ATTACHMENT 4 – 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 as discussed elsewhere in this report.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

4.0 General Residential controls

Controls/objectives	*Comment*
4.13 Fire Brigade Servicing Ensure that all dwellings can be serviced by fire fighting vehicles.	Satisfactory

CHAPTER B4: DEVELOPMENT IN CENTRES AND PERIPHERAL SALES PRECINCTS

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.

10 General design requirements for retail and business premises developments

Control	Comment
(a) To ensure all new ground floor retail shops and business premises are designed to provide a uniform transition between the floor level of the premises and Council's footpath, in order to provide satisfactory access along the footpath and into retail and commercial office buildings for all people, including people with a disability. (b) To ensure all ground level premises have direct access to street and clear glazing, to encourage active street frontages. (c) To set minimum floor to ceiling heights for new buildings, in order to maximise the flexibility in the future use of the ground floor and first floor levels in the building. (d) To encourage larger retail or commercial office floor space not requiring direct connection to the street to be 'wrapped' by smaller retail shops or commercial offices to avoid blank walls and encourage active street frontages. (e) To ensure security grilles are transparent and fitted to retail shopfronts only, in order to encourage active street frontages at night-time. (f) To ensure new retail or business premises buildings are consistent with the predominant built form character of the locality, in terms of built form and external appearance. (g) To ensure new buildings maintain the balance of horizontal and vertical proportions of other existing buildings in the locality. (h) To ensure the street corners of any new corner building are strengthened by massing and building articulation to both street frontages.	Satisfactory

Control	Comment
(i) To ensure all new retail, business or mixed use buildings provide a continuous awning along the full length of the building's street frontage, in order to provide all weather protection for pedestrians.	
(j) To provide pedestrian amenity and provide a 'unique' streetscape character for each business centre.	
(k) To provide innovative roof elements and parapet walls which positively contribute to the overall design of the proposed building and the streetscape of the immediate locality.	
(l) To ensure all new retail and business developments are designed to minimise potential overshadowing impacts and maximise solar access opportunities to any adjoining residential properties and the public domain (public reserves and / or footpaths) in the locality.	
<u>10.2.1 Floor Configuration</u>	
1. 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. Council's Infrastructure Division may be contacted with regard to existing/required footpath levels.	Satisfactory
2. 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.	
3. 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. Shopping centre developments may vary from this control.	
4. Any residential storeys in a building shall have a maximum building depth of 18 metres.	
5. The floor to ceiling height of the ground floor development in an E1 or E2 zone shall be a minimum 3.3 metres, in order to allow flexibility in retail and / or other business tenancies in the future.	
6. In the MU1 Mixed Use zone, the ground floor and first floor levels in a building shall incorporate a minimum 3.3 metre floor to ceiling height clearance, to maximise the flexibility in the future use of the building.	
7. The floor to ceiling height requirements for ground and first floor levels of a development situated upon land within the E2 Commercial Centre zone of the Wollongong City Centre, are specified in clause 2.6.2 in Chapter D13 Wollongong City Centre to this DCP.	
8. Large retail or commercial office floor space not requiring continuous and direct connection to the street (e.g. supermarkets) should be 'wrapped' by smaller retail shops or commercial offices to avoid blank walls and encourage active street frontages.	

Control	Comment
9. The retail frontage at street level for individual retail shops / units should match the existing traditional retail shop pattern for the specific retail and business centre.	
10. Where sites are amalgamated, the design of any new building should express the existing or prevalent lot structure in the immediate locality.	
10.2.2 Building Appearance	
1. New retail or business development shall continue the predominant built form character of the locality, including parapets, floor to ceiling heights and roof pitches.	Satisfactory
2. 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.	
3. Facades facing each street or lane should be composed as at least three distinct layers. In this respect:	
(a) The “base” of each building includes the ground floor, and may also include the second	
and third storey above street level.	
(b) The “middle” of each building should accommodate at least one level, but not the uppermost storey.	
(c) The “top” of each building should accommodate the upper-most storey and the roof.	
4. New buildings should also maintain the balance of horizontal and vertical proportions of other existing buildings in the locality.	
5. The street corners of any new corner building should be strengthened by massing and building articulation to both street frontages. In this regard, a variation may be supported to the height limits contained in this DCP (but no greater than the building height limit in the LEP) by permitting an additional 1 – 2 storeys for the corner element of a building where in the opinion of the consent authority a strong corner element is necessary for the building. Any such variation to the height limit will only be supported by Council in circumstances where in the opinion of the consent authority, the proposed development will exhibit design excellence through the provision a strong corner element in the proposed building.	
6. The profile of parapets and roof top elements should be integrated in the overall roof design of the building.	
7. The angle of any pitched roof shall be compatible with existing development.	
8. Any development involving the re-use of existing buildings should reinstate any missing façade elements or other decorative details, wherever practicable.	
9. The external building materials and finishes of any retail or business development should be sympathetic to the existing fabric and character of buildings within that retail and business precinct.	

Control	Comment
10. Highly reflective finishes, reflective glass and curtain wall glazing are not permitted above ground floor level.	
11. The reflectivity of glazing shall be restricted to less than 20%. A reflectivity diagram may be required where in the opinion of Council has the potential to pose future glare impacts upon pedestrians within public domain areas or motorists travelling past the site.	
12. All Development Applications for new buildings or external alterations and additions to existing premises in Centres must be accompanied by a schedule of proposed external building materials and finishes (colours) board which shows the proposed building materials and finishes (colours) to be used on the external facades of the building. An A4 sized photograph of the schedule of external building materials and finishes (colours) board is also required.	
<u>10.2.3 Building Alignment</u>	
1. The design of corner buildings should reflect the geometry of the road, topographical conditions of the immediate locality and sight lines.	Complies
2. Buildings should be aligned with footpaths to create spatial enclosure and a sense of place.	
3. Buildings shall be designed for retail or business uses only at the ground floor of a building. Residential uses are not permitted on the ground floor of any land within a Centre with the exception of access areas for residential uses on upper levels of a building.	
<u>10.2.4 Active Street Frontages</u>	
1. All new retail, business or mixed use buildings are required to provide ground level active street frontages.	Complies
2. Buildings should contain no more than five (5) metres of ground floor wall without a door or window. Windows should make up at least 50% of the ground floor front wall.	
3. Buildings with frontages to retail streets are to contribute to the liveliness and vitality of those streets by:	
(a) Providing product retailing and / or food and drink premises within all enclosed shop fronts;	
(b) Minimising the extent and visual impact of building entrances, office lobbies, foyers, vehicle entrances and other entries not associated with retail, service areas and fire escapes;	
(c) Locating activities that may involve queuing (e.g. automatic teller machines) behind building frontages so that footpaths remain free for pedestrian movement; and	
(d) Providing a high standard of finish to retail shopfronts.	
4. All street frontage windows at ground level are to have clear glazing.	
5. Display windows with clear glazing to ground floor retail and business premises are required with a maximum	

Control	Comment
window sill height of 0.7 metres above finished ground level.	
6. Security grilles are to be fitted only within the retail shopfront. Such grilles are to be transparent and not of any roller door type.	
10.2.5 Urban Design / Streetscape Appearance	
1. The siting, form, height and external appearance of any retail or business premise development should be sympathetic with adjoining buildings in the surrounding retail and business precinct in addition to any abutting or nearby residential dwellings.	Satisfactory
2. The parapet height of any retail or business premises building must be consistent with the parapet height of the surrounding streetscape of the locality.	
3. Any retail or business premises (commercial office) building should feature highly articulated facades, particularly any facades facing road frontages and any abutting residential area, in order to add visual interest to the building.	
4. The horizontal form of any building should also be broken up vertically, in order to provide visual relief and interest to the development. The horizontal and vertical emphasis is especially critical for the middle and upper levels of a building.	
5. Any retail or commercial office building must be designed to provide active street frontages on the ground floor level of the building to all street frontages and in some cases, Council may require appropriate pedestrian thoroughfare links.	
6. External walls should be constructed of high quality and durable materials and finishes with low maintenance costs.	
7. Highly reflective finishes are not permitted above ground floor level.	
8. An external materials and finishes board and accompanying A4 sized photograph of the external materials and finishes board must be submitted with the Development Application	
10.2.6 Pedestrian Access	
1. Pedestrian through-site routes must be direct without any concealment opportunities and designed to provide clear sightlines from one end to the other.	Clear, legible and accessible entry points are provided.
2. Pedestrian through-site links should be a minimum of three (3) metres in width and activated by retail, civic and /or commercial office land uses, wherever possible.	
3. The pedestrian through-site links should also be well lit at night-time and publicly accessible at least between 7.00 am to 7.00 pm daily with preference for 24 hour public access. Any such pedestrian link should be designed to provide satisfactory access for all patrons, including patrons using wheelchairs or patrons using strollers for young children.	

