

ATTACHMENT 8 - WOLLONGONG DEVELOPMENT CONTROL PLAN 2009 ASSESSMENT

CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Sustainability

A revised Environmentally Sustainable Design DA Report (Cundall, 24 June 2022) has been prepared for both the Residential and Commercial components. The Traffic Impact Assessment (Stantec, 27 June 2022) and the Green Travel Plan (Stantec, 24 June 2022) have also been considered with the revised plans. A summary of the proposed sustainability measures is below:

Carbon neutral Precinct Certification through Climate Active. (Climate Active is an ongoing partnership between the Australian Government and Australian businesses to drive voluntary climate action. Climate Active is the only government accredited carbon neutral certification scheme in Australia). This will require annual certification and conditions are recommended.

The project has committed to 100% renewable energy and some onsite generation. PV cells will be located on all non-residential roofs. No battery appears to be proposed, but it would be expected that the energy generated would be utilised on site by the commercial and retail components as it is generated.

- Residential component will be all-electric, with limited gas for some retail/commercial.
- Individual metering for both energy and water.
- EV – In relation to electric vehicle parking bays, the following on-site provision has been proposed (as outlined in the Traffic Impact Assessment (Stantec, 27/6/2022):
- 100 per cent of resident spaces to be electric vehicle ready, with only cabling to the space (i.e., excluding the actual charging infrastructure).
- Five per cent resident spaces accommodating electric vehicle charging from day of opening, increased to 10 per cent within five years of opening (or alternatively, 10 per cent from day of opening).
- Two residential visitor spaces accommodating electric vehicle charging from day of opening.
- Two non-residential spaces accommodating electric vehicle charging from day of opening.
- Two charging points are provided in each bicycle parking area for charging of e-bikes and e-scooters.
- Dedicated Car pool/car share parking spaces
- Most elements will exceed BASIX and Section J requirements.
- Use of recycled content concrete and sustainable timber.
- NatHERS ratings have been improved with the proposal now targeting 6.7-Star average NatHERS rating for the apartments across residential tower 1, and 7.0 Star average NatHERS rating for apartments across residential towers 2 & 3 with a focus on high-performance facades with double glazing, insulation and fixed shading.
- NABERS 5 Star Office Base Building rating for the commercial building on the corner. 6 is the highest so this is considered good.
- Improved BASIX ratings to:
- BASIX Energy: 27% saving compared to benchmark greenhouse gas (GHG) emissions
- BASIX Water: 42% saving compared to benchmark potable water demand
- Whilst the minimum WELS rating of 3-stars is stated, the BASIX compliance strategy for the residential component has specified that all water fixtures will be 5-star, with only showerheads being 4-star. This is supported.

- The BASIX Energy compliance strategy indicates that dwellings in different Towers will have different energy rated appliances. Councils' preference is for the highest rating appliances to be used consistently across the towers for both sustainability and equity reasons.
- Ceiling fans are to be incorporated into bedrooms where open windows creates potential noise impacts (L2-4 of Towers 2 and 3).
- An updated Green Travel Plan (Stantec, 24 June 2022) has been provided. The GTP proposes some good sustainability ideas particularly around bike riding. A very general Place Management Plan has been submitted that indicates that the 'Building Manager' will be responsible for the implementation of the Plan which will be conditioned.
- The Green Travel Plan indicates that a Sustainability Strategy will be prepared however it is unclear what this is and to what it will apply.

CHAPTER B4 – DEVELOPMENT IN BUSINESS ZONES

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

2 Objectives

The development is considered consistent with the objectives of development in business zones. The proposal

- facilitates retail and business development within the city centre,
- provides complimentary land uses to existing commercial development in the surrounding areas,
- is consistent with built form controls for the city centre, improves pedestrian links to the site and the surrounding area,
- provides a mix of land uses appropriate for the location.

3. Retail and business centre hierarchy strategy

The proposed development is located within Wollongong City Centre, which is a Regional City.

The proposal is located along what the DCP refers to as the 'business heart' of the city (being the corridor formed by Crown Street, from Corrimal at the east, to the railway line to the west).

Retail activity is generally required to be located within the area bounded by Keira Street to the west and Kembla Street to the east. The proposed development contains a mixture of retail and other commercial uses, which is considered acceptable for the location, and its proximity to the main retail centre in Wollongong.

4 Economic impact assessment – retail hierarchy

An economic impact assessment report has been submitted with the proposed development.

The assessment addresses the matters identified within the DCP. The assessment concludes the proposal will contribute to a diversity of commercial uses within Wollongong City Centre, provide significant employment/jobs both directly and indirectly during and post construction, and substantial gross value add during and after construction.

5 Planning requirements for development in the regional city and major regional centres

5.1 Wollongong City Centre

1. The specific planning requirements for development upon any land within the Wollongong City Centre are contained in Part D (Locality Based/ Precinct Plan) of this DCP. See assessment under Chapter D13.

9 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	Ground floor retail and access to commercial and residential land uses is

Control	Comment
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.	achieved from the ground floor on all frontages, and from the central open area. Upgrades to footpaths are proposed and have been conditioned, included ensuring any public works are consistent with Council's relevant design manuals.
(b) To ensure all ground level premises have direct access to street and clear glazing, to encourage active street frontages.	Retail uses are provided at ground level, and can be accessed directly from the street, resulting in active 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.	Suitable ceiling heights are proposed for the proposed use.
(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.	The street is generally addressed with small scale retail and commercial uses. Keira Street is not proposed to contain a variety of small scale retail uses on ground floor, however a diversity of uses are proposed on this frontage including a cinema and hotel/pub.
(e) To ensure security grilles are transparent and fitted retail shopfronts only, in order to encourage active street frontages at night-time.	Security grilles have not been indicated on the plans. A condition is recommended to ensure any grilles are consistent with the requirements of this control.
(f) To ensure new retail or business premise buildings are consistent with the predominant built form character of the locality, in terms of built form and external appearance.	The proposal provides for a variety of architectural forms which are considered appropriate for the city centre location.
(g) To ensure new buildings maintain the balance of horizontal and vertical proportions of other existing buildings in the locality.	The proposed building are considered suitably designed for the locality.
(h) To ensure the street corners of any new corner building are strengthened by massing and building articulation to both street frontages.	The proposal appropriately addresses all street frontages, and the central publicly accessible open area.
(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.	Awnings are generally provided on the building frontages. A condition is recommended that the awning on Keira Street is extended to the Crown Street corner.
(j) To provide pedestrian amenity and provide a 'unique' streetscape character for each business centre.	The proposal results in an acceptable streetscape. Appropriate footpath and public domain upgrade works will be conditioned.
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.	A variety of building designs are proposed which are considered appropriate for the locality.

Control	Comment
<p>(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.</p> <p><u>9.2.1 Floor Configuration</u></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>4. Any residential storeys in a building shall have a maximum building depth of 18 metres.</p> <p>5. The floor to ceiling height of the ground floor development in a B1 or B3 zone shall be a minimum 3.3 metres, in order to allow flexibility in retail and / or other business tenancies in the future.</p> <p>7. The floor to ceiling height requirements for ground and first floor levels of a development situated upon land within the B3 Commercial Core zone of the Wollongong City Centre, are specified in clause 2.6.2 in Chapter D13 Wollongong City Centre to this DCP.</p> <p>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.</p> <p>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.</p>	<p>The proposal does not result in a significant overshadowing impact to nearby residential development or MacCabe Park. Overshadowing to Burelli Street will occur, however this is an expected outcome for any development in the location.</p> <p>Ground floor access levels are determined with regard to the footpath levels. It is noted upgrades to the footpaths and other elements of the public domain will be conditioned.</p> <p>A variety of retail tenancy sizes are proposed. The dimensions of the tenancies are considered appropriate.</p> <p>Most retail tenancies have a single opening on one side, and have a depth of less than 20m. Some larger tenancies are proposed, but these are generally located in corners.</p> <p>Residential buildings have a depth of more than 18m however residential components of the development have been assessed as satisfactory against the ADG requirements.</p> <p>Ground floor tenancies generally have ceiling heights exceeding 3.3m.</p> <p>Refer to assessment under Chapter D13.</p> <p>Blank walls are generally avoided facing the street. Keira Street does not contain small retail facing the street, however this is a minor portion of the development, and other significant land uses are proposed on this frontage.</p> <p>The retail pattern proposed is considered acceptable for the site, and is in keeping with the surrounding area.</p>

Control	Comment
10. Where sites are amalgamated, the design of any new building should express the existing or prevalent lot structure in the immediate locality	Proposed development along Crown Street is considered acceptable with conditions requiring some changes to the façade of the pool and gym buildings so that they better respond to the fine grain pattern of shops along Crown Street as identified by Council's Heritage staff
<p><u>9.2.2 Building Appearance</u></p> <p>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.</p> <p>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.</p> <p>3. Facades facing each street or lane should be composed as at least three distinct layers. In this respect:</p> <p>(a) The “base” of each building includes the ground floor, and may also include the second and third storey above street level.</p> <p>(b) The “middle” of each building should accommodate at least one level, but not the uppermost storey.</p> <p>(c) The “top” of each building should accommodate the upper-most storey and the roof.</p> <p>4. New buildings should also maintain the balance of horizontal and vertical proportions of other existing buildings in the locality.</p> <p>5. The street corners of any new corner building should be strengthened by massing and building articulation to both street frontages. In this regard, Council may permit a variation 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 Council 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 Council, the proposed development will exhibit design excellence through the provision a strong corner element in the proposed building.</p> <p>6. The profile of parapets and roof top elements should be integrated in the overall roof design of the building.</p> <p>7. The angle of any pitched roof shall be compatible with existing development.</p>	<p>The design of the buildings is considered appropriate for the city centre location.</p> <p>Distinct uses are appropriately delineated through changes in building design.</p> <p>The proposal provides for a variety of built forms which are considered appropriate for the site and the locality, and provide for a suitable pedestrian experience.</p> <p>The variety of building forms, sizes and heights is considered appropriate for the site.</p> <p>The proposal is appropriately designed. Corner buildings are considered suitably designed.</p> <p>The DRP has reviewed the proposal and is generally supportive of the design. The development is considered to exhibit design excellence, subject to suitable conditions.</p> <p>Roof top elements are considered to be suitably integrated in the various building designs.</p> <p>NA</p>

Control	Comment
<p>8. Any development involving the re-use of existing buildings should reinstate any missing façade elements or other decorative details, wherever practicable.</p>	<p>The façade of the former Marcus Clark Building located on the corner of Crown and Atchison is proposed to be reinstated. The proposal is considered satisfactory from a heritage perspective.</p>
<p>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.</p>	<p>The proposal provides a variety of building designs which is considered appropriate and acceptable for the site and the vicinity.</p>
<p>10. Highly reflective finishes, reflective glass and curtain wall glazing are not permitted above ground floor level.</p>	<p>Suitable conditions relating to reflectivity are recommended.</p>
<p>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.</p>	<p>Suitable conditions relating to reflectivity are recommended.</p>
<p>12. All Development Applications for new buildings or external alterations and additions to existing premises in these 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.</p>	<p>A materials schedule has been provided.</p>
<p><u>9.2.3 Building Alignment</u></p>	
<p>1. The design of corner buildings should reflect the geometry of the road, topographical conditions of the immediate locality and sight lines.</p>	<p>The proposed buildings are considered appropriately designed for the site and the relevant constraints applicable.</p>
<p>2. Buildings should be aligned with footpaths to create spatial enclosure and a sense of place.</p>	<p>Buildings are located up to the footpath, with access directly from the footpath.</p>
<p>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 retail or business centre with the exception of access areas for residential uses on upper levels of a building.</p>	<p>A variety of commercial uses are proposed on the ground floor. The majority of the ground floor frontages are occupied by commercial uses, with access for residential uses well integrated into the design.</p> <p>Conditions will be included to ensure access for commercial tenancies is appropriately separated from residential access.</p>
<p><u>9.2.4 Active Street Frontages</u></p>	
<p>1. All new retail, business or mixed use buildings are required to provide ground level active street frontages.</p>	<p>Active street frontages are provided throughout the development.</p>

