From: Angus Nguyen <angus.n@landmarkgr.com>
Sent: Thursday, 22 June 2023 9:25 AM
To: Joseph Scuderi; Steven Findlay; Aaron Sutherland
Cc: Peter Robinson
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues
Attachments: 4 Delmar Pde FF Ecological Report - Aquila.pdf

Hi Steven,

Please find attached revised Flora and Fauna report by Aquila Ecological Surveys.
Most of the additional information requested is in the notes section at the bottom of page 1.

Let me know if there is anything else you require.

Thanks

Kind Regards,

Angus Nguyen
Development Manager

Landmark

Level 29, 2 Chifley Plaza
Sydney NSW 2000
02 9231 8679
0435 066 969
angus.n@landmarkgr.com
Landmarkgr.com

From: Joseph Scuderi <joseph@landmarkgr.com>
Sent: Wednesday, June 21, 2023 1:59 PM
To: Steven Findlay <Steven.Findlay@northernbeaches.nsw.gov.au>; Aaron Sutherland <aaron@sutherlandplanning.com.au>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>; Angus Nguyen <angus.n@landmarkgr.com>
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Shall do Steven. Will be issued today or tomorrow morning at the latest.

Regards,

Joseph Scuderi
Head of Development

Landmark

Level 29, 2 Chifley Plaza
Sydney NSW 2000

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0410 500 959
joseph@landmarkgr.com
Landmarkgr.com

From: Steven Findlay <Steven.Findlay@northernbeaches.nsw.gov.au>
Sent: Wednesday, June 21, 2023 1:54 PM
To: Aaron Sutherland <aaron@sutherlandplanning.com.au>; Joseph Scuderi <joseph@landmarkgr.com>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

EXTERNAL

Hi Joseph,

As discussed, can you this please submit an updated Flora and Fauna Report, including the authors name, business details, position, qualifications and date, as well as page numbers.

Thanks Steve

Steven Findlay
Manager, Development Assessments

Development Assessment - North Team
t 02 8495 6510 **m** 0419 421 533
steven.findlay@northernbeaches.nsw.gov.au
northernbeaches.nsw.gov.au

northern beaches council

From: Steven Findlay <Steven.Findlay@northernbeaches.nsw.gov.au>
Sent: Wednesday, June 14, 2023 2:40 PM
To: Aaron Sutherland <aaron@sutherlandplanning.com.au>; Joseph Scuderi <joseph@landmarkgr.com>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>
Subject: Re: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Thanks for the update Aaron 😊

Get Outlook for iOS

From: Aaron Sutherland <aaron@sutherlandplanning.com.au>
Sent: Wednesday, June 14, 2023 2:32:09 PM
To: Steven Findlay <Steven.Findlay@northernbeaches.nsw.gov.au>; Joseph Scuderi <joseph@landmarkgr.com>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Hi Steve,

We will be submitting this afternoon.

Kind regards

AARON SUTHERLAND
Director

SUTHERLAND & ASSOCIATES PLANNING
PO Box 814, Bowral, NSW, 2576
m 0410 452 371
www.sutherlandplanning.com.au

From: Steven Findlay <Steven.Findlay@northernbeaches.nsw.gov.au>
Sent: Wednesday, June 14, 2023 2:29 PM
To: Joseph Scuderi <joseph@landmarkgr.com>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>; Aaron Sutherland <aaron@sutherlandplanning.com.au>
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Hi Joseph,

Hope you're well.

Do you have an estimated date for submission of the additional information?.

Thanks Steve

Steven Findlay
Manager, Development Assessments

Development Assessment - North Team
t 02 8495 6510 **m** 0419 421 533
steven.findlay@northernbeaches.nsw.gov.au
northernbeaches.nsw.gov.au

northern beaches council

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From: Steven Findlay
Sent: Wednesday, June 7, 2023 10:48 AM
To: Joseph Scuderi <joseph@landmarkgr.com>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>; Aaron Sutherland <aaron@sutherlandplanning.com.au>
Subject: RE: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Hi Joseph,

The contact at Council for your ecologist to make contact is:

Brendan Smith
Team Leader, Biodiversity & Planning

Bushland & Biodiversity
t 02 8495 6626 **m** 0417 315 341
brendan.smith@northernbeaches.nsw.gov.au
northernbeaches.nsw.gov.au

I have informed Brendan that he can expect a call, and please note, he will convey that the landscape/parks experts will need to have some input into assisting you with responding as there are overlapping concerns with shadowing impacts on the vegetation within the Reserve.

Thanks Steve

Steven Findlay
Manager, Development Assessments

Development Assessment - North Team
t 02 8495 6510 **m** 0419 421 533
steven.findlay@northernbeaches.nsw.gov.au
northernbeaches.nsw.gov.au

northern beaches council

From: Steven Findlay
Sent: Tuesday, June 6, 2023 5:25 PM
To: Aaron Sutherland <aaron@sutherlandplanning.com.au>
Cc: Peter Robinson <Peter.Robinson@northernbeaches.nsw.gov.au>; Joseph Scuderi <joseph@landmarkgr.com>; Adam Martinez <Adam@landmarkgr.com>
Subject: DA2022/0145 - 4 Delmar Parade, Dee Why - Biodiversity and Landscape Issues

Hi Aaron,

As requested, here is a summary of the issues to be addressed in the biodiversity and landscape response:

Shadow Impacts raised by Biodiversity Team

Warringah Development Control Plan 2011

The E5 Native Vegetation WDCP control Objectives are as follows (emphasis added):-

- *To preserve and enhance the area's amenity, whilst protecting human life and property.*
- *To improve air quality, prevent soil erosion, assist in improving water quality, carbon sequestration, storm water retention, energy conservation and noise reduction.*
- *To provide natural habitat for local wildlife, **maintain natural shade profiles** and provide psychological & social benefits.*
- *Promote the retention of native vegetation in parcels of a size, condition and configuration which will as far as possible enable local plant and animal communities to survive in the long term.*
- *To maintain the amount, local occurrence and diversity of native vegetation in the area.*

With reference to the above DCP objectives, the proposal does not maintain natural shade profiles.

The shadow diagrams indicate that the southern portion of the reserve will be subject to overshadowing to varying degrees during the autumn, winter and spring seasons. While the development proposal will not directly modify native vegetation within the Reserve, native vegetation in the shaded area will be indirectly impacted.

*The proposal is inconsistent the WDCP Clause E5 objective regarding maintaining **natural shade profiles**.*

The Flora and Fauna Assessment has not addressed the impacts of shading over native vegetation in the Stony Range Flora Reserve.

It is noted that the potential impacts of shading relate to reserve amenity as well as impacts upon areas of native vegetation.

Stony Range Management Strategy Plan (1994)

The Stony Range Management Strategy Plan (1994) states that the "primary role of the Reserve is for display of native plants from all over Australia, in addition to the local flora".

The Plan lists three main management objectives for the 3.64 hectare Reserve, including the "Conservation of the endemic plant communities and the display of Australian Flora for public enjoyment and education."

Remnant native vegetation is present within the reserve. Much of the reserve area subject to winter shading is over an area represented by planted local and non local native vegetation and remnant native trees. A portion of the shaded area includes relatively intact native vegetation which is located in the eastern extent of the area subject to (mostly winter) shading.

It is acknowledged that much of the native vegetation in this area is already partially shaded as a result of the dense tree canopy.

Shadow Impacts raised by Landscape and Parks Team

At the Winter (22 June) solstice, the shadows extend into the reserve at their deepest. The depth of shadow ranges from approximately 40m to 14m into the reserve across its northern boundary during the winter solstice.

It is important to note that the understorey plants in the affected area currently receive dappled sun/shade, with sun penetrating to the ground. It is also noted that there are paths, picnic areas and play areas in the areas affected by shadow, based on the scaled measurements.

Whilst this area only represents a small portion of the Reserve as a whole, the dappled light is considered to be important to the ground cover and understorey species during those 6 months in this, the lowest part of the site.

The heritage criteria in the Heritage Inventory does refer to a range of microclimates throughout the site and its value as a scientific, research and educational resource.

Statement of Significance	The Stony Range Flora and Fauna Reserve has a high degree of local significance for growing a wid Sydney Region, and for contributing to community awareness of them. It is a skilfully and aesthetical landscape which has a combination of scientific, research and educational functions which are much regional.
SHR Criteria c) Aesthetic Significance	The Reserve has aesthetic significance for its skilful and sensitive layout of pathways, plantings, wate appropriate habitats and microclimates for plants and visual pleasure for visitors.
Integrity/Intactness	The Reserve has high integrity, being very well maintained by Council and volunteers.

From a landscape perspective, it is considered that development should not impact on the delicate understorey areas, entrance to the reserve, and its public facilities.

Concern is raised with regard to the ongoing impact of shadows in this particular microclimate, and therefore on the integrity of the HCA.

It would be preferable for the solstice shadows (mid-winter) to be restricted to the extent indicated on the equinox plans (autumn/spring).

General Comments from recent Referrals Group Meeting (Biodiversity, Landscape and Parks)

- The referrals really want to know the extent of change to the growing conditions comparing the existing conditions with the proposed conditions. Not sufficient information submitted to date.
- What species would be adversely impacted by additional shading. There is no mapping of species or vegetation communities, which would greatly assist the assessment.
- To what extent does the existing tree canopy result in shading (winter) of the area to be overshadowed by the development? And, how does that relate to the WDCP requirement to maintain natural shade profiles, so shading from natural features, not from manmade features such as the proposed development?
- There are public amenities within the Reserve near the northern boundary including a BBQ area/picnic area and children's play area. How will these areas be impacted in terms of "all year round' use?
- Main concern of Biodiversity Officer is the impacts of overshadowing of the "native bushland" to the east of the BBQ/Picnic area.
- Main concern of the Landscape/Parks Officer are the impacts on the replanted areas and native bushland areas, plus impacts on public amenity/users of the affected areas of the Reserve (public interest).
- There is a general expectation that the impact on what is a "Botanical Reserve", which is zoned and dedicated for "Public Recreation" should be avoided.

Please let me know if any of the above requires clarification.

Thanks Steve

Steven Findlay
Manager, Development Assessments

Development Assessment - North Team
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steven.findlay@northernbeaches.nsw.gov.au
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Northern Beaches Council

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Flora & Fauna Assessment,

Stoney Range Regional Botanic Garden

as impacted by the proposed development of

4 Delmar Parade & 812 Pittwater Road, Dee Why.

June 2023.

Aquila
Ecological
Surveys

Introduction

In August 2021 Ecological Surveys and Planning (ESP) prepared a flora and fauna assessment report for a proposed redevelopment at 4 Delmar Parade and 812 Pittwater Road, Dee Why. In response to the development application lodged by Landmark in relation to this proposal, North Beaches Council has advised that ESP (2021) did not address the impacts of shading over native vegetation in Stony Range Regional Botanic Garden, and that the proposal is inconsistent with one of objectives of the Warringah Development Control Plan Clause E5(3), namely the maintenance of natural shade profiles.