Control	Comment
4. 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.	
10.2.7 Awnings	
1. Buildings with frontage to any street must incorporate an awning or colonnade (only in areas where existing buildings have colonnades) along the full length of the building's street frontage.	Complies
2. All retail, business or mixed use buildings must provide a continuous awning along the full length of the building's street frontage, in order to provide all weather protection for pedestrians.	
3. Awnings should be designed of a solid cantilevered / suspended steel box type section with a minimum soffit height of 3.2 metres, taking into account the grade of the road reserve (footway area).	
4. Under awning lighting is required for the majority of Centres in the LGA, except for the small village Centres. The under awning lighting should either be recessed into the soffit of the awning or wall mounted on the building.	
5. Awnings shall also be designed to provide adequate shade and shelter for pedestrians.	
6. All awnings shall be weather sealed to the face of the building to which they are attached.	
7. Awnings shall be setback a minimum of 600 millimetres from the kerb line of the road carriageway.	
10.2.8 Public Domain – Footpath Paving	
1. Buildings, street furniture and landscaping are to contribute to the definition of the public/private interface and amenity of the locality.	The proposal involves upgrading the footpath for the full frontage of the site along with provision of street trees in accordance with Council's Public Domain Technical Manual.
2. Any large retail centre development may necessitate improvements to the adjoining public domain, particularly footpath areas connecting to the centre.	
3. Street furniture and paving shall take into account the needs of people with a disability or decreased mobility and persons with young children and / or with a stroller.	
4. Seating should be provided both internally within a shopping centre and externally within the public domain to provide patrons with places to rest or await other family or friends.	
5. Pedestrian routes should be clear, safe and well-lit to all pedestrians including people with a disability or decreased mobility and children.	
6. Footpath paving treatment should be consistent with the relevant Public Domain Technical Manual for the relevant business centre at either Appendix 2 or Appendix 3 to this DCP Note: Consultation is recommended at an early stage in the planning process with Council's City Planning staff to	

Control	Comment
ascertain the exact requirements for footpath paving treatment and street furniture around the centre.	
10.2.9 Solar access and overshadowing	
1. All retail and business developments are to be designed so as to minimise overshadowing impacts and maximise solar access opportunities to any adjoining residential properties and the public domain (public reserves and / or footpaths) in the locality.	Shadow diagrams have been provided and overshadowing impacts are acceptable.
2. Solar access shall be maintained for any north facing window of a habitable room of any adjoining residential dwelling and at least 50% of the private courtyard area for a minimum 3-hour continuous period between 9.00 am and 3.00 pm for the 21 June winter solstice period.	
3. The submission of shadow diagrams will be required for any new retail, business or mixed-use building or any major alterations and additions to an existing retail or business building where in the opinion of Council, the development may pose potential overshadowing impacts upon any residential land use or public domain area. The shadow diagrams will be required for the 9.00 am, 12 noon and 3.00 pm 21 June winter solstice periods, as a minimum.	
4. Additional hourly shadow diagrams between 9.00 am to 3.00 pm 21 June may be required where Council is uncertain as to the potential adverse overshadowing impacts upon surrounding properties and / or the public domain. Further, Council may also require additional shadow diagrams for the equinox periods where the overshadowing impact of a development requires further in-depth assessment.	
10.2.10 Shower and Change Facilities & Parenting Facilities in Large Business Premises / Commercial Office Buildings	
1. Any new commercial office / business premises building with a total gross floor area of 10,000 square metres or greater should be provided with suitable shower and change facilities, to encourage staff to use active transport alternatives.	N/A
2. Any new commercial office building with a total gross floor area of 10,000 square metres or greater must be provided with suitable parenting facilities.	
3. The parenting room should be designed so that it is accessible to both women and men who are responsible for caring of young children.	
4. A minimum of two (2) private cubicles are required for private breast feeding or nappy changing of young children. The required cubicles should be large enough to accommodate a couch and a changing bench. In this regard, a minimum two (2) metre length of change table or an equivalent length of individual drop down change tables is recommended. The change table should be designed with a surface which may be easily cleaned.	

Control	Comment
5. The provision of a suitable area for the storage of prams/strollers is also required within the parenting facility. 6. A minimum of two (2) adult wash hand basins shall be provided within the parenting facility. The hand basins should be located in close proximity of the change tables, wherever practicable. Additionally, a children's wash hand basin with a thermostatically controlled water tap with an automatic cut-off shall also be provided within the parenting facility. 7. A dispensing machine is to be provided with disposable nappies together with a suitable method of storage for disposal of soiled disposable nappies. 8. The entrance to the Parenting Room is to have an unobstructed width of 820mm. Operations of doors are to permit ease of use for people with a pram/stroller. 9. The location of parenting room(s) is to be clearly signposted throughout the building.	
<u>10.2.11 Advertising Signage</u> See Chapter C3	N/A
<u>10.2.12 Wind Impact Assessment</u> 1. The maximum threshold wind (gust velocity) criteria to be met by new buildings, in order to maintain public safety and pedestrian comfort is contained in the Table below: **Table 2: Acceptable Criteria for Environmental Wind Conditions** **ANNUAL MAXIMUM GUST SPEED** / **PUBLIC DOMAIN / PRECINCT** 10 m/s — Retail Precincts / Active street frontages (including outdoor restaurants / cafes) 13 m/s — Major public domain areas (pedestrian footways areas and parks) 16 m/s — Other Roads in the locality 2. 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. The wind impact assessment report shall be prepared by a suitably qualified and experienced engineering consultant. 3. Any wind impact assessment should take into consideration all of the following potential wind flow effects:- (a) Downwash effects – The rush of air down the exposed face of a building; (b) Corner acceleration effects – When wind is forced to bend around the corner of a building it tends to accelerate; (c) Flow separation effects – When wind flowing along a surface suddenly detaches from that surface and the resultant energy dissipation produces turbulence in the flow; (d) Flow channelling effects – "street canyon" effect where a large volume of air is funnelled and forced to travel within	A wind tunnel report has been prepared indicating that wind comfort levels around the site were all within acceptable levels without need for amelioration measures.

Control	Comment
a constricted pathway and to maintain continuity the wind must speed up as it passes between the two buildings; and (e) Direct exposure effects – where little upstream shielding is provided and the mean and gust velocity of the wind flow is unabated during a key prevailing wind direction. 4. Any wind impact assessment report should provide recommended wind abatement measures such as architectural features, full length awning protection, street tree or landscape planting etc, in order to inhibit wind flows through the specific locality. 5. 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. 10.2.13 Access, Car parking and Servicing See Chapter E3 10.2.14 Access for People with a Disability See Chapter 10.2.15 Land Consolidation	
Where a development spans several allotments, consolidation of these allotments will be required as a condition of consent.	Lots are to be consolidated as a condition of consent.

13 Works in the public domain

The developer will be responsible for upgrading of the public domain for the frontage of the site.

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 or specified setback with 4m minimum further setback above street frontage height.	Complies
2.3 Street frontage heights in commercial core	
12-24m street frontage height.	Complies
2.4 Building depth and bulk	
18m maximum	Does not comply. See discussion at Chapter A1.

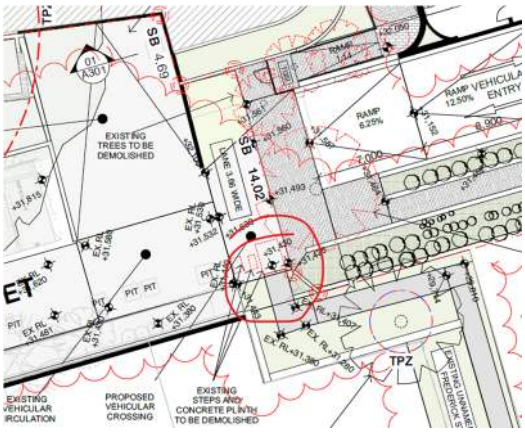
Objectives/controls	*Comment*
2.5 Side and rear building setbacks and building separation **Building condition** / **Minimum side setback** / **Minimum rear setback** Up to street frontage heights / 0m / 0m Residential uses (habitable rooms) between street frontage height and 45m / 12m / 12m All uses (including non-habitable residential) between street frontage height and 45m / 6m / 6m All uses above 45m / 14m / 14m	A variation is sought to side setbacks above 45m as discussed 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. 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. c) Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook. d) Locate clearly demarcated residential entries directly from the public street. e) Clearly separate and distinguish commercial and residential entries and vertical circulation. f) Provide security access controls to all entrances into private areas, including car parks and internal courtyards. g) Provide safe pedestrian routes through the site, where required. h) Front buildings onto major streets with active uses. i) Avoid the use of blank building walls at the ground level. 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.	Satisfactory
2.7 Deep soil zone a) All residential developments must include a deep soil zone (See Figure 2.14). b) The deep soil zone shall comprise no less than 15% of the total site area preferably provided in one continuous block and shall have a minimum dimension (width or length) of 6 metres. c) For residential components in mixed use developments in the Commercial Core, Mixed Use (city	The proposal is within the commercial core where deep soil areas are not a prerequisite. A deep soil area is however provided around the retained heritage listed tree. This area satisfies the objectives and numeric requirements of this control.

