

## Attachment 7: Wollongong WDCP 2009 assessment

### 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.

### CHAPTER D13 – WOLLONGONG CITY CENTRE


#### 2 Building form

<i>Objectives/controls</i>	<i>Comment</i>	<i>Compliance</i>
<u>2.2 Building to street alignment and street setbacks</u>		
A 0m/zero street setback is required up to street frontage height	0m front setback to street frontage height	Yes
Minimum 4m setback above street frontage height.	Achieved noting some encroachments of balconies and blade walls up to 3.7m.	Yes
Balconies may project up to 600mm into front setback if the width of all balconies <50% of the building facade	Projections represent <50% of the width of the front façade.	Yes
<u>2.3 Street frontage heights in commercial core</u>		
Buildings in the Commercial Core to be built to the street alignment with a preferred street frontage height of 12m-24m	15.45m street frontage height	Yes
<u>2.4 Building depth and bulk</u>		
Maximum building depth of 18m & floorplate of 900sqm is required for buildings above 24m in height	Above 24m height = L6 Floorplate 610sqm which complies. Maximum building depth approx. 35m (E-W) however as ADG requirements for solar access and ventilation are achieved the building depth is considered acceptable	No

Objectives/controls	Comment	Compliance
<u>2.5 Side and rear building setbacks and building separation</u>		
Up to street frontage height 0m	Note - visual privacy under ADG 0m-14m side setback 12m rear setback	Yes
All uses btwn street frontage height and 45m 6m side & rear setback		
Residential uses btwn street frontage height - 45m 12m – habitable 6m -non habitable	Up to Level 13 12m side and rear setback above street frontage height (habitable and non-hab)	Yes
All uses above 45m 14m	Above 45m = L13 and above 12m	No
<u>2.6 Mixed used buildings</u>		
3.6m floor to ceiling height eg retail/restaurants & 3.3m floor to ceiling height for commercial office	5.9m floor to floor height (4.5m ceiling height) at ground level which includes lobby and cafe. 3.3m floor to floor for hotel levels (does not achieve 3.3m floor to ceiling height for commercial offices however different use proposed)	Yes.
Separate commercial service requirements (eg loading docks)	1 loading dock is proposed however appears capable of meeting the needs of the development.	
Clearly distinguish commercial and residential entries	Separate hotel and residential lobby areas are provided	
NB – setback controls in this part relate to development in all zones except in commercial core, therefore do not apply		
<u>2.7 Deep soil zone</u>		
15% of site area with minimum dimension of 6m. Site area is 2466m <sup>2</sup> = 370m <sup>2</sup> DSZ	Deep soil planting proposed on podium at rear of hotel.	Yes
Where non-residential components result in full site coverage, deep soil component must be provided on structure	Calculated at ~400sqm = 16%, so numerically complies.	
<u>2.8 Landscape design</u>	Landscape is satisfactory – species around pool?	Yes

Objectives/controls	Comment	Compliance
<u>2.9 Green roofs, green walls and planting on structures</u>	Satisfactory subject to conditions	Yes
<u>2.10 Sun access planes</u>	Not applicable	N/A
<u>2.11 Development on classified roads</u>	Not applicable	N/A

### 3 Pedestrian amenity

Objectives/controls	Comment	Compliance
<u>3.1 General</u>		
<u>3.2 Permeability</u> <p>An existing pedestrian link is identified along the northern side of 24 Kenny St in Figure 3.1</p>  <p>Figure 3.1: Permeability</p> <p>Legend:</p> <ul style="list-style-type: none"> <li>Lanes - Existing</li> <li>Lanes - Proposed</li> <li>Pedestrian links - Existing</li> </ul>	<p>There is no existing pedestrian link as shown in this figure. The site is not identified as a future link. Providing a link is not feasible given the existing buildings and approved developments to the west of the site.</p>	N/A
<u>3.3 Active street frontages</u> <p>Objectives:</p> <p>a) To promote pedestrian activity and safety in the public domain.</p> <p>b) To maximise active street fronts in Wollongong city centre.</p> <p>c) To define areas where active streets are required or are desirable.</p> <p>An active street frontage is required under Figure 3.4.</p>	<p>An active frontage is provided through the hotel entrance and bifold window opening to the café (no direct access).</p> <p>The site is flood affected therefore entrances at street level is a challenge. Given the site constraints, the design will result in good street activation.</p> <p>The residential lobby has been redesigned to be more generous and provide an improved street presence.</p>	Yes

