BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1156801M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Wednesday, 16 March 2022
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning, Industry & Environment

Project summary	
Project name	21601_02
Street address	34 Military Road North Bondi 2026
Local Government Area	Waverley Council
Plan type and plan number	deposited 11758
Lot no.	165
Section no.	-
No. of residential flat buildings	1
No. of units in residential flat buildings	4
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 40	Target 35

Certificate Prepared by
Name / Company Name: Partners Energy Management
ABN (if applicable): 86638119847

Description of project

Project address	
Project name	21601_02
Street address	34 Military Road North Bondi 2026
Local Government Area	Waverley Council
Plan type and plan number	deposited 11758
Lot no.	165
Section no.	-

Project type	
No. of residential flat buildings	1
No. of units in residential flat buildings	4
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details	
Site area (m²)	623.3
Roof area (m²)	226
Non-residential floor area (m²)	0.0
Residential car spaces	8
Non-residential car spaces	0

Common area landscape	
Common area lawn (m²)	170.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details	
Assessor number	20039
Certificate number	0007131180
Climate zone	56
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No

Project score		
Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 40	Target 35

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 4 dwellings, 4 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
U1	2	79.9	4.3	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
U2	2	79.9	4.3	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
U3	2	79.9	4.3	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
U4	2	91.8	4.8	0.0	0.0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

Common area	Floor area (m²)
Car park area	210.0
Car Lift motor room	5.9
Car Lift	30.8

Common area	Floor area (m²)
Lift car (No.1)	-
Garbage Room	21.5
Storage room	19.0

Common area	Floor area (m²)
Lift car (No.2)	-
AC Plant	20.3

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1
    (a) Dwellings
        (i) Water
        (ii) Energy
        (iii) Thermal Comfort
    (b) Common areas and central systems/facilities
        (i) Water
        (ii) Energy

2. Commitments for multi-dwelling houses

3. Commitments for single dwelling houses

4. Commitments for common areas and central systems/facilities for the development (non-building specific)
        (i) Water
        (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	4.5 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	gas instantaneous 6 star	individual fan, not ducted	manual switch on/off	individual fan, not ducted	manual switch on/off	natural ventilation only, or no laundry	-

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
U1, U4	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	yes
All other dwellings	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	1-phase airconditioning EER 3.5 - 4.0 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	yes

	Individual pool		Individual spa		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	4 star	yes	4 star	4 star	6 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
U1	45.1	11.5
U2	29.0	11.1
U3	30.0	10.1
All other dwellings	35.6	23.4

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	6000.0	To collect run-off from at least: - 200.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 170.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	No
Lift car (No.1)	-	-	light-emitting diode	none	No
Lift car (No.2)	-	-	light-emitting diode	none	No
Car Lift motor room	ventilation exhaust only	interlocked to light	light-emitting diode	manual on / manual off	No
Garbage Room	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	No
AC Plant	ventilation exhaust only	interlocked to light	light-emitting diode	manual on / manual off	No
Car Lift	ventilation (supply + exhaust)	interlocked to light	light-emitting diode	motion sensors	No
Storage room	ventilation exhaust only	none ie. continuous	light-emitting diode	motion sensors	No

Central energy systems	Type	Specification
Lift (No. 1)	geared traction with V V A C motor	Number of levels (including basement): 5
Lift (No. 2)	hydraulic	Number of levels (including basement): 3

4. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 2.0 peak kW

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

DEVELOPMENT APPLICATION

34 MILITARY RD, NORTH BONDI

DEMOLITION OF EXISTING APARTMENT BUILDING + CONSTRUCTION OF NEW APARTMENT BUILDING COMPRISING OF FOUR APARTMENTS + BASEMENT CARPARK

AERIAL IMAGE
Source: Six Maps

DA.01 COVER PAGE

DA.10 BASEMENT + GROUND FLOOR PLAN
DA.11 LEVEL 1 + LEVEL 2 PLAN
DA.12 LEVEL 3 + ROOF PLAN

DA.20 SECTIONS
DA.21 NORTH AND WEST ELEVATIONS
DA.22 SOUTH AND EAST ELEVATIONS

DA.30 LEP + DCP COMPLIANCE SUMMARY
DA.31 STORAGE + SEPP65 COMPLIANCE SUMMARY
DA.32 SOLAR ACCESS
DA.33 SHADOW DIAGRAMS

DA.35 EXTERNAL FINISHES

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address
34 Military Road , North Bondi , NSW, 2026
hstar.com.au

ABSA Australian Building Sustainability Association
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature [illegible]
This Accredited Assessor is qualified to use NatHERS Accredited Software and has agreed to follow the ABSA Code of Practice

REVISIONS

A	Development Application	16.12.2020
B	Not Issued	
C	Not Issued	
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MATERIALS IS MAINTAINED
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES, DIMENSIONAL INCONSISTENCIES OR THE NEED FOR CLARIFICATION PRIOR TO MANUFACTURING
4. MHN TO REVIEW ALL CONTRACTORS DETAILED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC. C1.1 - FIRE RESISTING CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSYEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION (OF OPENINGS)
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACIL/SERV/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECH/ELEC/HYDRAULIC: BCA CLAUSE C3.15 & AS1530 4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHANUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECH/ELEC/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530 4-2005
SOUND TRANSMISSION: TO COMPLY WITH PART5 OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star
TOILETS:	4 Star
CLOTHES WASHERS:	4 Star
KITCHEN TAPS:	5 Star
BATHROOM TAPS:	5 Star
DISHWASHERS:	4.5 Star
RAIN WATER TANK:	6000 L
POOL/SPA:	N/A
LANDSCAPED AREA TO IRRIGATE:	
COMMON:	170 sqm
PRIVATE:	0 sqm

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:	Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	compact fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS:	gas cooktop, electric oven.
REFRIGATOR SPACE:	well ventilated
CLOTHES DRYING LINES:	No
DISHWASHERS/CLOTHES DRYERS:	4.5 Star, 6 Star
CLOTHES WASHERS:	4 Star

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:	LED with motion sensors or manual switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION:	Mechanical ventilation as required
ALTERNATE ENEGRY SUPPLY:	Photovaultanic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Concrete:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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MHN Design Union Pty Ltd. ABN 94 003 717 682

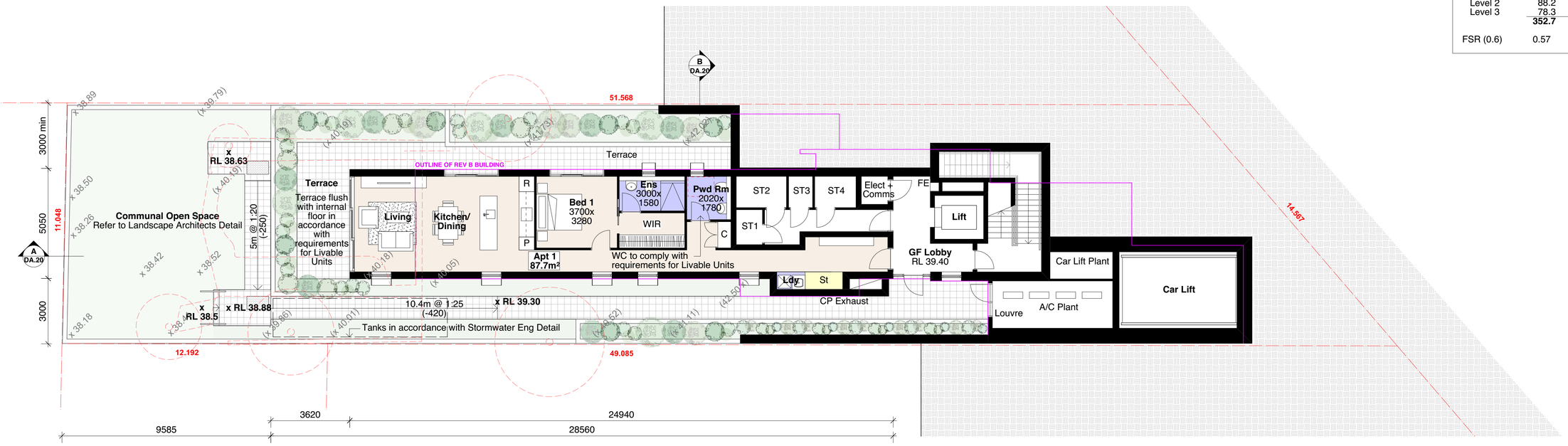
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
COVER PAGE

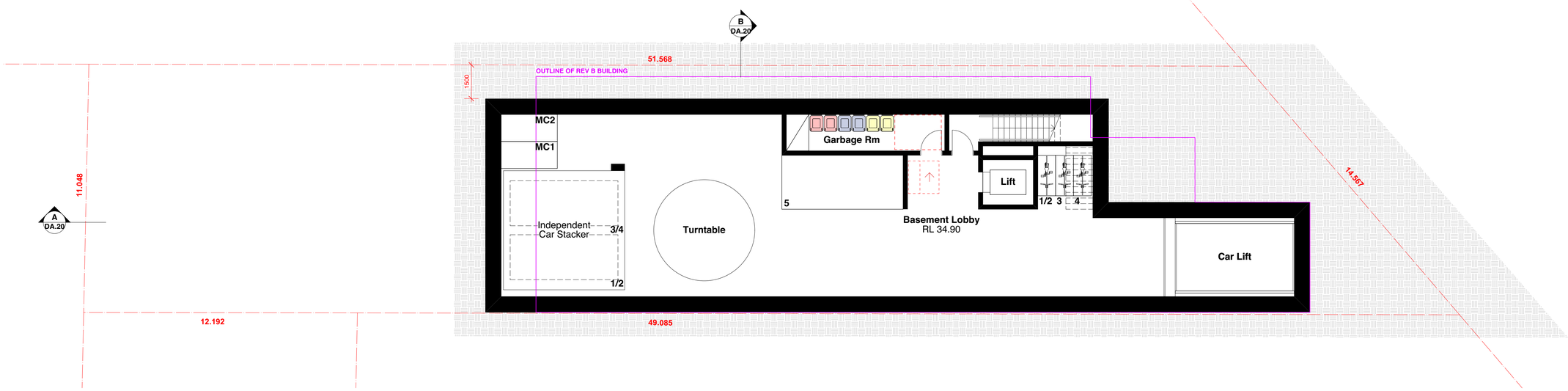
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: NTS@A3
DRAWING NO: REV:
DA.01 D

Area Schedule

Site Area	623.3	sqm
GFA Schedule		
Basement	0.0	sqm
Ground Floor	98.0	sqm
Level 1	88.2	sqm
Level 2	88.2	sqm
Level 3	78.3	sqm
	352.7	**sqm**
FSR (0.6)	0.57	



GROUND FLOOR PLAN



BASEMENT PLAN

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MATERIALS IS MAINTAINED
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES DIMENSIONAL INCONSISTENCIES OR THE NEED FOR CLARIFICATION PRIOR TO MANUFACTURING
4. MHN TO REVIEW ALL CONTRACTORS DETAILED SHOPDRAWINGS PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC. C1.1 - FIRE RESISTANCE & STABILITY
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALLS
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSYEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS 3
CLAUSE D3.4 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILITIES & SERVICES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
NATURAL LIGHTING: TO COMPLY WITH BCA CLAUSE F4.5
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
LIFTS: TO COMPLY WITH AS1735
MECHELECHYDRAULIC: BCA CLAUSE C3.15 & AS1530.4:2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHANICAL & ELECTRICAL PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & SECTION J6
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star
TOILETS:	4 Star
KITCHEN WASHERS:	4 Star
KITCHEN TAPS:	5 Star
BATHROOM TAPS:	5 Star
DISHWASHERS:	4.5 Star
RAINWATER TANK:	6000 L
POOL/SPA:	N/A
LANDSCAPED AREA TO IRRIGATE:	
COMMON:	170 sqm
PRIVATE:	0 sqm

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase, EER 3.5-4.0 zoned to living & bed areas.
HEATING:	Air-conditioner, single phase, EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:	Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	compact fluorescents or LED, with dedicated lamps, to: ALL rooms.
COOK TOPS:	gas cooktop, electric oven.
REFRIGATOR SPACE:	well ventilated
CLOTHES DRYING LINES:	No
DISHWASHERS/CLOTHES DRYERS:	4.5 Star, 6 Star
CLOTHES WASHERS:	4 Star

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:	LED with motion sensors or daylight switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION	Mechanical ventilation as required
ALTERNATE ENERGY SUPPLY:	Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nil insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	
		U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address 34 Military Road , North Bondi NSW, 2026
hstar.com.au

ABSA Australian Building Sustainability Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature
This Accredited Assessor is qualified to hold NatHERS Accredited Assessor Certificate Number 0007131180 in Tribe to the NatHERS Code of Practice

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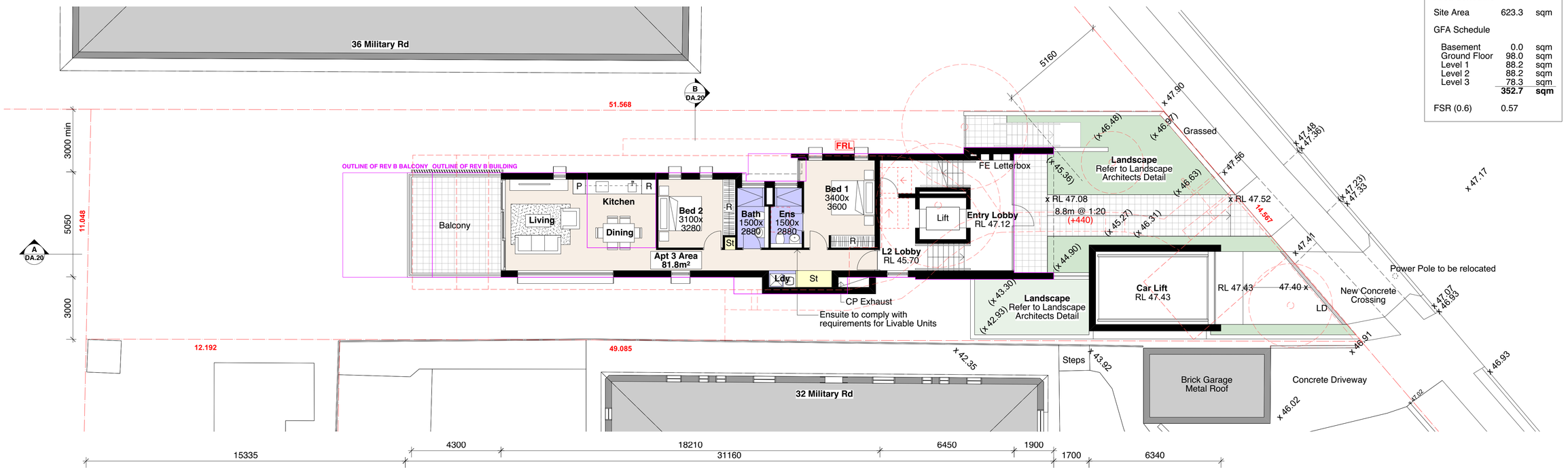
MHN Design Union Pty Ltd, ABN 94 003 717 682

PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
BASEMENT + GROUND FLOOR PLAN

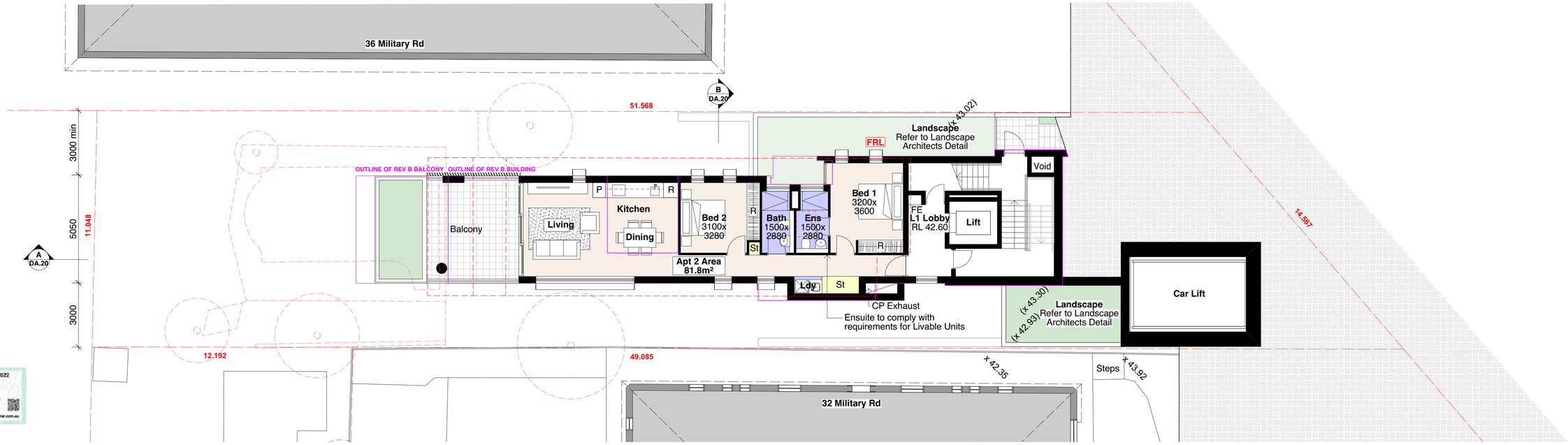
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:200@A3
DRAWING NO: REV:
DA.10 D



LEVEL 2 PLAN

Area Schedule

Site Area	623.3	sqm
GFA Schedule		
Basement	0.0	sqm
Ground Floor	98.0	sqm
Level 1	88.2	sqm
Level 2	88.2	sqm
Level 3	78.3	sqm
	352.7	**sqm**
FSR (0.6)	0.57	



LEVEL 1 PLAN

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address 34 Military Road , North Bondi , NSW , 2026
hstar.com.au

ABSA Assessor Quality Assurance Scheme
Assessor Name Darrell Marchant
Accreditation Period 24/03/2021-23/03/2022
Assessor Number 101526
Assessor Signature

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MATERIALS IS MAINTAINED
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES, DIMENSIONAL INCONSISTENCIES OR THE NEED FOR CLARIFICATION PRIOR TO MANUFACTURING
4. FIGURED DIMENSIONS TO BE STRICTLY FOLLOWED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS DEFINITIONS
SPEC. C1.1 - FIRE RESISTANCE CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C1.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSTEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.16 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISIEVFEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE F2.4 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ALL ELECTRICAL WIRING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
EXCAVATION WORKS: TO COMPLY WITH BCA CLAUSE D2.18
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCY/GLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
GLAZING: TO BE INSTALLED TO COMPLY WITH PART 2? OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHELEC/HYDRAULIC: BCA CLAUSE C3.15 & AS1530.4:2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1670
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHELEC/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4:2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS
SHOWERHEADS: 4 Star
TOILETS: 4 Star
KITCHEN TAPS: 5 Star
BATHROOM TAPS: 5 Star
DISHWASHER: 4.5 Star
RAIN WATER TANK: 6000 L
ROOF AREA: NA
LANDSCAPED AREA TO IRRIGATE:
COMMON: 170 sqm
PRIVATE: 0 sqm

ENERGY OPTIONS (DWELLINGS)
COOLING:
Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING:
Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:
Bathrooms, Laundries, Kitchens: mechanical ducted, manual switch on/off
ENERGY EFFICIENT LIGHTING:
6 star gas instantaneous
COOK TOPS:
gas cooktop, electric oven.
REFRIGATOR SPACE:
well ventilated
CLOTHES DRYING LINES:
No
CLOTHES WASHER/CLOTHES DRYERS:
4 Star, 6 Star
CLOTHES WASHERS:
4 Star

ENERGY OPTIONS (COMMON AREAS)
'COMMON AREAS IDENTIFIED:
Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:
Motion detection sensors or manual switch
LIFT SYSTEM:
Hydraulic
HOT WATER SYSTEM:
Electric Storage
VENTILATION:
Mechanical ventilation as required
ALTERNATE ENERGY SUPPLY:
Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete:	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Act 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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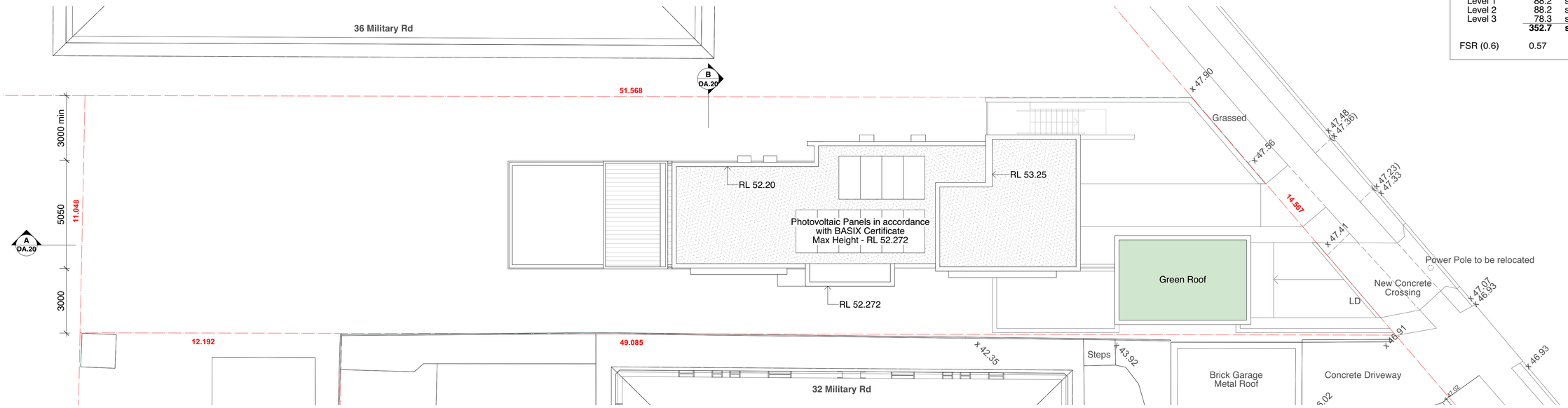
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
LEVEL 1 + 2 PLAN

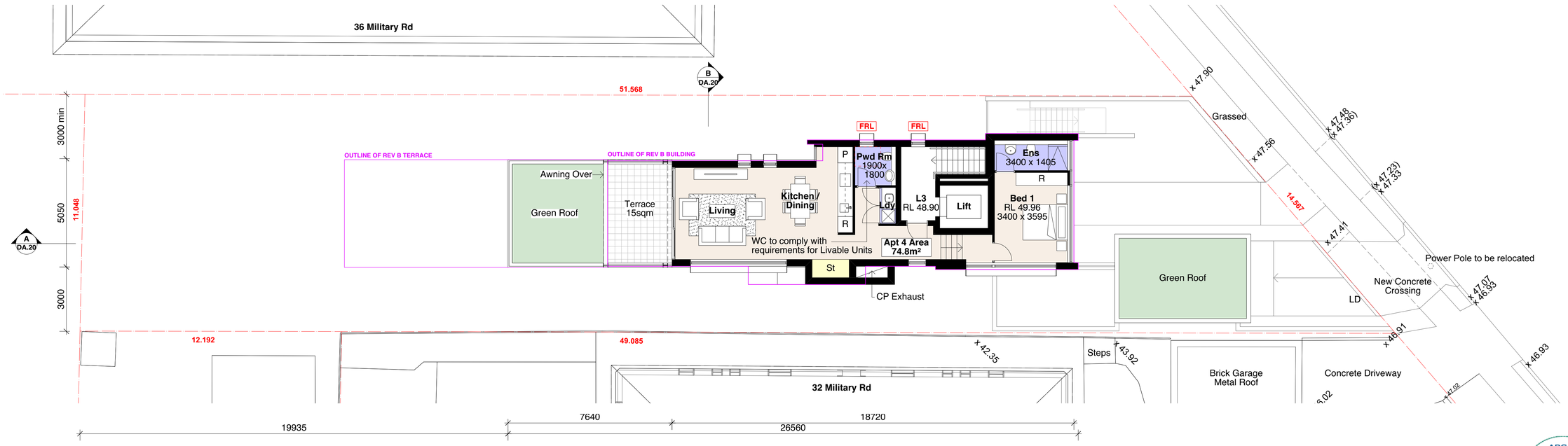
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:200@A3
DRAWING NO: REV:
DA.11 D