Control	Comment
<p>2. Buildings should contain no more than 5 metres of ground floor wall without a door or window. Windows should make up at least 50% of the ground floor front wall.</p>	<p>Windows and doors are provided for the majority of street frontages. More than 50% of ground floor is contains active frontages. Along the Keira Street frontage more than 5m of the frontage does not contain windows, however appropriate design elements are proposed for this building to create visual interest, including architectural forms and posters associated with the cinema use proposed internally.</p>
<p>3. Buildings with frontages to retail streets are to contribute to the liveliness and vitality of those streets by:</p> <p>(a) Providing product retailing and / or food and drink premises within all enclosed shop fronts;</p> <p>(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;</p> <p>(c) Locating activities that may involve queuing (e.g. automatic teller machines) behind building frontages so that footpaths remain free for pedestrian movement; and</p> <p>(d) Providing a high standard of finish to retail shopfronts.</p>	<p>Retail uses are provided along frontages.</p> <p>Building entrances and lobbies are appropriately integrated into the design. Burelli Street frontage contains most of the service and vehicle related building elements, included parking and loading access. This is considered appropriate, and is integrated into the overall development design.</p>
<p>4. All street frontage windows at ground level are to have clear glazing.</p>	<p>Clear glazing is proposed on the ground floor throughout the development, except as mentioned above.</p>
<p>5. Display windows with clear glazing to ground floor retail and business premises are required with a maximum window sill height of 0.7 metres above finished ground level.</p>	<p>Appropriate sill heights are proposed for windows facing the street.</p>
<p>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.</p>	<p>Security grilles are not indicated on the plans.</p> <p>Conditions will be included to ensure any grilles proposed are transparent and not of a roller door type.</p>
<p><u>9.2.5 Urban Design / Streetscape Appearance</u></p>	
<p>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</p>	<p>The proposal is sympathetic to the surrounding area.</p>
<p>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.</p>	<p>Satisfactory.</p>
<p>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.</p>	<p>Buildings are appropriately designed with visual interest.</p>

Control	Comment
<p>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</p> <p>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.</p> <p>6. External walls should be constructed of high quality and durable materials and finishes with low maintenance costs.</p> <p>7. Highly reflective finishes are not permitted above ground floor level.</p> <p>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.</p> <p><u>9.2.6 Pedestrian Access</u></p> <p>1. Pedestrian through-site routes must be direct without any concealment opportunities and designed to provide clear sightlines from one end to the other.</p> <p>2. Pedestrian through-site links should be a minimum of 3 metres in width and activated by retail, civic and /or commercial office land uses, wherever possible.</p> <p>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.</p> <p>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.</p> <p><u>9.2.7 Awnings</u></p> <p>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.</p> <p>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.</p>	<p>Visual relief is provided with a variety of built forms and architectural styles throughout the development.</p> <p>Active street frontages are provided throughout the development, and internally within the publicly accessible area.</p> <p>Appropriate building materials are proposed.</p> <p>Suitable conditions relating to reflectivity will be included.</p> <p>Satisfactory.</p> <p>Pedestrian links through the site are considered appropriately designed. Suitable conditions relating to CCTV etc are recommended.</p> <p>Through site links are of a suitable width, and activated by a variety of commercial land uses.</p> <p>Pedestrian links are proposed to be accessible 24 hours. Access is provided using ramps and lifts where required to allow universal access.</p> <p>Direct pedestrian access is provided from the street.</p> <p>Awnings are provided for the majority of the frontages.</p> <p>A condition will require the extension of the Keira Street awning to the corner of Crown Street.</p> <p>Continuous awnings are provided for the majority of the development.</p>

Control	Comment
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).	Height and design of the awnings is considered acceptable.
4. Under awning lighting is required for the majority of retail and business centres in the LGA, except for the small village (local convenience) centres. The under awning lighting should either be recessed into the soffit of the awning or wall mounted on the building.	The awnings will include appropriate lighting.
5. Awnings shall also be designed to provide adequate shade and shelter for pedestrians.	Awnings will provide adequate shelter. A condition will ensure the extension of the Keira Street awning to the Crown Street corner, to provide weather protection to where pedestrians are more likely to wait at the crossing.
6. All awnings shall be weather sealed to the face of the building to which they are attached.	Satisfactory.
7. Awnings shall be setback a minimum of 600 millimetres from the kerb line of the road carriageway.	Satisfactory.
<u>9.2.8 Public Domain – Footpath Paving</u>	
	Appropriate conditions relating to public domain works, included upgrades to footpaths are recommended.
<u>9.2.9 Solar access and overshadowing</u>	
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.	The proposal does not result in a significant overshadowing impact to neighbouring residential buildings. Some overshadowing impact to surrounding streets will occur, however the proposal has been suitably redesigned to limit overshadowing impacts to MacCabe Park.
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 21st June winter solstice period.	The proposal will not overshadow any residential development.
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.	Shadow diagrams have been provided. No overshadowing impact to MacCabe Park is expected between 12 and 2pm in mid-winter.

Control	Comment
<u>9.2.10 Shower and Change Facilities & Parenting Facilities in Large Business Premises / Commercial Office Buildings</u>	<p>End of trip facilities are proposed within the gym/health services building. A condition will be included to ensure an additional end of trip facility is provided adjacent to the bike parking area in the basement to better service the uses in the east and southern portions of the site.</p> <p>A condition will be included to ensure any toilet, changing or parent facilities are compliant with the relevant requirements of the NCC/BCA.</p>
<u>9.2.11 Advertising Signage</u>	<p>Advertising and business/building identification signage is not proposed as part of this application.</p> <p>A condition will be included to ensure any signage which is not exempt is subject to a future DA.</p>
<u>9.2.12 Wind Impact Assessment</u>	<p>A wind assessment has been submitted with the application, prepared by a suitable qualified engineering consultant.</p> <p>The assessment confirmed the proposal will not result in a significant impact subject to suitable recommendations.</p> <p>Conditions are recommended to ensure any mitigation measures are incorporated into the final design.</p>
<u>9.2.13 Access, Car parking and Servicing</u>	<p>Refer to detailed assessment within Part E of the DCP in the body of the report.</p>
<u>9.2.14 Access for People with a Disability</u>	<p>Refer to detailed assessment within Part E of the DCP in the body of the report.</p>
<u>9.2.15 Land Consolidation</u>	<p>A condition is recommended requiring lot consolidation.</p>

10 General design requirements for retail shopping centres

The proposal is a mixed use development with a retail component on the ground floor. Details of individual tenancies has not been provided. Fit-out and use of the individual tenancies will be subject

to future applications where this is required. The proposal is generally consistent with the objectives of this section as is relevant to the current scope.

Appropriate pedestrian links are proposed throughout the site.

Accessible parking is provided for commercial visitors to the site. A condition will be included to ensure equitable access is available to these spaces, in particular the app booking system indicated is not considered to provide equitable access and is recommended to not be used.

Loading dock facilities are incorporated in the development. Additional loading areas are proposed along the Atchison Street frontage.

Publicly accessible parenting, toilets and changing facilities are provided within the development, accessed from the central public area.

13 Works in the public domain

Suitable conditions relating to works in the public domain are recommended.

CHAPTER D13 – WOLLONGONG CITY CENTRE

2 Building form

<i>Objectives/controls</i>	<i>Comment</i>
<p><u>2.2 Building to street alignment and street setbacks</u></p> <ul style="list-style-type: none"> Street setbacks and building alignments establish the front building line. They help to create the proportions of the street and can contribute to the public domain by enhancing streetscape character and the continuity of street facades In the commercial core, buildings are to be built up to the street alignment to reinforce the urban character and improve pedestrian amenity and activity at street level. Above street frontage height, tall buildings are to be set back to provide for sunlight to streets, and daylight to pedestrian areas and lower levels of other buildings. They offer comfortable wind conditions, view corridors, an appropriate building scale for pedestrians, and good growing conditions for street trees. In the residential locations and some Mixed Use (City Edge) locations, buildings are to be setback to a consistent building line. Build to the street alignment or specified setback with 4m minimum further setback above street frontage height. <p><u>2.3 Street frontage heights in commercial core</u></p> <p>Objectives</p> <p>a) To achieve comfortable street environments for pedestrians in terms of daylight, scale, sense of enclosure and wind mitigation as well as a healthy environment for street trees.</p>	<p>The development involves a variation to the building setback on Crown and Burelli Street which includes a setback to improve footpath widths where the DCP requires building to the boundary.</p> <p>The development also does not provide a 4m setback above street frontage height for all tower forms.</p> <p>These matters are discussed at Chapter A1 in the body of the report.</p>
	<p>A 12-24m podium form as required under this control is not provided. Rather the proposal has tower forms hitting the ground with breaks between for pedestrian linkages. See variation discussion at Chapter A1 in the body of the report.</p>

<i>Objectives/controls</i>	<i>Comment</i>
<p>b) To reinforce the intrinsic character of Wollongong City Centre while enabling flexibility in building design.</p> <p>Development controls</p> <p>The street frontage height of buildings in the Commercial Core are not to be less than 12m or greater than 24m above mean ground level on the street front as shown in Figure 2.3.</p> <p><u>2.4 Building depth and bulk</u></p> <p>Objectives</p> <p>a) To promote the design and development of sustainable buildings.</p> <p>b) To achieve the development of living and working environments with good internal amenity and minimise the need for artificial heating, cooling and lighting.</p> <p>c) To provide viable and useable commercial floor space.</p> <p>d) To achieve usable and pleasant streets and public domain at ground level by controlling the size of upper level floor plates of buildings.</p> <p>e) To achieve a city skyline sympathetic to the topography and context.</p> <p>f) To allow for view sharing and view corridors.</p> <p>g) To reduce the apparent bulk and scale of buildings by breaking up expanses of building wall with modulation of form and articulation of facades.</p> <p><u>Development controls</u></p> <p>Maximum floor plate of 1,200m² for commercial</p> <p>Maximum building depth of 25m above 24m in height</p> <p>Maximum 900m² floor plate for residential</p> <p>Residential maximum building depth of 18m</p> <p>All points on an office floor should be no more than 10m from a source of daylight (eg. window, lightwell or skylight) in buildings less than 24m in</p>	<p>The proposed development is of a suitable design. There is an opportunity to improve access to sunlight, including to achieve solar access requirements as per ADG in units on the eastern and western side of residential towers 2 and 3. Suitable conditions will be included to add additional windows to these units to improve solar access, daylight access and general amenity for residents.</p> <p>Application of the conditions above will result in good internal amenity for residential units. Commercial buildings are considered to provide suitable amenity due to their location on the northern end of the site, and provision of windows throughout.</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory given the city centre location and planning controls relevant to the site.</p> <p>Refer to view sharing assessment in the body of the report.</p> <p>Amendments to tower 1 design result in a satisfactory design which reduces the apparent bulk of the building.</p> <p>Complies</p> <p>Complies</p> <p>Complies (~825)</p> <p>See variation discussion at Chapter A1 in the body of the report.</p> <p>See variation discussion at Chapter A1 in the body of the report.</p>