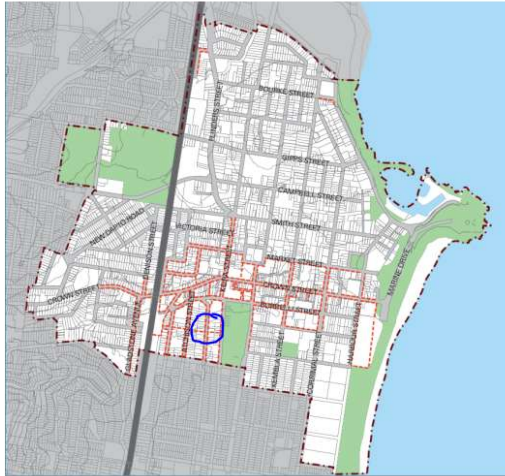


Figure 3.4: Active street frontages



Active frontage uses are defined as one or a combination of the following at street level:

Entrance to retail.

Shop front.

Glazed entries to commercial and residential lobbies occupying less than 50% of the street frontage, to a maximum of 12 metres frontage.

Café or restaurant if accompanied by an entry from the street.

Active office uses, such as reception, if visible from the street.

Public building if accompanied by an entry.

### 3.4 Safety and security

a) Ensure that the building design allows for casual surveillance of accessways, entries and driveways.

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.

The site incorporates screening in the form of open screens to the external facades where overland flow needs to be accommodated.

Yes

Conditions are recommended for further detailed design of the screens to be provided to Council's satisfaction prior to issue of the Construction Certificate

Secure access will be required to access the hotel and only allow guests to access the relevant areas (eg their floor and communal facilities).

Secure basement access for residents is provided by a secure boom gate to separate parking for hotel guests and residential visitors.

<p>f) Provide clear lines of sight and well-lit routes throughout the development.</p> <p>g) Where a pedestrian pathway is provided from the street, allow for casual surveillance of the pathway.</p> <p>h) For large scale retail and commercial development with a GFA of over 5,000m<sup>2</sup>, provide a 'safety by design' assessment in accordance with the CPTED principles.</p> <p>i) Provide security access controls where appropriate.</p> <p>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.</p>	<p>Casual surveillance will be available from the café (bifold windows) and the hotel lobby, as well as hotel rooms within the podium levels.</p>	
<p><u>3.5 Awnings</u></p> <p>A continuous awning is required as shown in Figure 3.6</p>	<p>An awning is provided in accordance with the controls.</p>	Yes
<p><u>3.6 Vehicular footpath crossings</u></p>	<p>A single vehicle entrance is proposed on the southern boundary of the site.</p> <p>Refer E3 Assessment</p>	
<p><u>3.7 Pedestrian overpasses, underpasses and encroachments</u></p>	<p>N/A</p>	N/A
<p><u>3.8 Building exteriors</u></p>	<p>The building exterior is dominated by glazing, with operable aluminium louvres being provided to the podium level, and the glazing broken up by vertical fins.</p> <p>Durable external cladding including metallic bronze elements are proposed. Precast panels to the northern and southern boundaries with a cabbage tree palm graphic will provide some visual interest at the lower podium levels noting future redevelopment of the adjoining sites is likely to follow a similar pattern which will hide the concrete podium.</p>	Yes
<p><u>3.9 Advertising and signage</u></p>	<p>No signage is proposed.</p>	N/A
<p><u>3.10 Views and view corridors</u></p> <p><i>Objectives</i></p>		Yes

a) To maintain and enhance views from the city centre to the foreshore, escarpment and significant objects (such as the lighthouse) wherever possible.

b) To enhance views along city streets.

c) To protect silhouettes of the tops of major buildings or structures as seen against the sky or backdrop of the escarpment or foreshore.



