

Traffic Impact Assessment

Mona Vale Surf Life Saving Club

Prepared for Northern Beaches Council c/o Warren and Mahoney

23 January 2019

171328 TAAA

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1 Introduction

Taylor Thomson Whitting (TTW) has been engaged by Northern Beaches Council c/o Warren and Mahoney Architects to provide traffic engineering advice to support the Development Application for the redevelopment of Mona Vale Surf Life Saving Club (SLSC) on Surfview Road, Mona Vale.

This revision of the report incorporates further investigations following Council's comments for additional supporting information for this Development Application relating to parking and traffic generation.

2 Existing Conditions

Mona Vale Surf Life Saving Club (the site) is located adjacent to Mona Vale Beach on the southern side of Surfview Road, refer to Figure 1. The site is relatively open with car parking to the north east, Apex Park to the north and west, an open grassed area to the south east, and Mona Vale beach to the south. Natural sand dunes are located along the land side of Mona Vale beach. Beyond the site is predominately residential land, with Mona Vale golf course and Mona Vale Hospital located to the south west.



Figure 1: Site location

2.1 Car Parking

Following a request by Council for additional information, detailed car park occupancy surveys were undertaken within the local vicinity (400m) of the club during peak summer season during proposed trading hours. A 400m radius from the club is shown in Figure 2 below in red, approximate 500m walking distance in blue, and the Relevant Parking Zone (RPZ) surveyed in green (note that the RPZ extends to most practical survey boundaries such as

The map displays the coastal area of Mona Vale, New South Wales. A large red circle indicates a 400m radius from the beach. A yellow line shows a 500m walk along the shore. Blue shaded regions represent parking zones, and orange shaded regions represent ticket parking. Labeled areas A through I are shown along the coastline, with A and B being the closest to the beach. Other labels include Sydney Buses, Officeworks Mona Vale, Baldwin Living Seabeach Gardens, Armchair Collective, Mona Vale Golf Club, and Basin Beach. Streets shown include Barrenjoey Rd, Heath St, Bassett St, Seabeach Ave, Darley St, and Golf Ave.

A parking audit and survey was undertaken on Saturday 19th and Sunday 20th January, 2019. Occupancy counts were undertaken at 9am, 12pm, and 3pm on each day.

It is noted that parking area 'B' is located on the same parcel of land as the existing site and subject development (Lot 104, DP 1066371).

Occupancy results on the Sunday morning were influenced by the Mona Vale Ocean Swim which was held on that day. Impacts included higher-than-normal movements associated with the event, and sections of the beach car park (Zone B) cordoned off.

A review of available historical imagery from Nearmap during peak summer holiday periods demonstrates good spare capacity in the main car park, consistent with the findings of this site survey. A variety of Nearmap images from summer holiday periods is provided in **Appendix B** of this report, demonstrating this good availability.

Table 1: Parking occupancy survey results

			Occupancy (no.)						Occupancy (%)						Vacancy (no.)					
			Saturday			Sunday			Saturday			Sunday			Saturday			Sunday		
Zone	Restriction	Capacity	9am	12pm	3pm	9am	12pm	3pm	9am	12pm	3pm	9am	12pm	3pm	9am	12pm	3pm	9am	12pm	3pm
A	Ticket	110	102	69	47	109	98	73	93%	63%	43%	99%	89%	66%	8	41	63	1	12	37
B	Ticket	209	141	86	27	205	118	83	67%	41%	13%	98%	56%	40%	68	123	182	4	91	126
C	Unrestricted	58	51	50	49	61	53	50	88%	87%	85%	106%	92%	87%	7	7	8	-3	4	8
D	Unrestricted	90	87	86	79	90	84	81	97%	96%	88%	100%	93%	90%	3	4	11	0	6	9
E	Unrestricted	49	40	38	42	48	41	41	82%	78%	86%	98%	84%	84%	9	11	7	1	8	8
F	Unrestricted	69	59	58	57	67	61	63	86%	84%	83%	97%	88%	91%	10	11	12	2	8	6
G	Unrestricted	55	43	42	41	51	38	48	78%	75%	75%	92%	69%	86%	12	14	14	5	17	8
H	Unrestricted	30	25	22	21	25	22	22	83%	73%	70%	83%	73%	73%	5	8	9	5	8	8
I	Unrestricted	55	49	48	45	54	51	50	89%	87%	82%	98%	93%	91%	6	7	10	1	4	5
Total		725	597	499	408	710	566	511	82%	69%	56%	98%	78%	70%	128	226	316	15	158	214

3 Proposed Development

The proposed development consists of demolition of the existing buildings and reconstruction of a new two storey building. The new building will have a larger building footprint than the existing building and is generally located in the same position. Due to the constraints of the roads and the beach, the general gain in site area is to the south west of the building, within the open grassed area. Proposed architectural visualisations are shown in Figure 3 and Figure 4. The proposed architectural plans area also included in **Appendix A**.