<i>Objectives/controls</i>	<i>Comment</i>
height, and no more than 12.5m from a window in buildings over 24m in height.	
<u>2.5 Side and rear building setbacks and building separation</u>	
Zero side and rear setback permitted up to street frontage height	See LEP discussion regarding building separation and ADG visual privacy discussions.
Residential between street frontage height (24?) and 45 to have 12m side and rear setbacks.	See variation discussion at Chapter A1 in the body of the report
Uses above 45m to have 14m side and rear setbacks	Complies
<u>2.6 Mixed used buildings</u>	
a) Provide flexible building layouts which allow variable tenancies or uses on the first two floors of a building above the ground floor.	Satisfactory
b) Minimum floor to ceiling heights are 3.3 metres for commercial office and 3.6 metres for active public uses, such as retail and restaurants in the B3 Commercial Core zone. In the B4 Mixed Use zone, the ground floor and first levels of a building shall incorporate a minimum 3 metre floor to ceiling height clearance, to maximise the flexibility in the future use of the building.	Marcus Clark - Complies Office building complies Marcus Grand complies Tower 1 complies Tower 2 complies Tower 3 complies
c) Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.	Complies
d) Locate clearly demarcated residential entries directly from the public street.	Residential entries are provided from the street and the internal plaza.
e) Clearly separate and distinguish commercial and residential entries and vertical circulation.	Satisfactory with conditions.
f) Provide security access controls to all entrances into private areas, including car parks and internal courtyards.	Parking is separate for the various uses. Conditions relating to parking numbers will be included on the consent, separation between the various areas will still be a requirement as per the condition. All entrances are capable of providing secure access.
g) Provide safe pedestrian routes through the site, where required.	Complies.
h) Front buildings onto major streets with active uses.	Complies.
i) Avoid the use of blank building walls at the ground level.	Part of the frontage along Keira Street has a blank wall at ground floor level. However this is considered acceptable in the circumstances given the proposed use as a cinema. The plans indicate posters etc are proposed to be placed along this frontage, which will provide visual interest and reduce the prevalence of blank walls facing the street. An awning is provided for the majority of this frontage along with extensive glazing above.

Objectives/controls	Comment
<p>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.</p>	<p>A condition is recommended requiring the awning to extend further towards the pedestrian crossing at Crown Street.</p> <p>The individual use and fit-out of the tenancies is not yet known and will be subject to separate approval. Matters such as ventilation are suitable of being addressed at that time.</p>
<p><u>2.7 Deep soil zone</u></p>	
<p>Objectives</p>	
<p>a) To provide an area on sites that enables soft landscaping and deep soil planting, permitting the retention and/or planting of trees that will grow to a large or medium size.</p>	<p>Deep soil zones have not been provided on the site. This is considered acceptable within the city centre location and the sites current conditions.</p> <p>Planting of additional landscaping is proposed. Planting of street trees will be conditioned.</p>
<p>b) To limit building bulk on a site and improve the amenity of developments, allowing for good daylight access, ventilation, and improved visual privacy.</p>	<p>The development consists of multiple separate buildings which achieve acceptable levels of amenity subject to conditions.</p>
<p>c) To provide passive and active recreational opportunities.</p>	<p>Landscaping on structures, such as within COS and in the central space provides for recreational opportunities.</p>
<p>For residential components in mixed use developments in the Commercial Core, Mixed Use (city edge) and Enterprise zones, the amount of deep soil zone may be reduced commensurate with the extent of non-residential uses. Where non-residential components result in full site coverage and there is no capacity for water infiltration, the deep soil component must be provided on structure, in accordance with the provisions of Section 2.8 and 2.9. In such cases, compensatory stormwater management measures must be integrated within the development to minimise stormwater runoff.</p>	<p>Opportunity for deep soil zone is limited on the site. Landscaping on structures is proposed as well as street trees and additional planting.</p> <p>The proposal has been reviewed by Council's Landscape Officer which is supportive subject to conditions.</p>
<p>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.</p>	
<p>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).</p>	
<p><u>2.8 Landscape design</u></p>	
<p>b) Remnant vegetation must be maintained throughout the site wherever practicable, particularly significant trees.</p>	<p>Refer to Landscape Officer referral comments.</p> <p>The proposal is acceptable from a landscape perspective subject to conditions.</p>
<p>c) A long-term landscape management plan must be provided for all landscaped areas, in particular the deep soil landscape zone.</p>	

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:

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

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. The following minimum standards are recommended:


Minimum soil standards for planting on structures or podiums

Plant type	Definition	Soil volume	Soil Depth	Soil area
Large trees	12-18m high, up to 16m crown spread at maturity	150m ³	1,200mm	10m x 10m or equivalent
Medium trees	8-12m high, up to 16m crown spread at maturity	36m ³	1,000mm	6 x 6m or equivalent
Small trees	6-8m high, up to 16m crown spread at maturity	16m ³	800mm	4 x 4m or equivalent
Shrubs			500-600mm	
Ground cover			300-450mm	
Turf			300 mm	

*Sub-surface drainage requirements are in addition to the above minimum soil depths.

Refer to Landscape Officer referral comments.

The proposal is acceptable from a landscape perspective subject to conditions.

Objectives/controls	Comment
<p><u>2.10 Sun access planes</u></p>	<p>The proposal does not result in overshadowing to MacCabe Park between 12.00 and 2pm in mid-winter.</p>
<p><u>2.11 Development on classified roads</u></p> <p>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:</p> <p>b) Where practicable, vehicular access to the land is provided by a road other than the classified road; and</p> <p>c) The safety, efficiency and ongoing operation of the classified road will not be adversely affected by the proposed development as a result of:</p> <p>i) The design of the vehicular access to the land, or</p> <p>ii) The emission of smoke or dust from the proposed development, or</p> <p>iii) The nature, volume or frequency of vehicles using the classified road to gain access to the land, and</p> <p>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.</p>	<p>Complies</p> <p>See TfNSW comments in the body of the report</p> <p>Satisfactory</p> <p>See TfNSW comments</p> <p>Residential components of the development are located predominantly away from the classified road (Crown Street), and are separated by other land uses which are less sensitive to traffic noise. (commercial buildings, gym etc).</p> <p>Acoustic report has been submitted which includes recommendations for acoustic management and treatment. Appropriate conditions will be included with regard to these recommendations.</p>
<p>3 Pedestrian amenity</p>	
Objectives/controls	Comment
<p><u>3.2 Permeability</u></p>	<p>The DCP indicates a possible through site link on the site running north-south from the Crown and Burelli. This link does not currently exist.</p>
	<p>The proposal does provide suitable permeability with links between the various frontages and the central courtyard/open space.</p>
<p><u>Development Controls</u></p>	<p>The existing lane (Findlay Place) is proposed to be removed, with access to the basement carpark accessed through the existing intersection with Burelli Street.</p>
<p>a) Through site links to be provided as per figure 3.1 (above)</p> <p>b) Existing dead ends to be extended to the next street</p>	<p>The location of through site links and pedestrian site access is appropriate given</p>

c) New through site links should be connected with existing through block lanes, shared zones arcades and pedestrian ways and opposite other through site links	surrounding land uses and likely pedestrian movements.
d) Existing publicly and privately owned lanes are to be retained	Conditions will be included to ensure any footpaths provided are compliant with Council's City Centre Public Domain Manual where appropriate.
e) The design and finish of new through site links needs to be provided in accordance with Council's City Centre Public Domain Manual.	Pedestrian links are activated with commercial tenancies and landscaping.
3.3 Active street frontages	
a) In commercial and mixed use development, active street fronts are encouraged in the form of non-residential uses on ground level.	Complies
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.	Complies
c) Active ground floor uses are to be at the same general level as the footpath and be accessible directly from the street.	Where pedestrian access from the street cannot be provided at the same level as the footpath, additional accessible features have been proposed, including lift access from Burelli Street to the central open area.
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.	Compliant
e) Restaurants, cafes and the like are to consider providing openable shop fronts.	Compliant
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.	See comments above regarding residential entries.
g) Provide multiple entrances for large developments including an entrance on each street frontage.	Complies
3.4 Safety and security	
a) Ensure that the building design allows for casual surveillance of accessways, entries and driveways.	Generally compliant.
b) Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks.	Blind corners and alcoves are generally limited throughout the development.
c) Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.	Building entrances are prominent.
d) Where private open space is located within the front building alignment any front fencing must be of a design and/or height which allows for passive surveillance of the street.	N/A
e) Provide adequate lighting of all pedestrian access ways, parking areas and building entries. Such	Satisfactory

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

3.5 Awnings

a) Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6.

b) Awning design must match building facades and be complementary to those of adjoining buildings.

c) Wrap awnings around corners for a minimum six metres from where a building is sited on a street corner.

d) Awnings dimensions should generally be:

i) Minimum soffit height of 3.3 metres,

ii) Low profile, with slim vertical fascias 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

Clear lines of sight are generally provided throughout the proposal.

Passive surveillance of pedestrian access is generally provided.

Provided.

Satisfactory

Vehicle access to the site is through a signalised intersection on Burelli Street.

Awnings are provided for the majority of the frontages on the site with the exception of the northern façade of the office building on the corner of Crown and Keira. See Chapter A1 for discussion.

Condition of consent will be included to increase the length of the Keira Street awning to be closer to the Crown Street corner. This will allow improved weather protection for pedestrians waiting at the traffic lights.



Vehicular footpath crossings are proposed at the Burelli Street car park entrance and the service entrance at Burelli Street. This is considered minimal given the scale of the development.

Car park entrance is provided at a signalised intersection, including pedestrian crossing.

	<p>The service vehicle entrance is not signalised, but this represents a minor portion of the frontage.</p> <p>Footpath improvements will be conditioned as part of the development, which will include a suitable crossing in this location. Any pedestrian crossing will be required to comply with Council's Technical Manual.</p>
<p><u>3.8 Building exteriors</u></p> <p>a) Adjoining buildings (particularly heritage buildings) are to be considered in the design of new buildings in terms of:</p> <p>i) Appropriate alignment and street frontage heights.</p> <p>ii) Setbacks above street frontage heights.</p> <p>iii) Appropriate materials and finishes selection.</p> <p>iv) Façade proportions including horizontal or vertical emphasis.</p> <p>v) The provision of enclosed corners at street intersections.</p> <p>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.</p> <p>c) Articulate facades so that they address the street and add visual interest.</p> <p>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.</p> <p>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.</p> <p>f) To assist articulation and visual interest, avoid expanses of any single material.</p> <p>g) Limit opaque or blank walls for ground floor uses to 30% of the street frontage.</p> <p>h) Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass.</p> <p>i) Highly reflective finishes and curtain wall glazing are not permitted above ground floor level (see Section 5.3).</p> <p>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.</p> <p>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</p>	<p>The proposed building designs are considered appropriate for the site.</p> <p>Building separation, and open space provided on level 5 of towers 2 and 3 provide an acceptable building appearance.</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Satisfactory</p> <p>Provided</p> <p>N/A</p>

providing it does not fall within the definition of gross floor area and there is a public benefit, such as:

l) The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.

