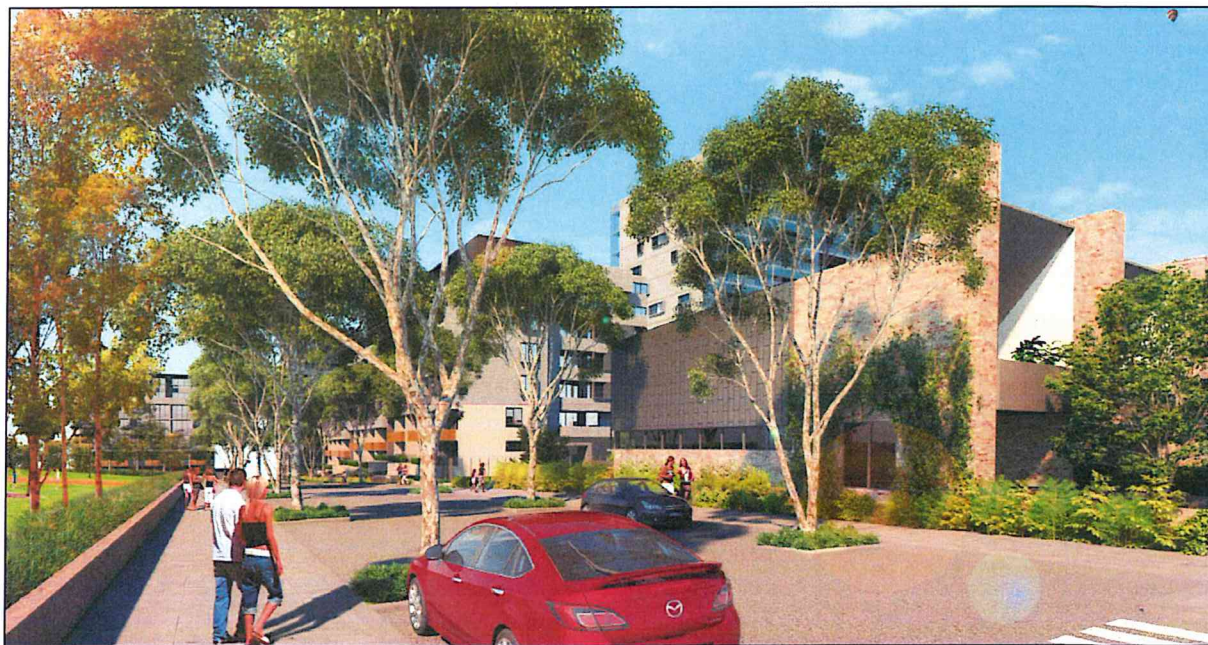




**Planning &  
Infrastructure**

**MAJOR PROJECT ASSESSMENT:  
Concept Plan for a Residential  
Development with ancillary uses  
Channel Nine Site  
6-30 Artarmon Road, Willoughby  
(MP10\_0198)**



Director-General's  
Environmental Assessment Report  
Section 75I of the  
*Environmental Planning and Assessment Act 1979*

January 2014

## ABBREVIATIONS

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CIV	Capital Investment Value
Council	Willoughby City Council
Department	Department of Planning & Infrastructure
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning & Infrastructure
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
LEP	Local Environmental Plan
LoS	Level of Service
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning & Infrastructure
PAC	Planning Assessment Commission
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PPR	Preferred Project Report
Proponent	Nine Network Australia Pty Ltd
RtS	Response to Submissions

Cover Photograph: Artist's impression of proposed development as viewed from Richmond Avenue

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## EXECUTIVE SUMMARY

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This is a report on a Concept Plan Application seeking approval for a residential development, including a small retail component, at the Channel Nine Site in Willoughby. The site is within the Willoughby Local Government Area (LGA).

The site is currently zoned "SP2 Infrastructure: Telecommunications Facility" under Willoughby Local Environmental Plan 2012, which prohibits retail and residential uses, although the authorisation of a Concept Plan for the site allows approval to be granted for prohibited land uses.

The proposal, as exhibited, sought Concept Plan approval for two similar options for the development of the site. Both options sought approval for a maximum floor space of around 59,100 sqm equating to a maximum of 600 dwellings and 1,500 sqm of retail or community floor space. The proposals included building envelopes for six to seven residential flat buildings four to 18 storeys in height above basement parking and up to 25 attached dwelling houses, as well as new publicly accessible open space, new access roadways, associated landscaping and infrastructure.

The Environmental Assessment (EA) was exhibited for 45 days between 3 April and 17 May 2013. The department received six submissions from public authorities, including Willoughby Council, and 270 public submissions including a petition signed by 2910 people objecting to the proposal.

On 3 October 2013, the proponent submitted a Response to Submissions and a Preferred Project Report (PPR). The revised proposal, as detailed in the PPR, seeks approval for a development with a maximum floor space of 47,840 sqm, including approximately 450 dwellings, 500 sqm of retail floor space, and 1050 sqm of additional floor space in an existing building to be retained on the site. In addition to the retained building, building envelopes for five residential flat buildings are proposed, ranging in height from five to 12 storeys, as well as two rows of terrace houses three storeys in height. Publically accessible open space, new access roadways and associated landscaping and infrastructure works are also included. The project has a capital investment value of approximately \$184 million.

In response to the PPR, the department received further submissions from public authorities, Willoughby Council, and 136 further public submissions.

The key issues identified by the department include density, built form (particularly heights), associated visual and amenity impacts, traffic and local road network impacts, and community infrastructure impacts. To assist with its assessment, the department sought the advice of the Government Architect in relation to urban design and visual impacts and independent traffic engineers in relation to traffic impacts.

In terms of built form and density, the department considers that subject to some modifications, the site is capable of supporting the scale of development proposed without adverse amenity or visual impacts. Recommended modifications to building envelopes include:

- stepping down in height of Building B towards the south to improve solar access to neighbours;
- increase in southern setbacks of Buildings E and G to support tree retention and provision; and
- reduction in height of southern end of Building G by 4 metres and stepping down height of Building C towards the south to reduce visual impacts.

In terms of traffic, the department considers that the proposal will not result in unacceptable traffic generation or congestion and that traffic safety issues can be appropriately addressed by future environmental assessment requirements. It is also considered that the proposal is capable of being supported by existing community infrastructure without undue strain on services.

The department is satisfied that the site is suitable for the proposed development and that the proposal will provide environmental, social and economic benefits to the locality. Subject to conditions recommended in this report, the proposal is considered to enable the provision of a good quality development consistent with local and regional planning strategies. In particular the proposed residential use will be more consistent with the residential character of the immediate area than the current use of the site, and will make a significant contribution to local housing stock, with good access to major centres in the near vicinity.

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## 1. BACKGROUND

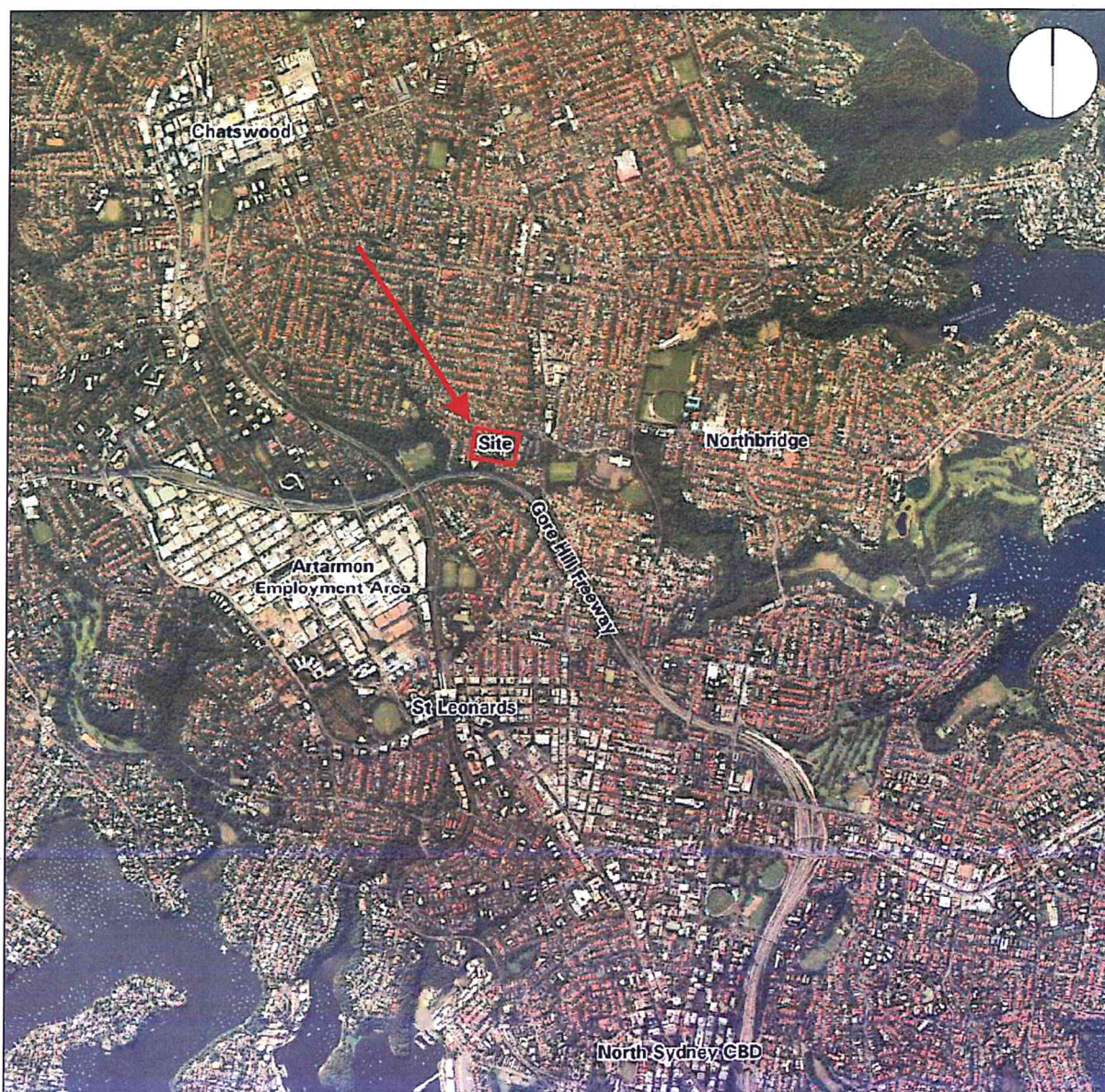
### 1.1 Site Description

The site is located on Artarmon Road in Willoughby, approximately six kilometres north of the Sydney CBD. This site is within the Willoughby Local Government Area (LGA).

The site comprises two distinct areas of land. The main portion of the site (referred to as the 'main site') has frontages to Artarmon Road and Richmond Avenue. It includes four allotments (Being Lot 1 DP 820327; Lot 1 DP 327266; Lot 10 DP 1162507; and Lot 13 DP 6849) as well as the land currently known as Scott Street.

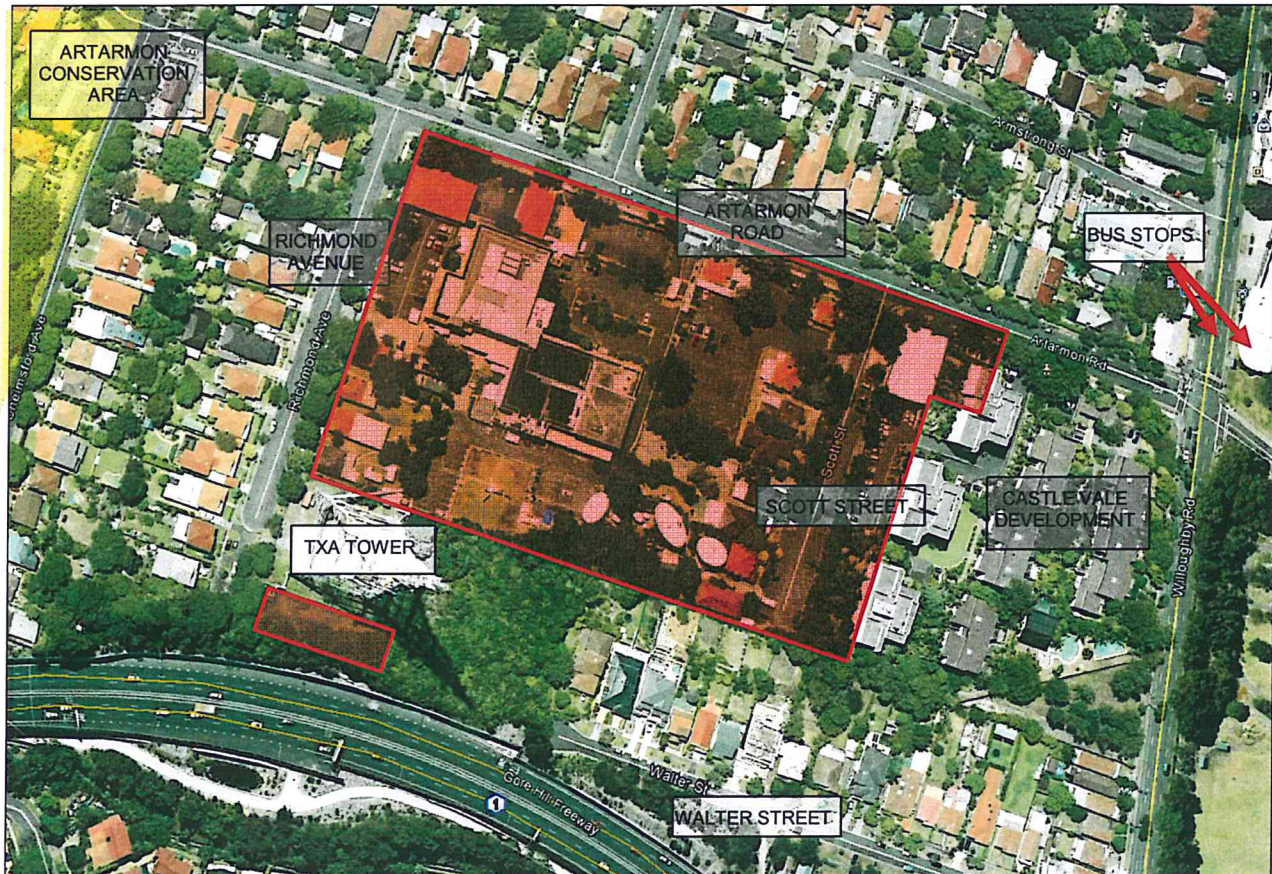
A separate lot (Lot 12 DP1162507) is located to the south of the telecommunications tower. Lot 12 has no road frontage and no development is proposed on this site, but the applicant has included it in the site for the purpose of potential future dedication to Council as open space.

The total combined site area is 3.06 hectares. The main site has a total area of 29,860 sqm and Lot 12 has a site area of 739 sqm. The project location is shown in **Figures 1 and 2**.



**Figure 1: Site Location** (Source: Proponent's Environmental Assessment)





**Figure 2: Aerial photo of site and locality** (Base image source: Google Earth)

The main land parcel steps in terraces from a high point at the north-western corner (at the junction of Artarmon Road and Richmond Avenue) to a low point at the south-eastern corner, with a total fall of nine metres. Part of the southern boundary is on a steep embankment which falls away to the Council reserve below.

The site currently accommodates a number of buildings which are used by the Nine Network for television production, broadcasting and administration uses. The two main buildings are a four storey commercial building and a four to six storey studio building. A total of 13 former dwelling houses are also located within the site along Scott Street and Richmond Avenue. They have been converted to office and storage spaces used by the Nine Network. Open car parking areas, a grassed helipad and large satellite dishes are also located on the site. Mature trees and landscape plantings are located throughout the site and along the Artarmon Road and Richmond Avenue frontages.

The Concept Plan site incorporates Scott Street which is currently partly under the ownership of Nine Network Australia and partly public roadway owned by Council. The proponent and Council have reached an agreement for the road to be transferred to a future developer of the site should the Concept Plan be approved.

To the east of Scott Street on Artarmon road is a two/three storey commercial building known as 'The Loft' which is proposed for retention.



## 1.2 Surrounding Development

The immediate locality is residential in character, and predominantly includes detached single storey dwelling houses, interspersed with some two storey dwellings. Dwellings are in a range of styles and eras but mainly include federation cottages and inter-war bungalows, typical of the Artarmon Conservation Area which is located 120 m to the east of the site. Other notable development in the immediate vicinity includes:

### *The TXA Broadcasting Tower:*

A 233 m high telecommunications tower is located immediately to the south of the main site and separates it from Lot 12 to the south. The tower is owned jointly by a number of television organisations for transmission services and will be retained. An easement for services benefiting the tower runs across the main site.

### *Walter Street Dwellings:*

Walter Street is a no-through road located to the south of the site. Around 10 dwellings share a rear boundary with the Channel Nine site. They are typically single and two storey dwelling houses (refer **Figure 8**). Due to the topography of the area, they are located downhill from the subject site. Recent amendments to the local planning controls now permit medium density development on these allotments.

### *Walter Street Reserve:*

The remainder of the site's southern boundary adjoins an undeveloped area of land under the control of Council. The reserve is a densely vegetated area of bushland.

### *Gore Hill Freeway:*

To the south of Walter Street and the reserve is the Gore Hill Freeway, a major freeway carrying in excess of 40,000 vehicles per day.

### *Castle Vale Development:*

To the east of the subject site is the 'Castle Vale' residential development. There is a significant change in level at the boundary between the two sites with a 12 metre retaining wall resulting in the subject site being elevated well above the Castle Vale site. Castle Vale incorporates seven residential flat buildings varying between three to eight storeys in height including approximately 160 dwellings and a small café. Buildings closest to the subject site are eight storeys in height (refer **Figure 6**).

### *Richmond Avenue and Artarmon Road:*

Development immediately opposite the site on Artarmon Road and Richmond Avenue is typically single storey detached dwelling houses, and with some attached and two storey dwellings. Dwelling on the northern side of Artarmon Road are typically elevated above the carriageway, in some cases by as much as four metres (refer **Figure 7**).

### *Artarmon Conservation Area:*

The eastern-most extent of the Conservation Area is one block west of the subject site. The character of the conservation area is also predominately single storey 1900-1940 dwelling houses including Federation style houses in red-brown brick with terracotta tiled roofs, to a variety of 1920s and 1930s bungalows, including typical Californian and Inter-war Bungalows.

### *Willoughby Road:*

Approximately 100 m to the east of the site is Willoughby Road which includes bus stops at its intersection with Artarmon Road. Bus services to the City, Chatswood, and Bondi Junction run at high frequency.



***Willoughby Leisure Centre and Hallstrom Park:***

To the east of the site, on the opposite side of Willoughby Road, is an area of open space and sporting facilities, including playing fields, netball courts and the Willoughby Leisure Centre which incorporates indoor recreational space and an indoor swimming pool. In 2012, Council exhibited a master plan for the upgrade of the centre, including new Olympic length and children's swimming pools, a new gym / health club facility, increased parking including a 162 space multi-level car park, improvements to the netball court facilities and other improvements. The master plan has not been adopted by Council and is likely to be redesigned and reconsidered in the future.

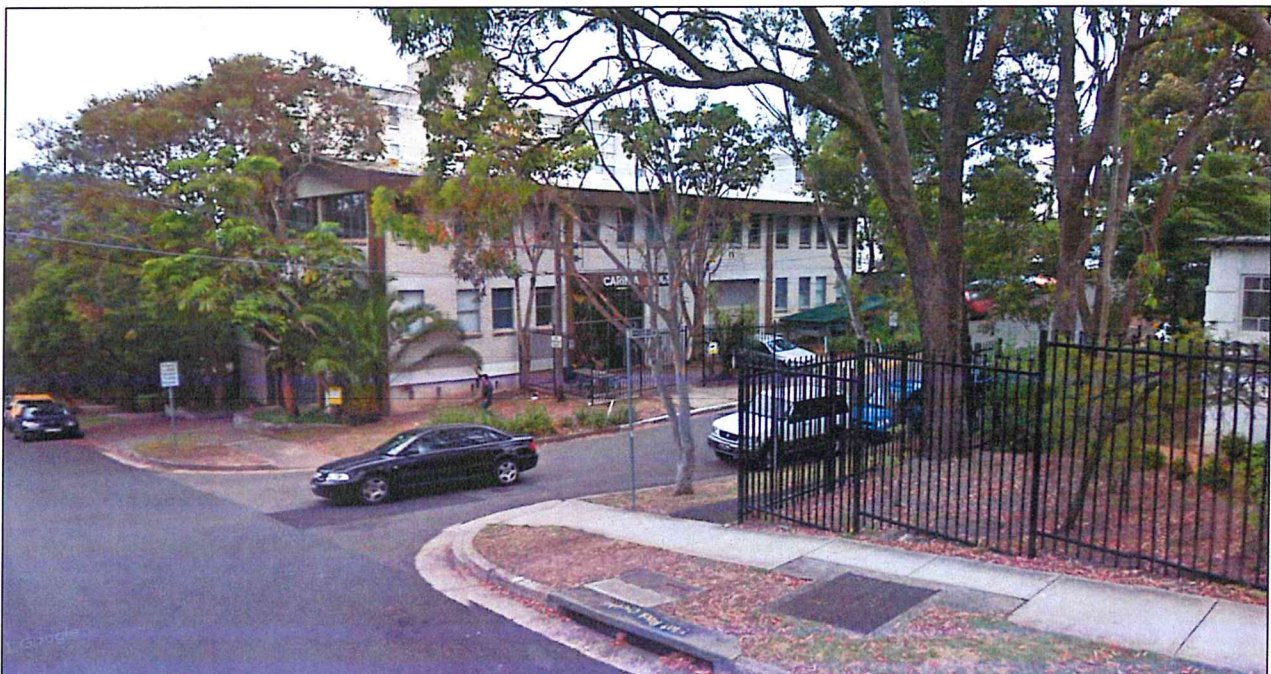
***Other Development:***

The nearest train station is Artarmon Station, being a 1.2 km walk to the west from the site. The nearest shopping centre including a full scale supermarket is at Northbridge, a 1.1 km walk to the east of the site.

Photos of the site and surrounds are provided in **Figures 3-9**.



