PART B: KEY ISSUES SPECIFIC TO THE PROJECT APPLICATION

10.7 Consistency of the Project Application (Stage 1) with the Concept Plan

The Project Application for Stage 1 has been lodged concurrently with the Concept Plan for all three stages and therefore is entirely consistent.

The Stage 1 Project Application design is consistent with that approved in relation to the existing deferred commencement consent issued by Council pursuant to Part 4 of the Act. The design includes the design development required by the deferred commencement conditions.

10.8 Architectural, Building and Urban Design Impacts

10.8.1 Streetscape, view corridors and heritage impact

Important view corridors to be considered include those vistas looking east along Crown Street and Burelli Street as outlined in the City Centre Plan.

Crown Street vista

The vista down Crown Street looks past the site from the existing café precinct toward the Beach. This vista has been computer modelled and included below.

EAST VISTA DOWN CROWN STREET

The important elements in this streetscape include the two storey street facades of the existing buildings west of Corrimal Street (the café precinct). This area is a Special Character Area as prescribed by the City Centre Plan and as such an assessment has been made against the provisions of the DCP, refer to **Appendix K**. The assessment finds that the proposal accords with the Special Character provisions. It is noted in particular, that the street façade of the building on the Oxford site has a height and setback equivalent to the recently constructed 'Platinum' building adjacent.

Burelli Street vista

The other important view corridor mentioned in the City Centre Plan is that looking along Burelli Street. This vista has been computer modelled and included below.

VIEW WEST ON BURELLI STREET

The illustration shows an existing predominant building in the streetscape being the Council Administration building diagonally opposite. The tower of the existing administration building opposite ensures that the proposed Stage 1 tower form is not out of context, despite it being slightly higher. The overriding factor in the circumstances should be compliance of the proposal with the prescribed building envelope, particularly in relation to overall height and setback to the street.

Heritage considerations

The Heritage Impact Statement by NBRSP includes an assessment of the impact upon the Special Character Area and nearby heritage items: the Comelli Bros Building on the corner of Crown and Corrimal Street and the California Flats at 7-9 Burelli Street, opposite the site. The assessment concludes,

In relation to the Special Character Area considerations:

> *'The Oxford Hotel site which forms Stage 3 of the Concept Plan is within Special Character Area 4 of the Wollongong City Centre Development Control Plan 2007. The proposed scheme complies with the street level mixed use, scale, siting and architectural form provided for in the DCP with the street parapet height consistent with the two storey character of the street and the overall building height complying with the provisions of the LEP. As the proposed development is a new infill building it is not desirable to mimic the late Victorian details seen elsewhere in the street, but to have the new buildings as identifiable as new buildings. The materials and finishes selected for the Stage 3 Project Application. Signage of a consistent character will also be provided as part of that stage's Project Application.*
>
> *The Concept plan and its planned Stage 3 either satisfy the objectives of Special Character Area 4 or are capable of satisfying those objects in further detailed design for the relevant Project Application.'*

In relation to heritage significance in general:

> *'Given the nature and level of heritage significance of the adjacent Comelli Bros Building heritage item, together with the provisions for development on the site and that the development is neither in nor near a Heritage Conservation Area, we believe the proposed scheme is acceptable in heritage terms'*

To ensure acceptable heritage impact, the NBRSP recommend that the detailing of the Oxford site façade as it fronts Crown Street in a sympathetic manner to the Special Character Area. It is appropriate for details to be provided and assessment undertaken in the context of the future Project Application for the Stage 3 component.

Façade presentation

In terms of façade detailing, the Crown Street façade of the Stage 1 component has been designed to include shopfront openings of a width and rhythm that would suggest a continuation of the existing shopfront form to the west of the site. The addition of outdoor seating along the street would introduce a welcome element of street activity and liveliness to the precinct.

The façade along Burelli Street would also present as a series of shopfront components particularly at the second storey level. Ground level would be allocated to the hotel, the larger scale detailing consistent with those public administration buildings located further to the west.

Relationship to adjoining properties

The other important relationship of the Stage 1 component with the adjoining properties relates to the adjoining residential flat buildings directly to the east. The scale and setbacks of the proposal has been designed to relate to that of the adjacent buildings and ensure minimal visual impact and amenity impact. The street façade of the Stage 1 component is three storeys and of a comparable scale to the parapet height of the four storey residential building to the east fronting Burelli Street. In relation to Crown Street, the four storey street parapet height is considered to be of a comparable scale to the Comelli Bros Building opposite (one storey higher), noting that façade detailing presents a parapet that is consistent in height. In general, the scale is consistent with the building envelope guidelines of the City Centre Plan and therefore consistent with the future character of the area.

