remove the louvres on Level 1 making the level Building facades should be well resolved consistent with the levels above. In with an appropriate scale and proportion addition infill to Level 2 void area adjacent to the streetscape and human scale. to hotel courtyard wall blades is applied for use as open decks. These To ensure that new developments have amendments are considered acceptable facades which define and enhance the and shown in the plan set at **Attachment** public domain and desired street 1. character. Objective 4M-2 Building functions are expressed by the facade Design guidance Building entries should be clearly defined 4N Roof design Υ Objective 4N-1 Roof treatments are integrated into the building design and positively respond to other street Design guidance Roof treatment integrated into the design. Roof design should use materials and a pitched form complementary to the building and adjacent buildings. Objective 4N-2 Opportunities to use roof space for

residential accommodation and open space

are maximised

Design guidance

- Habitable roof space should be provided with good levels of amenity.
- Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations

Objective 4N-3

Roof design incorporates sustainability features

Design guidance

 Roof design maximises solar access to apartments during winter and provides shade during summer

40 Landscape design

Objective 40-1

Landscape design is viable and sustainable

Design guidance

- Landscape design should be environmentally sustainable and can enhance environmental performance
- Ongoing maintenance plans should be prepared

Objective 40-2

Landscape design contributes to the streetscape and amenity

Design guidance

- Landscape design responds to the existing site conditions including:
 - · changes of levels
 - views
 - significant landscape features

4P Planting on Structures

Objective 4P-1

Appropriate soil profiles are provided

Design guidance

- Structures are reinforced for additional saturated soil weight
- Minimum soil standards for plant sizes should be provided in accordance with Table 5

Roof terrace provided on L16.

Roof design does not preclude apartment solar access.

Υ

The proposal provides suitable landscaped areas and separate communal open space for both the proposed hotel users and proposed residents that will improve the amenity of the occupants and soften the appearance of the development from adjoining properties and the public domain.

The DRP advised from their meeting of 17 February 2017 that landscaping is acceptable.

Council's landscape officer has considered the proposal as satisfactory subject to conditions of any consent, including the need for a final landscape plan prior to release of construction certificate and the developer provision of footpath paving and street trees in accordance with the Wollongong City Council Public Domain Technical Manual.

Υ

Council's landscape officer has considered the proposal as satisfactory subject to conditions of any consent, including a specific condition regarding podium planting.

Objective 4P-2

Plant growth is optimised with appropriate selection and maintenance

Design guidance

Plants are suited to site conditions

Objective 4P-3

Planting on structures contributes to the quality and amenity of communal and public open spaces

Design guidance

- Building design incorporates opportunities for planting on structures. Design solutions may include:
 - green walls with specialised lighting for indoor green walls
 - · wall design that incorporates planting
 - green roofs, particularly where roofs are visible from the public domain
 - planter boxes

4Q Universal design

Objective 4Q-1

Universal design features are included in apartment design to promote flexible housing for all community members

Design guidance

 A universally designed apartment provides design features such as wider circulation spaces, reinforced bathroom walls and easy to reach and operate fixtures

Objective 4Q-2

A variety of apartments with adaptable designs are provided

Design guidance

 Adaptable housing should be provided in accordance with the relevant council policy

Objective 4Q-3

Apartment layouts are flexible and accommodate a range of lifestyle needs

Design guidance

- Apartment design incorporates flexible design solutions

Circulation spaces in the common lobby areas are of sufficient width.

Υ

6 adaptable apartments proposed (13%).

Υ

Configuration

Objective 4U-1

4U Energy efficiency

Development incorporates passive

sunlight.

environmental design

Design guidance

 Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)

Objective 4U-2

Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer

Design Guidance

 Provision of consolidated heating and cooling infrastructure should be located in a centralised location

Objective 4U-3

Adequate natural ventilation minimises the need for mechanical ventilation

Adequate natural ventilation achieved see 4B above.