**Figure 3: Existing site frontage to Artarmon Road (Source: Google Maps)**



**Figure 4: Existing 'Loft' building and entrance to Scott Street (Source: Google Maps)**



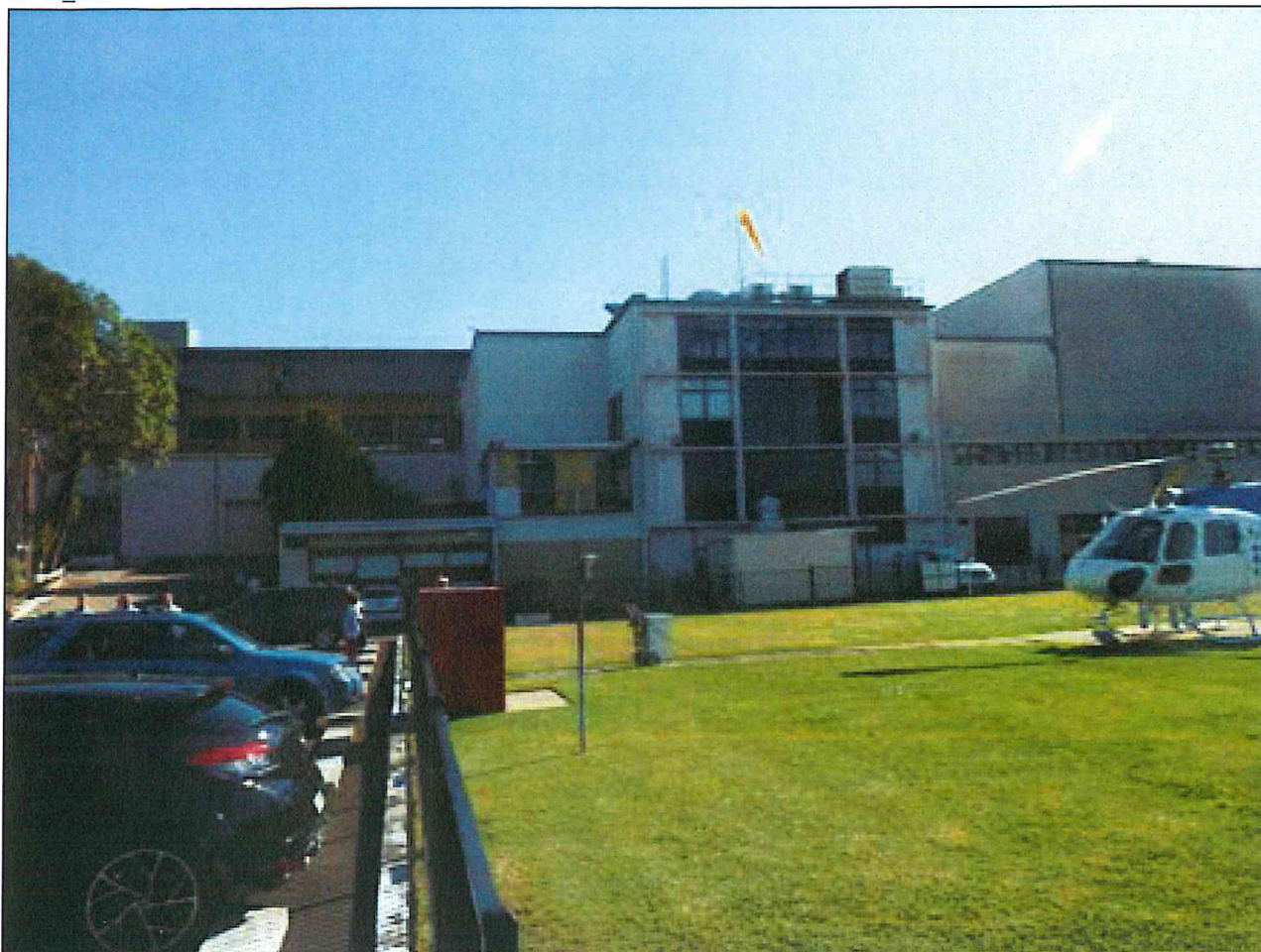
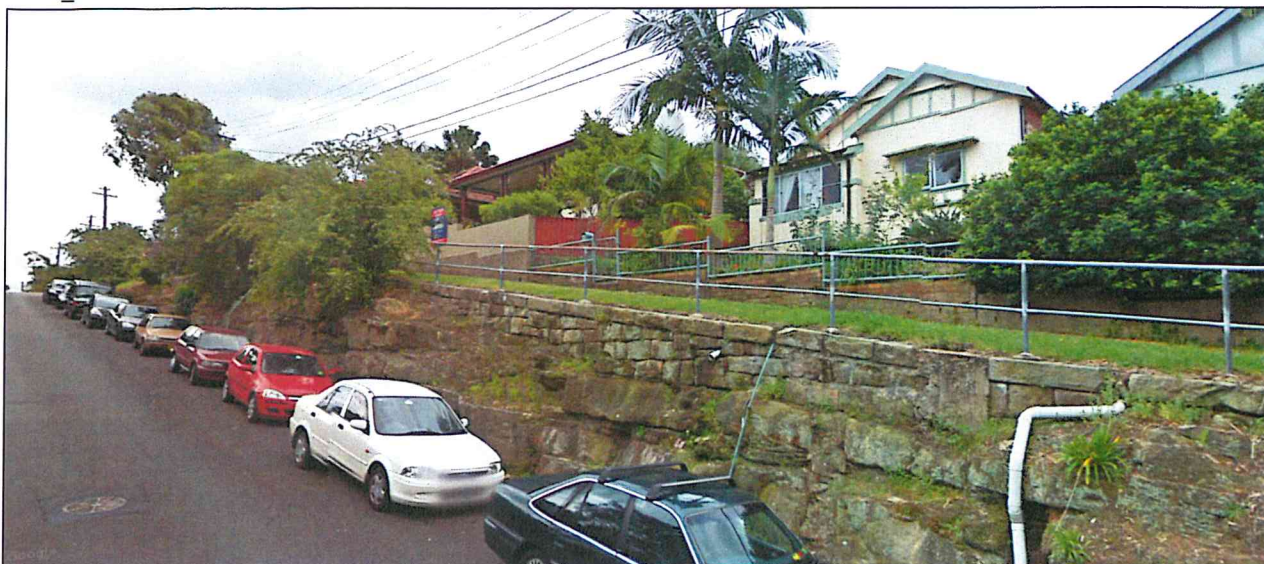


Figure 5: Existing buildings on the site as viewed from the south (Source: Proponent's EA)

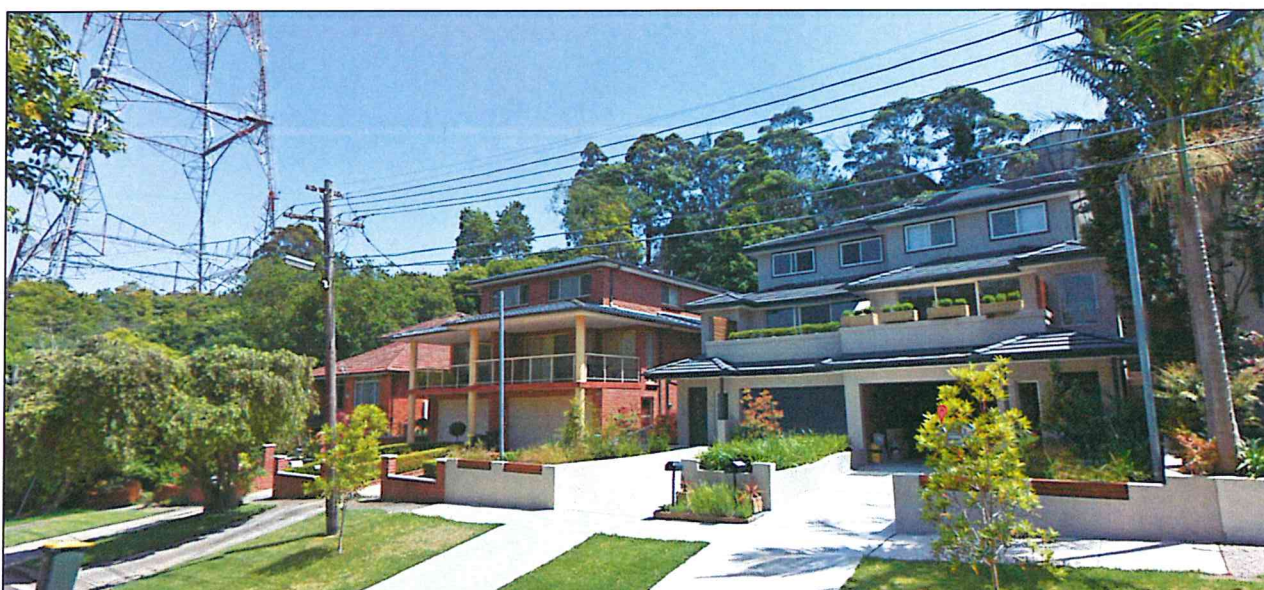


Figure 6: Adjoining 'Castle Vale' Development as viewed from Scott Street





**Figure 7: Houses on Artarmon Road opposite the site (Source: Google Maps)**



**Figure 8: Houses on Walter Street to the south of the site (Source: Google Maps)**



**Figure 9: Houses on Richmond Avenue to the west of the site (Source: Google Maps)**



## 2. PROPOSED PROJECT

---

### 2.1. Project Description

#### 2.1.1 Environmental Assessment (as exhibited)

The proposal as exhibited in the Environmental Assessment (EA) sought Concept Plan approval for two potential options for development of the site. Option A included Scott Street which is currently under the ownership of Council. Option B excluded Scott Street and was developed as an alternative option as Council's owners consent had not been granted at the time of lodgement of the EA.

Both options of the proposed development are outlined in the following:

##### Option A – Scott Street Included

- Demolition of all existing structures on the site;
- Building Envelopes for six residential flat buildings between four and 18 storeys in height;
- 25 attached dwellings two to four storeys in height;
- Basement level parking;
- Maximum Gross Floor Area of 59,117 sqm including up to 1,500 sqm of retail or community use floor space and equivalent to an FSR of 1.98:1;
- A 3250 sqm publically accessible park;
- Vehicular access from Artarmon Road and Richmond Avenue (north) and associated internal roadways;
- Associated landscaping; and
- Associated infrastructure, stormwater and utility works.

##### Option B – Scott Street Excluded

- Demolition of all existing structures on the site other than 'the Loft' building to be retained;
- Building Envelopes for seven residential flat buildings between four and 18 storeys in height;
- 15 attached dwellings two to three storeys in height;
- Basement level parking;
- Maximum Gross Floor Area of 59,195 sqm including up to 1,500 sqm of retail or community use floor space and equivalent to an FSR of 2.04:1;
- Two publically accessible parks: being 1,957 sqm on the Aratrmon Road Frontage and 1,166 sqm in the centre of the site;
- Vehicular access from Artarmon Road, Richmond Avenue (north) and Scott Street and associated internal roadways;
- Associated landscaping; and
- Associated infrastructure, stormwater and utility works.

#### 2.1.2 Preferred Project Report

On 3 October 2013, the proponent submitted a Preferred Project Report (PPR) and Response to Submissions which responded to a number of issues raised by the department following public exhibition of the proposal. The PPR incorporated Scott Street into the site, as owner's consent had subsequently been given by Council. The Concept Plan included a number of changes from the previous two options, including a reduction in building envelope sizes and a reduction in total dwelling numbers (from 600 to 450). The Concept Plan as proposed in the PPR is detailed in **Table 1**.

**Table 1: Key Project Components**

<b>Aspect</b>	<b>Description</b>
<i>Building envelopes</i>	<ul style="list-style-type: none"> <li>Indicative building envelopes for seven new buildings with maximum heights ranging from three to 12 storeys; and</li> <li>Retention of existing two/three storey 'Loft' building.</li> </ul>
<i>Gross floor area (GFA)</i>	47,840 sqm overall GFA including: <ul style="list-style-type: none"> <li>46,290 sqm of new residential floor space;</li> <li>500 sqm of non-residential floor space (retail/food and drink/indoor recreation); and</li> <li>1,050 sqm floor space in the Loft building for adaptive re-use.</li> </ul>
<i>Floor Space Ratio (GFA)</i>	1.6:1
<i>Permitted Uses</i>	Residential accommodation; neighbourhood shops; food and drink premises; recreation areas; community facilities; exhibition homes; exhibition villages; and recreation facility (indoor).
<i>Residential component</i>	<ul style="list-style-type: none"> <li>Indicative dwelling yield of 450 dwellings;</li> <li>4 per cent of floor space provided as affordable housing and dedicated to Council; and</li> <li>20 per cent of dwellings adaptable dwellings.</li> </ul>
<i>Non-residential component</i>	500 sqm of retail or recreation floor space located within Building F.
<i>Car parking</i>	Provided at the following rates: <ul style="list-style-type: none"> <li>0.5 spaces per studio;</li> <li>1 space per 1 and 2 bedroom units;</li> <li>1.25 spaces per 3 bedroom unit; and</li> <li>1 visitor space per 4 dwellings.</li> </ul>
<i>Open Space and Public Access</i>	Two publically accessible parks: one on the corner of Artarmon Road and Richmond Avenue (3,250 sqm) and one inside the site (1,160 sqm)
<i>Traffic and Infrastructure Works</i>	<ul style="list-style-type: none"> <li>New internal Roadways and public domain works;</li> <li>Raised pedestrian crossing and associated signage on Artarmon Road; and</li> <li>Stormwater infrastructure works on the site.</li> </ul>
<i>Staging</i>	Four indicative stages
<i>Subdivision</i>	Super-lot subdivision consistent with proposed staging
<i>Development Contributions</i>	To be paid in accordance with Council's s94 Development Contributions Plan at the time of future DA lodgement.

The amended proposal is depicted in **Figures 10, 11, and 12.**



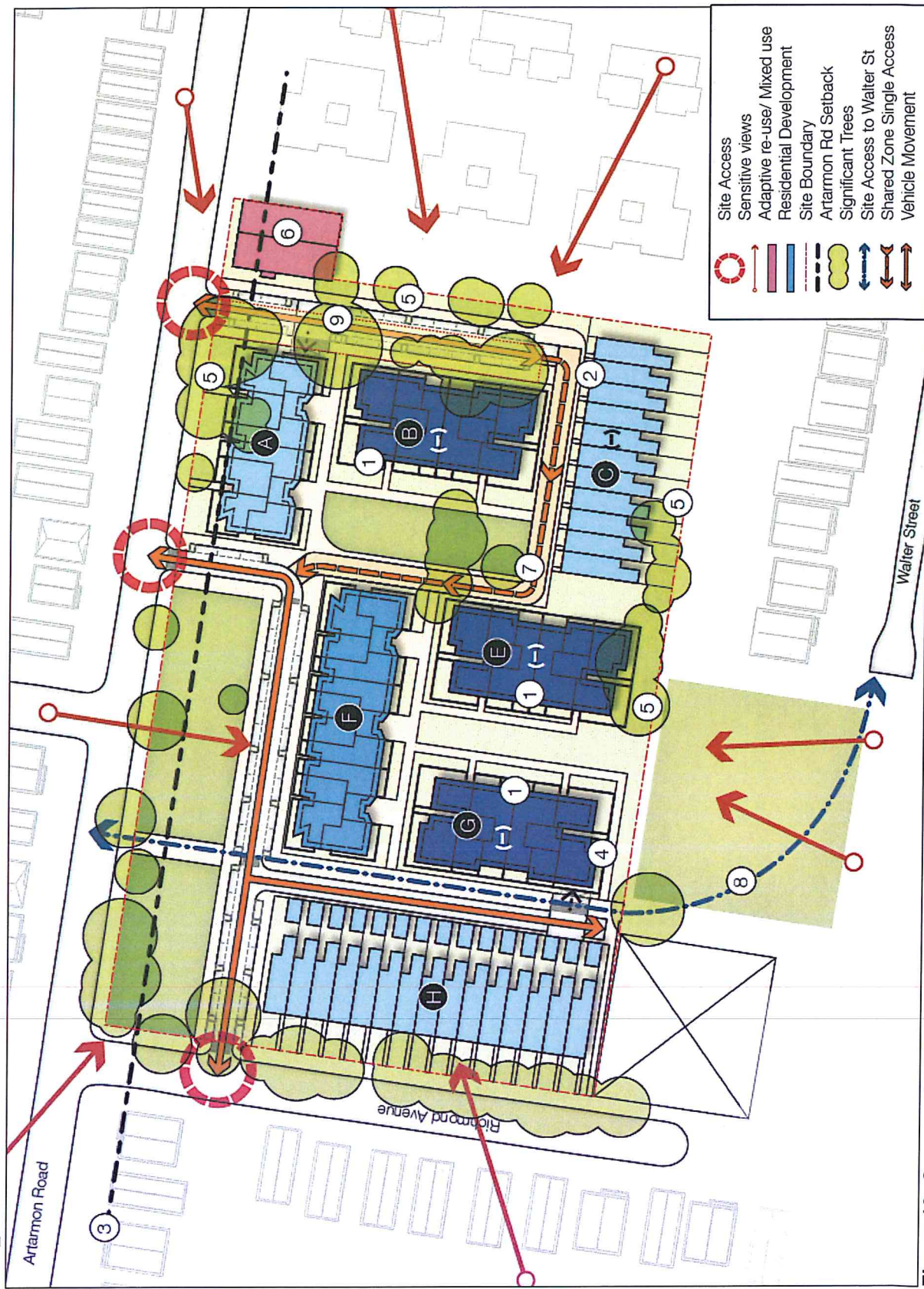


Figure 10: Concept Site Layout (source Proponent's PPR)



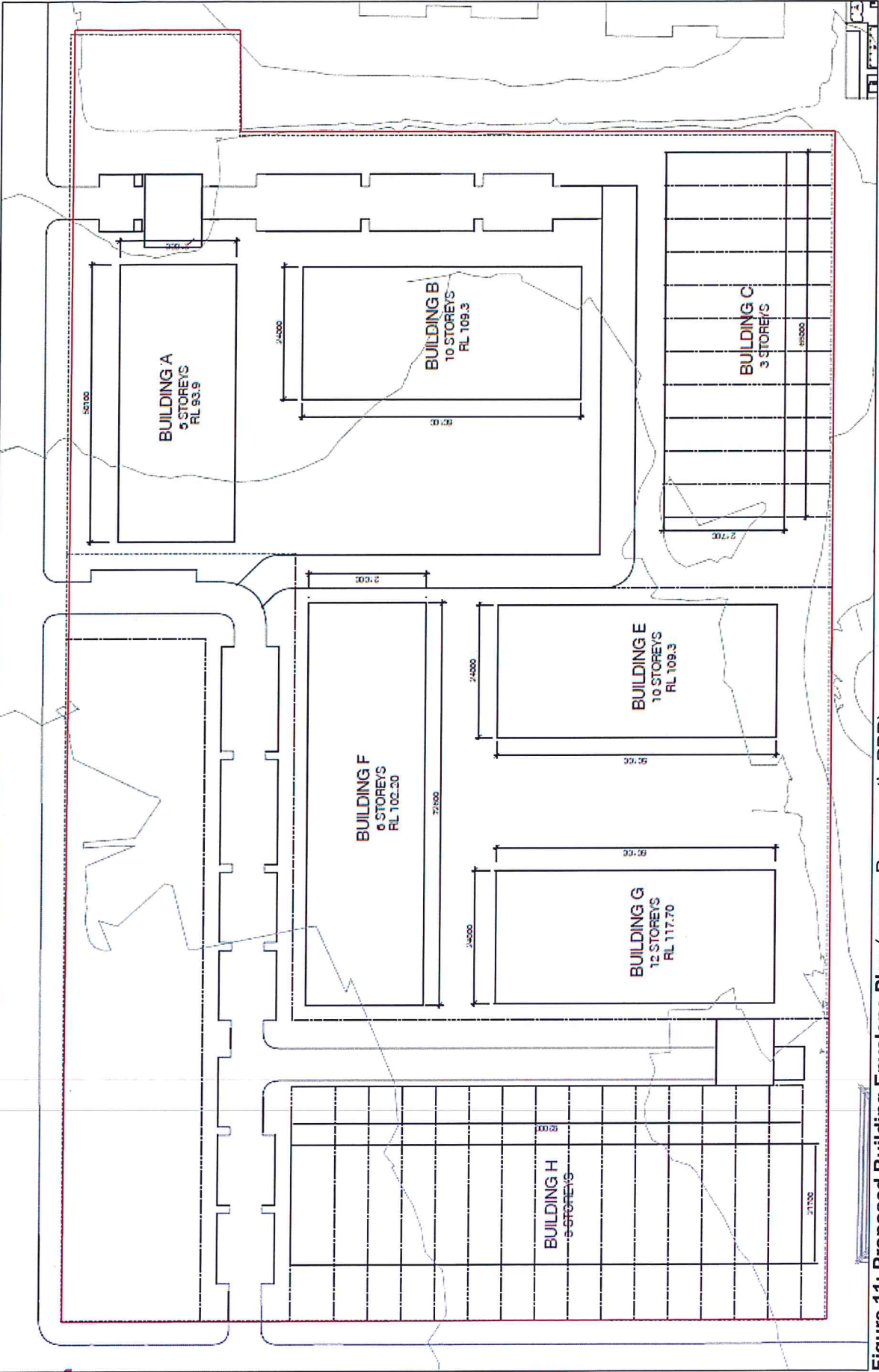


Figure 11: Proposed Building Envelope Plan (source Proponent's PPR)



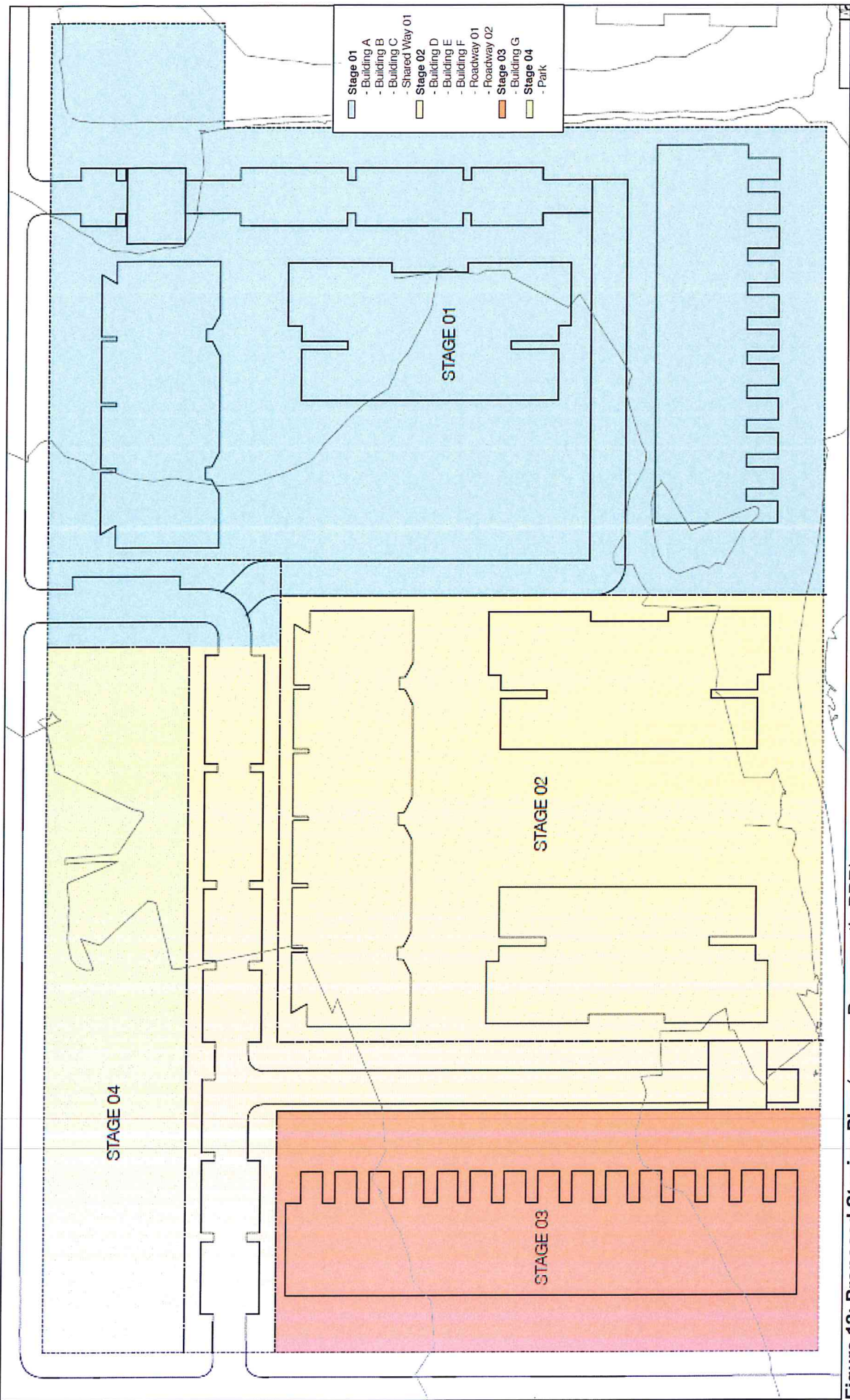


Figure 12: Proposed Staging Plan (source Proponent's PPR)



## 2.2. Project Need and Justification

### 2.2.1 NSW 2021

NSW 2021 is the NSW Government's strategic business plan for setting priorities for action and guiding resource attention. It is a 10 year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability and strengthen the environment and communities.