In relation to side setback, the three to four storey podium has been setback at nil for the first storey and between 4.0m to 5.4m above, to minimise amenity impact from overshadowing. The nil setback of the loading dock area up to the first storey is less than the 3m guideline requirement, however, it is considered more appropriate to build to the boundary for the following reasons:

- Avoid the creation of a 3m 'dead' space that would be difficult to maintain.
- There are no openings along the wall and no privacy impact would result.
- The height of the wall on the boundary would be relatively smaller and comparable to the respective four and two storey elevations of the adjacent residential flat buildings.
- Construction to the boundary is considered appropriate for a commercial podium located in the City Edge Zone.

In summary, the side setback is considered to represent an efficient use of area which will be without unreasonable amenity impact.

10.8.2 Residential amenity – privacy, views and overshadowing

Being located within a Mixed Use Zone, the residential properties adjacent to the site are limited to those directly adjacent to the west: four storey and two storey residential flat buildings fronting Burelli and Crown Streets respectively; and those diagonally opposite on Burelli Street including the California Flats at 7-9 Burelli Street. The remainder of properties, including those directly opposite to the south which would be most affected by shadow, are all commercial and community related uses.

Privacy

The adjacent residential buildings are all located to the east. The development has been designed with an articulated blank wall facing east with the principal orientation to the street north and south. As a result the Stage 1 component will not have any direct impact upon privacy due to overlooking. The only opportunity for overlooking would be from the terrace to the offices at level 4. However, given the likelihood of the office (or future conference area) being used throughout business hours, conflict with the adjacent residential use would be minimal.

Views

The prevailing views in the precinct are looking to toward the beach, noting also that the City Centre DCP does not feature any significant view lines over the site. Being located toward the west of the nearest residential properties, there would be no impact on views.

Overshadowing

Overshadowing diagrams have been included in **Section 8** of the report. It is noted that the City Centre Plan and the Residential Flat Design Code does not have any specific guidelines in relation to overshadowing in terms of impact upon adjoining properties. Despite this, it is considered relevant to look at overshadowing in terms of site orientation and impact upon access to northern light. The site is located to the west of the nearby residential properties and therefore will not have any impact upon direct sunlight access to the north. All residential properties will remain unaffected by the proposal until after lunch in the middle of winter. This is considered to be a reasonable level of impact in the context of the Mixed Use (City Edge) Zone.

10.9 Car Parking, Access and Servicing

10.9.1 Car Parking, bicycle parking and accessible parking

Parsons Brinkerhoff have undertaken a detailed review of car parking, bicycle and accessible car parking provision as part of their Stage 1 Traffic and Parking Assessment, refer to **Appendix Q1**.

In relation to parking and bicycle provision, assessment has been made against the prescribed DCP guideline rates. In accordance with an assessment table in the Parsons Brinkerhoff report, the proposed car parking requirement would be 1,052 spaces. The car parking numbers have been adjusted to ensure compliance with this figure.

It is noted that the required 62 bicycle parking spaces have been allocated in areas close to the entry points at Basement Levels 1 and 2.

In relation to circulation, a number of improvements to the initial draft plans were identified. These improvements have been incorporated into the final plans submitted with this application. In summary:

- *'many aisles have been modified to become one-way lanes. This will improve the efficiency of the internal circulation and will also reduce crash conflicts. The one-way system will also better ensure that all available parking spots are passed by circulating traffic.*
- *The modified entry ramp from Burelli Street will lead traffic directly to basement level 2 and hence improve the utilisation rate for lower floors.*
- *It is recommended that additional bicycle parking spaces be sought by using void spaces beneath ramps as well as the new void space created by the removal of 26 car spaces beneath the low ceiling on basement level 1.*

The Stage 1 plans have been amended in this fashion to maximise bicycle parking and the area with low ceiling height is to be utilised for water retention.

In relation to accessible parking spaces, the assessment of Morris Goding **(refer to Appendix V1)** confirms that a satisfactory number of spaces have been provided and that they have been located in an appropriate location.

10.9.2 Access and servicing (loading)

The access and loading dock arrangements for the Stage 1 component have been designed to ensure smooth movement of large vehicles through the site and manoeuvring on site without excessive turning movements. All servicing vehicles (including semi-trailers) can enter the site off Crown Street, reverse into the diagonally aligned loading docks and exit in a forward direction. This would include waste vehicles for which specific areas have been allocated. Waste collection is further discussed in **Section 10.12.3** and the Waste Management Plan by JD Macdonald at **Appendix U1.**

Parsons Brinkerhoff conclude in their report at **Appendix Q1** in relation to loading:

> *'The geometry and layout of the loading dock appear to be adequate. It is noted that the loading dock will act as a one-way (southbound) lane where trucks and other delivery vehicles will be required to enter from Crown Street, travel southbound, then reverse into the bays. Following loading/unloading, the vehicles would then leave the loading dock in a southbound forward direction and leave via Burelli Street.'*

10.10 Construction Impacts

A comprehensive Construction Management Plan (CMP) has been prepared by Belmorgan Property Development. This CMP includes:

- A construction methodology and timeline.
- Amenities provision.
- Materials handling on site.
- Site safety, public protection and traffic management.
- Environmental and Waste Management.

