

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director Stephen White
Associate Director Andrew Hobbs
Senior Consultant Georgia McKenzie
Assistant Planner Zoe Gleeson
Project Code P0039713
Report Number Final

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Structural Engineering Report

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1. INTRODUCTION

This Statement of Environmental Effects (**SEE**) has been prepared by Urbis Pty Ltd on behalf of 9-11 Nelson Street Pty Ltd (**the Applicant**) in support of a Development Application (**DA**) for the proposed mixed-use development at 9-11 Nelson Street, Chatswood.

The proposal seeks to redevelop the site in accordance with the outcome of a recently completed Architectural Design Competition. The proposal seeks consent to develop the site for the purpose of a mixed-use development, delivering a two-level podium containing commercial premises (as defined), with two residential towers above.

The proposed works have an estimated cost of \$155,766,683 (excl GST) and development consent is sought in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1. REPORT STRUCTURE

This report is structured as follows:

- Section 2 Site Context: identifies the site and describes the existing development and local and regional context.
- Section 3 Project History: outlines the approvals history and pre-lodgement discussions with key stakeholders.
- **Section 4 Proposed Development:** provides a detailed description of the proposal including the demolition, construction and operational phases.
- Section 5 Strategic Context: identifies and analyses the State, regional and local strategic planning
 policies relevant to the site and proposed development.
- Section 6 Statutory Context: provides a detailed assessment of the State and local environmental planning instruments and plans relevant to the site and development.
- Section 7 Assessment of Key Issues: identifies the potential impacts arising from the proposal and recommends measures to mitigate, minimise or manage these impacts.
- Section 8 Section 4.15 Assessment: provides an assessment of the proposal against the matters of consideration listed in section 4.15 of the EP&A Act.
- Section 9 Conclusion: provides an overview of the development assessment outcomes and recommended determination of the DA.

1.2. SUPPORTING DOCUMENTATION

This report should be read in conjunction with the supporting documentation listed in Table 1.

Table 1 Supporting Documentation

Document Title	Consultant	Appendix
Geotechnical Report	Aargus	Appendix A
Architectural Plans	DKO Architecture	Appendix B
Landscape Plans	Land and Form	Appendix C
Landscape Design Report	Land and Form	Appendix D
Arboriculture Impact Assessment	Peake Arboriculture	Appendix E
Public Art Strategy	UAP	Appendix F
Architectural Design Report	DKO Architecture	Appendix G

Document Title	Consultant	Appendix
Detailed Site Investigation	Aargus	Appendix H
BASIX Report	ADP Consulting	Appendix I
Acoustic Report	Renzo Tonin and Associates	Appendix J
Clause 4.6 Variation Requests - Maximum Building Height and Active Frontages	Urbis	Appendix K
Heritage Impact Assessment	Urbis	Appendix L
Flood Report	Lyall & Associates	Appendix M
Wind Report	CPP Wind Engineering Consultants	Appendix N
Visual Impact Assessment	Urbis	Appendix O
Transport Impact Assessment	JMT Consulting	Appendix P
Stormwater Report	Northrop	Appendix Q
Flooding Assessment	Lyall & Associates	Appendix R
Green Star Strategy Report	ADP Consulting	Appendix S
Services Infrastructure Report	ADP Consulting	Appendix T
Development Control Plan Compliance	Urbis	Appendix U
Architectural Design Report	DKO Architecture	Appendix V
Geotechnical Investigation	Aargus	Appendix W
Electrolysis Report	Power Earth	Appendix X
Structural Engineering Design	Webber Design	Appendix Y
Waste Management Plan	Elephant's Foot	Appendix Z
Construction Management Plan	ECI Builder	Appendix AA
Adaptable Housing Statement	Inclusive Places	Appendix BB
Cost Plan	MBM	Appendix CC
Fire Engineering Statement	ADP	Appendix DD
Dial Before You Dig Report	N/A	Appendix EE

2. SITE CONTEXT

2.1. SITE DESCRIPTION

The site is located at 9-11 Nelson Street, Chatswood, within the Willoughby Local Government Area (**LGA**). The site is located on the northern side of Nelson Street, between the T1 North Shore Line railway corridor to the east and Pacific Highway to the west.

The site is broadly regular in shape with street frontages to Nelson Street and Gordon Avenue. Side boundaries to the east and west are obliquely angled. A pedestrian and cycle pathway referred to as Frank Channon Walk runs along the eastern boundary of the site.

Nelson Street and Gordon Avenue are both no-through roads, with the vehicular bridge connecting Nelson Street to Berkeley Court to the east recently removed to allow for Sydney Metro works on the rail line. The key features of the site are summarised in **Table 2** below.

Table 2 Site Description

Feature	Description
Street Address	9-11 Nelson Street, Chatswood
Legal Description	SP65120
Site Area	4,183m²
Site Dimensions	 Nelson Street frontage: 54.88 metres Gordon Avenue frontage: 47.96 metres Depth: approximately 80 metres
Site Topography	A fall of approximately 3 metres from south to north (Nelson Street to Gordon Avenue).
Vegetation	63 mature trees of medium retention value.

Figure 1 Location Plan



Source: Urbis

2.2. **EXISTING DEVELOPMENT**

The site currently accommodates a three-storey residential flat building containing 45 units, two levels of basement car parking and central communal gardens.

Vehicle access to the basement is currently located on Nelson Street, while waste collection is from waste storage areas located on the Gordon Avenue frontage. Pedestrian access to the existing development is on both frontages.

There is dense established vegetation located along the western and southern boundaries, with additional mature street trees along both road frontages.

Existing development on the site and neighbouring sites is shown in the following photographs.

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Figure 2 Existing Development



Picture 1 Existing development as viewed from Nelson Street.



Picture 2 Vehicular entrance on Nelson Street.



Picture 3 Existing development as viewed from Gordon Avenue.



Picture 4 Pocket Park at the northeastern corner of the site at the end of Gordon Avenue

Source: Urbis

2.3. **SURROUNDING CONTEXT**

The surrounding development includes:

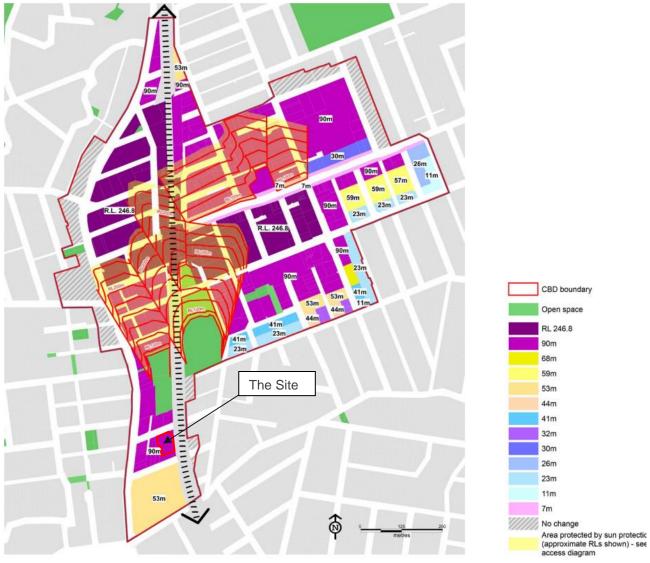
- North: Directly north of the site is Gordon Avenue as well as 1-3 Gordon Avenue and 5-9 Gordon Avenue which are apartments low density.
- East: Directly east of the site is a pedestrian and bike pathway, correctly referred to as Frank Shannon Walk. Further east is a train line owned and operated by Transport for NSW (TfNSW) which travels in both a northern and southern direction.
- South: Directly south of the site is Nelson Street and the Sydney Metro Chatswood Dive Site which helps support the Metro works within the Chatswood vicinity. Further discussion is included in **Section 2.4** below.
- West: To the west of the site is 15 Nelson Street and 10 Gordon Avenue which are residential dwellings in the form of low-density apartment buildings. This site is the subject of a current site-specific planning proposal as will be discussed further in Section 2.4.2 below.

Providing a public thoroughfare, the development is centrally located a mere 750m (10-minute walk) from Chatswood Interchange, where commuters can access an array of train, metro and bus services to connect them to the CBD and throughout greater NSW. Additionally, commuters can access additional bus services via Pacific Highway at Fehon Road or Gordon Avenue, just 270m (3-walking minutes) from the development. These include the 113, 144, 261, 530, 533 and 536 routes.

The site is in the southern periphery of the extended Chatswood CBD boundary as identified in the Chatswood CBD Strategy Map demonstrated in Figure 3 below. The broader site context is shown in Figure 4 below.

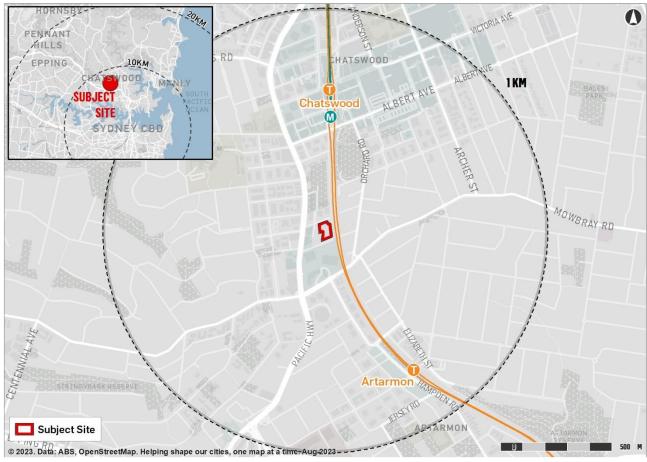
Figure 3 illustrates that the strategic direction is to transform the existing urban scale of the surrounding context to accommodate building up to 90m tall. Many planning proposals are in the system to facilitate the built form changes on surrounding sites. So the context is thus best described as transition from low to medium scale forms to a high density mixed use residential tower environment.

Figure 3 Chatswood CBD Strategy Map



Source: Urbis

Figure 4 Site Context



Source: Urbis

SURROUNDING DEVELOPMENT 2.4.

2.4.1. Sydney Metro Dive Site

The NSW Government are the current owners of 607 Pacific Highway, Chatswood, which sits immediately adjacent to the south of 9-11 Nelson Street, Chatswood. The property, currently known as the Chatswood Dive Site, comprises 22,748 sqm of land which is being utilised by Sydney Metro as a dive site for access and servicing of the tunnel of the City & Southwest line. In 2024, the site is intended to be sub-divided into two, with Sydney Metro retaining 8,055 sqm, and the balance of the property earmarked for future development of a mixed-use precinct, comprising 14,693 sqm of mostly vacant land. The site also contains a local heritage building known as 'Mowbray House' on the southern side of the site.

As part of the future redevelopment of the site, School Infrastructure NSW (SINSW) are seeking for the successful purchaser to deliver the 1.000-student primary school within the development. The NSW Government's desired outcome is for the new primary school to be integrated within a high-quality, mixeduse precinct. It is assumed that the base design guide for the school is a footprint of approximately 4,000sqm with a total GFA of approximately 9,726 sqm and approximately 6,000 sqm of play space within the building and on the ground plane. It is important to note that the NSW Government will consider multiple delivery models and alternative tenure options for the school, so the current scope and thinking is not to be assumed as final.

Under the proposed consolidated WLEP review/amendment, the site will have the following site-specific development controls:

Zoning: B4 Mixed Use

FSR: 4.2:1.

2.4.2. 10 Gordon Avenue and 15-19 Nelson Street

Directly adjoining the site to the west is 10 Gordon Avenue, Chatswood. Planning Proposal (PP-2022-1855) seeks to amend the Willoughby Local Environmental Plan 2012 as follows:

- Change the land use zone from R3 Medium Density Residential to B4 Mixed Use.
- Increase the maximum height of buildings control from 12m to 90m.
- Increase the maximum Floor Space Ratio control from 0.9:1 to 6:1.
- Apply a minimum non-residential floor space requirement equating to 17% of total assessable GFA on the site.

A Gateway Determination was issued in February of this year, however at the time of preparing this SEE, the planning proposal remains unresolved.

3. PROJECT HISTORY

3.1. PLANNING PROPOSAL BACKGROUND

In March 2021, a site-specific Planning Proposal was submitted to Willoughby City Council (**Council**) to amend the Willoughby Local Environmental Plan 2012 (**WLEP**) to align with the site-specific planning controls established in the Chatswood CBD Planning and Urban Design Strategy.

- The Planning Proposal (Reference: PP-2021-5704) sought the following:
 - Rezone the land applying to the site from R3 Medium Density Residential to B4 Mixed Use
 - Increase the maximum height of building development standard applying to the site from 12m to 90m.
 - Increase the Floor Space Ratio relating to the site from 0.9:1 to 6:1.
 - A site-specific development control plan.
 - Amend other associated LEP provisions as directed by Council during the life cycle of the Planning Proposal.
 - Proposed a voluntary planning agreement (monetary contribution).

The Planning Proposal was endorsed by Council at the meeting on 17 August 2021 and received Gateway Determination from the NSW Department of Planning, Industry, and Environment (**DPE**) on 2 March 2022. The Planning Proposal was on exhibition from 6 May 2022 to 4 June 2022, and formally gazetted on the 18 November 2022.

3.2. DESIGN EXCELLENCE PROCESS

The WLEP contains a design excellence provision (refer clause 6.23). This clause requires certain development within the Chatswood CBD Strategy boundary and on certain sites to demonstrate design excellence by undertaking an Architectural Design Competition for new buildings.