Aquila Ecological Surveys (AES) was contracted by Landmark Group to address the concerns raised by Council and assess the impact of the proposed neighbouring development of 4 Delmar Parade and 812 Pittwater Road, Dee Why upon the Heritage Conservation Area of Stoney Range Reserve. In order to determine the potential indirect impacts of shade, that part of Stony Range Regional Botanic Garden that would be affected by the proposed development during autumn, winter and spring were surveyed by Paul Burcher[1] (B.App.Sc.) between 11 a.m. and 1 p.m. on 12 June 2023. As this date is approximately one week away from the winter solstice, it is considered to accurately cover the period of most concern. Detailed notes were made of the nature of the vegetation that could potentially be affected and the component species therein.

Description of the Affected Area

Extents of overshadowing presented by the proposed development were prepared by Rothelowman Architects, who have prepared the shadow diagrams on Drawings TP05.03 to TP05.14 (addendum A). The highest proportion of shading and hence affect on the reserve is during the winter solstice, and this area, although highly conservative as it is only applicable for a single day, was taken to form the measure of the affected area.

Vegetation within the affected part of the reserve is composed of a mix of remnant locally occurring native plant species and a wide variety of Australian plants that have been planted in the reserve since its establishment.[2] The planted specimens are mostly comprised of species from the eastern seaboard including some that occur locally. The affected area also includes a vehicular entrance lane, walking paths, a barbecue area and a pond.

The vegetation has a canopy to 25 metres tall that is dominated by the locally occurring native plant species Smooth-barked Apple (*Angophora costata*) and Sydney Peppermint (*Eucalyptus piperita*) along with Bangalay (*E.botryoides*), Lemon-scented Gum (*Corymbia citriodora*) and Red Cedar (*Toona ciliata*).

There is a moderately dense to very dense understorey that includes locally occurring native plant species Cheese Tree (*Glochidion ferdinandi*), Saw Banksia (*Banksia serrata*), Lilly Pilly (*Acmena smithii*), Cabbage Tree Palm (*Livistona australis*) and NSW Christmas Bush (*Ceratopetalum*

1 Paul is the principal of Aquila Ecological Surveys (ABN 75 407 030 097). He has been an independent environmental consultant for over 30 years. He is a practicing member of the Ecological Consultants Association of NSW and is a signatory to its Code of Business Practice, Professional Conduct and Ethics.

2 In relation to State legislative definitions, some of the plant species in the affected part of the reserve are not "native vegetation." Native vegetation in NSW under the *Local Land Services Act 2013* and thus the *Biodiversity Conservation Act 2016* and *State Environmental Planning Policy (Biodiversity and Conservation) 2021* is defined as trees, understorey plants, groundcover and wetland plants that are native to New South Wales. Plants in the affected area of the reserve that are not native to NSW include species that constitute a significant amount of foliage cover, namely Lemon-scented Gum and Queensland Tree Waratah, the natural distributions of which are confined to Queensland. A similar definition of 'native vegetation' was in force under the Native Vegetation Act 2003 in 2011 when the DCP was adopted.

gummiferum). There is a wide variety of planted rainforest trees the most common of which are Illawarra Flame Tree (*Brachychiton acerifolius*) and Queensland Tree Waratah (*Alloxylon flammeum*), and there is a grove of planted Macaranga (*Macaranga tanarius*) near the northern boundary west of the barbecue area.

The shrub stratum mostly consists of planted Narrow-leaved Palm Lily (*Cordyline stricta*), *Grevillea* cultivars, Blackthorn (*Bursaria spinosa*), Mint-bushes (*Prostanthera spp*), Blueberry Ash (*Elaeocarpus reticulatis*), Bolwarra (*Eupomatia laurina*) and Pink Wax Flower (*Eriostemon australasius*).

The groundcover is composed of a range of species tolerant of the heavy shade cast mostly by the small tree layer. Common species are Harsh Ground Fern (*Hypolepis muelleri*), Bracken (*Pteridium esculentum*), Maidenhair Fern (*Adiantum aethiopicum*), Basket Grass (*Oplismenus aemulus*), Native Violet (*Viola hederacea*), Climbing Guinea Flower (*Hibbertia scandens*), Weeping Grass (*Microlaena stipoides*) and Sword Sedge (*Lepidosperma laterale*).

Intact remnant bushland, less subject to planting, occurs on the slope in the east of the affected area (Figure 1). Here there is a canopy of Smooth-barked Apple and Grey Gum (*Eucalyptus punctata*) with a shrub layer that includes Black She-oak (*Allocasuarina littoralis*), Black Wattle (*Callicoma serratifolia*), Blueberry Ash, Hairpin Banksia (*Banksia spinulosa*) and Bushy Needlebush (*Hakea sericea*). Groundcover species include Sword Sedge, Spiny-headed Mat-rush (*Lomandra longifolia*), Wiry Panic (*Entolasia stricta*), Forest Grass-tree (*Xanthorrhoea media*), Apple Berry (*Billardiera scandens*) and Trailing Guinea Flower (*Hibbertia dentata*).

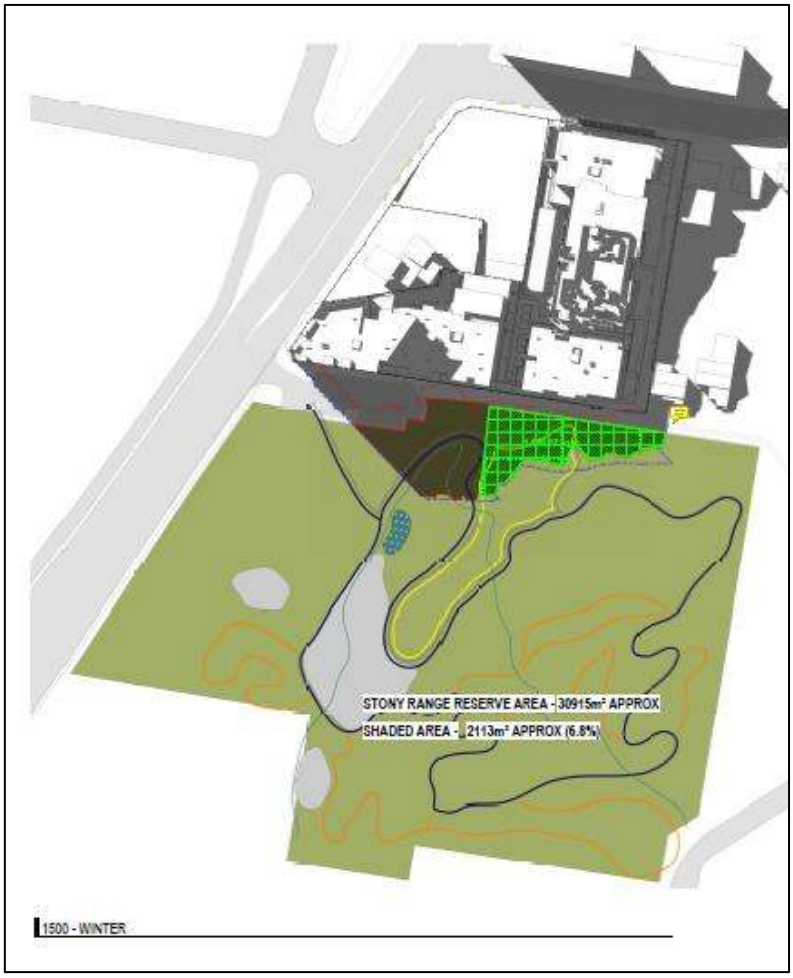

Figure 1. Extract from shade diagram illustrating worst-case scenario for shading of intact bushland (stippled) at 3 p.m. in winter.

This vegetation conforms to Plant Community Type (PCT) 3592 Sydney Coastal Enriched Sandstone Forest. The State Vegetation Type Map (Department of Planning and the Environment 2023) erroneously indicates that whole of the reserve is vegetated with this PCT.

Photo 1. Intact bushland (PCT 3592) on the north-west-facing slope east of the barbecue area.

Discussion

As evidenced by the shade profiles prepared by Rothelowman on behalf of Landmark Group (Addendum A), the proposed development would modify shade profiles in the northern part of the reserve. However, it is considered impacts of this shading are likely to be minimal.

The canopy trees in the affected area are as tall or taller than the proposed building height. Given the angle of the shadow cast , this mean that access to light for leaves in the canopy would not be diminished by the proposed building, even at the winter solstice. Hence there is unlikely to be any effect on the vigour of the canopy trees.

It is also considered unlikely that any of the plants in the understorey, shrub or groundcover strata would be significantly affected by the shade cast by the proposed buildings. In the affected area, there would still be access to the extant level of light during the main growing season (late spring to early autumn). Groundcover and shrub species are already heavily shaded by the small tree layer which is mostly composed of the rainforest/wet sclerophyll forest species Cheese Tree, Illawarra Flame Tree and Queensland Tree Waratah, each of which is also tolerant of shade. It should also be noted that the extent of shading moves throughout the day and shading is inconsistent, thereby further decreasing any impact. Although shading would be exacerbated by the proposed building

during late autumn to early spring in a minor portion of the affected area, the species composition and health of individual plants is unlikely to be modified.

Some species, for example ferns, may proliferate during the affected months at the expense of species adapted to higher light levels such as Basket Grass and Bordered Panic. Nevertheless, most if not all of the component species in the groundcover, including these grass species, are adapted to low light levels.

This is equally applicable to the intact bushland in the east of the affected area. On this western facing slope constituent plant species would still be subject to full afternoon sun during summer. There would be decreased penetration of light into the groundcover in this area, and likely increased soil moisture. Again, this may have a temporary seasonal impact favouring some species adapted to lower light levels (e.g. Trailing Guinea Flower) at the expense of species such as Wiry Panic.

However, this would be negated by the full sun effects experienced during summer which would not be modified by the proposed development. When overlain on the shade diagram it is estimated that the partial winter shading would affect at the most approximately 1000m^2 of this vegetation (of which just above 200m2 would be subject to shade throughout the whole day). However, the model does not take into account that ground level elevations in the reserve increase moving eastward from just east of from the barbecue area; or that the easternmost building is 15 m above ground level, some 8 m lower than that part of the proposed development that affects the more modified areas of the reserve. Therefore the affected area is likely to be considerably less than a maximum of 1000 m^2 and likewise the area subject to shading throughout the day to be considerably less than 200m^2.

The following threatened plant species occur within the affected area (Figure 2):

- Rough-shelled Bush Nut (*Macadamia tetraphylla*) – listed as vulnerable on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the NSW *Biodiversity Conservation Act 2016* (BC Act).
- Chef's Hat Correa (*Correa baeuerlenii*) – listed as vulnerable on the EPBC Act and BC Act.
- Queensland Tree Waratah - listed as vulnerable on the EPBC Act (not indicated on Figure 2).
- *Grevillea shiressii* - listed as vulnerable on the EPBC Act and BC Act.