The Construction Management Plan is attached at **Appendix T**. A condition has been included in the Statement of Commitments in **Section 11**, requiring construction to be in accordance with this Plan.

An erosion and sediment control plan has been prepared by TTW, refer to **Appendix Z.**

10.11 ESD

The City Centre LEP and DCP both include heads of consideration and provisions in relation to Ecologically Sustainable Development. An ESD report has been prepared by Heggies that responds to these considerations, refer to **Appendix H.**

In summary, the report finds:

> *'It is evident that the design of the Dwyers-Oxford Site Re-Development has been mindful of ESD aspects, particularly in relation to the features detailed in Wollongong Council's LEP 2007, covering the following areas of interest:*
>
> - *Greenhouse Gas Reduction*
> - *Embodied Energy in Materials and Building Processes*
> - *Building Design and Orientation*
> - *Passive Solar Design and Day Lighting*
> - *Natural Ventilation*
> - *Energy Efficiency and Energy Conservation*
> - *Water Conservation and Water Re-Use*
> - *Waste Minimisation and Recycling*
> - *Reduction of Car dependence*
> - *Potential for Adaptive Re-Use*
>
> *Many energy efficient and sustainable design elements are planned for the re-development, including:*
>
> - *High levels of cross-ventilation, natural light and solar access exposure.*
> - *Well-recessed glazing to enable horizontal shading to most glass.*
> - *Higher performance glazing in critical areas.*
> - *Incorporation of thermal mass.*
> - *Water efficient bathroom and kitchen fittings.*
> - *Energy efficient lighting options*
> - *Gas-fired solutions for hot water*
> - *Individual controls for heating and cooling and thermal zoning design*
> - *Rainwater /stormwater catchment tanks for water re-use.*
>
> *These features will help to achieve significant reductions in the energy and water required by the development both in building and operation, as well as ensuring that both the apartments and hotel rooms are more pleasant spaces to reside.*
>
> *In addition, this ESD assessment recommends a number of measures to be considered with respect to the building envelope, air conditioning and ventilation, lighting and water efficiency, construction and commissioning aspects. These are outlined in Table 3.*
>
> *The adoption of these ESD attributes in the design and delivery of the re-development will further enhance the significant ESD outcomes for the facility and for the local surrounding community already planned.*

Table 3 Summary of the ESD Features Already Planned and Recommended for Consideration

ESD Element	Planned Feature / Recommended Feature
Glazing type	*Utilise glazing with a shading coefficient of approximately 0.6 on unshaded east facade of the residential tower. Low-e treated glass should also be considered.*
	The restaurant should utilise glazing with a shading coefficient of a maximum of 0.6, and should be low-e treated
	Curtains or closed weave blinds should have pelmets installed or be well-fitted within the reveals
Building Envelope	*R2.5 bulk insulation in all roofs (above the slab if possible)* *R1.4 total roof/ceiling system insulation where habitable rooms are below mechanical plant rooms*
	Total wall system insulation to a minimum of R1.4 (including spandrels)
Air conditioning	*Variable speed drive fan should be considered in the cooling tower design*
Mechanical Ventilation	*Consider the use of a variable speed drive fan linked to a carbon monoxide sensor for carpark ventilation*
Lighting	*Maximise the use of compact fluorescent downlighting in place of halogen downlighting, and sodium, metal halide or fluorescent lighting in communal areas.*
Appliances	*Fridge spaces should not be fully enclosed where possible*
Process Issues	*Design and quality assurance checks and on-site quality assurance be put in place*
Water Efficiency	*The use of 4A 4.5L / 3L dual flush toilets should be investigated*
	All available podium level end water uses should be considered as part of the rainwater reticulation system
Water Re-Use	*Large Rainwater / Stormwater tanks in both components of the development.*

10.12 Utilities and Services

10.12.1 Water Services

Application has been made to Sydney Water for a Section 73 Certificate in relation to the development, refer to correspondence at **Appendix AA**. A condition has been included in the Statement of Commitments in **Section 11**, requiring amplification and sewer main relocation works to be undertaken in accordance with Sydney Water requirements.

10.12.2 Electrical services

Application has been made to Integral Energy in relation to the development, refer to correspondence at **Appendix AB.** A condition has been included in the Statement of Commitments in **Section 11,** requiring works to be undertaken in accordance with Integral Energy requirements.