Objectives/controls	*Comment*
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.	
d) Where deep soil zones are provided, they must accommodate existing mature trees as well as allowing for the planting of trees/shrubs that will grow to be mature trees.	
e) No structures, works or excavations that may restrict vegetation growth are permitted in this zone (including but not limited to basements, car parking, hard paving, patios, decks and drying areas).	
2.8 Landscape design	
a) The following documents must be considered for site planning and landscape design:	Satisfactory
i) Chapter E6 – Landscaping in the DCP.	
ii) Wollongong City Centre Public Domain Technical Manual.	
b) Remnant vegetation must be maintained throughout the site wherever practicable, particularly significant trees.	
c) A long-term landscape management plan must be provided for all landscaped areas, in particular the deep soil landscape zone.	
d) The plan must outline how landscaped areas are to be maintained for the life of the development.	
e) Chapter E17 Preservation and Management of Trees and Other Vegetation in this DCP provides for the protection of all trees with a girth greater than 200mm or a height over three metres, or a spread over three metres.	
2.9 Green roofs, green walls and planting on structures	
a) Design for optimum conditions for plant growth by:	Satisfactory
i) Providing soil depth, soil volume and soil area appropriate to the size of the plants to be established,	
ii) Providing appropriate soil conditions and irrigation methods, and	
iii) Providing appropriate drainage.	
b) Design planters to support the appropriate soil depth and plant selection by:	
i) Ensuring planter proportions accommodate the largest volume of soil possible and soil depths to ensure tree growth, and	

Objectives/controls	*Comment*
ii) Providing square or rectangular planting areas rather than narrow linear areas. c) Increase minimum soil depths in accordance with: i) The mix of plants in a planter for example where trees are planted in association with shrubs, groundcovers and grass, ii) The level of landscape management, particularly the frequency of irrigation, iii) Anchorage requirements of large and medium trees, and iv) Soil type and quality. d) Provide sufficient soil depth and area to allow for plant establishment and growth.	
<u>2.10 Sun access planes</u>	
N/A	N/A
<u>2.11 Development on classified roads</u>	
a) Consent must not be granted to the development of land that has a frontage to a classified road unless the consent authority is satisfied that:	Vehicular access to the site is provided via the right of carriageway to Parkinson 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: 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.	The likely traffic generation from the development has been demonstrated to not compromise the functioning of nearby intersections on any classified road.

3 Pedestrian amenity

Objectives/controls	*Comment*
<u>3.2 Permeability</u>	
a) Through site links, arcades, shared ways and laneways are to be provided as shown in Figure 3.1. b) Where possible, existing dead end lanes are to be extended through to the next street as redevelopment occurs. c) New through site links should be connected with existing and proposed through block lanes, shared	There is an existing unnamed lane that runs from the right of carriageway near the entry to the site down to Frederick Street to the south as indicated below. It is also identified that there is a proposed lane running west of this however the exact location is not accurately plotted. The lane does not provide an obvious path of travel that isn't already available in any

Objectives/controls	*Comment*
zones, arcades and pedestrian ways and opposite other through site links. d) Existing publicly and privately owned lanes are to be retained. e) The design and finish of new through site links need to be provided in accordance with Council's City Centre Public Domain Manual.	substantially greater distance along public roads. Notwithstanding, the development retains access to this unnamed lane. The identified potential future lane is not located on the subject property.   
<u>3.3 Active street frontages</u> a) In commercial and mixed use development, active street fronts are encouraged in the form of non-residential uses on ground level. b) Active street fronts in the form of non-residential uses on ground level are required along streets, lanes and through site links shown in Figure 3.4 for all buildings in the Commercial Core and Tourist zones, and for mixed use buildings in the Mixed Use (city edge) and Enterprise zones.	The proposal provides an active frontage along both Gladstone Avenue and Crown Street in accordance with this control.

Objectives/controls	*Comment*
c) Active ground floor uses are to be at the same general level as the footpath and be accessible directly from the street.	
d) For all non-residential ground floor frontages outside the streets shown in Figure 3.4, provide clear glazing where ever possible to promote passive surveillance and contribute to street activity.	
e) Restaurants, cafes and the like are to consider providing openable shop fronts.	
f) Residential developments are to provide a clear street address and direct pedestrian access off the primary street front, and allow for residents to overlook all surrounding streets.	
g) Provide multiple entrances for large developments including an entrance on each street frontage.	
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.	
c) Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.	
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.	
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.	
f) Provide clear lines of sight and well-lit routes throughout the development.	
g) Where a pedestrian pathway is provided from the street, allow for casual surveillance of the pathway.	
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.	
i) Provide security access controls where appropriate.	
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.	

Objectives/controls	*Comment*
3.5 Awnings	
a) Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6.	Awnings are provided along both Gladstone Ave and Crown Street in accordance with this control.
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	
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	
Location of Vehicle Access	The access is via a right of carriageway to Parkinson Street and there are no footpath crossings.
a) No additional vehicle entry points will be permitted into the parking or service areas of development along those streets identified as significant pedestrian circulation routes in Figure 3.7.	
b) In all other areas, one vehicle access point only (including the access for service vehicles and parking for non-residential uses within mixed use developments) will be generally permitted.	
c) 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.	
d) Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal on-site signal equipment is to be used to allow shared access. Where appropriate, new buildings should provide vehicle access points so that they are capable of shared access at a later date.	
e) Vehicle access may not be required or may be denied to some heritage buildings.	
Design of Vehicle Access	The access is via a right of carriageway to Parkinson Street.
a) Wherever practicable, vehicle access is to be a single lane crossing with a maximum width of 2.7 metres over the footpath, and perpendicular to the	

Objectives/controls	*Comment*
kerb alignment. In exceptional circumstances, a double lane crossing with a maximum width of 5.4 metres may be permitted for safety reasons (refer Figure 3.8).	
b) Vehicle access ramps parallel to the street frontage will not be permitted.	
c) Doors to vehicle access points are to be roller shutters or tilting doors fitted behind the building façade.	
d) Vehicle entries are to have high quality finishes to walls and ceilings as well as high standard detailing. No service ducts or pipes are to be visible from the street.	
<u>3.7 Pedestrian overpasses, underpasses and encroachments</u>	
N/A	
<u>3.8 Building exteriors</u>	
a) Adjoining buildings (particularly heritage buildings) are to be considered in the design of new buildings in terms of:	The design suitably responds to adjoining buildings by way of front and side setbacks and podium height.
i) Appropriate alignment and street frontage heights.	Facades are suitably articulated.
ii) Setbacks above street frontage heights.	Materials and finishes are of high quality and add to the visual appearance.
iii) Appropriate materials and finishes selection.	
iv) Façade proportions including horizontal or vertical emphasis.	Curtain wall glazing is not a feature of the development.
v) The provision of enclosed corners at street intersections.	A schedule of materials and finishes is provided along with 1:20 sections to clarify the design intent.
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.	
c) Articulate facades so that they address the street and add visual interest.	
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.	
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.	
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.	

Objectives/controls	*Comment*
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.	
<u>3.9 Advertising and signage</u>	N/A
<u>3.10 Views and view corridors</u> a) Existing views shown in Figure 3.12 are to be protected to the extent that is practical in the planning and design of development. b) The redevelopment of sites with potential to open a blocked view shown in Figure 3.12 must take into account the restoration of that view. c) Align buildings to maximise view corridors between buildings. d) Remove or avoid installation of built elements that obstruct significant views. e) Carefully consider tree selection to provide views along streets in Figure 3.12 and keep under storey planting low where possible. f) Site analysis must address views with the planning and design of building forms taking into account existing topography, vegetation and surrounding development.	The primary concern with regard to view is the view towards Mt Kembla from Flagstaff Hill. In this regard, the proposal does not exceed the maximum permitted height for the site. A view analysis using Council's 3D software illustrates the towers will not extend above the line of the escarpment or obscure sight lines to Mt Kembla from Flagstaff Hill as illustrated in the screen capture below.   *Source RLs: Vexcel viewer*

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.	Complies
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).	
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.	
d) The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.	
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.	
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.	
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:	
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.	
4.4 On-site parking	
General (all development)	Complies
a) On-site parking must meet the relevant Australian Standard (AS2890.1 2004 – Parking facilities, or as amended).	
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.	
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.	
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.	
e) On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP.	
f) To accommodate people with disabilities, provide a minimum of 1% of the required parking spaces, or minimum of 1 space per development, (whichever is the greater) as an appropriately designated and signed disabled parking space.	
Residential flat buildings	Complies
a) On-site parking is to be accommodated underground, or otherwise integrated into the design of the building.	