The site is outside the area identified in Figure 3.12 as 'distant panoramic views' however is identified as a 'framed view along streets'.

The proposed development does not exceed the maximum 60m building height permitted for the site and has minor encroachments into the front setback which are allowable under the DCP (balconies and minor building projections such as blade walls). No adverse view impacts are anticipated to the framed view along the street given the compliant height and front setbacks.

#### 4 Access, parking and servicing

Objectives/controls	Comment	Compliance
<p><u>4.2 Pedestrian access and mobility</u></p> <p>Objectives</p> <p>a) To provide safe and easy access to buildings to enable better use and enjoyment by people regardless of age and physical condition, whilst also contributing to the vitality and vibrancy of the public domain.</p> <p>b) To ensure buildings and places are accessible to people with a disability. 4.2.2</p>	<p>Accessible entry is provided to the ground floor by compliant ramp access.</p>	<p>Yes</p>
<p><u>4.3 Vehicular driveways and manoeuvring areas</u></p>	<p>Vehicle access is from the southern end of the site, with the driveway location and vehicle manoeuvrability found satisfactory by Council's traffic engineer.</p>	<p>Yes</p>

#### 4.4 On-site parking

NA for residential component - GTGD applies under ADG

Hotel

0.5 spaces per room + 1 space per 4 staff = 31 Spaces

Café – 1 per 25m<sup>2</sup> = 4

Required parking under GTGD for residential component is 62 car spaces which have been provided.

56 hotel units with 12 staff = 31 spaces

4 spaces provided for cafe

Some commercial parking is provided at ground level, sleeved behind the hotel lobby and café so that it is not visible and integrated into the design of the building.

Refer ADG

Yes

Yes

#### 4.5 Site facilities and services

The building is serviced by the major utilities and the requirement for suitable servicing arrangements are included in the recommended conditions in **Attachment 8**.

Waste storage and collection is located on the ground floor screened from the public view and located to minimise noise impacts on the residential units.

A waste and service dock is suitably located, noting that a 10.24m truck can access and manoeuvre as required.

Yes

### **5 Environmental management**

#### *Objectives/controls*

#### *Comment*

#### *Compliance*

#### 5.2 Energy efficiency and conservation

Objectives

a) To reduce the necessity for mechanical heating and cooling.

b) To minimise greenhouse gas emissions.

c) To use natural climatic advantages of the coastal location such as cooling summer breezes, and exposure to unobstructed winter sun.

Satisfactory – BASIX certificate provided.

North facing units will allow good solar access and requirements under the ADG for natural ventilation is achieved.

Yes

#### 5.3 Water conservation

Objectives

a) To reduce per-capita mains consumption of potable water.

Satisfactory – BASIX certificate provided.

Rainwater tank provided for COS areas.