The introduction of high density residential flat buildings will increase the supply and variety of housing stock to help provide more housing choice in the Inner North subregion. The dedication of 4 per cent of the floor space as affordable housing units to Council will also contribute to housing affordability in the area, in accordance with Goal 5 of the Plan.

The sites location in proximity to the strategic centres identified within the plan, including Chatswood, St Leonards, North Sydney and Sydney CBD, will result in an increase in the proportion of the population within proximity to a strategic centre.

### 2.2.2 Draft Metropolitan Strategy for Sydney to 2031

The Draft Metropolitan Plan was released in March 2013 and sets out the Government's vision for Sydney to 2031. It aims to achieve balanced and sustainable growth for Sydney, including renewal in established suburbs and new greenfield development. Key goals include balanced growth, a liveable city, productivity and prosperity, healthy environment, accessibility and connectivity.

The Draft Metropolitan Strategy forecasts a population increase for Sydney of 1.3 million people by 2031. As a result, Sydney will need 545,000 additional dwellings and 625,000 new jobs across the metropolitan area. Within the 'Central' sub-region, which includes the Willoughby LGA, targets include an additional 138,000 dwellings and 230,000 jobs by 2031, with a target of 82,000 additional dwellings by 2021.

The proposal will make a significant contribution to the dwelling targets under the draft plan. Specifically, the proposal will provide up to 450 new dwellings in the locality and these apartments and dwelling houses will have good access to public transport, jobs and local services and facilities.

The proposed 500 sqm retail floor space will also make a small positive contribution to long term employment generation, in addition to an estimated 140 short term construction jobs resulting from the proposal.

The Draft Metropolitan Strategy, also specifically encourages housing intensification in the central subregion, particularly around centres and key corridors. In this regard, the site is considered to be well located, being within the 'Global Economic Corridor' and within close proximity to major centres of employment including the CBD (6 km), North Sydney (3 km) St Leonards (1.5 km) and Chatswood (2 km) as shown in **Figure 13**.

## 2.3. Concept Plan

The proponent has applied for approval of a Concept Plan under Section 75M of the *Environmental Planning & Assessment Act 1979* (the EP&A Act). The Concept Plan application seeks approval for the building envelopes and land uses described above in the section detailing the PPR.

Any further development of the site will require separate and detailed development applications to be submitted to Council for consideration.



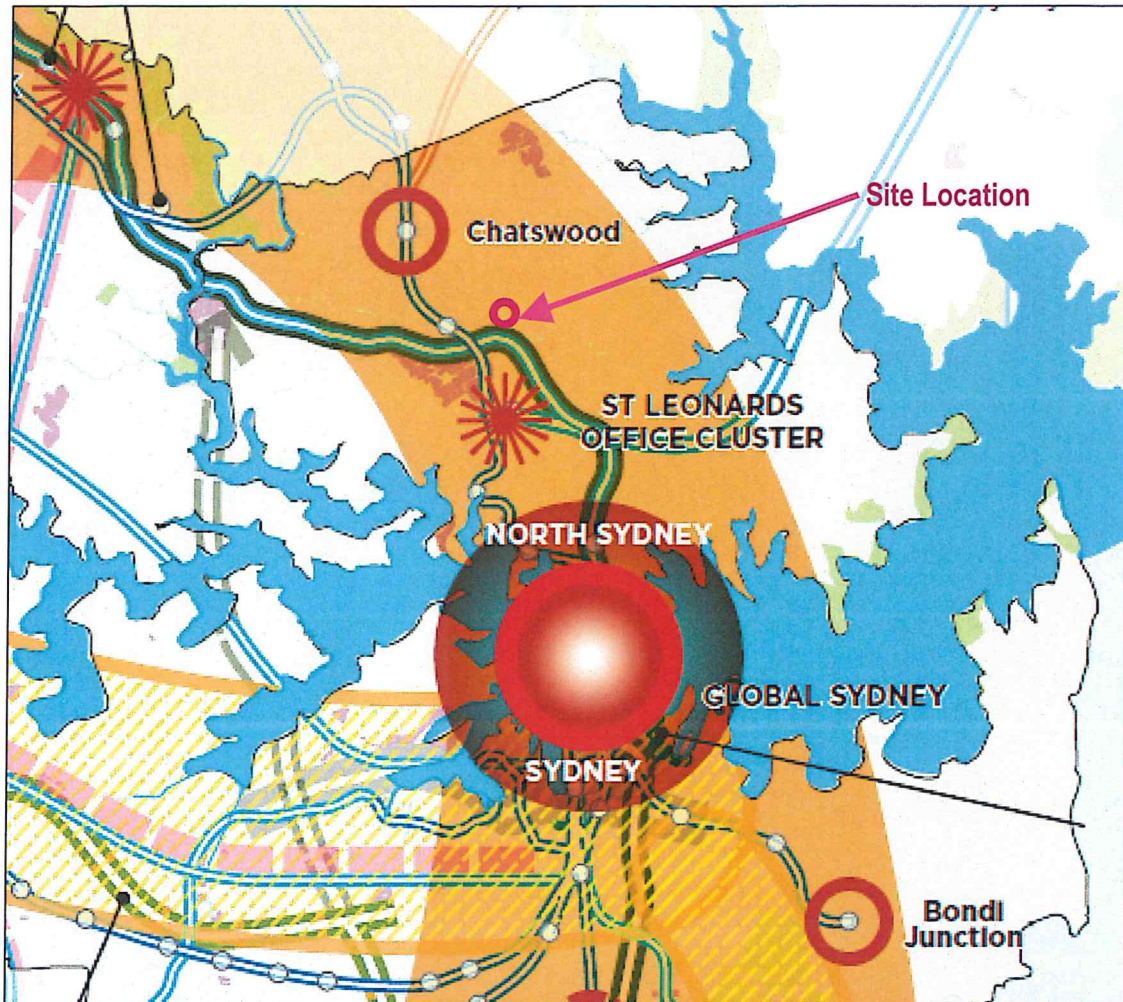


Figure 13: Extract from Draft Metropolitan Strategy showing location of site within the Global Economic Corridor

### 3. STATUTORY CONTEXT

#### 3.1. Major Project Declaration

The proposal is a Major Project under Part 3A of the EP&A Act because it is development for the purpose of a residential, commercial or retail project under the former provisions of clause 13 of Schedule 1 of the *State Environmental Planning Policy (Major Development) 2005*. The proposal has a capital investment value over \$100 million.

#### 3.2. Continuing Operation of Part 3A

Part 3A of the EP&A Act, as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the EP&A Act, continues to apply to transitional Part 3A projects. Director-General's environmental assessment requirements (DGRs) were issued for this project prior to 8 April 2011, and the application is therefore a transitional Part 3A project.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the project under Section 75O of the EP&A Act.



### 3.3. Determination Under Delegation

The Minister has delegated his functions to determine Part 3A applications to the Planning Assessment Commission (PAC) where an application has been made by persons other than by or on behalf of a public authority and:

- the relevant local Council has made an objection, and
- a political disclosure statement has been made, and
- there are more than 25 public submissions in the nature of objections.

In this case, Willoughby Council objects to the application and the department has received more than 25 public submissions in the nature of objections. Accordingly, the application is to be determined by the PAC under delegation from the Minister.

### 3.4. Related Development

The Part 3A declaration by the former Minister for Planning was for development of the 'Former Channel 9 Site, 6-30 Artarmon Road, Willoughby' and did not include the parcels of land incorporating Scott Street or 'Lot 12' to the south of the telecommunications tower. Lot 12 has been incorporated into the Concept Plan site so that options for its dedication to Council or pedestrian linkages can be explored as part of future applications. Scott Street has been incorporated into the site to improve site access and to ensure a more orderly land use and ownership arrangement. The department considers that incorporation of these sites and the proposed development on them are "related development" under the EP&A Act, and are therefore able to be considered as part of the Concept Plan proposal.

### 3.5. Permissibility

The site is subject to the provisions of the Willoughby Local Environmental Plan 2012 (WLEP). The site is zoned "SP2 Infrastructure: Telecommunications Facility". The proposed residential, and retail uses are not permissible in the zone which prohibits all development other than roads, telecommunications facilities and associated ancillary development.

Notwithstanding, the authorisation of a Concept Plan for the site allows the Minister or delegate to consider the proposal on its merits and give approval for prohibited land uses where the land is not in a defined sensitive coastal location or a defined environmentally sensitive area of State Significance. The site is not located within either of these locations.

In addition, the proposed land uses including, particularly the residential land use, but also the small scale retail use, is compatible with surrounding land uses which are predominantly residential in nature. The consideration of the proposal through the submitted Concept Plan application is therefore appropriate.

### 3.6. Environmental Planning Instruments

Under Sections 75I(2)(d) and 75I(2)(e) of the EP&A Act, the Director-General's report for a project is required to include a copy of, or reference to, the provisions of any State Environmental Planning Policy (SEPP) that substantially governs the carrying out of the project, and the provisions of any environmental planning instruments (EPI) that would (except for the application of Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the assessment of the project.



The proposal is considered to be generally consistent with the aims and objectives of the EPIs which apply to the site as discussed in Section 5 of this report. The department's consideration of relevant SEPPs and EPIs is provided in **Appendix D**.

### 3.7. Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of the Act, as set out in Section 5 of the Act. The relevant objects are:

- (a) *to encourage:*
  - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
  - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
  - (iii) *the protection, provision and co-ordination of communication and utility services,*
  - (iv) *the provision of land for public purposes,*
  - (v) *the provision and co-ordination of community services and facilities, and*
  - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
  - (vii) *ecologically sustainable development, and*
  - (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The proposed Concept Plan is consistent with the relevant objects of the EP&A Act. In particular:

- the benefits provided by the proposal, including the contribution to the housing stock within an accessible location, in close proximity to major centres with employment opportunities;
- the renewal of a dated commercial site which is nearing the end of its lifespan and is located within a residential area for new residential and ancillary development is an orderly and economic use and development of the site;
- the development of the site will allow for the provision of updated communication services in an alternative location better suited to the long terms needs of the industry;
- provision of an area of publicly accessible open space and a through site link achieves provision of land for public purposes; and
- the proposal includes the provision of affordable housing to the Council , as well as providing a mix of market apartments that will provide a range of housing options for future residents of varying income levels and household size.

### 3.8. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle,*
- (b) *inter-generational equity,*
- (c) *conservation of biological diversity and ecological integrity,*
- (d) *improved valuation, pricing and incentive mechanisms.*



The department considers that the proposal represents a sustainable use of the site, as it proposes increased residential accommodation within an established urban area with good access to public transport, amenities, services and employment. The recommended future assessment requirements will facilitate ESD opportunities as part of future applications including rainwater harvesting and other measures to meet energy and water efficiency targets. Further detailed consideration of relevant of ESD principles is included at **Appendix D**.

### 3.9. Statement of Compliance

In accordance with section 75I of the EP&A Act, the department is satisfied that the Director-General's environmental assessment requirements have been complied with.

## 4. CONSULTATION AND SUBMISSIONS

### 4.1. Exhibition

Under section 75H(3) of the EP&A Act, the Director-General is required to make the environmental assessment (EA) of an application publicly available for at least 30 days. After accepting the EA, the department publicly exhibited it from **Wednesday 3 April 2013** until **Friday 17 May 2013** (45 days) on the department's website, at the department's Information Centre on Bridge Street, Sydney and at Willoughby City Council Offices, Chatswood. The department also advertised the public exhibition in the Sydney Morning Herald, the Daily Telegraph and the North Shore Times on the 3<sup>rd</sup> April. The department also notified surrounding landholders, and relevant government authorities in writing.

The department received 276 submissions during the exhibition of the EA - six submissions from public authorities and 270 submissions from the general public.

On 4 October 2013, the PPR was referred to agencies and placed on the department's website. As the PPR was considered to have a lesser environmental impact, the PPR was not publically exhibited by any other means. Additional submissions were received from Council and two other agencies in response to the PPR. A further 136 submissions were received from the public.

A summary of the issues raised in submissions is provided below.

### 4.2. Public Authority Submissions

Six submissions were received from public authorities in response to the EA and a further three submissions were received in response to the PPR. Submissions were received from Council, Transport for NSW (incorporating both Roads and Maritime Services and Sydney Buses), Environment Protection Authority, Heritage Council of NSW, Department of Education and Communities, and Sydney Water. The submissions from public authorities are summarised in **Table 2** below.

**Table 2: Summary of Issues Raised in Public Authority Submissions**

Willoughby City Council	
EA	<ul style="list-style-type: none"><li>• Density and built form including height, building bulk and site coverage is excessive;</li><li>• Visual impacts, shadow impacts, privacy impacts, and heritage impacts arising from the built forms;</li><li>• Council suggest an alternative scheme with FSR of 0.8:1, dwelling yield of 250-300 dwellings and maximum heights of eight storeys and suggest specific changes to each building envelope;</li><li>• Does not support provision of child care centres on the site and recommends a maximum 500 sqm of non-residential floor area;</li></ul>



- Traffic generation issues require further analysis and Council suggests a range of road works required to support the proposal.
- Issues with quality of quantity of open space, issues with park design, staging and parking for park visitors;
- Do not want the park or any internal roadways dedicated to Council;
- Developer contributions should be provided at the rate of 3 per cent rather than 1 per cent due to extensive impacts of the development;
- Proponent should contribute to the cost of local school buildings; should provide a shuttle bus service to Artarmon Station and / or provide contributions towards Council's free shuttle service; should make contribution towards constructing new a cycleway; should provide pedestrian access through the site to a new bush track which should be provided in Walter Street Reserve;
- A vegetation survey is needed and landscaping along the southern boundary is inadequate;
- Transmissions from the tower need further assessment and may affect height limits of the proposed buildings;
- Proposal will result in the loss of employment generating land and jobs and is thus inconsistent with State Government Directions and Policies;
- Recommends commitments and terms of approval in relation to Aboriginal heritage, site contamination, sustainability measures, stormwater management, and noise mitigation;
- Affordable housing units should be provided to Council;
- More adaptable housing should be provided and unit mix should include more 3 bedroom units;
- Requests further assessment of traffic noise impacts;
- Raises issues with the level of consultation with Council and the community;
- Suggests a revised schedule of the Statement of Commitments and Terms of Approval; and
- Advises Council has not yet given land owners consent to the incorporation of Scott Street in the development site.

PPR

- Re-states many of the matters raised in the original submission and advises that the scale of the development is still unacceptable and requires further reductions;
- Suggests a revised preferred scheme for the site with maximum 300 dwellings, FSR of 0.8:1, maximum heights of eight storeys, reduced site coverage and recommend specific changes to each building envelope;
- Dwelling numbers should be capped for certainty;
- Suggests requirements to ensure adequate parking is provided including establishment of a car share scheme;
- Recommends the retention of a number of trees that have been proposed for removal;
- Questions the future use of the 'Loft' building and suggests a height control be applied; and
- Continues to raise concerns with road infrastructure upgrades, the need for easements to ensure public access; EMR impacts from the telecommunications tower, need for funding of school classrooms, funding of Councils shuttle bus service, contamination, affordable housing, adaptable housing sustainability, staging, stormwater management, consultation, and design excellence.



Transport for NSW	
EA	<ul style="list-style-type: none"> <li>The Transport assessment needs to consider capacity of bus services, as well as pedestrian and bicycle accessibility to bus stops and to the train station;</li> <li>Recommends a condition that construction impacts on bus services and pedestrian access be considered as part of the future Stage 1 application; and</li> <li>Consideration should be given to traffic impacts at the intersection of Richmond Avenue and Artarmon Road.</li> </ul>
PPR	<ul style="list-style-type: none"> <li>Has reviewed the PPR and is satisfied that the matters previously raised have been satisfactorily addressed.</li> </ul>
Environment Protection Authority	
EA	<ul style="list-style-type: none"> <li>The EPA has no objection.</li> </ul>
Heritage Council of NSW	
EA	<ul style="list-style-type: none"> <li>Supports the recommendations of the Statement of Heritage Impact that the use of Interpretation should be explored during the detailed design phase; and</li> <li>Recommends a commitment in relation to management of archaeological relics should they be discovered during construction.</li> </ul>
Department of Education and Communities	
EA	<ul style="list-style-type: none"> <li>Proposal would generate 40 additional school aged students, being equivalent to 1 – 2 classes; and</li> <li>Requests that provision be made to seek contributions towards providing additional permanent classrooms in nearby schools.</li> </ul>
PPR	<ul style="list-style-type: none"> <li>Advises that although new classrooms are proposed for the area, they do not take into account a future increase in enrolments as a result of the development;</li> <li>Estimates that the proposal will generate need for 2.5 additional classrooms in the area and requests contributions toward this; and</li> <li>Advises that the government has identified that they will introduce a Regional Infrastructure Contributions Bill, with the purpose of seeking contributions on brownfield sites for state infrastructure including schools.</li> </ul>
Sydney Water	
EA	<ul style="list-style-type: none"> <li>The proposal will require water and sewer works, specifically a water main extension; and potentially protection of, adjustments to, and amplification of existing wastewater mains which traverse the site; and</li> <li>These will be the subject of future Section 73 Certificate requirements as part of the future applications on the site.</li> </ul>



### 4.3. Public Submissions

270 submissions were received from the public in response to the EA, including a petition signed by 2910 people. All submissions objected to the proposal. The key issues raised in public submissions are listed in **Table 3**.

**Table 3: Summary of Issues Raised in Public Submissions**

Issue	Proportion of submissions (per cent)
Traffic generation & parking issues	75
Insufficient infrastructure/services/community facilities	74
Excessive height	64
Public transport impacts	50
Excessive density and overdevelopment	50
Overshadowing impacts	40
Pollution and EMR emissions	33
Insufficient community consultation	26
Visual Impacts	11
Heritage impacts	5
Noise	3
Safety	3

A further 136 submissions were received from the public in response to the PPR, of which 131 were in a similar pro-forma letter. The letter reaffirms the community's objection to the density and scale of the proposal, stating that it will have an unacceptable impact on the amenity and character of the area, and gives support to Willoughby Council's alternative proposal for the site.

The department has considered these issues in its assessment of the project in **Section 5** of this report.

### 4.4. Proponent's Response to Submissions

The proponent provided a response to the key issues raised by the public submissions in response to the exhibition of the EA.

The PPR included a number of changes from the previous two options, including a reduction in building envelope sizes (from maximum 18 storeys to maximum 12 storeys) and a reduction in total dwelling numbers (from 600 to 450).

The proponent's full response to submissions to the EA is included at **Appendix C**. The department is satisfied that the issues raised in submissions have been addressed and can be managed through the imposition of recommended modifications and future assessment requirements where necessary.



## 5. ASSESSMENT

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The department considers the key environmental issues for the project to be:

- density;
- visual impacts;
- residential amenity;
- traffic and transport impacts;
- open space and public domain; and
- impacts to community facilities and infrastructure.

### 5.1. Density

For the purpose of calculating density, the lot south of the telecommunications tower (Lot 12 DP1162507) has been excluded from the department's calculation of site area (**Figure 2**). The allotment is not incorporated in any of the Concept Plan drawings for approval and the proposal includes no changes to the allotment which is physically separated from the main site. The proponent advises that the allotment was included in the Concept Plan so that it could be considered for the purpose of future contribution arrangements or dedication to Council, but Willoughby Council has indicated no interest in owning the land. The dedication of the land will still be possible under future applications, although this appears to be an unlikely future outcome. As such, it is considered that inclusion of the allotment in the site area calculation would result in a distorted indication of the true density of the site and has therefore been excluded. Site area is thus calculated to be 29,860 sqm.

The proposal seeks a maximum floor space, inclusive of the existing loft building and future commercial / retail areas of 47,840 sqm. This equates to a floor space ratio of 1.6:1 for the site and a dwelling yield of 450 dwellings.

#### 5.1.1 Council and Public Concerns

The proposed density was a key issue raised by the general public in response to the EA. Residents were concerned about the impacts of density in terms of the increase in resident population, the scale of proposed buildings, traffic impacts and impacts to community services and infrastructure.

Council also raised density as a key concern. In Council's assessment, a density of 0.75 to 0.8:1 was considered to provide an appropriate transition between the lower scale built forms to the west of the site and the higher scale built forms, such as at Castle Vale to the east of the site. Council has also suggested that a maximum dwelling yield of 300 dwellings is more appropriate for the site.