Commercial developments within the commercial core and city edge zones	Complies
a) On-site parking is to be accommodated underground, or otherwise integrated into the design of the building.	
Commercial developments and mixed use developments in all other zones	N/A
a) The impact of any on-grade car parking must be minimised by:	
i) Locating parking on the side or rear of the lot away from the street frontage;	
ii) Provision of fencing or landscape to screen the view of cars from adjacent streets and buildings;	
iii) Allowing for safe and direct access to building entry points; or	
iv) Incorporating car parking into landscape design of the site (such as plantings between parking bays to improve views, selection of paving material and screening from communal and open space areas).	
b) Natural ventilation should be provided to underground parking areas where possible, with ventilation grilles and structures;	
i) integrated into the overall façade and landscape design of the development,	
ii) not located on the primary street façade, and	
iii) oriented away from windows of habitable rooms and private opens space areas.	
4.5 Site facilities and services	
Mail boxes	Complies
a) Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development.	
b) They should be integrated into a wall where possible and be constructed of materials consistent with the appearance of the building.	
c) Letterboxes shall be secure and large enough to accommodate articles such as newspapers.	
Communication structures, air conditioners and service vents	Complies
a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures	
i) Away from the street frontage,	
ii) Integrated into the roof scape design and in a position where such facilities will not become a skyline feature at the top of any building, and	
iii) Adequately setback from the perimeter wall or roof edge of buildings.	

b) A master antennae must be provided for residential apartment buildings. This antenna shall be sited to minimise its visibility from surrounding public areas.	
Waste (garbage) storage and collection General (all development) a) All development is to adequately accommodate waste handing 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. b) Access for waste collection and storage is preferred from rear lanes, side streets or rights of ways. c) Waste storage areas are to be designed to: i) Ensure adequate driveway access and manoeuvrability for any required service vehicles, ii) Located so as not to create any adverse noise impacts on the existing developments or sensitive noise receptors such as habitable rooms of residential developments, and iii) Screened from the public way and adjacent development that may overlook the area. d) The storage facility must be well lit, easily accessible on grade for movement of bins, free of obstructions that may restrict movement and servicing of bins or containers and designed to minimise noise impacts.	A commercial waste room is provided on the ground floor that is accessible to each commercial tenancy. An Operational Waste Management Plan has been provided. The development includes waste rooms on each residential level that include a general garbage chute along with a recyclable bin. It is to be a condition of consent that FOGO waste bins also be provided on each level. Bin rooms on the ground floor level incorporate bulky waste, general and recycle waste and FOGO bins. A waste tug is provided to transport bins to the main collection room adjacent to the driveway entry.
Location requirements for Waste Storage Areas and Access a) Where waste volumes require a common collection, storage and handling area, this is to be located: i) For residential flat buildings, enclosed within a basement or enclosed carpark, ii) For multi-housing, at ground behind the main building setback and façade, or within a basement or enclosed carpark, iii) For commercial, retail and other development, on-site in basements or at ground within discrete service areas not visible from main street frontages. b) Where above ground garbage collection is prohibitive or impractical due to limited street frontage, or would create an unsafe environment, an on-site basement storage area must be provided. c) Where a mobile compaction vehicle is required to enter the site, the access and circulation area shall be designed to accommodate a vehicle	Complies
Service docks and loading/unloading areas a) Provide adequate space within any new development for the loading and unloading of service/delivery vehicles.	Satisfactory

b) Preferably locate service access off rear lanes, side streets or rights of way.	
c) Screen all service doors and loading docks from street frontages and from active overlooking from existing developments.	
d) Design circulation and access in accordance with AS2890.1.	
Fire service and emergency vehicles	Satisfactory
a) For developments where a fire brigade vehicle is required to enter the site, vehicular access, egress and manoeuvring must be provided to, from and on the site in accordance with the NSW Fire Brigades Code of Practice – Building Construction – NSWFB Vehicle Requirements.	
b) Generally, provision must be made for NSW Fire Brigade vehicles to enter and leave the site in a forward direction where:	
i) NSW Fire Brigade cannot park their vehicles within the road reserve due to the distance of hydrants from the building or restricted vehicular access to hydrants; or	
ii) The site has an access driveway longer than 15m.	
Utility Services	A substation has been incorporated.
The provision of utility services and access for regular servicing and maintenance must be considered at the concept stage of site development.	Endeavour Energy have provided conditions of consent.
a) Development must ensure that adequate provision has been made for all essential services including water, sewerage, electricity and telecommunications and stormwater drainage to the satisfaction of all relevant authorities.	Conditions of consent are recommended with regard to obtaining a section 73 certificate from Sydney Water.
b) The applicant must liaise with the relevant power authority with regard to the need for a conduit to be installed within the foot way area for the future provision of an underground power supply and extension of the conduit up to the wall of the existing or proposed building.	
c) The development must ensure that ready connection of the building(s) can be made in future when underground power is installed and the overhead connection is replaced with a connection to the underground line.	
d) The applicant must liaise with the power authority with regard to the retention, relocation, or removal of any existing power pole.	

5 Environmental management

Objectives/controls	*Comment*
5.2 Energy efficiency and conservation	
Residential	BASIX Certificates are provided.

New dwellings, including multi-unit development within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). Council encourages all applicants to go beyond minimum BASIX requirements incorporating passive solar design and energy efficiency measures for residential development.	The proposal achieves an average 7.1 Nathers rating.
Non-Residential	The proposal will have to satisfy Section J.
For all non-residential development:	Satisfactory
a) Improve the control of mechanical space heating and cooling by:	
i) Designing heating/cooling systems to target only those spaces which require heating or cooling, not the whole building.	
b) Improve the efficiency of hot water systems by:	
i) Insulating hot water systems, and	
ii) Installing water saving devices, such as flow regulators, 3.5 stars rated shower heads, dual flush toilets and tap aerators.	
c) Reduce reliance on artificial lighting and designing lighting systems to target only those spaces which require lighting at any particular 'off peak' time, not the whole building.	
An energy efficiency report from a suitably qualified consultant is to accompany any development application for non-residential development with a construction cost of $1million or greater. This report must demonstrate commitment to achieving a minimum of 4 stars Green Star rating (design and as built tool) or 4 stars NABERS rating (energy tool) for the development.	
<u>5.3 Water conservation</u>	
Residential	BASIX Certificates have been provided.
New dwellings, including a residential component within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). Council encourages all residential development to go beyond the minimum BASIX requirements and enhance the water efficiency for their development.	

Non-residential a) The following water saving measures are to be incorporated into non-residential building. Water fixtures (shower heads, taps, toilets, urinals etc) are to be 3 stars 3.5 stars or better rated. i) Appliances (dishwashers, clothes washers etc) are to be 3 stars 3.5 stars or better rated with respect to water use efficiency. Demonstrate, if necessary, how these requirements will be achieved for replacement appliances, appliances not installed at construction or bought in by occupants following construction, ii) Stormwater runoff control, capture and reuse, including water quality management in accordance with Council's guidelines, iii) Select water efficient plants and/or, indigenous vegetation for landscape in accordance with Council's recommendations, iv) Use non-potable water for watering gardens and landscape features, and v) Operating details for swimming pools and water features including filling, draining and maintenance activities. Covers are to be included in the design and operational aspects of swimming pool installations. b) Alternatives to the above water savings methods can be presented to Council and they will be assessed on merit.	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.	Satisfactory

5.5 Wind mitigation	
a) To ensure public safety and comfort the following maximum wind criteria are to be met by new buildings: 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. b) Site design for tall buildings (towers) should: i) Set tower buildings back from lower structures built at the street frontage to protect pedestrians from strong wind downdrafts at the base of the tower, ii) Ensure that tower buildings are well spaced from each other to allow breezes to penetrate city centre, iii) Consider the shape, location and height of buildings to satisfy wind criteria for public safety and comfort at ground level, and iv) Ensure usability of open terraces and balconies. c) A Wind Effects Report is to be submitted with the DA for all buildings greater than 32m in height, d) For buildings over 50m in height, results of a wind tunnel test are to be included in the report.	A wind tunnel test has been provided which found that the design did not result in wind speeds for Pedestrian Footpaths and Accessways, Building Entrances, and Balconies/Terraces exceeding target comfort levels. No wind mitigation measures were recommended.
5.6 Waste and recycling	
Non-residential development 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.	For the demolition stage a Waste Management Plan has been provided identifying the likely volumes and destination of demolition material. An Operational Waste Management Plan has been provided for the ongoing use.

Residential development 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: **Bin size** / **Dimensions** 660 litres / 1070 x 910 x 635mm 240 litres / 1180 x 740 x 570mm **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	Suitable waste storage and servicing provision has been made.

6 Residential development standards

Objectives/controls	*Comment*
6.1 SEPP 65	See discussion elsewhere.