It is noted that provision for substations has been made at the ground floor of each of the Dwyers and Oxford sites.

10.12.3 Operational Waste Management

A Waste Management Plan (WMP) for the Stage 1 proposal and the overall concept has been prepared by J.D. MacDonald dated September 2007, refer to **Appendix U1 and U2**. The Waste Management Plan pertains solely to the operation of the proposed development. The WMP outlines measures to achieve the following purposes:

- Avoid the generation of unnecessary waste;
- Minimising the quantities of wastes generated ending up as landfill;
- Recovering, reusing and recycling waste generated on site where possible; and
- Compliance with any codes and policies that may apply to the proposed development.

The WMP recommends that:

'*dedicated compactors be used for general and recyclable waste for retail and commercial tenants.*

- *A dedicated refrigerated garbage room for food putrescibles waste will be provided.*
- *Major tenancies to implement and manage their own waste management systems, equipment and collections.*
- *It is proposed that 1100L mobile garbage bins be used as a recommended size but tenants may nominate a more appropriate size for their particular use.*
- *Daily collection cycle is recommended for putrescibles waste generated but can be modified to suit the tenant's particular needs.*
- *A waste caretaker to be employed to manage the waste management system for the Stage 1 development.*

The above recommendations will form a condition of consent included in the Statement of Commitments at **Section 11.**

10.12.4 Telecommunications

As outlined in the Electrical and Communication Services Report by Jim Hatz and Associates, requirements have been submitted to Telstra for information, refer to **Appendix W.**

10.12.5 Gas

Preliminary contact has been made with the gas provider by Hughes Trueman. Hughes Trueman have prepared a Hydraulic and Fire Services report which discussed gas services, refer to **Appendix AC.**

10.13 Building Code of Australia

A Building Code of Australia Capability Report has been completed for both the Stage 1 component and the overall concept, refer to **Appendix AD.**

The report concludes that the proposal:

> *'…will, in our opinion, comply with the Building Code of Australia (BCA) and relevant adopted standards.'*

10.14 Safety, Public Areas and Pedestrians

10.14.1 Safety

An assessment in relation to Crime Prevention and Assessment of Development Applications 2001 (CPTED) has been undertaken and is attached at **Appendix AH.**

This assessment concludes:

Key Discussion – Wollongong Crime Profile

A crime and safety assessment was prepared by Urbis titled "Dwyers Site, Crown Street Wollongong – Crime Prevention Through Environmental Design Assessment, September 2007". The findings of the Crime Prevention Through Environmental Design (CPTED) assessment are discussed below.

The proposed development is located in the Wollongong City Centre which is within the Wollongong City Council Local Government Area (LGA). The crime figures discussed in this section of the report are those crimes that have been reported by the NSW Police, not necessarily all crimes committed in the Wollongong LGA. Levels of crime are sensitive to the willingness or ability of people to report crime, levels and nature of policy activity and actual levels of criminal activity.

Driving offences (exceeding speed limit and other regulatory driving offences) and malicious damage to property were the most regularly reported crimes identified in the Wollongong LGA over the last 12 months. This was followed by transport regulatory offences, theft (break and enter – dwelling), theft (steal from motor vehicle) and assault (non-domestic violence related) as noted by the NSW Bureau of Crime Statistics and Research (BOCSAR) 'Crime Tool', which considers the incidence and trends of selected crime by LGA.

The recorded crime incidences mentioned above are of significance for the proposal. The measures that would be recommended, as a response to the above incidences would include:

- *secure car parking faciliities;*
- *passive surveillance;*
- *active surveillance;*
- *anti-graffiti measures; and*
- *anti-vandalism measures.*

The incorporation of these recommendations into the design would aim to ensure that the proposed development does not become attractive to perpetrators of these types of crime.

Rates of crime in the LGA have been either stable or have fallen in the period 2002 - 2006. The following recorded crimes were stable during the 2002 – 2006 period; assault , sexual offences , robbery without a weapon, robbery with a weapon not a firearm and fraud. The number of recorded incidences in 2006 for the above crimes was 1133.6, 135.6, 60.3, 34.3 and 460.5, respectively (rate per 100,000 population).

Break and enter – dwelling (805.1) and non-dwelling (494.3), steal from dwelling (373.7), steal from person (160.6), steal from retail store (286.4), steal from motor vehicle (716.2) and motor vehicle theft (449.1) rates have decreased during the period of 2002-2006 (rate per 100,000 population).

Refer to the crime and safety assessment report prepared by Urbis for full details on recorded criminal incidences from 2002-2006 in the Wollongong LGA and for NSW.