#### 5.1.2 Proponent's Justification

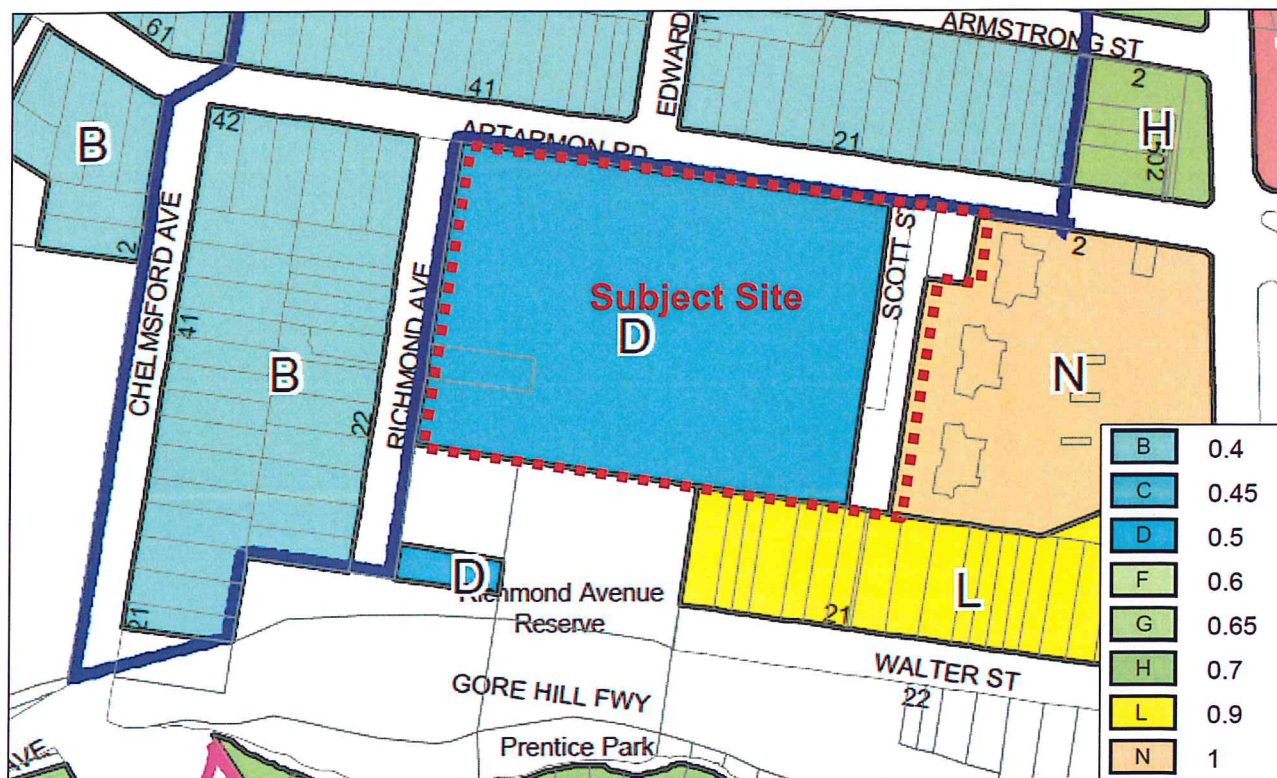
The proponent has justified the density on the basis of:

- the large size of the site enabling denser built forms towards the centre of the site and lower density development along sensitive boundaries;
- capability of the site to provide a high quality development in terms of public domain and building architectural design and finishes;
- consistency with regional targets for urban consolidation and priorities of increasing density in areas close to public transport and key employment and service areas;
- consistency with State Government policies to encourage greater dwelling diversity in established residential areas to improve affordability;
- delivery of public benefits in the form of high quality public space; and
- the ability to utilise existing infrastructure without the need for any major upgrades.



### 5.1.3 Departments Assessment

Willoughby LEP 2012 applies an FSR control of 0.5:1 to the site, however this is in conjunction with the existing zoning which envisages telecommunications facilities. As can be seen in **Figure 14**, residential development surrounding the site varies in density or floor space ratio (FSR) from 0.4:1 to 1:1.



**Figure 14: Extract from Willoughby LEP Floor Space Ratio Map**

The department supports the provision of increased residential densities and housing intensification in proximity to centres and within key corridors in line with the key objectives of the Draft Metropolitan Strategy.

In this regard, it is considered that the site is strategically located to provide for increased densities given its location within the 'Global Economic Corridor' and proximity to major centres including the CBD (6 km), North Sydney (3 km) St Leonards (1.5 km) and Chatswood (2 km). Further, the site is considered to be well serviced by public transport. Public transport is discussed in greater detail in **Section 5.3.2**, but it is noted that Willoughby Road is serviced by buses providing a direct service to the CBD via the Gore Hill Freeway (with travel times to the CBD of 10 -15 minutes), as well as services to Crows Nest, North Sydney and Chatswood, with buses departing every one to two minutes during the AM peak (direct buses to the city depart every four to five minutes).

The site is also well suited to provide increased densities due to the large area encompassed by the Concept Plan site and having much of its southern boundary adjacent to unoccupied land (Council reserve or telecommunications infrastructure). These features enable a greater density of development to be provided towards the central and south-western part of the site without significant adverse impacts to adjoining residential areas, including shadow impacts from the taller building envelopes which fall predominantly towards the reserve.

In considering the appropriateness of density on the site, the key issues are considered to be:

- built form and resulting amenity impacts;
- traffic impacts on the surrounding road network; and
- adequate provision of open space, public domain works and community facilities.



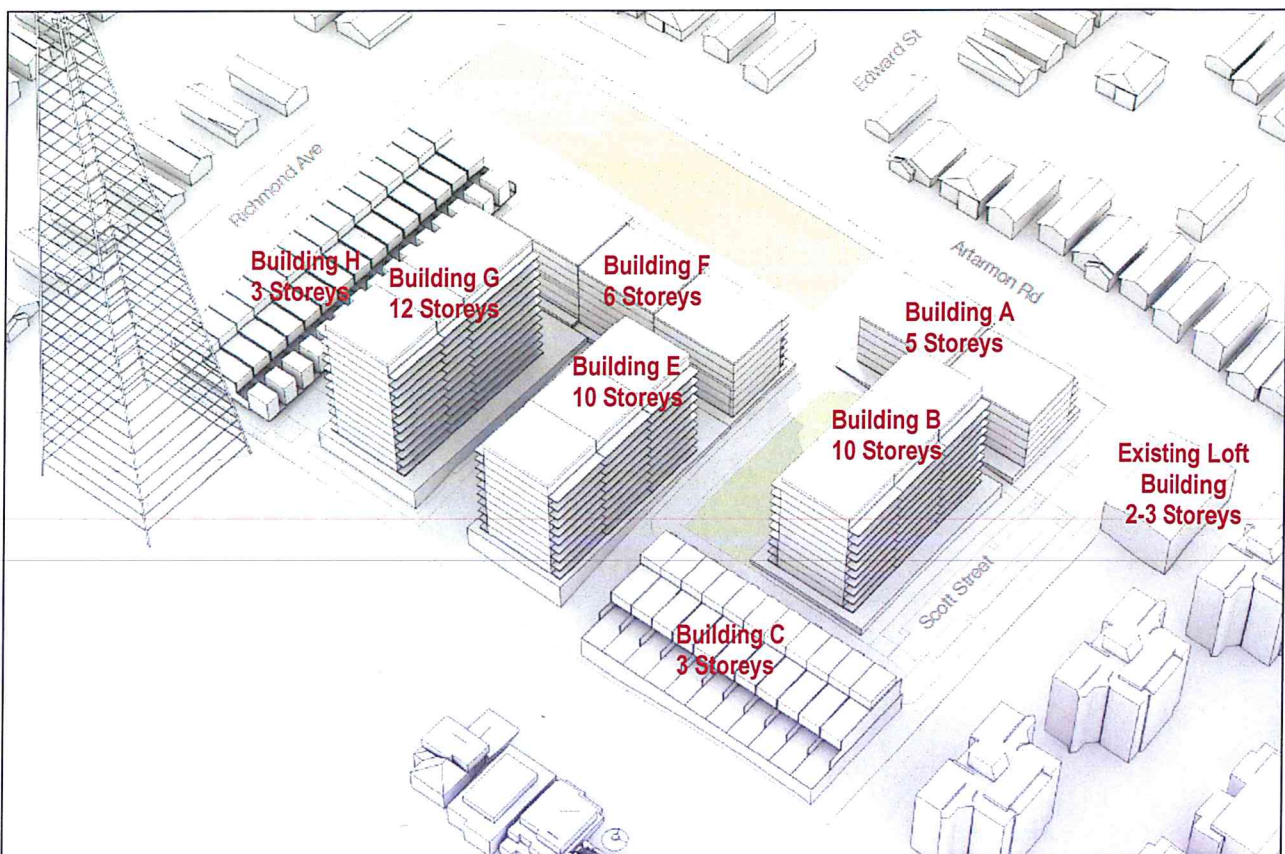
These issues are assessed in detail in this report (see **Sections 5.2, 5.3, 5.5, 5.6 and 5.7**). In terms of built form and amenity, it is considered that with some modifications, the site is capable of supporting the scale of development proposed without any unacceptable visual or amenity impacts. The assessment below also finds that the proposal will not result in unacceptable traffic generation, will make a positive contribution towards open space provision and will not result in undue strain on infrastructure and community facility provision. On this basis the department considers the site can support the proposed density (subject to modifications).

Although the proponent has indicated that the likely dwelling yield would be 450 dwellings, the proposal seeks a maximum quantum of floor space and requests flexibility in the number of units able to be provided on site, dependent on dwelling size and mix. The department considers that dwelling numbers should be fixed under the Concept Plan approval to ensure a level of certainty for the community and to ensure impacts will be consistent with the assessment which has relied on dwelling numbers not exceeding 450 (refer for example to the traffic impact assessment discussed in **Section 5.3**). The recommended terms of approval therefore include both a maximum floor space and a maximum of 450 dwellings.

## 5.2. Built Form Visual Impacts

Built form, particularly building height, and also building depths and setbacks, were key issues raised in public and Council submissions in response to the exhibition of the application. The application as exhibited included building heights ranging from three to 18 storeys and specific concern was raised in relation to the tower heights of 10, 14 and 18 storeys.

In response, the amended scheme in the PPR included reduced building envelope heights to a maximum of 12 storeys. Final built forms would be dependent upon building design at future DA stages, but **Figure 15** provides an overview of the indicative building forms sought under the Concept Plan. As can be seen in **Figure 15**, the proposal includes both two to three storey terrace houses as well as a number of large format residential flat buildings of varying heights.



**Figure 15: Massing Model indicating proposed storeys** (base image source: Proponent's PPR)



This section of the report considers the visual impacts of the proposed built form and compatibility with the surrounding environment. **Sections 5.3** and **5.4** below consider the amenity impacts of the built form to adjoining premises, and internally.

### 5.2.1 Council and Community Concerns

In response to the PPR scheme, Council and local residents have continued to raise concerns with the height and scale of the proposed building envelopes, as being excessive and out of context with surrounding development. Concerns are raised with the impact of the proposal as viewed from the south (from Naremburn, Artarmon Reserve, and from Walter Street properties), as well as streetscape impacts to Artarmon Road and as viewed from Edward Street and the nearby Artarmon Conservation Area.

The majority of submissions to the PPR (over 96 per cent of public submissions as well as Council's submission) have advocated that development on the site should not exceed eight storeys in height, consistent with the height of adjoining development at Castle Vale. Council has also suggested a range of other modifications to the proposed built forms, including reduction in building lengths to reduce building bulk, reduction in site coverage and removal of repetitive block scales.

### 5.2.2 Proponent's Justification

The proponent advises that any development on the site over four to six storeys will be visible from the surrounding area due to the site's positioning at the edge of a ridgeline, however the proposal in the PPR represents a substantial improvement to the visual impacts of the proposal. A view analysis demonstrating the bulk and scale of the proposed building envelopes as viewed from various locations has been submitted to demonstrate the reduction in visual bulk achieved by the PPR. The proponent considers that the height reductions are substantial and result in a suitable balance between reducing bulk and scale and providing diverse housing types in a location with good access to open space, employment, services and transport.

The proponent also notes that the actual width and depth of future apartment buildings will not 'fill out' the proposed building envelopes, and that the envelope size proposed would allow for greater building articulation, flexibility and variation to building massing. The proponent notes that future applications would be subject to the requirements of the Residential Flat Design Code (RFDC) and SEPP 65 which include consideration of appropriate building depth.

### 5.2.3 Government Architect's Assessment

The department engaged the Government Architect to review the Concept Plan and to assist the department with its assessment of the urban design aspects of the proposal. The Government Architect's reports in relation to the EA and PPR schemes are attached at **Appendix E**. The Government Architect provided advice on a range of aspects of the proposal, but in relation to visual impacts, the Government Architect recommended that heights should be reduced to a maximum of 10 storeys, with a maximum of six storeys on the eastern and southern boundaries in line with tree heights. Further, it was recommended that podiums or other methods be used to provide a height transition between proposed Building G and the adjoining low scale terrace dwellings. The Government Architect also recommended that different designers be engaged to provide a broader palette of design techniques and materials across the site.



## 5.2.4 Department Assessment

As described above in **Section 5.1**, the department considers that due to the large area of the site and limited residential development along the southern boundary, the site is capable of supporting increased densities (and therefore larger building forms). The department considers that the site should provide a variety of building forms, and supports the concept of providing taller buildings towards the central and south-western part of the site located away from adjoining development with smaller buildings to provide a more sympathetic transition toward sensitive boundaries.

Each individual building envelope is considered in detail below. However, it is noted that the visual impacts would also be influenced by the quality of the design, articulation to building massing within those envelopes, and architectural detailing, to be considered as part of future development applications. The department considers that impacts would also be reduced where the buildings are distinctive from each other in design, rather than homogenous designs and finishes across the site which can result in buildings presenting as a single bulky mass when viewed from a distance. As such, future assessment requirements requiring future applications to demonstrate design excellence, as well as variation in design have been incorporated into the recommendation.

In addition, it is noted that the section drawings submitted with the PPR indicate the potential for a number of the proposed basement car parks to protrude above ground level to account for the slope of the site. This would have the result of elevating the proposed buildings above existing ground levels, thereby unnecessarily increasing their height, in conjunction with the adverse visual impacts from the presentation of basement carpark walls adjoining public domain area. Basement and finished floor levels will also be determined at the development application stage and it is considered that through careful design and stepping of built forms in accordance with the existing topography, all basement car parks could be located below both existing and proposed finished ground levels, ensuring the best outcome possible in terms of building height and presentation. A future assessment requirement has therefore been incorporated into the recommendation to this effect.

The department also considers that all buildings should have the main pedestrian entrances facing a roadway to facilitate clear street address and drop offs / pick-ups. As shown on the Concept Plans, potential pedestrian entrances are located on facades facing away from the roadways, and as such a future environmental assessment requirement is recommended to ensure appropriate location of entrances.

The specific visual impacts from each of the individual proposed envelopes is discussed below.

### *Building A*

The building would present as five storeys in scale and has its main frontage to Artarmon Road (refer **Figure 16**). Council has suggested the building should be reduced in height to ameliorate visual impacts and to create a better visual relationship with properties on the opposite side of Artarmon Road. The Government Architect has raised no concerns with the height of the building.

The department considers that the proposed five storey envelope is appropriate in the context of the immediate streetscape, which is made up of a variety of built forms including the adjacent 'Loft' building which presents as three storeys to Artarmon Road and is visually prominent due to its unarticulated façade and narrow setback (refer to **Figure 4**), and the adjoining eight storey Castle Vale development. It is not considered necessary to try to relate the scale of the proposed building to development on the opposite side of the street, which is distinctively different in character and is visually separated from the site by the relatively wide carriageway of Artarmon Road and the fact that those residences are elevated approximately 3 to 4 metres above the carriageway (**Figure 7**).

With a front setback of nine metres, the envelope allows for sufficient front boundary landscaping to partially obscure and soften the appearance of the building as viewed from properties on the



opposite side of the street and as such it is not considered that any unacceptable visual impacts will arise to those properties as a result of the size of the building envelope.

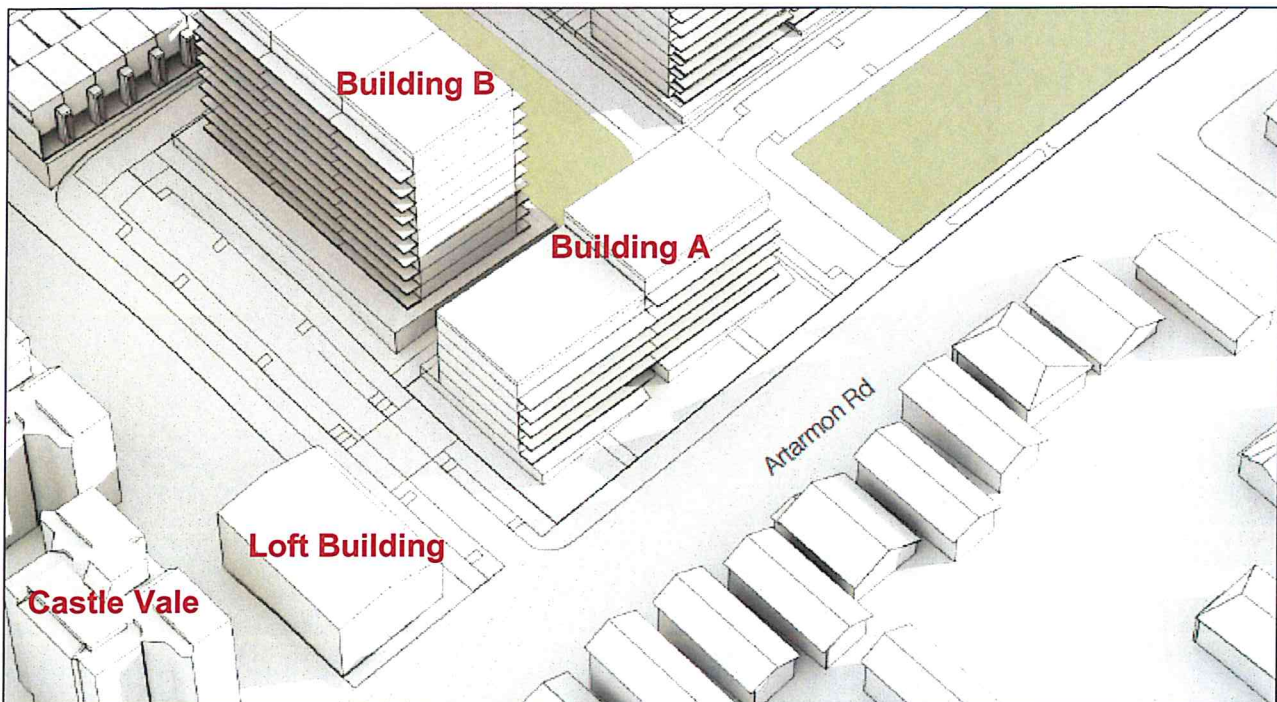


Figure 16: Massing Model indicating Buildings A and B (source: Proponent's PPR)

#### *Building B*

Building B is proposed to be ten storeys in height. Council has suggested it should be eight storeys to reduce the visual impact as viewed from Artarmon Road as well as from Naremburn to the south. As discussed below in **Section 5.3**, a modification to the proposed building envelope is recommended to reduce the overshadowing impacts of the building to dwellings on Walter Street. Specifically it is recommended that the building step down in height toward the south. Final height would be determined by shadow analysis as part of a recommended modification, but it is anticipated that the southern façade of the building would need to be reduced to a height of six or seven storeys in order to achieve the required solar access outcome. This would also have the effect of reducing the visual impacts of the building, both in terms of more distant views of the site (refer **Figures 17** and **22**) and in terms of its visual dominance as viewed from adjoining properties in Walter Street (refer to **Figure 18**). This is considered to result in a better visual outcome for neighbouring premises than a reduction to eight storeys across the entire building (as suggested by Council).

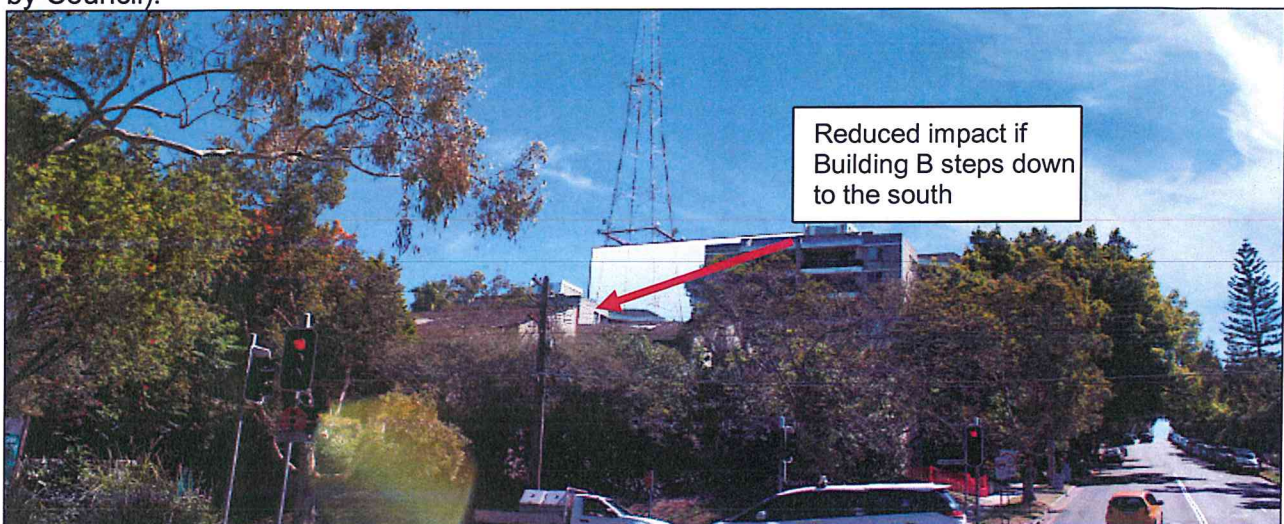
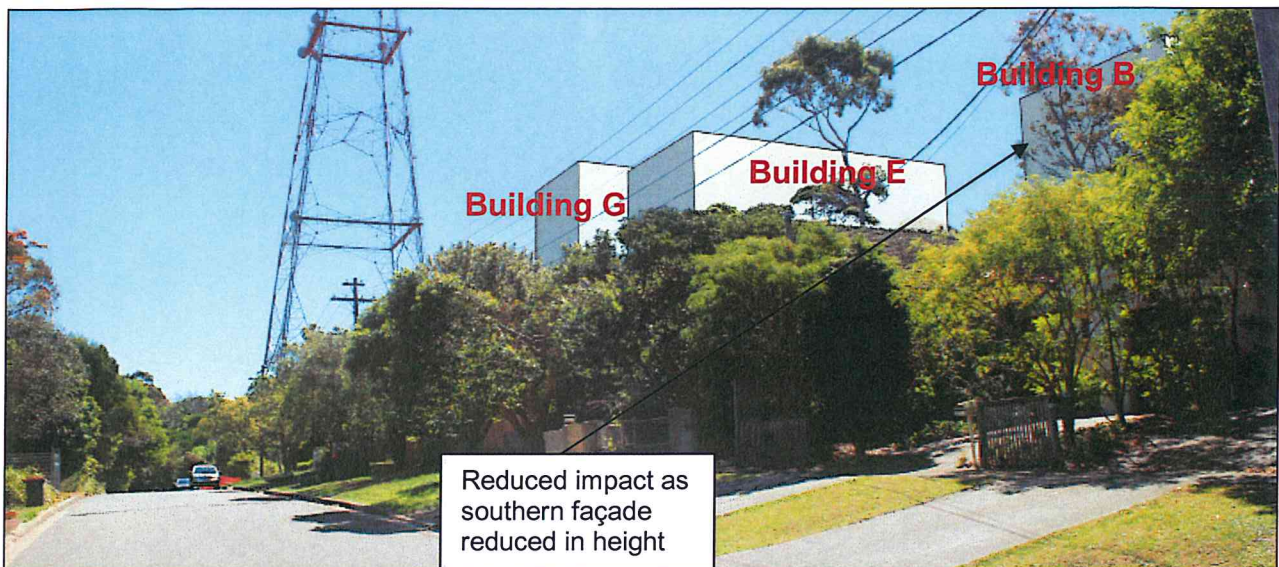


Figure 17: View from Artarmon Road / Willoughby Road intersection (source: Proponent's PPR)

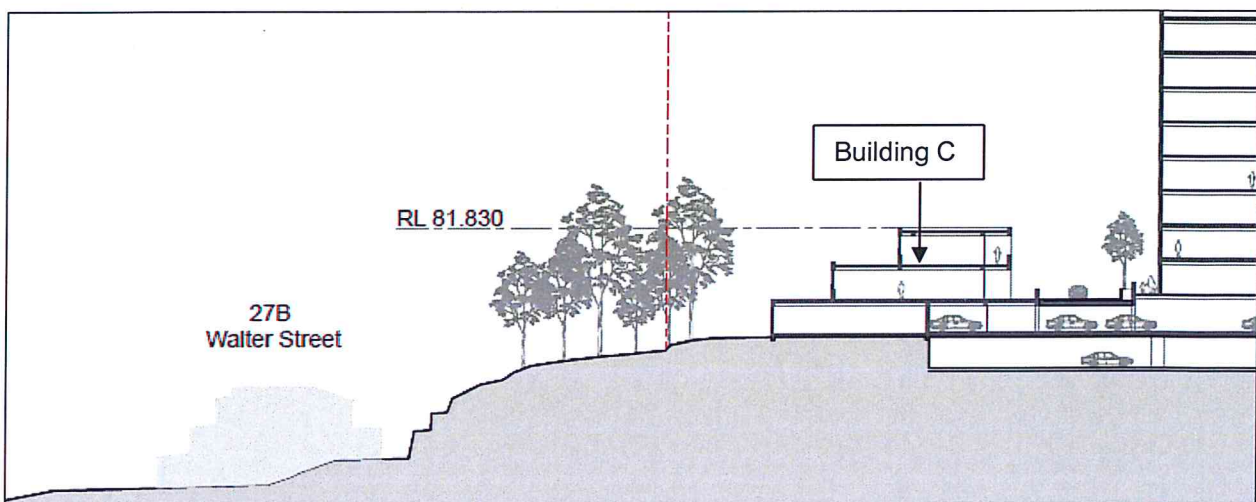




**Figure 18: View of Building Envelopes G, E and B from Walter Street** (source: Proponent's PPR)

### *Building C*

Building C would present as a row of terrace houses with a maximum height of three storeys in proximity to the southern boundary, and elevated above the level of the properties on Water Street to the south. No issue was raised by Council or the Government Architect with the height of the building. Sections submitted with the PPR indicate the building would step down in height to the south (refer **Figure 19**), although the Envelope Plan does not depict any stepping in built form. Providing the building massing steps down to the south as shown in the section below, it is not considered that the proposed envelope would result in any adverse visual impacts. A modification to the building envelope to ensure a stepped building form is therefore recommended.