Objectives/controls	*Comment*
6.2 Housing choice and mix	
a) Where residential units are proposed at ground level within the Mixed Use (City Edge) and Special Activities zone, a report must be provided with the development application demonstrating how future commercial uses can be accommodated within the ground level design. The report must address:	The proposal provides a compliant unit mix including accessible units and associated accessible car parking spaces.
i) Access requirements including access for persons with a disability (Compliance with Disability Discrimination Act 1992),	
ii) Any upgrading works necessary for compliance with the Building Code of Australia, and	
iii) Appropriate floor to ceiling heights.	
b) To achieve a mix of living styles, sizes and layouts within each residential development, comply with the following mix and size:	
i) Studio and one bedroom units must not be less than 10% of the total mix of units within each development,	
ii) Three or more bedroom units must not be less than 10% of the total mix of units within each development, and	
iii) For smaller developments (less than six dwellings) achieve a mix appropriate to locality.	
c) For development built by (or on behalf of) the Department of Housing, an alternative mix of unit types may be approved, subject to housing needs being demonstrated by the Department.	
d) For residential apartment buildings and multi-unit housing, 10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents. Dwellings must be designed in accordance with the Australian Adaptable Housing Standard (AS 4299-1995), which includes “pre-adaptation” design details to ensure visitability is achieved.	
e) Where possible, adaptable dwellings shall be located on the ground floor, for ease of access. Dwellings located above the ground level of a building may only be provided as adaptable dwellings where lift access is available within the building. The lift access must provide access from the basement to allow access for people with disabilities.	
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).	
g) Car parking and garages allocated to adaptable dwellings must comply with the requirements of the	

Objectives/controls	*Comment*
relevant Australian Standard for disabled parking spaces.	
h) 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). All proposed livable dwellings must be clearly identified on the submitted DA plans.	
i) Ceiling heights of apartments must be selected to encourage the penetration of natural sunlight into all areas of the building. Provide the following minimum floor to ceiling heights, for residential zones, as required by the Residential Flat Design Code:	
i) 2.7m minimum for all habitable rooms on all floors;	
ii) 2.25m to 2.4m minimum for non-habitable rooms on all floors;	
iii) for two storey apartments, 2.4m minimum for the second storey if 50% or more of the apartment has 2.7m minimum ceiling heights;	
iv) for two storey units with a two storey void space, 2.4m minimum ceiling heights	
<u>6.3 Dwelling houses</u>	
	N/A
<u>6.4 Multi dwelling housing</u>	
	N/A
<u>6.5 Dual occupancy</u>	
	N/A
<u>6.6 Basement Carparks</u>	
a) The scale and siting of the basement car park must not impact upon the ability of the development to satisfy minimum landscaping and deep soil zone requirements.	Satisfactory
b) The roof of any basement podium, measured to the top of any solid wall located on the podium, must not be greater than 1.2m above natural or finished ground level, when measured at any point on the outside walls of the building. On sloping sites, a change in level in the basement must be provided to achieve this maximum 1.2m height.	
Generally variation to this 1.2m height will not be supported however Council recognises that there may be occasions where this standard cannot be achieved. Should such a circumstance arise, the additional portion of the basement podium above 1.2m height must be included in the total gross floor area calculation for the development.	
c) In addition, the following must be satisfied:	
i) Landscaped terraces are provided in front of the basement podium to reduce the overall visual impact;	

Objectives/controls	*Comment*
ii) The height of the basement does not result in the building having a bulk and scale which dominates the streetscape; and iii) The main pedestrian entry to the building is identifiable and readily accessible from the street frontage. d) The following setbacks from front, side and rear boundaries apply to basement podiums: i) 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. A minimum 1.5m wide landscaped planter must be provided on the perimeter of any section of the basement podium which is located on a side or rear property boundary. Such planter must prevent direct access to the outer edge of the podium, to minimise direct overlooking of adjacent dwellings and open space areas. ii) Any portion of the basement which exceeds 1.2m above natural or finished ground level (whichever distance is greater) must be setback from the property boundaries by a ratio 1:1 (height: setback). A minimum setback of 1.5m applies in this instance, with this area to be landscaped. For the purpose of determining the height of the basement, any solid walls located on the podium shall be included in the overall height calculation. e) 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. f) The visual impact of all basement walls must be minimised through the use of various design techniques including well proportioned ground level articulation and relief, mixed finishes and materials, terracing and/or dense landscaping. g) Basements must be protected from inundation from 100-year ARI flood levels (or greater)	
<u>6.7 Communal open space</u>	
a) Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m2 per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m. b) The communal open space must be easily accessible and within a reasonable distance from apartments, be integrated with site landscaping, allow	Requirement: 266 x 5 = 1,330m² Proposed: 950 (lvl 4) 267 (lvl 2) + 180 (lvl1) = 1,397m² A number of communal areas have been provided that offer a range of different experiences and opportunities for socialising.

Objectives/controls	*Comment*
for casual social interaction and be capable of accommodating recreational activities.	
c) Where a minimum of 15% of the site is provided as a deep soil zone, combined use of part of the deep soil zone as communal open space may occur. The combined communal open space/deep soil area may be grassed but must not contain significant shade trees. A maximum of 1/3 of the required communal open space area may be combined with the deep soil zone.	
d) Areas of the communal open space which are to be paved or which will contain shade structures, swimming pools or the like cannot be located within the deep soil zone.	
e) The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	
<u>6.8 Private open space</u>	
a) Private open space must be provided for each dwelling within a residential apartment building in the form of a balcony, courtyard, terrace and/or roof garden.	Complies
b) Private open space for each dwelling within a residential apartment building must comply with the following	
i) 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.	
ii) 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.	
iii) Private open space areas (courtyards) must not extend forward to the front building setback by greater than 900mm.	
iv) Private open space should be sited in a location which provides privacy, solar access, and pleasing outlook and has a limited impact on neighbours.	
v) Design private open spaces so that they act as direct extensions of the living areas of the dwellings they serve.	
vi) Clearly define private open space through use of planting, fencing or landscaping features.	
vii) Screen private open space where appropriate to ensure privacy.	
viii) Provide balconies with operable screens or similar in locations where noise or high winds prohibit	

Objectives/controls	*Comment*
reasonable outdoor use (i.e. next to rail corridors, busy roads and tall towers). c) Where private open space is provided in the form of a balcony, the following requirements must also be met: i) Avoid locating the primary balconies where they address side setbacks. ii) The balcony must have a minimum area of 12m2 open space a minimum depth of 2.4 metres. iii) 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. iv) Balconies must be designed and positioned to ensure sufficient light can penetrate into the building at lower levels. v) Individual balcony enclosures are not supported. Balcony enclosures must form part of an overall building façade design treatment and should not compromise the functionality of a balcony as a private open space area.	
<u>6.9 Overshadowing</u>	
a) 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. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas. b) 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. c) In determining access to sunlight, overshadowing by fences, roof overhangs and changes in level must be taken into consideration. Overshadowing by vegetation should also be considered, where dense vegetation appears as a solid fence. Refer to Land and Environment Court Planning Principles – Parsonage vs Ku-Rin-Gai Council (2004). d) In areas undergoing change, the impact of overshadowing on development likely to be built on adjoining sites must be considered, in addition to the impacts on existing development.	Generous setbacks are provided to the southern boundary for Building A by virtue of the need to retain the heritage tree. Setbacks to the south for Building B are acceptable with regard to the existing built form adjacent that boundary.
<u>6.10 Solar access</u>	
a) 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.	Northerly aspect is maximised. Single aspect south facing units comprise 6% of the overall total.

Objectives/controls	*Comment*
b) 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. c) Shading devices should be utilised where necessary, particularly where windows of habitable rooms are located on the western elevation. d) 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. e) 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. f) Provide vertical shading to eastern and western windows. Shading can take the form of eaves, awnings, colonnades, balconies, pergolas, external louvres and planting.	Shading to western façade of building B is provided by way of solid balustrade elements and recessed glazing. Solar access to living rooms and private open space areas complies (~88%). Single aspect south facing units comprise 6% of the total.
<u>6.11 Natural ventilation</u> a) Provide residential apartment buildings with a building depth of between 10 and 18m. The depth is measured across the shortest dimension of the building. Dwellings should be a maximum depth of 21m measured from the outside of the balcony. b) Variation to this standard will only be considered where it can be demonstrated that apartments will achieve the minimum requirements with regard to natural ventilation. This may be achieved where apartments have a wider frontage, or increased ceiling and window height to allow for greater penetration of natural light. The building depth is measured across the shortest access, excluding the depth of any unenclosed balconies. c) A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated.	The proposal exceeds the recommended maximum 18m depth for the western tower (Building A) as illustrated below.  The exceedance does not result in natural ventilation targets being compromised. A compliant number of units are naturally cross ventilated. Cross ventilation targets are met (63%).
<u>6.12 Visual privacy</u> 1. 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. 2. 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	Satisfactory

Objectives/controls	*Comment*
windows of rooms, particularly sleeping room and living room areas. 3. 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. <u>6.13 Acoustic Privacy</u> 1. 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. 2. 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). 3. Noise transmission from common corridors or outside the building is to be minimised by providing seals at entry doors.	Satisfactory

Objectives/controls	*Comment*
6.14 Storage **Dwelling** / **Storage Area** / **Storage Volume** One bedroom apartments — $3m^2$ — $3m^3$ Two bedroom apartments — $4m^2$ — $8m^3$ Three or more bedroom apartments — $5m^2$ — $10m^3$	Storage areas are provided in accordance with this control.