Key Recommendations

The key recommendations that were cited in the CPTED assessment report prepared by Urbis are listed below.

<u>All entries</u>

- *All entrances and exits should be clearly signposted.*
- *Lighting in all entry areas should comply with the relevant Australian Standards.*
- *A CCTV should be installed to provide surveillance over pedestrian paths into the centre.*
- *Loading docks*
- *Clear signage identifying loadings dock areas is to be displayed in the development.*
- *Clear signage restricting public entry into loading dock areas, should be displayed.*
- *Install CCTV at entrance to loading dock facing inwards toward loading dock. It needs to be of high enough quality to get facial recognition. The CCTV must be constantly monitored.*
- *All centre pedestrian doors connecting the loading dock with internal areas of the shopping centre are to be locked at all times with authorised staff holding a key to these exits.*
- *Loading dock areas are to be differentiated with a concrete finish, with the surrounding road surface finished with asphalt, to discourage public traffic access.*

<u>ATMs</u>

- *The location of any ATMs within the shopping centre should be selected in compliance with the above criteria.*
- *Entrapment spots and blind corners*
- *Installation of convex mirrors placed on the corner to the right and left of the loading dock entrances.*
- *All doors connecting the loading docks areas with goods holding areas and internal spaces within the development should be demarcated as staff only areas and be locked when not in use.*
- *There should be a clear delineation between public and private access areas. Clear definition of space avoids confusion about appropriate activities and behaviour in the different areas.*
- *Entrance and exit points to service corridors should remain locked at all times.*
- *External corners at ground level will require convex mirrors installed to allow pedestrians circulating the building the opportunity to see around the corner prior to turning.*
- *All stair well doors exiting at street level and the car park area are to provide a shatter proof window to allow pedestrian's the opportunity to see if there is someone on the other side of the door before opening.*
- *Stairwells provide opportunity for possible entrapment. The proposal has many stairwells (for fire escape purposes) which may provide a potential for hiding places. Stairwells are to have convex mirrors internally placed to ensure that pedestrians using those spaces can either see in front or behind them.*

Public toilets

- *The toilets in the proposal are considered possible points of entrapment. Toilets located in a corridor on their own are to be avoided.*
- *Location of public toilets should be in accessible and activated public areas, rather than in isolated locations or at the end of long corridors with limited surveillance.*
- *Dual* entry/exit points from public toilets are recommended to avoid potential areas of entrapment.

Car parking

- C*lear signage is erected which indicates traffic direction and pedestrian access in all car parking areas. Signage should be strategically positioned within car parking areas, to facilitate ease of viewing for drivers in all parking bays.*
- *Clear signage is erected which details security measures and reminds people to lock and remove valuables from vehicles in all areas.*
- *Pedestrian access routes are highlighted with higher lighting levels than those installed in the general parking area, making pedestrian routes clearly identifiable throughout all parking areas.*
- *Regular security patrols of the car park area are undertaken, and that these are included in any security plan for the development.*
- *Regular gardening is undertaken at the perimeter of the development to ensure that foliage does not obscure sight lines and complies with CPTED requirements.*
- *Installation of CCTV cameras to survey entry points to the centre.*
- *Accessible car parking places are designed in accordance with AS1428.1-Design and Access for Mobility.*
- *Provide signage so shoppers can locate their cars quickly.*
- *Treatment of the car parking face will need to discourage congregation of groups, should be well maintained and lit.*
- *CCTV cameras are installed in all car parking areas.*
- *Basement car park ceilings and walls are to be painted in light colours, preferably white to increase visibility and to reflect as much light as possible.*
- *Basement car park columns are to be painted in dark colours to maximise sight-lines through the car park.*
- *Consider the construction of a 'night parking area', distinguished by different colours and signage. By concentrating customers in one area during low traffic times (ie. during extended trading times), the effects of natural surveillance can b*e maximised.

Please refer to attached CPTED assessment for full recommendations.

Conclusion

The crime and safety assessment has considered the proposed development in relation to CPTED principles and practice, available policy and literature, crime data and stakeholder interviews. To improve safety outcomes for the users of the proposed development, recommendations have been provided where appropriate.

The consideration and adoption of these recommendations will improve the perception of safety and minimise the incidence of crime at the development and within its immediate vicinity. The proposed development will generate more activity in the area and give more ownership over a site which is currently used for predominately car dealership purposes. The site is located within the Wollongong city centre which attracts a range varying activities mainly for retail, commercial and entertainment purposes. The latter may attract undesirable activities. The main hours of operation of the site would be seven days a week during the day, and part of the evenings, which would further increase the opportunity for natural surveillance and ownership of the area. Increased activity will bring increased vehicle and pedestrian traffic into the area.