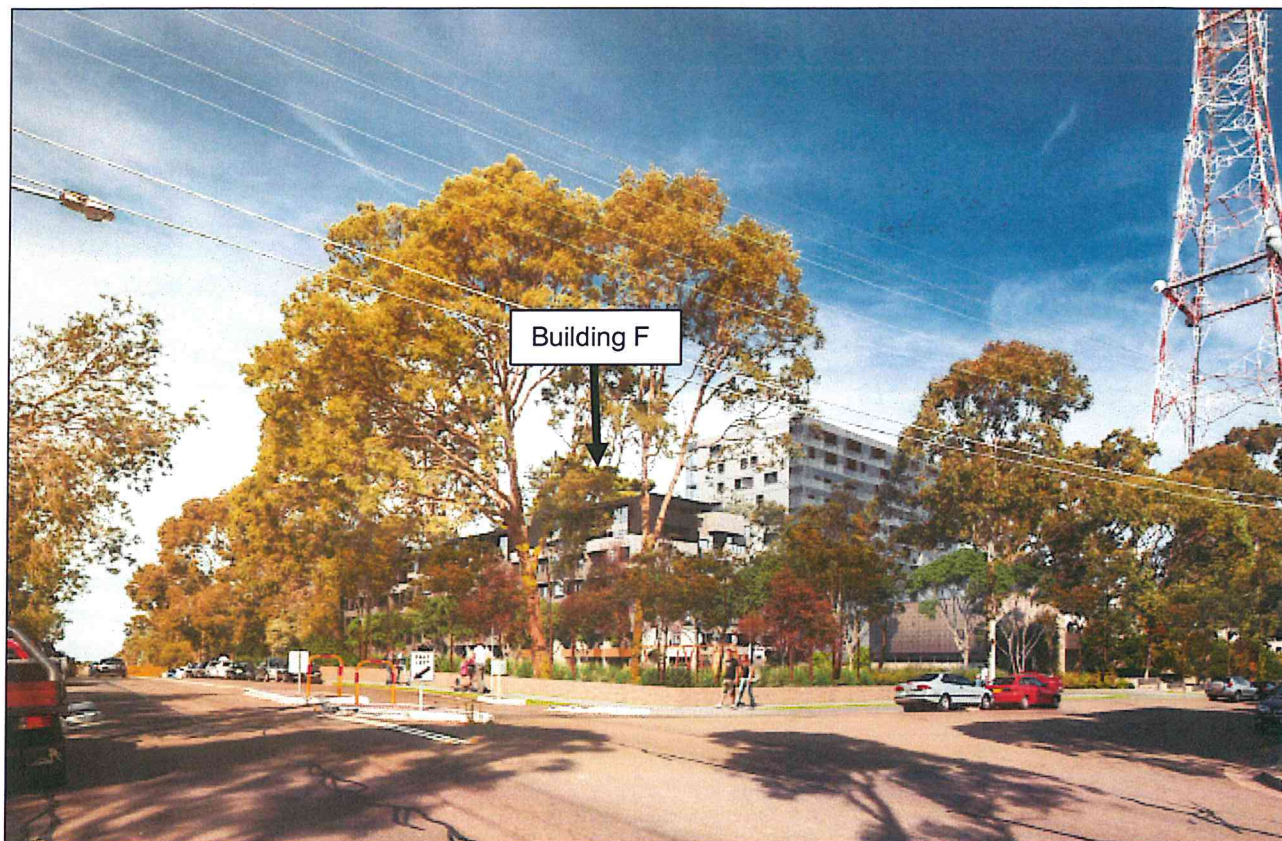
**Figure 19: Building 3 in Section** (source: Proponent's PPR)

### *Building F*

Building F would be located in the central part of the site and would present as six storeys, visible from Artarmon Road and Edward Street but set back behind the proposed new park and internal roadway. Council has raised no concerns with the height but has recommended the footprint be reduced by a third to provide a visual corridor through the site from Edward Street and allow for improved solar access to the communal open space between Buildings E and G. The Government Architect has raised no concerns with the height of the building.



Solar access issues are considered below in **Section 5.4**. The department considers that given the significant setback from Artarmon Road (43 metres) and the ability to provide substantial intervening street tree planting and open space planting, the proposed height and scale of the building would not be unduly dominant or result in any adverse visual impacts from Artarmon Road or Edwards Street (see **Figure 20**). Any visual impacts arising from the length of the envelope could be resolved by appropriate modulation and articulation at the design stage, assessed as part of any future development application. In addition, two view corridors through the site would be provided on either side of the building, and it is not considered necessary that the building footprint be reduced to provide a further view corridor through the site.



**Figure 20: View from Artarmon Road near Richmond Avenue** (source: Proponent's PPR)

A further issue raised by Council is that the proposed building envelope would permit a building height of 22.8 metres, being more than is necessary for a six storey building. The department considers that although it may be possible to provide a six storey building two to four metres lower than the proposed envelope, from a visual impact perspective, height is not considered to be as critical in this part of the site. The envelope allows for flexibility in design such as the potential to incorporate innovative roof features other than a flat roof, subject to acceptable solar access outcomes. Further, as discussed above, to ensure buildings are not artificially elevated above existing ground levels, despite the higher envelope RL, a future assessment requirement is recommended requiring that all basement car parks be located below both existing and finished ground levels.

#### *Building H*

The building would present as terrace houses to a maximum height of three storeys along the western boundary on Richmond Avenue. No concerns have been raised with respect to the proposed envelopes and the department considers the envelopes would result in an appropriate scale of development fronting Richmond Avenue.

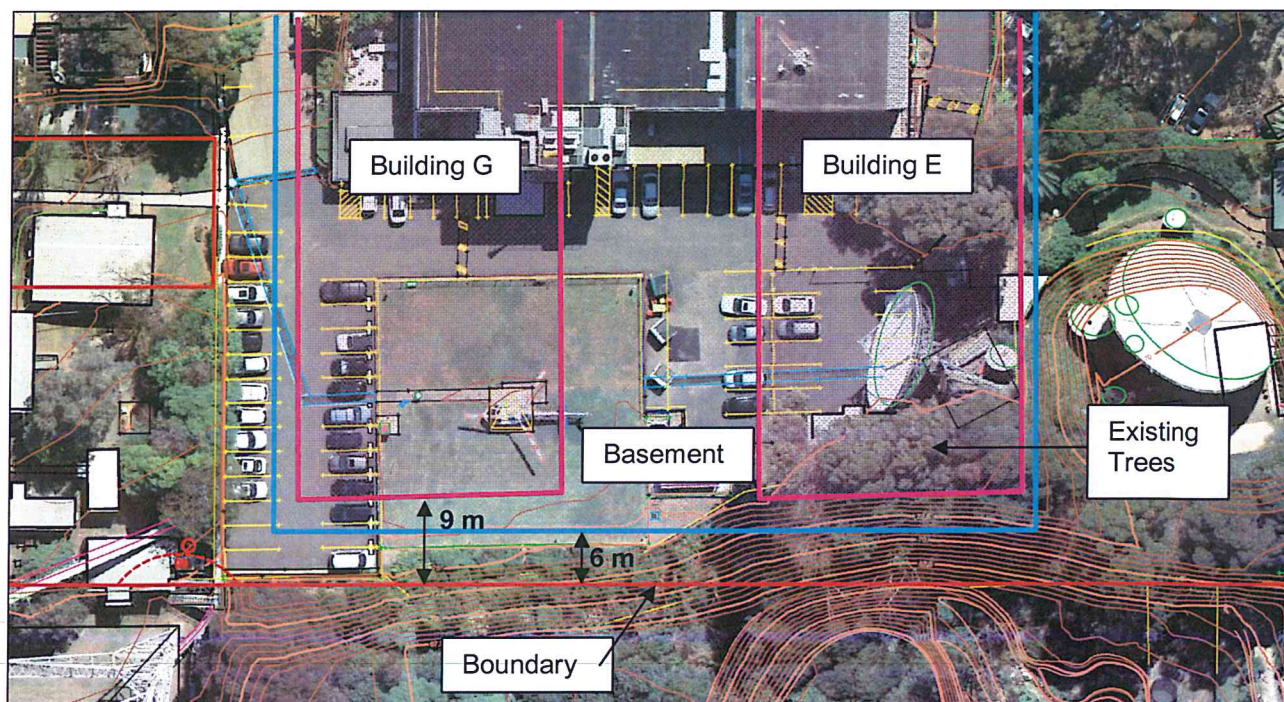


### Buildings E and G

Buildings E and G would be the most visible buildings on the site, presenting as 10 and 12 storeys respectively. Council and the community have requested that they be reduced to eight storeys and their footprints be reduced by a quarter, by setting them further back from the southern boundary to reduce visual impacts from all directions, but particularly from the south. Council has also raised a concern that the proposed building envelope for Building G would permit a building height of 42.4 metres, being more than is necessary for a 12 storey building.

The buildings would be most visible as viewed from the south, both in terms of distant views from the suburb of Naremburn on the opposite side of the Gore Hill Freeway and beyond, and from more immediate views from the dwellings on Walter Street. The proposed envelopes would have a setback of around nine metres from the southern boundary with the Council reserve, and the basement levels a setback of just six metres. The topography at this point is steeply sloping, essentially a steep embankment falling away to the south (refer to **Figure 21**).

The department considers that the location of the buildings so close to the edge of the embankment is problematic for a number of reasons. In terms of Building E, it will result in the loss of a number of existing large trees that are considered worthy of retention (refer to detailed discussion of trees in **Section 5.6.4**), and should be retained to screen the proposed built form (refer **Figure 22**). It will also result in the basement being located beyond the embankment, thereby being exposed to view from the reserve and presenting a tall sheer wall exacerbating the visual impacts of the building. In terms of Building G, and as demonstrated in the sections provided with the PPR, the proximity of the building to the southern boundary would reduce the viability of providing new significant trees within the southern boundary setback capable of reaching a height necessary to substantially mitigate the likely visual bulk impacts associated with the apparent height and scale of the building as viewed from the south (see **Figures 22 and 23**).



**Figure 21: Approximate location of proposed Buildings E and G (outlined red) and basement (outlined blue) with contours shown (base image source: InSites survey)**



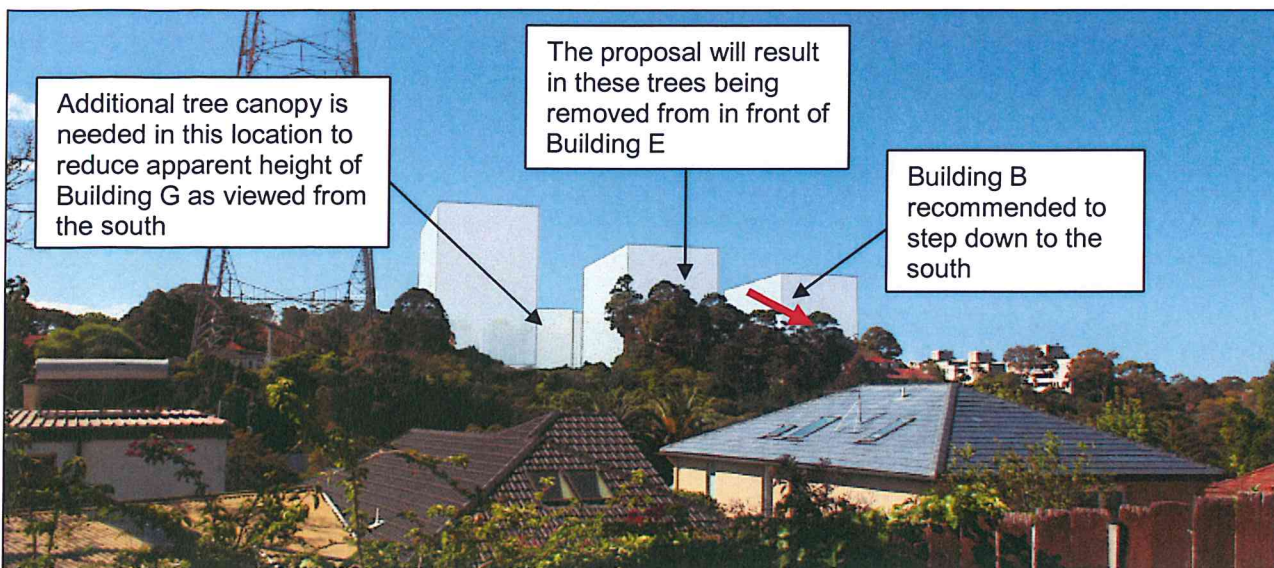


Figure 22: View from Naremburn (source: Proponent's PPR)

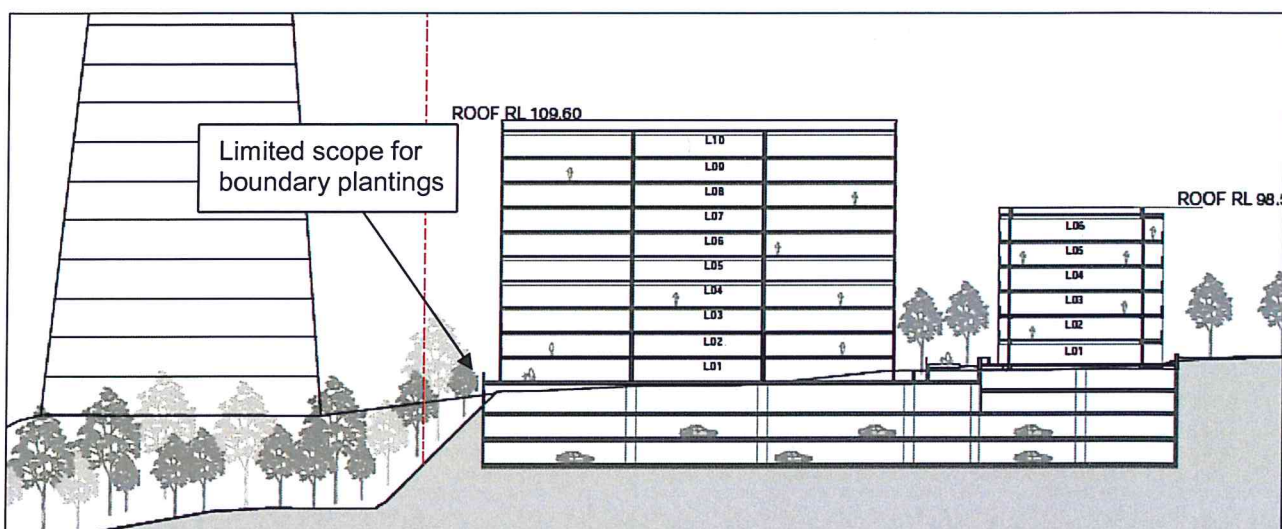


Figure 23: Section through Building G (source: Proponent's PPR)

In order to retain existing significant trees, where possible, and to enable the provision of new trees within the southern boundary setback, it is considered that the envelopes of Buildings E and G, including the basement below, should be setback further from the southern boundary. A modification is therefore included in the recommendation. Further, it is recommended that future applications provide detailed arborist's assessment and landscape plans demonstrating the retention of existing significant trees and provision of significant appropriate new trees within the southern setback.

The department agrees with Council that at RL 117.7, most of the building envelope for Building G is 42.4 m above ground level and taller than is necessary for a 12 storey building and that 12 storeys could be readily achieved with an RL of 113.7 (building height of 38.4m) for much of the envelope. However as the ground level steps up at the northern end of the building, the proposed envelope height of 117.7 may be appropriate at the northern end. Given the high visibility of the building and associated visual impact concerns, a modification to reduce the envelope by four metres over the southern half of the building is therefore recommended.

With the proposed reduction in envelope height to 38.4 metres for the southern half of Building G, additional setbacks to allow provision of trees to obscure the lower levels of the building, and in conjunction with the stepping down in the built form of Building B, the department considers that overall, the proposal would be capable of delivering a development which would not result in



unreasonable visual impacts as viewed from surrounding areas to the south. In this regard, the department does not agree with the Government Architect's assessment that buildings should be six storeys at the southern boundary. Due to the absence of any adjoining development to the south, and significant separation distance to the nearest adjoining development and public domain areas, the department considers that on balance, this part of the site is well located for the provision of taller development to enable increased housing provision in line with state and regional planning objectives. Although the buildings would be visible above the tree line, they would be viewed mostly from distant vantage points and therefore would not have any immediate amenity impacts on those locations. Provided the buildings are appropriately designed incorporating high quality finishes and façade articulation, the visibility of the buildings and associated change in the landscape is considered an acceptable outcome balanced by the positive impacts of improved housing provision and choice in the area.

The recommended amendments would also improve the visual impact of the proposal on the nearest adjoining dwellings in Walter Street. Building E would be separated by more than 35 m from the dwelling at No 31 Walter Street and due to the topography and intervening vegetation, is considered not to result in an overly dominant visual impact.

Finally, in terms of Building G, the department notes the Government Architect's concern regarding the disparity between the height of Building G and the proposed row of three storey terrace dwellings to the west. The Government Architect suggests the use of a podium or step in the built form to provide a relationship between the two buildings at a pedestrian scale. The department supports the Government Architect's suggestion and considers this may be achieved through a range of measures, including a stepping in the built form or appropriate facade treatments and design. A future assessment requirement is recommended that Building G incorporate design measures to achieve a visual relationship with the scale of the adjoining development to the west.

### *Conclusion*

Modifications and future assessment requirements have been recommended to ensure the proposal results in a better visual outcome. With the incorporation of these recommendations, the visual impacts of the proposal are considered to be acceptable. Although the development would be visible from the surrounding area, and in particular from the south of the site, it is considered that with appropriate modifications the extent of that visibility would not result in any unacceptable amenity or character impacts. As viewed from other locations, the proposal would be less dominant, and the department notes that from most vantage points within the Artarmon Conservation Area, the development would be barely perceptible. Where the development would be visible, provided future applications incorporate a high quality design, it is considered that no unacceptable impacts to the character of the area would arise.