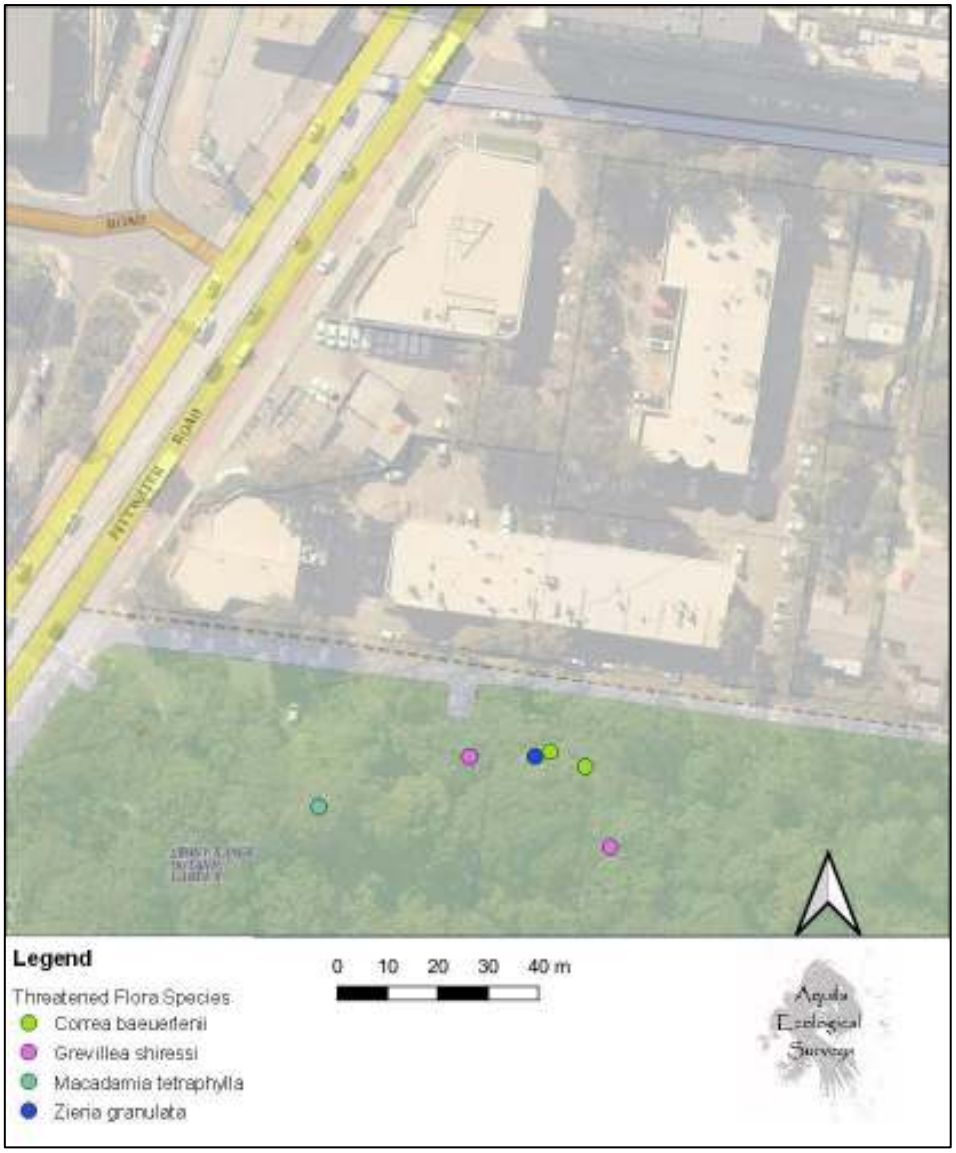

Figure 2. Locations of threatened flora species in the affected part of the reserve.

None of these species occur naturally in the reserve nor the local area. All specimens of these species in the reserve have been planted and it is considered that that under the EPBC Act there are no important populations of any of the species. Therefore, there would not be a significant impact on any of the four EPBC Act listed species. Under the BC Act there are no viable local populations of the three listed species. The proposed development would not significantly affect any of the species, or their habitats.

Conclusion

An assessment was undertaken of the potential impacts shading from the proposed development would have on vegetation within Stony Range Regional Botanic Gardens. It was found that the impacts are likely to be negligible and seasonal in nature. There is unlikely to be any appreciable long-term impact on the composition of native vegetation within the reserve.

References

Department of Planning and the Environment (2023) *State Vegetation Type Map.* Accessed June 2023. https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map/resource/anzlic-web-map.

Ecological Surveys and Planning (2021) *Flora & Fauna Assessment, 4 Delmar Parade & 812 Pittwater Road, Dee Why.* Unpublished report prepared for Willow Frank Architects, Kogarah.

Report prepared by

Paul Burcher 14/06/2023

Addendum Shadow Diagrams

(page intentionally left blank)

0900 - WINTER

1000 - WINTER

DA SUBMISSION

Revisions				
A	11.05.23	COUNCIL ISSUE	JC
B	22.05.23	COUNCIL ISSUE	JC
C	05.06.23	COUNCIL ISSUE	JC

7/06/2023 2:09:26 PM

- EXTENT OF SHADOWING FROM EXISTING BUILDING
- EXTENT OF SHADOWING FROM MAXIMUM ENVELOPE TO LEP HEIGHT LIMIT
- EXTENT OF SHADOWING FROM PROPOSED FORM
- MAIN TRACK
- SIDE TRACK
- SENSORY TRACK
- APPROXIMATE LOCATION OF TRACKS

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - WINTER**

Project No.: **221054**

Date: **05.06.23**

Author: **DM**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.03 C**

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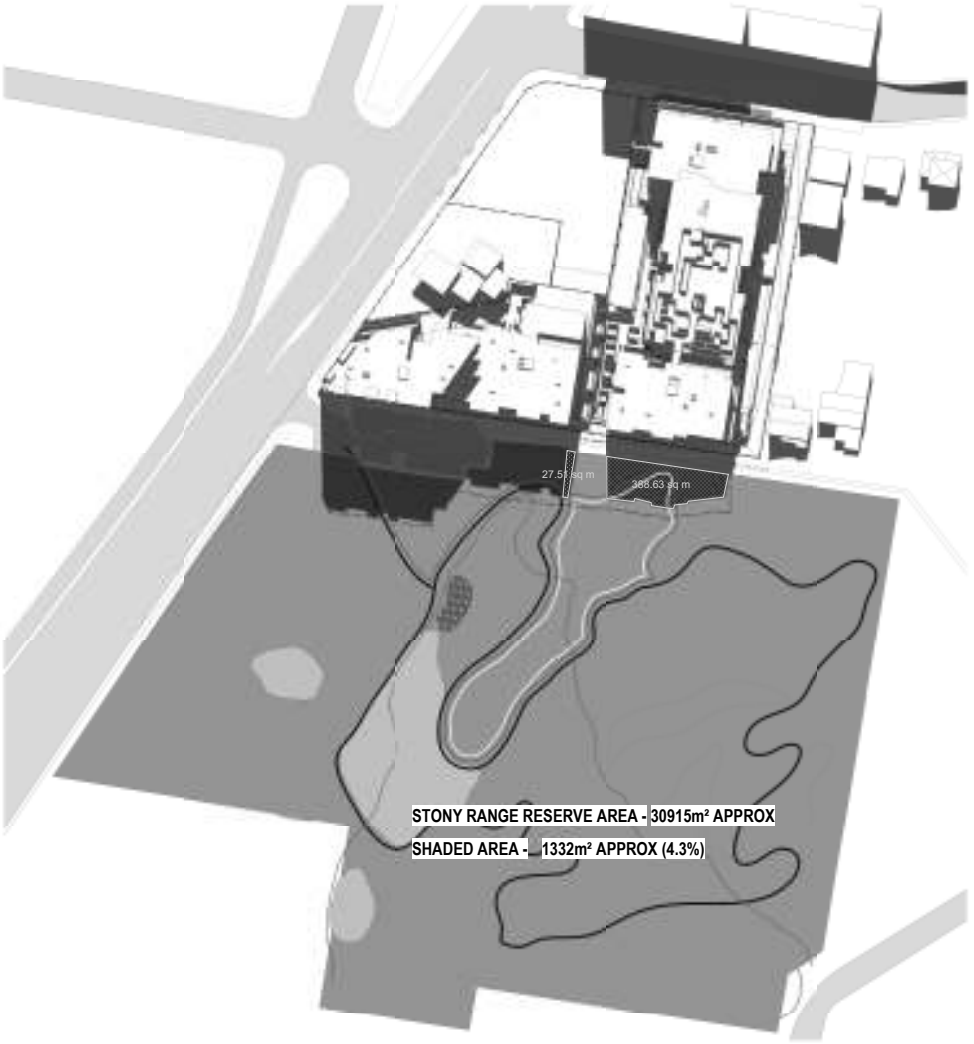
1100 - WINTER



1200 - WINTER

DA SUBMISSION

Revisions			
A	11.05.23	COUNCIL ISSUE	JC
B	22.05.23	COUNCIL ISSUE	JC
C	05.06.23	COUNCIL ISSUE	JC

7/06/2023 2:09:52 PM

- EXTENT OF SHADOWING FROM EXISTING BUILDING
- EXTENT OF SHADOWING FROM MAXIMUM ENVELOPE TO LEP HEIGHT LIMIT
- EXTENT OF SHADOWING FROM PROPOSED FORM
- MAIN TRACK
- SIDE TRACK
- SENSORY TRACK
- APPROXIMATE LOCATION OF TRACKS