7 Planning controls for special areas

The site is not located within a special area.

8 Works in the public domain

The proposal involves upgrading the footpath along both frontages in accordance with Council's Public Domain Technical Manual.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

An Access report has been submitted with the proposal and the following accessibility provisions noted:

- The design incorporates level access into commercial tenancies and lobby areas.
- A compliant number of accessible car parking spaces are provided along with paths of travel to relevant lift lobbies are provided.
- The required number of adaptable and liveable units are provided.
- Equitable access within the development and to communal spaces is provided.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Control/objective

3.1 Lighting

Conditions of consent are recommended with regard to lighting within the development.

3.2 Natural surveillance and sightlines

The design provides suitable surveillance of publicly accessible and communal areas within the development and the street.

Sightlines around and within the development do not compromise safety.

3.3 Signage

N/A

3.4 Building design

- Entrances to buildings are clearly defined, secure, well-lit and face the street
- Blank walls are avoided
- The design does not create notable entrapment opportunities.
- Entry to the car park is controlled via a roller door.

3.5 Landscaping

Landscaped area are predominantly on structure and do not present safety concerns. The area beneath the heritage tree has good sight lines and is not accessible by the general public.

3.6 Public open space and parks.

N/A

3.7 Community facilities and public amenities

N/A

3.8 Bus stops and taxi ranks

N/A

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

6 Traffic impact assessment and public transport studies

6.1 Car Parking and Traffic Impact Assessment Study

A traffic impact assessment was submitted with the proposal.

The traffic impact assessment has been reviewed by Council's Traffic Officer and Transport for NSW Conditions of consent have been recommended.

6.2 Preliminary Construction Traffic Management Plan

A Construction Traffic Management Plan has been provided that details the construction methodology.

7 Parking demand and servicing requirements

7.1 Car Parking, Motor Cycle, Bicycle Requirements and Delivery / Servicing Vehicle Requirements

Parking for the proposal is addressed Table 1 below.

Table 1: Parking calculations

	GTTGD (high density / sub regional)	Chapter E3	Proposed
Applicable rate	0.6 per 1 bed 0.9 per 2 bed 1.4 per 2 bed visitor / 0.2	<70m² – 0.75 70-110m² – 1 >110m² – 1.25	
Car parking			
Resident (252 units) 53 x 1 164 x 2 35 x 3	53 x 0.6 = 31.8 164 x 0.9 = 147.6 35 x 1.4 = 49 Total: 228		229 (includes 26 accessible)
Visitor	252 x 0.2 = 50.4	252 x 0.2 = 50.4	51
Commercial		1,039.40 / 60 = 17	15*
Motorbike parking			
Residential	1/15 dwellings	252/15 = 17	21
Commercial		17/25	2
Bicycle parking			
Resident	1/3 dwellings	252 / 3 = 84	84

Residential visitor		252 / 12 = 21	21
Commercial		1,039 / 200 = 5	5
Commercial visitor		1,039 / 750 = 2	2

** A reduction to commercial car parking is supported as discussed at 7.4 below*

7.2 Disabled Access and Parking

A compliant number of accessible units is provided along with associated accessible car parking spaces.

7.3 Bicycle Parking / Storage Facilities and Shower and Change Facilities

Bicycle numbers comply as noted above.

Resident bicycles are situated in a secure area in the northeast corner of level 1 and accessed via the lifts.

7 commercial and 22 residential visitor bicycle spaces are provided on the Ground Floor adjacent to the entry ramp. These can either be accessed via the entry ramp or via the commercial lobby entry on the Crown Street frontage.

7.4 Waiver or Reduction of Parking Spaces

The site is directly opposite Wollongong Train Station and adjacent to major bus routes. In this respect, a reduction to the numeric rate for commercial development is acceptable.

7.7 Car Parking Layout and Design

The layout and design of car parking levels complies with the relevant standards.

7.8 Basement Car Parking

2.4m headroom clearances are provided to basement parking levels.

A geotechnical report has been provided.

Suitable manoeuvring and clearances are provided for waste collection vehicles.

7.13 Car Parking & Access Construction Requirements

Complies

7.14 Directional Signage for Car Parking Areas

Complies subject to conditions.

7.15 Green Travel Plans

No green travel plan has been provided. Notwithstanding, the development provides good quality cycle and change facilities, reduces commercial parking to encourage alternate modes of transport, and is centrally located close to transport options.

8 Vehicular access

The design of the vehicular access has been reviewed by Council's Traffic Officer as satisfying the applicable standards.

Vehicular access is provided via the right of carriageway to Parkinson Street at the rear.

9 Loading / unloading facilities and service vehicle manoeuvring

The development complies with AS 2890.2.

Waste servicing will occur on site and the design accommodates the necessary manoeuvring and clearances for the design vehicle.

Service areas are separated from sensitive land uses on adjoining sites and from residences within the development.

10 Pedestrian access

The proposal is satisfactory with regard to pedestrian access into the site and along the frontage.

Footpath upgrades are to be undertaken along the street frontage.

11 Safety & security (Crime Prevention through Environmental Design) measures for car parking areas

The proposal is satisfactory with regard to the principles of CPTED.

CHAPTER E6: LANDSCAPING

4 Minimum Information requirements to accompany a development application

4.1 Site and Context Analysis Plan

A suitable site and context analysis has been provided.

4.2 Landscape Concept Plan

A landscape concept plan prepared by an appropriately qualified consultant has been provided along with an Arborist Report.

5 Neighbourhood amenity and character

5.1 Landscape character

The proposal retains and protects the heritage listed fig tree on the site.

5.2 Streetscape character

Street trees will be installed to the frontages to improve the public domain.

Landscape planting is provided where possible to soften the appearance of the development and provide improved visual amenity.

5.3 Site Amenity

Deep soil is provided around the heritage tree and along the southern boundary.

Private open space is clearly defined with suitable privacy and amenity for occupants.

Communal open space areas are suitably landscaped.

Communal open space is accessible with suitably suitable passive surveillance.

6 General Landscaping requirements

6.1 Planting requirements

Planting is satisfactory subject to conditions.

6.2 Excavation

Satisfactory

6.3 Retaining walls

Satisfactory

6.4 Green walls, green walls and planting on a slab or podium

Conditions are included for further detail outlining the implementation and ongoing maintenance for the planting on structures.

6.5 Embankments

N/A

6.6 Noxious weeds

N/A

6.7 Street trees

Street trees are to be installed in accordance with Council's policy.

7 Car parking areas

N/A – all car parking is located at basement levels or sleeved with commercial or residential.

8 Post development consent

8.1 Tree protection during construction .

An Arborist Report has provided recommended protection measures during works to mitigate impacts to the heritage listed tree. Conditions of consent are recommended.

8.2 Maintenance

Satisfactory – suitable conditions recommended

CHAPTER E7: WASTE MANAGEMENT

5.1 Demolition

A Demolition Site Management Plan has been submitted.

5.2 Construction of Buildings or Structures

Suitable documentation has been provided regarding construction.

5.5 Residential Flat Buildings

5.5.1 General Requirements

Control	Comment
1. A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the Development Application for a proposed residential flat building.	Complies
2. The site plan and floor layout plans for the proposed residential flat building must show:	Complies
(a) The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling;	
(b) The location of the proposed communal waste/recycling storage room(s) able to accommodate all waste, recycling and garden waste bins required for the total development;	
(c) The location of any garbage chute(s) and interim storage facilities for recyclable materials;	
(d) The location of any service rooms (for accessing a garbage chute) on each floor of the building;	
(e) The location of any waste compaction equipment;	
(f) An identified location for individual compost containers or communal compost container;	
(g) An identified collection point for the collection and emptying of Council's waste, recycling and garden waste bins;	
(h) The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area); and	
(i) The on-site path of travel for collection vehicles, taking into account accessibility, width, height and grade	

5.5.2 Requirements for a Communal Waste Storage Facility

Control	Comment
1. Residential flat buildings must include communal waste/recycling storage facilities in the form of a waste/recycling storage room (or rooms) designed in accordance with Appendix 4 and the Better Practice Guide for Waste Management in Multi-Unit Dwellings.	See Table 2.