The recommendations contained within this report will ensure that the proposed development will seek to design out the potential for crime on the site and consider safety issues in the operation of the proposal. It is further recommended that due consideration be given to crime and safety issues once the design has been finalised and that the development of security and management practices be established in order to reduce the incidence of crime. This should be considered with each stage of the proposed development.

Additionally, it is recommended that detailed consultations be undertaken with the NSW Police, Council (SCAT) and key stakeholders in the community once the proposal is lodged with the consent authority, to ensure that all potential crime and safety issues are addressed accordingly. Please refer to CPTD assessment for the recommended process for further consultations.

These recommendations have been included as recommended conditions in the Statement of Commitments at **Section 11.**

10.14.2 Accessibility

An Accessibility Review has been completed by Morris Goding Accessibility Consultants for both the Stage 1 component and the overall concept, refer to **Appendix V1 and V2.**

The Accessibility Review addresses the appropriateness of the proposed development in regards to the requirements set out in the AS1428 series, Building Code of Australia (BCA), and the Commonwealth Disability Discrimination Act (DDA).

The building has been reviewed to ensure that ingress and egress, paths of travel; circulation areas, car parking, communications, toilets comply with relevant statutory guidelines.

In general, the development has accessible paths of travel that are continuous throughout. In line with the reports recommendations, the proposed development has demonstrated a reasonable degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking and accessible sanitary facilities, can be readily achieved.

The report makes a series of recommendations to ensure compliance with the relevant standards. These recommendations have been included as recommended conditions in the Statement of Commitments at **Section 11.**

10.15 Noise impact

An Acoustic Assessment has been completed by Heggies for both the Stage 1 component and the overall concept, refer to **Appendix I1 and I2.**

In relation to the Stage 1 component the assessment:

'The acoustic assessment of the Dwyers-Oxford Site Redevelopment has included a review of the Stage 1 component of the project (the Dwyers Site podium). The sources of noise emission identified as being of potential acoustical significance are:

- *Mechanical plant and equipment*
- *Loading Dock*

In Heggies Report 10-5947-R1 it was noted that mechanical plant, such as air conditioning and refrigeration condensers and exhaust fans associated with the proposed redevelopment, has the potential to impact on nearby residential properties.

From the results of ambient noise surveys conducted at the site, appropriate noise criteria have been established based on the Department of Environment and Conservation (DEC) Industrial Noise Policy (INP) – refer Heggies Report 10-5947-R1, Section 3.1.1, Table 1.

Noise emissions from mechanical plant operation will be controllable by common engineering methods typically consisting of:

- *Silencers*
- *Acoustic louvers*
- *Variable speed controls*
- *Barriers*
- *Acoustically lined ductwork*

The selected mechanical equipment must be reviewed and assessed for conformance with established criteria at the detailed design stage of the project when specific plant selection and location is determined.

Noise emissions from the loading dock facility associated with the Stage 1 development will require further review to determine whether the implementation of additional controls into the detailed project design is required.'

In relation to the overall concept, the assessment:

'Heggies Pty Ltd has conducted an acoustic assessment of the Concept Design proposed for the redevelopment of the Dwyer-Oxford Site in support of the integrated Development Application submission to Wollongong Council.

The scope of the assessment includes the impact of existing noise on the amenity of the proposed residential components of the development, provides criteria for noise emission from the development and establishes sound insulation requirements between residential apartments.

The key findings of this assessment are as follows:

***Mechanical Noise Emission** – Specific plant selections have not been made at this stage of the project. This issue is to be reviewed at the detailed design stage to ensure that compliance with the established criteria is achieved at all residential receivers.*

***Road Traffic Noise Intrusion** – Measured external noise levels indicate that it will be necessary to consider location and orientation of noise sensitive areas, and the incorporation of improved glazing, in order to satisfy the proposed internal noise criteria. These recommendations are typical for a residential development in an urban area affected by road traffic noise. This issue should be reviewed at the detailed design stage to ensure that compliance with noise criteria will be achieved.*

***Sound Insulation Requirements** – Compliance with the sound insulation requirements of BCA 2007 are to be achieved by the residential components of the proposed development.*

These recommendations have been included as recommended conditions in the Statement of Commitments at **Section 11.**

11 Draft statement of commitments

Public Domain Improvements

- A special levy of 1% of the cost of the development be paid for the purpose of contributing to public domain improvements. In addition a levy of 2% of the cost of the portion of the development located with the Commercial Core Zone (the Oxford Site Stage 3) also to be paid.

  This payment to be made prior to release of the construction certificate for the various stages of each development. Payment may also be made through payment in lieu for public domain works to be undertaken by the proponent.
- Public domain improvements will be undertaken in accordance with the landscape plans by Taylor Brammer drawing No.s LC01 and LC02.