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - WINTER**

Project No.: **221054**

Date: **05.06.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.04 C**

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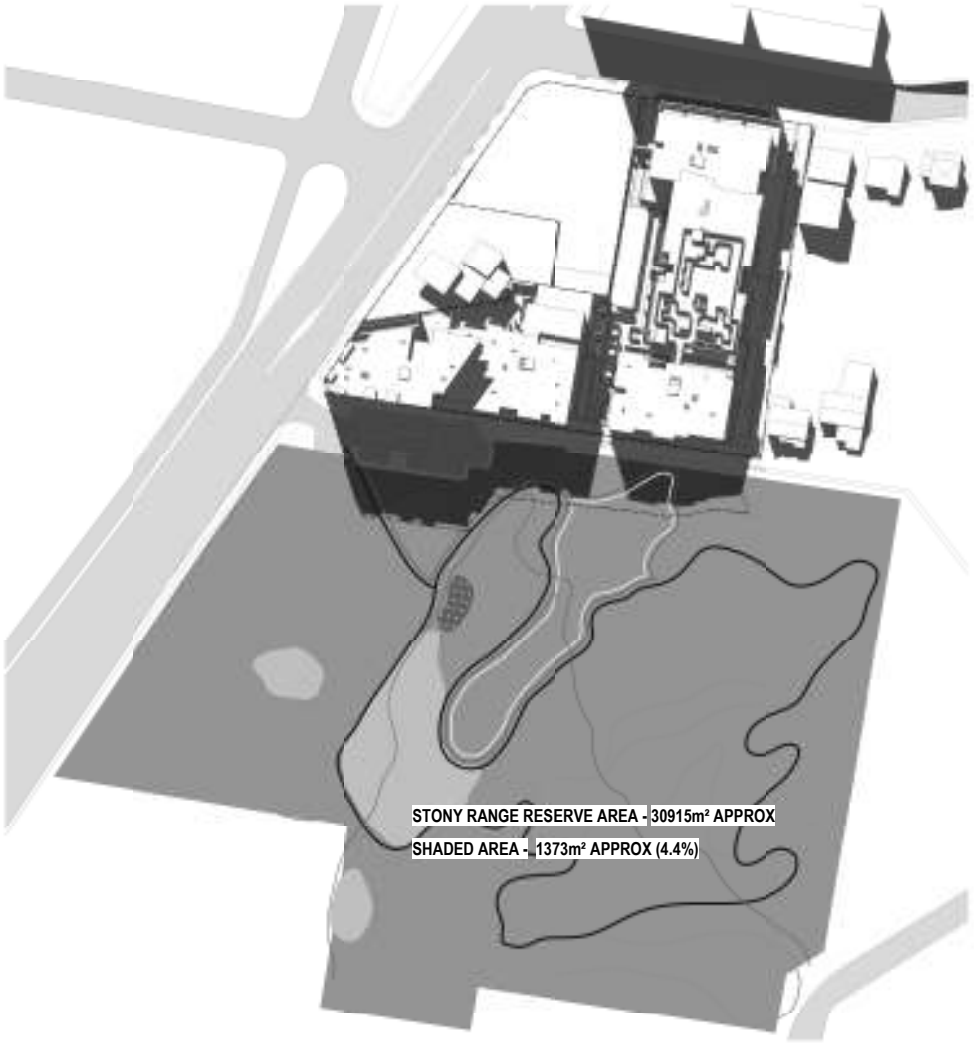
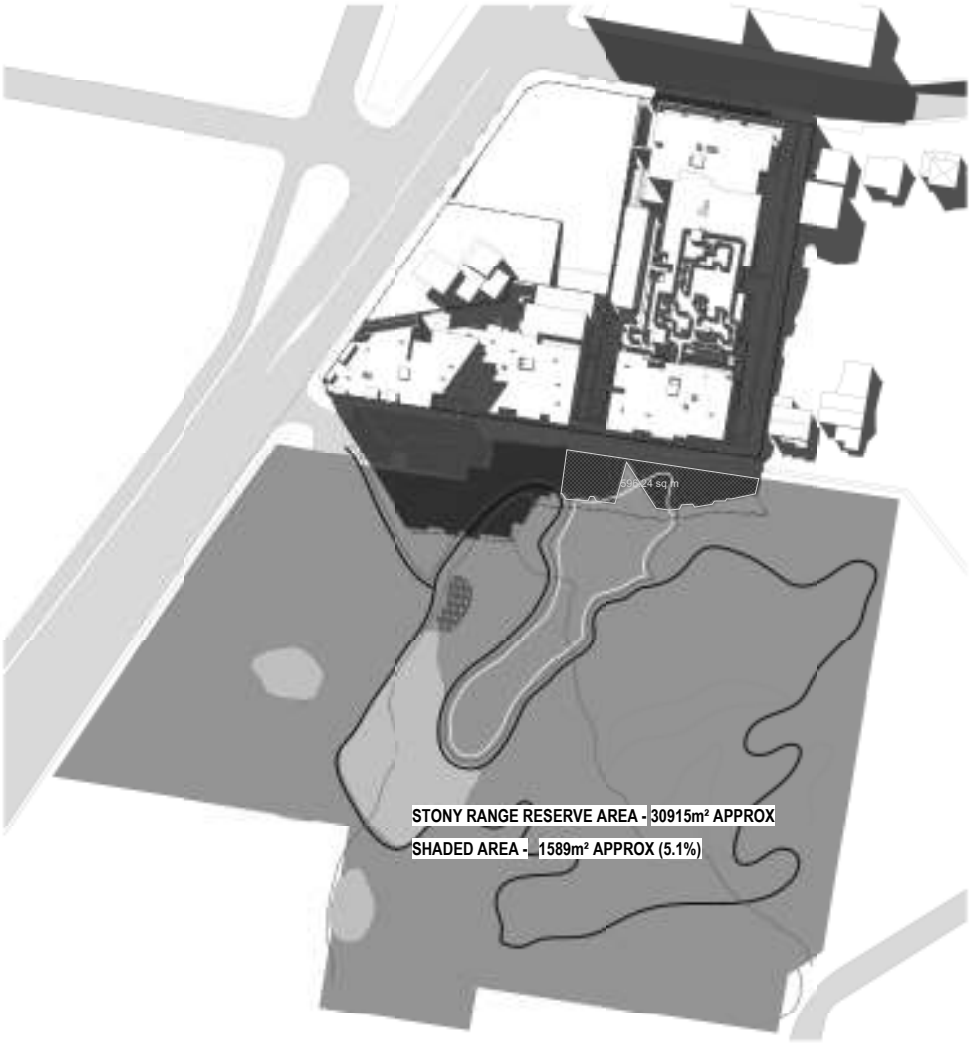


1300 - WINTER



1400 - WINTER

DA SUBMISSION

Revisions				
	A	11.05.23	COUNCIL ISSUE	JC
	B	22.05.23	COUNCIL ISSUE	JC
	C	05.06.23	COUNCIL ISSUE	JC

7/06/2023 2:10:19 PM

- EXTENT OF SHADOWING FROM EXISTING BUILDING
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- MAIN TRACK
- SIDE TRACK
- SENSORY TRACK
- APPROXIMATE LOCATION OF TRACKS

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - WINTER**

Project No.: **221054**

Date: **05.06.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.05 C**

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Brisbane, Melbourne, Sydney
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STONY RANGE RESERVE AREA - 30915m² APPROX

SHADED AREA - 2113m² APPROX (6.8%)

1500 - WINTER

DA SUBMISSION

Revisions			
A	11.05.23	COUNCIL ISSUE	JC
B	22.05.23	COUNCIL ISSUE	JC
C	05.06.23	COUNCIL ISSUE	JC

7/06/2023 2:10:37 PM

- EXTENT OF SHADOWING FROM EXISTING BUILDING
- EXTENT OF SHADOWING FROM MAXIMUM ENVELOPE TO LEP HEIGHT LIMIT
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- MAIN TRACK
- SIDE TRACK
- SENSORY TRACK
- APPROXIMATE LOCATION OF TRACKS

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - WINTER**

Project No.: **221054**

Date: **05.06.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.06 C**

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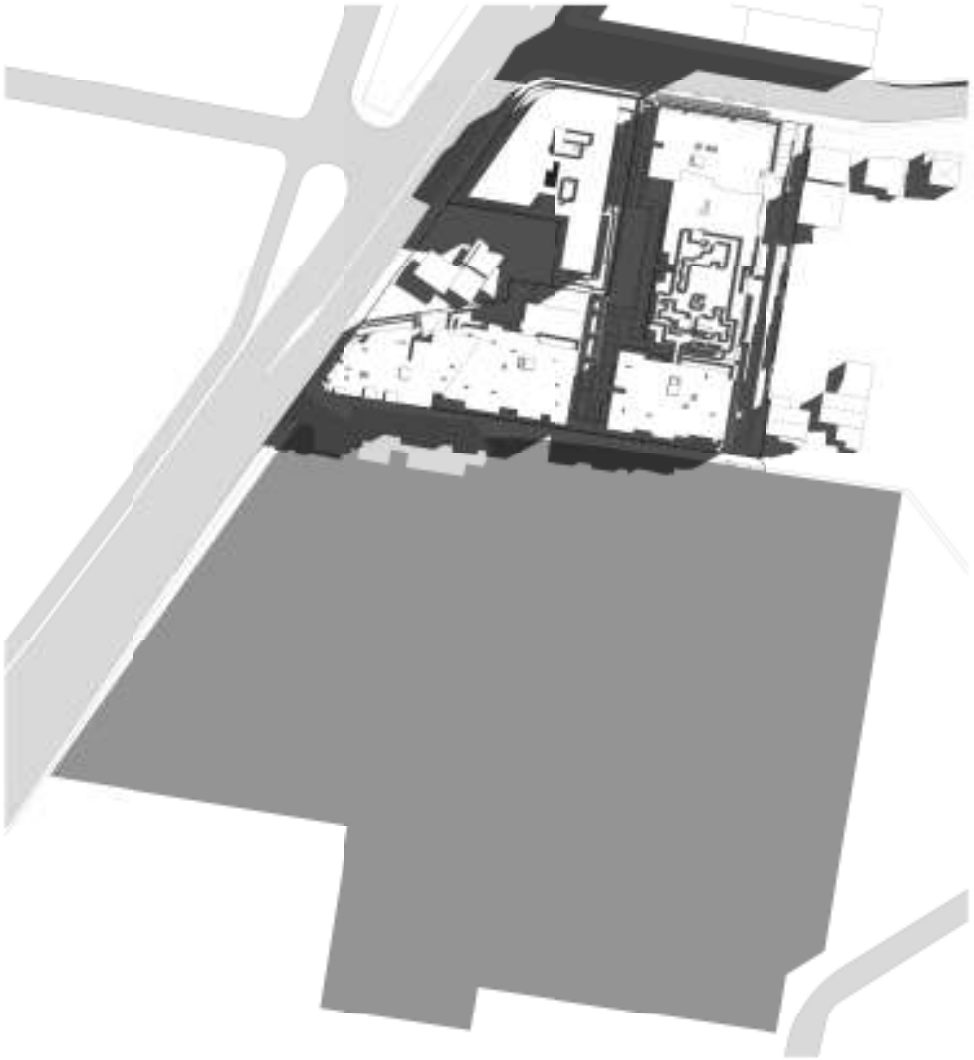
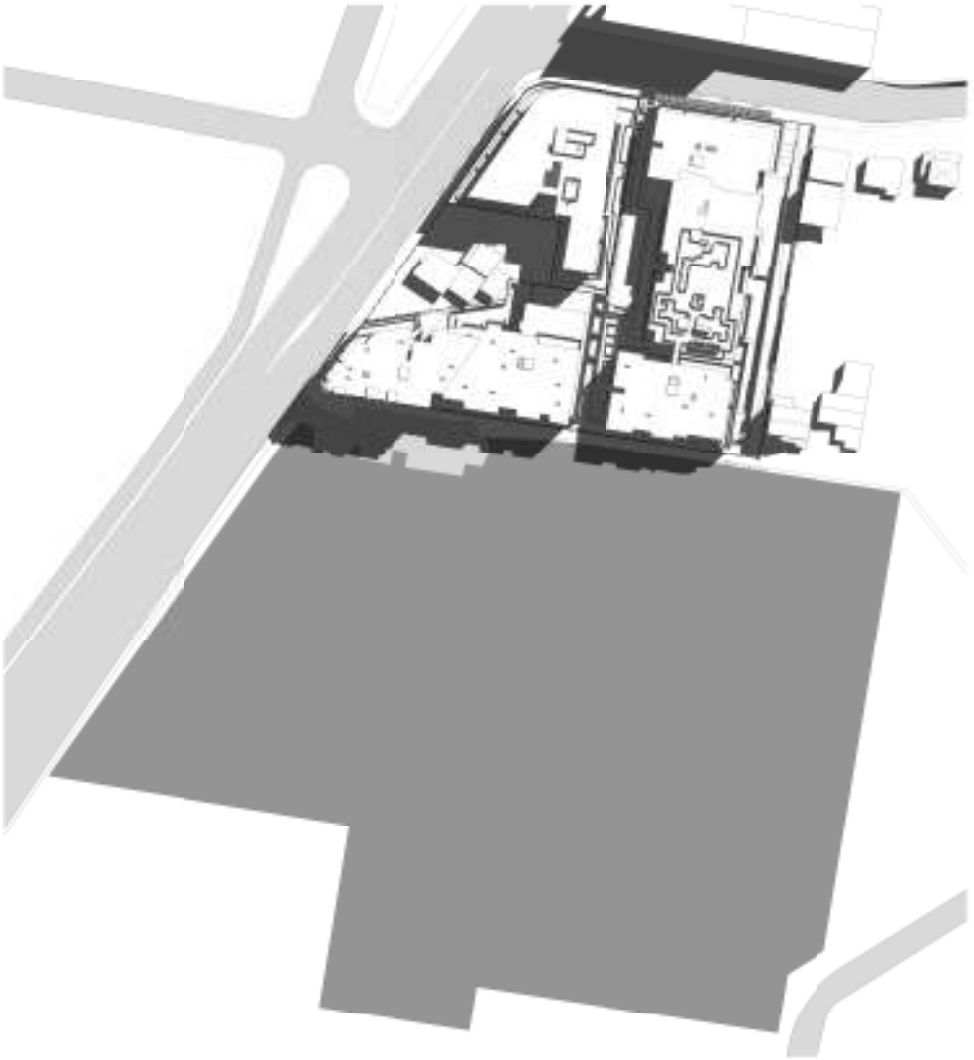