Figure 3: Proposed development visualisation from south-west



Figure 4: Proposed development visualisation from north-east

3.1 Facilities

A summary of existing and proposed facilities at the Club is given in Table 2.

Table 2: Facilities of existing and proposed development

Existing Facilities	Additional Facilities Proposed
<u>Ground Floor</u> <ul style="list-style-type: none"> Public amenities – male and female Club member amenities – male and female Storage rooms First Aid room Office Gym Café Café storage 	<u>Ground Floor</u> <ul style="list-style-type: none"> Public amenities – accessible Nippers shop Nippers canteen Lifeguard room Patrol room Lifeguard storage Waste bin storage Mona Vale boardriders storage Wash-down bay
<u>First Floor</u> <ul style="list-style-type: none"> Function room and bar Caretakers room Kitchen 	<u>First Floor</u> <ul style="list-style-type: none"> Meeting room Lifeguard observation room Club member amenities – male, female and accessible amenities Lift Restaurant and commercial kitchen

Of the new facilities proposed, the following elements are considered to be trip-generating:

- Meeting room
- Club member amenities
- Restaurant and commercial kitchen

The remaining facilities (such as public amenities, storage, and lifeguard facilities) provide improved or additional facilities for existing users and are not considered to be trip-generating. Further discussion of development traffic generation is provided in Section 4.

3.2 Operation

Hours of operation of the proposed facilities are expected to be roughly consistent with existing operations. It is noted that the restaurant and café are to form part of a separate DA which will detail trading hours and capacity of these venues. The restaurant / function room and Members Bar are expected to operate between approximately 10am and 10pm. Further, it is expected that peak operating periods for both of these facilities would occur around lunch (12pm-2pm) and dinner (6pm-8pm) periods.

High-level estimates of the capacity of the venue have been provided as follows:

- Restaurant: 90
- Members Bar: 60

4 Trip Generation

As discussed in Section 3, the trip-generating elements of the proposed development are as follows:

- Meeting room
- Club member amenities
- Restaurant and commercial kitchen

The RMS Guide to Traffic Generating Developments provides trip generation rates as follows:

- Restaurants
 - Evening peak hour trips = 5 per 100 m² gross floor area
 - Daily vehicle trips = 60 per 100 m² gross floor area

While standard rates can be used for the restaurant portion of the site, alternative assessment is required for the meeting room and club member amenities.

The remainder of the new development will provide improved services for beach visitors and user groups. The improved facilities are not expected to attract additional visitors (and therefore trip generation) to the local area.

4.1 Restaurant

The proposed restaurant, kitchen, and balcony occupy a total gross floor area on the order of 205m².

As per the RMS Guide, trip generation during the evening peak hour would be approximately 10 trips per hour. Total daily trip generation would be approximately 123 trips.

For the purposes of comparison, a per-person assessment is also provided. The estimated capacity of the restaurant is 90 persons. Assuming similar parameters to RMS Guide for car occupancy (2.2) and mode split (0.85) would result in peak vehicle demand of 35 vehicles. Assuming length-of-stay per group of approximately 90 minutes would result in trip generation of around 23 trips per hour.

4.2 Members Area

The proposed Members Area incorporates the proposed meeting room, members lounge, members bar, and other amenities space.

As detailed in Section 3, the expected capacity of the Members Bar (and associated activities) is estimated at 60 persons.

Assuming similar parameters to RMS Guide for car occupancy (2.2) and mode split (0.85) for restaurant facilities would result in peak vehicle demand of 23 vehicles. Assuming length-of-stay per group of approximately 2 hours would result in trip generation of around 12 trips per hour.