Three competitors were invited to prepare submissions in response to a Competition Brief as part of the Competition. The Competition Brief was endorsed by the Willoughby City Council on 24 February 2023.

Following this, the following was undertaken:

- Three architectural teams were invited to participate in the Competition, held over a five-week period.
- The Competition Brief was issued to Competitors and Jury members on 7 March 2023.
- A briefing session was held on 8 March 2023 to provide an overview of the site, outlining the planning parameters and the Competition Brief, and provide an opportunity for the competitors to ask questions and seek clarification regarding the Brief and the Competition procedures.
- All competitors received technical support through the Competition with access to technical advisors.
- All competitors submitted a Design Report (Final Submission), articulating their proposed architectural scheme for the site.
- Each competitor presented their proposed architectural schemes to the Jury during the Final Presentation Day held on Thursday 13 April 2023. The Jury deliberations were held on the same day.
- One scheme was chosen as the winner of the Architectural Design Competition, subject to further work required by the jury before the scheme could suitably demonstrated design excellence. As such, the Jury requested further design refinements from DKO Architecture on 13 April 2023.
- An additional submission was received from DKO Architecture on 21 April 2023. Upon review of the updated scheme, the jury unanimously agreed that the scheme exhibited design excellence, noting the scheme would be subject to further refinements prior to the lodgement of a DA. Advice to this effect was issued to DKO in May 2023.

3.3. PRE-LODGEMENT DISCUSSIONS WITH COUNCIL

The Applicant has actively engaged with Willoughby City Council via two separate formal Pre-DA meetings. Additionally, a third meeting with Council's Urban Design Specialist was undertaken to specifically discuss the evolution of the design since the awarding of design excellence from the competition jury. At the time of writing, the applicant is yet to received formal meeting minutes from Council.

As such, a high-level summary of the matters discussed at each meeting as documented by the proponent is provided in the sections below.

Pre-Lodgement Meeting No.1 – 24 May 2023

- The proponent intends to provide a monetary contribution to the consent authority for the purposes of providing affordable housing that is the value, calculated in accordance with Clause 6.8(4), of 4% of the accountable total floor space.
- Building separation: It is proposed to slightly amend the southern tower, resulting in a minor noncompliance with the site specific DCP and ADG. The design rational for this alternate solution has been driven by a desire to improve the internal amenity of the northern-most units in the southern tower, providing improved solar access, natural ventilation, and views to the east.
- Public access easement: Confirmation if the basement of the development can encroach within the public access easement, so long as the land remains accessible to the public (refer Schedule 6 of the VPA). Confirmation from Council is requested in relation to the 'below ground' use of this easement.
- Technical requirements for lodgement, including guidance on technical requirements for lodgement relating to matters such as noise and vibration, traffic and transport, hydrology management, wind impacts.

Pre-Lodgement Meeting No.2 – 14 June 2023

- Outlined that the proposal will now seek to vary the 90m building height control. This is in order to deliver minimum standards on apartment levels, while also realising the quantum of residential floor space available to the site under the applicable development controls and site specific VPA.
- Outlined the discrepancy between Clause 6.25 of the Willoughby LEP 2012, which requires the delivery of a minimum of 17% of the building's gross floor area for the purpose of non-residential uses and the executed VPA.
- Outlined the proposed vehicular access to Gordon Avenue, that will not be consolidated with the western neighbour.

Pre-Lodgement Meeting No.3 – 4 July 2023

- Meeting with Wil Robertson (Urban Design Specialist) to outline the design evolution following the design competition process.
- Generally speaking, Council was in agreeance that the design was evolving inline with the expectations of the jury. While no formal commitment of this was given, no concerns or issues were raised by Council.

PRE-LODGEMENT DISCUSSION WITH SYDNEY TRAINS/ METRO 3.4.

The Applicant has actively engaged with Sydney Trains and Sydney Metro through the design process, as summarised in the table below.

Table 3 Engagement with Sydney Trains and Sydney Metro

Attendees	Date	Matters Discussed
Project team & Sydney Metro	4 April, 10 May, 29 May, 9 June, 19 June, 13 July, 21 July 2023	 Nelson Street cul-de-sac and discussion on partial closure of Nelson Street. Workshop with Sydney Metro to resolve Nelson Street interface.

Attendees	Date	Matters Discussed
		 Metro North Dive site and associated DWG files were provided and co-ordinated with site survey.
		 Confirmation on Corridor Protection Technical requirements.
		 Tunnel zone of influence presentation.
Project team &	18 May, 8 June, 22 June.	 Confirmation of borehole locations.
Sydney Trains		 Confirming DA lodgement timing.
		Confirmation of Anti-throw requirements.
		 Confirmation of basement and temporary support requirements.
		 Confirmation on temporary construction set up and protection zone.
		 Confirmation on Sydney Train DA condition and requirements.

PROPOSED DEVELOPMENT 4_

4.1. **OVERVIEW**

The proposal comprises the redevelopment of the site for mixed use development comprising commercial premises within the podium, two residential towers above, as well as basement car parking, loading and services, landscaped works and public domain works.

This application seeks consent for the following:

- Demolition of all existing buildings and structures, and excavation for three basement levels for parking, loading and servicing, storage, and associated plant, services and utilities.
- Construction of a 27-storey mixed-use development with a maximum height of 93m (RL195.00) including use for commercial premises (as defined) within the two-storey podium and two residential towers above, and a landscaped area of communal open space on the podium rooftop. Consent is not sought for internal fitout works.
- Consolidated vehicular access to the basement via Gordon Avenue (to the north).
- A total of 250 car parking spaces within the basement, 11 motorcycle spaces, and 193 bicycle spaces.
- Public domain and landscape work along Frank Channon Walk.
- Delivery of a 3m wide publicly accessible easement along the eastern boundary of the site.

The key numeric aspects of the proposed development are summarised in Table 4 below.

Table 4 Numeric Overview of Proposal

Component	Proposed Development	
Proposed GFA and land uses	Retail premises	1,670m²
	Commercial premises	2,598m²
	Residential apartments	20,829m ²
	Total	25,097m ²
FSR	6:1	
Non-residential FSR	17% (approx. 1:1)	
Height of Building	RL195.00 (including plant)	
Height in Storeys	27 storeys	
Apartments	193 apartments	
	■ Two-bedroom – 137 apart	ments (71%)
	■ Three-bedroom – 56 apart	ments (29%)
	 Includes nine affordable he 	ousing apartments, as follows:
	- North tower: 03.03, 03.0	04, 04.03, 04.04, 05.03, 05.04
	 South Tower: 03.06, 04 	.06, 05.06.

Component	Proposed Development
Parking and Loading	 250 basement car parking spaces (including 25 accessible spaces)
	 11 motorcycle parking spaces
	 193 bicycle parking spaces
	■ Two spaces for loading/ service vehicles

Figure 5 Render of the Proposal



Source: DKO Architecture

4.2. **DEMOLITION, EXCAVATION AND TREE REMOVAL**

This DA seeks consent for demolition of the existing buildings and structures on site. As detailed in Appendix A, the Geotechnical Assessment confirms that the proposed excavation for three basement levels requires an excavation depth of approximately 12.4m (below the existing ground level).

The removal of 78 trees across the site is required to facilitate the proposed development. As outlined in the Arboricultural Impact Assessment prepared by Peake Arboriculture (Appendix E), none of the trees to be removed have a high retention value, and a majority of trees were identified as exempt or low to medium retention value. This is further assessed in Section 7.9 of this SEE.

4.3. **DESIGN AND BUILT FORM**

The key architectural and design elements of the proposed development are as follows:

Table 5 Proposed Built Form Setbacks

Setbacks	Ground	Podium	Tower
North (Gordon Ave)	3.8m	3m	4.05m
East (Frank Channon Walk)	5.5m	3.8m	Tower A: 4.75m Tower B: 7.30m
South (Nelson St)	3m	1.2m	4.5m
West	0m	0m	9m

Figure 6 Render of Proposal from Frank Channon Walk



Source: DKO Architecture

In achieving the proposed built form, DKO architects have sought to respond to the site's three key frontages, create visual balance and vertical expression, while activating the public domain and improving connections adjacent to and throughout the site. The design directly responds to the evolving nature of surrounding sites.

4.3.1. Public Domain and Ground Floor

The shop frontages facing Frank Channon Walk provide activation, connecting retail with the adjacent pedestrian environment. By placing the lobby in the middle of the site, the design will promote active foot traffic past the shop front to create a greater sense of activation. A vibrant mix of cafés and specialty retailers is envisaged for the ground floor, further reinforcing the destination experience created by the development.

An importance has been placed on creating a functional, welcoming arrival experience. As demonstrated in Figure 7 below, this has been achieved through the delivery of a Porte Cochere, connecting a retail and residential entrance on Gordon Avenue to the north, an open to the sky shared lobby off Frank Channon Walk in the centre, and a retail and residential entrance off Nelson Street to the south.

While not yet finalised, through proponent driven engagement with Sydney Metro, it is understood that discussions are underway with permanently close a portion of Nelson Street. This has required the design team to consider the southern interface and public domain and will inevitably result in an improved urban design interface with the proposal to the south. Based on the designs provided to the design team by Sydney Metro, the design team have prepared a ground plane plan that articulates how this interface could look, shown in Figure 7 below.

Figure 7 Arrival Experience



Source: DKO

Figure 8 Proposed Partial Closure of Nelson Street



4.3.2. Commercial Podium

Required by clause 6.25 of the WLEP, development consent for the purposes of shop top housing must not be granted unless the consent authority is satisfied at least 17% of the GFA of the building will be used for non-residential purposes. Given the significant quantum of non-residential GFA required, designing the podium to be commercially viable was a key driver of success. This requires the spaces to be flexible in terms of the types of tenants and leases to be sought, and attractive to tenants through providing greater user amenity. Ensuring natural light and natural ventilation could penetrate the large floor plate resulted in the need to increase the floor to ceiling heights in the podium levels. Consent is not sought for internal fitout works.

As shown in **Figure 9** below, the ground floor level comprises six tenancies, which will active the surrounding pedestrian domain. These tenancies are envisaged to comprise cafes and restaurants, with access via the Frank Channon Walk, Gordon Avenue and Nelson Street. A through site link will further connect Nelson Street and Gordon Avenue via a pathway which will remain open and publicly accessible during normal daytime trading hours.

As shown in **Figure 10**, the design of the first level has been strongly influenced by the way in which Covid-19 has altered the relationship between people and their workplace. DKO propose a range of work environments that can provide the diversity and flexibility of workspaces combined with supporting outdoor, garden terraces and courtyards that serve to promote an environment that is sustainable and encourages productivity, health, and wellbeing.

Figure 9 Proposed Ground Floor Plan

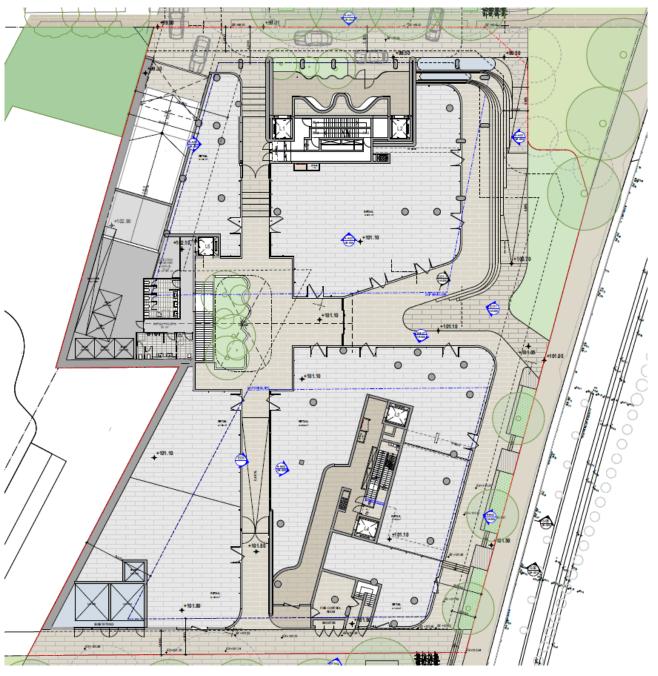


Figure 10 Commercial Level 1 Plan



4.3.3. Residential Communal (Podium)

The podium level communal space will connect internal spaces to the outdoors, through an operable glass facade, providing a seamless connection between the indoor and outdoor environments. The podium level communal comprises:

- Residential units facing north and east to ensure solar access is delivered without resulting in interface concerns with the adjoining communal open space.
- A gym and yoga studio are provided below the southern tower.
- Outdoor lounge, cinema, kitchen and sporting area provided under the northern tower.

- Steam room, sauna, pool, sunken pool cabanas, and BBQ facilities provided surrounding the 25m x 5m pool.
- A significant quantum of landscaping is proposed throughout the podium level. Refer Section 4.2.2 of this report for further explanation.