0900 Autumn



1000 Autumn

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:20:17 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - AUTUMN / SPRING**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.07 A**

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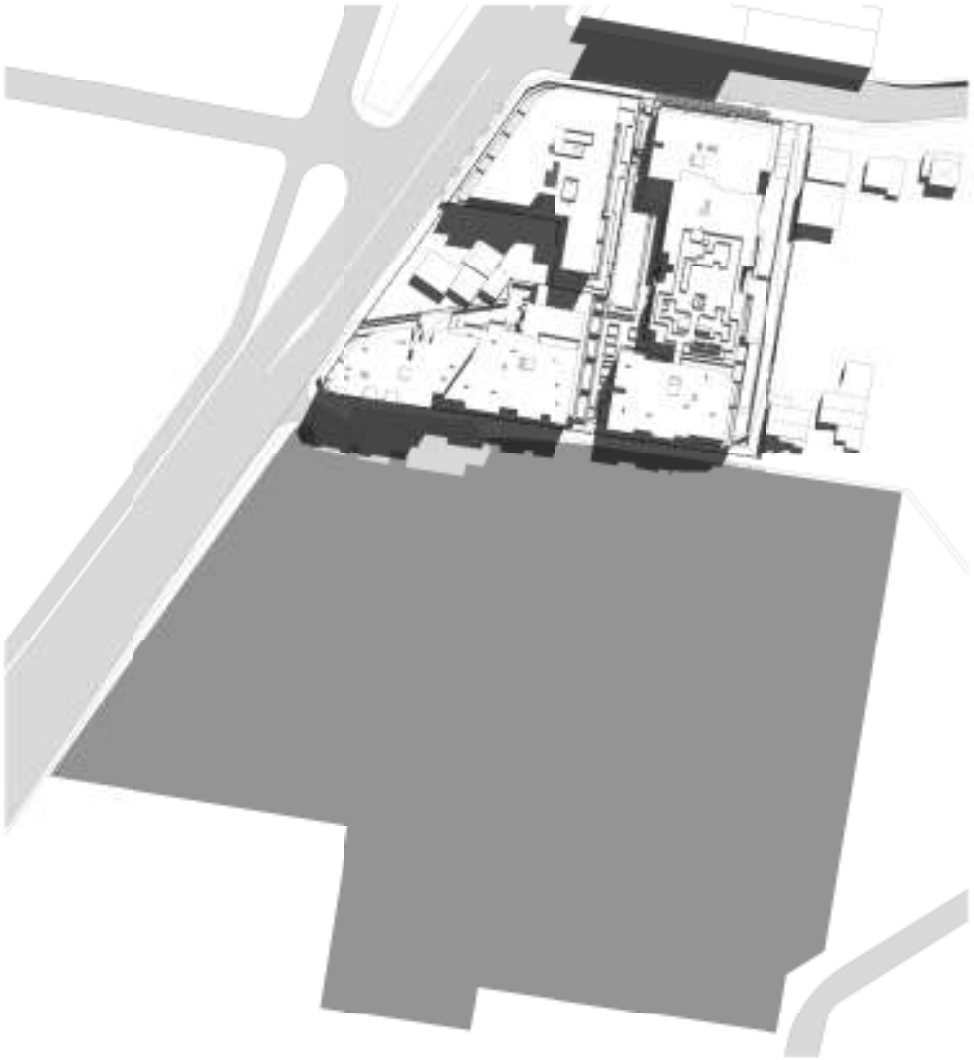
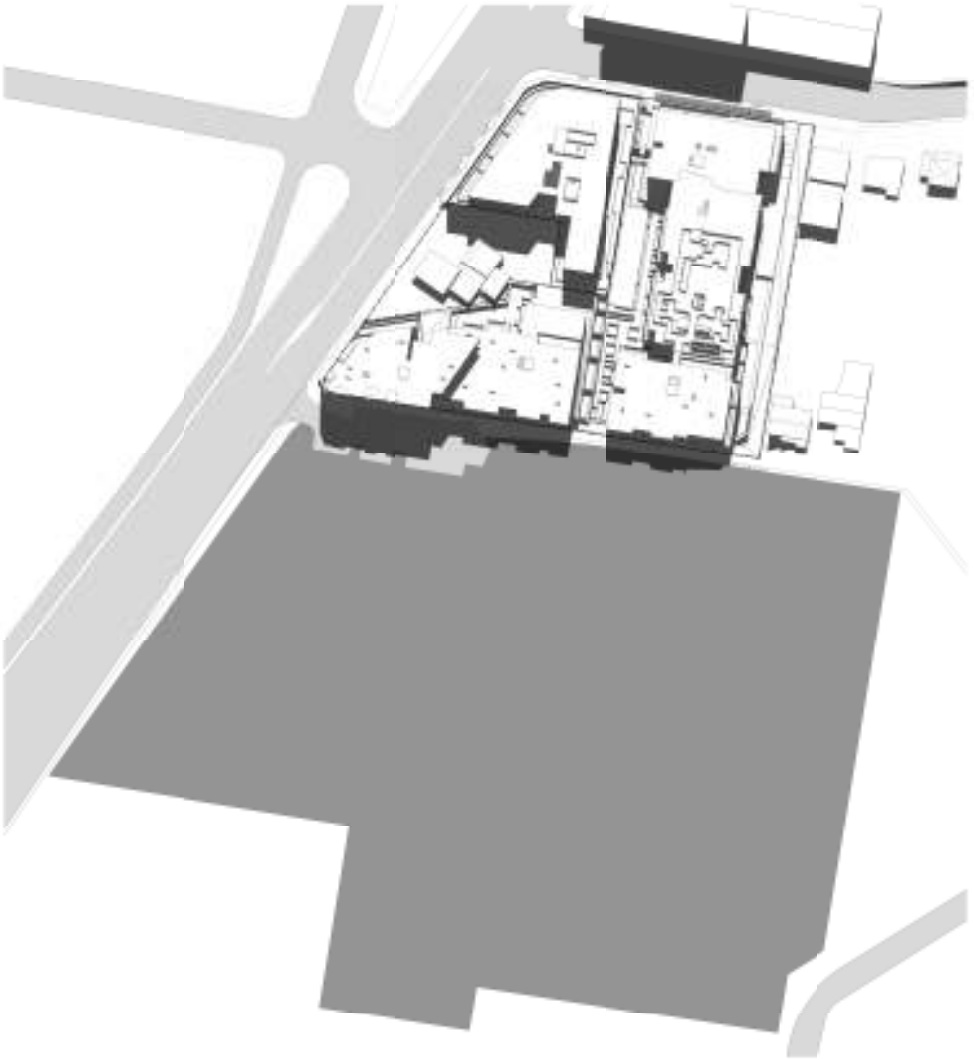


1100 Autumn



1200 Autumn

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:20:50 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - AUTUMN / SPRING**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.08 A**