4.3 Overall Development

On the basis of the above assumptions, peak trip generation for the additional development would be approximately 20 – 35 trips per hour. The development types are unlikely to result in any particular peak flows, and an even spread of movements is considered a reasonable assumption. This is the equivalent of 1 vehicle every 2 minutes. For reference, Barrenjoey Road currently caters for upwards of 3,000 vehicles per hour (RMS ID 59025).

This volume of traffic is considered to be negligible on the scale of the local and broader road network. Minor increases to trip generation as a result of the proposed development are considered acceptable.

5 Parking

There is currently no additional provision of parking proposed as part of the subject development. Modifications to the site driveways shall result in the net loss of 3 existing spaces. There shall be no change to accessible parking provision, with 1 accessible space to be retained (and relocated from existing position).

The following sections of this report outline the existing parking availability and expected parking demand.

The Pittwater DCP provides bicycle storage rates for residential development and business/industrial development. No guidance is provided for club/recreational facilities. Nevertheless, it is proposed to provide 5 bicycle racks adjacent to the existing off-street car parking area. The club provides separate male and female amenities areas which can be used for end-of-trip requirements of any staff choosing to cycle to the site.

5.1 Restaurant

The Pittwater DCP provides a recommended parking rate for Restaurants and Cafés at 1 space per 30m² GLA. For the restaurant area of approximately 205m², this would be equivalent to a parking requirement of approximately 7 spaces.

For comparison, a per-person traffic analysis detailed in Section 4 above considered a peak vehicle demand of approximately 35 vehicles.

5.2 Members Area

As per similar comparisons to RMS Guide rates made above, peak vehicle demand for the Members Area has been estimated at approximately 23 vehicles.

5.3 Overall Development

Increased parking demand for the new development facilities may be on the order of 30 – 60 spaces if all facilities were to be occupied at their full capacity, at the same time, in addition to all existing operations. This concurrence of demands is considered unlikely.

As detailed in Section 3, the parking survey undertaken for the site and local area demonstrates a large amount of spare parking capacity within the local area. Over 100 spaces and as many as 300 spaces were available during typical operating times. A review of available historical imagery from Nearmap during peak summer holiday periods demonstrates good spare capacity in the main car park, indicating that the existing provision of parking is adequate with additional capacity.

During major surf club events, parking is currently at capacity (approx. 98% occupancy within the RPZ), with parking availability on the order of 15 spaces. It is considered highly unlikely that peak demand for the new facilities would occur at the same time as a peak surf club event, particularly due to the different time of day for these demands.

We also note that, while outside the formal scope of this investigation, parking surveys were undertaken on all surveyed streets up to Barrenjoey Road. When considering this larger parking area, minimum vacancy during the major event period was over 100 available spaces.

Overall the increased parking demand of the proposed development is expected to be accommodated within significant spare existing capacity during key operating hours (lunch and dinner). Peak parking demand for the existing site and surrounding trip generators occurs outside these hours, during the morning period.

The provision of no additional parking with the subject development is considered suitable. Final signage arrangements for modified on-street parking (such as replacement of existing P10 ten-minute parking space) shall be subject to consultation and approval through Council's Traffic Committee.

6 Site Access

Site access will be retained from Surfview Road, with a number of operational access points at three vehicle crossovers with No Parking zones.

Two crossovers will provide access to boat/equipment storage areas in the centre of the site, one of which is existing and one of which will be new. One crossover at the north end of the site will represent a reduction of an existing vehicle crossover with double access doors to a single access, allowing for some additional on-street parking to be reclaimed. This access point will allow for access to the bin storage area and bin collection operations.

Emergency vehicles will be able to use a number of possible stopping areas as required, including the existing Emergency Area, the various No Parking zones, or potentially the extended footpath area outside the main entry if necessary (via a mountable kerb).

A pedestrian footpath connection along the full northwest face of the building (with good connection to the beach, café, and zebra crossing) will provide improved facilities for pedestrians and assist in taking movements off the roadway.

Safe pedestrian movements will be maintained at the existing marked pedestrian zebra crossing. Proposed new landscaping adjacent to the crossing must ensure that sight lines are not obscured, by providing low landscaping only.

7 Construction Traffic Management

This section of the report provides high-level detail on expected construction traffic management procedures. A detailed Construction Traffic Management Plan (CTMP) will be required to be developed by the builder prior to approval of the Construction Certificate.