Figure 11 Communal Spaces Under Northern Tower

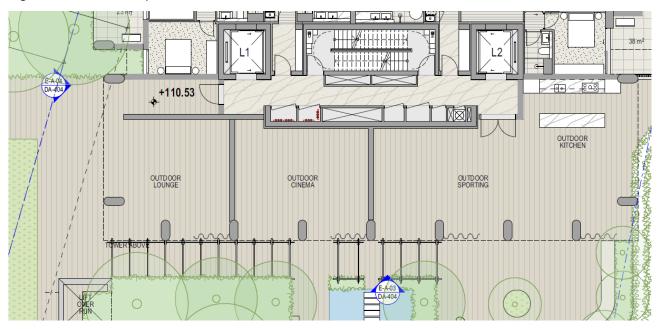


Figure 12 Communal Spaces Under Southern Tower



4.3.4. Residential Apartments

The residential towers comprise a mix of residential apartments between Level 3 and Level 26. The proposed development includes 193 residential apartments as follows:

- Two-bedroom 137 apartments (71%)
- Three-bedroom 56 apartments (29%)
- Total residential GFA of 20,827m².
- Maximum height of RL195.00 (including plant).

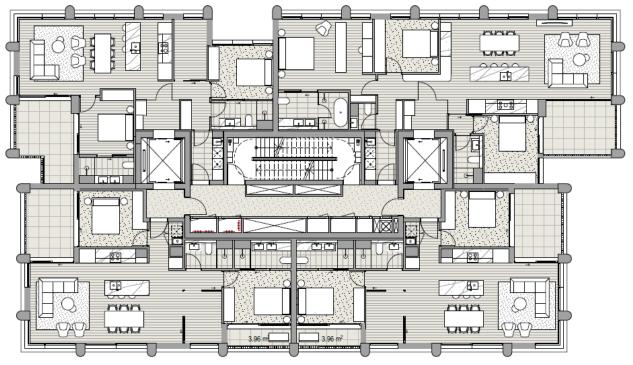
Both towers can be independently accessed from both Gordon Avenue and Nelson Street, which connect to centralised lift cores in each building. Access to each apartment is provided via direct lift access, while hallways also connect apartments should residents need to access apartments adjoining on each level.

All apartments from both towers have access to the pool and communal open space on level 2, which sit on top of the building podium interconnecting the towers. The communal space, with curated landscaping design by Landform, provides residents a place to relax and engage in recreational activity as part of the offering.

The apartments have been designed to achieve both efficiency and functionality. All apartments achieve a dual aspect outlook, enabling views of the surroundings. Upon entering each apartment, a delineated hallway serves as an introduction to the living space and can also double as a gallery area.

To optimize the design, the majority of the bathrooms follow a standard module of 1,600mm x 2,700mm. The living zone is divided into three distinct areas, with an internal living room, an external living room, and a kitchen/dining room. The balcony is treated as an external room, featuring a similar proportion to the internal living area. A contiguous floor finish is used throughout to enhance the connectivity between each room, while access to the bedrooms is discreetly located away from the main living areas.

Figure 13 Typical Residential Floor Plate



Source: DKO

4.3.5. Materials and Finishes

The Architectural Plans (included at **Appendix B**) illustrate the proposed façade design including the external building materials and finishes schedule. The key features of the façade include:

The ground floor will have commercial glazing to meet Section J requirements. The retail tenancies will be constructed with off form concrete and finished with pain. The paving will meet Willoughby Council's Public Space Design Guide.

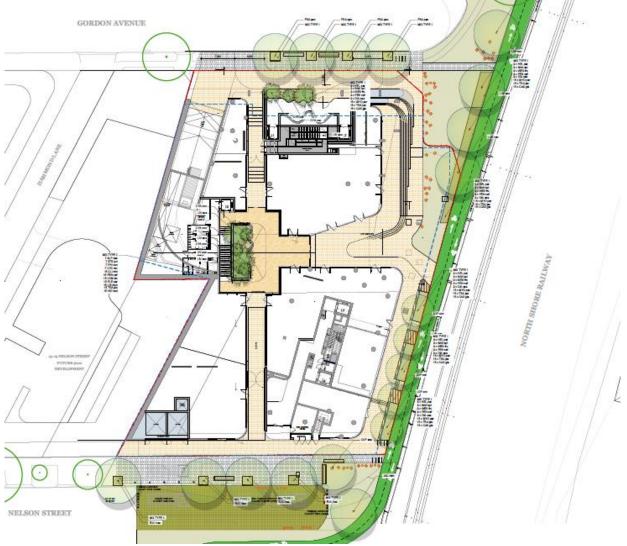
- The podium will be constructed with reinforced concrete and the lower podium levels will be sandstone clad. The windows will be double glazed glass.
- The towers will be constructed with off form concrete columns, profiled exterior walls will be constructed with reinforced concrete and double-glazed windows. The balustrades will be powder-coated aluminium and the balconies with pavers.

4.4. LANDSCAPING AND PUBLIC DOMAIN

The proposed development will deliver significant landscaping improvements and public domain updates to the site. As outlined in the Landscape Plans (Appendix C) and Landscape Design Report (Appendix D) prepared by Land and Form, the following works are proposed on the ground plane:

- Landscaping works to the Nelson Street and Gordon Avenue frontages, including endemic planting, footpath upgrades and activated retail frontage with outdoor dining options.
- A landscaped plaza area along the Frank Channon Walk.
- An outdoor cafe and community terrace to the northeast corner the site.
- The pocket park is activated by the retail tenancies and the shared pedestrian and cycle path to the eastern edge of the park.
- All raised edges and planter walls are at seating height or lower, allowing clear sightlines and visibility throughout the ground plane. Trees are used to frame spaces and ensure clear visibility to and from the streetscape at all times. Regular congregation spaces and retail activation enables passive surveillance to all areas, discouraging undesired behaviour and possible blind spots.
- The ground plane offers full universal accessibility to all reception, lobby and retail areas at maximum 1:21 grades reducing the number of handrails and clutter in the public realm.
- All planters have a minimum soil depth of 1,000mm with a minimum 200-350mm slab set-down achieved throughout all landscaped areas in the development. This allows planter walls to be at seating height with additional 1:3 mounding to achieve soil depth for small trees where shown on plan. All noted planted areas in the design is permanent planting.

Figure 14 Ground Floor Landscape Design



Source: Land and Form

Key landscape targets set by the project are as follows:

- The retention of key existing trees and the provision of new public domain spaces will enable the site to increase the tree canopy to approximately 28% to reduced urban heat island with the extension of the native Sydney blue gum forest planting with deep soil zones for large tree planting.
- 80% of the species proposed are native.
- 400m of public linages and upgrades to be landscape.
- 27% of the site will be landscaped.
- 31% of the site will be communal open space.

4.4.1. Podium Communal Open Space

As outlined in the Architectural and Landscape Plans (Appendix B and Appendix C), the apartments within both towers have access to the communal open space on the podium at level 2. The communal open space will provide high quality amenity for future residents, including:

- 25m x 5m lap pool orientated to the northwest for maximum sun and connection to indoor communal facilities. Sunken pool cabanas with informal edges also provided for user amenity.
- Podium pavilions with BBQ areas and seating options.

- Cascading planting linking levels above and below creating a biophilic garden setting.
- 1:21 accessible ramp going up to the upper pool edge, ensuring equitable access throughout communal open space areas.
- The proposed communal open space area is shown in Figure 16 below.

Figure 15 Level 2 Communal Open Space



Source: Land and Form

4.4.2. Planting Palette

Extensive landscaping including a forest garden, a lawn and perimeter planting with deep soil zones is proposed. The planting is minimum 80% endemic and native to the area with the use of deciduous tree species used along roads and laneways running east-west to allow sunlight into the streetscapes during winter, whilst also providing shade during summer. The native palette is a feature element of the design proposal with the intention of creating a natural haven for the local community. The species selection is made up of endemic and important vegetation to the local regions and has been cross referenced with councils native planting list. Refer to Figure 16-18 below.

Figure 16 Tree Species



Source: Land and Form

Figure 17 Shrub Species



Source: Land and Form

Figure 18 Ground Covers



Source: Land and Form

PARKING AND ACCESS 4.5.

Car parking for the proposed development is proposed to be accommodated within three (3) basement levels, with consolidated vehicular access from Gordon Avenue to the north.

The proposed basement will compromise:

- Car parking: A total of 250 car parking spaces are provided below, including:
 - 220 residential car parking spaces (including 25 accessible spaces and 9 residential visitor car parking spaces)
 - 30 commercial/ retail car parking spaces.
- 11 motorcycle spaces
- Two service vehicle spaces.
- 25 bicycle lockers and 193 bicycle rail parking spaces.

4.6. **PUBLIC ART**

A Public Art Strategy has been prepared by UAP and is provided at Appendix F. The Public Art Strategy has been prepared in accordance with Willoughby Council's Public Art Policy Procedures and Guidelines and identifies two location following opportunities:

- The Pocket Park at the Gordon Avenue entrance
- Attached to the soffit at the residential entrance (location shown in Figure 19).

UAP recommends sculptural elements of sculptural attachments as the preferred art typology. The Public Art Strategy includes an implementation plan following development approval, which includes shortlisting artists and commissioning the art. The proponent acknowledges the public art to be delivered by the proposal will be the subject of ongoing refinements post consent being granted.

Figure 19 Potential location of public art on sofit at Gordon Avenue



Source: UAP

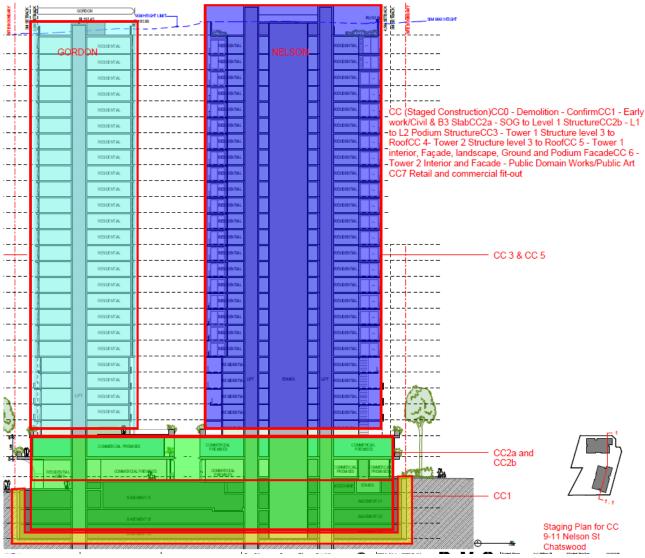
4.7. **STAGING**

The project is proposed to be constructed in the following stages:

- CC (Staged Construction)
- CC0 Demolition

- CC1 Early work/Civil & B3 Slab
- CC2a SOG to Level 1 Structure
- CC2b L1 to L2 Podium StructureCC3 Tower 1 Structure level 3 to Roof
- CC 4- Tower 2 Structure level 3 to Roof
- CC 5 Tower 1 interior, Façade, landscape, Ground and Podium Façade
- CC 6 -Tower 2 Interior and Facade Public Domain Works/Public Art
- CC7 Retail and commercial fit-out

Figure 20 Staging Plan



Source: DKO/EinV

OPERATING HOURS 4.8.

The non-residential uses on the ground floor and commercial podium are proposed to operate 24 hours, 7 days a week.

5. STRATEGIC CONTEXT

5.1. **GREATER SYDNEY REGION PLAN: A METROPOLIS OF THREE CITIES**

The Greater Sydney Region Plan: A Metropolis of Three Cities (Region Plan) provides the overarching strategic plan for growth and change in Sydney. It is a 20-year plan with a 40-year vision that seeks to transform Greater Sydney into a metropolis of three cities - the Western Parkland City, Central River City and Eastern Harbour City. It identifies key challenges facing Sydney including increasing the population to eight million by 2056, 817,000 new jobs and a requirement of 725,000 new homes by 2036.

The Region Plan includes objectives and strategies for infrastructure and collaboration, liveability, productivity and sustainability. The following matters are relevant to the proposed development:

Objective 7 - Communities are healthy, resilient, and socially connected

Mixed-use neighbourhoods close to centres and public transport improve the opportunity for people to walk and cycle to schools, local shops and services. Enhancing the safety, convenience and accessibility of walking and cycling trips has many benefits including healthier people, more successful businesses and centres, and reduced traffic congestion.

The proposal will contribute to the delivery of healthy, safe and inclusive places for people of all ages by contributing to walkable places at a human scale with active street life. The proposal will further prioritise opportunities for people to walk, cycle and use public transport.

The site's direct access to the shared cycle and pedestrian path connecting north and south, along with the proximity to Chatswood CBD and train station, will encourage active transport use. An improved interface between the site and the shared path will further support this. Non-residential uses at ground level such as cafes, speciality shops and the like will activate the site and surrounding public domain including the pocket park to the north-east of the site, contributing to a sense of place and activity day and night.

Objective 10 - Greater housing supply

The proposal will facilitate the delivery of 193 residential units on the site, a significant increase from the 35 units. The proposal will support Greater Sydney's growing population contributing to a more liveable neighbourhood. The proposed residential component can accommodate a range of housing types to provide for the needs of the community at different stages of life. The Eastern City has a short-term housing supply target of 46,660 dwellings and a long-term target to 2036 of 157,500. The proposal will contribute to achieving these targets.

Objective 11 – Housing is more diverse and affordable

The proposed development will provide a range of accommodation options to support a range of household structures, including 2 and 3 bedroom apartments as well as affordable housing options.

Objective 14 – A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities

Creating mixed use opportunities within proximity to a major transport interchange supports the desired integrated land use and transport model.