Yes

<p>b) To harvest rainwater and urban stormwater runoff for use.</p> <p>c) To reduce wastewater discharge.</p> <p>d) To capture, treat and reuse wastewater where appropriate.</p> <p>e) To safeguard the environment by improving the quality of water run-off.</p> <p>f) To ensure infrastructure design is complementary to current and future water use.</p>	<p>Suitable WSUD proposed for water quality (condition recommended)</p>	
<p><u>5.4 Reflectivity</u></p>	<p>Glazed northern façade – Condition recommended for reflectivity not to exceed 20% noting extent of glazing</p>	<p>Yes</p>
<p><u>5.5 Wind mitigation</u></p>	<p>A Wind Impact report has been submitted which makes specific recommendations to mitigate wind impacts, particularly for the Level 4 COS area.</p>	<p>Yes</p>
<p><u>5.6 Waste and recycling</u></p>	<p>A site management plan has been submitted for construction works.</p> <p>A SWMMP has been submitted for the demolition works and for the ongoing use of the development.</p> <p>Commercial and hotel waste storage for general and recyclable waste is provided in a dedicated storage room on the ground floor.</p> <p>Suitable residential waste storage and disposal is proposed, with garbage chutes for putrescible waste provided for residents, and recycling bins on each level for collection to take to waste storage rooms on the ground floor.</p> <p>Onsite garbage collection is proposed.</p> <p>The SWMPP indicates that the green waste will be collected by private contractors, however this does not allow for food waste to be included in the upcoming FOGO program WCC is in the process of implementing. Adequate space should be provided for green waste bins to utilise the FOGO system.</p>	<p>Yes</p>



## 6 Residential development standards

<i>Objectives/controls</i>	<i>Comment</i>	<i>Compliance</i>
<u>6.1 SEPP 65</u>	Refer SEPP 65/ADG assessment in Attachment 6	
<u>6.2 Housing choice and mix</u>	<p>The development provides 75 units in the following type:</p> <p>1B – 11 (15%)</p> <p>2B – 58 (77%)</p> <p>3 &amp; 4B – (6 comprising 4 x 3B + 2 x 4B) = 8%</p> <p>Although the larger units do not achieve the minimum 10% requirement, an adequate range of units are proposed noting the higher % of 1B units</p> <p>8 x adaptable units are proposed (=10% - complies) noting a total of 15 units are liveable (including the 8 x adaptable)</p>	Yes
<u>6.6 Basement Carparks</u>	Satisfactory	Yes
<u>6.7 Communal open space</u>	Refer ADG	
<u>6.8 Private open space</u>	Refer ADG	
<u>6.9 Overshadowing</u>	<p>The proposal will overshadow the existing apartment buildings to the west (27 and 31 Atchison St to the west in the mornings on 21 June). Given the B3 commercial core zoning and the built form outcome anticipated by the controls, including a 60m height limit, sunlight access to dwellings is difficult to protect and the east-west orientation of lots exacerbates these impacts.</p> <p>This is discussed in the body of the report.</p>	
<u>6.10 Solar access</u>	Refer ADG	

<i>Objectives/controls</i>	<i>Comment</i>	<i>Compliance</i>
<u>6.11 Natural ventilation</u>	Refer ADG	
<u>6.12 Visual privacy</u>	Refer ADG	
<u>6.13 Acoustic Privacy</u>	Refer ADG	
<u>6.14 Storage</u>	Refer ADG	

## **7 Planning controls for special areas**

The site is not located within a special area.

## **8 Works in the public domain**

Street tree planting and footpath upgrades will be required in accordance with Council's requirements.

### **CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY**

An Access Report has been provided indicating the development can achieve the requirements for equitable and dignified access to the building, adaptable units, liveable units in relation to the relevant standards, national Construction Code and ADG requirements.

### **CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN**

The proposal is considered to be satisfactory with regard to the Principles of Crime Prevention Through Environmental Design.

No significant concealment or entrapment opportunities are anticipated, noting that fencing is provided on the Kenny Street frontage to restrict access to the drainage overflow path.

Access to residential car park area is secure.

Hotel lobby and residential lobby areas and lifts are separated.

Passive surveillance of the street is provided.

### **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 not required for the development.

The traffic impact assessment has been reviewed by Council's Traffic Officer who has not raised any concerns subject to conditions of consent.

### 6.2 Preliminary Construction Traffic Management Plan

Conditions of consent are recommended with regards to traffic management during construction.