Construction vehicles are expected to approach the site along Darley Street East, from the signalised intersection at Barrenjoey Road. A right-turn bay (approx. 50m) and dedicated right-turn movement allow for safe and effective movement of vehicles into Darley Street East. Barrenjoey Road provides three lanes in each direction, with two lanes in each direction on Darley Street East, which is expected to provide generous turning space for construction vehicles. Construction vehicles would exit the area via Darley Street East (signalised, all movements) or Seabeach Avenue (Give Way, southbound / left only) dependent on the construction access and compound arrangements. There is no requirement for construction vehicles to approach from or depart to the north due to the residential nature of the area.

Maximum vehicle sizes and expected frequencies would be provided by the builder as part of the CTMP, including turning path analysis of any critical manoeuvres if considered necessary.

Construction traffic will access the site off Surfview Road with the works compound most likely located on the open space to the west of the building. This area of open space is large enough to hold the construction amenities, site offices, materials storage and sufficient space for vehicle turning and loading, minimising disruption to vehicles using Surfview Road and the main beach car park. Alternative construction compound locations could include suitable areas of Apex Park or existing car park areas. All construction compound layouts or access arrangements will be subject to further consultation between the appointed builder and Council.

Construction traffic movements will occur outside the hours of peak traffic periods where possible. It is anticipated that some essential deliveries may need to occur during peak periods, and will be managed as appropriate.

A temporary loss of parking will occur during the construction phase. Parking spaces will be lost for the storage of materials as well as truck access and truck parking. These losses will not be for a significant amount of time and will generally occur out of peak demand periods which occurs at weekends during holiday periods.

8 Conclusion

The proposed additions to Mona Vale Surf Life Saving Club will provide improved facilities for existing beach users. New facilities which may increase traffic and parking demand primarily include new Members Facilities and a restaurant. While these facilities are unlikely to operate at full capacity at the same time, and at the same time as other existing activities, this traffic report has assessed the potential trip generation and parking demands of these uses.

Trip generation may be on the order of 20 – 35 trips per hour. This is considered acceptable when spread across the local road network, and the type of development is not expected to create any short peaks of traffic generation that may cause congestion.

There is significant existing spare capacity in the surrounding car parking areas, sufficient to cater for anticipated parking demands of 30 – 60 vehicles. Peak parking demand for the new development is expected to occur outside peak period for other parking demands utilising the surrounding parking areas. The minor loss of 3 parking spaces as a result of modifications to the site access points is considered acceptable and will improve the pedestrian amenity of the Surf Club site.

Management of construction vehicles is considered to be feasible without impact to the local area, and will be coordinated by the builder in a final CTMP submitted to Council prior to construction.

We find that the proposed works are acceptable and supportable with regards to traffic and parking.