5.2. **OUR GREATER SYDNEY 2056: NORTH DISTRICT PLAN**

The North District Plan (District Plan) is a 20-year plan to manage growth in the context of economic, social and environmental matters to implement the objectives of the Greater Sydney Region Plan. The intent of the District Plan is to inform local strategic planning statements and local environmental plans, guiding the planning and support for growth and change across the district.

The District Plan contains strategic directions, planning priorities and actions that seek to implement the objectives and strategies within the Region Plan at the district-level. The planning priorities and actions likely to have implications for the proposed development are listed and discussed below.

Planning Priority N3: Providing services and social infrastructure to meet people's changing needs

The proposal is comprised of 193 apartments with a mix of predominantly 2 and 3 bedroom apartments suitable to the future housing context. Generous communal amenity is provided on both podium and tower roof top levels consisting of a pool and relaxation areas for residents of both towers, providing essential open space for residents. Further, the proposal provides additional public open space to the Chatswood CBD through the pocket park located to the west of the site.

Planning Priority N4: Fostering healthy, creative, culturally rich and socially connected communities

The proposal helps create a more socially connected community both internally, and externally, Internally, residents are provided with generous community amenity, encouraging both a healthy and socially connected community within the buildings. Additionally, through the proposed pocket park and public open space, the proposal fosters a healthy, creative, culturally rich and socially connected community through the meticulous landscaping, Indigenous public art and broader connection to the Chatswood CBD via Frank Channon Walk.

Planning Priority N5: Providing housing supply, choice and affordability, with access to jobs, services and public transport

As discussed above, the proposal is comprised of 193 apartments with a mix of predominately 2 and 3 bedroom apartments, catering to the demand of the Chatswood CBD. As part of this proposal, 4% of the dwellings will affordable housing, which are closely located to the Chatswood CBD via Frank Channon Walk.

Planning Priority N6: Creating and renewing great places and local centres, and respecting the District's Heritage

The proposal facilitates the fast transition of the existing small residential precinct to an area of high density in response to the growth of Chatswood's city centre and population. The proposed built form is considered a contextual response that addresses the existing the cultural heritage of the broader Chatswood CBD.

5.3. WILLOUGHBY CITY LOCAL STRATEGIC PLANNING STATEMENT

The Willoughby City Local Strategic Planning Statement (WLSPS) sets out a 20-year vision with priorities and actions for land-use planning within the Willoughby LGA. The WLSPS considers the economic and social needs of the Willoughby community and discusses how they will change in the future, as well as discussing how to protect and improve the natural environment within the Willoughby LGA. The WLSPS addresses what should stay the same and what will need to change within certain sectors of the Willoughby LGA.

The LSPS includes directions, priorities and actions which are drawn from the Greater Sydney Regional Plan and North District Plan discussed above. The following matters are relevant to the proposed development:

Theme 1: A Liveable City – Housing the City

The proposed development increases the housing diversity within the Chatswood CBD, catering to both families and the aging population as well as diverse household types and key workers in a modern and well serviced mixed-use development. Additionally, the proposal provides delivers additional affordable housing to the Willoughby LGA.

Theme 1: A Liveable City – A City for the People

The proposed development enhances walking and cycling connections to and from the Chatswood CBD through the upgrade of Frank Chanon Walk. The upgrade of Frank Channon Walk includes enhancing the landscaping features of the walk near the site, encouraging residents and visitors to the building to consider walking or cycling to the Chatswood train station, CBD, or shops. The public open space within the site and the link to Frank Channon Walk helps to improve the public domain by fostering healthy and connected communities.

Theme 1: A Liveable City - A City of Great Places

The proposed development respects the attractions of Willoughby City, respects existing open space and views and encourages development which provides additional open space and additional views. As mentioned above, the proposed landscaping alongside Frank Channon Walk helps encourage residents and visitors to the site to visit the Chatswood CBD, encouraging retail spending within local centres.

5.4. CHATSWOOD CBD PLANNING AND URBAN DESIGN STRATEGY 2036

The Chatswood CBD Planning and Urban Design Strategy 2036 (CBD Strategy) has been endorsed by Willoughby Council and applies to the site. The site is located within the extended Chatswood CBD boundary, as nominated by the CBD Strategy:

Subject Site 800m walking catchme 400m walking catchmer Additional areas

Figure 21 Chatswood CBD Strategy – Extended CBD Boundary

Source: Willoughby Council

This strategy promotes the importance of Chatswood's commercial core in ensuring the future success of the CBD, in which the site is located in. Additionally, the strategy discusses the opportunity to create great public spaces with high urban design quality within the CBD boundary, creating a centre that is connected through a highly permeable pedestrian network.

The strategy informed the planning proposal and accompanying DCP provisions which this application has been prepared in response to. The proposed development embodies all of strategies listed within the CBD Strategy and will be a successful example of the desired future outcome for the Chatswood CBD.

5.5. BETTER PLACED

In August 2017, the Government Architect for NSW (GANSW) released Better Placed which seeks to establish priorities and objectives that shape design to create well-designed built environments. It presents a collection of priorities and objectives that aspire to shape design that addresses key challenges and directions and creates good design outcomes for NSW.

This DA is accompanied by an Architectural Design Report (Appendix G) which demonstrates how the proposed development satisfies the objectives of Better Placed, as summarised below.

Table 6 Better Placed objectives

Better Placed objectives	Response
Better Fit – Contextual, local and of its place	As outlined within this SEE, the proposed development is appropriate for the context of the Chatswood CBD. The proposal facilitates the fast transition of the existing small residential precinct to an area of high density in response to the growth of Chatswood's city centre and population. Similarly, the immediate context is simultaneously going through similar density changes in response to the population increase.
Better Performance – Sustainable, adaptable and durable	Sustainable development practices have been employed throughout the design process such as the implementation of solar shading elements, reducing the need for mechanical ventilation ensuring the building is both more adaptable and durable to the future climate of the area.
Better for Community – Inclusive, connected and diverse	The proposed development is both inclusive and diverse, providing a diverse range of inclusive housing options that are connected to the community through the public open space linking to the Frank Channon Walk.
Better for People – Safe, comfortable and liveable	The proposed development positively contributes to the safety of the neighbouring street, as well as creating a welcoming and safe place to live for future residents. Additionally, apartments have been meticulously designed to achieve both efficiency and functionality, resulting in a design that is safe, comfortable, and liveable.
Better Working – Functional, efficient and fit for purpose	The proposed development has been designed to achieve both efficiency and functionality whilst responding to the desired future scale and character of the surrounding area.
Better Value – Creating and adding value	The proposal adds value to the broader Chatswood CBD, responding to existing streetscapes, orientations, views, and planning requirements of the area whilst presenting a design that is of good proportions and presents a balanced composition of elements.

STATUTORY CONTEXT h_

STATE ENVIRONMENTAL PLANNING POLICIES **6.1**

6.1.1. State Environmental Planning Policy (Transport and Infrastructure) 2021

The aim of the State Environmental Planning Policy (Transport and Infrastructure) 2021 is to facilitate the effective delivery of infrastructure across NSW. This is achieved by identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure, including classified roads, rail corridors and prescribing consultation requirements for certain development.

The relevant provisions of the Transport and Infrastructure SEPP in relation to the proposed development are considered below.

Clause 2.122 - Traffic Generating Development

Clause 2.122 of the Infrastructure SEPP requires developments listed in Schedule 3 to be referred to the Transport for NSW (TfNSW) prior to the determining of a development application. The site does not have access to a classified road, however the site is within 90m of connection to a classified road (Pacific Highway). Therefore, the proposal will be referred to TfNSW.

Clause 2.98 – Development adjacent to rail corridors

Floor induced vibration within the proposed residential spaces due to trains is expected to comply with the day and night vibration dosage values in DPE's "Development near Rail Corridors & Busy Roads - Interim Guideline" 2008. As detailed in Section 7.4 and Appendix J. Renzo Tonin and Associates recommend that a detailed vibration assessment is undertaken during the subsequent stage of detail to determine the scope and extent of building vibration isolation required.

6.1.2. State Environmental Planning Policy (Resilience and Hazard) 2021

Clause 4.6(1) of the State Environmental Planning Policy (Resilience and Hazard) 2021 (Resilience and Hazards SEPP) requires the consent authority to consider whether land is contaminated prior to granting consent to a development application.

The Detailed Site Investigation (DSI) prepared by Aargus at Appendix H evaluates the potential for site contamination based on historical land uses and investigates the degree of potential contamination.

Aargus concluded that based on the results of the investigation, it is considered that the risks to human health and the environment associated with soil contamination at the site is low. The site is therefore considered to be rendered suitable for the proposed use, subject to the following:

- The preparation of a Remedial Action Plan (RAP) in accordance with EPA guidelines.
- Any soils requiring removal from the site should be classified in accordance with the "Waste Classification Guidelines, Part 1: Classifying Waste" NSW EPA 2014.

Potential site contamination is further explored in **Section 7.10** of this SEE.

6.1.3. State Environmental Planning Policy (Building Sustainability Index BASIX) 2004

A BASIX Certificate (Certificate Number: HR-4Q7LTR-01) is included at **Appendix I**. The certificate confirms that the proposed development meets the NSW government's requirements for sustainability. The BASIX assessment indicates that the proposal exceeds the water, energy and thermal comfort performance ratings required.

6.1.4. State Environmental Planning Policy No 65 - Design Quality of **Residential Apartment Development**

State Environmental Planning Policy No 65 (Design Quality of Residential Apartment Development) (SEPP65) applies to development for the purposes of a building that comprises three or more storeys and four or more self-contained dwellings.

In determining a development application for residential flat development, a consent authority is to consider:

- (a) the advice of the relevant design review panel.
- (b) the 10 Design Quality Principles of the SEPP; and
- (c) the Apartment Design Guide.

Section 14 of the Architectural Design Report included at **Appendix G** outlines how the design quality principles have been met and demonstrates how the objectives of Parts 3 and 4 of the ADG have been achieved. A high-level summary of the Apartment Design Guide (ADG) is set out in Table 7 below.

Table 7 ADG Compliance Assessment

Design Criteria	Proposed	Complies
3D Communal and Public Open Space	 The site has an area of 4,183m² The required communal open space: 1,045.75m² (25%) The proposed communal open space at podium level: 1722² (41.2%) The proposal exceeds the communal open space requirements. As outlined in Section The communal open space achieve high level of solar access. 	Yes
3E Deep Soil Zones	■ The required deep soil zone area: 292.81m² (7%) ■ The proposed deep soil zone area: 37m² (0.9%) The proposed development is located in a dense urban area. Under the Willoughby LEP 2012, the proposal is required to meet the ground floor activation requirements and non-residential floor space requirements. The proposed communal open spaces far exceed the required area and the podium terraces have sufficient soil depth for appropriate planting. The proposed design is also in accordance with the site specific DCP controls. Therefore, this non-compliance is considered appropriate for this site.	Variation – justified.
3F Visual Privacy	The Apartment Design Guide requires 18m building separation for building 5-8 storeys and 24m building separation for buildings over 9 storeys. The site-specific DCP requires a 12m building separation between the two towers. The proposed	Partial non- compliance – justified

Design Criteria	Proposed	Complies
	scheme exceeds this building separation requirement, as approved under the Planning Proposal and site specific DCP. The scheme DKO presented at the design competition for the site proposed a minor non-compliant tower separation. This scheme was chosen by the Jury as demonstrating design excellence. As noted in the Architectural Design Competition Report for the site, "the Jury notes potential non-compliant ADG distances between towers and recommends that the intent of the site specific DCP distances between towers prevails". The proposed design has been driven by the desire to improve the internal amenity of the northern-most units in the southern tower. By articulating the apartment, the proposal will provide improved solar access, natural ventilation, and views to the east for the northern units. The non-compliant portions of the apartments are corner apartments that provide dual aspect, so the impact is lessened for internal users. Therefore, the proposed encroachment on the tower separation prescribed under the ADG will achieve high levels of amenity and can be fully justified.	
4A Solar and Daylight Access	Refer to Section 7.1.2 below for further assessment. Minimum number of apartments with 2hrs solar access required: 135 Proposed: 157 (81.3%) A maximum of 29 apartments receive solar access Proposed: 2 (1%) Compliance Achieved.	Complies.
4B Natural Ventilation	There are 68 apartments across the first 9 storeys 68/68 apartments (100%) will be cross-ventilated.	Complies.
4C Ceiling Heights	The proposed habitable ceiling heights are 2.7m (complies). The proposed non-habitable ceiling heights are 2.4m (complies).	Complies.
4D Apartment Size and Layout	The proposed apartment sizes comply with the minimum apartment sizes. Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Complies.

Design Criteria	Proposed	Complies
4E Private Open Space and Balconies	All apartments have designed to exceed the minimum private open space requirements size for each dwelling type.	Complies.
4F Communal Circulation	There are four apartments per floor (lift core). For buildings of 10 storeys and over, the maximum number of apartments sharing a lift is to be 40. Therefore, there are 50 apartments sharing each lift. The proposal is supported by a vertical transport consultant, and the apartments will be supported via a high-speed lift.	Complies.
4G Storage	Where storage is not wholly provided within the unit itself, the remainder is provided in the carpark via storage cages. The total combined storage areas provided for each dwelling meets the minimum areas required	Complies.
4H Acoustic Privacy	Adequate building separation is provided within the development and from neighbouring buildings. Refer to Acoustic Report at Appendix J for further information concerning the approach to acoustic noise transfer minimisation.	Complies.