Public Art

- Public will be provided on the south-eastern corner of Crown and Corrimal Street. Details -of the public art shall be provided and construction completed prior to the release of the occupation certificate.

Water services

- A Section 73 Certificate shall be obtained from Sydney Water and sewer main relocation and amplification works are to be undertaken in accordance with Sydney Water requirements.

Accessibility

- The applicant will ensure that the following commitments are implemented throughout the design process.
  - (i) Ensure retail, restaurant, office, cinema doorways have appropriate clear widths of 850mm in accordance with AS1428.2.
  - (ii) A direct clear pathway (1200mm from front of cars) needs to be made available from the level 1 basement accessible car bays to the entrance of the Mini Major
  - (iii) Retail entry stair from Crown Street needs handrails in accordance with AS1428.1 and tactile ground indicators in accordance with AS1428.4. Signage to be provided to other main entrance within Mall.
  - (iv) Emergency warning systems should include audible and visual warnings and signals to assist people with sensory disabilities.
  - (v) Ensure all fire doors have a clear width of 850mm (920mm door leaf) to allow wheelchair access into fire rated corridors
  - (vi) The access corridors leading to the accessible WCs on levels 1 & 2 should have a width of 1800mm.
  - (vii) Ramps on level 1 need to have handrails and TGSI that comply with AS1428.1 and AS1428.4.
  - (viii) The area in front of the door of level 1 accessible WC is required to be level.
  - (ix) In the 4 restaurants with mezzanines, widen stairs to 1500mm to allow future installation of stair platform lift
  - (x) The BCA requires that 8 hotel rooms are accessible. The draft DDA Premises Standards requires 9 accessible guest rooms.
  - (xi) The numbers of wheelchair seating areas within each cinema should be provided according to the draft DDA Premises Standards. Cinema 2 will need larger seating platform to accommodate wheelchair users.
  - (xii) Provide Tactile Ground Indicators (TGSI) at all travelators on all levels, as specified in AS1428.4
  - (xiii) All lift cars require appropriate height control panels and internal handrails to comply with AS1735.12
  - (xiv) All lift lobbies require audio/visual lift arrival indicators and suitable call buttons as specified in AS1735.12
  - (xv) Provide an accessible toilet on level 3 retail. The accessible toilet needs to comply with AS1428.2.
  - (xvi) Provide an accessible toilet within the cinema area of level 4. The accessible toilet needs to comply with AS1428.2.
  - (xvii) Provide a minimum clear width of 850mm (920mm door leaf) at accessible toilet doors.
  - (xviii) Provide a mixture of left hand and right hand transfer toilet pans (e.g. level 1 WC to have pan on right hand wall, level 2 WC to have pan on left hand wall etc…)
  - (xix) Provide vertical clearance of 2.5 metres at all accessible car bays and a clearance of 2.3 metres leading to the accessible car bays.
  - (xx) Ensure the illumination levels comply with AS1428.2
  - (i) Provide way finding signage to direct people to facility entrances, accessible toilets, lifts, accessible car parks
  - (ii) Signage to comply with BCA part D3.6. The signs to male, female and accessible toilet should have raised pictogram, text have braille included.
  - (iii) Provide appropriate vertical signage indicating terms of parking in a bay for people with disabilities (reference AS 2890.6)
- A further accessibility review will be submitted in conjunction with the Project Applications for the subsequent Stages 2 and 3.

Acoustic impact

- In relation to the Stage 1 component, a further acoustic assessment shall be undertaken to ensure the mitigation measures in relation to mechanical plant, equipment operation and the loading dock as outlined in the Heggies Report, are implemented. This further report shall be submitted with the Construction Certificate.
- In relation to Stages 2 and 3 a further acoustic assessment shall be undertaken to ensure the mitigation measures in relation to mechanical plant, road traffic intrusion and sound insulation as outlined in the Heggie Reports, are implemented. This report shall be submitted with the Construction Certificate for those stages.

Road widening Land dedication

- Land will be dedicated along the eastern side of Corrimal Street to effect widening of the road in accordance with the recommendations of the traffic report by Parsons Brinkerhoff and site works plan by TTW C1000 P2. The dedication of land and road works shall be completed in conjunction with the Stage 1 construction works and prior to the issuing of an occupation certificate for Stage 1. Works associated with the Stage 3 component at the intersection of Burelli Street and Town Hall Lane will be completed prior to the completion of the Stage 3 component.

Remediation and Validation Plan

- A revised and expanded Remediation and Validation Plan relating to the Oxford site will be prepared and submitted with the Project Application for the Stage 3 works. The Plan will include a risk assessment in accordance with the Department of Environment and Conservation's Approved Methods for the Modelling and Assessment of Air Pollutants in NSW; Workcover's Occupational Health and Safety Requirements; SEPP 55 and Managing Land Contamination Planning Guidelines (Department of Planning and EPA).