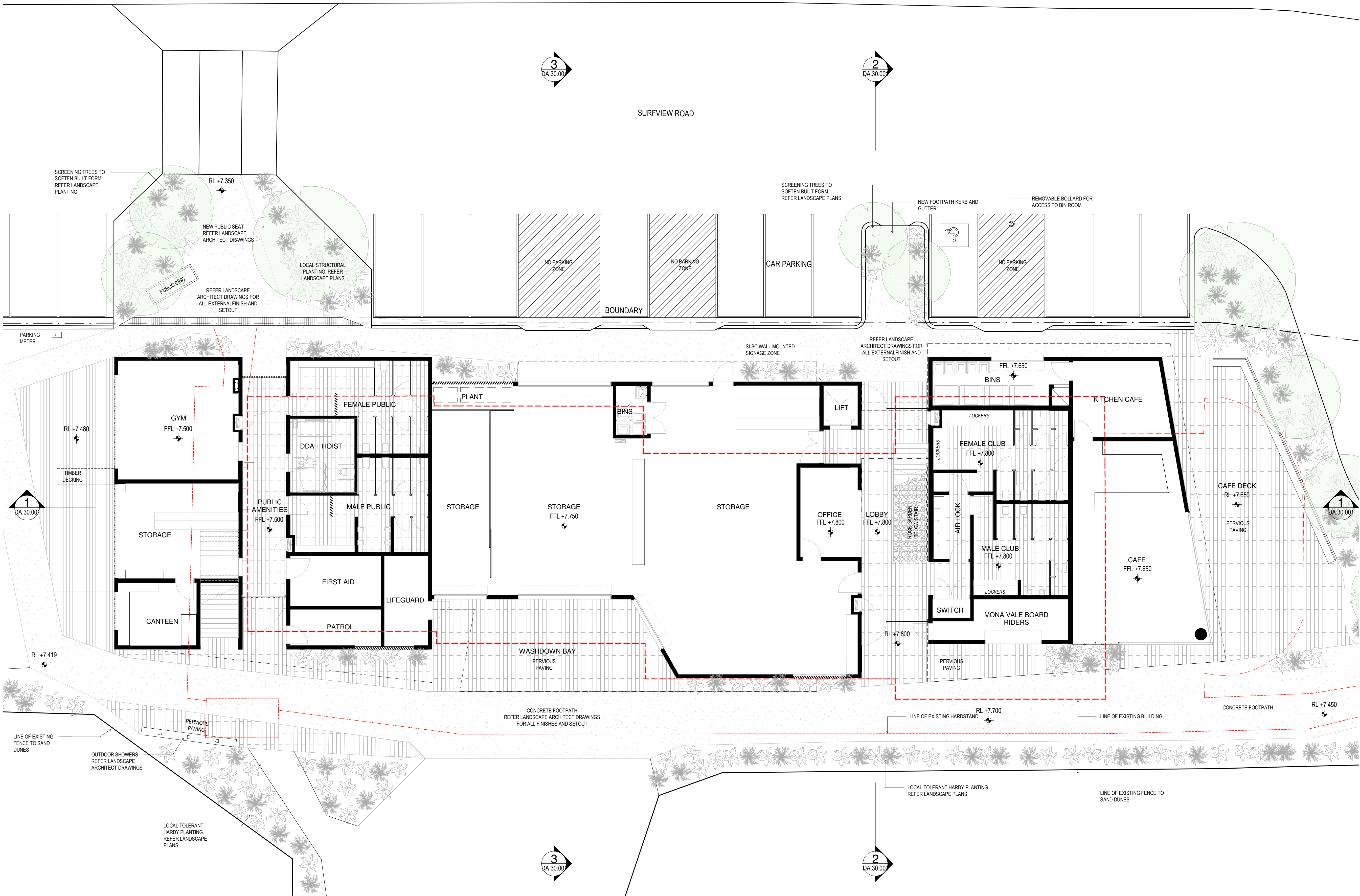
Prepared by
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MICHAEL BABBAGE
Traffic Engineer