## **7 Parking demand and servicing requirements**

### 7.1 Car Parking, Motorcycle, Bicycle Requirements and Delivery / Servicing Vehicle Requirements

<b>Use / component</b>	<b>Parking rate</b>	<b>Required</b>	<b>Proposed</b>
<b><i>Car parking</i></b>			

Commercial	1 per 25m <sup>2</sup>	100/25 = 4	4 (incl 1 adaptable) = 1 secure bicycle space
Hotel	0.5 spaces per room + 1 space per 4 staff  1 motor cycle space per 25 car parking spaces  No bicycle parking required aside from 1 secure bicycle space	56 hotel rooms = 28 spaces  3 staff spaces	28 hotel guest (includes 2 accessible spaces)  3 hotel staff spaces  2 hotel motorcycle spaces  1 secure bicycle space
Residential	RMS Guide ( <i>lesser rate applies under the ADG</i> )  1 bed 0.6 2 bed 0.9 3+ bed 1.4	75 units in total  11 x 0.6 = 6.6 58 x 0.9 = 52.2 6 x 1.4 = 8.4 Total Res = 67.2 (68)	68 residential
Visitor	0.2 per unit	75 x 0.2 = 15	15
<b>Total car parking</b>		<b>118</b>	<b>118</b>

Provision of parking for motorcycles and bicycles has been provided for each land use in accordance with the requirements of this chapter.

#### 7.2 Disabled Access and Parking

The required number of accessible spaces are provided across all uses.

#### 7.3 Bicycle Parking / Storage Facilities and Shower and Change Facilities

The required bicycle parking is provided across all uses.

#### 7.4 Waiver or Reduction of Parking Spaces

No waiver or reductions has been sought under this clause.

#### 7.5 Car Parking Credits for Existing Development

No waivers are sought under this clause

### **8 Vehicular access**

Driveway grades and sight distances comply.

### **9 Loading / unloading facilities and service vehicle manoeuvring**

The development complies with AS 2890.2.

Waste servicing will occur onsite from the internal loading bay and swept paths have been assessed as satisfactory.

### **10 Pedestrian access**

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

<i>Control/objective</i>	<i>Comment</i>
4 Minimum Information requirements to accompany a development application	Satisfactory  Landscape plans prepared by Oculus have been submitted with the application in accordance with Part 4 this chapter.
5.1 Landscape character	Satisfactory
1. Landscape design should reinforce the identified natural attributes of the site, including, but not limited to watercourses, landmark elements, views and vistas and significant trees.	The site does not contain any significant landscape features.  No trees site within the site are proposed for removal (one street tree is to be retained).
2. Remnant native vegetation should be retained, managed and incorporated into landscape design, wherever practicable.	
3. Landscape design should also maintain or improve the amenity and visual quality of the site. Landscaping measures are required to help to screen visually obtrusive land uses or buildings.	
5.2 Streetscape character	Satisfactory
1. The assessment of the prevailing streetscape character of a locality is required as part of the preparation of the Landscape Concept Plan for a proposed development.	The proposed greening of both podium levels, the retention of existing street trees, and high-quality pavements are consistent with the desired streetscape outcome and are supported by Council's Landscape division.
2. The Landscape Concept Plan should ensure that all positive streetscape elements are incorporated into the design of proposed landscaping measures. Key features contributing to the streetscape character of the locality may include:	Additional street tree planting along Kenny Street is required to be provided as part of a development. Standard conditions have been recommended.  Conditions are included regarding footpath grades and pavement types along the frontage of the site.  A detailed landscape plan will be required prior to issue of a Construction Certificate.
(a) Street trees.	
(b) Remnant stands of trees.	
(c) Architectural character.	
(d) Prevailing built form, including dwelling types, prevailing front setbacks, building height / form etc.	
(e) Existing uses (e.g. residential, industrial etc).	
(f) Heritage buildings or heritage conservation areas.	

(g) Car parking, especially the level of on-street parking and off-street parking.