6.2. **WILLOUGHBY LOCAL ENVIRONMENTAL PLAN 2012**

Willoughby Local Environmental Plan 2012 (Willoughby LEP) is the primary environmental planning instrument applying to the site and the proposed development.

The site is zoned MU1 Mixed Use in accordance with the LEP. The proposed development is consistent with the zone objectives as outlined below:

- To encourage a diversity of business, retail, office and light industrial land uses that generate employment opportunities.
- To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.
- To allow for city living on the edges of the city centre of Chatswood, which encourages public transport use, shopping and the use of businesses and recreational services that contribute to the vitality of the city, without undermining its commercial role.

The proposed mixed-use development comprising commercial premises (including retail premises) and residential apartments directly aligns with the MU1 Mixed Use zone objectives, as the commercial uses will provide employment opportunities and activate the site. The proposed residential towers will provide high quality residential apartments with direct access to Chatswood train station and CBD area.

The following table assesses the compliance of the proposed development with other relevant clauses in the LEP.

Table 8 Willoughby LEP 2012 Compliance Assessment

Control	Proposed	Compliance
Clause 2.1 – Land Use Zones The site is zoned MU1 Mixed Use.	Retail, commercial and residential uses are permitted with consent in the MU1 Mixed Use zone.	Complies.
Clause 4.3 – Height of Buildings Maximum building height is 90m.	The proposed maximum building height is 93.3m	Does not comply – justified via Clause 4.6 request
Clause 4.4 – Floor Space Ratio	The proposed development comprises:	Complies.
Non-residential: minimum of 1:1 of the total site area Residential: maximum of 5:1 of the total site area	 Non-residential FSR: 1:1 Residential FSR: 5:1 	Compiles.
Clause 5.10 – Heritage conservation	The subject site is not a listed heritage item and does not contain any elements of built heritage significance. The vicinity heritage items, and heritage conservation areas are substantially distanced from the subject site. Refer to Section 7.8 and Appendix L for further assessment.	Complies.
Clause 5.21 – Flood planning	A Flood Report has been prepared by Lyall and Associates which concludes the site is appropriate for development, subject to the implementation of the 300mm freeboard at the site. Refer to Section 7.6 and Appendix M for further assessment.	Complies
Clause 6.1 – Acid sulfate soils	As outlined in the Detailed Site Investigation prepared by Aargus (Appendix H), there are no known occurrences of acid sulfate soil materials at the site.	Complies.
Clause 6.7 – Active street frontages (3) Development consent must not be granted to the erection of a building, or a change of use of a building, unless the consent authority is satisfied that the building will have an active street frontage.	The active street frontages map specifies active street frontages along both Nelson Street and Gordon Avenue. During the detailed design phase (post the design competition phase) the design team have provided advice that the two substations required to support this development must be located in the south-western corner of the site along the Nelson Street frontage in order to	Does not comply – justified via Clause 4.6 request (Appendix K)

Control	Proposed	Compliance
 (4) Despite subclause (3), an active street frontage is not required for part of a building that is used for the following— (a) entrances and lobbies, including as part of mixed use development, (b) access for fire services, (c) vehicular access. 	meet the relevant safety and access requirements set out by Ausgrid. As outlined in the Clause 4.6 variation (Appendix K), the proposed variation to the Active Street Frontages Map prescribed for the site resulted in an improved outcome for the site, through the ability to deliver essential services for the development externally resulting in additional space for residential and commercial floors.	
Clause 6.8 – Affordable Housing Requires the dedication, free of cost, of land comprised of one or more complete dwellings with a gross floor area of the amount equivalent to 4% of the accountable total floor space, with each dwelling having a gross floor area of at least 50 square metres.	The total proposed residential floor area is 20,915m². The proposed affordable housing provision is 837.93m² across nine apartments, which complies with the 4% requirement.	Complies.
Clause 6.16 – Minimum lot sizes for commercial and mixed use development in Chatswood CBD (3) The minimum lot size for development for the purposes of mixed use development on land to which this clause applies in Zone MU1 Mixed Use is 1,200m².	The site has an area of 4,183m² which complies with the minimum lot size for mixed use development.	Complies.
Clause 6.23 – Design excellence (3) Development consent must not be granted to development to which this clause applies unless the consent authority considers that the development exhibits design excellence.	Clause 6.23 requires development on land identified as Area 12 (which includes the site) involving a new building or external alterations to an existing building to exhibit design excellence. Additionally, for a building which exceeds 35 metres above ground level (existing), an architectural design competition is required to be held and the design of the development is the winner of the architectural design competition. An architectural design competition was held on 13 April 2023. The DKO scheme was chosen as the winner of the Architectural Design Competition.	Complies.

Control	Proposed	Compliance
	The Architectural Design Report at Appendix G outlines the design evolution process.	
Clause 6.25 – Shop top housing in Zone MU1 Development consent for the purposes of shop top housing on land in Zone MU1 Mixed Use must not be granted unless the consent authority is satisfied at least 17% of the gross floor area of the building will be used for non-residential purposes.	The proposed overall gross floor area is 25,093m² and the proposed non-residential floor space is 4,266m², which equates to 17%.	Complies

As identified in the table above, the proposal will result in a variation to the height of building control under clause 4.3 and the active frontage control under clause 6.7 of the Willoughby LEP 2012. The proposed variation is supported by a clause 4.6 exception to development standard in accordance with the LEP, refer to Appendix K.

6.3. WILLOUGHBY DEVELOPMENT CONTROL PLAN 2006

Willoughby Development Control Plan 2006 (the DCP) provides planning controls relevant to the site and the proposal. A DCP is required, under the EP&A Act, to be used as a guide to give effect to an environmental planning instrument, facilitate development that us permissible on the site, and achieve the objectives of the zoning applying to the site.

A detailed assessment has been undertaken against the site-specific DCP provisions, along with general Willoughby DCP 2023 controls, contained in Appendix U. Key departures and/or non-compliances have been discussed below.

Adaptable units

An Adaptable Housing Statement has been prepared by Inclusive Places to support this DA (see Appendix BB). The purpose of the statement is to provide research and advice in support of a variation to the requirement in Willoughby DCP 2023 to provide 50% of all apartments as AS4299-1995 Adaptable Housing dwellings (Class C required).

The proposal has been designed to achieve 34% of apartments are Adaptable, while 75% are proposed to meet Silver Livable provisions. In summary:

- The Willoughby DCP requirement for 50% Adaptable Housing is very high and is clearly out of step with all other Sydney Councils (Sydney Council Median = 10%).
- The proposed Adaptable provision of 34% remains a higher rate than that required by any other Sydney Council.
- The Willoughby DCP requirement for 20% Silver Livable is aligned with the majority of Councils in Sydney (Sydney Council Median = 20%).
- The proposed Silver Livable provision of 75% (or greater) is well in excess of the median, and considerably exceeds the median in the NSW context.

In broad terms, a livable or adaptable home, sometimes referred to under the umbrella term of 'universal housing', is easy and safe to live in for people of all ages and abilities, and able to respond effectively to changing needs without requiring costly and energy-intensive alterations. In the Australian context, 'adaptable' and 'livable' mean different things. AS4299-1995 Adaptable Housing (AS4299) is an Australian Standard which contains design guidance for 'adaptable' housing, with a focus on future occupants with

physical disability, in particular to accommodate a wheelchair, AS4299 is not called up as a mandatory inclusion for mainstream (non-specialist) housing in any Commonwealth or NSW Act, Regulation or SEPP.

The need for review of AS4299 is well acknowledged by key access and disability industry groups, as the design elements and overall approach in AS4299 is outdated and problematic. In NSW, even specialist housing (seniors and disability housing) design guidelines will no longer reference AS4299, under draft amendments to the Housing SEPP released in early 2023.

A further major shortcoming with AS4299 is that the existence of housing designed and built in accordance with the Standard is completely hidden, even from those who would like to purchase or modify it. There is no requirement to register Adaptable apartments or as-built plans, register on title or in a contract of sale. It is an unfortunate fact that the considerable efforts and expense put into designing and construction Adaptable dwellings, is effectively rendered futile.

Meanwhile, the focus has largely shifted to Livable Housing, which is based on a universal design model. Livable Housing Australia (LHA) released the Livable Housing Design Guide in 2010. In NSW, greater uptake of LHDG occurred from 2015 with the ADG which is given force under SEPP 65. The ADG recommends a benchmark of 20% Silver level livable. Most Sydney Councils now require this as a matter of course.

More recently, Australia has mandated livable housing provisions for all new housing through the NCC 2022, with provisions based on the LHA Silver Level due to commence shortly. At this stage, the NSW Government has not elected to adopt the new NCC provisions and will continue to apply the ADG rate (20% Silver livable per existing LHDG) to apartment buildings.

Accordingly, a variation is sought to the Willoughby DCP requirement for 50% Adaptable Housing.

Shared site access

Access to the site is currently provided via Nelson Street to the south. Forming part of the site-specific Planning Proposal, Council required a singular vehicular access to Gordon Street, to the north. It was proposed that this singular access point would service all the site's vehicular access requirements.

In the final drafting of the site specific DCP, Council included the following requirement:

"Vehicle and loading access is to be reviewed and master planned in conjunction with the adjoining land at 10 Gordon Avenue and 15-19 Nelson Street. One vehicle and loading point in Gordon Avenue is preferred for the block bounded by Nelson Street, Gordon Avenue, Hammond Lane and the Frank Channon Walk, via a consolidated basement'.

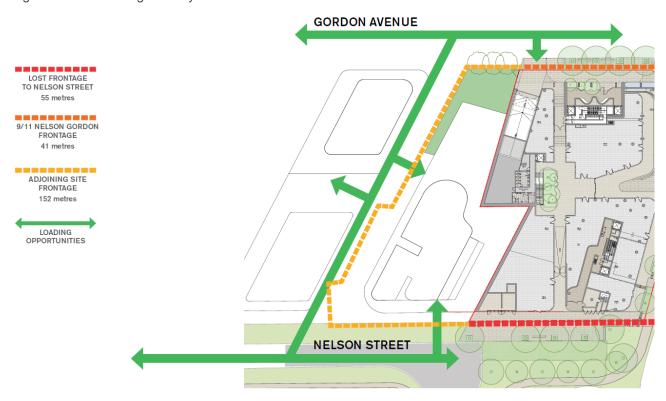
The provision of a shared vehicle access arrangement has been reviewed by the project team as required by the control. Discussions have also been had with the neighbouring developer. In summary, this review has concluded that a shared vehicular access point is not suitable for the following reasons:

- Consolidated vehicle access points serving multiple sites (under different ownership) are complex to deliver for a range of reasons, including constructability, staging and operational safety. Where practical and where it does not result in site isolation, providing independent access points to sites is preferred.
- Consolidated driveways are typically only appropriate where access to an adjoining site may not be possible to avoid providing access directly onto a classified road. A nearby example of this is the site at 871 Pacific Highway, where a shared driveway access will be provided in order to allow the adjoining site (879 Pacific Highway) to avoid direct access to a classified road, being the Pacific Highway.
- As shown in Figure 22 below, the sites adjoining 9-11 Nelson Street are afforded with a range of options in terms of vehicle access that are not along classified roads, including:
 - Gordon Avenue.
 - Hammond Lane (similar to future access for the sites at 613-627 Pacific Highway and 629-639 Pacific Highway).
 - Nelson Street.
- Additionally, whereas the site the subject of this DA has only 41m of site frontage, the adjoining site has over 150m of site frontage. Placing the burden of site access on this site is illogical in this sense.

- In this context independent vehicle access to the adjoining sites is readily achievable with no requirement for a consolidated point of access.
- A consolidated vehicle access at 9-11 Nelson Street, serving the adjoining sites, would also have the following issues:
 - Safety conflict on the main entry ramp at the intersection of the access points to the respective sites. Movements on the main entry ramp may be upwards of 200 vehicles per hour. This constant stream of vehicles from one point will deter pedestrians from waking west along Gordon Avenue, thus negating the pedestrian activation Council are seeking to achieve for this precinct. A more preferable outcome is to disperse traffic movements over driveways providing independent vehicle access to the respective buildings.
 - Vehicle access to 9-11 Nelson Street (when operational) would be significantly impacted or
 potentially unachievable when the basement connection to the adjoining building is under
 construction. It is highly unlikely the adjoining basements would be constructed concurrently and
 therefore future residents/visitors of 9-11 Nelson Street would be impacted during the construction
 period of the adjoining building.

Rather than a variation to this DCP control, it is acknowledged that the intent to 'review' a masterplanned outcome has in essence been achieved. That review has in fact concluded that masterplanning a shared access is not suitable, and therefore is not being delivered.