Appendix A

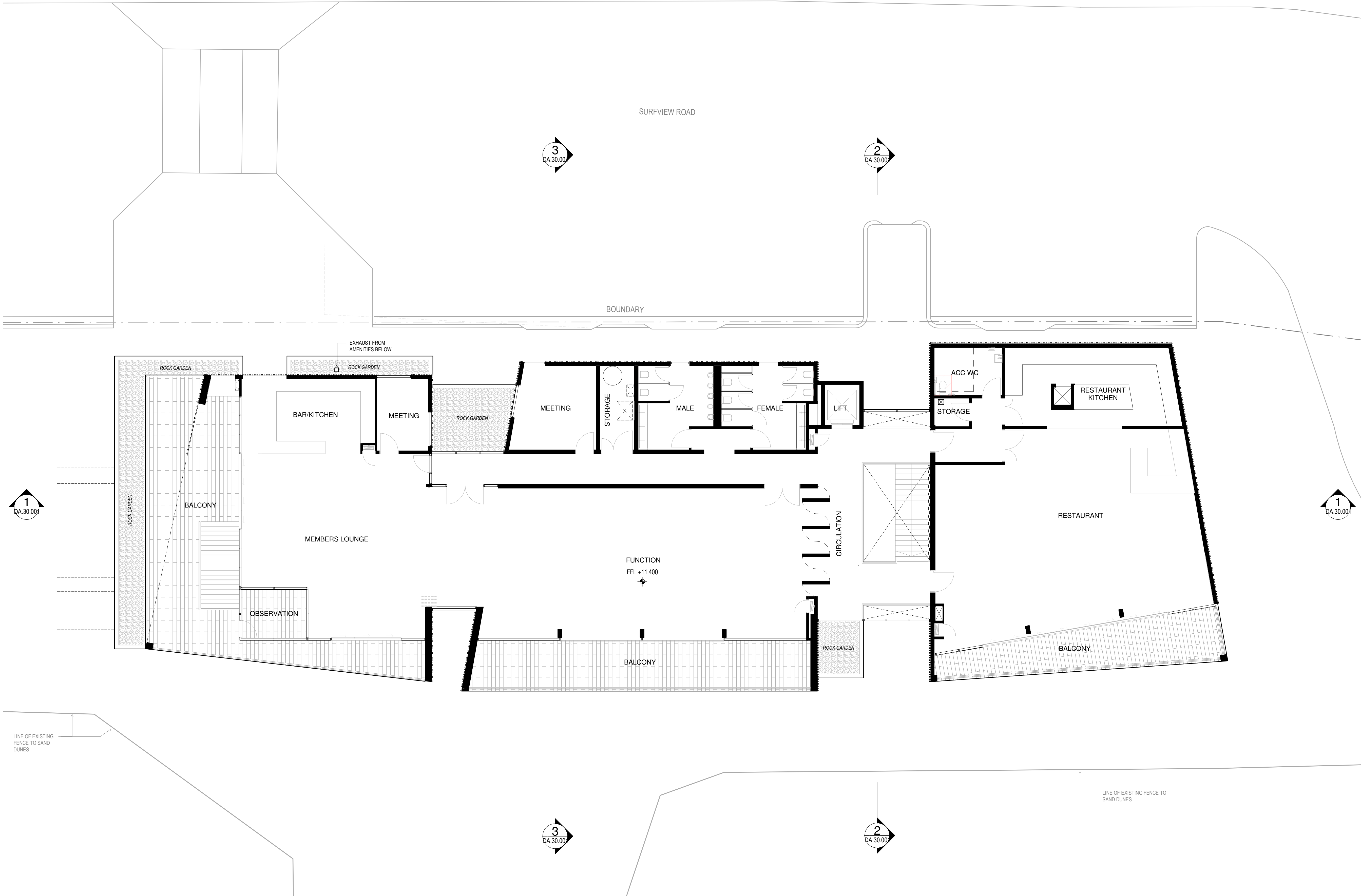
Proposed Development Plans



LEGEND	
EXISTING HERITAGE TREES	
PROPOSED TREE	
LINE OF EXISTING BUILDING	
LINE OF HARDSTAND	

1 LEVEL 00 - DA
DA.20.00/1 1 : 100

Warren and Mahoney Architects Ltd Suite 13.03, Plaza Building Australia Square, 95 Pitt Street Sydney, NSW 2000 Australia Phone + 61 2 8021 9809	Nominated Architect Nicholas Bandonas Principal NSW Reg. 8499 Registered Architects and Designers www.warrenandmahoney.com	Revisions A 15.10.18 DEVELOPMENT APPLICATION	Notes All drawings to be read in conjunction with Architectural schedules + specification/s. Architectural drawings are subject to further co-ordination with Structural, Civil, Building Services and relevant disciplines.	Consultants Project Manager NORTHERN BEACHES COUNCIL Planner Structural Engineer TTW Mechanical Engineer NORTHROP Electrical Engineer NORTHROP	Client northern beaches council Architect WARREN AND MAHONEY	Project Title Mona Vale Surf Club Surf View Road, Mona Vale, NSW All dimension to be verified on site before producing shop drawings or commencing any work. Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects Ltd. <i>This drawing is not issued for construction.</i>	Drawing Title GA PLAN - GROUND LEVEL Drawing Status DEVELOPMENT APPLICATION	Drawing Details Scale As indicated@ A1 Date 15.10.18 Job No 8089 Drawn AW Checked NB Drawing No A.DA.10.001 Revision A
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1 LEVEL 01 - DA
DA.20.00/ 1 : 100

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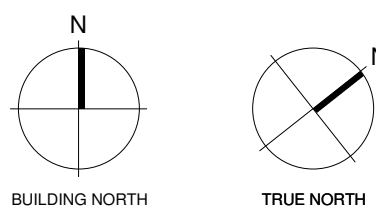
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Revisions
A 15.10.18 DEVELOPMENT APPLICATION

Notes
All drawings to be read in conjunction with Architectural schedules + specification/s.
Architectural drawings are subject to further co-ordination with Structural, Civil, Building Services and relevant disciplines.