Building complies see 4A above, 89%

apartments receive minimum 2 hour

4V Water management and conservation

Objective 4V-1

Potable water use is minimised

Objective 4V-2

Urban stormwater is treated on site before being discharged to receiving waters

Design guidance

 Water sensitive urban design systems are designed by a suitably qualified professional Rainwater tank proposed in accordance with BASIX requirements. Council's stormwater engineer has considered the application and provided a satisfactory referral subject to conditions including the need for on site detention facility and ongoing maintenance.

Council's environmental officer has also recommended a condition requiring that stormwater leaving the site shall comply with water quality objectives of WDCP 2009 Chapter E-15 for Gross Pollutants, Total Suspended Solids, Total Nitrogen and Total Phosphorus.

4W Waste management

Objective 4W-1

Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents

Design guidance

 Common waste and recycling areas should be screened from view and well ventilated

Objective 4W-2

Domestic waste is minimised by providing safe and convenient source separation and

Basement waste storage in separate commercial, Residential bin rooms proposed, including dedicated waste vehicle loading area (Basement 1).

Υ

Υ

| Standards/controls | Comment | Compliance |
|--|--|------------|
| recycling | | |
| | | |
| 4X Building maintenance | | Y |
| Objective 4X-1 | | |
| Building design detail provides protection from weathering | The applicant proposes to use durable and cleanable materials. | |
| Design guidance | | |
| Design solutions such as roof overhangs to protect walls and hoods over windows and doors to protect openings can be used. | | |
| Objective 4X-2 | | |
| Systems and access enable ease of maintenance | | |
| Design guidance | | |
| Window design enables cleaning from the inside of the Building | | |
| Objective 4X-3 | | |
| Material selection reduces ongoing maintenance costs easily cleaned surfaces that are graffiti resistant | | |

Wollongong Development Control Plan, 2009 - Detailed Assessment

CHAPTER A1 – INTRODUCTION

8 Variations to development controls in the DCP

Variations to be justified in accordance with this clause if applicable.

DCP controls relevant to the proposal are addressed in this **Attachment 3**. The applicant is seeking a variation to ADG Design Criteria 3F visual privacy which is also addressed in detail above.

CHAPTER B1 - RESIDENTIAL DEVELOPMENT

The following sections of this chapter are omitted from consideration in this **Attachment 3** as they are addressed in controls contained in Chapter D13 Wollongong City Centre which override or duplicate those in Chapter B1:

- Clause 4 General Residential
- Clause 5 Attached Dwellings and Multi Dwelling Housing
- Clause 6 Residential Flat Buildings

CHAPTER B4 – DEVELOPMENT IN BUSINESS ZONES

Chapter B4 is not considered in detail as the proposal is located within the Wollongong City Centre and mixed use controls are provided for in Chapter D13 – Wollongong City Centre which is considered in detail below.

CHAPTER D13 – WOLLONGONG CITY CENTRE

The site is located within the Wollongong City Centre, as defined in WLEP 2009 and WDCP 2009. Chapter D13 applies to the development and prevails over other parts of the DCP where there is any inconsistency. The application generally complies with the controls contained within this chapter.

A detailed assessment table of Chapter D13 is provided in the table below. It is also noted that where there is an inconsistency between the DCP and ADG the ADG prevails.

PRECINCT PLAN - WOLLONGONG CITY CENTRE

The proposal is considered to be consistent with the objectives of the Commercial Core within the City Centre precinct.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

The applicant submitted a Statement of Compliance Access for People with a Disability with the DA, prepared by Accessible Building Solutions. The proposal has been considered against the requirements of this chapter and found to be acceptable. If approved it is recommended the application also be conditioned to comply with the BCA and relevant Australian Standards in regards to access.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Layout of proposed hotel accommodation and residential units and communal open space provides casual and passive surveillance opportunities surrounding the development. The proposal is considered acceptable in terms of crime prevention. Council's Safety Community Team officer has also made recommendations including the need for CCTV installation. A condition has been included requiring security measures to be implemented.