Area Schedule

Site Area	623.3	sqm
GFA Schedule		
Basement	0.0	sqm
Ground Floor	98.0	sqm
Level 1	88.2	sqm
Level 2	88.2	sqm
Level 3	78.3	sqm
	352.7	**sqm**
FSR (0.6)	0.57	



ROOF PLAN



LEVEL 3 PLAN

REVISIONS		
A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. DIMENSIONAL CONSISTENCY AND CONSISTENCY BETWEEN MATERIALS IS MAINTAINED.
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES DIMENSIONAL INCONSISTENCIES OR THE NEED FOR CLARIFICATION PRIOR TO MANUFACTURING
4. MHN TO REVIEW ALL CONTRACTORS DETAILED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL ELECTRICAL/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC C1.1 - FIRE RESISTING CONSTRUCTION
SPEC C1.10 - FIRE HAZARD PROPERTIES
SPEC C1.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSTEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS)
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENINGS FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISERVFEATURES
CLAUSE D3.7 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
CLAUSE F4.5 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
BARRIER GEOMETRY: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCY: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHANICAL VENTILATION: TO COMPLY CLAUSE C3.15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHELECHYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS4072.1
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star	
TOILETS:	4 Star	
CLOTHES WASHERS:	4 Star	
KITCHEN TAPS:	5 Star	
BATHROOM TAPS:	5 Star	
DISHWASHERS:	4.5 Star	
RAIN WATER TANK:	6000 L	
ROOF CONNECTED AREA TO IRRIGATE:	N/A	
COMMON:	170 sqm	
PRIVATE:	0 sqm	

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas. Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas. Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
HEATING:	
VENTILATION:	
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	compact fluorescents or LED, with dedicated fittings, to: ALL rooms. gas cooktop & electric oven.
COOK TOPS:	gas cooktop
REFRIGATOR SPACE:	No
CLOTHES DRYING LINES:	4.5 Star, 6 Star
DISHWASHERS/CLOTHES DRYERS:	4 Star
CLOTHES WASHERS:	

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:	LED with motion sensors or manual switch
LIFT SYSTEM:	Electric Storage.
HOT WATER SYSTEM:	Mechanical ventilation as required
VENTILATION:	Photovoltaic system
ALTERNATE ENERGY SUPPLY:	2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Brick Veneer:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nil insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address 34 Military Road , North Bondi , NSW , 2026
hstar.com.au

ABSA
Australian Building Sustainability Association
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Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature

MHNDUNION
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SURRY HILLS SYDNEY NSW 2010
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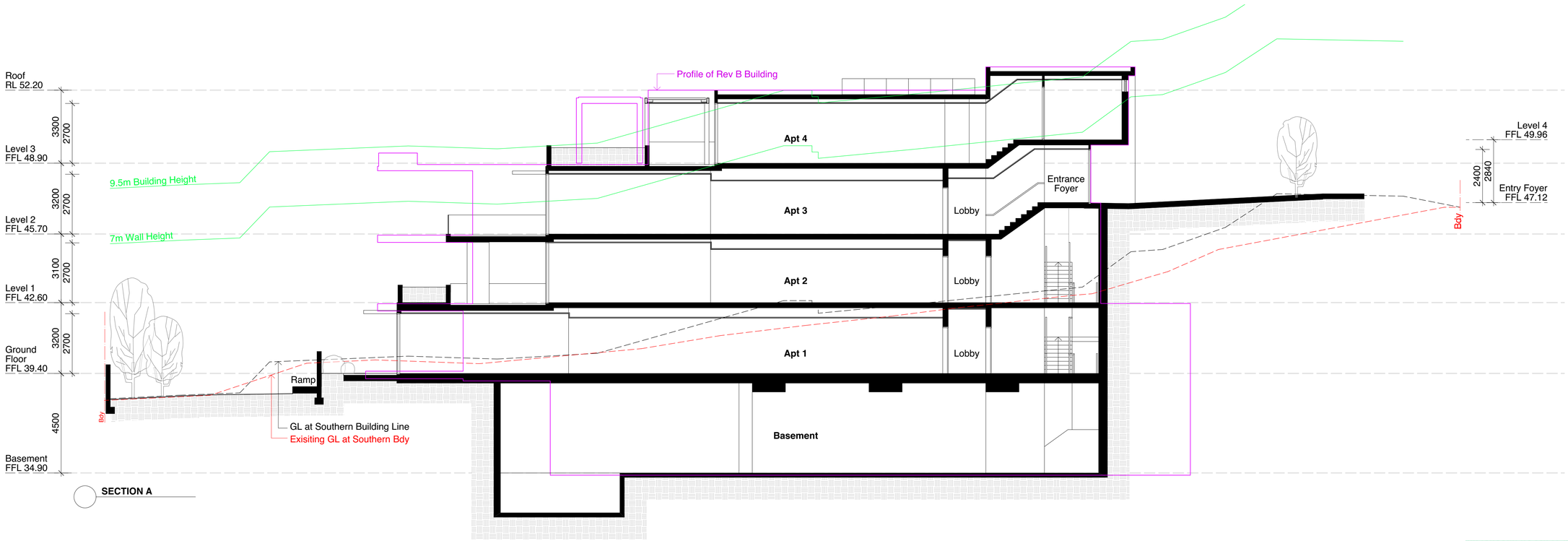
MHN Design Union Pty Ltd, ABN 94 003 717 682

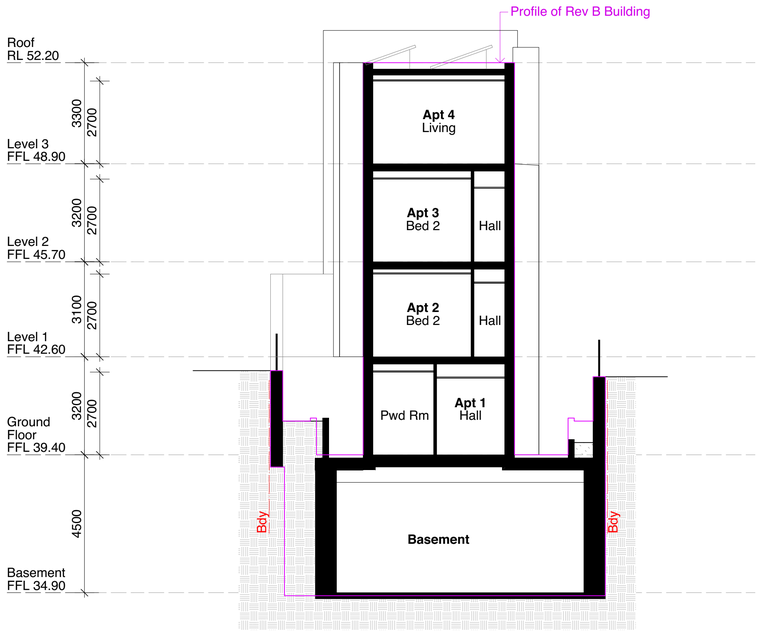
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
LEVEL 3 + ROOF PLAN

PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:200@A3
DRAWING NO: DA.12 D
REV:



SECTION A



SECTION B

THERMAL PERFORMANCE SPECIFICATIONS: **(21601_02 – 34 Military Rd)**

The following specifications take precedence over other plan notations for the construction of this building.

NOTE: In addition to BASIX commitments; building compliance is required to comply with the 'New South Wales Additions' in the current edition of the NCC – Vol. 1, at the time of building.

This includes New South Wales Part J(A). Specifically:

- Building thermal construction is in accordance with part J1.2
- loss of ceiling insulation is compensated for by increased roof insulation in accordance with Part J1.3(c)
- where metal frames are used that thermal breaks are installed in accordance with Part J1.3(d) and J1.5(c)
- Any roof lights, windows, doors and exhaust fans are sealed in accordance Part J3
- Any new air-conditioning system is installed in accordance with Parts J5.2(a), J5.2(b), J5.2(c), J5.2(d), J5.2(f) & J5.2(g)
- Any new mechanical ventilation system is installed in accordance with Part J5.3
- Any new miscellaneous exhaust system is installed in accordance with Part J5.4
- Any new heated water system is installed in accordance Part J7.2
- Energy monitoring equipment is installed in accordance Part J8.3

WINDOWS (total product specification – glass + frame)
U-value 3.1 (or less than) & SHGC 0.49 (+/-10%)
U-value 2.9 (or less than) & SHGC 0.51 (+/-10%) – Applies to; Apt 1 – Kitch/Living North and West facing / Bedroom 1 North facing

EXTERNAL WALL (Hebel – Light / ACC – Light / SCC - Dark)
75mm Hebel / Autoclaved Aerated Concrete – R2.5 bulk insulation with vapour barrier
Metal cladding – R2.5 bulk insulation with vapour barrier
Longform Brickwork – R2.5 bulk insulation with vapour barrier

INTERNAL WALL
Cavity Panel/ACC/Concrete – No Insulation
Partition walls – No thermal insulation required

EXTERNAL FLOOR
200mm Concrete Slab – No insulation
200mm Suspended Concrete (above Shared Basement garage) – R1.7 Bulk insulation

EXTERNAL CEILING
Concrete / Plasterboard – R1.7 bulk insulation (where roofspace or balcony above)

ROOF
Waterproofing membrane - No insulation (with balcony or roof above)

RATED either with NO DOWNLIGHTS or with LED downlights which do not penetrate ceiling insulation

Refer to current HERS Certificate to validate these thermal specification details.

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ABSA Assessment Scheme
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Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA/ AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
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ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC. C1.1 - FIRE RESISTING CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSTEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS
CLAUSE C3.6 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
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CLAUSE D2.23 - SIGNAGE
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CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.4 - IDENT. OF ACCESSIBLE FACILISIES/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE F2.1 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
CARPARK VENTILATION SYSTEMS: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCY/GLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
FLOOR WASTES: TO BE PROVIDED WITH PART J7 OF BCA
HEADROOMS: TO COMPLY WITH BCA
MECH/ELECH/HYDRAULIC: BCA CLAUSE C3.15 & AS1530.4:2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS3666
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECH/ELECH/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4:2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS
SHOWERHEADS: 4 Star
TOILETS: 4 Star
KITCHEN TAPS: 5 Star
BATHROOM TAPS: 5 Star
DISHWASHERS: 4.5 Star
RAIN WATER TANK: 6000 L
POOL/SPA: NA
LANDSCAPED AREA TO IRRIGATE: NA
COMMON: 170 sqm
PRIVATE: 0 sqm

ENERGY OPTIONS (DWELLINGS)
COOLING: Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING: Air-con/Bonner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION: Bathrooms, Laundries, Kitchens: individual ducted, manual switch on/off
WATER HEATING: 6 star gas instantaneous
ENERGY EFFICIENT LIGHTING: compact fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS: Gas cooktop & electric oven, wall ventilated
REFRIGATOR SPACE: No
DISHWASHERS/CLOTHES DRYERS: 4 5 Star, 6 Star
CLOTHES WASHERS: 4 Star

ENERGY OPTIONS (COMMON AREAS)
'COMMON AREAS IDENTIFIED: Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING: Motion detection sensors or manual switch
LIFT SYSTEM: Hydraulic
HOT WATER SYSTEM: Electric Storage
VENTILATION: Mechanical ventilation as required
ALTERNATE ENGERY SUPPLY: Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS
ROOF: Concrete.
CEILING: Where roof/balcony above: R1.7 insulation
EXTERNAL WALLS: Face Brick: R2.5 insulation
Hebel: R2.5 insulation
Metal Cladding: R2.5 insulation
INTERNAL WALLS: All walls: Nill insulation
FLOORS: GF above Basement: Concrete + R1.7 insulation
All other floors: Concrete - Nil
GLAZING: Apt 1 - North + West facing glazing: U Value 2.9 max SHGC 0.51
All other glazing: U Value 3.1 max SHGC 0.49

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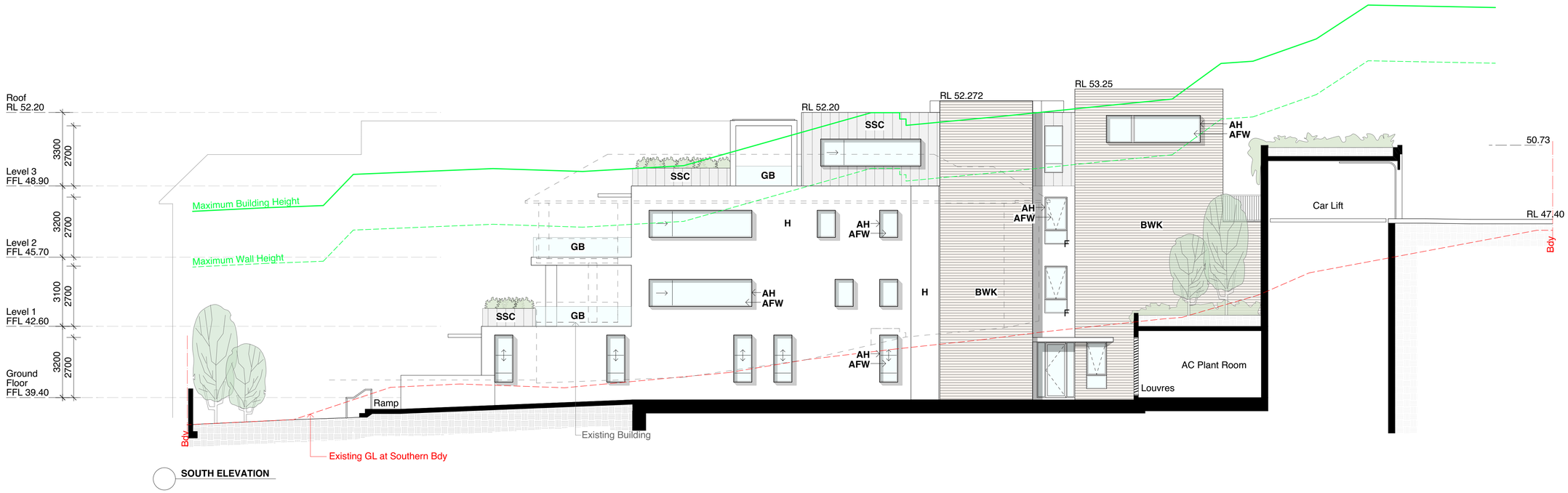
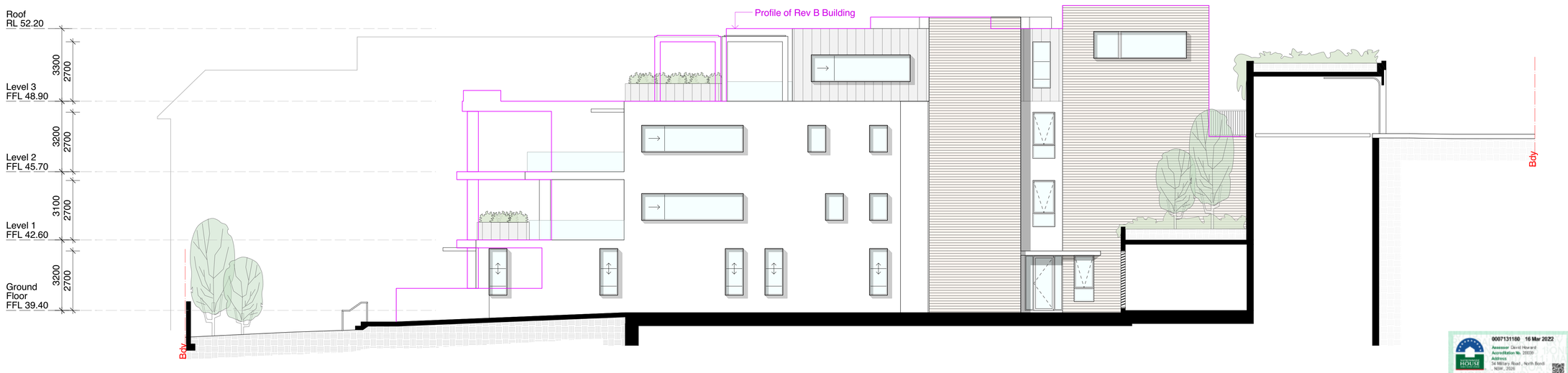
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
SECTIONS

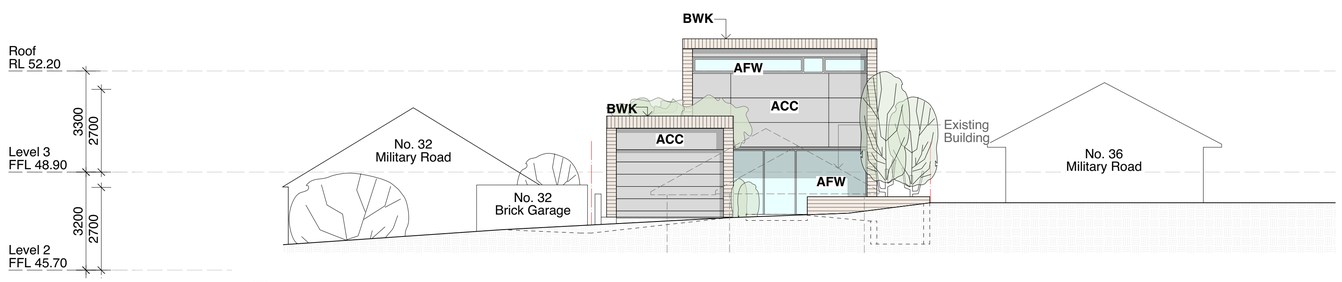
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:200@A3
DRAWING NO: REV:
DA.20 D



SOUTH ELEVATION



SOUTH ELEVATION SHOWING PROFILE OF REV A BUILDING



EAST ELEVATION

Schedule of Materials + Finishes

ACC	Solid aluminium cassette cladding. Powdercoat Finish Colour: Platypus Kinetic Pearl
AFW	Aluminium Framed Window. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
AH	Aluminium Hood. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
BWK	Longform Brickwork. Face brick
GB	Frameless glass baulstrade
H	Hebel. Paint Finish Colour: Off-white
PS	Privacy Screen. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
SCC	Standing seam colorbond metal cladding Colorbond colour: Monument Matt

0007131180 16 Mar 2022
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Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature
This Accredited Assessor has completed ABSA Quality Assurance requirements to follow the ABSA Code of Practice

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
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GENERAL NOTES

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CLAUSE F1.14 - CONSTRUCTION OF SANITARY COMPARTMENTS
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CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
ENERGY EFFICIENCY:GLAZING: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCY:GLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
HEALTH & AMENITY: TO COMPLY WITH PART J7 OF BCA
HOUSING: TO COMPLY WITH BASIX
MECH/ELEC/HYDRAULIC: BCA CLAUSE:C3.15 & AS1530.4:2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & BASIX
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECH/ELEC/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS4072.1
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star	
TOILETS:	4 Star	
KITCHEN TAPS:	5 Star	
BATHROOM TAPS:	5 Star	
DISHWASHERS:	4.5 Star	
RAIN WATER TANK:	6000 L	VENTILATION:
POOL:	NA	
LANDSCAPED AREA TO IRRIGATE:		
COMMON:	170 sqm	WATER HEATING:
PRIVATE:	0 sqm	ENERGY EFFICIENT LIGHTING:

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas. Air-con/dinner, single phase EER 3.5-4.0 zoned to living & bed areas. Bathrooms, Laundries, Kitchens: individually ducted, manual switch on/off 6 star gas instantaneous compact fluorescents or LED, with dedicated fittings, to: ALL rooms. gas cooktop & electric oven. well ventilated
COOK TOPS:	No
REFRIGATOR SPACE:	4 Star, 6 Star
CLOTHES DRYING LINES:	4 Star
DISHWASHERS/CLOTHES DRYERS:	
CLOTHES WASHERS:	

ENERGY OPTIONS (COMMON AREAS)

'COMMON AREAS IDENTIFIED:	Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:	Motion detection sensors or manual switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION:	Mechanical ventilation as per BCA
ALTERNATE ENERGY SUPPLY:	Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
NORTH + EAST ELEVATIONS

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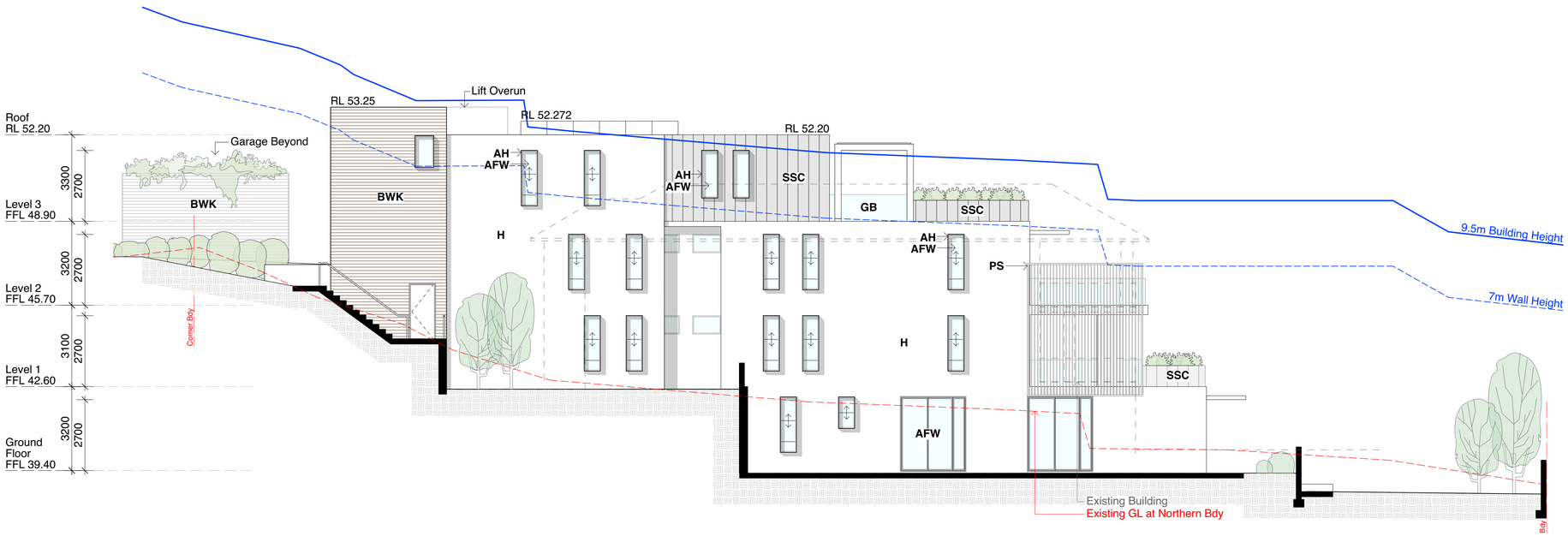
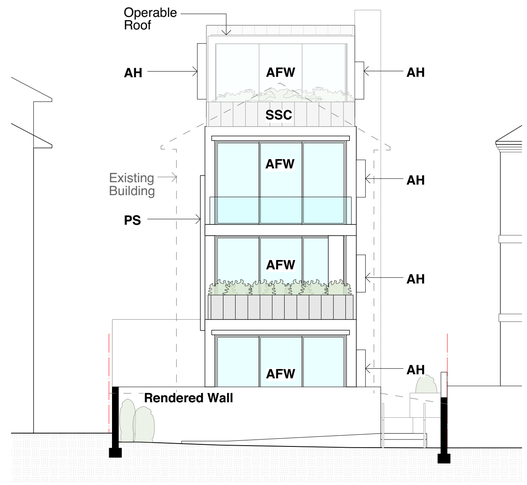
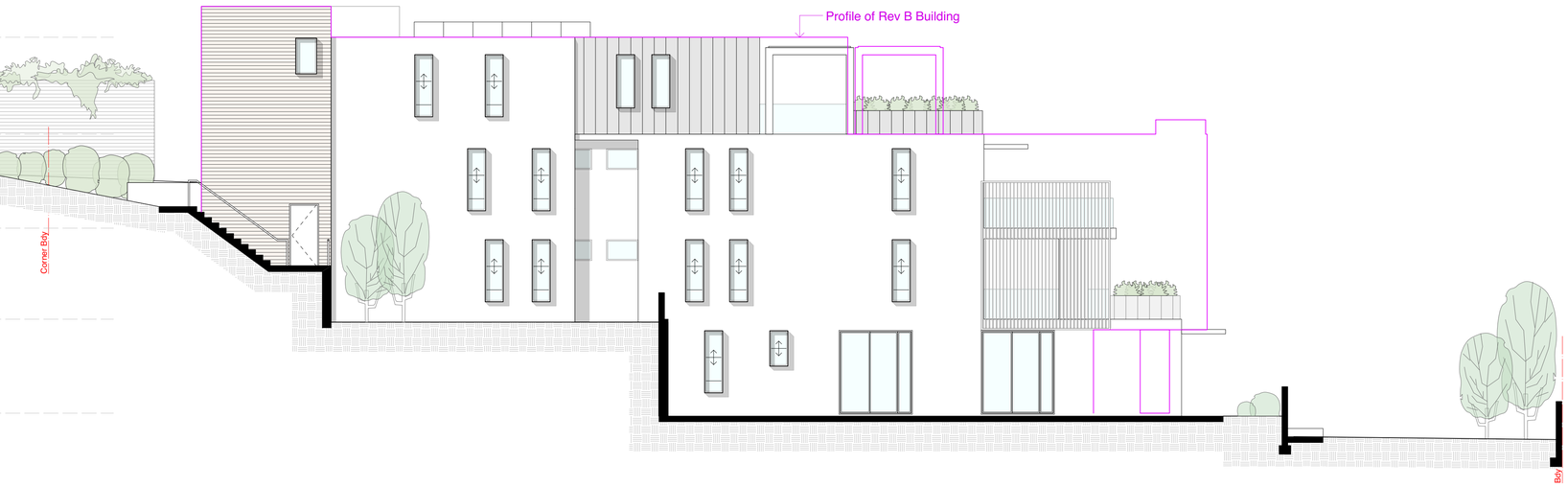