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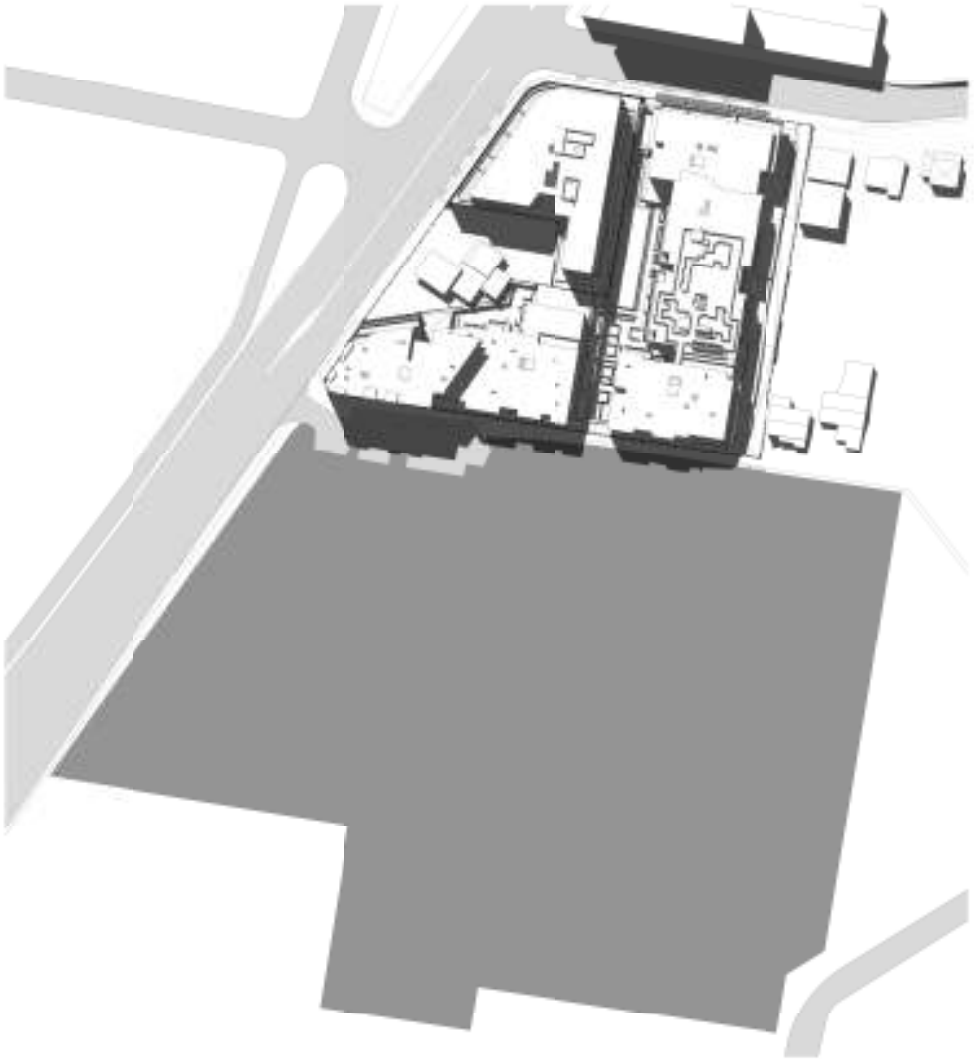
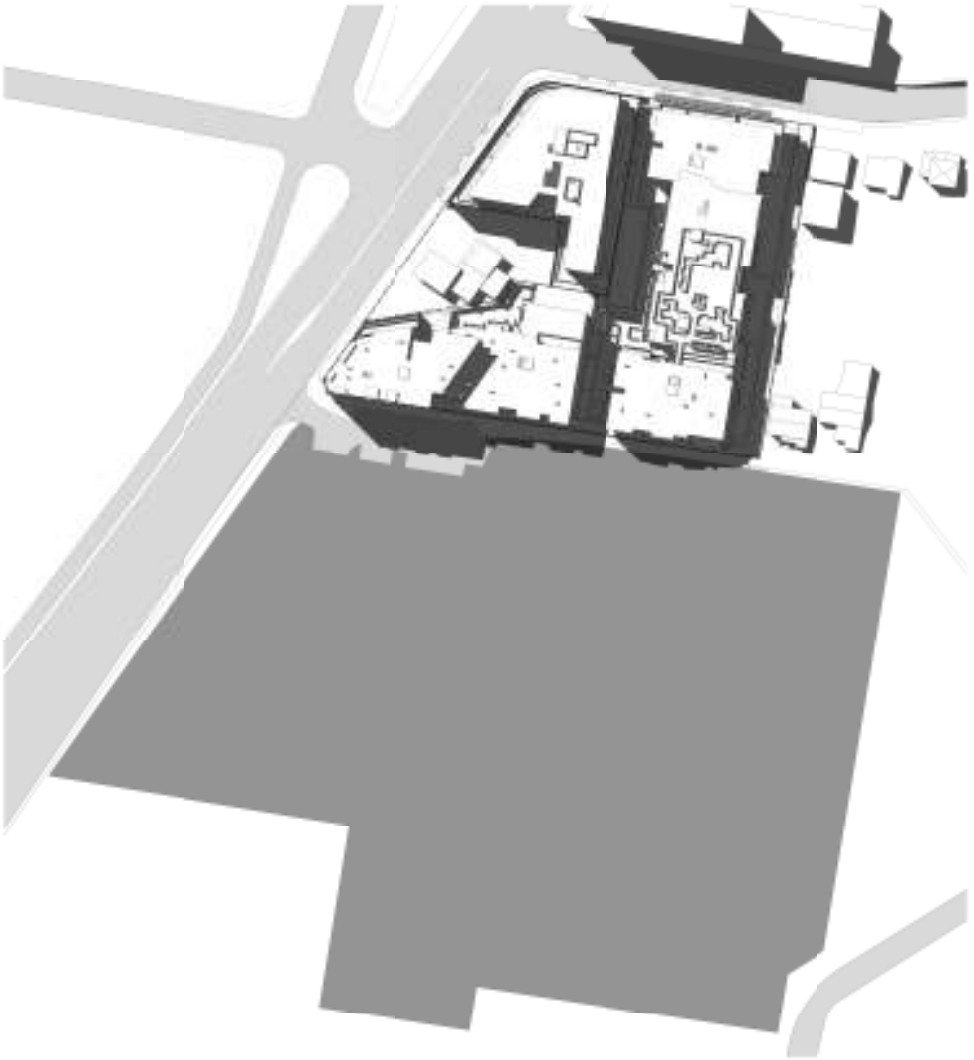


1300 Autumn



1400 Autumn

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:21:24 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - AUTUMN / SPRING**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.09 A**

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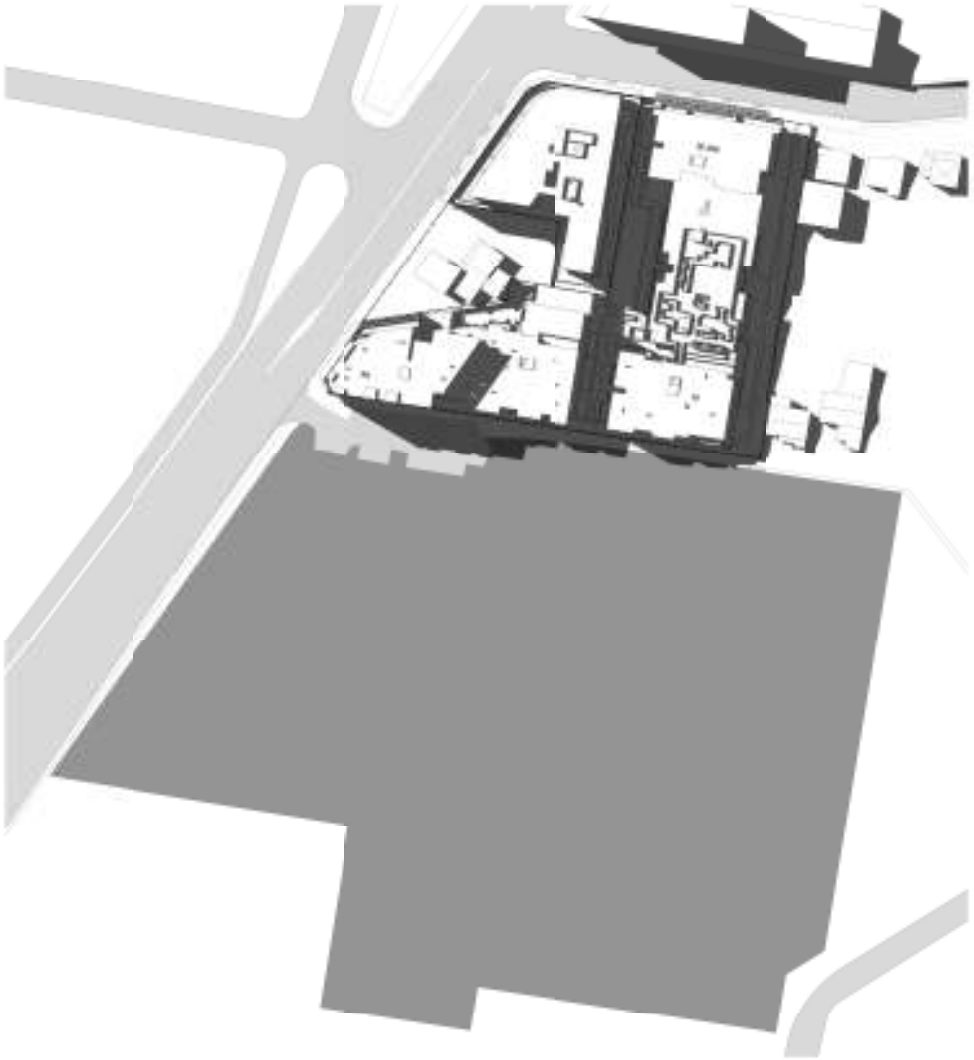

1500 Autumn

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:21:47 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - AUTUMN / SPRING**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.10 A**