Control	Comment
2. The waste/recycling storage room must be designed to accommodate bins with the minimum dimensions specified in Appendix 3, based on the number of bins required to service the total development	Complies
3. The waste/recycling storage room must be located in a position which is accessible by all residents for the depositing of waste and for the relocation of bins to the collection position.	Complies
4. Council may in exceptional circumstances consider the location of the storage facility within the front building line setback area of the development site, in instances where a waste/recycling storage room is not possible within the basement due to access impediments or excessive slope constraints, and subject to appropriate collection arrangements being provided.	N/A
Any such storage facility must be architecturally designed to reflect the design style of the proposed building and not detract from the visual amenity and streetscape character in the immediate vicinity. In this respect, the storage facility must be screened from the street frontage via a minimum 1.5 metre high brick or masonry wall and feature landscaping and an open pergola or other similar roofline feature, in order to improve the streetscape appearance of the facility.	
In this circumstance, it must be satisfactorily demonstrated why a basement waste and recycling storage facility cannot be achieved. However, for the majority of cases, a basement waste and recycling storage facility will be required and hence, sufficient clearance height must be incorporated into the development upfront.	
Applicants should refer to the Department of Environment and Climate Change's 'Better Practice Guide for Waste Management in Multi-Unit Dwellings' for design guidelines.	
5. Each bin and bin type must be readily accessible and manoeuvrable in and out of the proposed waste/recycling storage room.	Complies
6. For residential flat buildings involving ten (10) or more dwellings, a dedicated room or caged area must be provided for the temporary storage of discarded bulky items which are awaiting removal.	Provided
The storage area must be readily accessible to all residents and must be located adjacent to or in close proximity to the main waste/recycling storage room or area.	Complies
7. The storage facility must be well lit and easily accessible from the main pedestrian access points within the development, in order to improve safety for residents.	Complies
8. The storage area shall be free of all obstructions so as not to restrict movement and servicing of the bins or containers.	Satisfactory
9. All storage areas must have buffers or wheel stops to prevent bins from making contact with walls for the purposes of noise reduction.	N/A
10. There shall be no lip or step between access point to the storage area and the collection point.	Satisfactory
11. The ground surface of the storage area shall be of a smooth finish to enable easy movement of the bins/containers and minimise noise impacts.	Complies
12. There must be an unobstructed and Continuous Accessible Path of Travel (as per Australian Standard 1428 Design for Access and Mobility - 2001) from the waste/recycling storage room(s) or area(s) to:	Complies

Control	Comment
− The entry to any Adaptable Housing (as per Australian Standard 4299 Adaptable Housing -1995); − The principal entrance to each residential flat building; and − The point at which bins are collected/emptied. In instances where a proposal does not comply with these requirements, Council will consider alternative proposals that seek to achieve a reasonable level of access to waste/recycling storage room(s) or area(s).	
13. Where the number of bins proposed can be accommodated within 50% of the developments frontage on collection day, bins may be collected from a kerbside location. In instances where kerbside bin collection can not be accommodated or is not appropriate due to safety or functional constraints, bins must be collected onsite.	N/A – on site collection proposed.
14. Where bins cannot be collected from a kerbside location, the development must be designed to allow for on-site access by garbage collection vehicles of dimensions detailed in Appendix 7. The proposed collection vehicle must be nominated in the development application documentation and must be supported by evidence demonstrating that such a collection service is readily available. The site must be configured so as to allow collection vehicles to enter and exit the site in a forward direction and so that collection vehicles do not impede general access to, from or within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles. Note: As a minimum requirement for collection vehicle access, Council will require indemnity against claims for loss or damage to the pavement or other driving surface. Council may also require indemnity against liabilities, losses, damages and any other demands arising from any on-site collection service. In all cases, a hazard assessment will need to be conducted prior to Council agreeing to undertake the service.	Complies
15. Should a collection vehicle be required to enter a property, access driveways and internal roads must be designed in accordance with Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities – 2002.	Complies
16. If bins need to be moved from normal storage areas to a different location for collection purposes, it is the responsibility of agents of the owners' corporation to move the bins to the collection point no earlier than the evening before collection day and to then return the bins to their storage areas no later than the evening of collection day. Bins are to remain in their on-site storage areas at all other times.	N/A
17. Residents should have access to a cold water supply for the cleaning of bins and the waste storage areas. Storage areas should be constructed and designed to be weather proof and easy to clean, with wastewater discharged to sewer.	Satisfactory
18. Garbage chutes must be designed in accordance with Appendix 5, the Building Code of Australiaand the guidelines contained in Better Practice Guide for Waste Management in Multi-Unit Dwellings. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use. Alternative interim disposal facilities for recyclables should be provided at each point of access to	Satisfactory

Control	Comment
the garbage chute system. No garbage chutes are permitted on balcony areas.	
19. A communal green waste bin must be provided of sufficient capacity to accept waste from the landscaped areas.	complies
20. Each dwelling unit should be provided with an indoor waste/recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day's garbage and recycling generation.	

Table 2: Waste generation rates (Better practice guide for resource recovery in residential developments)

	Beds	No.	Rate (L/wk)	Total (L)	Proposed
General	one	53	80	4,240	
	two	164	100	16,400	
	three	35	120	4,200	
				24,840	**15,400** *14 x 1100L MGB compacted 2:1*
Recycle		53	80	4,240	
	one	164	100	16,400	
	two	35	120	4,200	
	three			**24,840**	**30,800** *(28 x 1100L MGB)*
FOGO					
	one	53	25	1,325	
	two	164	25	4,100	
	three	35	50	1,750	
				7,175	**3,840*** *16 x 240L*

*conditions apply to enlarging capacity to satisfy rates under Better practice guide

- The development incorporates two residential waste rooms (one for Building A and the townhouse units, and one for Building B) along with a separate commercial waste room. All waste is transported by facilities management staff via bin tug to a combined waste collection room on the Ground Floor.
- A waste room is provided in the lobby area of Buildings A and B. That room accommodates a general waste chute, along with bins for recycling and FOGO waste.
- All waste from the townhouse units is transported manually to the basement waste rooms.
- All waste from the commercial units is transferred manually to the communal waste room on level G.

- Waste collection occurs on-site adjacent the entry ramp and sufficient manoeuvring area and clearances are provided.

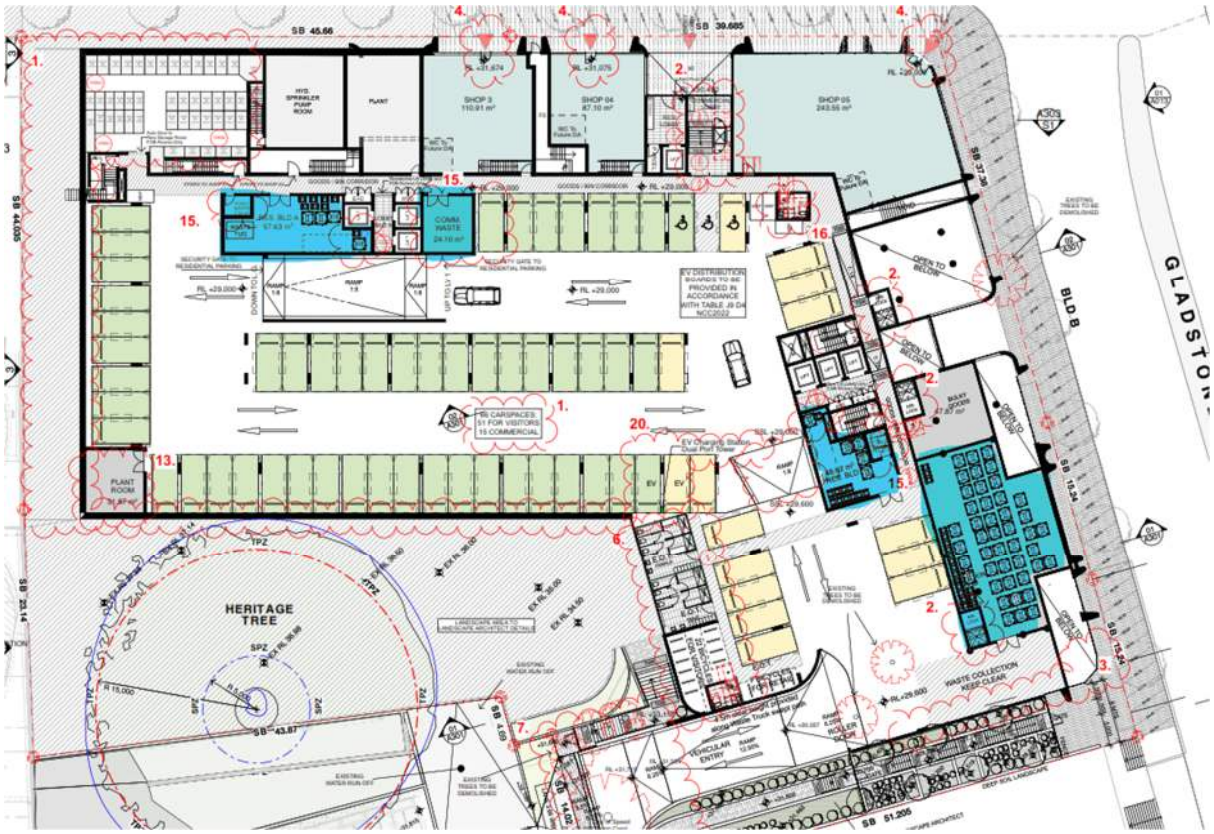


Figure 1: Waste rooms Ground Floor

5.5.2 Requirements for a Communal Waste Storage Facility

Separate bin rooms are provided for which accommodate general, recycling and FOGO waste. A separate bulky waste room is provided.

The bin rooms are sufficiently sized to accommodate the number of bins and are readily accessible by occupants of the building.