The roof design appears to be well integrated into the overall building design.

3.9 Advertising and signage

A signage strategy has not been provided. Signage for individual tenancies and the building will be subject to a future application unless exempt development. An appropriate condition will be included

3.10 Views and view corridors

Development Controls

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.

See discussion under the LEP (Clause 7.18 Design Excellence) in the body of the report.



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.

N/A

c) Align buildings to maximise view corridors between buildings.

A view sharing assessment/Tenacity assessment is contained in the body of the report

d) Remove or avoid installation of built elements that obstruct significant views.

N/A

e) Carefully consider tree selection to provide views along streets in Figure 3.12 and keep under storey planting low where possible.

Satisfactory

f) Site analysis must address views with the planning and design of building forms taking into account existing topography, vegetation and surrounding development.

The tower form and positioning of bulk around the site takes into account the variety of site constraints and opportunities and is an appropriate contextual response.

4 Access, parking and servicing

Objectives/controls

Comment

4.1 General

a) Facilitate the development of building design excellence appropriate to a regional city;	The proposal has been referred to the Design Review Panel who are generally supportive of the proposal.
b) Require parking and servicing provisions to be contained within development sites to an amount and rate adequate for the economic and sustainable growth of the city centre;	The overall quantum of parking is acceptable subject to conditions.
c) Provide for safe and secure access;	Safe vehicle and pedestrian access to the site is provided.
d) Minimise impacts on city amenity, the public domain and streetscape, and	Satisfactory
e) Ensure that access is provided for the disabled and mobility impaired.	Accessible access to the building is provided throughout the site. Accessible parking for commercial and residential visitors is provided.

4.2 Pedestrian access and mobility

a) Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity.	Satisfactory
b) The design of facilities (including car parking requirements) for disabled persons must comply with the relevant Australian Standard (AS 1428 Pt 1 and 2, AS 2890 Pt 1, or as amended) and the Disability Discrimination Act 1992 (as amended).	Appropriate conditions are recommended.
c) The development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor.	Satisfactory
d) The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.	Satisfactory
e) Pedestrian access ways, entry paths and lobbies must use durable materials commensurate with the standard of the adjoining public domain (street) with appropriate slip resistant materials, tactile surfaces and contrasting colours in accordance with Council's Public Domain Technical Manual.	Satisfactory
f) Building entrance levels and footpaths must comply with the longitudinal and cross grades specified in AS 1428.1:2001, AS/NZS 2890.1:2004 and the Disability Discrimination Act.	Satisfactory

4.3 Vehicular driveways and manoeuvring areas

a) Driveways should be	Vehicle access is provided from Burelli Street. Signalised intersection is proposed for main vehicle entrance. Service/loading access is provided separately on Burelli Street.
i) provided from lanes or secondary streets rather than primary where practical	

<p>ii) located taking into account services within road reserve</p> <p>iii) 6m from any intersection</p> <p>b) Vehicle access is to be designed to:</p> <p>i) Minimise the impact on the street, site layout and the building façade</p> <p>ii) If located off a primary street frontage, integrated into the building desi</p> <p>c) Enter and leave site in forward direction</p> <p>d) Driveways in accordance with Council's standards e/f/g/h) comply with relevant standards</p> <p>i) Access to underground parking should not be located adjacent to doors or windows to habitable rooms of any residential development.</p> <p>4.4 On-site parking</p> <p>General</p> <p>a) On site parking must meet AS</p> <p>b) Council may require geotechnical report</p> <p>c) Additional space surplus to Council's requirements are GFA</p> <p>d) Carparking above ground level is to provide ceiling height of 2.8m minimum for future adaption.</p> <p>e) Comply with Part E of this DCP.</p> <p>f) provide 1% or 1 space per development as an accessible parking space</p> <p>Commercial development within commercial core</p> <p>a) On-site parking is to be accommodated underground or otherwise integrated into the building design.</p> <p>4.5 Site facilities and services</p> <p>Mail boxes</p> <p>a) Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development.</p> <p>b) They should be integrated into a wall where possible and be constructed of materials consistent with the appearance of the building.</p> <p>c) Letterboxes shall be secure and large enough to accommodate articles such as newspapers</p> <p>Communication structures, air conditioners and service vents</p> <p>a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures:</p> <p>i) Away from the street frontage,</p>	<p>Access is separate from other intersections.</p> <p>The proposed vehicle access is suitably located for the site and to not detract from the street or building façade.</p> <p>All vehicles are able to enter and leave the site in a forward direction.</p> <p>Conditions are recommended for compliance with Councils standards for vehicle crossings, and the relevant standards.</p> <p>Any new crossings will require approval under the Roads Act.</p> <p>Conditions are recommended to ensure parking meets the relevant AS.</p> <p>GFA has been calculated in accordance with this requirement, and the proposal is compliant.</p> <p>Car parking is provided underground.</p> <p>Refer to further assessment under Part E of this DCP.</p> <p>The number of accessible parking spaces is acceptable subject to conditions. Refer to more detailed discussion in Chapter E3 in the body of the report.</p> <p>Internal mail rooms are provided in all 3 residential towers.</p> <p>Balconies to residential units are capable of containing air-con units in a manner which does not impact space or visual appearance.</p> <p>Communication dishes/antennae have not been indicated on the plans</p>
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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.

Fire service and emergency vehicles

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

The provision of utility services and access for regular servicing and maintenance must be considered at the concept stage of site development.

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.

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.

Emergency vehicles will have access to the site from all street frontages and from the plaza. Multiple hydrants are available on the street in proximity to the development.

Suitable conditions relating to the connection of utilities are recommended.

5 Environmental management

Objectives/controls	Comment
<p><u>5.2 Energy efficiency and conservation</u></p> <p>Residential</p> <p>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.</p> <p>Non-Residential</p> <p>For all non-residential development:</p> <p>a) Improve the control of mechanical space heating and cooling by:</p> <p>i) Designing heating/cooling systems to target only those spaces which require heating or cooling, not the whole building.</p> <p>b) Improve the efficiency of hot water systems by:</p> <p>i) Insulating hot water systems, and</p> <p>ii) Installing water saving devices, such as flow regulators, 3.5 stars rated shower heads, dual flush toilets and tap aerators.</p> <p>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.</p>	<p>The proposed development is considered to be of a suitable design for the site.</p> <p>Adequate solar access is provided into the residential portion of the development subject to appropriate conditions relating to placement of windows and balcony openings.</p> <p>A BASIX certificate has been submitted for each residential tower.</p> <p>The non-residential parts of the development are capable of achieving adequate levels of energy efficiency. See further discussion under Chapter A2.</p>
<p><u>5.3 Water conservation</u></p> <p>Residential</p> <p>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.</p> <p>Non-residential</p> <p>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 3.5 stars or better rated.</p> <p>i) Appliances (dishwashers, clothes washers etc) are to be 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,</p>	<p>BASIX certificate has been provided for each of the 3 residential towers.</p> <p>The BASIX certificate indicates most major appliances, tap fittings etc achieve minimum 4 star rating.</p> <p>Sustainable Design Report has been submitted, which includes the various sustainability strategies incorporated throughout the development.</p> <p>The report indicates building design elements, such as appropriate glazing etc will result in improved energy performance.</p> <p>Water tanks are provided throughout the development which can be used for landscape maintenance.</p> <p>Solar panels are provided.</p>

<i>Objectives/controls</i>	<i>Comment</i>
<p>ii) Stormwater runoff control, capture and reuse, including water quality management in accordance with Council's guidelines,</p> <p>iii) Select water efficient plants and/or, indigenous vegetation for landscape in accordance with Council's recommendations,</p> <p>iv) Use non-potable water for watering gardens and landscape features, and</p> <p>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.</p> <p>b) Alternatives to the above water savings methods can be presented to Council and they will be assessed on merit.</p> <p><u>5.4 Reflectivity</u></p> <p>a) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.</p> <p>b) Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%.</p> <p>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.</p> <p><u>5.5 Wind mitigation</u></p> <p>a) To ensure public safety and comfort the following maximum wind criteria are to be met by new buildings:</p> <p>i) 10 metres/second in retail streets,</p> <p>ii) 13 metres/second along major pedestrian streets, parks and public places, and</p> <p>iii) 16 metres/second in all other streets.</p> <p>b) Site design for tall buildings (towers) should:</p> <p>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,</p> <p>ii) Ensure that tower buildings are well spaced from each other to allow breezes to penetrate city centre,</p> <p>iii) Consider the shape, location and height of buildings to satisfy wind criteria for public safety and comfort at ground level, and</p> <p>iv) Ensure usability of open terraces and balconies.</p>	<p>Bike parking facilities are provided.</p> <p>The provision of an additional end of trip facility will be conditioned within the basement, in addition to the end of trip facility provided within the gym building, to ensure the viability of cycling as an alternative form of transport to and from the site.</p> <p>See further discussion under Chapter A2 above and Chapter E3 in the body of the report.</p> <p>The proposal does not involve curtain wall glazing and buildings are set back from on Crown Street.</p> <p>The Solar Reflection Screening Analysis report provided considers visual glare, including impacts on motorists, nuisance to pedestrians or occupants of nearby buildings. The report concludes there are no unacceptable reflectivity impacts and standard conditions are recommended.</p> <p>A Pedestrian Wind Study (dated June 24 2022 prepared by RWDI) has been submitted. That study included a wind tunnel model which incorporated all relevant surrounding buildings and topography within approximately 360m radius centred around the study site.</p> <p>The report concludes that the proposal will be within acceptable thresholds for pedestrian safety and comfort subject to some additional screening structures. The recommended conditions of consent require the requirements of the report to be implemented and reflected on the construction certificate plans as discussed in the body of the report.</p>

<i>Objectives/controls</i>	<i>Comment</i>
<p>c) A Wind Effects Report is to be submitted with the DA for all buildings greater than 32m in height,</p> <p>d) For buildings over 50m in height, results of a wind tunnel test are to be included in the report.</p> <p><u>5.6 Waste and recycling</u></p> <p>Development controls</p> <p><i>Non-residential development</i></p> <p>a) Development applications for all non-residential development must be accompanied by a waste management plan that addresses:</p> <ul style="list-style-type: none"> 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. <p><i>Residential development</i></p> <p>Provision must be made for the following waste generation:</p> <ul style="list-style-type: none"> 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; <ul style="list-style-type: none"> 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), 	<p>A construction management plan has been submitted which details appropriate methods of waste management and disposal during construction.</p> <p>Details of end of life use of building materials have not been provided.</p> <p>Bin room has been shown within the loading dock.</p> <p>Proposed location of waste storage for not residential uses is considered appropriate for the site, given its location within the loading dock, and ease of access for waste removal trucks.</p> <p>Appropriate facilities for a variety of different types of waste expected in the development have been provided.</p> <p>N/A</p> <p>Complies</p> <p>Complies</p> <p>Satisfactory</p> <p>Conditions will be included to confirm bins must be collected from the site. It will be the responsibility of the body corporate to facilitate on site collection.</p>

<i>Objectives/controls</i>	<i>Comment</i>
iv) Has water and drainage facilities for cleaning and maintenance, and	This has not been indicated on the plans, however as wash bays have been provided, this appears capable of compliance.
v) Does not immediately adjoin private open space, windows or clothes drying areas.	Satisfactory
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	Adequately sized bin storage areas for each residential unit are provided within the basement. A condition is recommended for the development of Loading Dock Delivery, Servicing and Waste Management Plan to ensure the loading dock can be adequately shared between the various land uses.
The size and number of the waste bins shall be determined having regard to the need for either on-site access by collection vehicles or the requirement for bins to be wheeled to the street for collection by a contractor. If transferred to the street for collection, the body corporate or a caretaker must be responsible for the movement of bins to their collection point.	The size of storage areas appears capable of supporting the number of bins required to support the development.