## **5.3. Built Form Amenity Impacts**

### **5.3.1 Overshadowing**

#### **Impacts to Walter Street Properties**

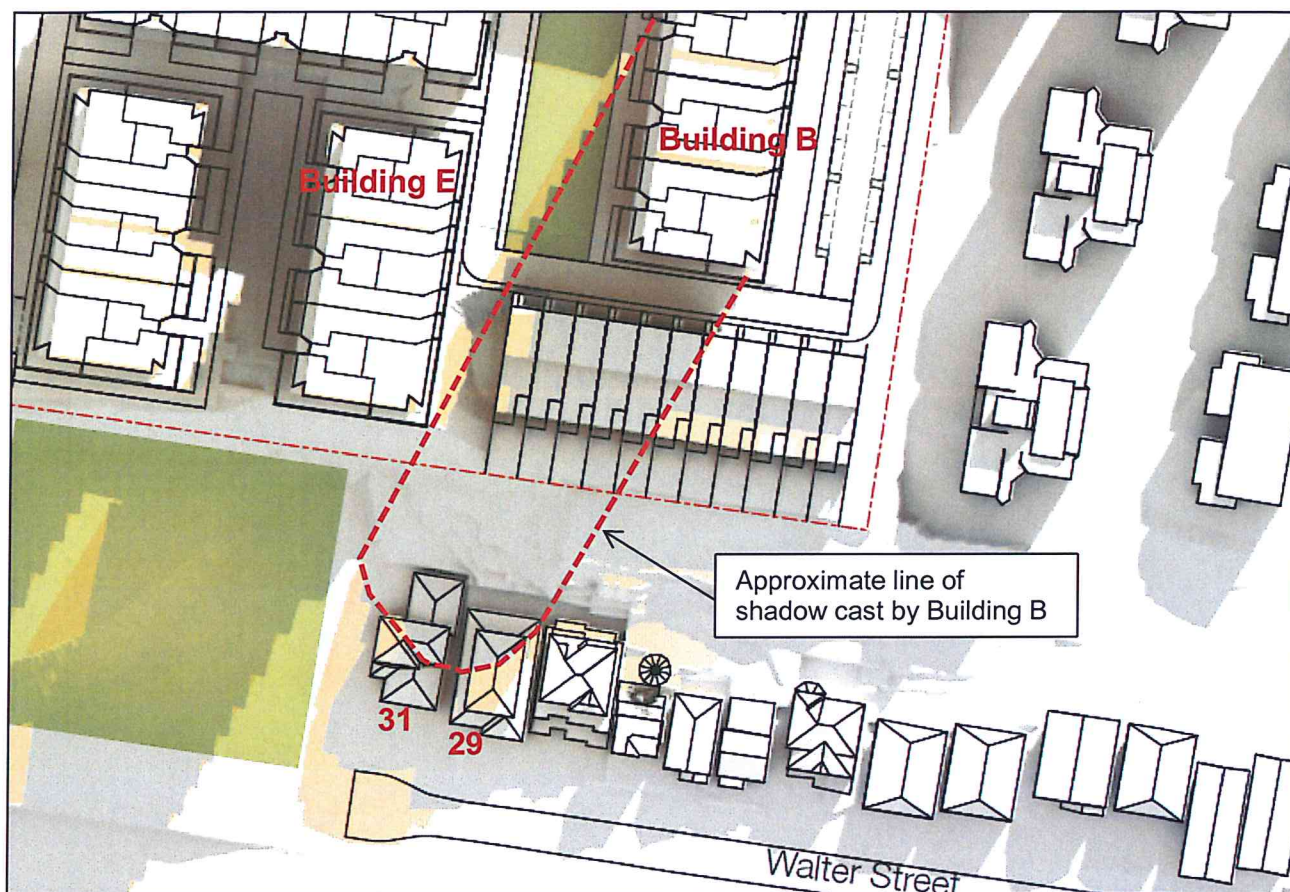
Residential properties on Walter Street are located to the south of the site, and therefore would be affected by overshadowing from the proposed development. Shadowing impacts are exacerbated by the topography of the area, as the Walter Street dwellings are located significantly below the level of the subject site. Currently, the properties at the western end of the street are partly overshadowed in the mornings by existing satellite dishes but receive good solar access in the afternoon.

Concerns were raised by residents as the original proposal included substantial overshadowing of these properties. The scheme submitted with the PPR was thus amended to reduce overshadowing impacts. Under the amended proposal, the majority of dwellings on Walter Street



would receive in excess of two hours of solar access mid-winter, with many properties receiving three or four hours. This is considered to be acceptable and in line with the 'rule of thumb' established by the Residential Flat Design Code (RFDC) to ensure a reasonable level of solar access in dense urban environments.

The two exceptions are Nos 31 and 29 Walter Street, at the western-most end of the street. Unlike their neighbours, those properties would both be affected by shadows from Building B in the early to mid-morning (refer **Figure 24**). They would also be the first to be affected by shadows from Building E (from around 11.15 am for No 31 and from 12.00 noon for No 29).



**Figure 24: 10am mid-winter shadow diagrams** (source: Proponent's PPR)

The department considers that the shadow impact to these two properties could be improved by stepping down the height of Building B towards the south. By reducing the height of the southern end of Building B, the shadow impacts could be reduced so that the rear facades of the dwellings and a useable area of private open space is not affected by the building after 9.45 am. It is noted that before 9.45 am, the dwellings and open space are shadowed as a result of the surrounding topography and no significant improvement could be achieved by further amending the form of Building B.

Improving solar access from 9.45 am would result in 29 Walter Street receiving in excess of two hours of solar access (from 9.45 am until 12.00 noon) and 31 Walter Street receiving 1.5 hours of solar access (from 9.45 am to 11.15 am) mid-winter. Despite the variation at No 31 from the guidance established by the RFDC, this is considered to be an acceptable outcome given the constraints arising from the steep topography and location of the dwelling directly to the south of the site. No 31 will receive much higher levels of solar access at other times of the year.

The extent of the necessary reduction in the height of Building B to achieve this result is estimated to be up to three to four storeys at the southern end, although detailed shadow analysis has not yet been conducted. A modification is thus included in the recommendation, requiring an amended



building envelope to demonstrate compliance with this requirement. As discussed above in **Section 5.2**, a stepping down of the built form also has other benefits in terms of reducing the visual impacts of this building.

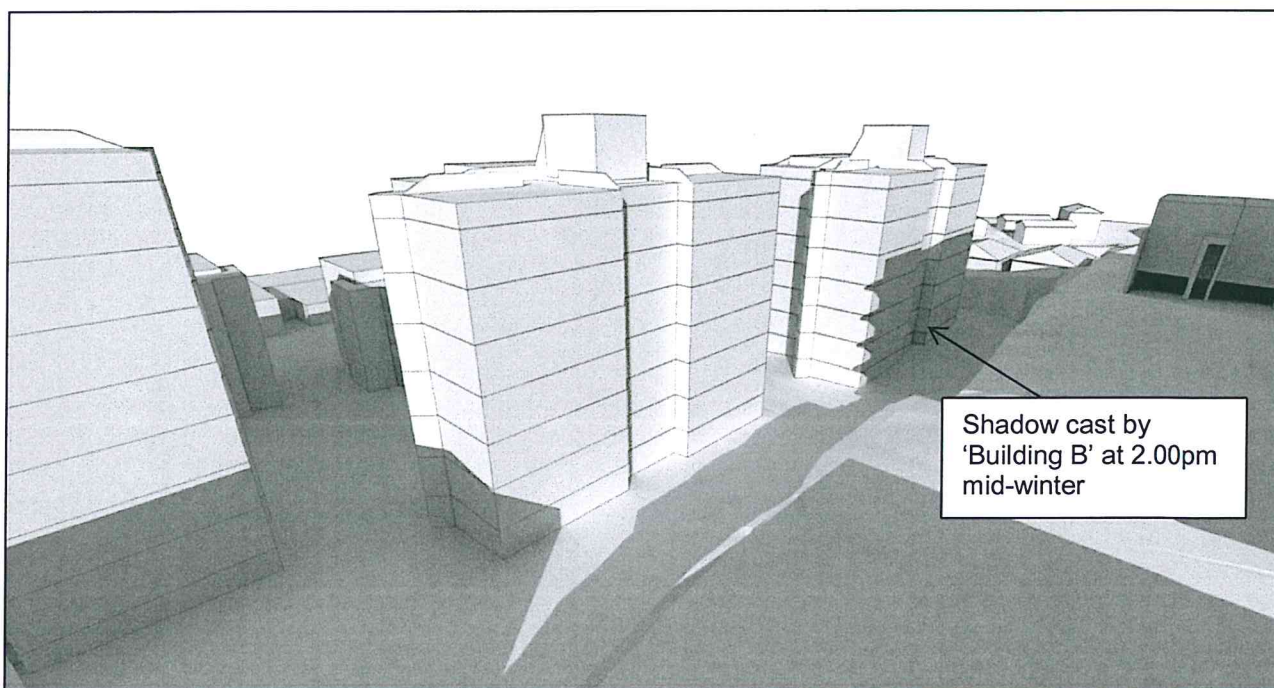
It is noted that the proposed changes to the southern setback of Building E, as discussed above in **Section 5.2.4**, will result in little material change to overshadowing of the Walter Street dwellings in mid-winter, although they will improve solar access to those dwellings at other times of the year.

### Impacts to Castle Vale

The western façades of the residential flat buildings at Castle Vale are in self shadow until around 11.45 am, after which they currently receive good solar access until approximately 2.30 pm when dwellings at the lower levels begin to be overshadowed by the tall western boundary retaining wall.

Under the proposal, Building B would begin to shadow the lower levels of the southern-most Castle Vale building from around 1.30 pm, such that those dwellings would not quite receive two hours of solar access to their western facades mid-winter (regardless of the changes to the envelope of Building B recommended in the preceding section).

However only a limited number of dwellings are affected (refer **Figure 25**) and the worst affected dwellings will receive at least one hour and 45 minutes of solar access mid-winter to their western facing windows. Further, some of those dwellings will receive two hours of solar access to their northern and eastern facades (the proponent advises that a number of dwellings are dual-aspect with living rooms oriented to the east away from the site). As such the proposal is not considered to result in unacceptable shadowing impacts to the Castle Vale site.



**Figure 25: 2pm mid-winter shadows on to Castle Vale site** (source: Proponent's PPR)

#### 5.3.2 Privacy

Some residents raised concerns about the privacy impacts of the proposed development, particularly the ability for overlooking from the proposed taller towers. However, other than in the south-eastern part of the site, all proposed buildings would be separated from surrounding dwellings by substantial boundary setbacks as well as intervening roadways and landscaping, resulting in building separations far exceeding the guidelines of 18 - 24 metres established by the RFDC. Even along the southern boundary of the site where there is no intervening roadway,



setbacks to Walter Street dwellings would also exceed 24 metres, and future applications would be required to incorporate intervening boundary planting as necessary. Only the eastern edge of Building C (three storey terraces) is in close proximity (three metres) to the boundary with Castle Vale, and appropriate privacy measures, such as the exclusion of windows in the façade, would be matters for consideration as part of any future development application. As such it is considered that extent of any privacy impacts arising from the proposed building envelopes is acceptable.

#### 5.4. Internal Amenity and Compliance with SEPP 65

The residential amenity provided by the proposal has been considered against relevant policies including, *State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Buildings* (SEPP 65) and the accompanying *Residential Flat Design Code* (RFDC).

The Concept Plan only provides indicative building and apartment layouts. More comprehensive compliance with the RFDC criteria will need to be demonstrated by the proponent in future development applications. Notwithstanding, the Concept Plan includes an assessment of each building envelope against the principles of SEPP 65. The department has assessed the proponent's consideration of SEPP 65 and is satisfied that subject to the modifications recommended in **Section 5.2** of this report, the development proposed under the Concept Plan will comply with the design principles of the SEPP.

In terms of compliance with the rules of thumb outlined in the RFDC, an assessment of the indicative floor plans for each building demonstrates that future development on the site is capable of compliance with the RFDC. In particular, units will be capable of achieving compliance with recommendations in relation to solar access, cross ventilation, building separation, adequate communal and private open space provision.

It is acknowledged that there is a possibility that each envelope may include some single aspect apartments that require a variation to the 'apartment layout' rules of thumb relating to the depth of single aspect apartments, and kitchen ventilation. The department notes that the non-compliant apartments are north facing, and the proponent could design these apartments to ensure large openable windows are incorporated to provide adequate light penetration and ventilation. The department considers that the indicative floor plans demonstrate that future developments can be designed to comply with the residual rules of thumb outlined in the RFDC.

The department notes the concerns raised by Council in relation to building depth, as the proposed building envelopes range in depth from 21 to 24 m. The RFDC acknowledges that building envelopes can be deeper than that specified in the RFDC, provided that future buildings are designed not to exceed 18 m in depth from glass line to glass line, unless satisfactory daylight and ventilation can be achieved.

The department has recommended a future environmental assessment requirement to ensure all future development applications be consistent with the requirements of SEPP 65 and the RFDC.

A full assessment of the application against the provisions of SEPP 65 and the RFDC is provided in **Appendix D**.

A related concern raised by Council relates to the overshadowing and amenity of the communal open space between Buildings G and E. Although this area will be overshadowed for most of the day at mid-winter, the primary function of this area is unlikely to be for passive recreational purposes. The two other large areas of open space on the site provide very high levels of amenity and are considered to be sufficient to provide for the passive recreational needs of future residents. The space between Buildings G and E will serve the functions of providing adequate separation between the buildings, space for pedestrian access and space for landscaping to provide a pleasant outlook within this part of the site. It is noted that the area will receive good solar access at other times of the year.



## 5.5. Traffic, Transport and Parking

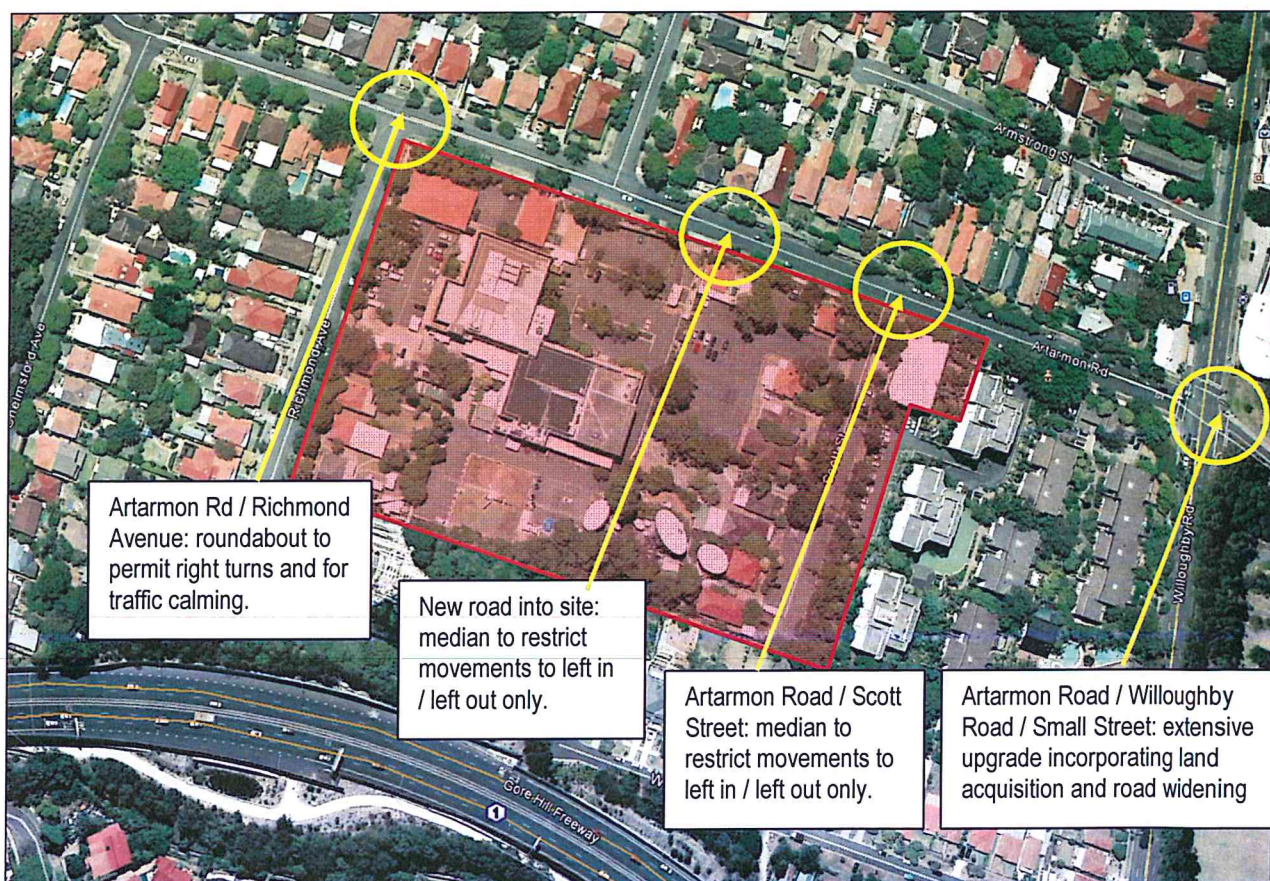
### 5.5.1 Traffic and Road Network Impacts

#### Council and Public Concerns

Traffic generation and impacts on the surrounding road network were key issues raised by Council and the public in response to the exhibition of the EA. Council raised concerns that the traffic generation rates used by the proponent were incorrect, underestimating the impact, and therefore the predicted impacts were also underestimated. Particular concerns were raised in relation to the intersection performance at three key intersections:

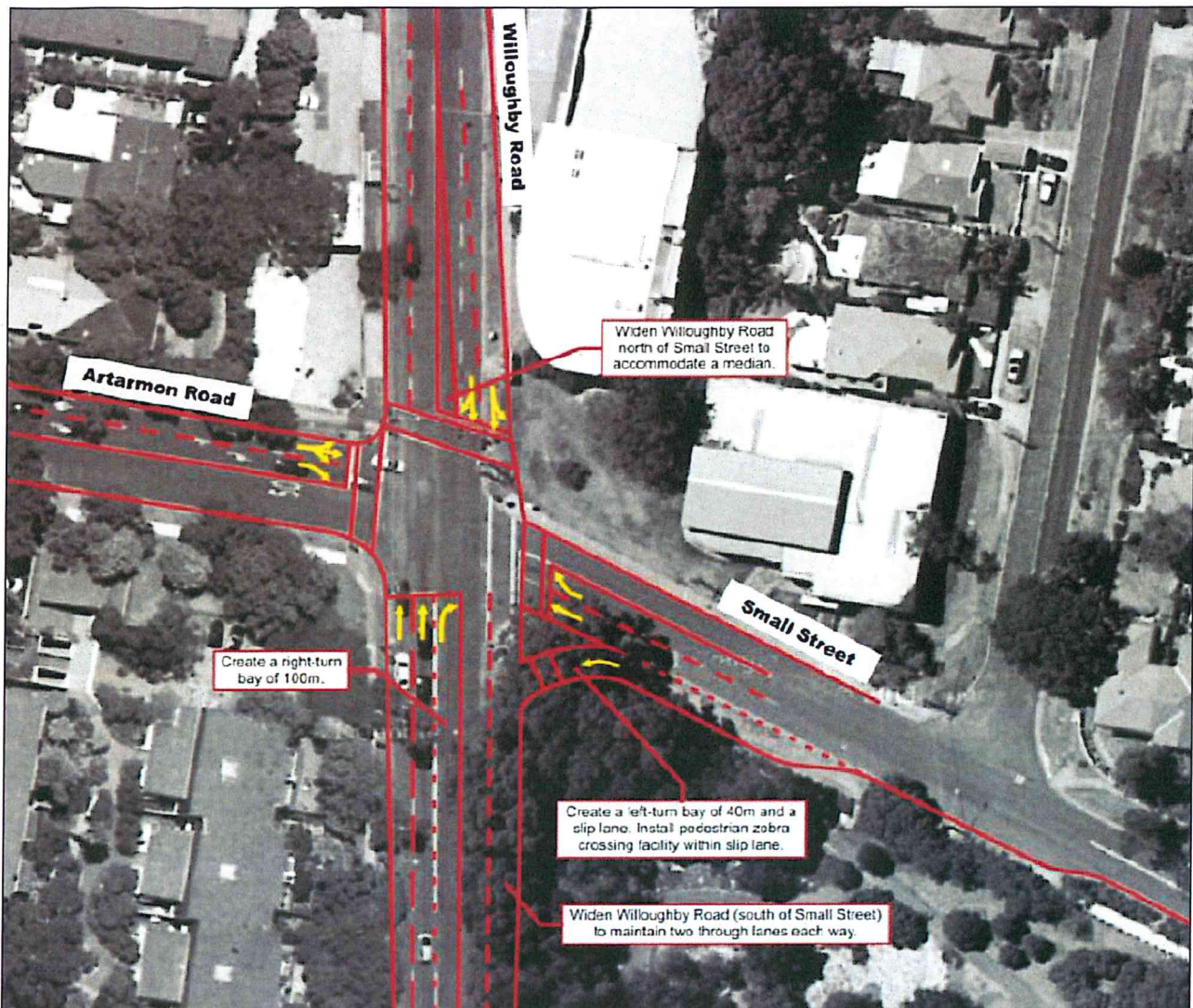
- Artarmon Road / Willoughby Road / Small Street intersection: The intersection is currently controlled by traffic lights. Council suggested that an intersection upgrade may be required including road widening and the creation of a dedicated right turn bay.
- Richmond Avenue / Artarmon Road intersection: Council suggested the potential need for the installation of a roundabout at this intersection in order to mitigate queuing impacts arising from the proposal, and facilitate right turn movements.
- New Access Road / Artarmon Road intersection: Council raised concerns regarding sight distances at this intersection and suggested the intersection be restricted to left in / left out movements only for safety reasons.

The PPR proposes a reduction in dwelling numbers resulting in a reduction in traffic impacts. It also proposes an additional vehicular access point on Artarmon Road with the retention of Scott Street and a small change to the location of the other access point. Nevertheless, Council advised that it maintained its position in relation to the above intersections. Council's suggested treatments to these intersections are shown in **Figures 26 and 27**.



**Figure 26: Treatments to intersections as suggested by Council (base source image: Google Maps)**





**Figure 27: Council recommended Willoughby Road / Artarmon Road upgrade** (source: Arup, Willoughby City Council/ GTA consultants)

### Proponent's Response

The PPR proposes a reduction in dwelling numbers (from 600 to 450 dwellings) and as such a reduction in traffic impacts arising from the scheme (from 140 to 86 weekday peak hour car trips).

The proponent provided updated modelling based on the reduced dwelling numbers and looked in detail at the impacts on the Artarmon Road / Willoughby Road / Small Street intersection.

The proponent's modelling indicated that during the weekday AM and PM peak periods the overall level of intersection performance would remain at a level of service (LoS) 'B' ('good with acceptable delays and spare capacity') and that the number of vehicles through the intersection would be reduced overall as the residential development would result in less peak hour vehicle movements than the existing use of the Channel Nine site.

The proponent's modelling also indicated that during the Saturday peak hour the intersection would retain a LoS 'D' ('operating near capacity') although there would be an increase in the waiting times at the intersection (by eight to 14 seconds). To overcome this issue, the proponent suggested banning the southbound right turn movement from Willoughby Road into Artarmon Road during the Saturday peak. The ban would only affect a small number of vehicles (only 11 vehicles turn right per hour at this time) but would improve the overall intersection performance to a LoS 'C' ('satisfactory').



On the basis that during weekday peak hours the intersection will continue to operate within capacity, and given the limited impacts during the Saturday peak hour which could be mitigated by a right hand turn ban, the proponent argues that there is no justification to require the provision of the intersection upgrade recommended by Council.

Furthermore, the proponent argues that the intersection upgrade sought by Council was originally recommended in a traffic study commissioned in relation to Council's proposed expansion of the Willoughby Leisure Centre, and that the upgrade was aimed at dealing with delays at the intersection caused by the use of the netball courts and leisure centre, which is unrelated to the subject development.

In response to Council's request that other site entrances on Artarmon Road be restricted to left in / left out movements for safety reasons, the proponent argues that crash data from the RMS indicates no more than five crashes occur each year (on average three crashes per year) on Artarmon Road between Willoughby Road and Richmond Avenue and that the majority of these have occurred within 10 metres of the Willoughby Road intersection. The proponent submits that on this basis a proposed raised pedestrian crossing is sufficient for traffic calming to allow vehicles to safely make a right hand turn out of the site.

