ATTACHMENT 5 - WOLLONGONG DEVELOPMENT CONTROL PLAN 2009 ASSESSMENT 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 sustainability principles outlined in this chapter 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.
- The proposal is an efficient use of land in a location that is close to services and public open space.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

No particular controls that are not otherwise addressed elsewhere in the DCP.

CHAPTER B3: MIXED USE DEVELOPMENT

No particular controls that are not otherwise addressed elsewhere in the DCP.

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.

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
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

Control	Comment
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.	Satisfactory
The street corners of any new corner building should be strengthened by massing and building articulation to both street frontages.	Satisfactory.
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.	Glazed areas include louvre screening.
The reflectivity of glazing shall be restricted to less than 20%.	A draft condition is recommended requiring A Reflectivity Report to be submitted demonstrating the visible light reflectivity from the facades will not exceed 20%.
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
Highly reflective finishes are not permitted above ground floor level.	See 9.2.2.
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	Provided

Control	Comment
business premises.	
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	Satisfactory
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	

Control	Comment
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. 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.	The overall building height is over 50m and a Pedestrian Wind Environment Statement was submitted with the application. That report noted that "only the potentially critical wind effects are discussed in this report" and further that "a wind tunnel study must be undertaken to verify the outcomes of this desktop assessment". A condition of consent is recommended requiring the following: *A Wind Effects Report is to be submitted to Council prior to the issue of the Construction Certificate. The report shall include results of a wind tunnel test validating the preliminary findings of the Pedestrian Wind Environment Statement (WC070-04F02(REV0) dated 4 July 2018 prepared by Windtech) and demonstrate compliance with the following wind criteria:* *i) 10 metres/second in retail streets,* *ii) 13 metres/second along major pedestrian streets, parks and public places, and* *iii) 16 metres/second in all other streets.*
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.	A condition is included in the draft consent requiring consolidation of the lots.
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 Build to the street alignment with further setback above street frontage height .	Complies

Objectives/controls	*Comment*
2.3 Street frontage heights in commercial core	
street frontage height of buildings in the Commercial Core are not to be less than 12m or greater than 24m	Complies
2.4 Building depth and bulk	
18m max building depth	Complies
2.5 Side and rear building setbacks and building separation	
Up to street frontage heights – 0	Complies
Residential uses (habitable rooms) between street frontage height and 45m 12m side / 12m rear	Complies
All uses (including non-habitable residential) between street frontage height and 45m 6m side / 6m rear	Complies
All uses above 45m 14m side / 14m rear	Complies
2.6 Mixed used buildings	
Provide flexible building layouts which allow variable tenancies or uses on the first two floors of a building above the ground floor	The floor to ceiling height of first floor is approximately 4.6m.
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	Complies
Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.	Y
Locate clearly demarcated residential entries directly from the public street.	Y
Clearly separate and distinguish commercial and residential entries and vertical circulation.	Y
Provide security access controls to all entrances into private areas, including car parks and internal courtyards.	Y
Provide safe pedestrian routes through the site, where required.	N/A
Front buildings onto major streets with active uses.	Y
Avoid the use of blank building walls at the ground level.	Y
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	
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	Landscaping is provided on structure.

Objectives/controls	*Comment*
the provisions of Section 2.8 and 2.9.	
2.8 Landscape design	
See controls elsewhere.	
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.	landscaped areas are provided on the podium and the roof. Council's Landscape officer has reviewed the proposal in this regard and has recommended conditions of consent.
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	
N/A	

3 Pedestrian amenity

Objectives/controls	*Comment*
3.2 Permeability	
Waters Lane is identified as a lane to which this section applies. The applicable controls are as follows:	
i) Have active frontages,	The Laneway itself is largely inactive. This is a function of the parking being provided above ground and access being from the high point of the site. Whilst it would be preferable for the entire lane frontage to be activated, locating the vehicular entry to the rear means it does not need to be located along either of the primary frontages. On balance, this is considered to be a reasonable outcome.
ii) be clear and direct throughways for pedestrians,	The laneway remains a clear and direct throughway with a pedestrian footpath.
iii) provide public access at all times or as otherwise stipulated by Council's conditions of approval,	N/A
iv) have a minimum width of 6m clear of all obstructions, and	N/A
v) have signage indicating public accessibility and the street to which the lane connects.	Satisfactory