(h) Linkages with other open space areas in the locality.

(i) Street furniture, fences, gates etc.

3. Landscaping should be used to soften the impact of buildings and to assist in providing visual relief to buildings.

4. Landscaping should also be used to soften the impact of car parking areas, when viewed from the public domain.

5. The developer is responsible for the construction of footpath paving for the entire frontage of the development for the full width of the verge where Council deems it appropriate.

(a) The type of paving is to be in accordance with:

1. The Wollongong City Council Public Domain Technical Manual within the City Centre.

2. Determined by Council according to the location.

(b) A nominal two percent (2%), minimum one percent (1%), maximum two and a half percent (2.5%) cross fall to be provided from property line to back of kerb.

(c) The driveway entry threshold finish from the property boundary line to the face of the kerb must match the footpath and be designed to withstand predicted traffic loadings.

(d) The driveway threshold finish within the property boundary line should contrast with the driveway entry.

(e) Footpath must be installed to the satisfaction of Wollongong City Council.

(f) A Landscape Plan is to be submitted to Council for approval prior to the issue of the Construction Certificate showing proposed paving and location of all services.

6. A change in driveway pavement is required at the entrance threshold within the property boundary to clearly show to motorists they are crossing a pedestrian area. Between the property boundary

and the kerb, the developer must construct the driveway pavement in accordance with the conditions, technical specifications and levels to be obtained from the Council's Manager of Works. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

### 5.3 Site Amenities

1. The landscape design should maximise the area of the deep soil zone, especially around existing trees to provide sufficient root depth as well as deep soil zones around the perimeter of a site.

2. Landscaping should be used to highlight architectural features, define entry points, indicate direction and frame and filter views into the site.

3. Small trees or large shrubs should be used to help screen service areas.

4. Private open space should be clearly defined and provide satisfactory privacy and amenity to occupants.

5. Public open space / communal open space areas must incorporate appropriate landscaping and be designed to maximise natural surveillance opportunities whilst providing adequate shade trees.

6. Communal open space for multi-dwelling housing or attached dwellings must be accessible from all dwellings in the development and should incorporate suitable passive surveillance to improve safety.

### 6 General Landscaping requirements

6.1 Planting requirements

6.2 Excavation

6.3 Retaining walls

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

6.5 Embankments

6.6 Noxious weeds

6.7 Street trees

Satisfactory

The landscape design for the internal plaza area and for the communal open spaces for the hotel and residential apartments is acceptable subject to standard conditions

Satisfactory

Satisfactory

Satisfactory

Satisfactory

N/A

N/A

Satisfactory

<p>1. Street trees, where appropriate should seek to provide:</p> <p>(a) Shade; and</p> <p>(b) Enhancement of visual quality of the streetscape.</p> <p>2. All street trees should be retained and protected during the construction phase of a development. 3. Street trees should be installed at regular intervals (between 5 – 10 metres apart) to enhance the appearance of the locality. The tree species type and required intervals for the street tree planting will be determined by Council during the application assessment process, depending upon the nature of the development.</p> <p>4. The location of Street Trees should take into account overhead and underground services.</p> <p>5. At the time of planting street trees require the installation of root barriers (maximum depth 600mm) directly adjacent to the kerb to prevent future damage to the kerb, guttering or road. In addition, root barriers should be placed to protect existing adjacent services where needed.</p> <p>6. Where trees are to be planted in areas with hard surfaces, suitable grates are to be laid around the tree to protect the roots and enable water infiltration.</p> <p>7. Minimum plant requirements for Street Trees are 200 litre container size, in accordance with AS 2303: 2015 Tree stock for landscape use.</p> <p>8. All street trees or streetscape landscaping requirements should be included in the Landscape Concept Plan. Refer to Table 2 for suitable Street Tree Species for the Wollongong LGA.</p>	<p>Conditions are recommended in relation to the retention and protection of the existing street tree on Kenny Street as well as additional street tree planting.</p>
<p>7 Car parking areas</p>	<p>N/A – all car parking is located at basement levels or sleeved at ground level</p>
<p>8 Post development consent</p>	<p>Satisfactory – suitable conditions recommended</p>
<p>8.1 Tree protection during construction .</p>	<p>Satisfactory</p> <p>An Arborist Report prepared by Allied tree Consultancy accompanied the application identifying protection measures required for the street tree required to be retained. Tree protection conditions are recommended.</p>