6 Residential development standards

<i>Objectives/controls</i>	<i>Comment</i>
<u>6.1 SEPP 65</u>	Refer to ADG assessment in the body of the report and Attachment 8.
<u>6.2 Housing choice and mix</u>	An appropriate mix of dwelling sizes is proposed.
<u>6.6 Basement Carparks</u>	The basement car park is considered to be suitably designed. The site slopes, however visible blank walls as a result of the basement parking are limited throughout the proposal.
<u>6.7 Communal open space</u> Development Controls	
a) Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m ² per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m.	5 x 390 = 1950m ² required 1979m ² COS is provided.
b) The communal open space must be easily accessible and within a reasonable distance from apartments, be integrated with site landscaping, allow for casual social	COS is provided within each of the apartment buildings, and is centrally located. Landscaping is provided.

<i>Objectives/controls</i>	<i>Comment</i>
interaction and be capable of accommodating recreational activities.	Spaces for multiple uses are provided.
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.	N/A
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.	N/A
e) The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	Communal space all receives the necessary solar access.
<u>6.8 Private open space</u>	
i) Avoid locating the primary balconies where they address side setbacks.	See ADG assessment in Attachment 8 for the assessment on POS.
ii) The balcony must have a minimum area of 12m ² 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>	
	Satisfactory
	The proposal has been amended to reduce overshadowing to MacCabe Park in mid-winter.
<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.	Detailed assessment has been conducted as per the requirements of the ADG.
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.

6.11 Natural ventilation

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.

d) Twenty five percent (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8m from a window.

e) Single aspect apartments must be limited in depth to 8m from a window.

6.12 Visual privacy

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

Detailed assessment has been conducted as per the requirements of the ADG as outlined in the body of the report

See ADG discussion at 3F in the body of the report.

open space and public domain areas from 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.

6.13 Acoustic Privacy

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.

4. In order to assist acoustic control of impact noise between units:

The proposal is considered acceptable.

An acoustic report has been submitted. Suitable conditions will be included to ensure the recommendations of that Acoustic Report are incorporated into the final design.

A defensive façade treatment is proposed on the eastern side of Tower 3 to limit noise impacts from the adjacent pub/beer garden. Additional windows will be conditioned for this façade to allow increased solar access and amenity for residents without compromising acoustic privacy.

Use, Fit-out and operation of individual tenancies are not approved as part of this consent, and will be assessed as part of future applications.

Units are generally arranged to minimise noise transfer between units.

Objectives/controls

Comment

6.14 Storage

a) For residential apartment buildings provide a secure space to be set aside exclusively for storage as part of the basement. The storage area must comply with the following requirements:

Dwelling	Storage	
	Area	Volume
One bedroom apartments	3m ²	3m ³
Two bedroom apartments	4m ²	8m ³
Three or more bedroom apartments	5m ²	10m ³

Appropriate storage facilities are provided within the basement for residents.

In order to satisfy conditions relating to the redistribution of resident parking, it is likely some of these storage areas may need to be amended. This is not considered to be a significant issue as adequate storage areas appear readily provided for when taking into account a redistributed parking arrangement.

7 Planning controls for special areas

The site is located immediately to the south of the Crown Street Shops special area (see below)



Development within the curtilage of a listed item, or a Heritage Conservation Area, or which will impact upon the setting of a heritage item or Heritage Conservation Area is also subject to the following provisions.

Objectives/controls

Comment

7.1 Special areas with heritage items

Objectives

a) To facilitate the conservation and protection of heritage items and Heritage Conservation Areas and their settings.

b) To reinforce the special attributes and qualities of heritage items by ensuring that development has regard to the fabric and prevailing character of the item or special area e.g., scale, proportions, materials and finishes.

The scale of the buildings along Crown Street is two storey, with the upper levels setback to reflect the historic 'high street' nature of this part of Crown Street. The proposal was referred to Council's Heritage Officer who raised concerns about the horizontal emphasis of the pool and gym buildings being in contrast with the fine grain built form opposite. This is discussed in more detail in the body of the report.

c) To conserve, maintain and enhance existing views and vistas to buildings and places of historic and aesthetic significance.

7.2 Special areas and Development Standards

Area 1: West Crown Street Shops

Objectives

a) Promote conservation of early federation row of two-storey shops.	Satisfactory
b) Preserve the curvature of Crown Street to the point where it connects to West Crown Street.	Satisfactory, noting the setbacks of the Crown Street buildings generally align with the curvature of Crown Street.
c) Preserve existing narrow lot layout as a reflection of early city subdivision patterns.	Smaller tenancies are proposed to front Crown Street.
d) Reduce number of over-scaled and inappropriate advertising signs.	Signage is not approved in this application. A condition will be included to confirm signage which is not exempt must be subject to a future application.
e) Encourage conservation of shop façade (including paintwork and possible restoration of classical detailing below awning level).	N/A
f) Alleviate overshadowing and wind impacts on the streetscape.	Satisfactory
g) Promote consistency of street treatments such as awnings and lighting.	Satisfactory

7.5 Design excellence

The design review panel has reviewed the proposal and is generally supportive of the application. Design excellence is discussed in detail under Clause 7.18 of the LEP.

8 Works in the public domain

It is noted that the proposed development presents a unique opportunity to address public domain matters in a holistic way and to positively contribute to the city as a whole.

As part of the pre-lodgement minutes, Council provided the applicant with detailed design levels and kerb realignment for the perimeter of the site to inform the design (see Figure 1). Of note, the design incorporates minor changes to the grade and extent of footpath at the corner of Crown and Keira Streets, the blister in the parking lane along Crown Street, the removal of the slip lane on the corner of Atchison and Burelli Streets and widening of the footpath at the eastern end of Burelli Street.

As part of the public domain works, the footpath along the middle section of the Crown Street frontage will be widened, creating a blister in the parking lane to accommodate street tree planting. This option was identified in the pre-lodgement discussions with the applicant, noting in principle support from TfNSW (given Crown Street is an existing classified road).

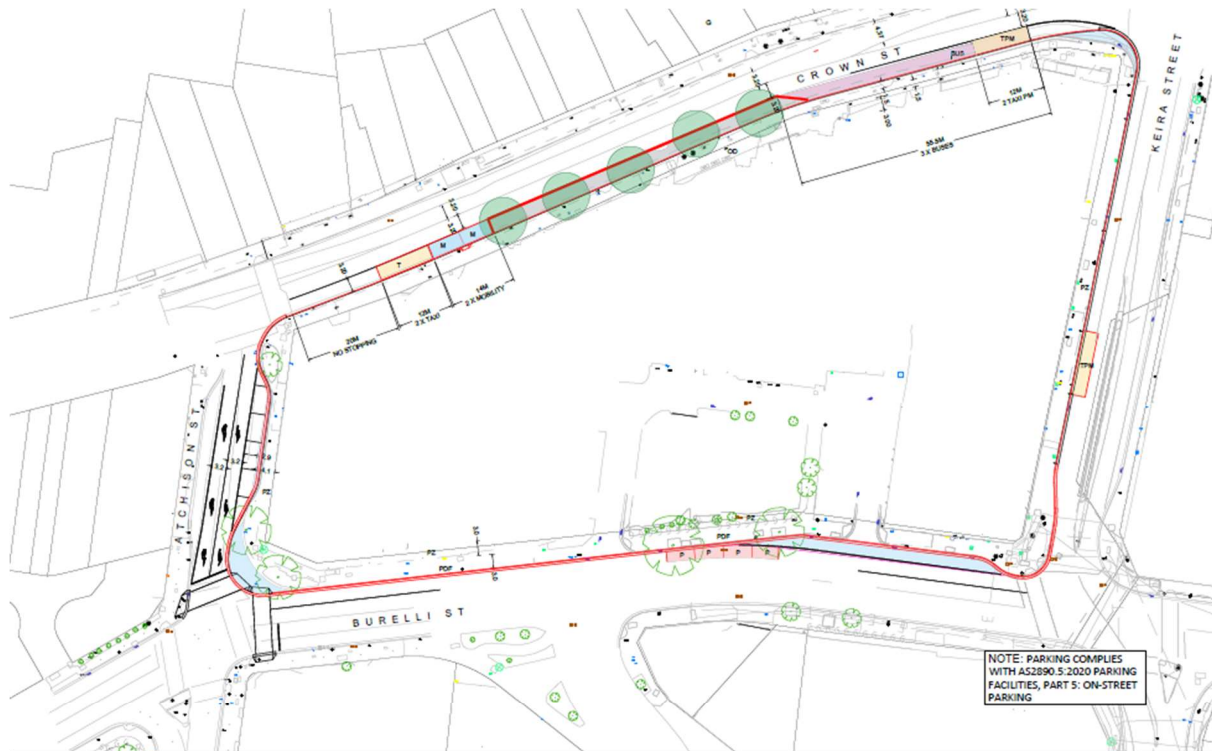
There are extensive services located within the Crown Street and Burelli Street footpath which presents challenges to street tree planting. Crown Street has been identified as a location at which canopy trees are desirable to address urban greening and improve pedestrian amenity. Trees within blisters in the road have been identified as an alternative to trees in the footpath on Crown Street.

The changes to the footpaths around the site's frontage will improve pedestrian safety and amenity for residents, employees and visitors to the site as well as the broader public. It will also allow adequate space for existing and new street trees, accommodate bus infrastructure and provide improved outdoor dining opportunities for future tenancies on Crown Street.

The removal of the slip lane and widening of the footpath at the corner of Atchison Street and Burelli Street is considered a necessary due to the significant intensification of pedestrian activity and traffic around the site.

There is a direct correlation between the need for the works beyond the property boundary and the development and the consent will require those works be completed as part of the public domain works associated with the development.

Other conditions of consent are recommended requiring footpaths for the perimeter of the site be upgraded and any works within the public domain to comply with the requirements of the Wollongong City Centre Public Domain Technical Manual.



PLAN
1:500 @A1

LEGEND

	FOOTPATH WIDENING AND NEW KERB KEIRA, BURELLI & ATCHISON STREETS		TPM TAXI ZONE 10PM - 6AM BUS ZONE / NO STOPPING 6AM-10PM
	NEW KERB EDGE CROWN STREET		T TAXI
	BUS ZONE		CANOPY TREE/ GREENING
	M MOBILITY PARKING		
	L 24 HOUR LOADING ZONE		

Figure 1: Council's concept public domain design

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

An Access report prepared by Morris Goding Access Consulting was submitted with the application, with a supplementary letter provided with the revised plans.

The development provides the following components to address the provisions of this chapter:

- Access for disabled persons at each pedestrian entry point of the site, which either comprises level access (Crown Street) or lift access (Burelli and Keira Street) into the internal plaza.
- Continuous paths of travel to meet the requirements of the BCA and AS1428.1 are provided in relation to circulation within the internal plaza.