Objectives/controls	*Comment*
3.3 Active street frontages	
a) To promote pedestrian activity and safety in the public domain. b) To maximise active street fronts in Wollongong city centre. c) To define areas where active streets are required or are desirable.	The primary frontages to Railway Parade and Rawson Street are provided with commercial tenancies with entries and glazed facades in accordance with this control.
3.4 Safety and security	
a) Ensure that the building design allows for casual surveillance of accessways, entries and driveways.	Satisfactory
b) Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks.	Satisfactory
c) Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.	Satisfactory
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
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	
a) Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6. b) Awning design must match building facades and be complementary to those of adjoining buildings. c) Wrap awnings around corners for a minimum six metres from where a building is sited on a street corner. d) Awnings dimensions should generally be: i) Minimum soffit height of 3.3 metres, ii) Low profile, with slim vertical facias or eaves (generally not to exceed 300mm height), iii) Setback a minimum of 1.2 metres from the kerb, and	Suitable awnings are provided to the primary frontages.

Objectives/controls	*Comment*
iv) Generally minimum 2.4 metres deep.	
e) To control sun access/protection, canvas blinds along the street edge may be permitted, subject to design merit and assessment.	
f) Signage on blinds is not permitted.	
g) Provide under awning lighting to facilitate night use and to improve public safety.	
3.6 Vehicular footpath crossings	
Where practicable, vehicle access is to be from lanes and minor streets rather than primary street fronts or streets with major pedestrian and cyclist activity.	The access is provided from the rear of the site.
Design of Vehicle Access	
double lane crossing with a maximum width of 5.4 metres may be permitted for safety reasons	Double lane required
Doors to vehicle access points are to be roller shutters or tilting doors fitted behind the building façade.	Satisfactory
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	
Adjoining buildings (particularly heritage buildings) are to be considered in the design	Satisfactory
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
Articulate facades so that they address the street and add visual interest.	Satisfactory
External walls should be constructed of high quality and durable materials and finishes with 'selfcleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass.	
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
avoid expanses of any single material	The façade treatments are varied.
Limit opaque or blank walls for ground floor uses to 30% of the street frontage.	Complies
maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass.	Satisfactory
Highly reflective finishes and curtain wall glazing are not permitted above ground floor level	Glazed areas are broken up with balconies and vertical louvres.
materials sample board and schedule is required	Y

Objectives/controls	*Comment*
roof plant rooms and lift overruns to be integrated into the overall architecture	Y
3.9 Advertising and signage	
N/A	
3.10 Views and view corridors	
The site is not located along a key view corridor	

4 Access, parking and servicing

Objectives/controls	*Comment*
4.2 Pedestrian access and mobility	
Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate	Y
The design of facilities (including car parking requirements) for disabled persons must comply with the relevant Australian Standard	The development is required to comply.
one main pedestrian entrance with convenient barrier free access provided in all developments to at least the ground floor.	Y
continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.	Y
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
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.	Y
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.	
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	Y

Objectives/controls	*Comment*
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.	Satisfactory
e) Driveway widths must comply with the relevant Australian Standards.	Complies
f) Car space dimensions must comply with the relevant Australian Standards.	Complies
g) Driveway grades, vehicular ramp width/grades and passing bays must be in accordance with the relevant Australian Standard, (AS 2990.1).	Complies
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.	N/A
i) Access ways to underground parking should not be located adjacent to doors or windows of the habitable rooms of any residential development.	Complies
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.	N/A
4.4 On-site parking	
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.	N/A
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.	Complies
e) On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP.	Satisfactory
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.	Provided.
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.	Satisfactory

Objectives/controls	*Comment*
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.	Satisfactory

5 Environmental management

Objectives/controls	*Comment*
<u>5.2 Energy efficiency and conservation</u>	
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
<u>5.3 Water conservation</u>	
Residential component to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX).	Satisfactory
The following water saving measures are to be incorporated into non-residential components. · Appliances (dishwashers, clothes washers etc) are to be 3.5 stars or better · Stormwater runoff control, capture and reuse · water efficient plants and/or, indigenous vegetation are used in landscaped areas · Use non-potable water for watering gardens and landscape features,	Satisfactory
<u>5.4 Reflectivity</u>	
a) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.	
b) Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%.	
c) Subject to the extent and nature of glazing and reflective materials used, a Reflectivity Report that analyses potential solar glare from the proposed development on pedestrians or motorists may be required.	