The Operational Waste Management Plan makes provision for the building manager to arrangements for problem waste.

On-site servicing is proposed and compliant clearances and manoeuvring areas are provided for Council's waste vehicle.

5.6 Mixed Use Development

Control	Comment
1. A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the Development Application.	
2. The controls for Residential Flat Buildings apply to the residential component of mixed-use development.	Complies
3. The controls for Commercial Developments apply to the non-residential component of mixed-use development.	Complies
4. Mixed Use development must incorporate separate and self-contained waste management systems for the residential component and the non-residential component. In particular, the development must incorporate separate waste/recycling storage rooms/areas for the residential and non-residential	Complies

Control	Comment
components. Commercial tenants must be prevented (via signage and other means), from using the residential waste/recycling bins and vice versa.	
5. The residential waste management system and the non-residential waste management system must be designed so that they can efficiently operate without conflict. Conflict may potentially occur between residential and non-residential storage, collection and removal systems, and between these systems and the surrounding land uses. For example, collection vehicles disrupting peak residential and commercial traffic flows or causing noise issues when residents are sleeping.	Satisfactory
6. A garbage storage room at the basement level must be provided for mixed use developments.	Complies
7. A bin collection layout must be submitted with a Development Application.	Complies
8. A communal green waste bin must be provided of sufficient capacity to accept waste from any landscaped areas located on the site.	Complies
9. Waste storage for the commercial component of the building must be calculated having regard to the anticipated waste generation rates of the intended occupants (Refer to Appendix 2).	Complies
10. The garbage storage room must be designed to accommodate the number of bins required for the development. The storage room must be located in a position which is accessible by all residents for the depositing of waste and for the relocation of bins to the collection position.	Complies
11. The garbage storage room must be designed to accommodate bins with the following minimum dimensions as indicated in Appendix 6	Complies

5.7 Commercial Development and Change of Use

Control	Comment
1. A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the Development Application.	Complies
2. The plans submitted with the application must show:	Complies
(a) The location of the designated waste and recycling storage room(s) or areas, sized to meet the waste and recycling needs of all tenants;	
(b) The location of temporary waste and recycling storage areas within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of waste;	
(c) An identified collection point for the collection and emptying of waste, recycling and garden waste bins;	
(d) The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area); and	
(e) The on-site path of travel for collection vehicles (if collection is to occur on-site).	
3. There must be convenient access from each tenancy and / or larger waste producing area of the development to the waste / recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected / emptied and the waste / recycling storage room(s) or area(s).	Satisfactory
4. Every development must include a designated general waste / recycling storage area or room(s) designed in accordance with Appendix 6 Commercial/Industrial Waste and Recycling Storage Areas.	Complies

Control	Comment
5. Depending upon the size and type of the development, it may be necessary to include a separate waste / recycling storage room or area for each tenancy.	N/A
6. Arrangements must be in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in all parts of the development for the movement of recyclable materials and general waste to the main waste / recycling storage room / area. For multiple storey buildings, this may require the provision of a goods lift.	Satisfactory
7. The waste / recycling storage room or area must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated at the rate described in Appendix 4, Waste / Recycling Generation Rates between collections.	Complies
8. A waste / recycling cupboard must be provided for each and every kitchen area in a development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. Each waste / recycling cupboard must be of sufficient size to hold a minimum of a single days waste and to hold separate containers for general waste and recyclable materials.	N/A
9. For sites containing road frontages, the development should be designed to make provision for adequate access arrangements for servicing of the waste and recycling storage bin area from the rear or secondary access road.	N/A
10. Any garbage chutes must be designed in accordance with the requirements of the Building Code of Australia and Appendix 5 to this part of the DCP.	N/A

5.7.2 Operational Requirements

Control	Comment
1. All commercial tenants must keep written evidence on site of a valid contract with a licensed waste contractor for the regular collection and disposal of the waste and recyclables that are generated on the site.	Tenants not know yet.
2. Between collection periods, all waste / recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must stored in the designated waste / recycling storage room(s) or area(s).	Satisfactory
3. The waste / recycling storage room or area must provide separate containers for the separation of recyclable materials from general waste. Standard and consistent signage on how to use the waste management facilities should be clearly displayed.	Complies
4. Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater run-off entering the stormwater system.	Complies
5. Premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection.	N/A
6. Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.	Satisfactory

Control	Comment
7. Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. In the Sydney Metropolitan Area this is Sydney Water. Sydney Water defines trade wastewater as 'any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets).'	N/A

Residential

- Waste bin rooms are located on Ground and Level 2. The bins will be moved from waste storage areas to collection area with a bin tug.

CHAPTER E9 HOARDINGS AND CRANES

Conditions of consent are recommended with regard to use of hoardings and cranes.

CHAPTER E10 ABORIGINAL HERITAGE

A condition of consent is recommended with regard to unexpected Aboriginal finds.

CHAPTER E11 HERITAGE CONSERVATION

See discussion elsewhere within this report with regard to heritage matters.

CHAPTER E12 GEOTECHNICAL ASSESSMENT

A geotechnical report was submitted with the application. Council's geotechnical engineer concluded that the submitted geotechnical report provided an accurate representation of the current site conditions and recommended a range of relevant recommendations. Subject to adherence to the draft conditions, the requirements and objectives of this Chapter are satisfied.

CHAPTER E13 FLOODPLAIN MANAGEMENT

The site is not identified as being flood affected.

CHAPTER E14 STORMWATER MANAGEMENT

Stormwater is proposed to be disposed of to the street. Council's stormwater engineer has reviewed the proposal with respect to the provisions of this chapter and has recommended conditions of consent.

CHAPTER E15 WATER SENSITIVE URBAN DESIGN

A Water Sensitive Design report was submitted with the application. The application was referred to Council's Stormwater Engineer and Environment Officer, who both provided conditions of consent.

The landscape and stormwater plans appear to be integrated. A suitable condition to ensure the final stormwater and landscape plans are integrated is recommended.

Council's stormwater engineer has assessed the application and confirmed the proposal is unlikely to result in a significant increase in stormwater runoff, subject to the proposed mitigation measures included in the stormwater design and the recommended conditions of consent.

Water storage tanks are proposed, which are capable of providing water for landscaped parts of the site. Gross pollutant traps are also proposed to meet Council's pollutant targets established in this Chapter.

Subject to conditions, the requirements and objectives of this Chapter are considered to be satisfied.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

7.1 Development Application – Lodgement Requirements

Detailed Landscape drawings were submitted with the application, as well as an arborist report. The plans detail the proposal to retain the heritage listed Fig Tree. The submitted landscape plans detail additional planting proposed throughout the site.

7.2 Tree and vegetation management as part of a development proposal

The application was referred to Council's Landscape Officer. Outstanding concerns remain regarding the overshadowing impacts to the heritage listed tree as discussed elsewhere in this report.

Recommended conditions include requirements for tree retention and protection works, arborist certification and supervision, preparation of a final landscape requirements and planting of street trees.

Subject to the above conditions, the requirements and objectives of this Chapter are considered to be satisfied.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

Appropriate conditions are recommended relating to management of works during excavation to ensure impacts to the locality are mitigated.

In addition, standard conditions are recommended relating to the removal of waste and excess soil for the site, sediment/erosion control, and waste classification of excavation soils.

Subject to the above conditions, the requirements and objectives of this Chapter are considered to be satisfied.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

A Remediation Action Plan was submitted addressing the prior use of the land for a service station. The proposal was referred to Council's Environment Officer who assessed the application with relation to the requirements and objectives of this chapter and Chapter 4 of SEPP (Resilience and Hazards) 2021. Subject to conditions, the requirements and objectives of this Chapter are considered to be satisfied.

CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT

Demolition of all buildings on the site is proposed.

2 Objectives

a) Ensure that demolition is undertaken in a manner that minimises waste generation and adverse amenity impacts.

b) Protect the health and safety of persons involved in or situated in close proximity to demolition works particularly those involving hazardous building materials; and

c) Ensure hazardous building materials are removed in accordance with relevant NSW WorkCover Authority requirements and relevant Australian Standards.

The proposal is acceptable having regard to the objectives of this chapter subject to conditions of consent relating to demolition, asbestos management, hours of work, waste disposal.

5 DEMOLITION OF BUILDINGS

5.1 Demolition work plan

A Demolition Site Management Plan has been prepared.

5.2 Other information requirements for demolition works

A Site Waste Minimisation and Management Plan has been provided.

Conditions of consent are recommended with regard to obtaining a dilapidation report for adjoining properties and the public domain.

A Hazardous Building Materials Assessment is to be prepared prior to demolition works commencing.

6 HAZAROUS BUILDING MATERIALS MANAGEMENT

6.1 Types of asbestos and health impacts

Conditions of consent are recommended regarding asbestos waste handling and disposal.

6.2 Procedures for handling asbestos material

Conditions of consent are recommended regarding asbestos waste handling and disposal.

6.3 Lead Work

Conditions of consent are recommended regarding any lead handling and disposal.

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.