- The entries of all the buildings will comply with the Access to Premises Standard, including the heritage listed Marcus Clark building and The Grand Hotel (noting the facades are to be retained).
- Conditions are recommended for footpath grades to ensure a level transition into shops from the street.
- 16 x accessible parking spaces are provided in the basement (RL 12.0) to meet the anticipated demand for the mix of retail, recreational and entertainments uses proposed within the site. Conditions are recommended to ensure that there is no impediment for users to access these spaces. Access from the accessible car spaces to the internal plaza (RL 21.0) is provided via a number of lifts.
- The required number of adaptable and liveable units are provided within all three residential towers in accordance with
- Accessible adult change facilities will be provided in accordance with the BCA/NCC requirements, noting these are shown at the base of Tower 3.
- Universal design principles have been incorporated into the design to maximize access for all people (older people, people with families/prams, various cultures and people with disabilities).

Further assessment of access into premises, the provision and quantum of accessible toilets and compliant paths of travel will be given at Construction Certificate stage. Standard conditions of consent are recommended with regard to the obligations under the Disability Discrimination Act.

CHAPTER E2 CRIME PREVENTATION THROUGH ENVIRONMENTAL DESIGN

<i>Control/objective</i>	<i>Comment</i>
<p><u>3.1 Lighting</u></p> <p>1. Areas intended to be used at night must provide appropriate lighting.</p> <p>2. Lighting must be provided to heavily used spaces such as car parks, major pedestrian routes, entries to buildings and entries to public toilets.</p> <p>3. Security lighting is to be consistent with AS4282 (1997) The Control of the Obtrusive Effect of Outdoor Lighting.</p> <p>4. In areas used by pedestrians, ensure that lighting shines on pedestrian pathways and possible entrapment spaces.</p> <p>5. Select and light 'safe routes' so that these become the focus of legitimate pedestrian activity after dark.</p> <p>6. Provide adequate illumination for directional signage and maps in locations used at night.</p> <p>7. Avoid glare by not placing any unshielded lighting at eye level (that is 1.5m to 3m above ground level). 8. Lighting must be designed to be vandal resistant, through measures such as high mounting</p>	<p>Satisfactory</p> <p>A lighting plan has been provided showing the various forms of lighting throughout the internal plaza. This includes 24hour lighting of the internal plaza and pedestrian links to all street frontages.</p> <p>Conditions are recommended to implement and maintain the lighting as per this plan and also with regard to compliance with regard to lighting to the main pedestrian circulation areas and also to meet the relevant standards for light spill to protect the amenity of residents occupying the site.</p>

3.2 Natural surveillance and sightlines

Satisfactory

Good passive surveillance of the internal plaza area is available at various times of the day from residential towers and the range of retail uses.

The internal plaza incorporates active uses to provide good natural surveillance for residents visitors and people moving through the site.

Pedestrian links incorporate glazing to provide passive surveillance of these areas.

Pedestrian links into the site enable direct sightlines. The Keira Street through link (between the cinema and The Grand) will be conditioned so that lift and lobby access is closed off outside hours of operation to reduce entrapment opportunities. This area is shown below:

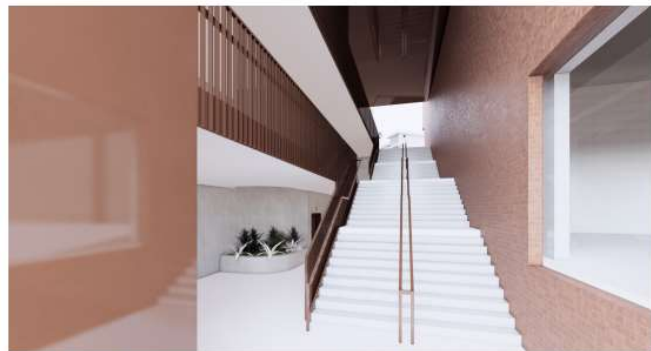


FIGURE 2 - CONCEPTUAL PERSPECTIVE SHOWING THROUGH SITE LINK STAIR

3.3 Signage

1. A signage plan focusing on the safe routes and indicating destinations, facilities and amenities en route may be required for large developments. 2. Ensure that signage is clearly legible through the use strong colours, clear contrasts, standard symbols and simple graphics.

3. Provide clear signage at bus shelters, taxi ranks and public facilities.

4. Clearly identify streets, courtyards and common areas and encourage use of street numbers and businesses identification signs.

5. Illuminate signs that are essential for night use.

6. Locate signs so that they are not likely to be obscured by vegetation growth.

7. Ensure that the size and/or location of signs do not create entrapment opportunities.

8. Maps should be provided in large public open spaces such as parks, and

Satisfactory

The site is not of a size or layout that presents significant wayfinding challenges.

A Wayfinding Plan has been provided for the main decision points into and within the site showing signage to assist orientation for pedestrians and cyclists.

orientated towards main routes if pedestrian travel.

3.4 Building design

8. If staff entrances are to be separated from the main entrance, ensure that they are well lit and maximize opportunities for natural surveillance and sight lines.

9. Use transparent, unbreakable materials in door and walls at major entry points to provide sightlines through the door or wall.

10. Locate delivery hatches and bins so that they do not assist an intruder to gain access to a building.

11. Ensure that loading and storage areas are either well-lit or can be locked after hours.

12. Areas are to be illuminated so that occupants can see out some distance from the entry before leaving the building.

13. Illuminate all external edges and access points to car parks.

14. Where large expanses of car parks are proposed, consideration should be given to the provision of surveillance e.g. the installation of security cameras.

15. Avoid hidden recesses.

16. Car spaces should be reserved near the building entry for employees working after hours.

17. Ensure that enclosed or underground car parking can only be accessed from inside the building not by pedestrians passing

3.5 Landscaping

1. Shrubbery and low-level planting must be selected for footpaths that does not exceed 1m in height where abutting pavements.

2. Avoid planting taller growing plants and trees in areas that screen doorways, entrances and windows.

3. Select trees that do not have branches below 1.5m (for the trees protection it is recommended that they do not have branches below 2.4m above ground level)

Satisfactory

The design of the buildings meets these requirements noting:

- Entrances to buildings allow natural surveillance;
- Residential towers have secure mail areas and delivery points;
- Loading and storage areas are secure in the basement levels;
- Lighting will be provided as discussed above;
- No hidden recesses are proposed (subject to conditions as outlined above);
- Secure parking is provided.

Satisfactory

Suitable landscaping is provided within the internal plaza areas.

4. Use hard landscaping details such as low fencing and walls to deter pedestrian or vehicle movement.

5. If surfaces are constructed using cobbles or large pebbles, make sure that they are embedded for two thirds of their depth.

6. Avoid using gravel paths as these may cause difficulties for people that are mobility impaired.

7. Landscaping within front yards should not obscure the entry points and windows of the dwelling.

3.6 Public open space and parks.

1. The design of the public open space should foster legibility so that people can easily identify entrances and exits, find their way around and locate public amenities.

2. Avoid creating unused or unusable spaces or isolated pockets.

3. The design should cater for easy maintenance of well used areas.

4. Open space should be located where it can easily be surrounded by a mix of land uses that generate activity both during and after hours.

5. Locate children's play areas so that they are visible from adjoining properties.

6. Provide adequate and appropriate equipment for all ages and both sexes so that one group does not dominate or damage recreation equipment intended for others.

7. Provide shaded seating areas with good sightlines to children's play equipment for adults supervising children's play.

Satisfactory

Although the development does not include public areas, the internal plaza will be publicly accessible so similar principles apply.

The design of the internal plaza results in a mix of uses opening into the area to generate activity.

The playground to the west of Tower 2 will be visible from surrounding buildings and uses.

Lighting and landscaping is discussed above.

3.7 Community facilities and public amenities

Satisfactory

Public amenities are proposed under the pool building and at the base of Tower 3, both accessed from the internal plaza area. Entries to these areas will have natural surveillance. The amenities under Tower 3 may benefit from restricted access at night times to improve safety given the corridor limited sightlines.

The applicant has provided a Place Management Plan which outlines the ongoing management responsibilities of the non-residential areas (noting that the residential towers will be strata/stratum subdivided in the future). The Place Management Plan is quite general in nature and detail, so conditions are recommended requiring a CCTV Plan and a Site and Security Management Plan to be provided in order to effectively manage safety and security issues within the publicly accessible plaza and pedestrian links. The plan will need to outline various safety and security measures for the publicly accessible areas, including but not limited to CCTV, lighting, landscaping, security, access to public amenities (see Condition 69).

3.8 Bus stops and taxi ranks

Satisfactory

The location of the bus stop on Crown Street at the eastern end of the site will promote natural surveillance from the street and from active uses in the site.

Night time taxi ranks will also be available.

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. A total of 14 trees within the site are proposed for removal as discussed under Chapter E17
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

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.

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:

(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

Satisfactory

The proposed greening within the site, the retention of existing street trees, changes to the location and arrangement of the bus zones, the inclusion of street trees in tree vaults on Crown Street and high-quality pavements are consistent with the desired streetscape outcome and are supported by Council's Landscape division.

The City Centre Public Domain Technical Manual (CCPDTM) is a management policy that supports this chapter. The City Centre Public Domain Technical Manual, designates Crown, Keira, Atchison and Burelli Streets as Core Streets (high streets).

High pedestrian volumes and key bus stops servicing the mall and the west Crown/Keira Street precinct need to accommodate clear pedestrian zones, bus shelters, bins, signage and rest seating, awnings and the opportunity for outdoor dining.

The provision of canopy street trees is an imperative in response to Council's Urban Greening Strategy 2017-2037, a requirement of the Wollongong DCP 2009 Chapters E6 Landscaping and D13 City Centre, as well as the Wollongong City Centre Public Domain Technical Manual.

Buildings and the basement along Burelli Street have been set back to allow the retention and ongoing health of the existing London Plane street trees along this frontage, noting the extensive existing services in the footpath would mean that removal of the trees would result in the permanent loss of a tree in that location. Two existing street trees in Atchison Street are also proposed for retention.

Street tree planting along the Crown Street frontage is required to be provided as part of a development (within a blister in the parking lane). 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.

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 Amenity

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.

Satisfactory

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

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

Satisfactory

6.2 Excavation

Satisfactory

6.3 Retaining walls

Satisfactory

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

Satisfactory

Conditions are included for further detail outlining the implementation and ongoing maintenance for the planted structures at the base of tower 1 (illustrating water-proofing, soil containment, filter fabric, drainage outlets, subsoil drainage methods, irrigation and the like) to ensure the design intent is realised:



6.5 Embankments

N/A

6.6 Noxious weeds

N/A

6.7 Street trees

Satisfactory

1. Street trees, where appropriate should seek to provide:

Conditions are recommended in relation to the retention and protection of the existing street trees on Burelli Street as well as required street tree planting on Crown Street.

(a) Shade; and

(b) Enhancement of visual quality of the streetscape.

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.

4. The location of Street Trees should take into account overhead and underground services.

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.

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.

7. Minimum plant requirements for Street Trees are 200 litre container size, in accordance with AS 2303: 2015 Tree stock for landscape use.

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.

7 Car parking areas

N/A – all car parking is located at basement levels

8 Post development consent

Satisfactory – suitable conditions recommended

8.1 Tree protection during construction .

Satisfactory

An Arborist Report prepared by Tree IQ accompanied the application identifying the trees within the site proposed for removal (total 14) and the protection measures required for the Street trees to be retained. Tree protection conditions are recommended.