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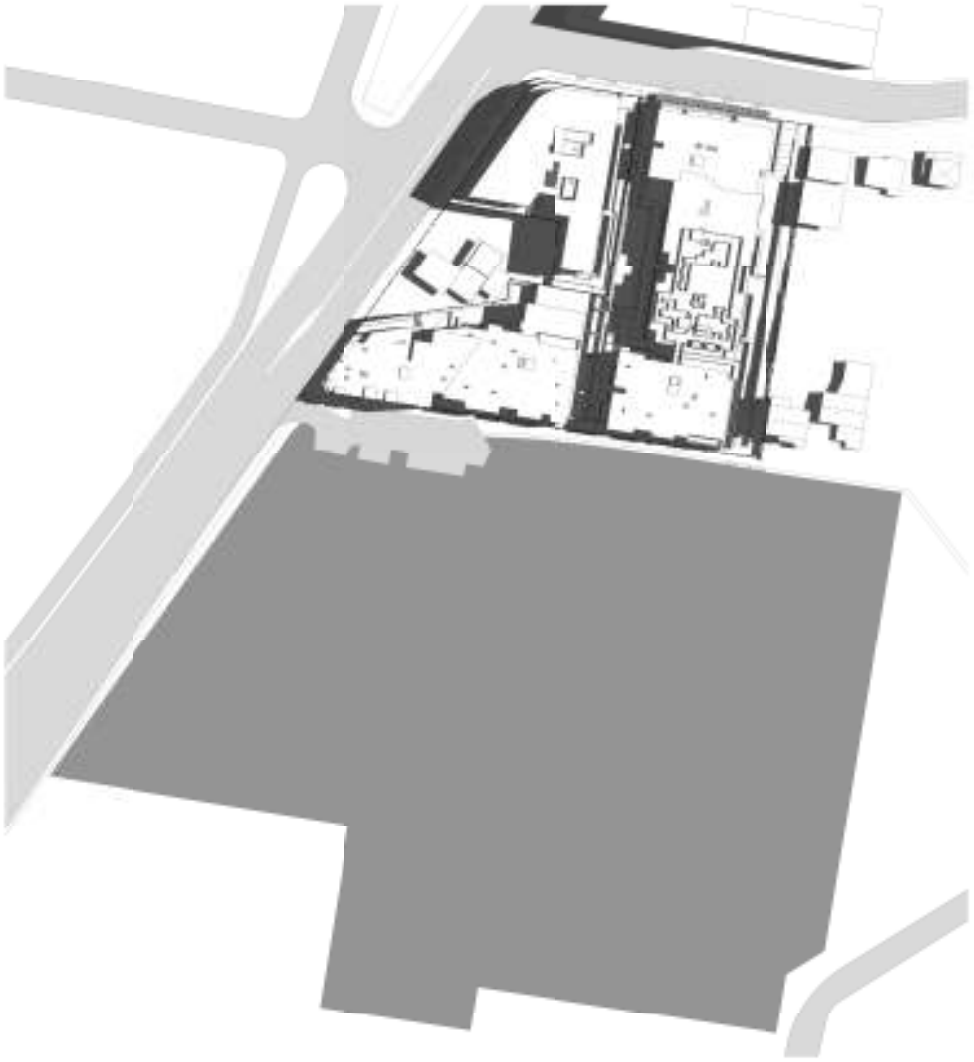
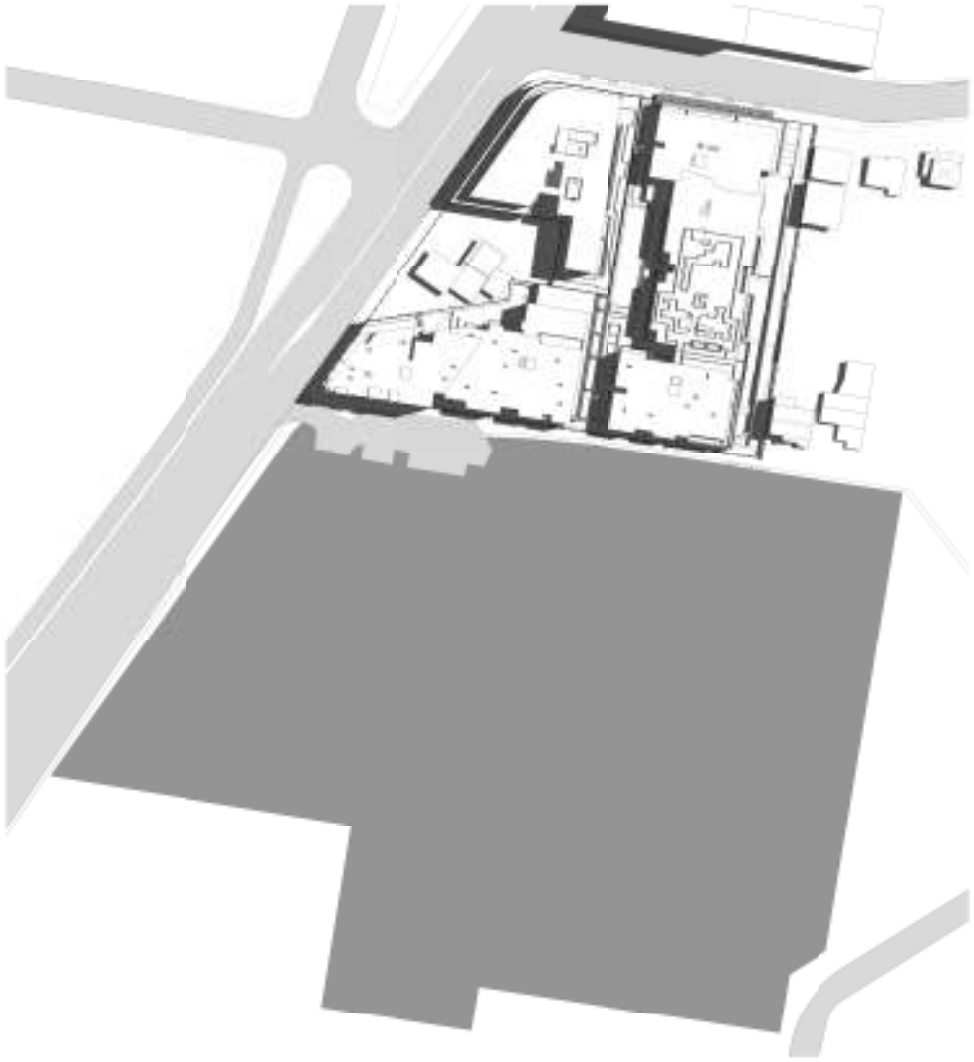


0900 Summer



1000 Summer

DA SUBMISSION

Revisions / A 22.05.23 COUNCIL ISSUE JC

22/05/2023 9:22:17 AM

Project / **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing / **SHADOW PLANS - SUMMER**

Project No. / **221054**

Date / **22.05.23**

Author / **JC**

Scale: @ A1 / **1 : 750**

Drawing No. / **TP05.11 A**

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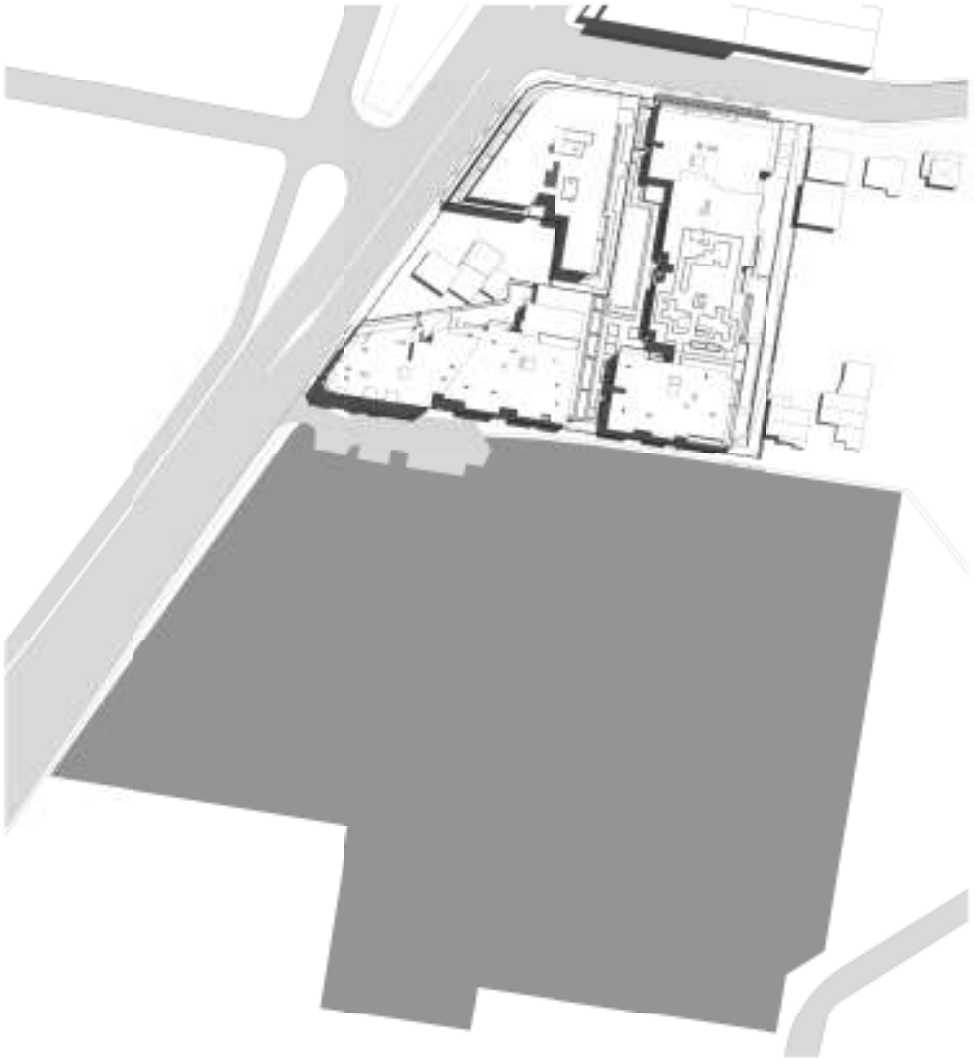
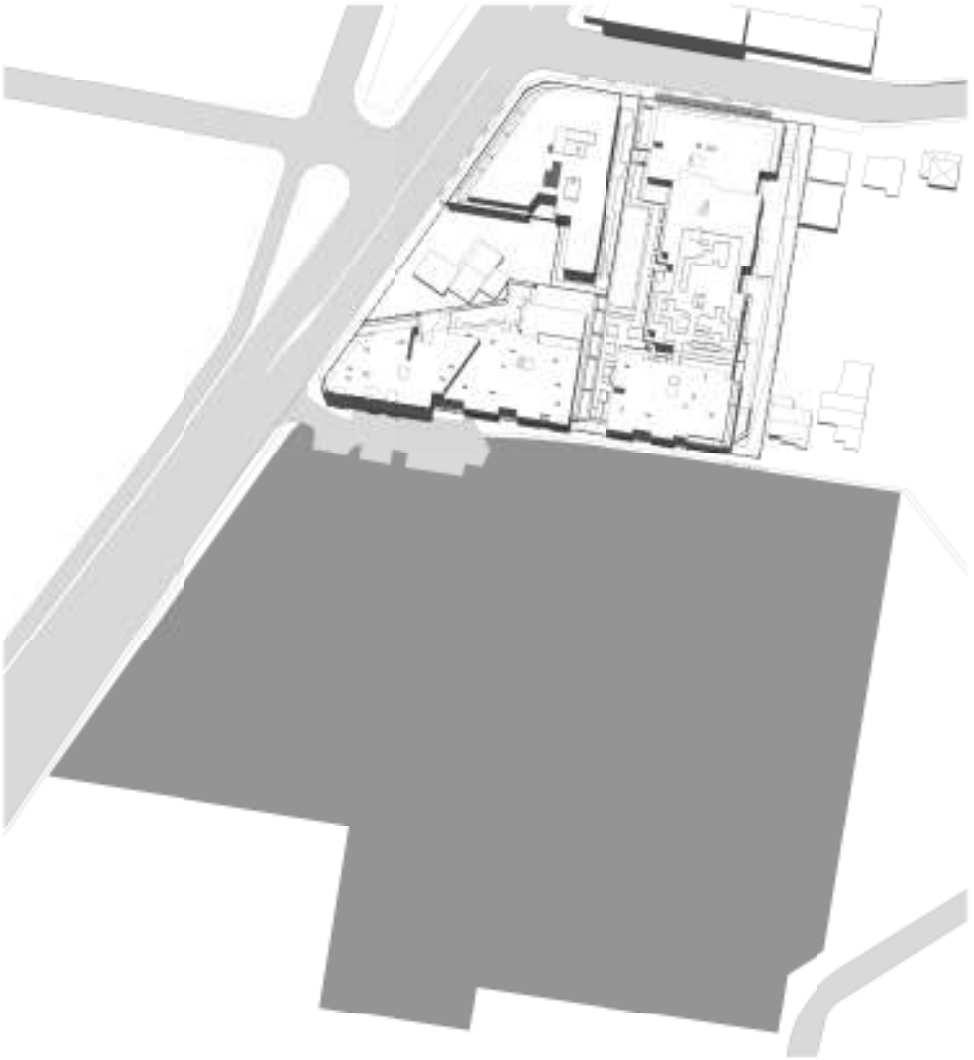