## Independent Traffic Assessment

In consultation with Willoughby Council, the department engaged Arup to assist the department with its assessment and to provide an independent traffic and transport assessment of the proposal. Arup undertook independent peak hour traffic counts at intersections in the vicinity of the site and independent peak hour traffic surveys at comparable residential developments nearby to ascertain suitable traffic generation rates, and on this basis modelled the predicted impacts of the proposal. Arup consulted with Council on their proposed methodology before undertaking the assessment. At Council's request, Arup undertook counts on Saturday mornings during the netball season when impacts were known to be the worst, and included the predicted traffic likely to arise from Council's planned future redevelopment of the Willoughby Leisure Centre (refer to description in **Section 1.2**).

Arup provided a comprehensive report in relation to the original proposal, as submitted with the EA, and, following submission of the PPR, Arup updated the modelling to reflect the amended dwelling numbers. Arup's original assessment and response to the PPR are attached at **Annexure F**. Arup provided advice in relation to the various intersections as follows:

### *Willoughby Road / Artarmon Road / Small Street:*

The results of Arup's modelling in relation to the performance of the intersection are shown in **Table 4**. During the Saturday morning peak, the intersection is likely to change from a LoS D ('operating near capacity') to LoS E ('at capacity').

**Table 4: Traffic Modelling Results for Willoughby Road / Artarmon Road / Small Street intersection**

Location	Peak Hour	Existing (June 2013)			Future as per EA (585 dwellings)			Future as per PPR (450 dwellings)		
		LOS	DOS	AVD	LOS	DOS	AVD	LOS	DOS	AVD
Willoughby Road / Artarmon Road	AM Peak (8am – 9am)	B	0.82	23	B	0.87	28	B	0.86	26
	PM Peak (5pm – 6pm)	B	0.83	25	C	0.88	31	B	0.88	25
	Saturday Peak (11am -12pm)	D	1.06	44	F	1.20	82	E	1.18	68

Legend: AVD – Average Vehicle Delay (seconds), LOS – Level of Service, DOS – Degree of Saturation



While vehicle delays will occur at the intersection, the modelling demonstrates that these will be confined to only a short period of time on Saturday mornings and for the remainder of the week, including during commuter peak hours, the intersection is forecast to operate satisfactorily. Some of the Saturday morning traffic impacts at this intersection are the result of the future expansion of the Willoughby Leisure Centre (which has been factored into the modelling, but the timing and scale of which is uncertain). Based on the revised analysis, the substantial intersection upgrade recommended by Council (and also previously recommended by Arup) is not supported by Arup. However, Arup also recommended that revised traffic modelling should be carried out as part of a future development application (prior to the occupation of 200 dwellings), to enable the issue to be revisited should the circumstances of the intersection change by the time the development goes ahead. Arup does not support the proponent's suggestion of a southbound right hand turn ban at the intersection as it would be difficult to enforce, will result in only a minor improvement in performance and may just shift the issue to another nearby intersection which permits right hand turns.

*Richmond Road / Artarmon Road:*

Arup's modelling of the initial application submitted with the EA indicated that the intersection would at all times retain a level of service 'A' or 'B'. As such, no recommendations were made in relation to intersection upgrades and there was no need to reconsider the issue in relation to the PPR scheme which would only lessen impacts.

*Artarmon Road / New Access Road:*

In relation to the potential for conflict for vehicles turning right out of the new intersection onto Artarmon Road, Arup advised that at vehicle speeds of 50 km/hr, a sight distance of 100 m would be required for safety. As the proposed new access roadway is located less than 100 m from the crest of the hill, Arup recommended the installation of a raised pedestrian crossing on Artarmon Road. This mitigation measure would provide improved safety for pedestrians accessing the new park, and act as a traffic control feature to slow down vehicles (the crossing would be signposted at 25 km/hr) (refer to **Figure 28**). Arup has confirmed that with these reduced traffic speeds there is sufficient site distance for vehicles to safely turn right out of the site onto Artarmon Road.



Figure 28: Artarmon Road sight distance analysis (source: Arup)



## Department's Consideration

The department accepts the methodology used by Arup in its independent assessment, which was also confirmed as acceptable by Council. The department therefore relies on the results of Arup's modelling to make its assessment.

In relation to the Artarmon Road / Willoughby Road intersection, the department agrees with the analysis by Arup that the extent of the traffic impacts arising from the development as revised by the PPR would not warrant the extensive intersection upgrade sought by Council. The impacts on the intersection are considered to be minor, and are limited to a short period of time on Saturdays. Further, a reasonable proportion of the impacts are attributed to the potential future expansion of the Willoughby Leisure Centre and netball courts, which was included in the modelling but for which there is no resolution by Council to proceed with its development. Further, the department notes that the application was referred to RMS, as Willoughby Road is a State controlled Arterial Road, and the RMS did not raise any concern with the intersection.

The department considers that it is not necessary to implement a 'no right hand turn' ban for the intersection and that this is a matter for the RMS, which could erect a sign at little cost if such a ban was deemed appropriate.

However, the department acknowledges that it may be some time before the site is redeveloped as Channel Nine does not have any immediate plans to relocate. As circumstances may change in relation to background traffic and surrounding development, the department has adopted the recommendation of Arup that further traffic assessment be included as part of future applications on the site with the potential for an intersection upgrade or restriction on right hand turn movements to be provided if warranted. An appropriate future assessment requirement has been included in the recommendation to this effect.

In relation to the Artarmon Road / Richmond Road intersection, the department considers that no impacts arise from the development that would warrant a requirement for any intersection upgrade at this location.

The department supports the provision of a raised pedestrian crossing on Artarmon Road, and considers that with appropriate design and signage, the crossing would provide both a safe means for pedestrians to access the proposed new park and would also slow vehicle speeds to permit safe right hand turn movements from the site. However, in order to provide the pedestrian crossing, it must be demonstrated that there is sufficient demand to warrant the crossing. This would be a matter for consideration as part of a future development application, but Arup has advised that it is very likely that the required demand would be met to justify the crossing. In the absence of the demand for a crossing being met, a speed hump could be provided to achieve the same vehicle speeds. A future assessment requirement has therefore been recommended for the provision of the crossing (or speed hump if a crossing is not warranted).

Sightlines at the intersection of Scott Street and Artarmon Road exceed 100 m and therefore meet safety requirements to permit right hand turns regardless of any future pedestrian crossing.

With the imposition of future assessment requirements in relation to further traffic assessment and provision of a pedestrian crossing, the department is satisfied that the proposal would not result in any significant adverse impacts on the local road network.

### 5.5.2 Parking

A large number of residents raised concerns that there is currently a shortage of on-street parking in the vicinity of the subject site and the proposal will only exacerbate this problem.



It is proposed to provide parking on site at the rate recommended within the Willoughby DCP, for development within a transport corridor being:

- Studio- 0.5 space;
- 1 bedroom- 1 space;
- bedroom- 1 space;
- 3+ bedroom- 1.25 spaces; and
- Visitor spaces- 1 per 4 dwellings.

Based on an indicative dwelling mix for 450 dwellings, the proposal would result in the need for around 531 residential parking spaces (426 spaces for residents and 105 visitor spaces). The department accepts the proposed on-site parking rates and notes that Council has also recommended that parking should be provided at these rates. However, to further assist with reducing parking demand, and impacts to surrounding streets, a requirement for incorporation of a car share scheme on the site has been included in the recommendation. The department considers that the site density warrants the provision of such a scheme, and notes that there is an existing network of car share schemes operating in the vicinity of the site.

The proposal has not allocated parking for the commercial component, and the proponent has argued that future uses would be designed to service the needs of residents on site and therefore would not give rise to a parking demand. However, it is considered that any non-residential floor space is likely to also create parking demand as a result of staff coming to work and that parking for staff should be provided. This is included as a future assessment requirement.

While most parking would be provided at basement level, the illustrative master plan submitted with the application depicts the provision of some kerbside parking in the vicinity of the proposed park and proposed future retail / café space. The department supports the provision of on-street visitor parking spaces in this location. As discussed in **Section 5.6.3** it is likely that the roadways would remain in private ownership, and as such it is recommended that an easement to allow for short stay public parking be provided to service public access to the park and/or café / retail area.

It is noted that the Government Architect has also advised that additional on-street visitor parking spaces or loading / pick up bays should be provided on the site, specifically near the entrances to Buildings G, E and C where no kerb side parking is currently shown on the illustrative master plan. This will enable drop off / pick-ups of residents near building entrances and is supported by the department. A future assessment requirement is included in the recommendation accordingly.

The department is satisfied that with the provision of future assessment requirements requiring parking provision in accordance with the DCP (including kerbside visitor parking), and an on-site car share scheme, no unacceptable adverse impacts will arise to on-street parking in surrounding streets.

### 5.5.3 Public Transport

The site is a 20 minute undulating walk to the nearest train station (Artarmon) and as such there is likely to be limited reliance by future residents on trains as a means of travel.

However, bus stops are located on Willoughby Road approximately 200 m from the site. Direct buses to the city depart every four to five minutes during the morning peak with travel time to Wynyard around 15 minutes. The site is therefore considered to be well serviced by public transport.

A number of public submissions raised concerns that there is insufficient capacity on the bus network to accommodate the additional population. In response to the EA, TfNSW requested that the proponent give consideration to the impacts of proposal on the capacity of bus services, as well as accessibility between the site and the bus stops and train station. The proponent provided



additional information with the PPR. Specifically, it was shown that existing footpaths provide adequate access to the bus stops and train station, and that the proposed development could generate up to 160 additional peak hour bus passengers, mostly to North Sydney or the CBD. The proponent recognises this may result in the need for provision of additional services or timetabling changes in the future, and that this will ultimately be a matter for TfNSW (Sydney Buses) to resolve. TfNSW subsequently advised that the matters had been satisfactorily addressed.

The department is also satisfied that there is adequate existing access for pedestrians and cyclists in the vicinity of the site and that any required upgrades to bus service provision could be made as and when considered necessary by Transport for NSW.

Council suggested that due to issues with a lack of cross-LGA transport, the proponent should make a contribution to Council's shuttle bus service which runs a loop service past the front of the site to Artarmon Station between 10.15 am and 3.45 pm weekdays. Council has requested the provision of \$200,000 upfront and then \$150,000 annually. The department notes that the shuttle bus service is currently funded through section 94 contributions, and therefore further funding towards the service will be attained through the usual contributions which will be paid by the developer as part of future development applications in any case. Further, the majority of public transport trips (and the greatest impact) will occur during peak hours, and therefore there would only be limited reliance on the shuttle bus, which does not operate at these times. The department therefore does not consider that the proposal gives rise to such significant transport issues that would justify the additional payment sought by Council above and beyond those accounted for in section 94 contributions.

## 5.6. Open Space and Public Domain

### 5.6.1 Public Domain Improvements adjoining the site

The DGRs required that consideration be given to public domain improvements and the provision of linkages with and between other public domain spaces.

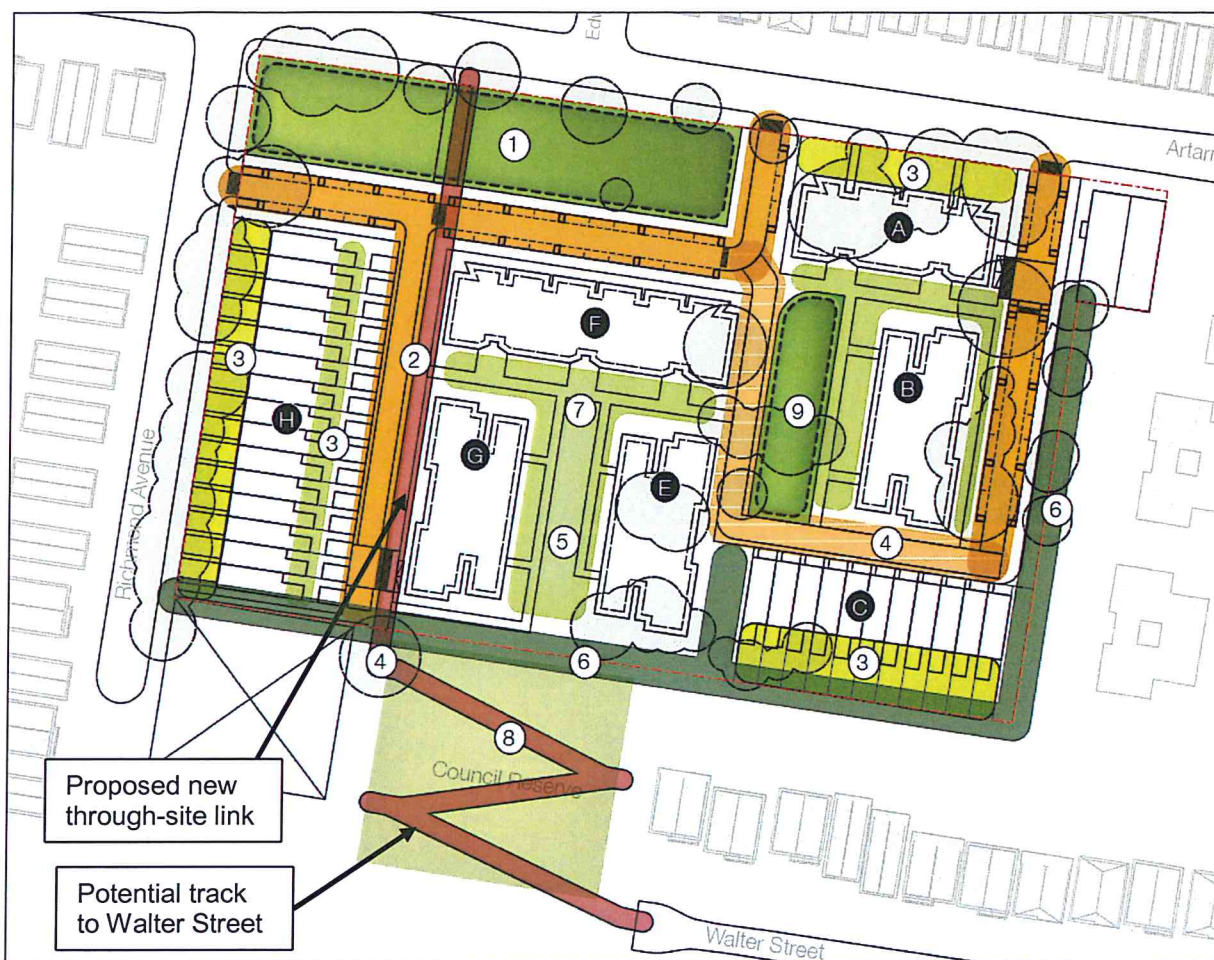
Although the proposal incorporates the provision of a through-site link between Artarmon Road and the rear boundary of the site (refer **Figure 29**), it does not propose the provision of any new (or upgrade of any existing) pedestrian or cycle links outside of the site. A potential future pedestrian link through the adjoining Council reserve to Walter Street is indicated on the application plans (refer **Figure 29**), but there is no commitment from the proponent to fund this link. Council has requested that the provision of a bushland track link through the reserve be funded by the proponent, at an estimated cost of \$200,000.

The department considers that given the large size of the site, the substantial increase in the resident population arising from the proposal, and the limited permeability for pedestrians and cyclists in the immediate locality, there is a need to improve the level of access through the site to surrounding areas. The proposed on-site link to the rear boundary is supported and is discussed in greater detail in **Section 5.6.3** below. However, without the provision of a new track through the adjoining reserve, there would be no material improvement to permeability or pedestrian and cycle access to the surrounding area. The department considers that the extension of the link through Walter Street Reserve is therefore warranted by the proposal and a future assessment requirement is recommended to provide the link (or fund Council's construction of the link) as part of the future development application for Stage 2.

The Government Architect has raised a concern that the plan relies on ramps or similar measures to be provided within the reserve to account for the steep topography and suggests that any ramps to accommodate the change in level should be provided within the site. The arrangement shown in **Figure 29** is only indicative and the final design of the path would be determined as part of future



development application/s. As it is the land within the reserve that falls away steeply, rather than the land on the subject site (which slopes gently to the boundary along the line of the pedestrian link), the department considers that the indicative arrangement would allow the path to generally follow the natural topography of the area and there is no need to require specifically that ramps be provided within the subject site.



**Figure 29: Extract from Landscape Concept** (source: Proponent's PPR)

The EA and PPR have also given consideration to existing on-road pedestrian and cycle routes to the nearby shopping strip and to public transport facilities. The department is satisfied that existing routes are adequate, and do not give rise to the need for any additional upgrades, although it is recommended that pedestrian footpaths immediately adjoining the subject site be upgraded as part of the future redevelopment of the site. A future assessment requirement is included to this effect.

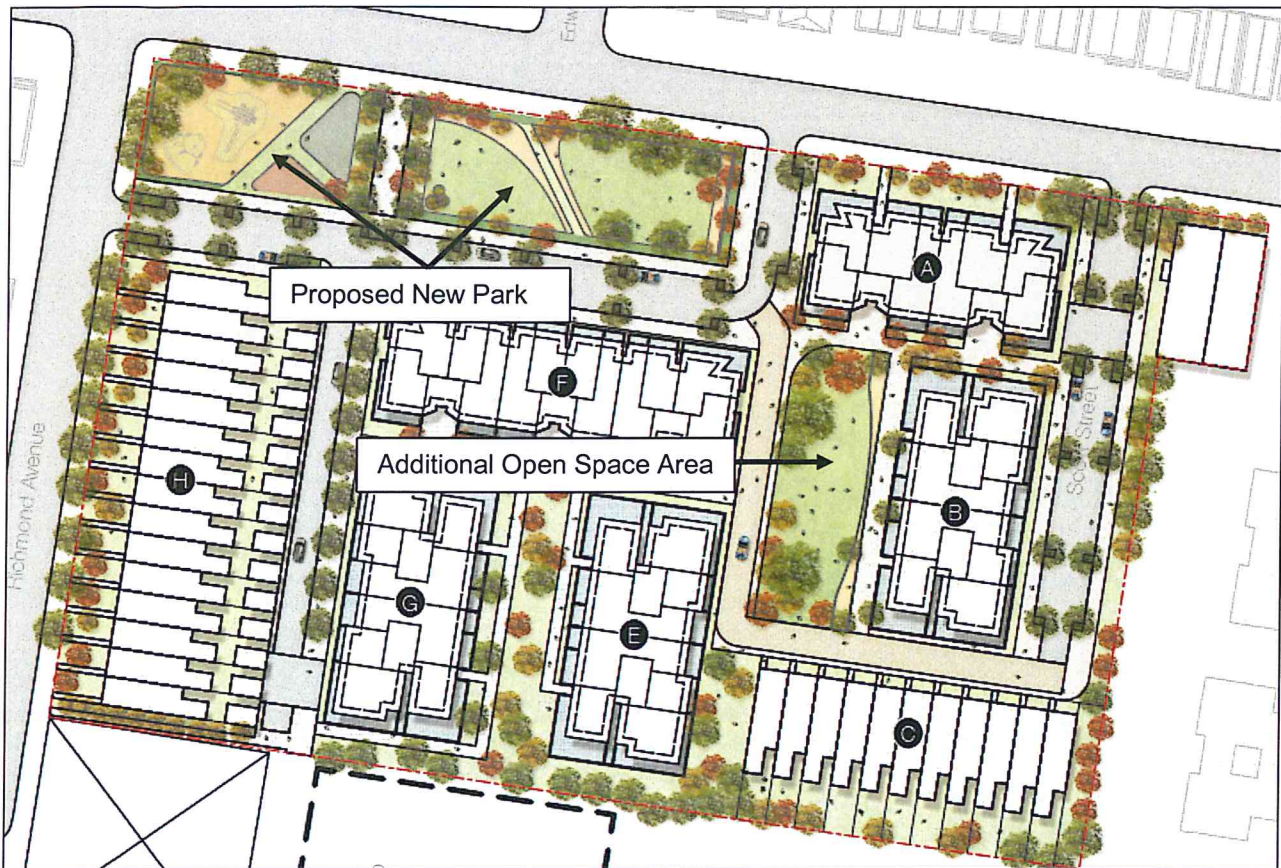
### 5.6.2 Proposed Open Space

The proposal includes two main open space areas:

- A publicly accessible park with an area of 3,250 sqm on the corner of Artarmon Road and Richmond Avenue; and
- A second open space area in the central part of the site 1160 sqm in size (refer **Figure 30**).

It is intended that the larger park be used for passive recreation with possible BBQ facilities and a children's playground. Being located at the north-west corner of the site, the park will have excellent solar access and is considered to provide a substantial benefit both to future residents on the site and to the locality generally.





**Figure 30: Illustrative Masterplan** (source: Proponent's PPR)

In response to the EA, Council advised that it supports the dimensions and layout of the park, but raised a concern regarding the future levels of the park, as plans submitted with the EA indicated levels which would be substantially below Artarmon Road. Council and the Government Architect both specifically recommended that the park be provided at-grade with Artarmon Road.

Ultimately the design and levels of the park will be a matter for consideration in the future assessment of the relevant development application, but the department notes that updated sections submitted with the PPR indicate the provision of the park at the same level as Artarmon Road and a commitment is also included in the statement of commitments to this effect.

The department is satisfied that the concept proposal allows for the provision of a high quality open space design, including the provision of appropriate ground levels.

A further matter raised by Council relates to the dedication of the park. Council has stated in a number of submissions that it does not want to accept such a dedication due to the long term maintenance costs associated with the park. The proponent has acknowledged Council's position, and has advised that although it believes that it would be more appropriate for the land to be in the ownership of the Council, it is possible for the land to remain in the ownership of the owners corporations and be managed under community title.

A term of approval is included in the recommendation requiring that the future development application for the park include provision of an easement and right of public access to ensure access to the park is provided to the public in perpetuity, as well as appropriate measures to be approved by Council to ensure the ongoing maintenance and management of the park by the owners corporations across the site.

Council has suggested that similar conditions should apply to a second area of open space proposed on the site to the west of Building B, as the proponent has also indicated that it is intended that this area be publicly accessible. However, the department considers that the



proposed primary park on the corner of Artarmon Road and Richmond Avenue provides sufficient public benefit to the community and that it is not necessary for a secondary area of open space to be made publically accessible. The location of that secondary space within the central part of the site better lends itself to use as communal open space for the exclusive enjoyment of future residents on the site and specific requirements for public easements have therefore not been recommended in relation to this space.

In terms of the design of the second open space area, the department notes that envelopes for car park basement levels below much of this area may preclude substantial tree planting and landscaping, other than along the western edge of the proposed park. As this is the only other significant area of soft open space proposed on the site, the department considers that it is essential that it is appropriately landscaped to ensure a high level of amenity and make a positive contribution to the landscape character of the area. A future assessment requirement is recommended that requires that at least 50 per cent of the area be deep soil landscaping to support significant tree planting and stormwater infiltration and that the remaining area incorporate sufficient soil depths and drainage to allow for the provision of soft landscaping including grass, shrubs and small trees.

A further concern raised by Council relates to the staging and delivery of the main park, which is proposed to be delivered as the last stage, being stage four. Council suggests that it should be provided in stage one to service the recreational needs of the residents of the first stage and to ensure that it's construction is guaranteed. The proponent has advised that it would like to use the space for construction activities during the development of the site, but would accept a condition requiring the provision of the park to be completed within 12 months of the issuing of an occupation certificate for residential dwellings on the site.