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

Council's traffic engineer has considered the proposal and the applicant's final submitted Traffic Management Report. The traffic report was revised during the assessment of the application to address ongoing revision to the proposal and to address comments made by Council during the assessment. The final Traffic Management Report was prepared by Structural Design Solutions, dated 2 February 2017. A number of key issues were raised and resolved during the assessment. These include:

- The need for the applicant to address required parking rates including the Metropolitan Sub Regional car parking rates in the RTA Guide to Traffic Generating Development for the residential component of the development and using the Chapter E3, DCP2009 specified rates for the commercial component of the development. The above calculations were based on these requirements.
- Removing the initially proposed two driveway access points and providing one which allowed more frontage space for active commercial uses and also reduced potential street and pedestrian disruption on Belmore Street.
- The applicant initially proposed two levels of carparking above ground which was subsequently removed to provide all parking in basement.

Following consideration of the applicant's final traffic report Council's traffic engineer provided a satisfactory referral subject to conditions that would require that:

The development shall make provision for the following.

Hotel and Business

- 113 car parking spaces (including 3 disabled car parking spaces)
- 6 motorbike parking spaces
- 3 bicycle spaces

Residential

- 39 residential car parking spaces (metropolitan sub-regional centre rate) including 5 spaces capable of adaption for people with disabilities
- 10 visitor car parking spaces
- 3 motorbike parking spaces
- 16 secure residential bicycle spaces
- 4 visitor bicycle spaces

CHAPTER E6: LANDSCAPING

The proposal provides suitable landscaped areas and separate communal open space for both the proposed hotel users and proposed residents that will improve the amenity of the occupants and soften the appearance of the development from adjoining properties and the public domain. The DRP advised from their meeting of 17 February 2017 that landscaping is acceptable.

Council's landscape officer has considered the proposal as satisfactory subject to conditions of any consent, including the need for a final landscape plan prior to release of the construction certificate and the developer provision of footpath paving and four street trees in accordance with the Wollongong City Council Public Domain Technical Manual.

The recommended conditions are included in the draft conditions at Attachment 5.

CHAPTER E7: WASTE MANAGEMENT

An acceptable Site Waste Minimisation and Management Plan has been provided.

CHAPTER E9 HOARDINGS AND CRANES

Council's standard conditions of consent include the need for any proposed construction in or over any Council road reserve (including footpath) or other public land requires a formal Activity approval from Council pursuant to the requirements of Section 68 of the Local Government Act 1993 this includes the need for hoardings or cranes.

CHAPTER E12 GEOTECHNICAL ASSESSMENT

The application has been reviewed by Council's Geotechnical Engineer in relation to site stability and the suitability of the site for the development. Appropriate conditions have been recommended and are included in the draft conditions at **Attachment 5**.

CHAPTER E14 STORMWATER MANAGEMENT

Council's Stormwater Officer has reviewed the proposal and recommended conditions of consent regarding stormwater management, which are included in draft conditions at **Attachment 5**.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

Arborist report submitted regarding proposed removal of 5 trees on site. The application has been considered by Council's Landscape officer. A satisfactory referral has been provided subject to conditions.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal comprises excavation to allow for the 4 levels of basement car parking. Council's Geotechnical Engineer has considered the application and geotechnical report prepared by JK Geotechnics, dated 27 January 2016. A satisfactory referral has been provided subject to conditions which includes the requirement for a detailed geotechnical investigation is required for the design of site earthworks including preparation of an earthworks plan and that no disturbance of ground is to occur beyond site boundaries and that retaining wall design is not to include anchors extending on to adjoining property without the written consent of the adjoining property owner. Detailed conditions are provided at **Attachment 5.**

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

Council records do not identify the site as contaminated. However, the applicant also submitted a Preliminary Site Investigation, prepared by Fyfe Pty Ltd, dated 13 April 2016. Council's Environment Officer reviewed the preliminary site investigation and provided a satisfactory referral subject to conditions including the need for an unexpected finds protocol be included as part of the site management plan during earthworks, particularly during excavation and re-use of the material, detailing the process by which any unexpected finds of potential environmental concern will be managed. A copy of the protocol must be submitted to PCA. Contamination and ongoing site management via conditions of consent have been adequately considered.