8.2 Maintenance

Satisfactory – suitable conditions recommended

CHAPTER E7: WASTE MANAGEMENT

2 Site Waste Minimisation and Management Plan

A Site Waste Minimisation and Management Plan (SWMMP) is required to outline measures to minimise and manage waste generated during demolition, construction, ongoing use of the site/premises. Relevant SWMMP's have been provided as outlined below.

5.1 and 5.2 Demolition and Construction SWMMP

A Site Waste Minimisation and Management Plan (SWMMP) has been provided as part of the Preliminary Construction Environmental Management Plan (CEMP) for the demolition and construction works in accordance with Parts 5.1 and 5.2 of this chapter. The SWMMP provides an overview of the methodology for waste handling, including classification of waste, demolition and re-use of materials, stockpile management, recycling rates and disposal. The management of demolition and construction waste has been considered by Council's Environment division, who has recommended suitable conditions.

Due to the nature of the site being occupied and areas difficult to access, it is considered that a detailed Hazardous Building Materials Assessment can be undertaken prior to the commencement of any works on site and an appropriate management plan incorporated in to the CEMP. Following the preparation of the hazardous materials assessment, a detailed demolition and construction waste management plan will be to be included within the CEMP.

5.6 Mixed Use Development

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 entire development, Council's Traffic engineer has recommended that a Loading Dock Delivery, Servicing and Waste Management Plan be prepared to coordinate the waste collection between residential and commercial users (prior to issue of an Occupation Certificate).

The plan of Basement level RL 12.0 indicating the loading dock and the waste storage areas is shown below:

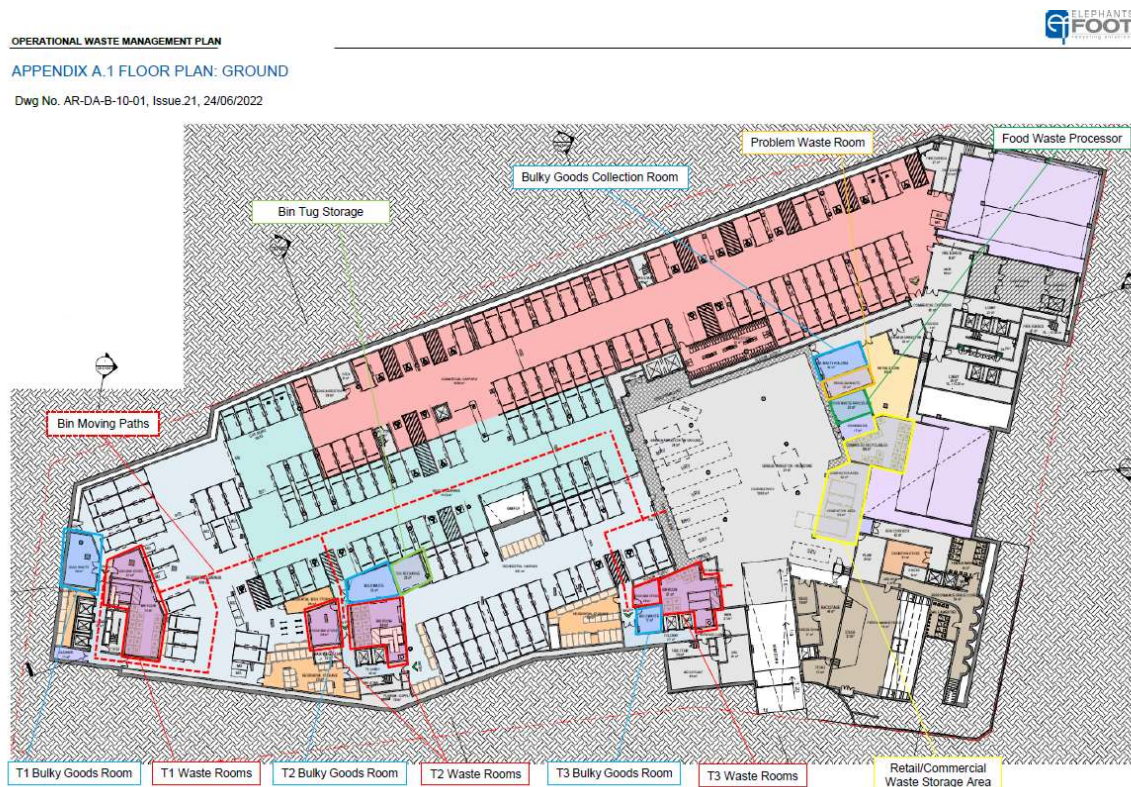


Figure 2: Basement Level RL 12.0 showing loading dock and residential and commercial waste storage areas

The following waste management facilities and operational aspects are provided:

Residential

- Tower 1 has separate chutes at each level for garbage and recycling disposal;
- Whilst Tower 1 will have the installation of dual chutes (one for each waste stream) installed, Towers 2&3 will have the eDiverter system, which is a single chute with a recycling diversion. This system is subject to blockages as well as high levels of contamination in the recycling stream as users select whichever one is convenient. A condition of consent is recommended for separate chutes be provided for all towers to minimise cross contamination and maximise waste that is diverted from landfill (as recommended by Council's Waste division)
- Separate waste rooms for the storage of Food Organics and Garden Organics (FOGO) for all three towers are provided to accommodate the increased adoption of this waste stream, noting

this chapter does not reflect the inclusion of FOGO. Provision of the 'green bins' also accommodates green waste from individual units too which is considered necessary.

- Compactors are proposed for general waste in the basement;
- Bulk waste rooms are provided for each tower in the basement
- Waste will be collected from the loading dock in the eastern part of the site that services the whole development at basement level RL 12.0. Bins will be moved from waste storage areas to collection area with a bin mover (battery powered tug/electric tow tractor).
- Collection frequencies are 2 general waste and recycling collections per week, and once weekly FOGO collection

Non-residential

- Staff/operators will be responsible for storing waste within the relevant tenancies and transporting the waste to the basement level (RL 12.0) as required.
- A private waste collection contractor will be engaged to collect the commercial waste
- An on-site food waste processing unit is proposed within the basement to cater for the commercial premises. The unit converts putrescible waste to a concentrated residue within 24 hours which has virtually no odour and does not attract rodents. The by-product will be collected by a separate contractor and transferred to a certified organics composting facility.
- Liquid waste (cleaning products, chemicals, paints and cooking oil) will be stored in a secure space which is bunded and drained to a grease trap.
- Dedicated medical waste bins will be provided and removed by a specialist waste contractor
- A separate room for 'problem waste' is proposed (e.g. chemical waste, liquid wastes, toner cartridges, lightbulbs, eWaste and batteries). The building manager will be responsible for disposal/recycling of the relevant waste streams with an appropriate contractor. A condition is recommended for this room to incorporate appropriate bunding, fire suppression and ventilation to manage risk and pollution.

Overall waste generation estimates and the proposed collection frequency of the general and recycling waste is acceptable.

Council's Waste Manager considered the original proposal with a focus on operation waste management including the waste estimates, design and layout of waste disposal, storage and collection facilities as part of the development. The matters raised have been incorporated into the design and/or are capable of being conditioned.

Council's Traffic Engineer has assessed the loading and waste collection activities noting that the loading area allows access by vehicles up to 12.5 metres in length (Large Rigid Vehicles) which has been demonstrated with swept paths. Council's waste team has reviewed the loading dock design and have not raised any significant access concerns.

Council's Environment Division has considered demolition and construction waste and recommended conditions.

CHAPTER E9 HOARDINGS AND CRANES

6 Specific Requirements for Hoardings

Temporary structures such as hoardings and cranes are proposed to be used during the demolition and construction phase of the development. Details of the temporary structures is included within the Construction Management Plan submitted with this application.

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.

The submitted Preliminary Construction Management Plan confirms that any mobile cranes will be contained within the site boundary. As well as details relating to construction vehicle access, and details of any sheds, and temporary structures to be installed on the site during demolition and construction.

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 E10 ABORIGINAL HERITAGE

The site is not identified under Part 2.2 as development for which an Aboriginal archaeological and cultural heritage assessment is required. Council's Heritage division has considered the application, recommending conditions requiring an Aboriginal Due Diligence Assessment to be prepared to Council's Heritage staff satisfaction prior to ground disturbance. A condition of consent outlining requirements for Unexpected Finds of Aboriginal Cultural Heritage is also recommended.

CHAPTER E11 HERITAGE CONSERVATION

Council's Heritage Officer has reviewed the application having regard to listed heritage items within the site, heritage items in the vicinity of the site, the wider heritage context, potential for historical archaeological items.

Part 10 Heritage Impact Assessment

Heritage items within the site and in the vicinity of the site under Schedule 5 of Wollongong LEP 2009 are outlined under Clause 5.10 of the LEP. The only heritage items of local significance on the site is the Former Marcus Clark Building (currently Spotlight) with the Crown Street Row of Shops opposite the site on Crown Street also being a locally listed item.

Former Marcus Clark Building

The local heritage item within the site identified under Wollongong LEP 2009 is the 'Former Marcus Clark Building' - Local item No. 6474. The north-western corner of the façade incorporating the clocktower is proposed to be retained and restored as part of the development. Reports submitted with the application relating to the building are the Amended Heritage Impact Statement, Heritage Interpretation Strategy and Schedule of Conservation Works – Former Marcus Clark Building (Façade). All reports were prepared by Weir Phillips Heritage and Planning and are all dated June 2022 and Ref J4205.

Overall the approach to the retention of the façade of Marcus Clark has been supported, with further detail to be submitted prior to CC relating to the extent and methodology for the conservation works, including the clock tower (see Condition 60).

The latest plans and details provided by the applicant have indicated the need to include wind mitigation screens on the new rooftop areas above the southern parts of the retained Marcus Clark Building façade. Further detail of this screening and how it will look and be constructed will be required to be retained. It is however considered that this matter is capable of management through suitable conditions (see condition 58).

Concern has been raised by heritage staff about the Crown Street presentation with specific regard to the horizontal emphasis and scale of the gym/wellness and pool buildings in that they detract from the scale and stature of the Marcus Clark building, being a historic department store. Conditions have been recommended for further vertical elements or detailing to be incorporated into the design of these buildings to better respond to the heritage setting to be subject to Council endorsement.

Concerns were raised in relation to the visual impacts on the Illawarra Escarpment and other heritage items within the vicinity of the site arising from the height of Tower 1, the Crown Street presentation (horizontal elements and arched detail), and requiring further detail of the conservation works to the listed Marcus Clark building and The Grand Hotel (unlisted).

Other contributory buildings within the site

The Grand Hotel façade is not a listed heritage item, however the retention and restoration of the façade is seen as a positive outcome for the site and streetscape.



Figure 3: The Grand Hotel façade with exhibition terrace above

Commercial Buildings along Keira Street

The buildings at 226-238 Keira Street are a row of two storey late federation/interwar buildings with simple detail parapet to the north of the Grand Hotel, as shown below:



Figure 4: Row of two storey shops north of The Grand Hotel on Keira Street

These buildings are not listed heritage items however Council identified early on in the assessment that the retention of these buildings (or at least their facades) should be investigated as they contribute to the Keira Street streetscape. These buildings are not proposed to be retained, with the amended HIS providing the following justification for the Keira Street Commercial Shops demolition:

- The shop fronts are not heritage listed and demonstrate reduced integrity and limited architectural merit.
- The retention of these shop fronts is not seen to be warranted given the context of the streetscape opposite the site.
- Retaining the shop fronts complicates the use of the site because of the differences in floor levels.