**CHAPTER E7: WASTE MANAGEMENT**

A Site Waste Minimisation and Management Plan has been provided in accordance with this chapter.

The proposal involves demolition of all structures on the sites and a demolition plan has accordingly been provided.

The management of demolition and construction waste has been considered by Council's Environment division, who has recommended suitable conditions.

An Operational Site Waste Minimisation and Management Plan has been provided by Elephants Foot in accordance with this chapter. As a single loading dock is proposed to service the development,

Suitable waste areas are provided for the residential, including FOGO. Separate waste rooms for non-residential waste is provided.

**CHAPTER E9 HOARDINGS AND CRANES**

Conditions are included requiring the installation of a hoarding where the work could potentially conflict with pedestrians or vehicles.

A condition is recommended to ensure the hoardings constructed are of an appropriate type and in accordance with the relevant legislation and Australian Standards, including the requirement for a permit to be sought prior to any hoardings being constructed in a public area.

Conditions relating to the protection of trees are recommended.

A condition relating to the preparation of a site management, pedestrian and traffic management plan be created including details site ingress/egress points, protection/management of pedestrians and vehicles, loading/unloading, traffic control measures, excavated material storage and transport.

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

**CHAPTER E12 GEOTECHNICAL ASSESSMENT**

The application has been reviewed by Council's Geotechnical Engineer in relation to site stability and the suitability of the site for the development. 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.

Appropriate conditions have been recommended.

**CHAPTER E13 FLOODPLAIN MANAGEMENT**

The site is identified as being located within a flood risk precinct under review. A flood study and concept stormwater plan have been provided. The flood study concludes the site is medium flood risk. The site receives overland flow and floodwaters from adjoining properties that have been accommodated into the design of the development, with the building incorporating screens to allow the flow of water through the site. The ground floor of the building has been elevated and flood doors proposed to address the flooding constraints of the site. Council's stormwater engineer has reviewed the proposal with respect to the provisions of this chapter and clause 5.21 of WLEP 2009 and has recommended conditions of consent.

**CHAPTER E14 STORMWATER MANAGEMENT**

Stormwater is proposed to be disposed of to the existing stormwater system. 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**

WSUD report provided and assessed as satisfactory by Environment Division subject to suitable conditions of consent.



#### **CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION**

The proposal does not involve removal of any trees within the site. An arborist report was submitted in relation to tree protection measures for the existing street tree required to be retained which has been considered by Council's Landscape officer with conditions recommended.

#### **CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)**

Appropriate conditions are recommended by both Council's Geotechnical Engineer and Development engineer relating to geotechnical management on the site during construction, to ensure proposed earthworks do not have an adverse impact on the site or surrounding area during or post construction.

In addition, standard conditions are recommended relating to the removal of waste and excess soil for the site, sediment/erosion control, waste classification of excavation soils and the preparation of a Construction Site Management Plan prior to the issue of the Construction Certificate.

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

#### **CHAPTER E20 CONTAMINATED LAND MANAGEMENT**

The proposal has been supported by a Detailed Site Investigation prepared by a suitably qualified consultant has been submitted. The recommendations of that report have been reviewed by Council's Environment Officer and conditions of consent are recommended as outlined in **Attachment 8**.

#### **CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT**

Conditions of consent are recommended in regard to appropriate measures for the management of demolition works and hazardous building materials to be in place during works.

#### **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.