CHAPTER E21 DEMOLITION AND ASBESTOS MANAGEMENT

The applicant proposes demolition of all existing structures on site. A Demolition and Site Management Plan was submitted with the application. Conditions of consent are recommended in

regard to demolition and appropriate management of potential asbestos materials. Appropriate conditions have been recommended and are included in the draft conditions at **Attachment 5**.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions of consent are recommended in regard to and sediment and erosion control measures to be in place during works. The recommended conditions are included in the draft conditions at **Attachment 5**.

CHAPTER D13 – WOLLONGONG CITY CENTRE

2 Building form

| Objectives/controls | Comment | Compliance |
|--|---|------------|
| 2.2 Building to street alignment and street setbacks | | Υ |
| Street building alignment and setbacks are specified in Figure 2.1 and Figure 2.2 of the DCP chapter. Commercial core required to build to the street alignment or specified setback with 4m minimum further setback above street frontage height. | Figure 2.2 of the DCP chapter shows Belmore and Young street as 0m setback build to street alignment. Applicant proposes building to street alignment on both street frontages. | |
| | Above street frontage height 4m setback to façade proposed at all levels. | |
| 2.3 Street frontage heights in commercial core | | Υ |
| The street frontage height of buildings in the Commercial Core are not to be less than 12m or greater than 24m above mean ground level. | Street frontage height proposed is above 12m and below the maximum 24m permitted. | |

2.4 Building depth and bulk

The maximum floorplate sizes and depth of buildings are specified in Figures 2.6 and 2.7, and in the following table (which does not apply to building frontages up to the street front height in the

commercial core):

| Building use | Maximum floor | Maximum |
|---|---------------------|----------------------|
| | plate size | building depth |
| | (gross floor area) | (excludes balconies) |
| Non-residential | 1,200m ² | |
| Commercial Core | above 24m height | 25m |
| Residential and serviced apartments in Commercial Core | 900m² | |
| in commercial core | above 24m height | 18m |
| Residential and serviced apartments outside the Commercial Core | 900m² | |
| outside the Commercial Core | above 12m height | 18m |

2.5 Side and rear building setbacks and building separation

2.6 Mixed used buildings

Non residential above 24m -1200m² and 25m depth. Residential 900m2 and 18m depth

- Non residential (Hotel levels are all below street front height). GFA each level well below 1,200 (maximum 926m² L2).
- Residential levels L7-11 above street front height all 24m depth. Variation sought by applicant based on compliance with ADG and achievement of ADG ventilation requirements. DRP has supported the design.
- Residential L12-16 above street front height and all levels all 24m depth. Variation sought by applicant based on compliance with ADG and achievement of ADG ventilation requirements. DRP has supported the design.
- DRP has noted that the tower. setbacks and building separation are well considered and positioned for existing and future context. The articulation of the tower into clearly defined hotel and residential components is now very well resolved.

(see 3F Visual Privacy ADG)

Commercial (upper ground and lower ground, hotel L1-L6, residential L7 to L16.

- Separate services provided, shown and labelled on the plans
- All entries clear and separate, including vertical circulation
- Food and drink x 3 on Belmore Street and food and drink (1) and restaurant (1) on Young Street as well as Hotel lobby
- Kitchen ventilation shown on plans (Upper Ground)
- Also refer to ADG mixed use criteria 4S above.