1100 Summer



1200 Summer

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:22:49 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - SUMMER**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.12 A**

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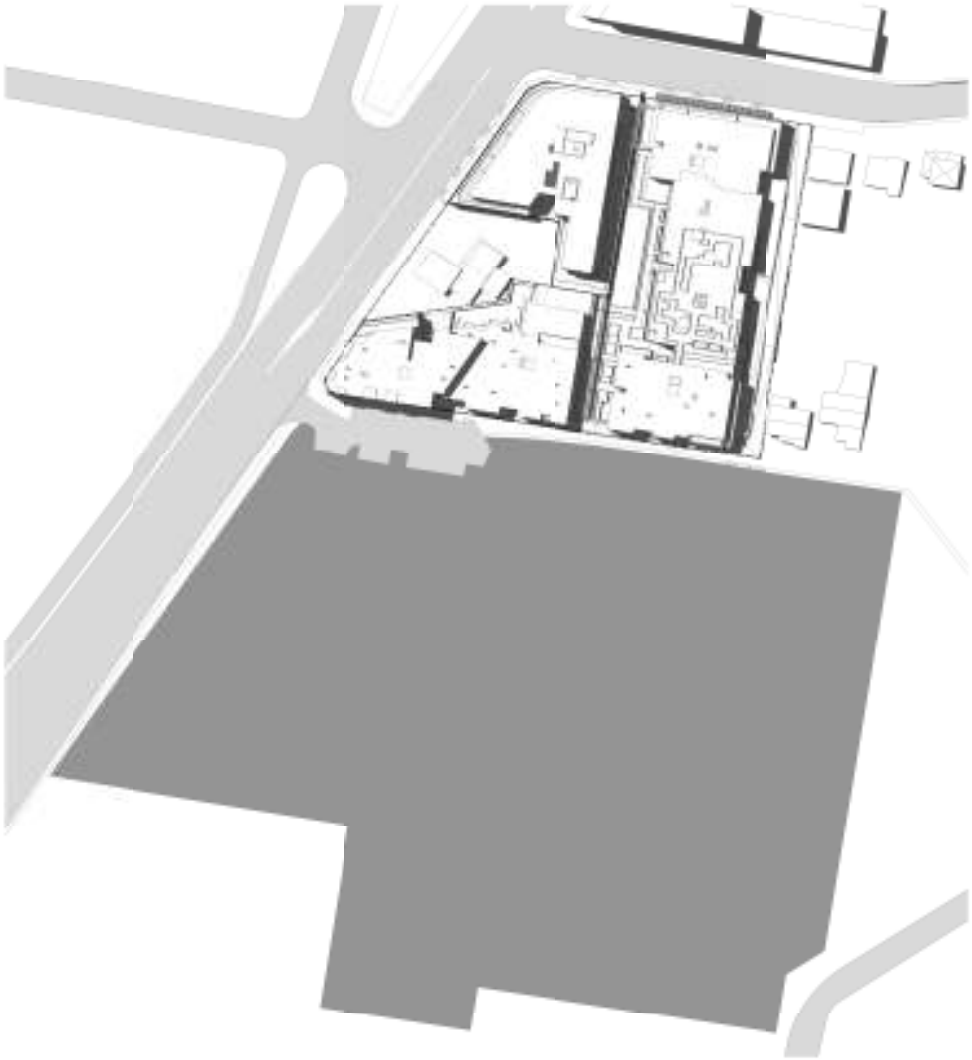
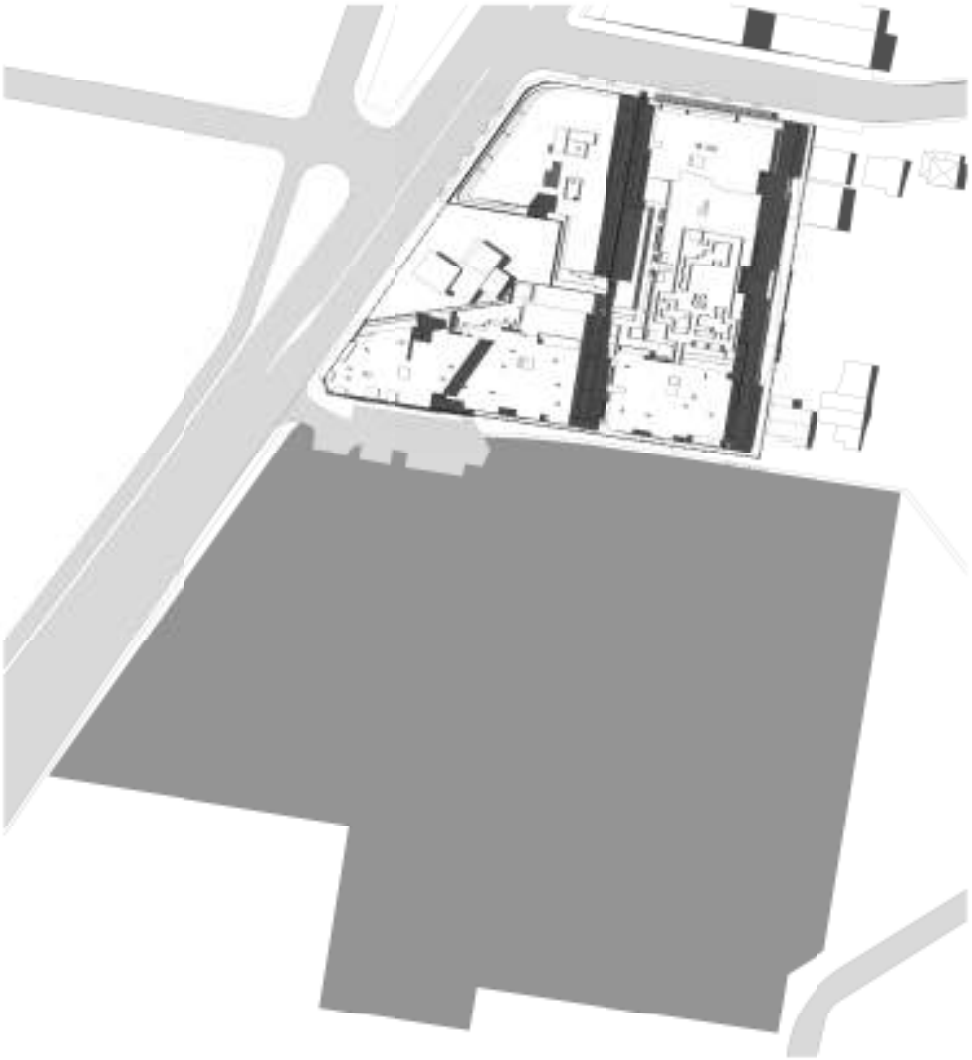


1300 Summer



1400 Summer

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:23:21 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - SUMMER**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A1: **1 : 750**

Drawing No.: **TP05.13 A**

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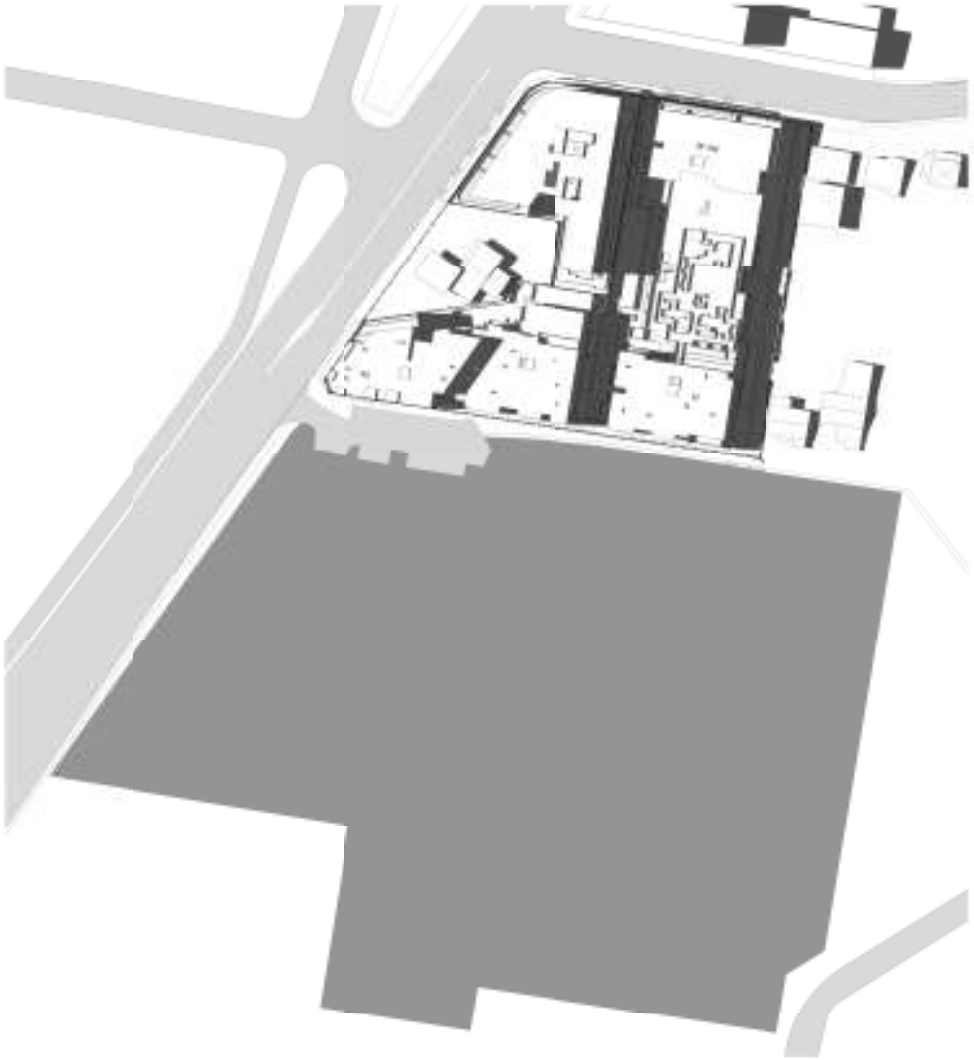

1500 Summer

DA SUBMISSION

Revisions			
A	22.05.23	COUNCIL ISSUE	JC

22/05/2023 9:23:43 AM

Project: **4 Delmar Pde & 812 Pittwater Rd, Dee Why**

Drawing: **SHADOW PLANS - SUMMER**

Project No.: **221054**

Date: **22.05.23**

Author: **JC**

Scale: @ A3: **1 : 750**

Drawing No.: **TP05.14 A**

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