This has been accepted, however a condition requiring the photographic recording of the shops (along with the Grand Hotel and the Marcus Clark Building) will be required.

Part 11 Subdivision

The development involves the consolidation of all 28 existing allotments, with the residential towers being strata/stratum subdivided in the future (subject to separate approval). As the Marcus Clark building will partly be used for residential purposes (communal open space) and also being under separate ownership/management as part of the non-residential uses on the site, a condition is recommended for further detail on the strata funding mechanism for ongoing maintenance works to be provided prior to issue of the Occupation certificate (see Condition 59).

Part 14 Development in the vicinity of a heritage site

Crown Street presentation

The proposed development is in the vicinity of numerous heritage sites, the Row of Shops opposite the site on Crown Street being within the immediate visual catchment.

Council's Heritage staff retain a view that the proposed Crown Street elevations could provide a better response to the heritage setting of the West Crown Street shops and the Marcus Clark Building. The current design includes long horizontal 2 storey forms, including the two components featuring arched 1st floor detailing. These elements read as one long building, with only a central break, and do not provide a fine grain, broken down streetscape response that responds to the historic lot arrangements, nor to the fine grain heritage properties opposite. Further, this response provides larger, longer elements fronting Crown Street than the Marcus Clark building, competing with the historic department store in scale and stature.



Breaking up of the form of the lower two floors of the pool and gym buildings to provide greater vertical emphasis would assist in this regard however it is not clear how readily that would be achieved with the current design and is not amenable to conditions.

Height, Visual Impacts and Illawarra Escarpment

Council's heritage staff retain some concern that the proposed development, by virtue of its significant height and scale, will result in some significant impacts on views to the Illawarra Escarpment from key viewing locations and areas to the east. Further, the significant height of the tower is anticipated to also impact to some extent on the setting of a range of other heritage items throughout the City Centre (e.g. Wollongong Railway Station, West Crown Street Shops and others). It has been acknowledged that these impacts arise from development that is allowed for under the site's current controls.

Part 15 Adaptive re-use of a heritage building

Although only the façade and clocktower of the Marcus Clark Building will be retained as part of the development, its historic use as a departure store will be reflected in the façade and large floor plates to be constructed behind the original façade.

No signage is proposed as part of the current application.

Part 19 Development of Historical (Post-European Settlement)

The Study area was assessed as having moderate-high archaeological potential associated with three phases of development, with local significance.

Given that parts of the study area have been assessed as having archaeological potential, and relics of local significance are likely to be impacted during the proposed construction works, an excavation permit is required under s 140 the NSW Heritage Act 1977 supported by an Archaeological Research Design. Following the demolition of the existing modern buildings (except the heritage item), archaeological investigations will be required in advance of construction. There does not appear to be any potential to retain any archeology in situ due to basement carparking and cut and fill across the site. Heritage NSW was consulted as part of the assessment who have recommended conditions relating to archaeological relics.

Various conditions will need to be placed on the consent to ensure the works are carried out following demolition. There should also be opportunities to provide for meaningful interpretation of the history of the site and display of archaeological relics. A Heritage Interpretation Strategy has been prepared by Weir Phillips, however it will need to be updated and refined following the investigations.

Heritage NSW was consulted who recommended conditions relating to archaeological relics.

Part 20 Heritage conservation area

The site is not within a heritage conservation area.

Part 22 Heritage Interpretation

An updated Heritage Interpretation Plan is to be provided to Council for written approval to guide the appropriate delivery of onsite heritage interpretation material that is both within publicly accessible internal spaces and includes exterior signage and other innovative interpretive devices, to reference the history of the site and its significance in the development of Crown Street, its past ownership and the existing heritage item. The details of the proposed plan are to be provided to Council's Heritage Officers for written approval prior to the release of Construction Certificate.

The plan must also reference the archaeological investigation undertaken on the site. In the event that relics or archaeology are located during the course of the works these relics and details of the archaeological find are to be considered for inclusion in the interpretative plan and any resulting interpretation material.

The Plan should also be updated to integrate the recommendations of the Designing With Country Strategy prepared by Bangawarra.

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.

A geotechnical report was submitted with the application, and updated following the receipt of amended plans. 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.

An appropriate condition has been recommended by Council's Geotechnical Engineer, which includes compliance with the relevant recommendations contained within the submitted Geotechnical report.

Recommended Condition:

Geotechnical Requirements

- a. *A dilapidation report is required for all structures located within the zone of influence of the proposed earthworks as determined by the geotechnical consultant.*
- b. *All excavations need to be supported during and after construction particularly to protect adjoining property with nearby existing development.*
- c. *The retaining wall design is not to include anchors extending on to adjoining property with the written consent of the adjoining property owner(s).*
- d. *No disturbance of ground is to occur beyond site boundaries. A minimum buffer between site boundaries and the construction of retaining structures is to be recommended by the*

- geotechnical consultant to ensure adjoining property is not adversely impacted by this development.*
- e. An earthworks plan is to be developed by the geotechnical consultant prior to the start of earthworks.*
 - f. All recommendations of Douglas Partners in their geotechnical reports dated 21 June 2021 and 23 June 2022 are to be accommodated in the earthworks plan.*
 - g. Hard bedrock, where encountered, will be difficult to excavate. Alternative excavation methods should be considered to minimise noise and vibration.*
 - h. The earthworks plan may require modification considering any subsequent geotechnical reports commissioned to address unforeseen geotechnical conditions encountered during the site preparation works.*
 - i. Due to the sensitivity of the site to changing geotechnical conditions, all work must be undertaken with Level 1 geotechnical supervision as defined in Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Developments.*
 - j. At the completion of site preparation earthworks, the geotechnical consultant is to prepare a works-as-executed report detailing encountered geotechnical conditions and how the remedial works addressed these conditions so that the residual geotechnical constraints can be accommodated within the structural designs for the development. These structural designs are to be confirmed or amended by the structural engineer based on the works-as-executed geotechnical report.*
 - k. All excavations for foundations are to be inspected by the geotechnical consultant and certified that the ground has been suitably prepared for the placement of footings.*

In addition to the above, a condition is recommended by Council's Development Engineer relating to requirements for excavation and retaining structures adjacent to public roads.

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

CHAPTER E13 FLOODPLAIN MANAGEMENT

Council's Stormwater engineer has reviewed the proposal with respect to the provisions of this chapter noting that parts of the site are noted as uncategorised flood risk based on Council's records. Based on review of the flooding characteristics for the site it is considered that parts of the development are within a low flood risk precinct. It is considered low flood risk based on the criteria in the Wollongong City Flood Risk management plan, this identifies areas that are impacted by the 1% flood level but not within areas of mainstream flooding are considered low flood risk.

Given that the flood affected areas are generally contained within the kerb along Crown Street it is overland flow and therefore applying an appropriate footpath grade at 2.5% are considered appropriate.

Reliable access is achievable for the development; therefore, evacuation is satisfied.

The development is compatible with the flood function and behaviour of the land and will not lead to adverse flood behaviour or impacts on surrounding land. The objectives and provisions of this chapter are satisfied.

CHAPTER E14 STORMWATER MANAGEMENT

Council's stormwater engineer has reviewed the proposal with respect to the provisions of this chapter and has recommended conditions of consent.

Stormwater Management

Calculations have been provided with the application (including detailed civil drawings) which demonstrate that design at each stormwater outlet generally achieves the relevant requirements and objectives relating to stormwater discharge contained within this Chapter. Where achievement of the discharge requirements has not been achieved, the variation is considered minor, and is able to be conditioned to ensure flow distribution maintains the existing distribution for the proposed discharge location.

Frontage Levels

Details provided with the application generally align with Council's design requirements and suitable are achieved. Appropriate conditions relating to frontage levels and gradients are recommended.

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 maintain the 6 existing street trees located on Atchison and Burelli Streets, and removal of all 14 trees within the site. 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. The proposed tree removal and retention and additional landscape works was considered acceptable subject to the inclusion of suitable recommended conditions.

Recommended conditions include requirements for tree retention of the 6 street trees, final landscape requirements, tree protection works, the planting of 5 additional street trees, compensatory planting within the site of at least 15 mature trees in suitable locations on the site, arborist certification and supervision.

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

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal is considered to be consistent with the objectives for earthworks established in this Chapter.

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 was referred to Council's Environment Officer who assessed the application with relation to the requirements and objectives of this chapter and the SEPP (Resilience and Hazards) 2021. A preliminary site investigation was conducted and provided as part of the assessment.

An assessment of historic uses on the site do not indicate the site is likely to be contaminated. However given the size of the site, and the nature of the proposed development, to achieve consistency with the objectives of this chapter, relevant standard conditions of consent are recommended.

Conditions relating to the preparation of a site contamination validation report, site contamination audit statement and if required the preparation of a supplementary detail site investigation are recommended

for inclusion on the consent. In addition conditions relating to unexpected contaminated land and asbestos finds procedures is also recommended.

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. Retention of the façades of the Marcus Clark building (corner of Crown and Atchison) and the Grand Hotel (corner of Keira and Burelli) is proposed.

Objectives	
a) Ensure that demolition is undertaken in a manner that minimises waste generation and adverse amenity impacts.	Council's Environment Officer has reviewed the proposal and provided recommended conditions of consent relating to the objectives of this chapter. The proposal is considered acceptable subject to conditions of consent relating to demolition, asbestos management, hours of work, waste disposal.
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.	
5.1 Demolition Work Plan	
<p>The Demolition Work Plan shall include the following information:</p> <ul style="list-style-type: none">– Site location plan– Details of contractor– Details of building heights and locations on the site– Details of footings, materials– Details of hazardous materials and appropriate procedures for demolition, storage, transport– Methods of demolition including noise,– Written documentation of compliance with AS– Time sequence for demolition(staging, hours, time taken)– Details of hoardings, fences etc– Safety precautions– Measures to minimise airborne asbestos and emissions• Methods and location of disposal	<p>A Construction Management Plan and architectural plans detailing the proposed demolition was submitted with the application, which provides details relating to the proposed demolition, which are generally consistent with the requirements of this Chapter and the objectives above.</p> <p>Appropriate conditions of consent are recommended relating to demolition, works in the road reserve, noise/amenity impact mitigation measures, hazardous materials/asbestos management, hours of work, tree protection, notification to surrounding residents and businesses.</p>
5.2 other information requirements for demolition works	
1. A Site Waste Minimisation and Management Plan (SWMMP) shall also be prepared in accordance with the requirements contained within the Waste Management Chapter in Part E of this DCP, with particular regard to the controls relating specifically to demolition.	The Construction Management Plan includes a SWMMP. Appropriate conditions relating to waste minimisation and management during demolition and construction are recommended. Included in the recommended conditions is a condition requiring the submission of an Environmental Management Plan, which

	must contain specific requirements relating to waste management.
2. A Dilapidation Report is also required for any demolition works situated within the zone of influence of any other building or structure. The Dilapidation Report must include photographic evidence of all building or structures within the zone of influence.	Suitable conditions relating to dilapidation are recommended.
3. A Hazardous Building Materials Assessment (HBM) shall be prepared prior to commencement of demolition works. The report must be prepared so to achieve compliance with relevant guidance documentation including (but not limited to), regulations, codes of practice, and Australian standards.	Condition is recommended for a hazardous material survey to be undertaken prior to demolition.
6. Hazardous Building Materials Management	Conditions of consent are recommended relating to demolition and hazardous building materials management, including asbestos.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

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