NORTH ELEVATION



WEST ELEVATION



NORTH ELEVATION SHOWING PROFILE OF REV A BUILDING

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20009
Address 34 Military Road, North Bondi NSW, 2026

ABSA
Accredited by completion within the accreditation period are part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darnell Marchant
Assessor Number 101526
Assessor Signature

Schedule of Materials + Finishes

ACC	Solid aluminium cassette cladding. Powdercoat Finish Colour: Platypus Kinetic Pearl
AFW	Aluminium Framed Window. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
AH	Aluminium Hood. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
BWK	Longform Brickwork. Face brick
GB	Frameless glass baulstrade
H	Hebel. Paint Finish Colour: Off-white
PS	Privacy Screen. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
SCC	Standing seam colorbond metal cladding Colorbond colour: Monument Matt

REVISIONS

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CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.4 - EXTENT OF IDENT. OF ACCESSIBLE FACILISIES/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE F2.1 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
BUILDING SEALANT: TO COMPLY WITH AS/NZS 4284 & AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
LIFT INSTALLATION: TO COMPLY WITH PART J7 OF BCA
MUDSMATS: TO COMPLY WITH COUNCIL
MECHELEC/HYDRAULIC: BCA CLAUSE C3.15 & AS1530.4:2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & BCA
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHELEC/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & SPEC C3.15
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS
SHOWERHEADS: 4 Star
TOILETS: 4 Star
KITCHEN TAPS: 5 Star
BATHROOM TAPS: 5 Star
DISHWASHERS: 4.5 Star
RAIN WATER TANK: 6000 L
ALFRESCO: NA
LANDSCAPED AREA TO IRRIGATE: 170 sqm
COMMON: 0 sqm
PRIVATE:

ENERGY OPTIONS (DWELLINGS)
COOLING:
Air-conditioner, single phase
EER 3.5-4.0 zoned to living & bed areas
HEATING:
Air-con/Blower, single phase
EER 3.5-4.0 zoned to living & bed areas.
Bathrooms, Laundries, Kitchens: ducted/ducted, manual switch on/off
VENTILATION:
6 star gas instantaneous
WATER HEATING
ENERGY EFFICIENT LIGHTING:
compact fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS: Gas/electric oven, well ventilated
REFRIGATOR SPACE:
No
CLOTHES DRYING LINES:
4.5 Star, 6 Star
DISHWASHERS/CLOTHES DRYERS:
4 Star
CLOTHES WASHERS:

ENERGY OPTIONS (COMMON AREAS)
'COMMON AREAS IDENTIFIED:
Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING:
Motion detection sensors or manual switch
LIFT SYSTEM:
Hydraulic
HOT WATER SYSTEM:
Electric Storage
VENTILATION:
Mechanical ventilation as required
ALTERNATE ENGERY SUPPLY:
Photovoltaic system
2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF	Concrete:	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
		Nill insulation
INTERNAL WALLS:	All walls:	
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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SURRY HILLS SYDNEY NSW 2010
T +61 2 9101 111
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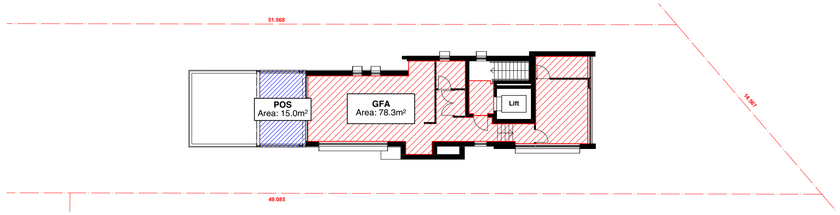
www.mhndu.com
MHN Design Union Pty Ltd. ABN 94 003 717 682

PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

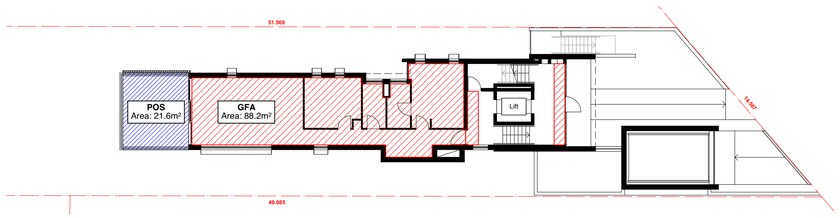
DRAWING:
SOUTH + WEST ELEVATIONS

PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:200@A3
DRAWING NO: REV:

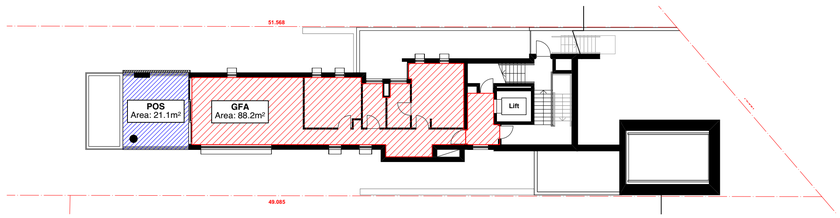
DA.22 D



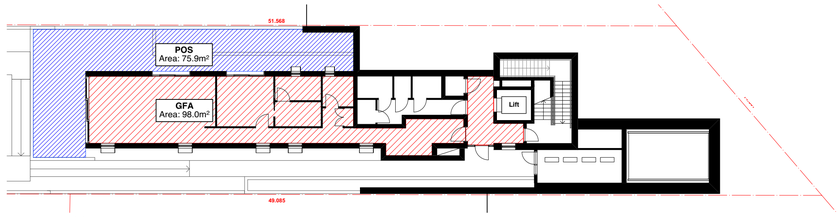
LEVEL 3 PLAN



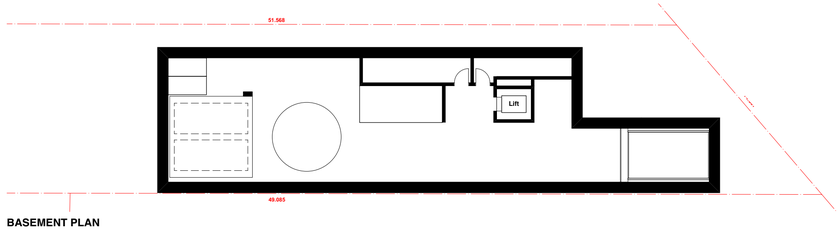
LEVEL 2 PLAN



LEVEL 1 PLAN



GROUND FLOOR PLAN



BASEMENT PLAN

GFA

AREA SCHEDULE

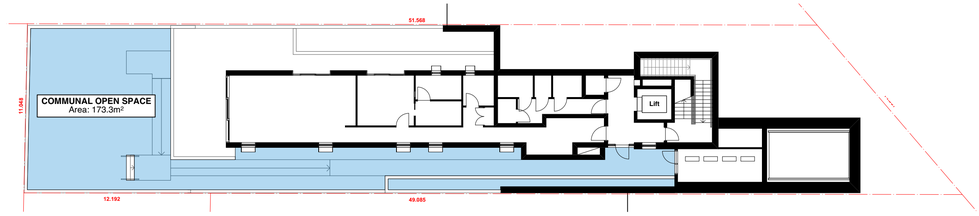
Site Area	623.3m²
Max GFA	374.0m²
GFA	
Ground Floor	98.0m²
Level 1	88.2m²
Level 2	88.2m²
Level 3	78.3m²
	352.7m²
FSR	0.57

Private Open Sace	Control	Proposed	Compliance
Ground Floor	15m²	75.9m²	Yes
Level 1	10m²	21.1m²	Yes
Level 2	10m²	21.6m²	Yes
Level 3	10m²	15.0m²	Yes

Landscaped Area		Control	Proposed	Compliance
Ground Floor	153.6m²			
Level 1	47.8m²			
Level 2	36.3m²			
Roof Plan	41.8m²			
	279.5m²	30% of Site Area	**279.5 m² (44.8%)**	Yes

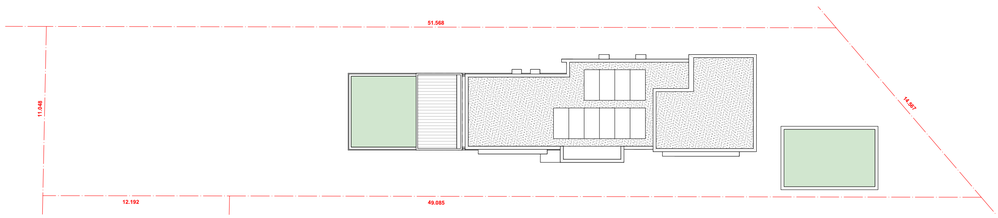
Deep Soil		Control	Proposed	Compliance
Ground Floor	114.3m²			
Level 1	20.2m²			
Level 2	25.0m²			
	159.5m²	50% of Landscaped Area	**159.5m² (57.1%)**	Yes

Communal Open Space	Control	Proposed	Compliance
	25% of Site Area	**173.3m² (27.8%)**	Yes



GROUND FLOOR PLAN

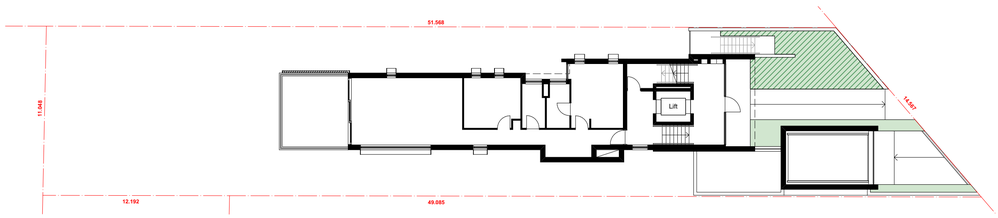
COMMUNAL OPEN SPACE



ROOF PLAN / LEVEL 3

Deep Soil Area - 0 sqm

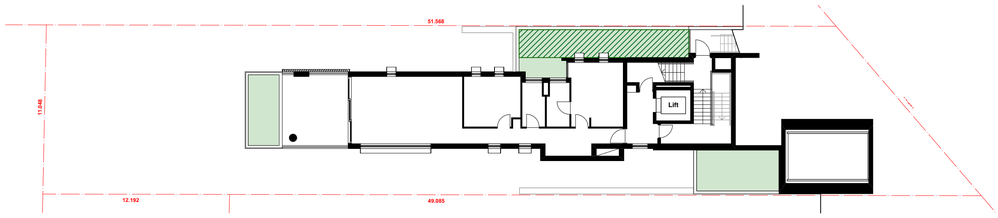
Landscaped Area - 41.8 sqm



LEVEL 2 PLAN

Deep Soil Area - 25 sqm

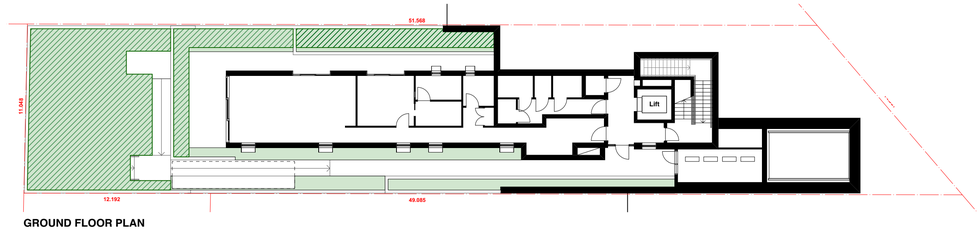
Landscaped Area - 36.3 sqm



LEVEL 1 PLAN

Deep Soil Area - 20.2 sqm

Landscaped Area - 47.8 sqm



GROUND FLOOR PLAN

Deep Soil Area - 118.4 sqm

Landscaped Area - 146.4 sqm

DEEP SOIL + LANDSCAPED AREA

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20009
Address 34 Military Road, North Bondi NSW 2026
hstar.com.au

ABSA Assessment Quality Assured by Assessment completed within the accreditation period and part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Daniel Marchant
Assessor Number 101526
Assessor Signature

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Amended as per s.34 review	08.03.2022
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MARKED DIMENSIONS AND SCALE.
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES, DIMENSIONAL INCONSISTENCIES OR THE NEED FOR CLARIFICATION PRIOR TO MANUFACTURING
4. MHN TO REVIEW ALL CONTRACTORS DETAILED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC. C1.1 - FIRE RESISTING CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C.11- PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C3.11 - ELECTRICITY SUPPLY SYSTEM
CLAUSE C.3 - ACCEPTABLE METHODS OF PROTECTION (OF OPENINGS)
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE D1.7 - PENETRATION OF SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISER/FEATURES
CLAUSE F1.6 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHT AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
FIRE SEPARATION: TO COMPLY WITH BCA C1.1
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHANICAL AIR HANDLING: TO COMPLY TO CLS 15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHS/ELECHYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4-2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS
SHOWERHEADS: 4 Star
TOILETS: 4 Star
CLOTHES WASHERS: 4 Star
KITCHEN TAPS: 5 Star
BATHROOM TAPS: 5 Star
DISHWASHERS: 4.5 Star
RAIN WATER TANK: 6000 L
POOL/SPA: N/A
LANDSCAPED AREA TO IRRIGATE: 170 sqm
PRIVATE: 0 sqm

ENERGY OPTIONS (DWELLINGS)
COOLING: Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING: Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION: Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
WATER HEATING: Solar gas instantaneous
ENERGY EFFICIENT LIGHTING: compact fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS: gas cooktop, electric oven.
REFRIGERATOR SPACE: well ventilated
CLOTHES DRYING LINES: YES
DISHWASHERS/CLOTHES DRYERS: 4.5 Star, 6 Star
CLOTHES WASHERS: 4 Star

ENERGY OPTIONS (COMMON AREAS)
COMMON AREAS IDENTIFIED: Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING: LED with motion sensors or manual switch
LIFT SYSTEM: Electric Storage
HOT WATER SYSTEM: Mechanical ventilation as required
VENTILATION:
ALTERNATE ENERGY SUPPLY: Photovoltaic system 2.0 kW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Render:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nil insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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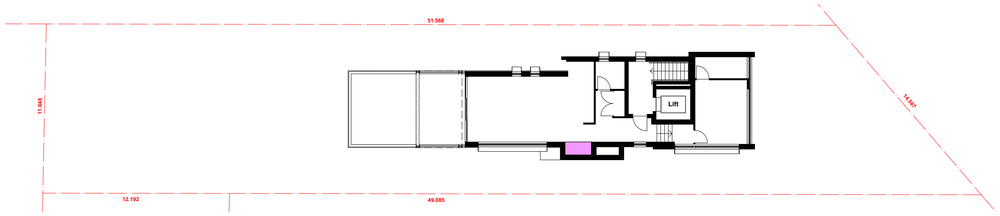
www.mhndu.com
MHN Design Union Pty Ltd, ABN 94 003 717 682

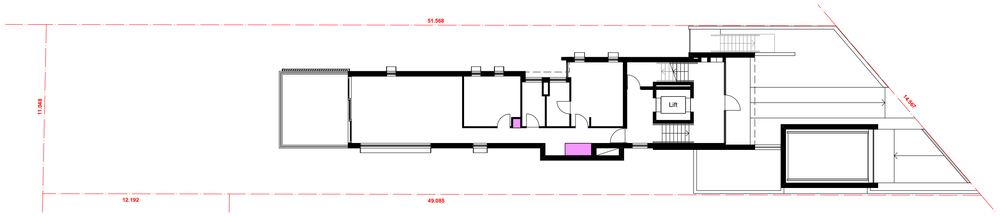
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
LEP + DCP
COMPLIANCE SUMMARY **DA.30 D**

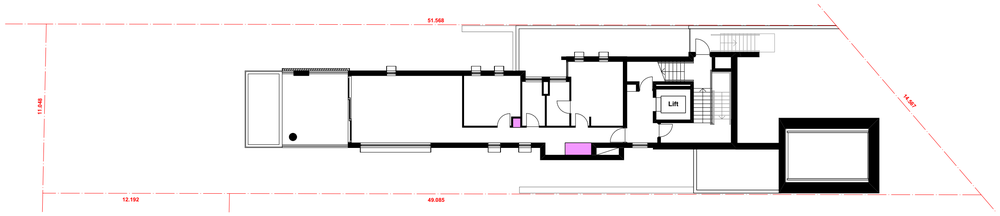
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:400@A3
DRAWING NO: REV:



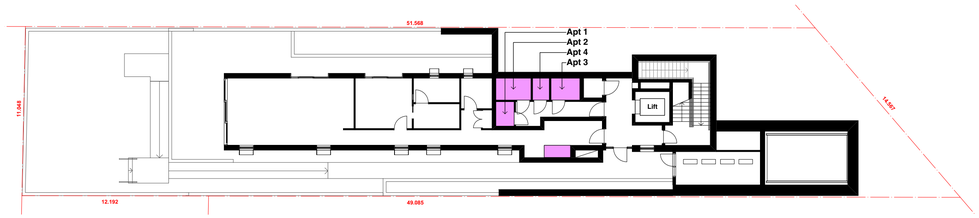
LEVEL 3 PLAN



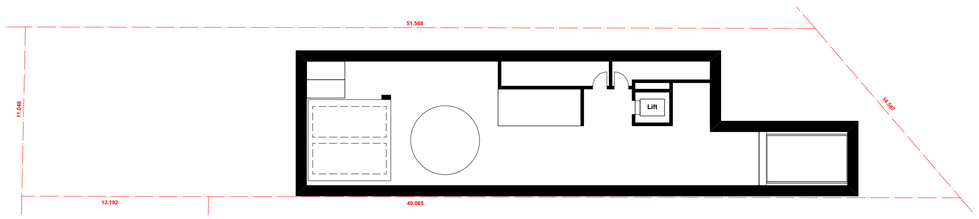
LEVEL 2 PLAN



LEVEL 1 PLAN



GROUND FLOOR PLAN



BASEMENT PLAN

STORAGE

SEPP 65 COMPLIANCE

Level	Apt No.	Area (m²)	Storage (min 50% internal)	Solar Access	Cross Ventilation
Ground Floor	Apt 1 (1 Bed)	87.7	6.6 - 50% Internal	No	Yes
Level 1	Apt 2 (2 Bed)	81.8	8.9 - 50% Internal	No	Yes
Level 2	Apt 3 (2 Bed)	81.8	8.5 - 50% Internal	Yes	Yes
Level 3	Apt 4 (1 Bed)	74.8	6.8 - 50% Internal	Yes	Yes
Compliance		**Yes**	**Yes**	**No**	**Yes**
				2/4 Apartments	4/4 Apartments
				50% Achieved	100% Achieved
				(Control - 70%)	(Control - 60%)

STORAGE SCHEDULE

Unit	Type	Reqd (m³)	Internal (m³)	External (m³)	Total (m³)	Complies
Apt 1	1 Bed	6	3.0	3.6	6.6	**Yes**
Apt 2	2 Bed	8	4.0	4.9	8.9	**Yes**
Apt 3	2 Bed	8	4.0	4.5	8.5	**Yes**
Apt 4	1 Bed	6	3.0	3.8	6.8	**Yes**

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20639
Address 34 Military Road , North Bondi , NSW , 2026
hstar.com.au

ABSA
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Daniel Marchant
Assessor Number 101526
Assessor Signature
This Accredited Assessor is qualified to carry out Energy Efficiency Rating and Water Efficiency Rating Audits of Dwellings

REVISIONS

A	Development Application	30.09.2020
B	Not Issued	
C	Not Issued	
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA,AUSTRALIAN STANDARDS,STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MATERIALS IS MAINTAINED
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES, DIMENSIONAL INCONSISTENCIES OR THE NEED FOR ADDITIONAL DETAILS PRIOR TO RETURN
4. MHN TO REVIEW ALL CONTRACTORS DETAILED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
CLAUSE C1.1 - FIRE RESISTANCE CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C 11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSTEM
CLAUSE C3.1 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.20 - CALCULATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISER/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F2.4 - WALL & CEILING LINING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
ADJUSTMENTS: TO COMPLY WITH BCA CLAUSE D2.15
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
GLAZING: TO COMPLY WITH AS1288 & AS2047
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHELECHYDRAULIC: BCA CLAUSE C3.15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR SERVICES TO COMPLY PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4-2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STORMWATER DRAINAGE: TO COMPLY WITH BCA CLAUSE 3.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star
TOILETS:	4 Star
CLOTHES WASHERS:	4 Star
KITCHEN TAPS:	5 Star
BATHROOM TAPS:	5 Star
DISHWASHERS:	4.5 Star
RAINWATER TANK:	2,000 L
POOL/SPA:	N/A
LANDSCAPED AREA TO IRRIGATE:	
COMMON:	170 sqm
PRIVATE:	0 sqm

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:	Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	min 40% fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS:	gas cooktop, electric oven. well ventilated
REFRIGERATOR SPACE:	4 Star
STAR RATING OF APPLIANCES:	
DISHWASHERS/CLOTHES DRYERS:	4.5 Star, 6 Star
CLOTHES WASHERS:	4 Star

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby,Stair, Carpark, Laundry,Bulk Store, Plant Room.
LIGHTING:	LED with motion sensors or manual switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION:	Mechanical ventilation as required
ALTERNATE ENERGY SUPPLY:	Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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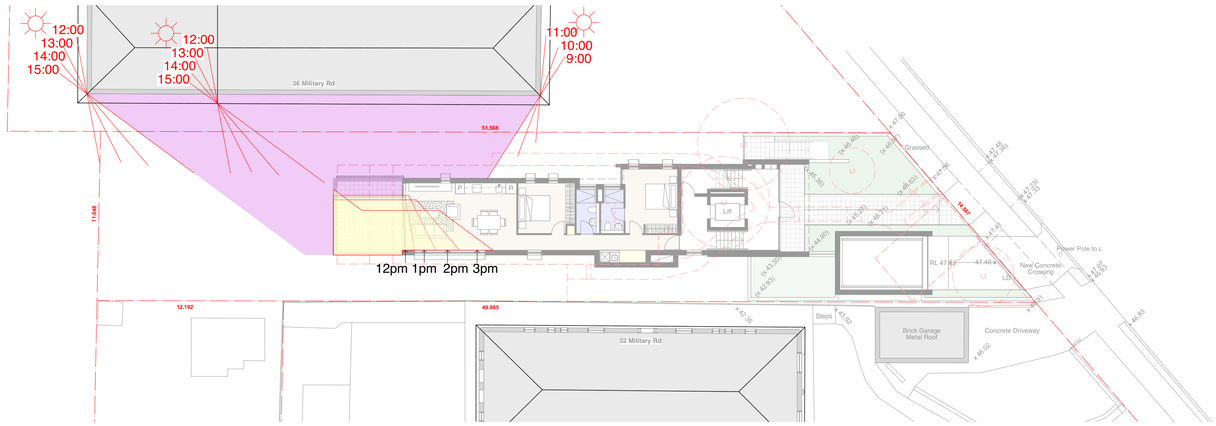
MHN Design Union Pty Ltd, ABN 94 003 717 682