Objectives/controls	*Comment*
5.5 Wind mitigation	
A Wind Effects Report is to be submitted with the DA for all buildings greater than 32m in height, For buildings over 50m in height, results of a wind tunnel test are to be included in the report.	The overall building height is over 50m and a Pedestrian Wind Environment Statement was submitted with the application. That report however noted that "only the potentially critical wind effects are discussed in this report" and further that "a wind tunnel study must be undertaken to verify the outcomes of this desktop assessment". Consequently, a condition of consent is recommended requiring the following: *A Wind Effects Report is to be submitted to Council prior to the issue of the Construction Certificate. The report shall include results of a wind tunnel test validating the preliminary findings of the Pedestrian Wind Environment Statement (WC070-04F02(REV0) dated 4 July 2018 prepared by Windtech) and demonstrate compliance with the following wind criteria:* *i) 10 metres/second in retail streets,* *ii) 13 metres/second along major pedestrian streets, parks and public places, and* *iii) 16 metres/second in all other streets.*
5.6 Waste and recycling	
a) Development applications for all non-residential development must be accompanied by a waste management plan that addresses: i) Best practice recycling and reuse of construction and demolition materials, ii) Use of sustainable building materials that can be reused or recycled at the end of their life, iii) Handling methods and location of waste storage areas in accordance with the provisions of Section 4.4.3 of this DCP, such that handling and storage has no negative impact on the streetscape, building presentation or amenity of occupants and pedestrians, and iv) Procedures for the on-going sustainable management of green and putrescible waste, garbage, glass, containers and paper, including estimated volumes, required bin capacity and on-site storage requirements. The waste management plan is to be prepared by a specialist waste consultant and is subject to approval by Council.	Provided.

Objectives/controls	*Comment*
Provision must be made for the following waste generation: a) In developments not exceeding six dwellings, individual waste storage facilities may be permitted. b) In development of more than six units or dwellings, or where the topography or distance to the street collection point makes access difficult for individual occupants, a collection and storage area is required. The storage area must be located in a position which is; i) Not visible from the street, ii) Easily accessible to dwelling occupants, iii) Accessible by collection vehicles (or adequately managed by the body corporate to permit relocation of bins to the approved collection point), iv) Has water and drainage facilities for cleaning and maintenance, and v) Does not immediately adjoin private open space, windows or clothes drying areas. c) Subject to Council collection policy, common garbage storage areas must be sized to either accommodate the number of individual bins required or to accommodate sufficient larger bins with the following minimum dimensions: 660 litres 1070 x 910 x 635mm 240 litres 1180 x 740 x 570mm The size and number of the waste bins shall be determined having regard to the need for either on-site access by collection vehicles or the requirement for bins to be wheeled to the street for collection by a contractor. If transferred to the street for collection, the body corporate or a caretaker must be responsible for the movement of bins to their collection point. Residential Flats Waste 80 litres per week/flat Recycling 80 litres per week/flat Green waste A communal waste bin of sufficient capacity to accept waste from any landscaped areas	Provided.

6 Residential development standards

Objectives/controls	*Comment*
6.1 SEPP 65 See above	

Objectives/controls	*Comment*
6.2 Housing choice and mix	
f) The development application must be accompanied by certification from an accredited Access Consultant confirming that the adaptable dwellings are capable of being modified, when required by the occupant, to comply with the Australian Adaptable Housing Standard (AS 4299-1995).	Provided
6.3 Dwelling houses	
N/A	
6.4 Multi dwelling housing	
N/A	
6.5 Dual occupancy	
N/A	
6.6 Basement Carparks	
a) Integrate the siting, scale and design of basement parking into the site and building design.	Satisfactory
6.7 Communal open space	
· Communal open space to be provided at a rate of 5m² per dwelling	Provided
· easily accessible, within a reasonable distance from apartments, integrated with site landscaping, allow for casual social interaction, be capable of accommodating recreational activities.	Satisfactory
· The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
6.8 Private open space	
minimum area of 12m² open space a minimum depth of 2.4 metres.	Overridden by SEPP requirements – see discussion above.
The 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.	Overridden by SEPP requirements – see discussion above.
Balconies must be designed and positioned to ensure sufficient light can penetrate into the building at lower levels.	Satisfactory.
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.	Satisfactory
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.	Complies
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	Complies