Υ

Υ

Appropriate surveillance provided, no perceived blind corners, building access via both road frontages,

| | Comment | Compliance |
|----------------------------------|---|------------|
| 4 Access, parking and servicing | | |
| | corridors are well considered. | |
| | The DRP in its February 2017 meeting acknowledges that view | |
| | as a vista node along Market Street. | |
| | design is reported by the applicant's SEE to acknowledge its site location | |
| | Coast to escarpment views have been considered. The architects | |
| | location of the proposal is not specifically referenced in the DCP. | |
| | Escarpment view corridor diagram submitted with proposal. The | |
| 3.10 Views and view corridors | Economont view corridor diogram | Υ |
| 0.40\% | | |
| | supported the external appearance. | |
| | Schedule of external finishes submitted by the applicant. DRP has | |
| 3.8 Building exteriors | | Y |
| | Australian Standard AS2890.1 | |
| | the car parking areas are to be in conformity with the current relevant | |
| | kerb splay corners, head clearance heights, ramp widths and grades of | |
| | including: the parking dimensions, internal circulation, aisle widths, | |
| | officer subject to conditions | |
| | Single access proposed off Belmore Street supported by Council's traffic | |
| 3.6 Vehicular footpath crossings | | Υ |
| | setback 1.2m from the kerb and 2.4m in depth. | |
| | match. Both meet minimum 3.3m height requirement for soffit. Both | |
| | No current adjoining awnings to | |
| | Street the applicant proposes awnings on both street frontages. | |
| | Although not specifically required by the DCP for Belmore and Young | |
| 3.5 Awnings | | Υ |
| | Hotel = 4880. Safety by design assessment not required. | |
| | Total commercial GFA including | |
| | appropriate lighting to be provided. | |

| Objectives/controls | Comment | Compliance |
|---|--|------------|
| 4.2 Pedestrian access and mobility and 4.3 Vehicular driveways and manoeuvring areas | | Υ |
| | Single access off Belmore street. Initially the applicant proposed two access points. The single access point is supported as it would | |

| | minimise pedestrian conflict, Belmore Street traffic disturbance and allow more active uses at street level. The proposal is consistent with pedestrian access and mobility requirements, subject to conditions. | |
|---|--|---|
| 4.4 On-site parking | | Υ |
| | Proposal meets minimum parking requirements refer to Chapter E3 of the DCP in Section 3.3.1 of this report. | |
| 4.5 Site facilities and services | | Υ |
| The building is serviced by the major utilities and the proposal is not expected to result in any need to augment these services. | It is recommended a condition be imposed upon development consent requiring approval from the relevant authorities for the connection of electricity, water and sewage to service the site | |

5 Environmental management

| Objectives/controls | Comment | Compliance |
|--|---|------------|
| 5.1 General | | Υ |
| | BASIX certification provided | |
| 5.2 Energy efficiency and conservation | | Y |
| | BASIX certification provided | |
| 5.3 Water conservation | | Υ |
| | BASIX certification provided | |
| 5.4 Reflectivity | | |
| | Non reflective material proposed | |
| 5.5 Wind mitigation | | Υ |
| | A Pedestrian Wind Environment Study, prepared by Windtech was submitted by the applicant as the building exceeds 32m in height. The report was also informed by wind tunnel model testing. The report recommends treatments for certain locations to achieve desired wind speed criteria. A condition is recommended to ensure the recommendations of the wind study are implemented. | |
| 5.6 Waste and recycling | | Υ |
| | Waste Minimisation and Management Plan provided and adequate. Sufficient separate waste rooms provided in basement for both commercial and residential components of the development | |

6 Residential development standards

| Objectives/controls | Comment | Compliance |
|----------------------------|---|------------|
| 6.1 SEPP 65 | | Υ |
| | Refer to ADG assessment above. | |
| 6.2 Housing choice and mix | | Υ |
| | Variation and mix of apartments proposed: | |
| | 1br – 20 units (43.5%), 2br – 20 units (43.5%) and 3br units – 6 (13%). DRP supports proposed housing mix appropriate for City Centre locality. | |
| | 6 x adaptable units proposed (13%). | |
| | 3 bedroom units proposed on top two levels. | |
| 6.6 Basement Carparks | | Υ |
| | 4 levels of below grade basement parking provided. No impact of basement on landscaping and deep soil as development located in Commercial Core where 100% site coverage permitted. Ventilation structure located on podium. Site not located in a floor risk precinct. | |
| 6.7 Communal open space | | Y |
| | See objective 3D of the ADG assessment above. | |
| 6.8 Private open space | | Y |
| | See 4E of the ADG assessment above. | |
| 6.9 Overshadowing | | Υ |
| | Shadow diagrams submitted with application. Existing commercial property immediately adjoining to the south at 36-40 Young St would be impacted. However, the eastern façade of this building would continue to achieve solar access between 9am and 12pm. This is an existing commercial building with recent strata subdivision approval. Southern 2 residential dwellings: 43 Belmore and 42 neighbouring properties would both continue to receive 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June. | |