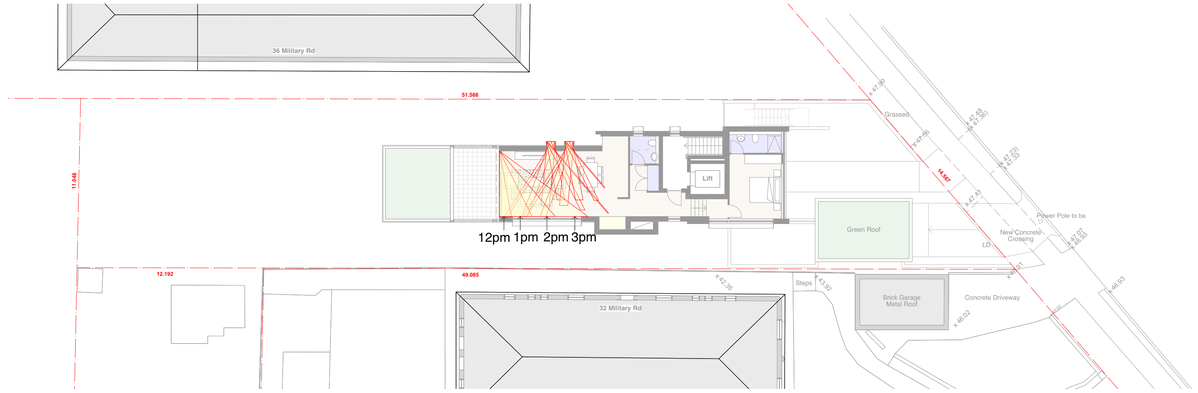
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
STORAGE + SEPP65 COMPLIANCE

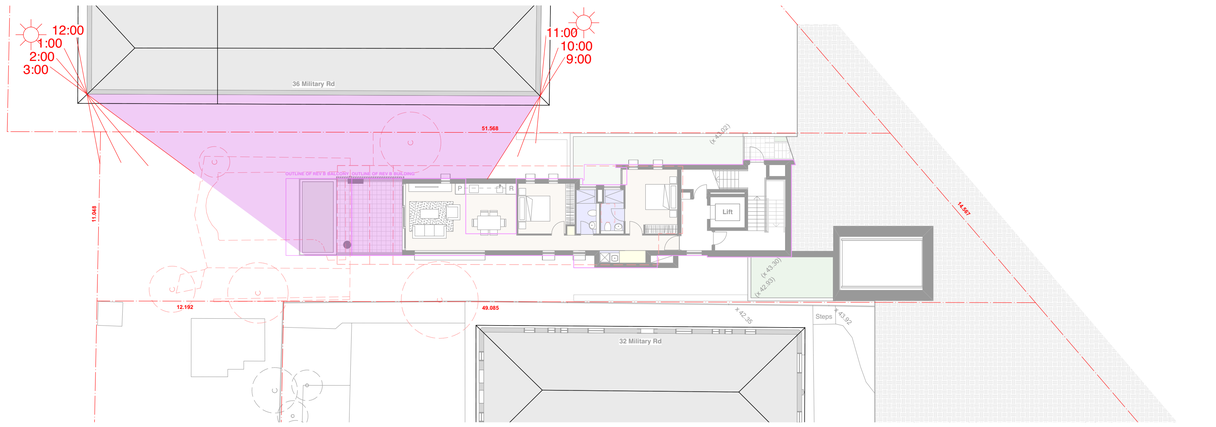
PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:400@A3
DRAWING NO: REV:
DA.31 D



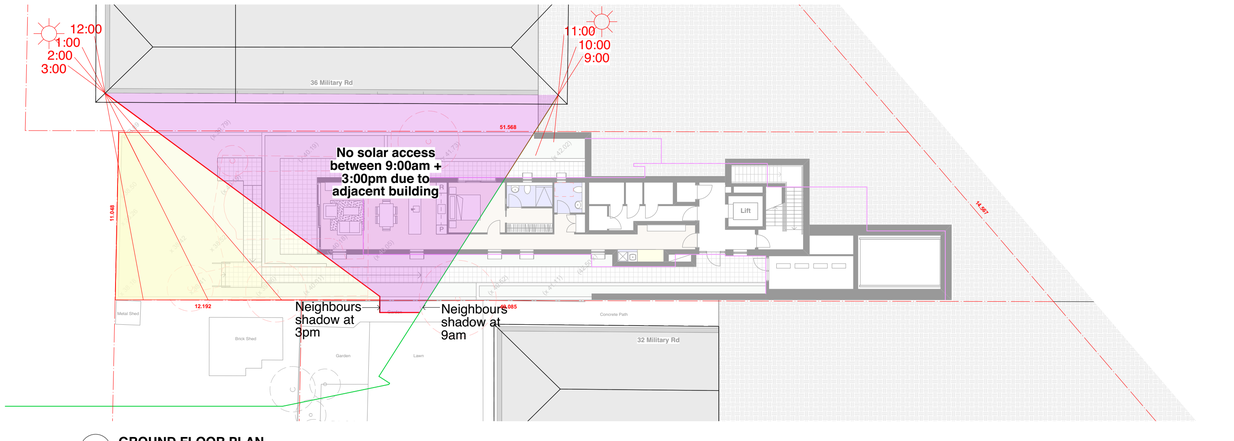
LEVEL 2 PLAN



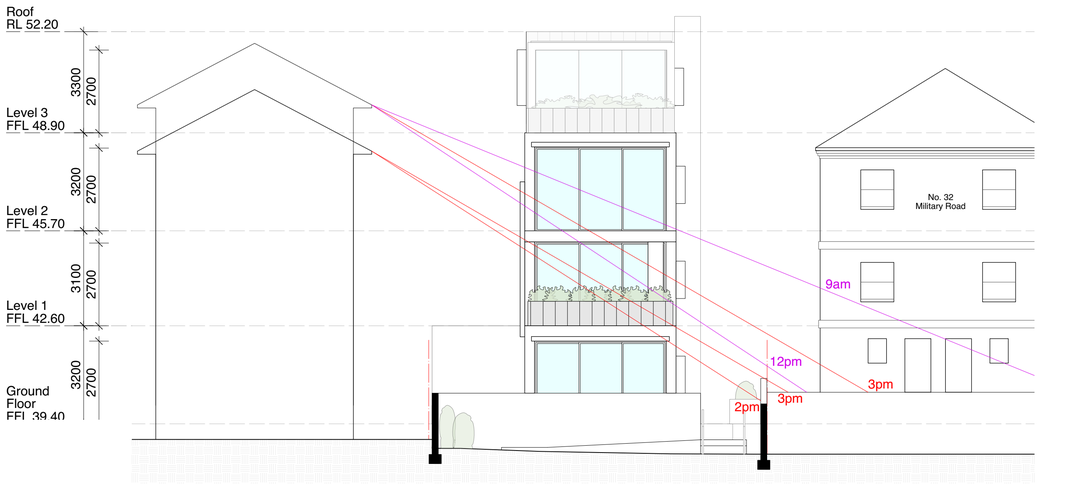
LEVEL 3 PLAN



LEVEL 1 PLAN



GROUND FLOOR PLAN



EAST ELEVATION
Scale 1:200

REVISIONS

A	Development Application	30.09.2020
B	Not Issued	
C	Not Issued	
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
2. CONTRACTOR TO ENSURE CONSISTENCY BETWEEN MATERIALS IS MAINTAINED
3. CONTRACTOR TO NOTIFY MHN OF ANY DISCREPENCIES DIMENSIONAL INCONSISTENCIES OR THE NEED FOR ADDITIONAL DETAILS OR FURTHER INFORMATION
4. MHN TO REVIEW ALL CONTRACTORS DETAILED DRAWINGS / SETTING OUT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO LIAISE WITH ELECTRICAL CONTRACTORS TO ENSURE ALL POWER/DATA/COMMUNICATION REQUIREMENTS ARE ACCESSIBLE.
6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
CLAUSE B1.5 - EXISTING BUILDING CONSTRUCTION
SPEC C1.10 - FIRE HAZARD PROPERTIES
SPEC C.11 - PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C2.13 - ELECTRICITY SUPPLY SYSEM
CLAUSE C3.4 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISER/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F2.4 - WALL & CEILING LINING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
ILLUSTRATIONS: TO COMPLY WITH BCA CLAUSE D2.15
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYGLAZING: TO COMPLY WITH BASIX
GLAZING: TO COMPLY WITH AS1288 & AS2047
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHELECHYDRAULIC: BCA CLAUSE C3.15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR SERVICES, PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4-2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING: TO COMPLY WITH BCA CLAUSE F1.7
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star
TOILETS:	4 Star
CLOTHES WASHERS:	4 Star
KITCHEN TAPS:	5 Star
BATHROOM TAPS:	5 Star
DISHWASHERS:	4.5 Star
RAIN WATER TANK:	5,000 L
POOL/SPA:	N/A
LANDSCAPED AREA TO IRRIGATE:	
COMMON:	170 sqm
PRIVATE:	0 sqm

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:	Bathrooms, Laundries, Kitchens: exhaust ducted, manual switch on/off
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	Living/Kitchens/Hall/Entry: fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS:	gas cooktop, electric oven.
REFRIGERATOR SPACE:	well ventilated
STAR RATING OF APPLIANCES:	4
DISHWASHERS/CLOTHES DRYERS:	4.5 Star, 6 Star
CLOTHES WASHERS:	4 Star

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby,Stair, Carpark, Plantroom, Store, Comm. Room.
LIGHTING:	LED with motion sensors or manual switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION:	Mechanical ventilation as required
ALTERNATE ENERGY SUPPLY:	Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
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GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
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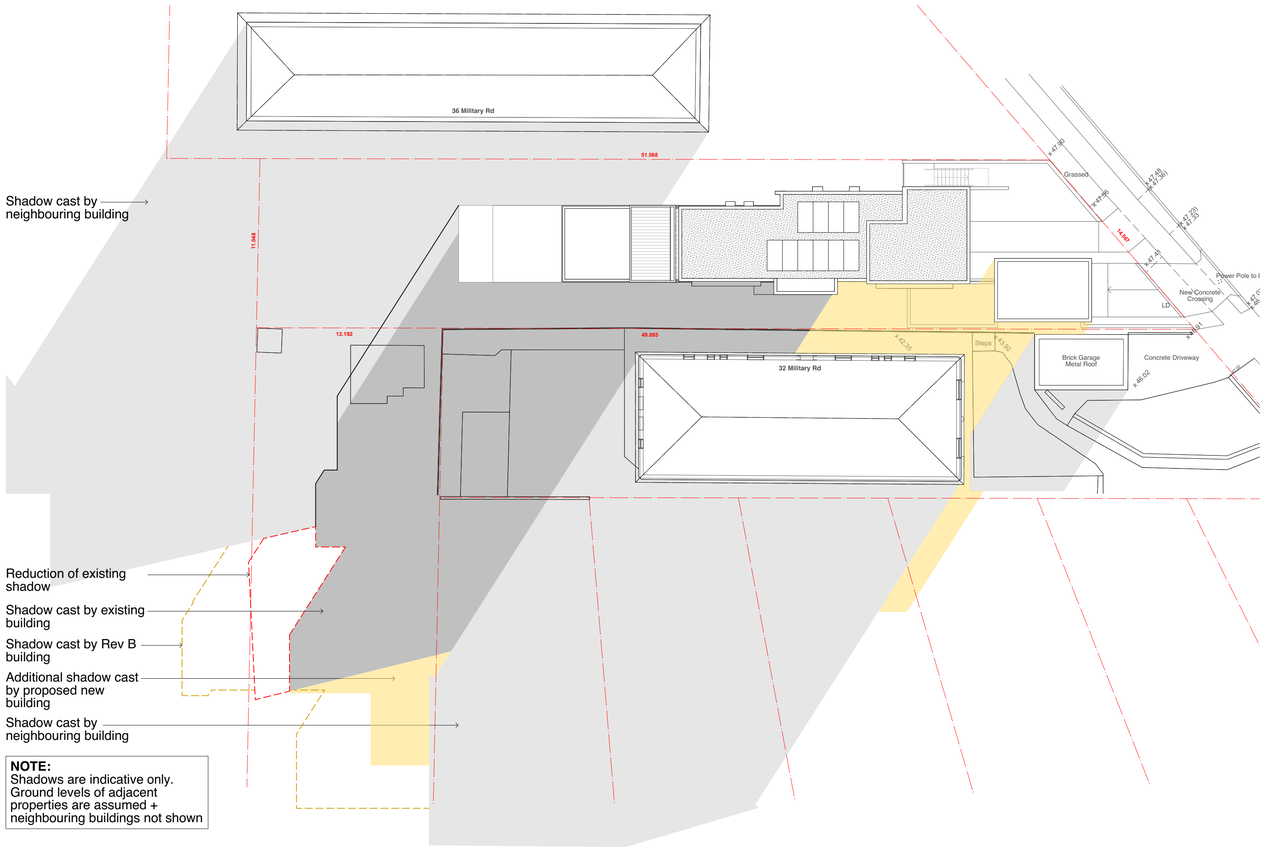
PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

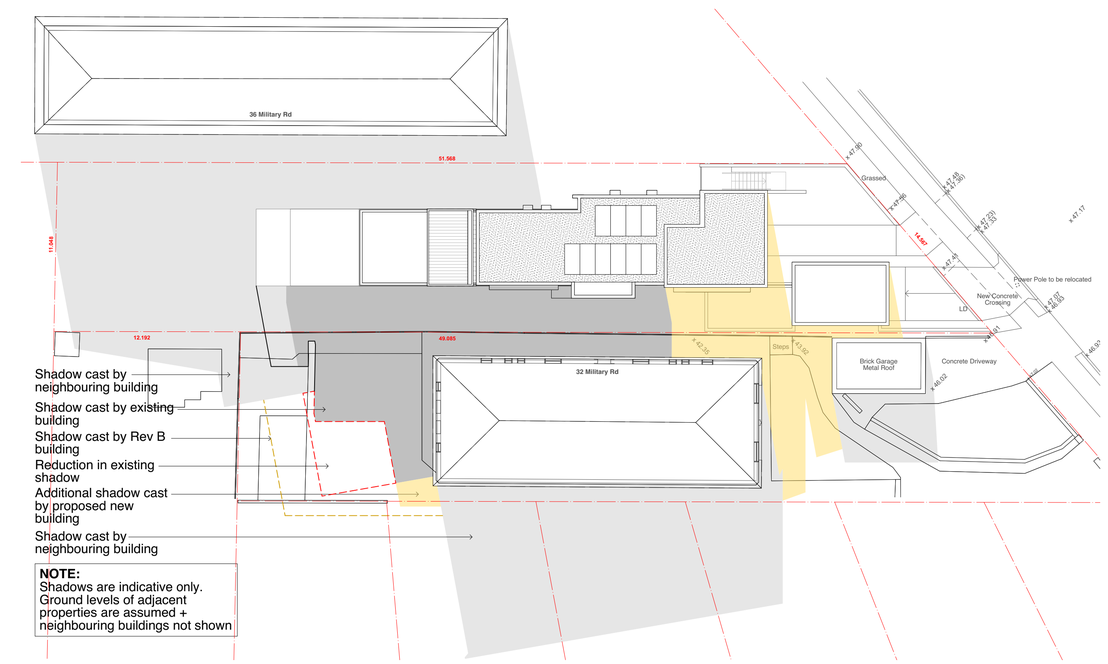
DRAWING:
SOLAR ACCESS

PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:400@A3
DRAWING NO: REV:
DA.32 D



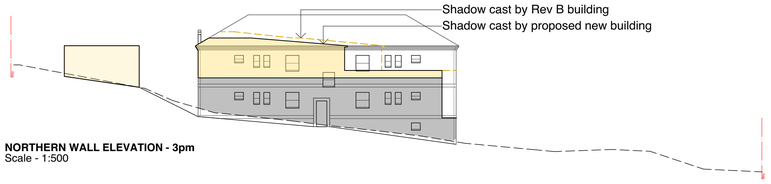
NOTE:
Shadows are indicative only.
Ground levels of adjacent properties are assumed + neighbouring buildings not shown

JUNE 21 - 9am SHADOW DIAGRAM

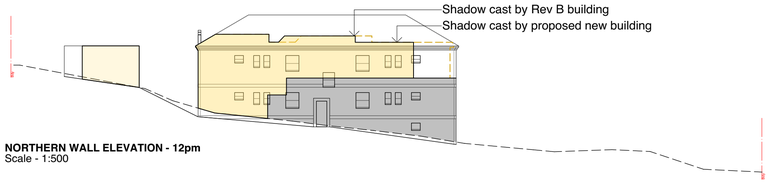


NOTE:
Shadows are indicative only.
Ground levels of adjacent properties are assumed + neighbouring buildings not shown

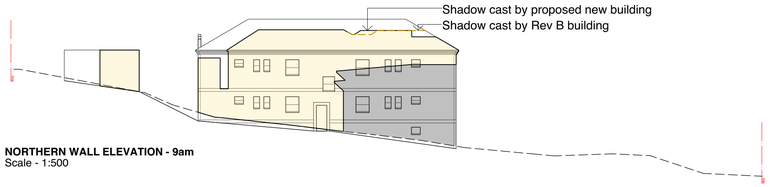
JUNE 21 - 12pm SHADOW DIAGRAM



NORTHERN WALL ELEVATION - 3pm
Scale - 1:500

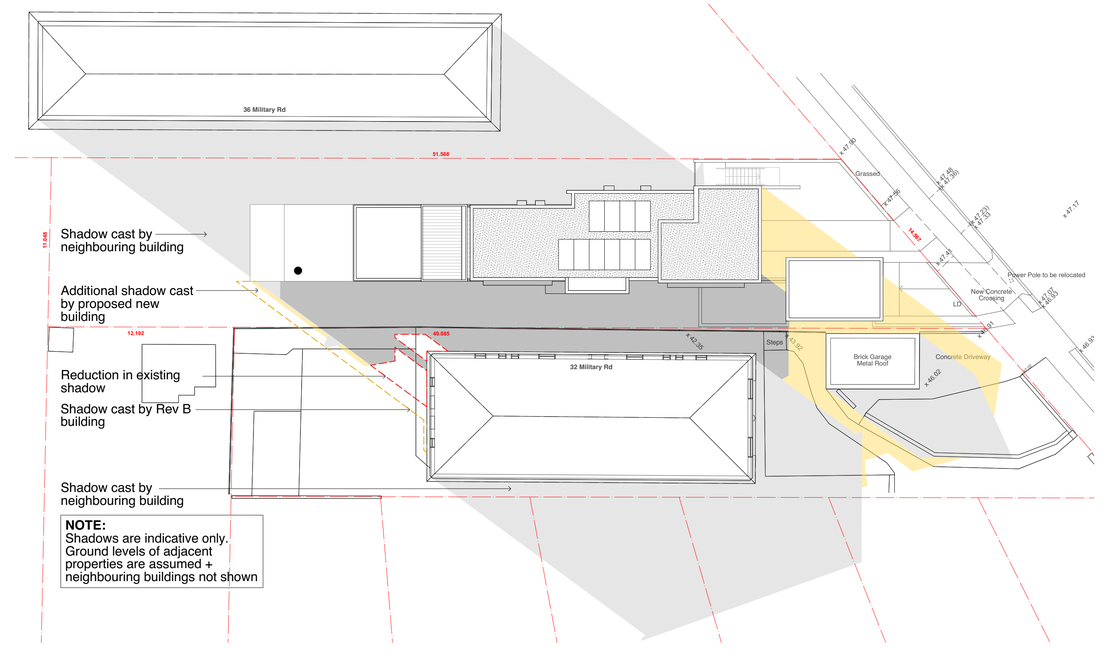


NORTHERN WALL ELEVATION - 12pm
Scale - 1:500



NORTHERN WALL ELEVATION - 9am
Scale - 1:500

SHADOW CAST ONTO NORTH WALL OF ADJOINING BUILDING No. 32 MILITARY ROAD



JUNE 21 - 3pm SHADOW DIAGRAM

LEGEND

- Additional shadow cast by proposed new building
- Shadow cast by existing building
- Shadow cast by neighbouring building

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address 34 Military Road , North Bondi , NSW , 2026
Assessor Name Darrel Marchant
Assessor Number 101526
Assessor Signature

ABSA Accredited Assessor
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 24/03/2021-23/03/2022

REVISIONS

A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Not Issued	
D	Amended s.34	16.03.2022

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS STATUTORY REGULATIONS AND LOCAL AUTHORITY REQ.
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6. ALL DIMENSIONS TO BE VERIFIED ON SITE - DO NOT SCALE

ALL CONSTRUCTION TO COMPLY AT MINIMUM W/ BCA CLAUSES & AUSTRALIAN STANDARDS

CLAUSE B 1.4 - MATERIAL & FORMS CONSTRUCTIONS
SPEC. C1.1 - FIRE RESISTING CONSTRUCTION
SPEC. C1.10 - FIRE HAZARD PROPERTIES
SPEC. C.11- PERFORMANCE OF EXTERNAL WALLS IN A FIRE
CLAUSE C2.6 - VERTICAL SEPARATION OF OPENINGS IN EXTERNAL WALL
CLAUSE C2.12 - SEPARATION OF EQUIPMENT
CLAUSE C3.13 - ELECTRICITY SUPPLY SYSTEM
CLAUSE D2.13 - ACCEPTABLE METHODS OF PROTECTION OF OPENINGS
CLAUSE C3.8 - OPENING IN FIRE ISOLATED EXITS
CLAUSE C3.15 - OPENING FOR SERVICE INSTALLATIONS
CLAUSE D1.10 - DISCHARGE FROM EXITS
CLAUSE D2.7 - INSTALLATIONS IN EXITS AND PATHS OF TRAVEL
CLAUSE D2.13 - GOINGS AND RISERS
CLAUSE D2.14 - LANDINGS
CLAUSE D2.15 - THRESHOLDS
CLAUSE D2.16 - BALUSTRADES
CLAUSE D2.17 - HANDRAILS
CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.23 - SIGNS ON DOORS
CLAUSE D3.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILISERVIREATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.1 - WATERPROOFING OF WET AREAS
CLAUSE F1.2 & F1.7 DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
PART F4 - LIGHTING AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
DRAINAGE GUTTERS & DOWNPIPES: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCYCLAING: TO COMPLY WITH BASIX
FIRE HAZARD: TO COMPLY WITH BCA SPEC C1.10
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHELECHYDRAULIC: BCA CLAUSE C3.15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHAUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHELECHYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.15 & AS1530.4-2005
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

(ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS
TOILETS: 4 Star
CLOTHES WASHERS: 4 Star
KITCHEN TAPS: 5 Star
BATHROOM TAPS: 5 Star
SHOWERHEADS: 4.5 Star
RAIN WATER TANK: 6000 L
POOL/SPA: N/A
LANDSCAPED AREA TO IRRIGATE: 170 sqm
POOL/SPA: 0 sqm
PRIVATE:

ENERGY OPTIONS (DWELLINGS)
COOLING:
HEATING:
VENTILATION:
WATER HEATING
ENERGY EFFICIENT LIGHTING:
COOK TOPS:
REFRIGERATOR SPACE:
DISHWASHER/PLUMBING:
DISHWASHER/CLOTHES DRYERS:
CLOTHES WASHERS:

ENERGY OPTIONS (COMMON AREAS)
'COMMON' AREAS IDENTIFIED: Lobby Stair, Carpark, Garbage & Store Room.
LIGHTING: LED with motion sensors or manual switch
LIFT SYSTEM: Hydraulic
HOT WATER SYSTEM: Electric Storage
VENTILATION: Mechanical ventilation as required
ALTERNATE ENERGY SUPPLY: Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF:	Concrete.	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Render:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:
JUNE 21
SHADOW DIAGRAMS

PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: 1:400@A3
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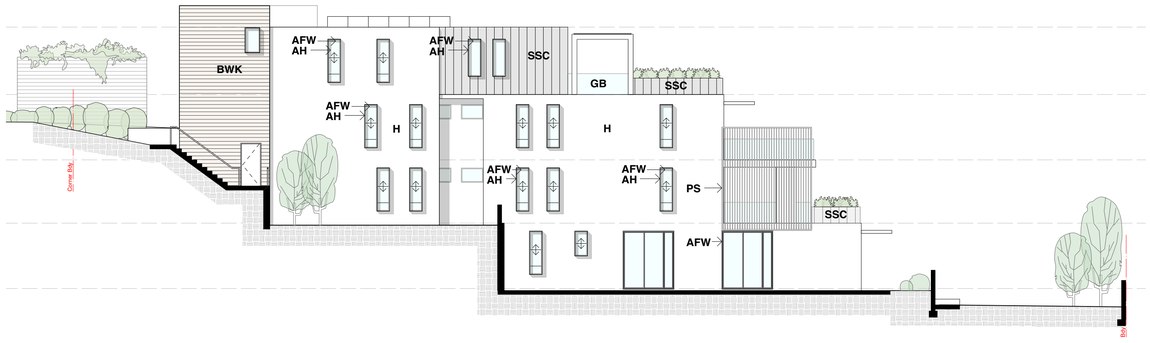
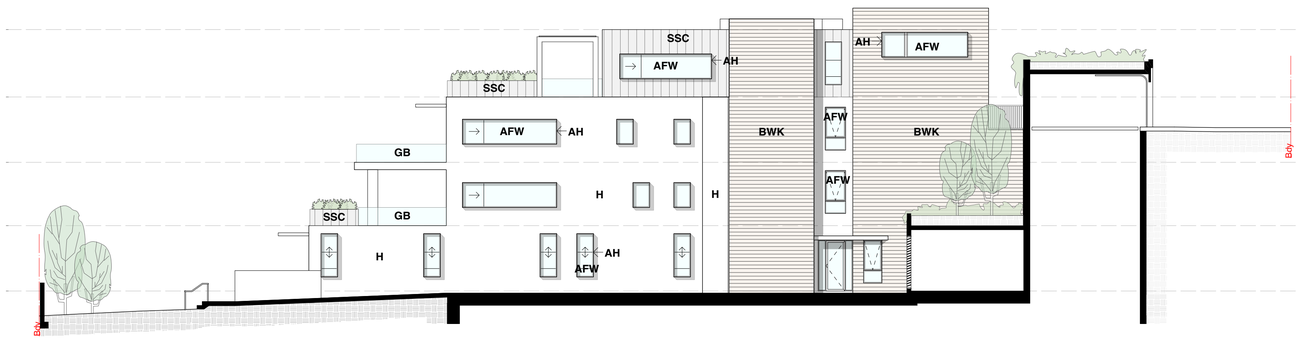
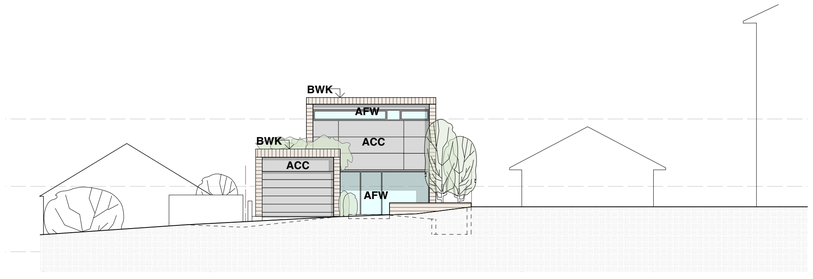
DA.33 D



NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION

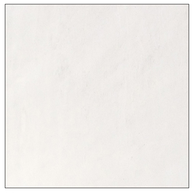
ACC

AFW

AH

BWK

GB



H

PS

SSC

Schedule of Materials + Finishes

ACC	Solid aluminium cassette cladding. Powdercoat Finish Colour: Platypus Kinetic Pearl
AFW	Aluminium Framed Window. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
AH	Aluminium Hood. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
BWK	Longform Brickwork. Face brick
GB	Frameless glass baulstrade
H	Hebel. Paint Finish Colour: Off-white
PS	Privacy Screen. Powdercoat Finish Colour: Powdercoat Interpon D Precis Black Ink
SCC	Standing seam colorbond metal cladding Colorbond colour: Monument Matt

0007131180 16 Mar 2022
Assessor David Howard
Accreditation No. 20039
Address 34 Military Road , North Bondi , NSW , 2026
hstar.com.au

ABSA
Accreditation Period 24/03/2021-23/03/2022
Assessor Name Darrell Marchant
Assessor Number 101526
Assessor Signature

REVISIONS		
A	Development Application	16.12.2020
B	Amended following Council review	20.05.2021
C	Not Issued	
D	Amended s.34	16.03.2022

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CLAUSE D2.21 - OPERATION OF LATCH
CLAUSE D2.24 - SWING ON DOORS
CLAUSE D2.2 - GENERAL BUILDING ACCESS REQUIREMENTS
CLAUSE D3.3 - PARTS OF BUILDING TO BE ACCESSIBLE
CLAUSE D3.6 - IDENT. OF ACCESSIBLE FACILITIES/FEATURES
CLAUSE D3.8 - TACTILE INDICATORS
CLAUSE F1.7 - WATERPROOFING OF WET AREAS
CLAUSE F1.9/F1.10 - DAMP PROOFING
CLAUSE 2.5 - CONSTRUCTION OF SANITARY COMPARTMENTS
CLAUSE F4.3 - WALLINGS AND VENTILATION
CLAUSE F5.4 - SOUND INSULATION OF FLOORS
CLAUSE F5.5 - SOUND INSULATION OF WALLS
CLAUSE F5.6 - SOUND INSULATION OF SERVICES
CLAUSE F5.7 - SOUND INSULATION OF PUMPS

SPECIFICATIONS

ARTIFICIAL LIGHTING: TO COMPLY WITH BCA PART CLAUSEF4.4 & AS1680
BALUSTRADE HEIGHTS: TO COMPLY WITH BCA CLAUSE D2.16
BARRIER TO SWIMMING POOLS: TO COMPLY WITH AS/NZS 3500 3.2
ENERGY EFFICIENCY/GLAZING: TO COMPLY WITH BASIX
FIRE SERVICES: TO COMPLY WITH SECTION E OF BCA
HOT WATER: SYSTEMS TO COMPLY WITH PART J7 OF BCA
MASONRY: TO COMPLY WITH AS3700
MECHANICAL AIR HANDLING: TO COMPLY WITH ASNZ C3.15 & AS1530.4-2005
MECHANICAL AIRCONDITIONING: TO COMPLY WITH PART J5 OF BCA
MECHANICAL EXHANUST VENTILATION: TO COMPLY WITH AS1668 & AS1668.2
SMOKE ALARMS: TO COMPLY WITH BCA PART CLAUSE & SPEC E2.2 & AS3786
PENETRATIONS: THROUGH FIRE RATED CONSTRUCTION FOR MECHELEC/HYDRAULIC PENETRATIONS TO COMPLY WITH BCA CLAUSE C3.12 & C3.15 & SPEC C3.15
SOUND TRANSMISSION: TO COMPLY WITH PARTS OF BCA
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
STAIR CONSTRUCTION: TO COMPLY WITH BCA CLAUSE D2.13
WATERPROOFING OF WET AREAS: TO COMPLY WITH AS3740

BASIX COMMITMENTS

ALL OTHER BASIX COMMITMENTS AS PER BASIX CERTIFICATE AND STAMPED PLANS)

WATER OPTIONS

SHOWERHEADS:	4 Star
TOILETS:	4 Star
TOILET FLUSHES WASHERS:	4 Star
KITCHEN TAPS:	5 Star
BATHROOM TAPS:	5 Star
DISHWASHERS:	4.5 Star
RAIN WATER TANK:	6000 L
RAIN WATER:	N/A
LANDSCAPED AREA TO IRRIGATE:	
COMMON:	170 sqm
PRIVATE:	0 sqm

ENERGY OPTIONS (DWELLINGS)

COOLING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
HEATING:	Air-conditioner, single phase EER 3.5-4.0 zoned to living & bed areas.
VENTILATION:	Bathrooms, Laundries, Kitchens: individual ducted, manual switch on/off
WATER HEATING:	6 star gas instantaneous
ENERGY EFFICIENT LIGHTING:	compact fluorescents or LED, with dedicated fittings, to: ALL rooms.
COOK TOPS:	Gas cooktop & electric oven.
REFRIGATOR SPACE:	well ventilated
CLOTHES DRYING LINES:	No.
DISHWASHERS/CLOTHES DRYERS:	4.5 Star, 6 Star
CLOTHES WASHERS:	4 Star

ENERGY OPTIONS (COMMON AREAS)

'COMMON' AREAS IDENTIFIED:	Lobby Stair, Carpark, Garbage & Store Room,
LIGHTING:	LED lighting motion sensors or manual switch
LIFT SYSTEM:	Hydraulic
HOT WATER SYSTEM:	Electric Storage
VENTILATION:	Mechanical ventilation as per BCA
ALTERNATE ENGERY SUPPLY:	Photovoltaic system 2.0 KW Peak

THERMAL PERFORMANCE SPECIFICATIONS

ROOF	Concrete:	
CEILING:	Where roof/balcony above:	R1.7 insulation
EXTERNAL WALLS:	Face Brick:	R2.5 insulation
	Hebel:	R2.5 insulation
	Metal Cladding:	R2.5 insulation
INTERNAL WALLS:	All walls:	Nill insulation
FLOORS:	GF above Basement:	Concrete + R1.7 insulation
	All other floors:	Concrete - Nil
GLAZING:	Apt 1 - North + West facing glazing:	U Value 2.9 max SHGC 0.51
	All other glazing:	U Value 3.1 max SHGC 0.49

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www.mhndu.com
MHN Design Union Pty Ltd. ABN 94 003 717 682

PROJECT:
34 MILITARY ROAD
NORTH BONDI NSW 2026

DRAWING:

EXTERNAL FINISHES

PROJECT NO: 19-016
DRAWN BY: KPA
TO SCALE: NTS@A3
DRAWING NO: REV:

DA.35 D

MHNDUNION

ARCHITECTURE
INTERIORS
MANAGEMENT

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26 April 2022

BONDI HEIGHTS PTY LTD v WAVERLEY COUNCIL

REV E DRAWINGS - SUMMARY OF AMENDMENTS

DA.01 Rev E - Cover Page
- No change except Revision updated so all drawings are Rev E

DA.10 Rev E - Plans
Basement Plan
- No change

Ground Floor Plan
- Rear setback dimension (13205) added

DA.11 Rev E - Plans
Level 1 Plan
- Rear setback dimensions of both the western face of the building on this level (13205) and the sliding doors of the Living Room (19935) added

Level 2 Plan
- Rear setback dimensions to both the western face of the building on this level (15435) and the sliding doors of the Living Room (19935) added

DA.12 Rev E - Plans
Level 3 Plan
- Rear setback dimensions of western face of the building on this level (19935) and the sliding doors of the Living Room (27575) added

Roof Plan
- No change

DA.20 Rev E - Sections
Sections A + B
- No change except Revision updated so all drawings are Rev E

DA.21 Rev E – Elevations
South Elevation
- Rear setback dimensions added (13205, 15435, 19935, 27575)
- RL 51.89 added to top of operable pergola roof on L.3 terrace

East Elevation
- No Change

DA.22 Rev E – Elevations
North Elevation
- RL 51.89 added to top of operable pergola roof on L.3 terrace

West Elevation
- No Change

Nominated Architect Brian Meyerson
NSW Registration Number 4907
MHN Design Union Pty Ltd
ABN 94 003 717 682

DA.30 Rev E - Compliance

GFA diagrams

- Ground Floor Plan amended so that Store Rooms included in GFA

Communal Open Space Diagram

- No Change

Deep Soil + Landscape Area Diagram

- No Change

Area Schedule

- GFA + FSR amended as result of change to GFA diagram

DA.31 Rev E – SEPP65 Compliance

- No change except Revision updated so all drawings are Rev E

DA.32 Rev E – Solar Access

- No change except Revision updated so all drawings are Rev E

DA.33 Rev E – Shadow Diagrams

- No change except Revision updated so all drawings are Rev E

DA.35 Rev E – External Finishes

- No change except Revision updated so all drawings are Rev E

MHN DESIGN UNION PTY LTD

Brian Meyerson B Arch AAIA
Director
NSW Board of Architects Registration Number 4907
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Vasili Conomos
Conomos Legal
William Bland Building
Suite 8, Level 6
229-231 Macquarie Street
Sydney NSW 2000

12 April 2022

Proposed Design Changes at 34 Military Road, North Bondi (2021/00293527)

Dear Mr Conomos

As requested, this letter has been prepared in relation to the NSW LEC appeal involving Bondi Heights Pty Ltd and Waverley Council (2021/00293527). Amended architectural plans have been prepared by MHN Design Union, dated 16 March 2022, Revision D, which address the Statement of Facts and Contentions, dated 23 November 2021. A summary of the key design changes appears below.

Ground Floor

- Northern indent balcony deleted
- Balcony overhang over west facing windows deleted and awning added
- Windows amended
- Bedroom deleted so it is now a 1 Bed unit
- Area of apartment amended

Level 1

- Northern indent balcony deleted
- Balcony connected to Bed 1 deleted
- Minor changes to windows
- Area of apartment amended

Navon Planning ABN 78 425 016 053
PO Box 517, St Ives NSW 2075
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e: office@navonplanning.com.au w: www.navonplanning.com.au

Level 2

- Northern indent balcony deleted
- Balcony connected to Bed 1 deleted
- Balcony overhang over west facing windows deleted and awning added
- Minor changes to windows
- Area of apartment amended

Level 3

- Bedroom deleted, so now 1 Bed unit
- Minor changes to windows
- Area of apartment amended
- Terrace reduced to 15sqm

Response to Contentions

We believe the amended plans have addressed the respondent's contentions and have provided a summary of how this has been achieved in the following section.

B1 - Contentions that warrant the refusal of the application

1. Height of building

The development application must be refused due to its excessive height and failure to comply with the height of buildings development standard in cl.4.3 (*Height of Buildings*) of WLEP, resulting in a development that is excessive and inconsistent with the desired future character of the site and the locality.

Response:

The maximum building height previously proposed was 10.8m on the northern elevation and has now been reduced to 10.2m. The maximum building height on the southern elevation has been reduced from 12.3m to 11m. The extra height reduction is because level 3 was shortened by 3m. Subsequently, the proposed variation will be 1.5m (15.8%). A revised Clause 4.6 Variation to Height of Building prepared by Navon Planning, dated March 2022, has been provided which appropriately addresses the reduced height variation.

2. FSR and building bulk and scale

The DA must be refused due to its excessive bulk and scale, and failure to comply with the floor space ratio ('FSR') development standard set out in cl.4.4 *Floor space ratio* of WLEP. The development proposed is an overdevelopment of the Site, results in adverse impacts for neighbouring properties, and is inconsistent with the desired future character of the Site and surrounding area.

Response:

The amended plans incorporate a compliant FSR.

3. Desired future character

The DA should be refused as the development proposed is not compatible with the desired future character of the locality, as expressed in the WDCP, due to its excessive height, bulk and scale.

Response:

The amended design is more compatible with the unique site topography and varied built form of nearby residential flat buildings. The majority of the proposed building will in fact be narrower than the existing building, reflecting a better design outcome for the site and the surrounding area. The floor space is also located towards the centre of the site, rather than towards Military Road, to ensure the building is compatible with the existing streetscape.

4. Excavation

The DA should be refused due to the excessive extent of excavation resulting in an overdevelopment of the Site and unacceptable construction impacts to neighbouring properties.

Response:

The amended design reduces the required excavation and provides a compliant side setback of 1.5m to the northern boundary and a nil setback to the southern boundary. These design changes are considered to be appropriate to accommodate the parking and services within the basement.

5. Design quality

The DA should be refused as it fails to satisfy the design quality principles set out in SEPP 65 and the WDCP provisions relating to design excellence and streetscape. Therefore, the proposal will not provide an adequate level of amenity for future residents of the development and will be inconsistent and incompatible with future development in the area.

Response:

The amended design appropriately satisfies the design quality principles set out in SEPP 65 and the WDCP provisions relating to design excellence and streetscape. The skilful design satisfies the SEPP 65 principles and design excellence through the ability of the building to be integrated

6. Landscaping and biodiversity

The DA should be refused as the proposed landscape scheme does not provide adequate native flora and fauna to contribute to the viability of the biodiversity habitat corridor.

Response:

An amended Landscape Plan prepared by Conzept Landscape Architects addresses this concern.

7. Overshadowing, solar access and view loss

The DA should be refused as the proposal will result in unsatisfactory impact on the amenity of neighbouring properties in terms of overshadowing and view loss.

Response:

The amended design including the reduction to the building envelope and building height, assist with improving overshadowing to adjoining properties, particularly in relation to the southern building. The amended plans also reduce the potential view impacts generated by the proposal when viewed from 36 and 38 Military Road. Subsequently, appropriate view corridors can be retained through the amended design.

8. Acoustic and visual privacy impacts

The DA should be refused as the proposal will result in unsatisfactory impact on the amenity of neighbouring properties in terms of acoustic and visual privacy.

Response:

The potential acoustic and visual privacy impacts have been ameliorated through the deletion of the northern balconies to the first and second floors including the balconies connected to Bed 1.

9. Internal amenity

The DA should be refused as the amenity of the proposed development will be unsatisfactory for future occupants due to the minimal direct sunlight to the units themselves and to the communal open space.

Response:

The amended design improves the internal amenity for each unit.

10. Overdevelopment and site suitability

The DA should be refused as it represents a scale and form of development that is not suitable to the Site.

Response:

The amended design reduces the overall scale of the proposal and thereby reduces the potential amenity impacts to adjoining properties.

11. Public Interest

The DA should be refused as it is not in the public interest.

Response:

The proposal is considered to be in the public interest, given it will replace an outdated three storey dual occupancy with a contemporary residential flat building that offers a high standard of internal and external for the future residents, while also providing a design that considers the amenity of adjoining residential properties.

B2 – Contentions that may be resolved by conditions of consent

Nil

B3 – Contentions that relate to insufficient information

Visual privacy impacts

1. The applicant has not provided sufficient information to enable a proper assessment of the proposed development in terms of overlooking and privacy impacts.

Response:

Refer to the submitted architectural plans prepared by MHNDU showing further details of the windows at 36 Military Road and the relationship with the proposed building at the subject site. The proposed residential flat building can therefore suitably address potential visual privacy impacts.

I trust that the above summary of the design changes and responses to the respondent's contentions is understandable. Feel free to contact me if you have any further questions.

Regards

Eli Gescheit
Urban Planner

SOURCE:
HABITAT CORRIDORS PLAN - WAVERLEY COUNCIL DCP B3 BIODIVERSITY

EXISTING SITE PLAN
Scale: NTS

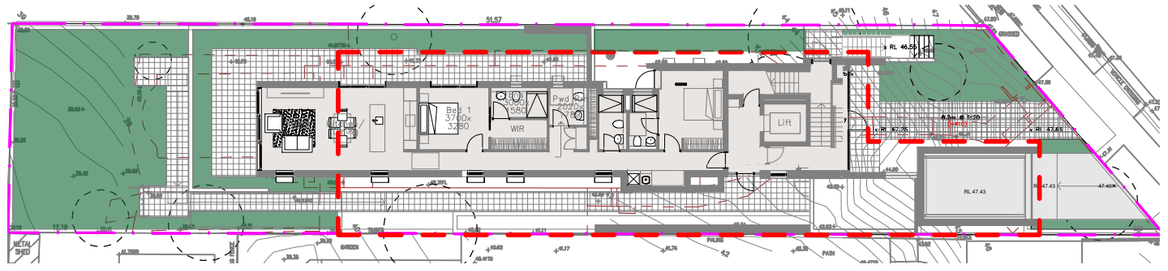
EXISTING STREET VIEW

LANDSCAPE CALCULATIONS
refer to Apartment Design Guideline

SITE AREA: **623.0m²**

REQUIRED DEEP SOIL AREA:43.6m² (7%)

PROPOSED DEEP SOIL AREA:167.0m² (26.8%)
(COMPLIANT)



DRAWING SCHEDULE

SHEET #	DRAWING TITLE	REV.
/1	SITE PLAN	D
/2	HARDSCAPE PLAN	D
/3	LANDSCAPE PLAN	D
/4	LANDSCAPE PLAN	D
/5	DETAILS	D
/6	DETAILS	D
/7	SECTIONS	D
/8	SPECIFICATION	D

General Notes:

Figured dimensions take preference to scale readings. Verify all dimensions on site. PDF'd plans may vary slightly in Scale for that indicated on plans. Report any discrepancies to the Landscape Architect before proceeding with the work.

AILA Associate

Australian Institute of Landscape Architects

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D	15.3.2022	Issued for S34

COUNCIL: WAVERLEY
CLIENT: DANNY MEGUIDECHE
ARCHITECT: MHNDU
STATUS / ISSUE: S34 - ISSUE D

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enquiries@conzept.net.au
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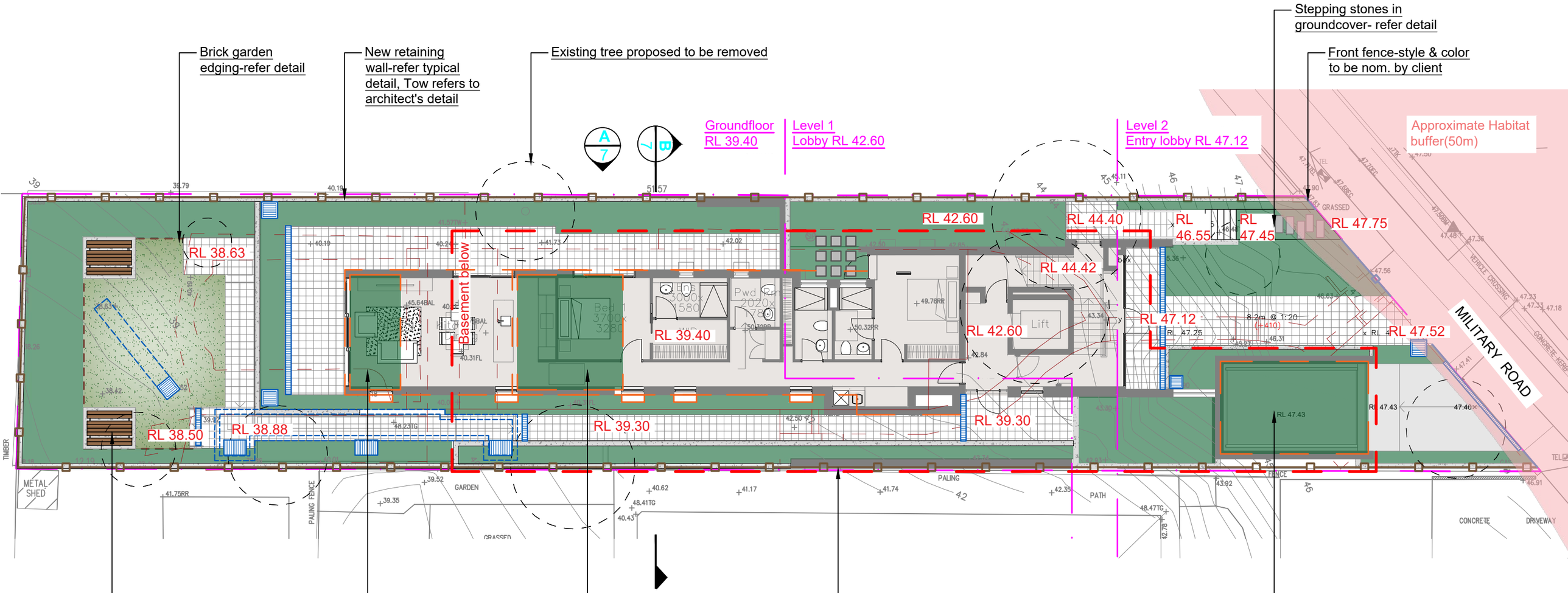
Suite 101, 506 Miller St
CAMMERAY NSW 2062

TITLE: SITE PLAN

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 1
SCALE: N/A
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F



AN AUTOMATED COMMERCIAL GRADE IRRIGATION SYSTEM SHALL BE PROFESSIONALLY INSTALLED TO ALL GARDEN AREAS, INCLUDING RAISED PLANTERS, UPPER FLOOR PLANTERS AND GARDENS IN NATURAL GROUND. THE SYSTEM SHALL BE DESIGNED AND INSTALLED IN LINE WITH THE IRRIGATION PERFORMANCE SPECIFICATION, BY A LICENCED CONTRACTOR OR LANDSCAPER. THE LICENCED CONTRACTOR SHALL PREPARE AN 'AS BUILT' PLAN OF THE SYSTEM TO THE SUPERINTENDENT FOR STRATA RECORDS, FOR FUTURE MAINTENANCE.