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Surf View Road, Mona Vale, NSW

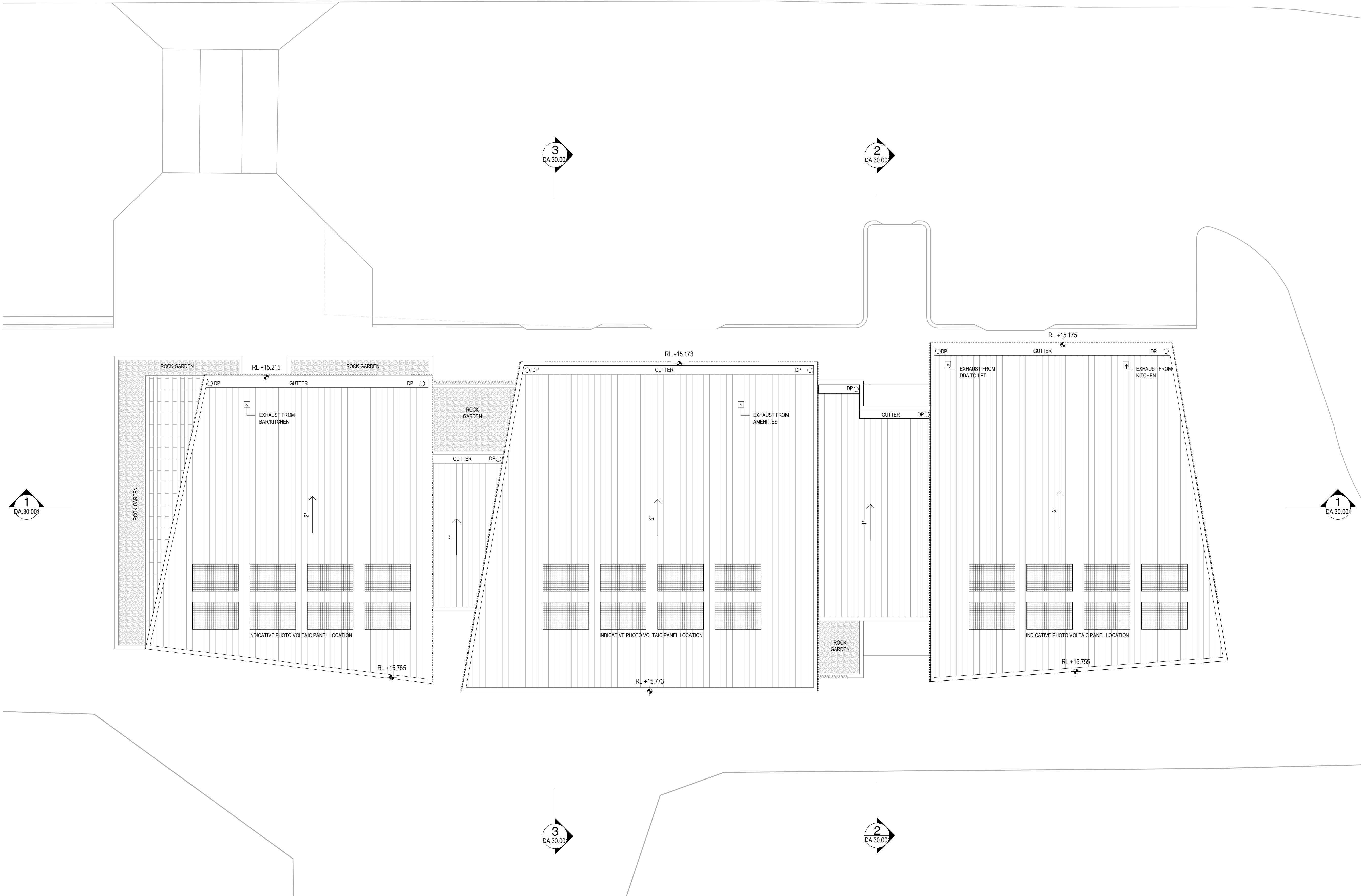
All dimension to be verified on site before producing shop drawings or commencing any work.
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Drawing Title
GA PLAN - LEVEL 1

Drawing Status
DEVELOPMENT APPLICATION

Drawing Details
Scale 1 : 100@ A1
Date 15.10.18
Job No 8089
Drawn AW
Checked NB

Drawing No
A.DA.10.002
Revision
A



1 LEVEL 02 - DA Roof Plan
SK.004 1 : 100

Appendix B

Nearmap Imagery Extracts

Friday 28th December, 2018



Friday 2nd November, 2018



Saturday 20th January, 2018



Monday 11th December, 2017



Saturday 13th February, 2016



Sunday 6th December, 2015