The department considers that the proposed park should be delivered before the occupation of stage two. This would allow the developer to use the park area for construction purposes for stage one and the majority of stage two, noting that stage three is a fairly minor stage: being only for 15 townhouses. It would also guarantee the delivery of the park and ensure adequate open space provision for the early residents, noting that stage one incorporates the smaller park / area of communal open space that is considered to be sufficient to service the needs of those first stage residents until the main park is constructed. Stage two includes the largest number of dwellings but does not include a similar soft landscaped open space area, and as such, provision of the park prior to occupation of Stage 2 is considered to be essential for the amenity of future residents. An appropriate future assessment requirement is therefore included in the recommendation to this effect.

### 5.6.3 Internal Access Ways and Site Layout

The proposal includes a network of new internal roadways and pedestrian areas to provide access to each of the proposed buildings on the site and to provide public access to the Walter Street Reserve to the south of the site. The proponent intends that all routes be publically accessible and incorporate pedestrian and cycle paths.

As with the proposed park, Council has requested that the roads within the development not be transferred to Council ownership. A term of approval is included in the recommendation requiring that future development applications include the provision of easements and rights of public access, as well as appropriate measures to be approved by Council to ensure the ongoing maintenance and management of the roads and footpaths by the owner's corporations.

In addition to matters relating to provision of on-street parking discussed above in **Section 5.5.2**, the Government Architect has recommended improvements to the design of the internal access ways. Some of the streets are proposed as 'shared ways', with different alignments and surface treatment to other 'roadways' within the plan. This results in those roads not reading as publically accessible, a lack of a clear address for some of the buildings, and a reduction in amenity for



residents and visitors. The Government Architect recommends that these roadways should be aligned and designed to present consistently with the design of other streets: and they should incorporate kerbside parking, pedestrian footpaths and identical finishes throughout the development. The Government Architect also recommends that the permeability of the site be improved by realigning the north-south road adjacent to Building E slightly towards the west so that it is aligned with the adjoining road and also extending the roadway to the rear / southern boundary to facilitate a potential additional point of access to Walter Street Reserve.

Final design of the streets will be the subject of future development applications. The department agrees that all of the streets should be treated consistently so that there is no ambiguity about accessibility. All streets should incorporate visitor kerbside parking / drop off bays, pedestrian footpaths and appropriate street tree planting. A modification and future environmental assessment requirement has been included in the recommendation to ensure future streets are designed in accordance with these requirements. There may be a need to slightly amend building footprints in order to facilitate these changes.

The department considers that the proposed north-south access road incorporating a public through-site link to the west of Building G is sufficient to ensure an appropriate level of site permeability, and that there is no need to re-align or extend the other north-south road to provide additional access through the site.

#### 5.6.4 Tree Management

The PPR included a detailed arboricultural assessment of 98 existing trees within the site and on the adjoining footpath areas. Trees have been classified according to their retention value as depicted in **Figure 31** and have also been either recommended for retention, removal or further investigation.

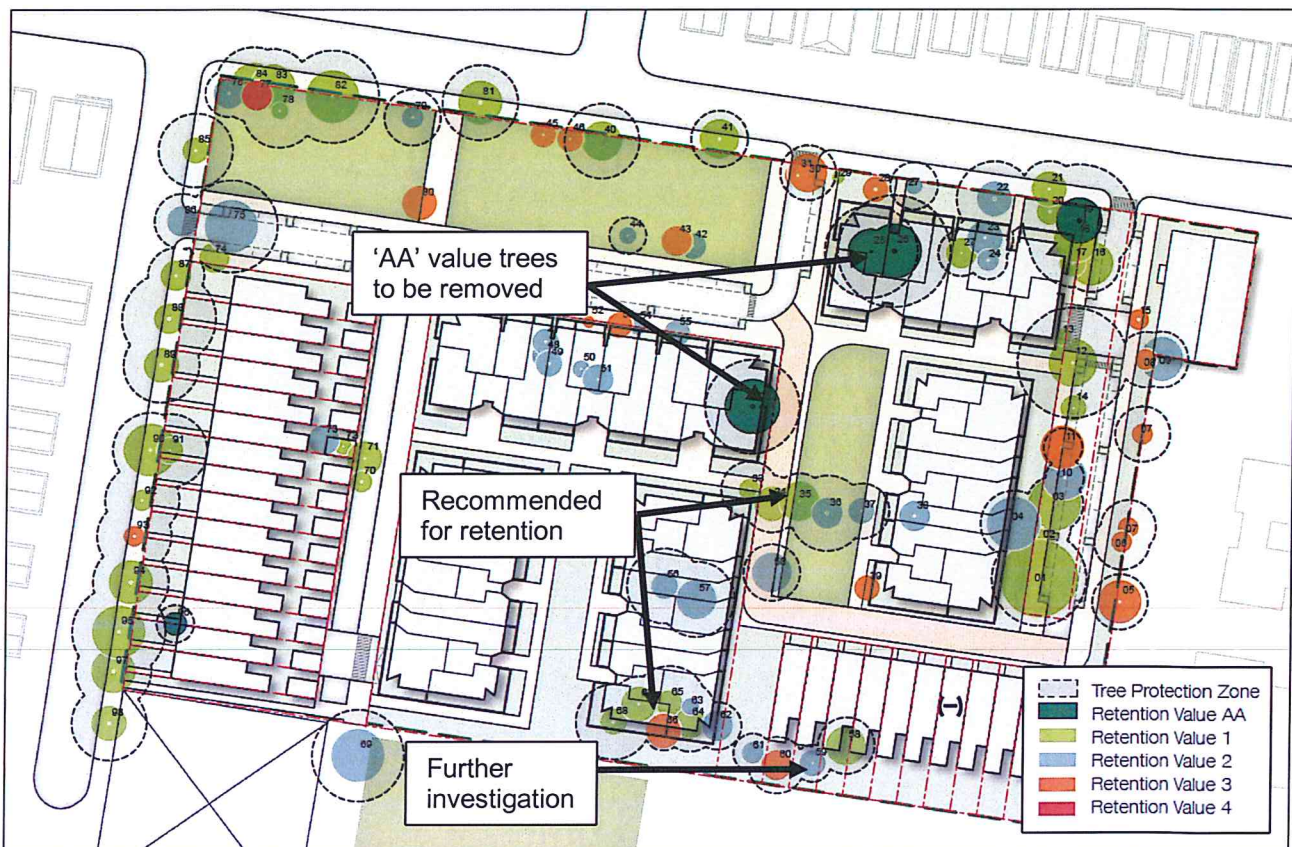


Figure 31: Arborist's classification of all existing trees on the site (source: Proponent's PPR)



Almost all trees within the adjoining footpath areas on Richmond Avenue, Artarmon Road, and Scott Street have been recommended for retention. These trees are considered to provide an important visual buffer between the subject site and adjoining development and their retention is supported by the department, in conjunction with supplementary new landscape plantings.

Most trees within the central part of the site are required for removal. These include three eucalypts 12 to 16 metres in height with a very high retention value ('AA') (shown as dark green in **Figure 31**). The removal of these trees is considered to be acceptable given the quantity of trees to be retained at the boundaries of the site, and provided appropriate replacement planting is incorporated into the future landscaping scheme.

The arborist report also recommends that some trees within the central part of the site be retained (refer **Figure 31**). The department considers that as these trees are not as highly visible from the surrounding areas it is not as essential that they be retained, and given the scope of proposed building works, it may be more appropriate to provide new tree plantings in this area that will complement the future landscape scheme for the site.

However the arborist report also recommends the retention of a number of trees adjacent to the southern boundary and within the proposed envelope of Building E. Other adjacent trees to the south of Building C are recommended for further investigation. Some of these trees have a high retention value ('1') and have heights of 12 to 15 metres. They are predominantly eucalypts. As discussed above in **Section 5.2.4**, the retention of these trees, where possible, is considered to be essential in mitigating the visual impacts of the proposal as viewed from the south. Amendments to the envelope of Building E, setting it further back from the southern boundary, have been recommended to ensure the protection of significant trees, with further arboricultural assessment as part of the future development application for this building. Where existing trees are unable to be retained, new plantings to compensate for their loss are recommended.

The department considers that with the retention and protection of trees at the boundaries of the site as recommended by the arborist's report, in conjunction with a comprehensive landscape scheme incorporating new tree planting both at the boundaries and in the central sections of the site, the concept plan is capable of delivering a development which will result in a net positive impact to the landscape character of the area. Future assessment requirements relating to tree retention and future landscaping have been included in the recommendation.

## 5.7. Social Infrastructure and Community Facilities

### 5.7.1 Education Facilities

Both Council and the Department of Education and Communities (DEC) have advised that the density of the development as proposed under the revised Concept Plan would generate the need for two additional primary school classrooms, and 0.5 additional high school classrooms. Both agencies have requested that the department levy a development contribution to ensure funds are provided to DEC to facilitate the construction of these additional facilities.

The PPR analysed the additional demand on educational facilities that would be generated by the concept proposal (73 pre-school places and 140 primary and secondary school places) and details that the demand on educational facilities would be lower as a result of the revisions to the Concept Plan as proposed under the PPR. The proponent asserts that a development contribution should not be imposed to facilitate the construction of additional school classrooms, on the basis that Planning System Circulars specify that the cost of constructing new school classrooms will be borne by the State government.

The department has reviewed the proponent's justification and agrees that the current Planning System Circular 'PS08-017 Review of Infrastructure Contributions' does not support the collection



of contributions toward the construction of school classrooms. Accordingly, the department does not support Council and the DEC's request for a development contribution to facilitate the construction of additional educational facilities.

The department also notes that the NSW State Budget for 2013 / 14 has included additional funding for the construction of new classrooms and schools in the Lower North Shore to address current and future capacity issues.

### 5.7.2 Other Social Infrastructure

In terms of other social infrastructure such as libraries, child care centres etc., the department considers that appropriate contributions can be collected via the Council's section 94A contributions plan when future development applications are lodged for the construction of each residential building.

## 5.8. Other Issues

### 5.8.1 Impacts to Floor Space, Dwelling Numbers and Car Parking

It is noted that given some of the modifications suggested in this report, the final project may not be able to achieve the maximum density and dwelling numbers sought. Based on the indicative floor plans submitted with the application, it is estimated that the recommended modifications to Buildings B, E and G (as set out in **Sections 5.2.4** and **5.3.1**) could result in the loss of around 3,500 sqm to 4,000 sqm of floor space, equating to approximately 35 to 40 dwellings, although this will ultimately be determined by the final design of future stages, and dependent upon meeting solar access and tree retention requirements.

The department does not consider that it is necessary to change the terms of the approval or modify the maximum of 450 dwellings. The indicative floor plans provided with the application provide for more than 450 dwellings and have not accounted for any dwellings within the existing 'Loft' building, which is proposed to be retained for adaptive reuse and has a GFA of 1,050 sqm. Depending on the final design of future stages, dwelling mix and dwelling sizes, as well as the use of the future 'Loft' building, it may still be possible achieve close to 450 dwellings on the site.

As future assessment requirements have been recommended to ensure development will meet amenity and urban design standards, the department considers there is no need to reduce the amount of floor space or dwelling numbers to be approved.

Other modifications have been recommended to reduce the footprint of the proposed basement levels to improve the deep soil landscaping and tree provision. It is noted that the concept plans do not specify a maximum depth or maximum number of basement levels. It will therefore be possible to provide adequate onsite car parking provision within additional basement levels despite the recommended reduction to basement footprints. In this regard, it is noted that the recommended setting back of basement levels from site boundaries and adjoining buildings is consistent with the recommendations of the geotechnical report submitted with the EA.

### 5.8.2 Unit Mix

Indicative floor plans submitted with the PPR indicate a unit mix of:

- 36 per cent one-bedroom apartments;
- 44 per cent two-bedroom apartments; and
- 20 per cent three-bedroom apartments.



However the proponent advises that the Concept Plan does not specifically seek approval for apartment mix, but that future applications would address the relevant provisions of the Willoughby DCP.

It is noted that neither the DCP, nor the RFDC suggest a specific unit mix. The RFDC requires that developments provide a variety of apartment types between studio, one, two, three and three plus bedroom apartments, and that apartment mix should be refined for a location by consideration of population trends and market demands.

A future assessment requirement is therefore recommended requiring that future applications for Stages 1 and 2 (which incorporate the residential flat buildings) include a variety of apartment types between studio-, one-, two-, three- and three plus-bedroom apartments and that the proposed apartment mix must be justified by consideration of population trends and market demands.

### 5.8.3 Developer Contributions

Council has requested that, due to the extensive impacts of the proposal, the section 94 contributions plan that would usually apply to the site, which levies contributions at the rate of 1 per cent of development costs, be set aside. Instead, it seeks that contributions be levied at the rate of \$10,000 per dwelling (in this case \$4.5 million). This would result in effectively 2.5 times the amount of contributions being paid to Council as compared to the requirements under the current s94 plan.

Developer contributions are levied at the time of future development applications, and in accordance with the contributions plan in force at that time. A variation to the amount of contributions paid by the proponent to Council could be achieved through a Voluntary Planning Agreement (VPA), although in this instance, there has been no agreement to enter into a VPA.

The department considers that, other than the raised pedestrian crossing discussed in **Section 5.5.1**, and pedestrian pathway through Walter Street Reserve discussed in **Section 5.6.1**, the proposal does not give rise to the need for additional infrastructure, services or other public benefit to mitigate the impacts of the proposal, beyond those which would be funded through the usual section 94 contributions mechanism. A deviation from the approved section 94 contributions plan is therefore not considered to be justified.

Furthermore, it is noted that in addition to section 94 payments, the proposal includes a commitment to dedicate to Council at least 4 per cent of the total residential floor space developed within the site as affordable housing, thereby delivering a significant public benefit above the usual developer contributions.

The department notes that the absence of a VPA attached to the Concept Plan does not preclude the possibility for the Council and proponent to enter into a VPA at a later date or in relation to a future development application.

### 5.8.4 Sustainability

The DGRs required that the development incorporate best practice ESD principles and achieve a maximum ESD rating, to be assessed against a suitably accredited rating scheme to meet industry best practice. Council raised a concern that the proposal did not achieve this requirement, and suggested that future applications should meet certain sustainability requirements, such as:

- Green Building Council minimum 5 star rating;
- passive design to reduce demand for electricity, water and gas;
- renewable energy on site or other decentralised energy systems; and
- water sensitive urban design.



The department asked the proponent to give further consideration in their PPR to the incorporation of additional sustainability measures such as these into the proposal.

The proponent subsequently advised that the development would exceed the requirements of 'BASIX', but has incorporated no additional ESD measures into the proposal. The proponent argues that BASIX is the department's own 'best practice' accreditation scheme, and that detailed sustainable design treatments cannot be determined at Concept Plan stage as specific technologies or measures locked in at this stage may be outdated by the time the site is ready for development.

The department considers that BASIX provides a tool that can be applied universally to all residential development to ensure minimum levels of energy and water saving measures are achieved. However, it is not considered to be a measure of 'best practice' and the scale of the development on the site warrants further consideration of incorporation of ESD measures at a site-wide / Concept Plan level.

However, the department accepts that, as it may be sometime before the site is redeveloped, and that as sustainable technologies are rapidly changing, a better outcome may be achieved if ESD measures are developed at a later date.

A future assessment requirement has therefore been recommended, requiring the provision of an ESD plan to address how future development on the site will incorporate best practice ESD principles and achieve a maximum ESD rating (not necessarily limited to BASIX).

#### **5.8.5 Telecommunications Tower and Electromagnetic Radiation**

A number of public submissions raised concerns with the existing telecommunications tower adjoining the site, with a number of submissions advocating for the removal of the tower. Council and the community raised concerns about the potential impacts from electromagnetic radiation emitted from equipment on the tower upon future residents at the site.

The telecommunications tower is not owned by Channel Nine and does not form part of the subject site. It is likely to remain in place when the development is built. It currently houses digital radio transmitters, digital television transmitters, and analogue transmitters, although as of 3 December 2013, the analogue transmitters are no longer operative.

The EA was accompanied by a radio frequency hazard survey which took radio frequency measurements at 31 locations around the site, all of which were well below the exposure levels accepted for residential development (known as the General Public Reference Level (GPRL). The vast majority of readings were below 1 per cent of the GPRL, and the highest reading being only 28 per cent of the GPRL and at a location located away from the tower, but "directly in front of an Optus Mobile phone antenna".

Council raised a concern that readings were taken generally at ground level and that radiation levels above ground may be much higher. In response, the proponent included a Statement of Commitment that future development applications for buildings in proximity to the tower would include electromagnetic radiation reports to address compliance with the GPRL.

The commitment however does not relate to Building G, being the most affected building, and a future assessment requirement has therefore been included in the recommended instrument. The department considers that with a requirement that future applications demonstrate that exposure to future dwellings fully complies with the GPRL, the proposal will not result in exposure to any unacceptable electromagnetic radiation impacts.



### 5.8.6 Contamination

An environmental site assessment was undertaken and a remedial action plan was developed for the site and submitted with the EA. The assessment identified the presence of a number of contaminants including asbestos in fill and hydrocarbons from fuel storage tanks. Nevertheless, the report concludes that the site is able to be made suitable for the proposed residential use. The assessment recommends further investigation to develop a detailed remedial action strategy as part of the future development of the site. The strategy will need to be implemented to the satisfaction of an EPA accredited site auditor.

Future assessment requirements have therefore been recommended requiring the detailed remedial action strategy, and any necessary remediation, to be undertaken as part of future development applications.

Due to the sensitive nature of the proposed residential use, Council has recommended that an independent review of all stages of the site investigation process be conducted by a site auditor prior to the lodgement of any development application. The department does not consider that such an extensive review is justified in this case, and that provision of a site audit statement by an accredited site auditor is consistent with accepted best practice and provides sufficient safeguard to ensure the site is made suitable for the use.

### 5.8.7 Stormwater

An integrated water management plan was submitted with the EA. Council identified a range of concerns and has provided detailed requirements for management of stormwater on the site. The proponent has accepted these requirements and has advised that they can be addressed at future development application stages. However, there will be a need for drainage lines and associated easements to traverse across more than one stage, and therefore a whole-of-site approach is required prior to the lodgment of individual development applications for each stage. A term of approval has therefore been recommended, requiring a site-wide concept stormwater management plan in accordance with Council's requirements prior to the issue of a super-lot subdivision certificate, and with appropriate easements being incorporated within any subdivision to allow for stormwater management in accordance with the Concept Plan.

## 6. CONCLUSION

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The department has assessed the merits of the proposal taking into consideration the issues raised in public and agency submissions.

The key issues considered in the assessment of the proposal are density, built form and traffic impacts. The site was found to be well suited for the provision of increased residential densities due to its location within close proximity to major centres and access to public transport, in line with the objectives of the Draft Metropolitan Strategy for Sydney.

In arriving at this conclusion, the department considered a range of issues and impacts arising from the density including built form (particularly heights), amenity impacts, traffic and local road network impacts and adequate provision of open space and community facilities to support the proposal.

In terms of built form, the department considers that the site is large enough to support the scale of development proposed, including heights of 10 to 12 storeys in the southern and central parts of the site, providing that additional boundary setbacks are incorporated to allow for tree retention and new tree planting. Smaller scale development of three to five storeys is considered appropriate at other site edges where there is an interface with low scale residential development. The proposed



residential built form in conjunction with the associated open space and landscaping is considered to result in a much improved relationship between the site and the surrounding streetscapes.

In terms of amenity impacts, with recommended modifications to one of the building envelopes, the proposal would not result in unacceptable overshadowing impacts to adjoining sites and would not result in any unacceptable privacy impacts. Following recommended changes to building envelopes, it is also considered that the proposal would not result in unacceptable visual impacts on any immediate neighbours.

Internal amenity impacts have also been assessed. The Concept Plan is capable of delivering development that would perform well in relation to solar access and privacy, with an adequate level of building separation provided in the proposal. Adequate provision of communal open space including a large publically accessible park to support the proposal has also been demonstrated in this assessment.

An assessment of traffic and road network impacts revealed that the proposal will not result in unacceptable traffic generation or congestion of surrounding streets and traffic safety issues are able to be adequately addressed through future environmental assessment requirements. Proposed parking rates were considered appropriate, and it has been demonstrated that the site has good access to public transport.

In terms of community infrastructure, the department considers that the proposal will not result in undue strain on surrounding infrastructure and does not generate a requirement for additional monetary contributions to fund infrastructure beyond the usual section 94A contributions and provision of a raised pedestrian crossing and bush track to the rear of the site.

The department has also considered a range of other issues raised by Council and public submissions including provision of pedestrian links, tree retention, developer contributions, incorporation of sustainability measures, electromagnetic radiation, contamination issues, stormwater management and staging. With the imposition of appropriate future environmental assessment requirements, the department is satisfied that all other impacts have also been satisfactorily addressed.

The department has recommended a number of modifications to building envelopes to address built form impacts and has also made recommendations in relation to future environmental assessment requirements. Key modifications to the built form include:

- stepping down in height of Building B towards the south (to meet specific solar access requirements);
- Building G maximum building height reduced by 4 metres to RL 113.7 at the southern end;
- southern setback of Building G envelope and basement below increased (to support tree provision);
- southern setback of Building E envelope and basement below increased (to ensure tree retention and new tree provision); and
- envelope of Building C to step down to the south in accordance with cross sections provided.

The department is satisfied that the site is suitable for the proposed development and that the Concept Plan will provide environmental, social and economic benefits to the locality. On balance, the Concept Plan is considered appropriate for the following reasons:

- the proposed renewal and upgrade of the site and change from television studios to a residential use presents an orderly redevelopment of the land in line with local and regional planning objectives and the objects of the EP&A Act;
- the proposal will make a significant contribution to the housing stock of the Willoughby LGA, with good accessibility to transport, services, facilities and employment; and
- the proposal will deliver public benefits including affordable housing; a new publically accessible park, and through site link including improvements to the Walter Street Reserve, of benefit to the wider community.




The department recommends that the proposal be approved, subject to the terms of approval, modifications and future assessment requirements set out in the attached instrument.

## 7. RECOMMENDATION

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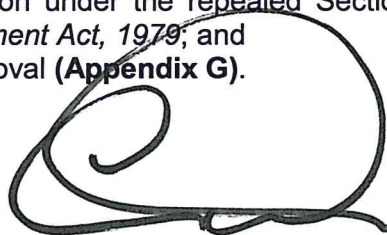
It is recommended that the Planning Assessment Commission, as delegate for the Minister for Planning and Infrastructure:

- (a) consider the recommendations of this Report;
- (b) **approve** the Concept Plan application under the repealed Section 75O of part 3A of the *Environmental Planning and Assessment Act, 1979*; and
- (c) **sign** the attached Instrument of Approval (**Appendix G**).



19/12/13

**Daniel Keary**  
**Director**  
**Industry, Key Sites and Social Projects**



20.1.14

**Chris Wilson**  
**Executive Director**  
**Development Assessment Systems and**  
**Approvals**