DRAINAGE PITS AND DRAINAGE LINES SHOULD BE LOCATED WITHIN GARDEN AREAS TO ALLOW FOR SITE DRAINAGE WHILE MINIMISING IMPACT ON THE PROPOSED PLANTING SCHEME. WHERE POSSIBLE, PITS AND LINEWORK SHOULD BE LOCATED AT THE EDGE OF LANDSCAPE STRIPS TO AVOID PRECLUDING PLANTING CENTRALLY IN GARDEN AREAS. WHERE PITS AND LINEWORK OCCUR WITHIN GARDEN BEDS, THE LANDSCAPE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID DAMAGING STORM WATER WHEN PLANTING SHRUBS AND TREES. LANDSCAPE CONTRACTORS SHALL NOT ALTER THE FORM OF SWALES DESIGNED TO DIRECT OVERLAND FLOW.

HARDSCAPE ITEMS

- Brick garden edging - refer detail
- Turf area - refer detail
- Garden bed - refer landscape design plan
- Approximate Habitat buffer(50m) area
- Stepping stones with pebbles in gaps - refer detail
- Retaining / raised planter wall - refer detail
- 1.8m Gate and fence - colour and style to be nom. by client
- Front fence - colour and style to be nom. by client
- Trees proposed to be removed and replaced with new landscaping
- Odyssey picnic setting over slab-refer detail

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Bar Scale
0 1.5 3 4.5 6 7.5m

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CLIENT: DANNY MEGUIDECHE
ARCHITECT: MHNDU
STATUS / ISSUE: S34 - ISSUE D

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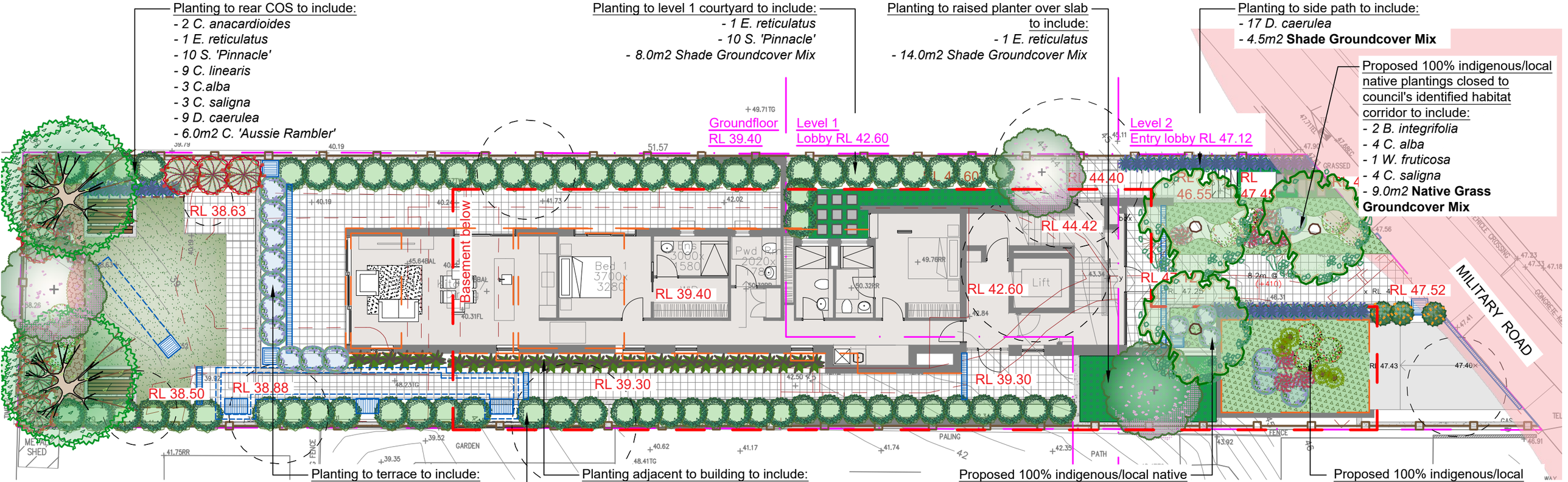
Suite 101, 506 Miller St
CAMMERAY NSW 2062

TITLE: LANDSCAPE PLAN

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 2
SCALE: 1:150 @ A3
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F



(*) DENOTES PLANTS SELECTED FROM WAVERLEY DCP 2012 ANNEXURE B2-1-RESIDENTIAL PLANTING LIST

DCP B3 3.2 CONTROL
(A) THE PLAN IS TO INCLUDE A PLANT SPECIES LIST ON ALL LANDSCAPE PLANS, SHOWING THE BOTANICAL AND COMMON NAMES OF PLANTS, POT SIZE OF PLANTS, NUMBER OF PLANTS AND THE ORIGIN OF THE PLANT.
(B)A MINIMUM OF 50% OF THE PROPOSED PLANTINGS (NOT INCLUDING TURFED AREAS) ARE TO BE INDIGENOUS OR LOCAL NATIVE PLANTS LISTED IN ANNEXURE B2 – 1

LEGEND & SCHEDULE

NOTES:
1. ALL FINAL PLANT QUANTITIES INDICATED ON PLANS SHALL BE CHECKED AND VERIFIED BY SUCCESSFUL LANDSCAPE CONTRACTOR.
2. ANY PLANT SUBSTITUTES REQUIRED DUE TO UNAVAILABILITY SHALL BE RECOMMENDED BY THE LANDSCAPE CONTRACTOR TO BEST MATCH SUBSTITUTED PLANTS AND APPROVED PRIOR TO PURCHASING BY THE LANDSCAPE ARCHITECT.
3. WORKS CERTIFIED FOR FINAL OCCUPANCY CERTIFICATE ARE TO MATCH APPROVED LANDSCAPE PLANS.
4. LANDSCAPE CONTRACTOR SHALL LOCATE AND AVOID SITE STORM WATER & DRAINAGE SERVICES. LOCATE TREES A MINIMUM 1.25M FROM PITS
5. ALL PLANTING AROUND EXISTING TREES SHALL BE ADJUSTED TO AVOID DAMAGE AND CLASHING WITH SURFACE ROOTS.
6. THE NATURE STRIP (STREET FRONTAGE) FOR THE SITE IS PUBLIC LAND, AND ONLY AUTHORIZED WORKS MAY OCCUR HERE. EXISTING CONDITIONS SUCH AS STREET TREES, COUNCIL PLANTING ETC SHALL BE RETAINED AND PROTECTED DURING CONSTRUCTION, UNLESS SPECIFIC APPROVAL HAS BEEN GRANTED FOR NEW WORK IN THIS AREA.

TREES

Botanical Name: *Cupaniopsis anacardioides(*)*
Common Name: Tuckeroo (Native)
Pot size: 75Lt
Mature H x S: 8-10m x 3-5m
Qty Required: 2

Botanical Name: *Banksia integrifolia(*)*
Common Name: Coastal Banksia (Native)
Pot size: 75Lt
Mature H x S: 6-8m x 4-5m
Qty Required: 3

Botanical Name: *Elaeocarpus reticulatus(*)*
Common Name: Blueberry Ash (Native)
Pot size: 75Lt
Mature H x S: 8-10m x 6-7m
Qty Required: 3

SHRUBS AND HEDGES

Botanical Name: *Correa alba(*)*
Common Name: White Correa(Native)
Pot size: 200mm
Mature H x S: 1-1.5m x 1-1.5m
Qty Required: 10

Botanical Name: *Crowea saligna(*)*
Common Name: Willow-leaved crowea (Native)
Pot size: 200mm
Mature H x S: 0.7-1m x 0.5-0.8m
Qty Required: 10

Botanical Name: *Callistemon linearis(*)*
Common Name: Narrow-Leaved Bottlebrush (Native)
Pot size: 200mm
Mature H x S: 2-3m x 2m
Qty Required: 9

Botanical Name: *Westringia fruticosa(*)*
'Common Name: Coastal Rosemary (Native)
Pot size: 200mm
Mature H x S: 1.5m x 1.5m
Qty Required: 17

Botanical Name: *Syzygium australe 'Pinnacle'*
Common Name: Pinnacle Lilly Pilly (Native)
Pot size: 300mm
Mature H x S: 6-8m x 1-1.5m
Qty Required: 68

ACCENT PLANTS

Botanical Name: *Doodia aspera(*)*
Common Name: Prickly Rasp Fern (Native)
Pot size: 150mm
Mature H x S: 0.4m x 0.5m
Qty Required: 30

Botanical Name: *Xanthorrhoea resinosa(*)*
Common Name: Grass Tree (Native)
Pot size: 300mm
Mature H x S: 2.5m x .7m
Qty Required: 2

GRASSES / GROUNDCOVERS

Botanical Name: *Carpobrotus 'Aussie Rambler'(*)*
Common Name: Aussie Rambler Pigface (Native)
Pot size: 140mm
Mature H x S: 0.25m x spreading
Qty Required: 7/m2 (**6.0m2 total)**

Botanical Name: *Dianella caerulea(*)*
Common Name: Blue Flax Lily (Native)
Pot size: 150mm
Mature H x S: 0.5m x 0.4m
Qty Required: 40

GROUNDCOVER MIX

Native Grass Groundcover Mix:
Hardenbergia violacea(*)
Ficinia nodosa(*)
Myoporum parvifolium 'Yareena'(*)
Carex pumilla(*)
Hibertia scandens(*)

Pot size: 140mm
Mature H x S: < .8m
Qty Required: 7/m2 (**32.0m2 total)**

Shade Groundcover Mix:
Viola hederacea(*)
Dichondra repens(*)
Pot size: 140mm
Mature H x S: 0.25m x 0.75m
Qty Required: 5/m2 (**26.5m2 total)**

General Notes:
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AILA Associate

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Bar Scale
0 1.5 3 4.5 6 7.5m

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COUNCIL: WAVERLEY
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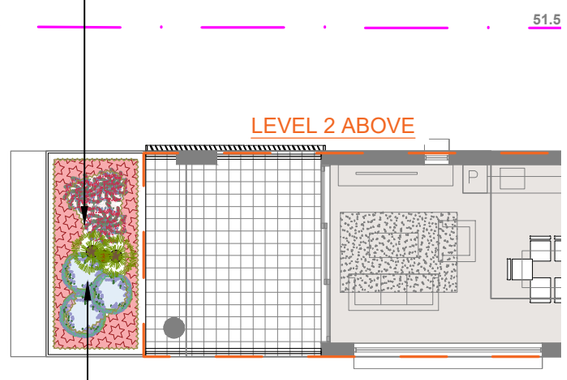
TITLE: LANDSCAPE PLAN

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 3
SCALE: 1:150 @ A3
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F

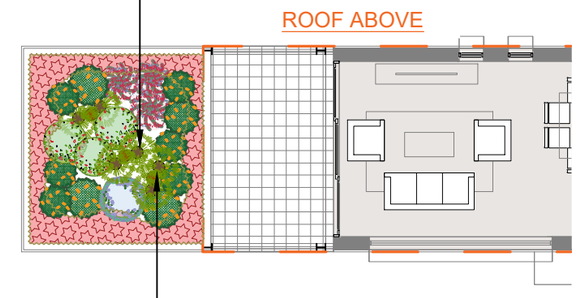
Planting to level 1 raised planter to include:
- 1 X. resinosa
- 3 W. fruticosa
- 3 C. saligna
- 5m2 C. 'Aussie Rambler'



Provide min. 500-600mm for shrubs, 300-450mm for groundcover to comply with ADG Minimum soil standards

LEVEL 1 LANDSCAPE PLAN

Planting to level 3 raised planter to include:
- 3 X. resinosa
- 1 W. fruticosa
- 3 C. saligna
- 3 C. alba
- 10 B. 'Birthday Candles'
- 8.5m2 C. 'Aussie Rambler'



Provide min.500-600mm for shrubs, 300-450mm for groundcover to comply with ADG Minimum soil standards

LEVEL 3 LANDSCAPE PLAN

(*) DENOTES PLANTS SELECTED FROM WAVERLEY DCP 2012 ANNEXURE B2-1- RESIDENTIAL PLANTING LIST
DCP B3 3.2 CONTROL
(A) THE PLAN IS TO INCLUDE A PLANT SPECIES LIST ON ALL LANDSCAPE PLANS, SHOWING THE BOTANICAL AND COMMON NAMES OF PLANTS, POT SIZE OF PLANTS, NUMBER OF PLANTS AND THE ORIGIN OF THE PLANT.
(B)A MINIMUM OF 50% OF THE PROPOSED PLANTINGS (NOT INCLUDING TURFED AREAS) ARE TO BE INDIGENOUS OR LOCAL NATIVE PLANTS LISTED IN ANNEXURE B2 – 1

LEGEND & SCHEDULE

NOTES:
1. ALL FINAL PLANT QUANTITIES INDICATED ON PLANS SHALL BE CHECKED AND VERIFIED BY SUCCESSFUL LANDSCAPE CONTRACTOR.
2. ANY PLANT SUBSTITUTES REQUIRED DUE TO UNAVAILABILITY SHALL BE RECOMMENDED BY THE LANDSCAPE CONTRACTOR TO BEST MATCH SUBSTITUTED PLANTS AND APPROVED PRIOR TO PURCHASING BY THE LANDSCAPE ARCHITECT.
3. WORKS CERTIFIED FOR FINAL OCCUPANCY CERTIFICATE ARE TO MATCH APPROVED LANDSCAPE PLANS.
4. LANDSCAPE CONTRACTOR SHALL LOCATE AND AVOID SITE STORM WATER & DRAINAGE SERVICES. LOCATE TREES A MINIMUM 1.25M FROM PITS
5. ALL PLANTING AROUND EXISTING TREES SHALL BE ADJUSTED TO AVOID DAMAGE AND CLASHING WITH SURFACE ROOTS.
6. THE NATURE STRIP (STREET FRONTAGE) FOR THE SITE IS PUBLIC LAND, AND ONLY AUTHORIZED WORKS MAY OCCUR HERE. EXISTING CONDITIONS SUCH AS STREET TREES, COUNCIL PLANTING ETC SHALL BE RETAINED AND PROTECTED DURING CONSTRUCTION, UNLESS SPECIFIC APPROVAL HAS BEEN GRANTED FOR NEW WORK IN THIS AREA.

SHRUBS AND HEDGES

Botanical Name: *Correa alba(*)*
Common Name: White Correa(Native)
Pot size: 200mm
Mature H x S: 1-1.5m x 1-1.5m
Qty Required: 3

Botanical Name: *Crowea saligna(*)*
Common Name: Willow-leaved crowea (Native)
Pot size: 200mm
Mature H x S: 0.7-1m x 0.5-0.8m
Qty Required: 6

Botanical Name: *Westringia fruticosa(*)*
Common Name: Coastal Rosemary (Native)
Pot size: 200mm
Mature H x S: 1.5m x 1.5m
Qty Required: 4

Botanical Name: *Banksia spinulosa 'Birthday Candles'*
Common Name: Banksia Birthday Candles (Native)
Pot size: 200mm
Mature H x S: 0.6m x 0.9m
Qty Required: 10

GRASSES / GROUNDCOVERS

Botanical Name: *Carpobrotus 'Aussie Rambler'(*)*
Common Name: Aussie Rambler Pigface (Native)
Pot size: 140mm
Mature H x S: 0.25m x spreading
Qty Required: 7/m2 **(13.5m2 total)**

ACCENT PLANTS

Botanical Name: *Xanthorrhoea resinosa(*)*
Common Name: Grass Tree (Native)
Pot size: 300mm
Mature H x S: 2.5m x .7m
Qty Required: 4


Cupaniopsis anacardioides


Xanthorrhoea australis


Correa alba


Dianella caerulea


Elaeocarpus reticulatus


Banksia integrifolia


Syzygium australe 'Pinnacle'


Doodia aspera


Crowea saligna


Carpobrotus 'Aussie Rambler'


Banksia spinulosa 'Birthday Candles'


Dichondra repens

DRAINAGE PITS AND DRAINAGE LINES SHOULD BE LOCATED WITHIN GARDEN AREAS TO ALLOW FOR SITE DRAINAGE WHILE MINIMISING IMPACT ON THE PROPOSED PLANTING SCHEME.
WHERE POSSIBLE, PITS AND LINEWORK SHOULD BE LOCATED AT THE EDGE OF LANDSCAPE STRIPS TO AVOID PRECLUDING PLANTING CENTRALLY IN GARDEN AREAS. WHERE PITS AND LINEWORK OCCUR WITHIN GARDEN BEDS, THE LANDSCAPE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID DAMAGING STORM WATER WHEN PLANTING SHRUBS AND TREES. LANDSCAPE CONTRACTORS SHALL NOT ALTER THE FORM OF SWALES DESIGNED TO DIRECT OVERLAND FLOW.

AN AUTOMATED COMMERCIAL GRADE IRRIGATION SYSTEM SHALL BE PROFESSIONALLY INSTALLED TO ALL GARDEN AREAS, INCLUDING RAISED PLANTERS, UPPER FLOOR PLANTERS AND GARDENS IN NATURAL GROUND. THE SYSTEM SHALL BE DESIGNED AND INSTALLED IN LINE WITH THE IRRIGATION PERFORMANCE SPECIFICATION, BY A LICENCED CONTRACTOR OR LANDSCAPER. THE LICENCED CONTRACTOR SHALL PREPARE AN 'AS BUILT' PLAN OF THE SYSTEM TO THE SUPERINTENDENT FOR STRATA RECORDS, FOR FUTURE MAINTENANCE.

LANDSCAPE PLAN NOTES

This plan should be read in conjunction with the architectural and hydraulics plans. Work specific to these plans should be prepared in accordance to these plans, including specification and details prior to the installation of landscaping, and should not be altered or compromised during landscape construction. Elements such as drainage swales may be incorporated in garden bed areas (using non-floatable mulch) without compromising the capacity or form.

This plan has been prepared for Development Application approval only, not for construction.

This plan has been prepared with reference to ***Waverley Councils*** Landscaping Guidelines & requirements. Planting proposed using mainly indigenous, commercially available plant species selected from local planting lists and the BASIX local plant list and from Sydney Waters "Plant Selector"web site one-drip rated native plants ***(acceptable for Basix planting)***.

The Design & location of new letter boxes shall be in accordance with Australia Post's "Requirements for Delivery of Mail to Residential Premises" published Feb '97. All noxious weeds listed in Councils weed lists & located on the site shall be continually removed & suppressed. Reinstate all boundary fencing in poor condition with Council approved 1.8m fencing to rear of building line, rake to 1m forward of BL. Pollution, sediment & erosion control devices as specified shall be in place, and maintained for the duration of the construction period. Proposed excavation near existing established trees to be supervised by arborist.

D.A approved landscape plan's are required to be constructed as approved to obtain occupancy certificate. ***Permeable areas may be indicated to achieve site coverage restrictions & should be constructed as drawn on this plan.***

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Bar Scale
0 1.5 3 4.5 6 7.5m

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D	15.3.2022	Issued for S34

COUNCIL: WAVERLEY
CLIENT: DANNY MEGUIDECHE
ARCHITECT: MHNDU
STATUS / ISSUE: S34 - ISSUE D

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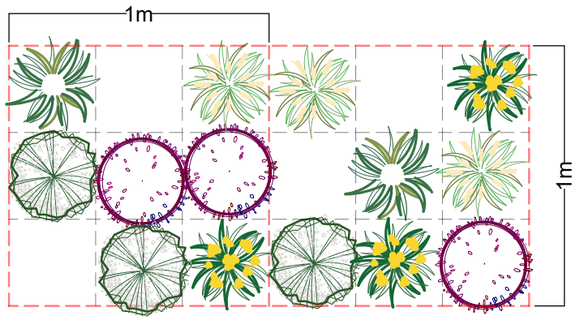
TITLE: LANDSCAPE PLAN
PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

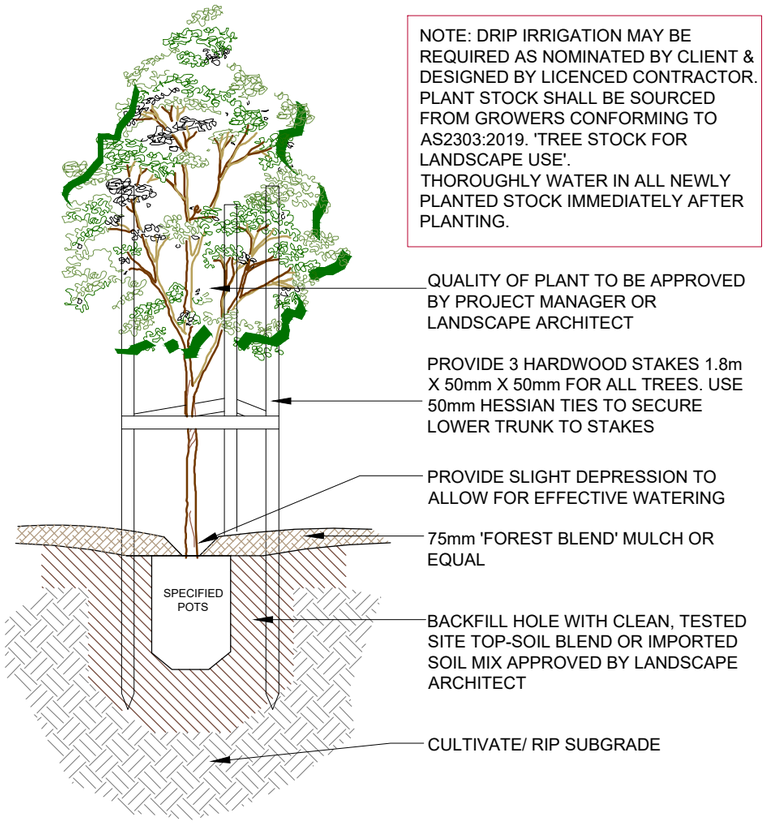
DWG.No: LPS34 21 - 86 / 4
SCALE: 1:150 @ A3
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F



KEY	Botanical Name
	Myoporum parvifolium 'Yareena'
	Hibertia scandens
	Hardenbergia violacea
	Carex pumilla
	Ficinia nodosa

GROUNDCOVER MIX PLANTING MATRIX

N.T.S



NOTE: DRIP IRRIGATION MAY BE REQUIRED AS NOMINATED BY CLIENT & DESIGNED BY LICENCED CONTRACTOR. PLANT STOCK SHALL BE SOURCED FROM GROWERS CONFORMING TO AS2303:2019. 'TREE STOCK FOR LANDSCAPE USE'.
THOROUGHLY WATER IN ALL NEWLY PLANTED STOCK IMMEDIATELY AFTER PLANTING.