Figure 22 Site Frontages Analysis

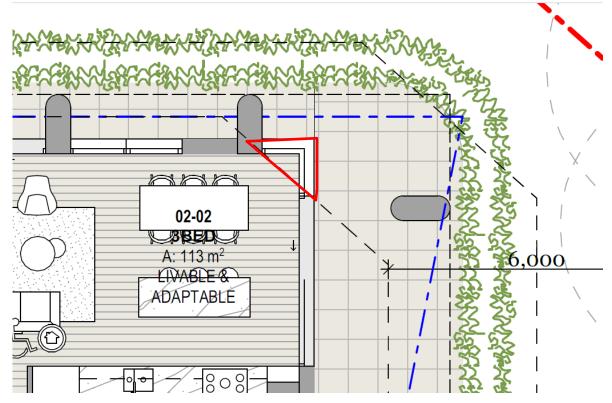


Source: DKO

Setbacks

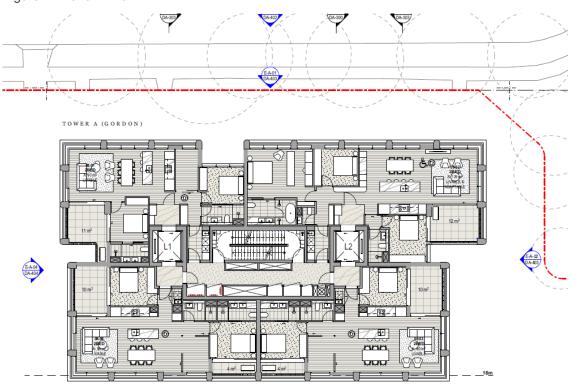
The site specific DCP provides building setbacks for future development at the site. A minor non-compliance on the northeastern corner of the level 2 podium is proposed, as outlined in red in the extract below.

Figure 23 Minor non-compliant setback - northeastern corner



Source: DKO

Figure 24 Level 7 Plan



Source: DKO

This non-compliance is considered minor and acceptable for the following reasons:

- There is no interface with any neighbouring development at this location of the site. The minor noncompliant area will face the proposed pocket park and the train line beyond.
- Therefore, this minor non-compliant setback will not create any additional loss of privacy or overshadowing impacts. There will be no material impacts due to this portion of the proposal.
- During the design competition, the Jury supported DKO's scheme which included minor non-compliances with the site specific DCP.

Greenstar

As outlined within the Green Star Strategy Report produced at Appendix S, the General Development Guidelines of the Willoughby DCP encourage the application of 'best practice' principles in the design and construction of developments to achieve energy-efficient and environmentally sustainable buildings. As a result, the proposed design not only complies with the DCP, but surpasses the minimum compliance requirements.

The Green Star Strategy Report outlines strategies and initiatives to guide the design and will be further developed in the detailed design stages of the project. The targets are for a highly rated environmental performance based on NABERS and BASIX frameworks which include:

- Whole Building:
 - NCC 2022 Section J, Energy Efficiency Compliance
 - 4 Star Green Star Buildings Rating
- Retail and Commercial:
 - 5.0 Star NABERS Energy
 - 5 Star NABERS Water
- Residential Component:
 - BASIX Water Target: at least 40% improvement above a reference benchmark (BASIX Certificate No. HR-4Q7LTR-01)
 - BASIX Energy Target: at least 25% improvement above a reference benchmark (BASIX Certificate No. HR-4Q7LTR-01)

The proposed building will be designed in accordance with the NCC 2022 Section J Energy Efficiency provisions and will consider energy efficient building services and optimized façade performance. The heating, ventilation, and air-conditioning systems will be developed to minimise the operational energy consumption of the proposal while providing the building occupants with a thermally comfortable space.

The design aims to achieve a 4-Star rating in the Green Star rating system, with an aspiration to reach 5-Stars using the new Green Star tool. The Green Star Buildings tool is more rigorous than the previous Green Star Design and As-built tool. Consequently, achieving 5-Stars in Green Star Design and As-built is comparable to reaching 4-Stars in Green Star Buildings.

7. **KEY PLANNING CONSIDERATIONS**

7.1. **BUILT FORM AND URBAN DESIGN**

7.1.1. Building Height

The proposal seeks to vary the 90m building height development standard. The encroachment above 90m height limit is driven by the necessity to deliver minimum standards on apartment levels, while also realising the quantum of residential floor space available to the site under the applicable development controls and site specific VPA.

Detailed consideration has been given to the podium design of floor-to-floor levels to ensure commercially feasible and flexible tenancies which cater to arrange of uses in the future. Residential floor to floor heights have considered the requirements of the NCC and ADG, while also allowing for appropriate servicing negating the need to further refine and modify any future consent. Further, the delivery of rooftop communal open space is to be delivered via a continuation of the lift core. The design specific rational for each

PP-2021-5704 assumed a normal floor to floor height of 3100mm, which incorporated a 200mm slab for residential and commercial floors respectively. The proposed breach to the maximum building height arises predominately from small increases in the proposed floor to floor heights of both the towers, of 50mm per level for the following reasons:

- Due to the size of the site, the resulting non-residential components of the development located within the two podium levels have been the subject of ongoing design refinements. Critically, there has been a need to consider the future users of the podium tenancies at the DA stage, to ensure the commercially feasibility of these spaces while delivering flexibility to cater to a range of potential uses. A key aspect of the design refinement has been to design floor to ceiling heights ranging from approximately 6.5m to 4m to ensure natural light and natural ventilation can penetrate into the podium.
- Slab thicknesses in residential developments are dictated by the requirements of concrete code AS3600 2018, which requires residential floor plates have a minimum fire rating of 90 minutes. This is achievable by providing a 200mm thick concrete slab.
- To ensure the buildability of the proposal, the team has allowed for 30mm set downs in the concrete slab design to allow for integral concrete falls from the finished slab level to floor wastes, as such the typical concrete thickness for apartment levels has been designed as 230mm thick. Note this is also a requirement for adaptable and silver liveable units.
- The ADG requires a 2700mm floor to ceiling height in habitable zones, with an additional 220mm required for services, structural folds and insulation resulting in 3150mm (2700mm + 220mm + 230mm).

As such, the proposed floor to floor height for the residential components of both towers A and B is 3150mm, the minimum to meet current codes and regulations, which has resulted in the need to increase the overall building height to enable the permissible floor space to be achieved. A clause 4.6 variation has been prepared to support the breech of the height of building standard.

PARAPET (500mm Above Height Plane) HOT WATER PLANT (1800mm Above Height Plane) STAIR PRESSURISATION PLANT (700mm Above Height Plane) ARAPET 100mm Above Height Plan LIFT (3300mm Above Height Plane TOWER A TOWER B

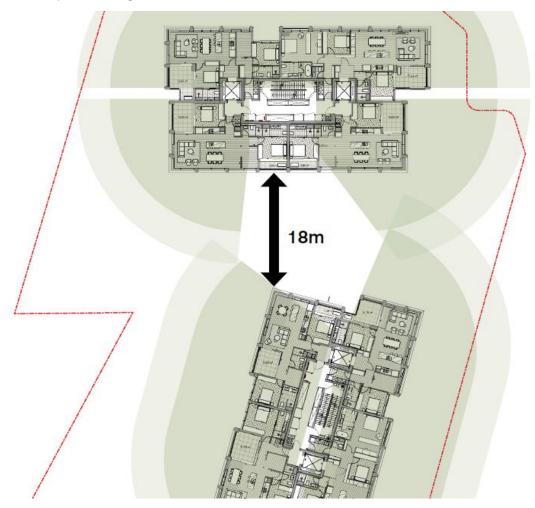
Figure 25 Proposed Height Plane (Northern building left, southern right)

Source: DKO

7.1.2. Tower Separation

The Apartment Design Guide requires 18m building separation for building 5-8 storeys and 24m building separation for buildings over 9 storeys. As outlined in Figure 25 below, a portion of the southern tower encroaches on the ADG tower separation setbacks.

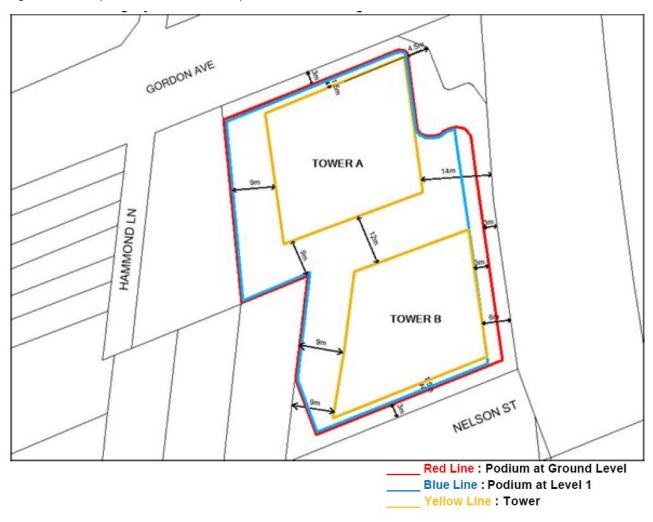
Figure 26 Tower separation diagram



Source: DKO

The site-specific DCP requires a 12m building separation between the two towers, as shown in the extract below. The proposed scheme exceeds this building separation requirement, as approved under the Planning Proposal and site specific DCP.

Figure 27 Site specific DCP setback requirements



The scheme DKO presented at the design competition for the site proposed a minor non-compliant tower separation. This scheme was chosen by the Jury as demonstrating design excellence. As noted in the Architectural Design Competition Report for the site, "the Jury notes potential non-compliant ADG distances between towers and recommends that the intent of the site specific DCP distances between towers prevails".

The proposed design has been driven by the desire to improve the internal amenity of the northern-most units in the southern tower. By articulating the apartment, the proposal will provide improved solar access, natural ventilation, and views to the east for the northern units. The non-compliant portions of the apartments are corner apartments that provide dual aspect, so the impact is lessened for internal users.

Therefore, the proposed encroachment on the tower separation prescribed under the ADG will achieve high levels of amenity and can be fully justified.

7.1.3. Active Frontages

The active street frontages map identifies active street frontages along both Nelson Street and Gordon Avenue. During the detailed design phase (post the design competition phase) the design team have provided advice that the two substations required to support this development must be located in the southwestern corner of the site along the Nelson Street frontage in order to meet the relevant safety and access requirements set out by Ausgrid. The proposed development seeks approval for a variation to the Active Street Frontages Map along Nelson Street only.

As outlined in the Clause 4.6 variation (Appendix K), the proposed variation to the Active Street Frontages Map prescribed for the site resulted in an improved outcome for the site, through the ability to deliver essential services for the development externally resulting in additional space for residential and commercial floors.

The proposed development will continue to promote pedestrian attracting uses along the Nelson Street and Gordon Avenue frontages through the dedicated commercial and retail spaces located on the ground floor of the buildings. Additionally, the upgrade of the Frank Channon Walk and the dedicated public open space outside of the commercial areas will promote pedestrian traffic along the ground floor street frontages.

PUBLIC AMENITY 7.2.

7.2.1. Wind

CPP Wind Engineering Consultants (CPP) have prepared a Wind Report (Appendix N) which assesses the ground level wind environment around the proposed development. The assessment was based on the local wind climate and the characteristics of the proposed development. CPP provide the following conclusions:

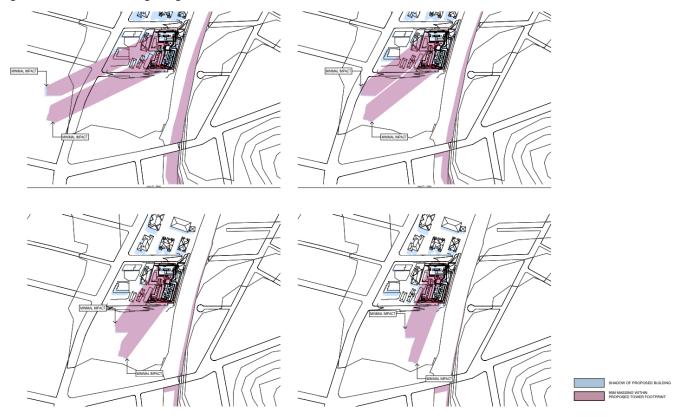
- **Public domain**: The addition of the proposed development may cause wind speeds in some areas to increase, while creating calmer conditions in others. On average and for the majority of locations in the vicinity, the pedestrian level wind environment is expected to remain similar to the existing.
- Ground level: The wind environment around the development is likely to be generally suitable for pedestrian walking style activities from a comfort perspective with reference to the Lawson criteria. No major adverse impacts to pedestrian comfort or amenity are estimated due to the proposed development. Areas intended for seating and dining may require landscaping treatment to minimise any potential wind impacts. All areas in the public domain in the vicinity of the subject site are expected to satisfy the relevant wind safety criterion.
- Podium terrace: Slightly stronger conditions are expected to occur through the ground level arcade and on the podium terrace during higher winds. Mitigation is recommended for areas that will be used for medium to long term stationary occupation within these spaces, and some suggested strategies are provided.
- Residential balconies: the proposed residential balconies are generally well located and sized from a wind comfort perspective. Windier conditions are often found on residential balconies for developments of this type, particularly on exposed corner balconies due to cross flow, and this will require consideration in the final design.

CPP conclude that wind conditions around the development are expected to be classified as acceptable for pedestrian standing or walking from a Lawson comfort perspective and pass the distress/safety criterion. To quantify the wind conditions around the site, a wind-tunnel test would be recommended during detailed design.

7.2.2. Overshadowing

DKO have prepared an overshadowing analysis contained within their architectural plan set (Appendix B). The analysis compares the impact from a scheme which is compliant with the site specific DCP and height of building control, versus that of the proposed scheme. As outlined in Figure 28 below, the red shadow is the 90m massing within the proposed tower footprint, while the blue is the additional shadow of the proposed building.

Figure 28 Overshadowing Diagrams



Source: DKO Architecture

The assessment demonstrates that if the proposal were to maximise the building envelope established by the site specific DCP and HOB control of 90m, the proposal would, for the most part, result in a greater overshadowing impact than that which results from the proposal. Where minor increases of overshadow do exist, they are imperceivable and would be difficult to articulate to the naked eye.