Objectives/controls	*Comment*
is available, the living spaces and balconies of such apartments must typically be orientated towards the north.	
The development must maximise the number of apartments with a dual orientation. Single aspect, single storey apartments should preferably have a northerly or easterly aspect and a reduced depth to allow for access of natural light to all habitable spaces.	Complies
Shading devices should be utilised where necessary, particularly where windows of habitable rooms are located on the western elevation.	??? – louvres – double glazing??
The living rooms and private open space of at least 70% of apartments should receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm.	Complies
The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10% of the total number of apartments proposed.	Complies
Provide vertical shading to eastern and western windows.	Provided.
<u>6.11 Natural ventilation</u>	
Maximum building depth 10-18m	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.	Complies
<u>6.12 Visual privacy</u>	
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.	Complies
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.	Complies
Buildings are to be designed to increase privacy without compromising access to sunlight and natural ventilation through the following measures:	Complies
(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	

Objectives/controls	*Comment*
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.	
6.13 Acoustic Privacy	
Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments by: (a) Locating busy, noisy areas next to each other and quieter areas, next to other quieter areas (eg living rooms with living rooms and bedrooms with bedrooms); (b) Using storage or circulation zones within an apartment to buffer noise from adjacent apartments, mechanical services or corridors and lobby areas; and (c) Minimising the amount of party (shared) walls with other apartments.	Complies
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.; to provide satisfactory acoustic privacy and amenity levels for occupants within the residential and / or serviced apartment(s).	Complies
6.14 Storage	
Storage to be provided at the following rates: One bed $3m^2$ / $3m^3$ Two bed $4m^2$ / $8m^3$ Three or more bed $5m^2$ / $10m^3$	Complies

7 Planning controls for special areas

The site is not within a special area.

8 Works in the public domain

The proposal involves upgrading the footpath for the full frontage of the development including provision of street trees in accordance with Council's Public Domain Technical Manual.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

- Level access into and within the commercial component is provided.
- Accessible car parking spaces are provided for the commercial component
- Accessible units and associated parking are provided in accordance with Council requirements.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The proposal is considered to be designed to address the principles of CPTED as follows:

- The design does not comprise significant areas for concealment.
- Passive surveillance of the street and public areas is provided

- Passive surveillance of the common areas within the building is provided
- CCTV is to be provided to common areas such as the communal storage room on the podium level
- Clear and legible travel paths are provided within the development
- Awnings are to be provided with under awning lighting
- Access control between public and internal areas.

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

Car parking

The car parking rate for residential flat buildings is taken from the RMS Guide to Traffic Generating Development as detailed in the following table.

Beds	Sub regional Rate	Calculation
1	0.6	22 x 0.6 = 13
2	0.9	78 x 0.9 = 71
3	1.4	5 x 1.4 = 7
visitor	0.2 x no. units	105 x 0.2 = 21
Total residential:		112
Proposed:		125
DCP rate for Commercial	1/60m²	600/60m² = 10
Total		**122**

The development proposes an excess of 3 car parking spaces to that required by Council. This would be required to be included as additional gross floor area in accordance with the LEP. The development is however at the limit of the maximum permitted FSR and therefore the excess spaces are recommended to be removed or noted as storage on the plans. This is reflected as a draft condition of consent.

CHAPTER E6: LANDSCAPING

The proposal provides suitable landscaped areas and the landscape plan was prepared by a suitably qualified consultant. Council's Landscape Officer has reviewed the proposal in this regard and has provided recommended conditions of consent.

CHAPTER E7: WASTE MANAGEMENT

A site waste management and minimisation plan has been provided in accordance with this chapter.

Conditions of consent are recommended in regard to demolition works and management of demolition waste.

Separate commercial and residential waste storage rooms are incorporated as well as separate general and recyclable waste bins are provided.

The waste storage rooms are of a suitable size and are accessible to the residents and tenants of the building.

Waste servicing is to occur on site and the necessary turning templates and clearances have been provided.

CHAPTER E9 HOARDINGS AND CRANES

Conditions of consent are recommended in regard to use of any 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.

CHAPTER E14 STORMWATER MANAGEMENT

Council's stormwater officer has reviewed the proposal in respect of stormwater management and has provided recommended conditions of consent.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal involves excavation for 1 level of basement car parking.

This has been reviewed by Council's Geotechnical and Environment Officers who have not raised any concerns.

The extent and nature of excavation is not considered to be of a scale to impact on future use of adjoining land.

A preliminary site investigation has been undertaken and condition of consent recommended in respect of excavated material.

The excavation does not occur immediately adjacent to adjoining buildings.

CHAPTER E21 DEMOLITION AND ASBESTOS MANAGEMENT

Conditions of consent are recommended in regard to demolition.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions of consent are recommended in regard to appropriate sediment and erosion control measures to be in place during works.