QUALITY OF PLANT TO BE APPROVED BY PROJECT MANAGER OR LANDSCAPE ARCHITECT

PROVIDE 3 HARDWOOD STAKES 1.8m X 50mm X 50mm FOR ALL TREES. USE 50mm HESSIAN TIES TO SECURE LOWER TRUNK TO STAKES

PROVIDE SLIGHT DEPRESSION TO ALLOW FOR EFFECTIVE WATERING

75mm 'FOREST BLEND' MULCH OR EQUAL

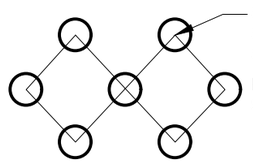
BACKFILL HOLE WITH CLEAN, TESTED SITE TOP-SOIL BLEND OR IMPORTED SOIL MIX APPROVED BY LANDSCAPE ARCHITECT

CULTIVATE/ RIP SUBGRADE

TREE PLANTING DETAIL

SCALE: NTS

(ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED. NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE)



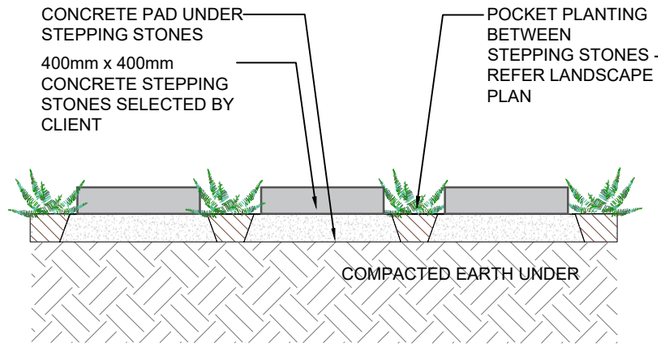
STAGGERED PLANTING TO SPECIFIED DENSITIES AS SHOWN

PLANTS AS PER SCHEDULE

MASS PLANTING SETOUT

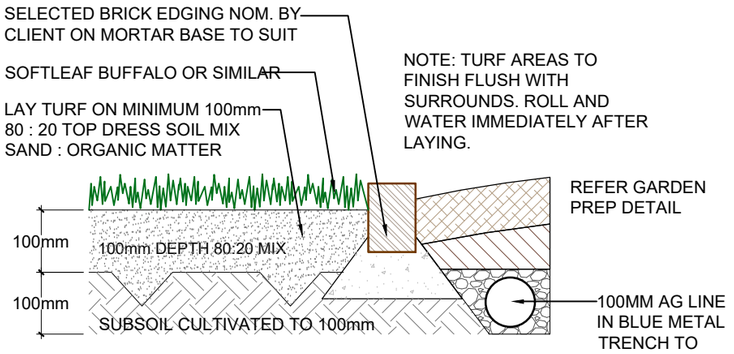
N.T.S

STEPPING STONES IN NATURAL DEEP- SOIL DESIGNED TO PROVIDE PRACTICAL ACCESS WHILE RETAINING A PERMEABLE ZONE & MINIMIZING STORM WATER RUN-OFF



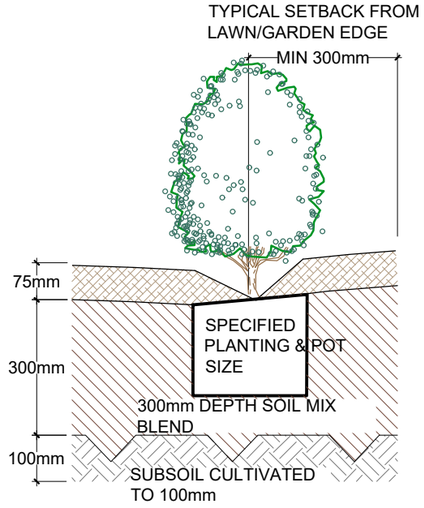
STEPPING STONES IN GROUNDCOVER PLANTING

SCALE 1:10



TYPICAL TURF AND BRICK EDGE DETAIL

SCALE: 1:10



NOTE
THIS DETAIL IS ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED.
NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE

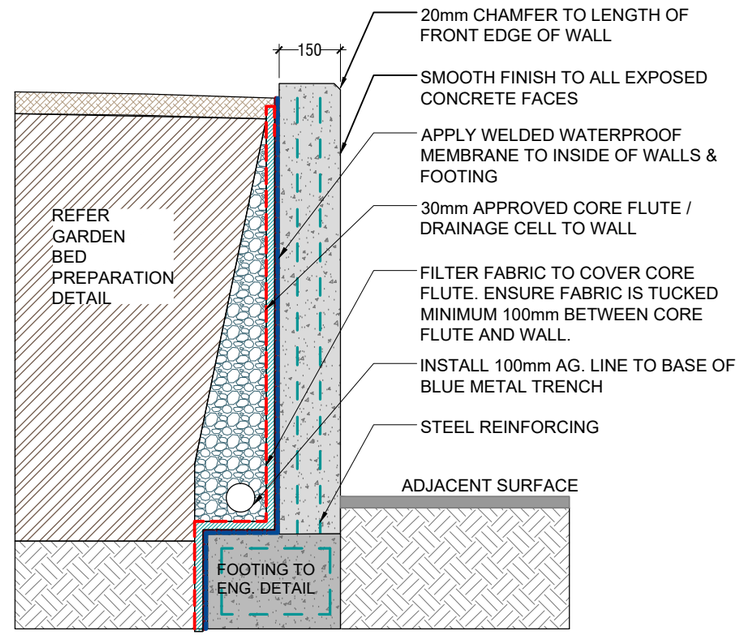
75mm DEPTH "FOREST BLEND" MULCH OR EQUIVALENT

SOIL MIX:

50% OF STOCKPILED SITE TOPSOIL FREE FROM ALL BUILDER'S RUBBISH AND DELETERIOUS MATERIALS.
TOPSOIL TO BE MIXED WITH MINIMUM 50% IMPORTED GARDEN MIX OR SOIL CONDITIONER/ COMPOSTED ORGANIC MATTER - SEE SPEC.
USE 100% IMPORTED SOIL MIX WHEN SITE TOPSOIL RUNS OUT.

TYPICAL GARDEN PREPARATION DETAIL

SCALE 1:10



20mm CHAMFER TO LENGTH OF FRONT EDGE OF WALL

SMOOTH FINISH TO ALL EXPOSED CONCRETE FACES

APPLY WELDED WATERPROOF MEMBRANE TO INSIDE OF WALLS & FOOTING

30mm APPROVED CORE FLUTE / DRAINAGE CELL TO WALL

FILTER FABRIC TO COVER CORE FLUTE. ENSURE FABRIC IS TUCKED MINIMUM 100mm BETWEEN CORE FLUTE AND WALL.

INSTALL 100mm AG. LINE TO BASE OF BLUE METAL TRENCH

STEEL REINFORCING

TYPICAL IN SITU RETAINING WALL DETAIL

SCALE 1:10

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COUNCIL: WAVERLEY
CLIENT: DANNY MEGUIDECHE
ARCHITECT: MHNDU
STATUS / ISSUE: S34 - ISSUE D

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CAMMERAY NSW 2062

TITLE: DETAILS

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 5
SCALE: AS SHOWN @ A3
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F

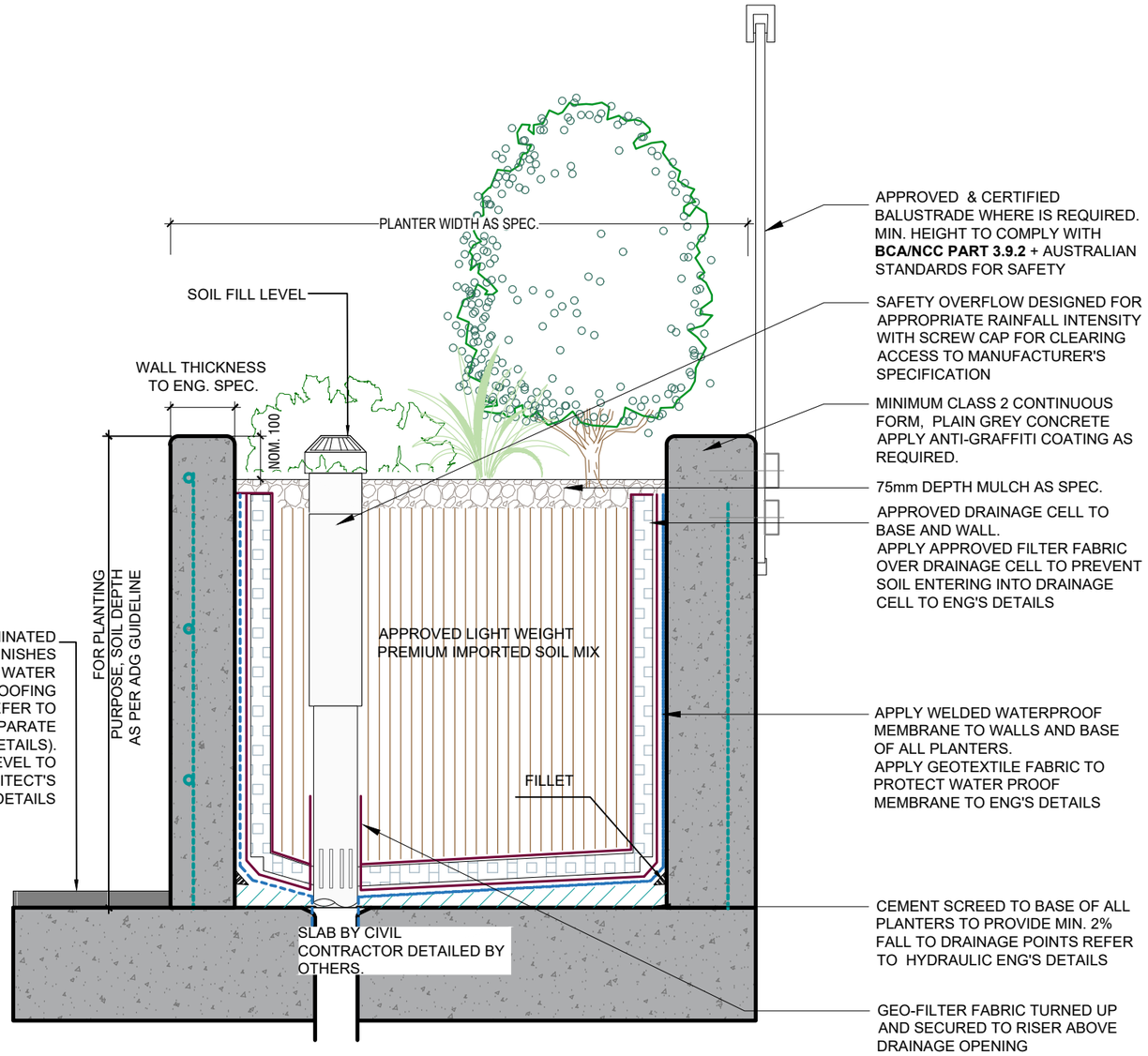
OVERFLOW
(TO SUPPLIER'S SPECIFICATION)

NOTE (BCA COMPLIANCE).
WHERE NO EXTERNAL BALUSTRADE IS PROPOSED. THE INTERNAL PLANTER WALL FACE MUST BE NON-CLIMBABLE TO A HEIGHT TO MEET AS & BCA COMPLIANCE.

NOTE.(DRAINAGE & WATER PROOFING).
DRAINAGE PITS AND LAYOUT TO BE NOMINATED BY HYDRAULIC ENGINEER TO WORK WITH STRUCTURAL DESIGN AND LANDSCAPE.

THE WATERPROOFING, APPROVED DRAINAGE CELL AND SPECIFIED GEOFABRIC LAYER IN THIS DETAIL ARE INDICATIVE ONLY AND SHOULD BE DETAILED BY THE RELEVANT PROFESSIONAL ENGINEER 'FOR CONSTRUCTION'.

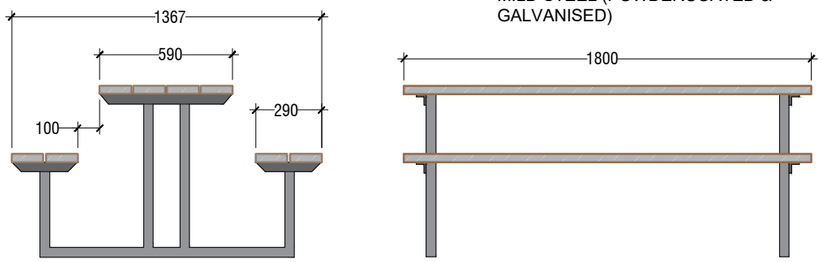
UNDER THE CONSTRUCTION PRACTITIONER BILL, STRUCTURAL WATER-PROOFING SHALL BE DOCUMENTED BY A HYDRAULIC ENGINEER



INSITU CONCRETE PLANTER ON SLAB DETAIL

SCALE: 1:15

NOTE: DRAWING IS INDICATIVE ONLY. PRODUCT BY COMMERCIAL SYSTEMS AUSTRALIA. REFER MANUFACTURER'S SPECIFICATIONS & INSTRUCTIONS FOR INSTALLATION



ODYSSEY PICNIC SETTING BY CSA - PRODUCT CODE: TM4637

SCALE 1:20

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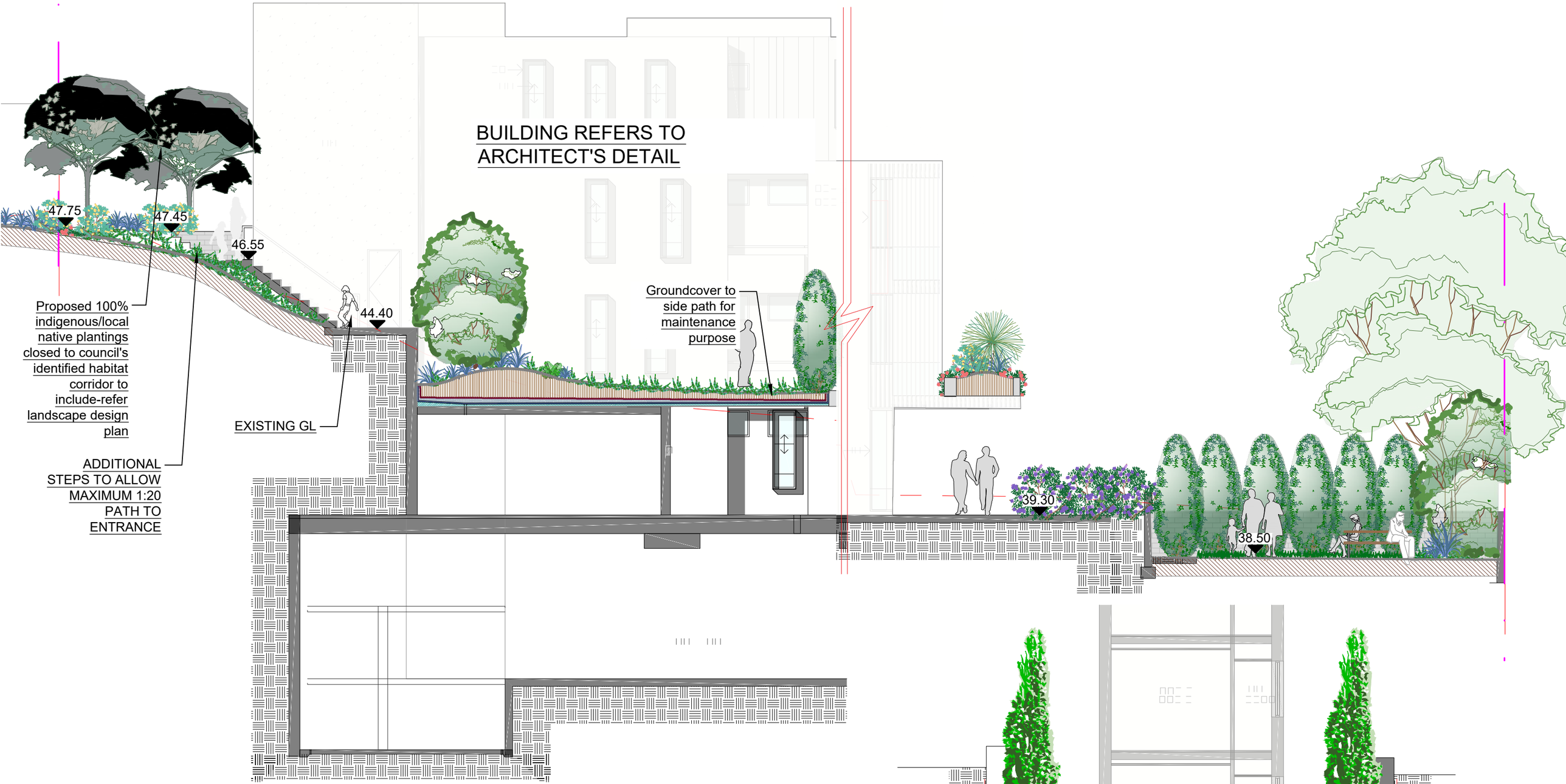
TITLE: DETAILS

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 6
SCALE: AS SHOWN @ A3
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F



ELEVATION A - NORTH BOUNDARY

SCALE: 1:100

SECTION B-B

SCALE: 1:100

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TITLE: SECTIONS

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 7

SCALE: AS SHOWN @ A3

DATE: MARCH 2022

DRAWN: K.Z

CHECKED: R.F

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 GENERAL

The following general conditions should be considered prior to the commencement of landscape works:

- The landscape plans should be read in conjunction with the architectural plans, hydraulic plans, service plans and survey prepared for the proposed development.
- All services including existing drainage should be accurately located prior to the commencement of landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect.
- Installation of conduit for required irrigation, electrical and other services shall be completed prior to the commencement of hardscape works and hardstand pours.
- All outdoor lighting specified by architect or client to be installed by qualified electrician
- Anomalies that occur in these plans should be brought to our immediate attention.
- Where an Australian Standard applies for any landscape material testing or installation technique, that standard shall be followed.

1.02 PROTECTION OF ADJACENT FINISHES

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done so in accordance with AS 4970-2009 Protection of trees on development sites as well as in accordance with the tree protection measures prepared by project arborist.

Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health.
Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip-line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained.

Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.

Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

1.04 EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site.

Erosion & pollution control measures shall incorporate the following:

- Construction of a sediment trap at the vehicle access point to the subject site.
- Sediment fencing using a geotextile filter fabric in the location indicated on the erosion control plan or as instructed on site by the landscape architect.
- Earth banks to prevent scour of stockpiles
- Sandbag kerb sediment traps
- Straw bale & geotextile sediment filter.
- Exposed banks shall be pegged with an approved Jute matting in preparation for mass planting

Refer to 'Guidelines for Erosion and Sediment Control on Building Sites' by DLWC (2000) for construction techniques

SOIL WORKS

2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)
The specified soil conditioner for site top-soil improvement shall be an organic mix complies with **AS 4454-2012 Composts, soil conditioners and mulches.** Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting
New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer d) below) and imported soil. All mixes are to comply with **AS4419:2018 Soils for Landscaping and garden use**, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf
The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 80% washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom compost or soil conditioner, or other approved lawn top dress.

Site Topsoil
Site topsoil is to be clean and free of unwanted matter such as gravel, clay lumps, grass, weeds, tree roots, sticks, rubbish and plastics, and any deleterious materials and materials toxic to plants. The topsoil must have a pH of between 5.5 and 7. Use 100% imported soil mix when site when site topsoil runs out.

2.02 INSTALLATION

Note: No level changes (Cut or Fill), soil ripping within the Tree Protection Zones of trees to be retained

a) Testing
All testing is to be conducted in accordance with AS4419:2018 Soils for Landscaping and garden use Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying to ensure conditions are appropriate for planting as stated above. Tests shall be taken in several areas where planting is proposed, and the pH shall be adjusted accordingly with sulphur or lime to suit.

Note that a soil test conducted by the Sydney Environmental & Soil Laboratory or approved equal shall be prepared for all commercial, industrial and multi-unit residential sites. The successful landscape contractor shall implement the recommendations of this test.

b) Set Out of Individual Trees & Mass Planting Areas
All individual tree planting positions and areas designated for mass planting shall be set out with stakes or another form of marking, ready for inspection and approval. Locate all services.

c) Establishing Subgrade Levels
Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:

- Mass Planting Beds - 300mm below existing levels with specified imported soil mix.
- Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

d) Subgrade Cultivation
Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a thorough breakup of the subgrade into a reasonably coarse tilth. Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix.

e) Drainage Works
Install surface and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits.

f) Placement and Preparation of Specified Soil Conditioner & Mixes.

- Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported “Organic Garden Mix” as supplied by ANL or approved equal.
- Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm

Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine tilth and good growing medium in preparation for planting.

- Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm.

Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material
All trees supplied above a 25L container size must be grown and planted in accordance with *AS 2303:2019 Tree stock for landscape use.* Certification that trees have been grown to AS2303:2018 guidelines is to be provided upon request of Council's Tree Management Officer.

Above - Ground Assessment:
The following plant quality assessment criteria should be followed:
Plant true to type, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is apically dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure
Below - Ground Assessment:
Good root division & direction, rootball occupancy, rootball depth, height of crown, non-suckering For further explanation and description of these assessment criteria, refer to AS2303:2019.
All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does not conform to the standards listed above.

b) Stakes and Ties
Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, unpainted, straight hardwood, free of knots and pointed at one end. They shall be 2200mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.

c) Fertilisers
Fertilisers shall be approved slow release fertilisers suitable for the proposed planting types. Note that for native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall be used.

d) Mulch
Mulch shall be an approved equal to “Forest Blend” as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris.

e) Turf
Turf shall be soft leaf Buffalo or equivalent (unless stated otherwise), free from any weeds and other grasses, and be in a healthy growing condition.

3.02 INSTALLATION

a) Setting Out
All planting set out shall be in strict accordance with the drawings, or as directed. Note that proposed tree planting located near services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting.

b) Planting
All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, incorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set plumb vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

c) Staking and Tying
Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as “Trees” on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching
Mulch for general planter bed shall be an approved equal to “Forest Blend” as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, coarse river sand, scoria or river pebbles. 4-7mm screenings or similar.

e) Turfing
Moisten soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a lawn fertilizer and thoroughly water in. Keep turf moist until roots have taken and sods/rolls cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

f) Brick garden edging
Where is required, the Contractor shall install **Brick garden edging** as detailed on the drawings, to all mass planting beds adjoining turf or gravel mulched areas, and where required. The resultant edge shall be true to line and flush with adjacent surfaces. However, no edging shall be used within the Structural Root Zone (SRZ) of trees to be retained.

g) Nature Strip and public domain works
The nature strip (street frontage) for the site is public land, and only authorized works may occur here.
Existing Conditions such as street trees, council planting etc shall be retained and protected during construction, unless specific approval has been granted for new work in this area. Where council policy specifies a particular unit paver, material finish, pattern or treatment, it shall be the contractors responsibility to check and verify that this material & treatment is correct and current prior to undertaking construction works'

HARDSCAPE WORKS

4.01 GENERAL

The Contractor shall undertake the installation of all hardscape works as detailed on the drawing, or where not detailed, by manufacturers specification.

- Paving - refer to typical details provided, and applicable Australian Standards. *Permeable paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a useable, hardwearing, practical surface.* In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be setout as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be bought to the attention of the Landscape Architect.
Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owner/s which may arise from this application. Any enquiries in this regard may be made to the Crown Lands on 1300 886 235.

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION)

This is a general Irrigation Performance Specification only, as a guide for projects requiring irrigation systems as part of consent requirements or building contractual arrangements.
An automated irrigation system is recommended for the effective establishment of new gardens, and to assist with the success of planting areas on terraces, over slabs and in Communal Open Spaces.
The inclusion of this general specification is no guarantee that an irrigation system forms part of the landscape scope of works, which will be determined by the building contract.

New irrigation systems to planting areas shall be a Commercial Grade Irrigation System conforming to all relevant Australian standards, including AS 3500 & the Gas and Electricity (Consumer Safety) Act 2017, Workplace Health & Safety Act 2011, & the latest Sydney Water Code

An automated drip-irrigation system is to be installed to all gardens, planters and lawn areas in accordance with the approved Irrigation Design. This system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest industry standards and to maximise the efficient usage of water.
The Installer is required to obtain all approvals necessary for the completion of works in accordance with the Laws of Australia, Laws of the State of NSW, Waverley Council By-Laws and Ordinances.

Drawings:
- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide irrigation drawings for approval upon engagement.

Design Requirements:
- The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas.
- It shall incorporate a suitable back flow prevention device for the scale of works, an in-line filter, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for specified planting.
- The irrigation application rate shall not exceed the infiltration rate of the soil or creates run-off.
- The landscape contractor shall check the existing pressure available from the ring mains and size irrigation piping to suit. Supply shall be from local hose cock where available.
- All piping and fittings shall be buried 50mm below the finished soil levels in garden and lawn areas, and secured in position at 500mm centres with galv wire pins.
- Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Services Co-ordination:
- Co-ordination required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provisions.
- The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit locations.
- Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects:
Upon completion of installation, the system shall be tested, including:
- Main Line Pressure Test: The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time.
- Dripper Pressure Test: Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The inlet pressure is then tested under the same conditions to check it does not exceed 300Kpa.
- All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

Warranty :
- A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation:
- On request, a detailed irrigation performance specification report can be issued.