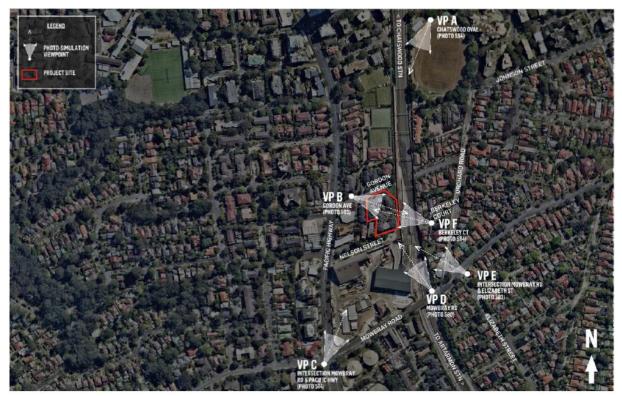
7.2.3. Visual Impact

A Visual Impact Assessment (VIA) has been prepared by Urbis to assess the potential visual impacts of the proposed development (Appendix O). The VIA details the view impacts considering the current site conditions and the proposed site situation. The VIA establishes the visual character of the site and its immediate surrounds to be used as a baseline factor against which to judge the level of change caused by the proposed development.

Potential Impacts

The VIA provides an assessment of existing views and the proposed detailed design from key vantage points within the site. Six (6) view locations were selected based on Urbis' field work and review of the key view corridors. The selected viewpoints are shown in the figure below.

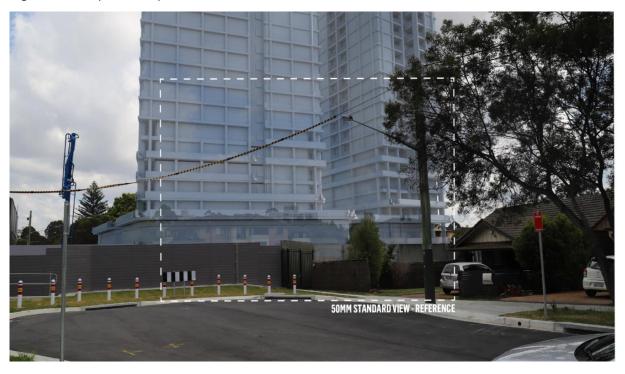
Figure 29 Selected viewpoints



Source: Urbis

Of the six viewpoints examined, five were classified as low and one was classified as a medium impact. The medium impact viewpoint is 'View F' - looking west from Berkeley Court. An extract is provided in Figure 29 below.

Figure 30 Viewpoint F Impact



Source: Urbis

In summary, Urbis provides the following conclusions:

- The proposal introduces tall contemporary tower forms to the centre mid-ground of this composition blocking low to medium built form west of the rail corridor and open sky. The proposed development does not block views or access to areas of high scenic quality, significant district views or heritage items.
- The upper parts of tower forms proposed would be visible from distant locations predominantly to the north and west and will be visible in the context of the Chatswood CBD skyline which is characterised by towers of similar form and scale.
- Potentially available view access to scenic or highly valued and significant district views is likely to be limited for all two and three storey dwellings assessed.
- Access to significant district views including the subject site is potentially available from mid and upperlevel east-facing units at 5-7 and 8-12 Sutherland Road.
- In views from these locations, the proposal is likely to occupy a narrow section of a wider view composition available, including to the north and south.
- The minor height non-compliance will have no significant effect on public domain views, and we do not anticipate any significant adverse view loss in relation to neighbouring private domain views.
- In this regard, the extent of potential view loss is anticipated by the WLEP and the Chatswood CBD Strategy.

The proposed development will not cause any view impacts in relation to significant district views.

7.3. TRANSPORT, TRAFFIC AND PARKING

A Transport Impact Assessment (TIA) has been prepared by JMT Consulting and is provided at Appendix P. The TIA estimates the traffic generation potential of the development proposal. It also assesses the traffic implications of the development in terms of road network capacity and the suitability of the proposed quantity of on-site car parking (having regard to compliance with the relevant codes and standards).

7.3.1. Access

Access to the site is currently provided via Nelson Street to the south. Forming part of the site-specific Planning Proposal, Council required a singular vehicular access to Gordon Street, to the north. It was proposed that this singular access point would service all the site's vehicular access requirements.

Additionally, in the final drafting of the site specific DCP, Council included the following requirement:

"Vehicle and loading access is to be reviewed and master planned in conjunction with the adjoining land at 10 Gordon Avenue and 15-19 Nelson Street. One vehicle and loading point in Gordon Avenue is preferred for the block bounded by Nelson Street, Gordon Avenue, Hammond Lane and the Frank Channon Walk, via a consolidated basement".

The provision of a shared vehicle access arrangement has been reviewed by the project team as required by the control. In summary, this review has concluded that a shared vehicular access point is not suitable for the following reasons:

- Consolidated vehicle access points serving multiple sites (under different ownership) are complex to deliver for a range of reasons, including constructability, staging and operational safety. Where practical and where it does not result in site isolation, providing independent access points to sites is preferred.
- Consolidated driveways are typically only appropriate where access to an adjoining site may not be possible to avoid providing access directly onto a classified road. A nearby example of this is the site at 871 Pacific Highway, where a shared driveway access will be provided in order to allow the adjoining site (879 Pacific Highway) to avoid direct access to a classified road, being the Pacific Highway.
- As shown in Figure 30 below, the sites adjoining 9-11 Nelson Street are afforded with a range of options in terms of vehicle access that are not along classified roads, including:
 - Gordon Avenue.
 - Hammond Lane (similar to future access for the sites at 613-627 Pacific Highway and 629-639 Pacific Highway).

- Nelson Street.
- Additionally, whereas the site the subject of this DA has only 41m of site frontage, the adjoining site has over 150m of site frontage. Placing the burden of site access on this site is illogical when there are no clear benefits.
- Independent vehicle access to the adjoining sites is readily achievable with no requirement for a consolidated point of access.
- A consolidated vehicle access at 9-11 Nelson Street, serving the adjoining sites, would also have the following issues:
 - Safety conflict on the main entry ramp at the intersection of the access points to the respective sites. Movements on the main entry ramp may be upwards of 200 vehicles per hour. This constant stream of vehicles from one point will deter pedestrians from waking west along Gordon Avenue, thus negating the pedestrian activation Council are seeking to achieve for this precinct. A preferable outcome is to disperse traffic movements over driveways providing independent vehicle access to the respective buildings.
 - Vehicle access to 9-11 Nelson Street (when operational) would be significantly impacted or potentially unachievable when the basement connection to the adjoining building is under construction. It is highly unlikely the adjoining basements would be constructed concurrently and therefore future residents/visitors of 9-11 Nelson Street would be impacted during the construction period of the adjoining building.

9-11 NELSON STREET

Rather than a variation to this DCP control, it is acknowledged that the intent to 'review' a masterplanned outcome has in essence been achieved. That review has in fact concluded that masterplanning a shared access is not suitable, and therefore is not being delivered.

BASEMENT LOADING **GORDON AVENUE** LOST FRONTAGE ADJOINING SITE TO NELSON STREET FRONTAGE 55 metres 152 metres _____ 9/11 NELSON GORDON LOADING FRONTAGE OPPORTUNITIES 41 metres OSSIBLE BASEMENT LOADING POSSIBLE BASEMENT LOADING POSSIBLE BASEMENT OADING

NELSON STREET

Figure 31 Site Frontages Analysis

Source: DKO

7.3.2. Traffic Generation

JMT Consulting have adopted traffic generation rates from the Transport for NSW (formerly Roads and Maritime) Technical Direction that described vehicular trip rates for residential developments.

JMT Consulting's analysis indicates that the net increase in traffic as a result of the proposal is 48 vehicles or less in the commuter peak hours. This increase in traffic is significantly reduced compared to that previously contemplated under the site-specific Planning Proposal which was considered to provide for an acceptable traffic outcome.

The additional traffic movements from the site have also been considered as part of the broader Chatswood CBD strategic transport study which considered all potential new developments in the CBD. The study did not identify that the future development planned for the Chatswood CBD would have a detrimental impact on the road network.

JMT Consulting have also provided travel demand management measures to improve the mode share of public transport and active transport. These items should be considered further prior to the initial occupancy of the building.

7.3.3. Parking

The car park has been designed in accordance with AS2890.1 with respect to ramp gradients, circulation aisle widths and car space dimensions.

The proposal provides a three-level basement car park containing 250 parking spaces, The proposed car parking rates have been selected to align with those recommended in the RMS Guide to Traffic Generating Developments. These rates are commonly utilised for developments within 800m of a railway station as noted in the technical note on the application of the car parking requirements of State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development (SEPP 65).

Secure bicycle parking and motorcycle parking is proposed in accordance with the rates specified in the site specific DCP.

The overall parking provision for the site is considered to provide an appropriate balance between meeting the needs of future residents and supporting travel by public and active transport for work related trips.

In summary, the traffic and transport impacts arising from the proposal are considered acceptable.

7.4. ACOUSTIC IMPACTS

Renzo Tonin and Associates were engaged to prepare an Acoustic Report (Appendix J) to assess the potential acoustic impacts to and from the proposed development, as summarised below. Renzo Tonin and Associates developed internal noise criteria for the development based on relevant Standards, Government Policies, Guidelines and Council Development Control Plans.

Road traffic noise from the Pacific Highway and rail noise from the adjoining rail corridor

The major source of noise intrusion was identified as road traffic from Pacific Highway and rail noise for the adjoining rail corridor. Renzo Tonin's assessment identified that the predicted road traffic and rail airborne noise levels would exceed the project specific criteria for noise, as further detailed in Table 5-4 of Appendix J.

Due to the predicted noise exceedances, Renzo Tonin and Associates have provided recommended design treatments to be incorporated in the detailed design. These include:

- Glazing treatment to the windows and external doors in accordance with Table 7-1 of Appendix J.
- Façade and roof sound insulation.
- Internal walls and floors shall comply with the National Construction Code of Australia 2022 (formally Building Code of Australia). All services and doors shall comply with the requirements of the NCC 2022.

Vibration from adjoining rail corridor

Floor induced vibration within the proposed residential spaces due to trains is expected to comply with the day and night vibration dosage values in the Department of Planning's "Development near Rail Corridors &

Busy Roads - Interim Guideline" 2008. Renzo Tonin and Associates recommend that a detailed vibration assessment is undertaken during the subsequent stage of detail to determine the scope and extent of building vibration isolation required.

Mechanical plant emissions impacting on existing neighbours

Renzo Tonin and Associates reviewed the NSW Environment Protection Authority (EPA) sets out noise criteria in its Noise Policy for Industry (NPfI) to control the noise emission. As details of mechanical plant has not yet been selected, Renzo Tonin recommend that an acoustic assessment of mechanical services equipment is to be undertaken during the detail design phase of the development to ensure that they shall not either singularly or in total emit noise levels which exceed the noise limits in established in Table 7-1 of **Appendix J.** It is anticipated that the mechanical noise emissions can comply with the project specific criteria.

GEOTECHNICAL 7.5.

Aargus have prepared a Geotechnical Site Investigation to assess the ground conditions and feasibility of the site from a geotechnical perspective (**Appendix A**).

Based on the proposed bulk excavation level of approximately RL 89.1m and from the results of the Geotechnical Investigation, the lowest basement level would be within firm to stiff to hard residual silty clay. Excavation is expected to be through the fill, and residual Clay soil. Excavation would be readily achieved using a large hydraulic excavator.

The groundwater is expected to be encountered a depth of 8m and will be up to 4.7m above the bulk excavation level. The basement will be located below the natural ground water table and require cutoff and dewatering during construction of the permanent structure. A water seepage analysis report prepared by Argus demonstrated that anticipated inflow rates are less than the expected maximum inflow rates allowed by Water NSW of approximately 3ML/year.

Similar to recently approved neighbouring sites within Willoughby LGA, the basement does not require tanking and a drained basement solution should be adopted from a geotechnical perspective.

7.6. STORMWATER AND FLOODING

Stormwater

Northrop have prepared a Stormwater Management Report which outlines the civil engineering requirement for the proposed development (Appendix Q). In summary, the civil engineering requirements for site include:

- Sediment and Erosion Control: A sediment basin is required to effectively capture sediment laden site runoff during siteworks. Sediment and erosion control measures should be installed and maintained for the duration of the construction works.
- Stormwater Infrastructure: an on-site stormwater detention tank is proposed in accordance with the Willoughby City Council requirements.
- Water Quality and Conservation: Water quality requirements will be achieved through the provision of pit baskets and filter cartridges, in accordance with the requirements of Willoughby City Council. A rainwater tank has been designed to reduce non-potable water demand.

Flooding

A Flooding Statement was prepared by Lyall and Associates (Appendix R) to assess the peak flood levels surrounding the site. Willoughby Council require basement carparking to be protected to the peak 1% Annual Exceedance Probability (AEP) level plus 500mm freeboard or the Probable Maximum Flood (PMF). whichever is higher.

Lyall and Associates used the Scotts Creek flood model as the basis for defining the nature of flooding in the vicinity of the subject property. The results showed that the peak 1% AEP flood levels plus 500 mm freeboard are higher than the corresponding PMF levels. Therefore, the peak 1% AEP plus freeboard will be used to assess flood proofing purposes.