| Objectives/controls | Comment | Compliance |
|--------------------------|--|------------|
| 6.10 Solar access | | Υ |
| | See 4A of the ADG assessment above. | |
| 6.11 Natural ventilation | | Υ |
| | See 4B of the ADG assessment above. | |
| 6.12 Visual privacy | | |
| | See 3F of the ADG assessment above. | |
| 6.13 Acoustic Privacy | | Υ |
| | Acoustic report submitted with the application prepared by Acoustic Engineers has been considered by Council's environmental officer as acceptable. A number of conditions are recommended to ensure potential noise and environmental impacts are avoided / managed. In summary conditions recommended: | |
| | centralised mechanical exhaust ventilation must be provided to the building and all commercial kitchens as per AS4674-2004, AS1668.2-1991 and the grease filters to comply with AS1530.1. suitable acoustic enclosure for outdoor refrigeration system including air conditioners suitable to comply with the noise guidelines. ducting within the building must be mounted on vibration reducing pads to minimise vibration effect for residential and commercial spaces to comply with the vibration guidelines. Acoustic glazing in accordance with BCA acoustic requirements. | |
| 6.14 Storage | BOA acoustic requirements. | Υ |
| | See 4G of the ADG assessment above. | |

8 Works in the public domain

Paving to footpaths on both frontages and street trees required in accordance with Council's City Centre Public Domain Technical Manual. Condition recommended.

Wollongong Local Environmental Plan, 2009 Clause 4.4A Floor Space Ratio Wollongong City Centre

- (3) For land within Zone B3 Commercial Core with a site area equal to or greater than 800 square metres and less than 2,000 square metres and a street frontage equal to or greater than 20 metres, the maximum floor space ratio for any building on that site is:
- (a) (2+1.5X):1 —if the building is used only for residential purposes, or
- (b) (3.5 + 2.5X):1 —if the building is used only for purposes other than residential purposes,

where:

X is (the site in square metres - 800) / 1200

X = 1825-800/1200 = 0.8542

RFSR = (2 + 1.5 (0.8542):1. Which is **3.29:1**

NRFSR = (3.5 + 2.5(0.8542):1. Which is **5.64:1**

(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:

(NRFSR × NR /100) + (RFSR × R /100):1

where:

NR is the percentage of the floor space of the building used for purposes other than residential purposes. **(57%).** Applicant proposed Non Residential GFA = $4880m^2$

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. **(5.64:1)**

R is the percentage of the floor space of the building used for residential purposes **(43%) RFSR** is the maximum floor space ratio determined in accordance with this clause if the building was to be used only for residential purposes. **(3.29:1)**. Applicant proposed Residential GFA : 3607m²

Note. The following gives an example of how a maximum floor space ratio is to be calculated for a building on land, having a site area equal to or greater than 2,000 square metres and a street frontage equal to or greater than 20 metres, that is within Zone B3 Commercial Core, 30 per cent of which is to be used for purposes other than residential purposes and 70 per cent of which is to be used for residential purposes:

(NRFSR× NR/100)+(RFSR×R/100):1

 $((6 \times 30/100) + (3.5 \times 70/100)):1$

(1.8+2.45):1

4.25:1 is the maximum floor space ratio.

(5.64x 57/100) + (3.29 x 43/100):1

 $(5.64 \times 0.57) + (3.29 \times 0.43) : 1$

3.2148 + 1.4147: 1

Permitted FSR = 4.65:1

Applicant proposed FSR

GFA proposed 8487 / Site area 1825 = 4.65:1