Construction management plan

- Construction will take place in accordance with the Construction Management Plan dated 6 September 2007 by Belmorgan Property Development.

Waste management

- Waste management will take place in accordance with the Waste Management Plan dated September 2007 by JD Macdonald. In particular the following will occur:
  - 'dedi*cated compactors be used for general and recyclable waste for retail and commercial tenants.*
  - *A dedicated refrigerated garbage room for food putrescibles waste will be provided.*
  - *Major tenancies to implement and manage their own waste management systems, equipment and collections.*
  - *It is proposed that 1100L mobile garbage bins be used as a recommended size but tenants may nominate a more appropriate size for their particular use.*
  - *Daily collection cycle is recommended for putrescibles waste generated but can be modified to suit the tenant's particular needs.*
  - *A waste caretaker to be employed to manage the waste management system for the Stage 1 development.*
  - *Signage*
- Details of signage shall be integrated into the design of the building. A separate application shall be submitted for signage.

Wind impact mitigation

- Wind amelioration measures for **Stages 2 and 3** will be included into the design of the future Project Application for these stages in accordance with that detailed in Section 10.6.3 above and the Wind Impact Assessment by Heggies.

Unit mix

- The final residential unit mix will be detailed in the Stage 3 Project Application. This mix will feature a minimum of 10% one bedroom units and 10% three bedroom units.

Vehicle access

- The recommendations of the Parsons Brinkerhoff Traffic and Parking Assessment in relation to the Stage 3 development be incorporated into the Project Application for that component. In this regard, in conjunction with the proposed road widening at the intersection of Burelli Street and Town Hall Lane, ban entry into Townhall Place for all articulated trucks but allow right-turn entry and exit by service vehicles.
- All road works associated with the Stage 1 development as detailed in the Site Works Plan C1000 P2 will be completed in conjunction with the Stage 1 construction works and prior to the issuing of an occupation certificate for Stage 1.

Safety and security

- Recommendations of the CPTED assessment by Urbis dated September 2007 are to be implemented and a safety and security report detailing such will be submitted prior to release of the construction certificate. This report will detail the process of the recommended further consultation.

Awnings

- Awnings to be a minimum of 3.3m sofit height, low profile eaves (less than 300mm), setback 1.2m from kerb and approximately 2.4m deep.
- Awnings to be under-lit to encourage night use.

ESD

- A further ESD report will be prepared by an ESD expert to ensure the compliance of the development with the relevant BASIX Residential targets (in relation to the Stage 3 component) and ABGR Commercial targets (in relation to all other stages) mandated in the City Centre DCP 2007. The report will be submitted prior to the release of the Construction Certificate for each stage.

Public transport

- A new eastbound bus stop will be located on Burelli Street to the west of Corrimal Street located outside the Burelli Street pedestrian access point. Street furniture and signage required for the bus stop shall be detailed in accordance with the Civic Improvement Plan and other Council requirements. Details of the works shall be submitted for approval prior to the release of the construction certificate for the Stage 1 development.

12 Conclusion

Assessment of the Concept Plan and Stage 1 Project Application against the Director General's Requirements issued under Part 3A of the Act finds that the proposal is:

- A substantial economic investment in the future of Wollongong City and an important step in its revitalisation.
- Of major benefit to Wollongong City where it rectifies a number of identified deficiencies in the retail mix of the City, including: a lack of a DDS, inadequate representation of supermarkets, and no contemporary large scale cinema.
- Well integrated as an overall concept including the neat integration of the approved Stage 1 component with the Stage 2 hotel above.
- In a highly accessible location on the main street within the City Centre and through enhancement of the Crown Street and Burelli Street public domain, facilitates the desired connection of the City Centre with the beach.
- Largely complying with the relevant development standards and guidelines. Where variations occur, these are considered to be minor and reasonable in the circumstances of the case.
- Assessed as having design excellence noting that the design of Stages 2 and 3 will be subject of a design competition to be undertaken at Project Application stage.
- Designed in accordance with the ESD requirements of the City Centre Plan and will meet with the ABGR and BASIX standards in particular.
- An appropriate response to the demand for commercial services in Wollongong City made evident by the accompanying economic survey data and economic impact assessment.
- An appropriate design response to streetscape context and a comprehensive site analysis, including its relationship with the nearby heritage items and the Special Character Area.
- Well designed to include articulated and active street frontages to respond to the particular character of each of the street frontages.
- Without significant impact upon the amenity of the surrounding area which is currently underdeveloped and presumably in the process of change.
- Of substantial benefit to the regional community through the creation of a significant number of jobs.

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