However, Lyall and Associates have identified that based on the minor differences between peak 1% AEP and PMF flood levels, it is recommended that a reduced freeboard of 300mm to peak 1% AEP flood levels is utilised at the site (which is 200mm less than the typical Council requirement). The reduced freeboard of 300mm is appropriate as it will still provide between 100-200 mm freeboard to PMF levels.

Lyall and Associates conclude the site is appropriate for development, subject to the implementation of the 300mm freeboard at the site.

7.7. **SUSTAINABILITY**

A Green Star Strategy Report has been prepared by ADP Consulting and is provided at **Appendix S**. The Green Star Strategy Report outlines strategies and initiatives to guide the design and will be further developed in the detailed design stages of the project. The targets are for a highly rated environmental performance based on NABERS and BASIX frameworks which include:

- Whole Building:
 - NCC 2022 Section J, Energy Efficiency Compliance
 - 4 Star Green Star Buildings Rating
- Retail and Commercial:
 - 5.0 Star NABERS Energy
 - 5 Star NABERS Water
- **Residential Component:**
 - BASIX Water Target: at least 40% improvement above a reference benchmark (BASIX Certificate No. HR-4Q7LTR-01)
 - BASIX Energy Target: at least 25% improvement above a reference benchmark (BASIX Certificate No. HR-4Q7LTR-01)

The proposed building will be designed in accordance with the NCC 2022 Section J Energy Efficiency provisions and will consider energy efficient building services and optimized facade performance. The heating, ventilation, and air-conditioning systems will be developed to minimise the operational energy consumption of the proposal while providing the building occupants with a thermally comfortable space.

The design aims to achieve a 4-Star rating in the Green Star rating system, with an aspiration to reach 5-Stars using the new Green Star tool. The Green Star Buildings tool is more rigorous than the previous Green Star Design and As-built tool. Consequently, achieving 5-Stars in Green Star Design and As-built is comparable to reaching 4-Stars in Green Star Buildings.

7.8. HERITAGE

A Heritage Impact Statement (HIS) has been prepared by Urbis Heritage to determine the potential heritage impacts of the development on the heritage significance of the heritage items and conservation areas in the vicinity (Appendix L). The proposed development has been assessed to have an acceptable impact on the vicinity heritage items and conservation areas. Urbis Heritage concluded that:

- The subject site is not a listed heritage item and does not contain any elements of built heritage significance. All historic improvements on the subject site were demolished in the late twentieth century and the whole of the site was redeveloped between 1986 and 1991 with the existing high density residential development. The site was cleared of historic improvements entirely and excavated to provide the existing basement carparking and residential development. The existing improvements are not required to be retained on heritage grounds. The future demolition of the existing site improvements in line with the proposal will have no adverse heritage impact.
- The vicinity heritage items and heritage conservation areas are substantially distanced from the subject site. The proposed development will be consistent with the general uplift in density being experienced throughout the immediate vicinity and will not adversely impact, dominate or overwhelm the scale of vicinity heritage items.
- The proposed development will not affect views to, and from, the heritage items and conservation areas as they are substantially visually separated. Any inclusion of the subject development in existing views to heritage items will be as a far background element only and will not have an adverse impact as it will

merely contribute to the dense urban background view based on the already modified built landscape of the area – this will not have a negative cumulative visual impact from a heritage perspective. All heritage items will retain their existing curtilages, settings and ability for interpretation.

The proposed works will have no adverse impact on the integrity or streetscape of the vicinity conservation area as no works are proposed within the conservation area itself. Significant views associated with the C11 South Chatswood Heritage Conservation Area are inward facing and do not face towards the west towards the subject site, which is physically separated from the conservation area by a wide railway line corridor. This railway line corridor provides a physical and visual barrier between the conservation area to the east and the area of urban density to the west, effectively isolating the conservation area from any adverse impacts associated with urban development. The subject proposed development will not have an adverse impact on existing significant views within the conservation area.

Urbis Heritage conclude that the proposed works are recommended for approval from a heritage perspective.

7.9. TREE REMOVAL

The removal of 78 trees across the site is required to facilitate the proposed development. As outlined in the Arboricultural Impact Assessment prepared by Peake Arboriculture (**Appendix E**), this includes:

- Six street trees on Gordon Street of Medium Retention Value
- Two street trees on Gordon Street of Medium Retention Value
- Two trees that are located on the boundary with 15-19 Nelson Street of Low Retention Value.
- One tree that is located on the adjacent property of 15-19 Nelson Street of Low-Medium Retention Value.
- 67 trees within the development footprint that have low retention value.

Twenty trees on the site are to be retained and protected. Peake Arboriculture recommend that a Tree Protection Plan is to be prepared and a Site Arborist (AQF5) is to supervise the works within Tree Protection Zones during demolition and construction.

Further, the proposed Landscape Masterplan prepared by Land and Form includes a range of mature and endemic tree planting to offset any impacts from the proposed tree removal.

7.10. CONTAMINATION

The Detailed Site Investigation (DSI) prepared by Aargus at **Appendix H** evaluates the potential for site contamination based on historical land uses and investigates the degree of potential contamination.

Aargus' desktop study identified some areas of potential environmental concern on the site. This was in relation to imported fill of unknown origin, leaks of motor vehicles, and potential presence of hazardous materials in previous building structures.

The soil assessment confirmed some exceedances of heavy metal concentrations at some areas on the site. No asbestos was detected in soil samples. Aargus concluded that based on the results of their investigation, it is considered that the risks to human health and the environment associated with soil contamination at the site is low. The site is suitable for the proposed use, subject to the following:

- The preparation of a Remedial Action Plan (RAP) in accordance with EPA guidelines.
- Any soils requiring removal from the site should be classified in accordance with the "Waste Classification Guidelines, Part 1: Classifying Waste" NSW EPA 2014.

Aargus conclude that the site is suitable for the proposed development, subject to the implementation of the above mitigation measures.

7.11. UTILITIES AND SERVICES

ADP Consulting prepared an Infrastructure Report (**Appendix T**) that identifies the existing services and infrastructure within the vicinity of the site, establishes the impact on existing utility assets from the proposed development and the proposed augmentation connection required to service the proposal. These include:

- New Ausgrid chamber substation
- New incoming telecommunications feed from the frontage of the development site.
- Liaison with the Sydney Water Services Coordinator will confirm which main will be suitable for connection to serve the site, pending final confirmation from Sydney Water's Section 73 Notice of Requirements.
- Continued consultation with Jemena to confirm gas demands requirements.

In summary, the proposed development can be satisfactorily serviced. The proposed infrastructure upgrades outlined above will be implemented in consultation with the respective authorities at the detailed design stage to confirm the supply arrangement and modification.

SECTION 4.15 ASSESSMENT 8.

The proposed development has been assessed in accordance with the relevant matters for consideration listed in section 4.15 of the EP&A Act.

8.1. ENVIRONMENTAL PLANNING INSTRUMENTS

The proposed development has been assessed in accordance with the relevant State and local environmental planning instruments in **Section 6**. The proposal will result in a variation to the height of buildings and active frontages control under clause 4.3 and clause 6.7 of the Willoughby LEP 2012. The proposed variation is supported by a clause 4.6 exception to development standard, refer Appendix K and is considered appropriate based on the particular circumstances of this proposal.

8.2. DRAFT ENVIRONMENTAL PLANNING INSTRUMENTS

No draft environmental planning instruments are relevant to this proposal.

8.3. DEVELOPMENT CONTROL PLAN

Willoughby Development Control Plan 2006 provides detailed planning controls relevant to the site and the proposal. An assessment against the relevant controls is provided in Section 6.3 and Appendix U. The assessment concludes the proposal generally complies with the relevant provisions within the DCP. Where minor non-compliances are proposed, these matters has been assessed in detail and the proposed noncompliances are considered appropriate and can be supported by Council for the reasons outlined in Section 6.3.

PLANNING AGREEMENT 8.4.

A Voluntary Planning Agreement (VPA) relevant to 9-11 Nelson Street was executed on 20 October 2022. The VPA included the monetary payment to contribute to Council's community infrastructure and the registration of a 3m wide public easement along the eastern edge of the proposed building.

8.5. REGULATIONS

This application has been prepared in accordance with the relevant provisions of the *Environmental Planning* and Assessment Regulations 2021.

LIKELY IMPACTS OF THE PROPOSAL 8.6.

The proposed development has been assessed considering the potential environmental, economic and social impacts as outlined below.

Natural and Built Environmental Impacts

As discussed in Section 7, the proposal has been assessed considering the potential natural and built environmental impacts as outlined below:

- The proposal delivers the high-density mixed-use development envisioned for the site in accordance with the Chatswood CBD Strategy and site-specific Planning Proposal and DCP.
- The site is not located near any environmentally sensitive land and is not considered to have an adverse impact on nearby heritage buildings.
- The proposed built form and design of the building ensures that there will be no unacceptable impacts on the amenity of surrounding buildings regarding building separation and visual privacy, views and solar access.
- The built form design provides a high level of amenity including adequate solar access to apartments and private and communal open space that exceeds the requirements of the relevant planning controls.

Social and Economic Impacts

The proposal will deliver diverse social and economic benefits. These can be summarised as follow:

- The proposal will provide considerable public benefits and improve the pedestrian experience at the ground floor through the public domain works along Frank Channon Walk, outdoor dining options and the proposed pocket park at the northeast corner of the site.
- The ground floor retail tenancies and commercial podium level will generate increased job supply and improve commercial and retail offerings within Chatswood.
- The proposed development will deliver a mix of residential apartment and sizes which will contribute towards housing supply in Chatswood and Sydney.
- The proposal provides nine affordable housing apartments, as follows:
 - North tower: 03.03, 03.04, 04.03, 04.04, 05.03, 05.04
 - South Tower: 03.06, 04.06, 05.06
- Future residents of the development will benefit from excellent amenity with access to public transport, public open space at the northern lot and employment opportunities within St Leonards. The proposal will provide positive social and economic impacts to the immediate and wider communities.
- The proposal will deliver the public benefits in accordance with the executed VPA.

R.7. SUITABILITY OF THE SITE

The proposal is consistent with the DPE and Willoughby City Council policies for the site and surrounding area including the Greater Sydney Region Plan, the North District Plan, Willoughby LSPS and the Chatswood CBD Strategy. Further, the proposal is permissible in the MU1 Mixed Use zone and is consistent which the objectives of the zone:

- The site is located within the extended Chatswood CBD boundary, as nominated by the CBD Strategy. The proposed mixed retail, commercial and residential land use is compatible with the existing and future planned character of the centre.
- The large site area of 4,219m² has significant development potential given its ideal location within the CBD fringe in proximity to public transport links and services within Chatswood CBD core. The site is well suited to accommodate the proposed level density of residential development.
- The proposed development will facilitate improved activation to the surrounding public domain at ground floor and will enhance the character of the area through activated retail frontages.

SUBMISSIONS 8.8.

It is acknowledged that submissions arising from the public notification of this application will need to be assessed by Council.

PUBLIC INTEREST 8.9.

The proposed development is considered in the public interest for the following reasons:

- The proposal is consistent with relevant State and local strategic plans and complies with the relevant State and local planning controls.
- There will be no unacceptable environmental, social or economic impacts as a result of the proposed development.
- The proposal positively responds to the current and future character of Chatswood and will provide additional residential and commercial floor space that is strategically located within proximity public transport.
- The proposal will provide considerable public benefits and improve the pedestrian experience at the ground floor through the public domain works along Frank Channon Walk, outdoor dining options and the proposed pocket park at the northeast corner of the site.
- The proposal provides nine affordable housing apartments.

CONCLUSION 9_

This SEE has been prepared in support of a development application for a mixed-use development (comprising retail, commercial and residential uses) at 9-11 Nelson Street, Chatswood. The proposal delivers what was envisioned for the site in accordance with the Chatswood CBD Strategy.

The proposed development has been assessed against the relevant provisions of Section 4.15 of the EP&A Act and is considered appropriate for the following reasons:

- Satisfies the applicable local and state planning controls: The proposed development is generally consistent with the relevant planning controls. Where variations are proposed, the objectives and intent of these provisions have been met and the proposal is supported by two clause 4.6 variation requests.
- Responds positively to the surrounding site context: The proposal responds to the evolving high density mixed use residential tower urban context of the wider Chatswood CBD. As such the proposal would achieve a positive relationship to its surrounds.
- Has limited environmental, social, economic impacts: The proposed development will provide a positive social and economic contribution to Chatswood and will provide employment and housing opportunities within proximity to public transport and public open space. There will be no adverse environmental, social, or economic impacts as a result of the proposed mixed-use development.
- Is in the public interest: The proposal will provide a revitalised mixed-use development in an accessible location which responds to the character and setting of the surrounding buildings. The proposal will deliver public domain improvements and public benefits in accordance with the executed VPA.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the site and approval is recommended, subject to appropriate conditions of consent.

DISCLAIMER

This report is dated August 2023 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of VIMG (Instructing Party) for the purpose of Statement of Environmental Effects (Purpose) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A GEOTECHNICAL REPORT

APPENDIX B ARCHITECTURAL PLANS

APPENDIX C LANDSCAPE PLANS

APPENDIX D LANDSCAPE DESIGN REPORT

APPENDIX E ARBORICULTURE IMPACT ASSESSMENT

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