CONSOLIDATION AND MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contracted works by accepted landscaping or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent in the contracted works.

This shall include, but not be limited to, the following items where and as required:

- Watering all planting and lawn areas / irrigation maintenance.
- Clearing litter and other debris from landscaped areas.
- Removing weeds, pruning and general plant maintenance.
- Replacement of damaged, stolen or unhealthy plants.
- Make good areas of soil subsidence or erosion.
- Topping up of mulched areas.
- Spray / treatment for Insect and disease control.
- Fertilizing with approved fertilizers at correct rates.
- Mowing lawns & trimming edges each 14 days in summer or 18 days in winter
- Adjusting ties to Stakes
- Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.

AILA Associate

Australian Institute of Landscape Architects

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

REV	DATE	NOTATION/AMENDMENT
A	14.5.2021	Preliminary plan prepared for review
B	14.5.2021	Issued for DA
C	14.5.2021	Co-ordinated with amended architectural plan & council's comments
D	15.3.2022	Issued for S34

COUNCIL: WAVERLEY
CLIENT: DANNY MEGUIDECHE
ARCHITECT: MHNDU
STATUS / ISSUE: S34 - ISSUE D

Conzept Landscape Architects
www.conzept.net.au
enquiries@conzept.net.au
Phone: 9922 5312
Suite 101, 506 Miller St
CAMMERAY NSW 2062

TITLE: SPECIFICATIONS

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT
34 MILITARY ROAD
NORTH BONDI

DWG.No: LPS34 21 - 86 / 8
SCALE: N/A
DATE: MARCH 2022
DRAWN: K.Z
CHECKED: R.F

Request to Vary Height of Building Under Clause 4.6 of Waverley Local Environmental Plan 2012

Proposed Residential Flat Building at 34 Military Road, North Bondi

March 2022

Navon Planning ABN 78 425 016 053
PO Box 517, St Ives NSW 2075
p: (02) 8355 7108
e: office@navonplanning.com.au w: www.navonplanning.com.au

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Disclaimer

Introduction

This request made under Clause 4.6 of the Waverley Local Environmental Plan 2012 accompanies a proposal for a new four storey residential flat building at 34 Military Road, North Bondi. The proposal involves a variation to Clause 4.3 Height of buildings under the Waverley LEP 2012. This request to vary the development standard is based on the latest amended plans prepared by MHN Design Union Revision D and is considered appropriate for the proposal as will be discussed below. The proposal does not involve any other development standard variations.

The Site and Surrounding Area

The subject site is located at 34 Military Road, North Bondi. The irregular shaped site has an area of 623.2sqm and has a frontage of 14.567m, a southern boundary of 49.085m, a rear boundary of 11.048m and a northern boundary of 51.568m. The site has a legal description of Lot 165 DP 11758 and has slopes from the front to the rear by approximately 9m. Existing on the site is a three storey dual occupancy with a carport at the front and a swimming pool in the rear.

The adjoining sites to the north and south are occupied by three storey residential flat buildings. The surrounding area is characterised by a mix of detached dwellings and residential flat buildings designed to be integrated with the steep topography.

The Proposed Variation

The Waverley LEP 2012 include provisions for exception to development standards as follows.

4.6 Exceptions to development standards

(1) The objectives of this clause are as follows:

(a) to provide an appropriate degree of flexibility in applying certain development standards to particular development,

(b) to achieve better outcomes for and from development by allowing flexibility in particular circumstances.

(2) Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.

(3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:

(a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and

(b) that there are sufficient environmental planning grounds to justify contravening the development standard.

(4) Development consent must not be granted for development that contravenes a development standard unless:

(a) the consent authority is satisfied that:

(i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and

(ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and

(b) the concurrence of the Secretary has been obtained.

In accordance with Clause 4.6 (4)(a)(i), this written request addresses the matters required to be demonstrated by Clause 4.6 (3) relating to the proposed variation to the building height. The building height provisions of the Waverley LEP 2012 under Clause 4.3 read as follows:

4.3 Height of buildings

(1) The objectives of this clause are as follows—

(a) to establish limits on the overall height of development to preserve the environmental amenity of neighbouring properties and public spaces and, if appropriate, the sharing of views,
(b) to increase development capacity within the Bondi Junction Centre to accommodate future retail and commercial floor space growth,
(c) to accommodate taller buildings on land in Zone B3 Commercial Core of the Bondi Junction Centre and provide an appropriate transition in building heights surrounding that land,
(d) to ensure that buildings are compatible with the height, bulk and scale of the desired future character of the locality and positively complement and contribute to the physical definition of the street network and public space.

(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.

According to the Waverley LEP 2012, the **building height** (or height of building) means—

> *(a) in relation to the height of a building in metres—the vertical distance from ground level (existing) to the highest point of the building, or*
> *(b) in relation to the RL of a building—the vertical distance from the Australian Height Datum to the highest point of the building,*
> *including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.*

The maximum building height applicable to the site is 9.5m. The amended plans prepared by MHN Design Union have reduced the overall height of the building. The maximum building height was 10.8m on the northern elevation and has now been reduced to 10.2m. The maximum building height on the southern elevation has been reduced from 12.3m to 11m. The extra height reduction is because level 3 was shortened by 3m. Subsequently, the proposed variation will be 1.5m (15.8%). Figures 1 and 2 below show the extent of the variation to the northern and southern walls of the building.

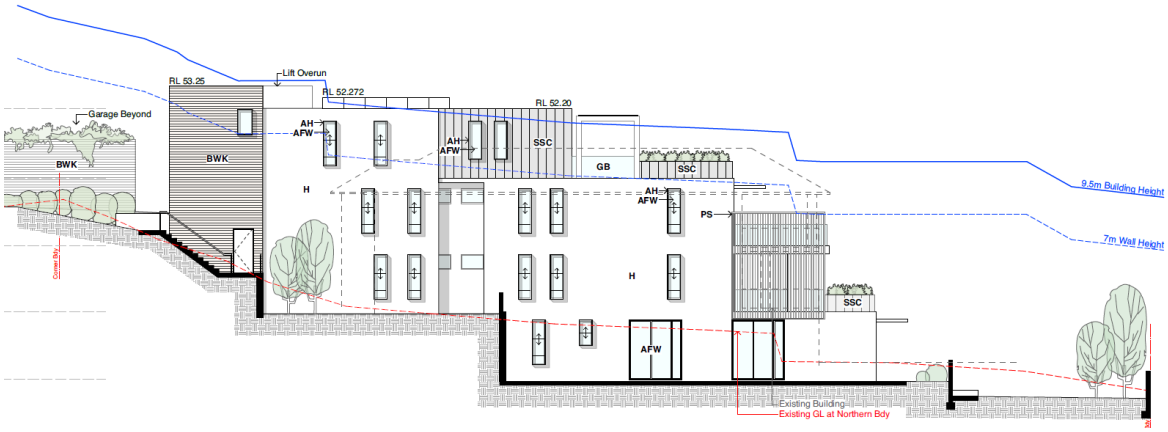


Figure 1: Proposed north elevation

Figure 2: Proposed south elevation

The assessment in this report addresses the Clause 4.6 criteria demonstrating the proposed floor space ratio:

- is consistent with the objectives of the building height development standard
- is consistent with the objectives of the R3 Medium density residential zone
- is consistent with State and regional policies
- results in a better planning outcome
- is justified on environmental grounds
- is in the public interest

Consistent with the Building Height Objectives

Clause 4.3 of the Waverley LEP 2012 includes objectives for the building height standard. These objectives are addressed in relation to the proposal as follows:

> *(a) to establish limits on the overall height of development to preserve the environmental amenity of neighbouring properties and public spaces and, if appropriate, the sharing of views,*
>
> Comments: The proposal does not provide an unreasonable amount of amenity impacts to the adjoining properties and public spaces. The proposal maintains appropriate view corridors given the site conditions and can meet the solar access requirements.
>
> *(b) to increase development capacity within the Bondi Junction Centre to accommodate future retail and commercial floor space growth,*
>
> Comments: The site is not located in the Bondi Junction Centre.

(c) to accommodate taller buildings on land in Zone B3 Commercial Core of the Bondi Junction Centre and provide an appropriate transition in building heights surrounding that land,

Comments: The site is not located in the Bondi Junction Centre.

(d) to ensure that buildings are compatible with the height, bulk and scale of the desired future character of the locality and positively complement and contribute to the physical definition of the street network and public space.

Comments: The skilful design enables the building to be compatible with the site and surrounding area. The proposed variation does not impact upon the predominant bulk, scale, streetscape or character of the surrounding North Bondi area. As such, the proposal is considered a high quality design that will enhance the streetscape.

Consistent with the R3 Medium Density Residential Zone Objectives

The land use table of the Waverley LEP 2012 includes objectives for the site's R3 medium density residential zoning classification. These objectives in relation to the proposal are addressed below.

- *To provide for the housing needs of the community within a medium density residential environment.*

  Comment: The proposal retains the medium density scale of the site and provides four units to meet the housing needs of the community. The proposed height variation does not conflict with the medium density residential environment as considered under Council's provisions. The proposal is also compatible with the existing and desired character of the surrounding area.

- *To provide a variety of housing types within a medium density residential environment.*

  Comment: The proposal includes four units with varied layouts and will complement the existing residential flat buildings within the vicinity of the site.

- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

  Comment: The proposal relates to a residential flat building and does not involve any other land use.

- *To maximise public transport patronage and encourage walking and cycling.*

  Comment: The site is within close proximity to bus stops and the proposal incorporates bicycle racks.

Consistent with State and Regional Policies

The proposed variations ensure the site can achieve a high quality outcome without compromising the desired future character or the amenity of the surrounding area. The proposal is consistent with the objects of the Environmental Planning and Assessment Act 1979 and with relevant state and regional policies.

Results in a Better Planning Outcome

The proposal is expected to generate a better planning outcome for the following reasons:

- The proposed variation to the building height can be achieved without any unreasonable impacts to the amenity of adjoining properties.

- The proposal incorporates a flat roof which mitigates any unreasonable shadowing impacts. The existing pitched roof has a ridge height of RL 50.32 and the proposed flat roof will have a height of up to RL 53.25, demonstrating the low profile of the new building. This is a better planning outcome compared to proposing a building with a pitched roof which would produce far greater amenity and bulk impacts.

- The proposed height variation is a direct result of the sloping site and the design follows the contours through providing two units above the main entrance and two units below street level. The proposed excavation allows the building to maintain a low profile, particularly when viewed from the street and adjoining properties.

- The proposed variation is sought, despite the design being able to fully comply with the maximum FSR.

- The integration of the basement is a better planning outcome, rather than at-grade parking which would disrupt the streetscape and would likely raise the building higher than what is currently being proposed.

- Despite the height variation, the proposal does not restrict the adjoining buildings being redeveloped in the future.

- The skilful design does not incorporate a split level to the lower three units, however the top level unit comprises a split level towards the front. While a split level is not ideal, this has been implemented to lower the height along the streetscape.

Justification on Environmental Grounds

In accordance with Clause 4.6 (3)(b) of the Waverley LEP 2012, the following environmental planning grounds are sufficient in justifying the proposed variation of the building height provisions:

- A View Sharing Assessment prepared by RLA, dated May 2021 demonstrates the proposal will have an overall minor view impact from the northern buildings. Even though the report has not been revised to reflect the amended architectural plans, the proposal is expected to provide reduced view impacts. A suitable view corridor is therefore maintained despite the height variation. The original report concluded;

  "In my opinion the non-compliant part of the building does not cause unreasonable impacts. If the building was obliged to fully comply with the height plane, the outcome would not be substantially different in relation to view sharing."

- The proposed height variation does not materially contribute to additional shadowing that would cause any unreasonable overshadowing to the site or adjoining properties. Due to the orientation of the site being situated north of 32 Military Road, the existing three storey dual occupancy and adjoining building at 36 Military Road casts shadows onto 32 Military Road. Furthermore, even a compliant height would generate similar shadowing impacts. Refer to Figures 3-5 showing the existing and proposed shadowing including the reduced shadowing compared to the previously submitted plans. The amended design involving reducing the height reduces shadowing as demonstrated in Figure 6 below.

- The proposed setbacks are considered suitable to mitigate against any unreasonable environmental impacts associated with the proposed variation.

- The skilful design maintains appropriate privacy between the proposed building and adjoining buildings. The proposed height variation comprises no significant impacts to the overall building envelope.

- As discussed above in relation to the roof, the design incorporates a flat roof which provides adjoining dwellings with reduced environmental impacts, compared to a building with a pitched roof.

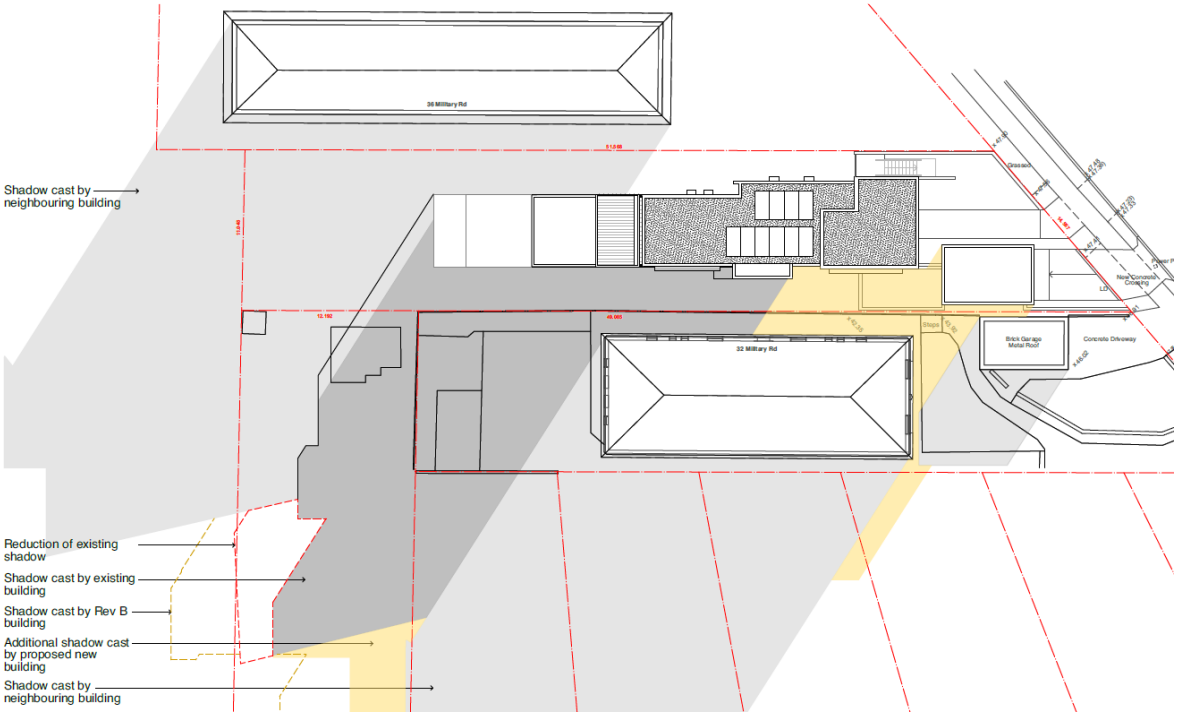


Figure 3: Proposed shadowing at 9am (winter solstice)

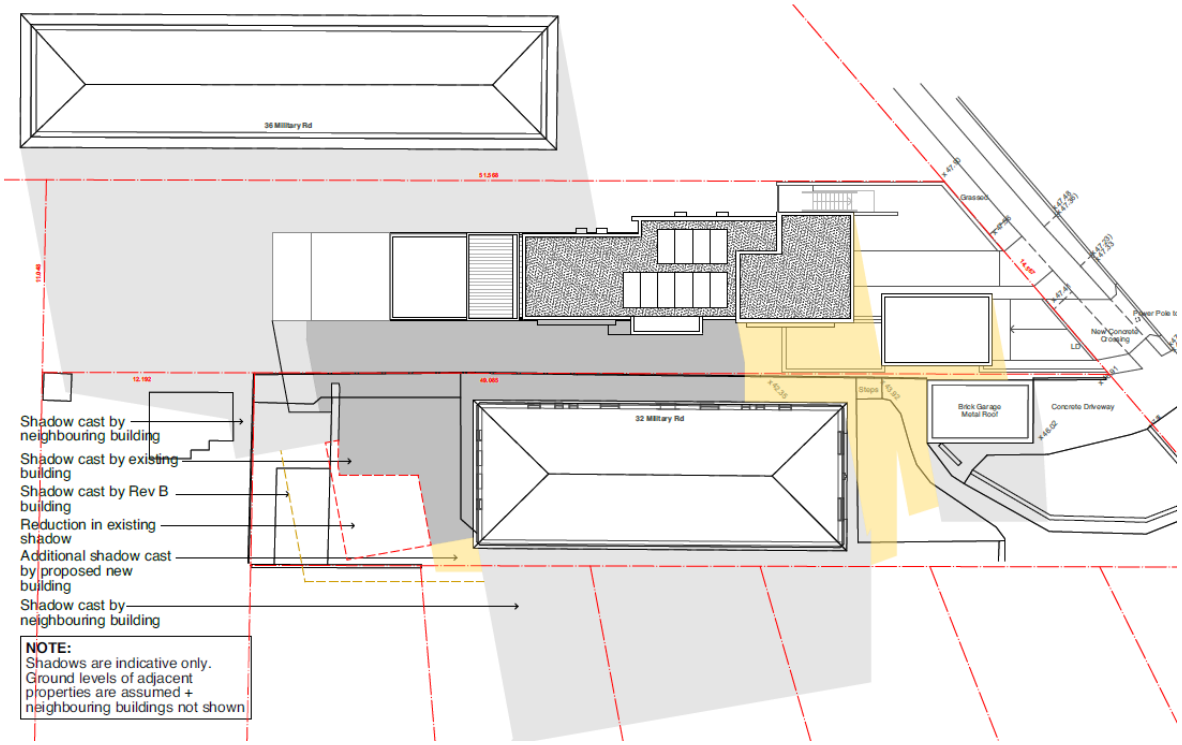


Figure 4: Proposed shadowing at 12pm (winter solstice)

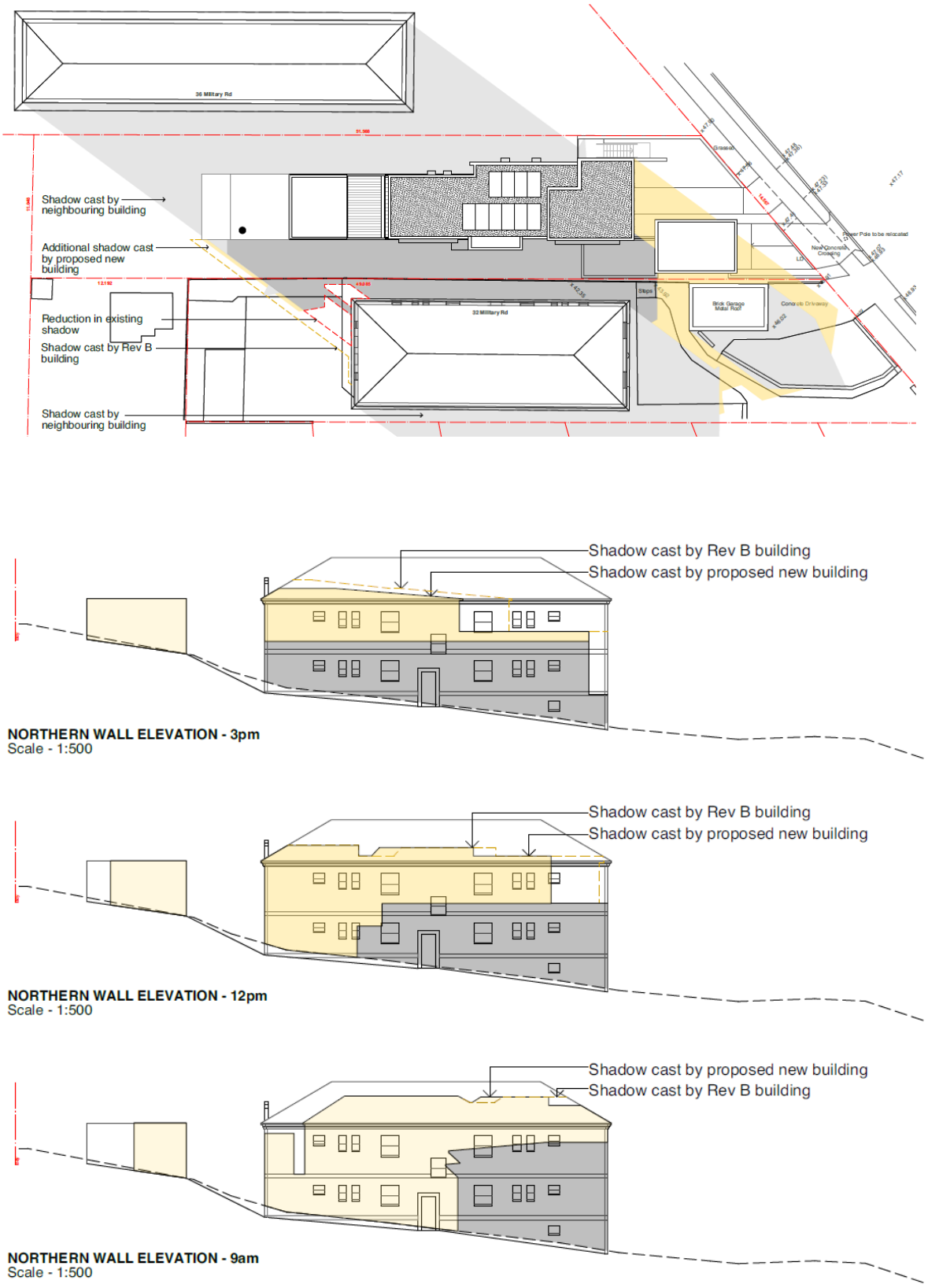


Figure 6: Shadowing on 32 Military Road including reduction compared to Revision B

Is in the Public Interest

The proposal and associated variation to the building height is in the public interest. The variation is accommodated without generating any significant impacts to the adjoining amenity or public domain.

Unreasonable and Unnecessary Building Height Development Standard

Wehbe V Pittwater Council (2007) NSWLEC 827 sets out the methods of establishing why compliance with the development standards are unreasonable or unnecessary. The application of the building height provision to the proposal is considered unreasonable and unnecessary, consistent with for the following reasons:

- The maximum height does not consider the challenging site comprising a slope of approximately 9m.

- There is an existing height variation associated with the current three storey dual occupancy at the south-western corner of the building, being at a height of approximately 10.2m, or 700mm (7.4%) above the 9.5m maximum. Therefore, compliance for the new building is unreasonable and unnecessary.

- Despite the variation, the proposal comprises a considered design that is compatible with the established character of the site and surrounding properties and does not cause any significant impacts to the amenity of the site or surrounding area.

- The broad application of building height does not exclude the possibility of a high quality built form without compromising the amenity of surrounding properties. Despite the variation, the proposal is able to achieve these outcomes.

Conclusion

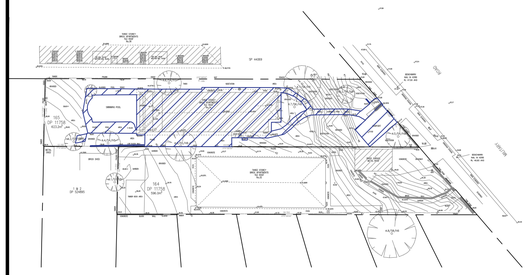
Based on the above assessment, the proposal at 34 Military Road, North Bondi can achieve full compliance with the objectives and intentions of both Clause 4.3 Height of buildings and the R3 Medium Density Residential zone under the Waverley LEP 2012. This report also validates the proposal can be justified to provide a better planning outcome and the building height standard applicable is unreasonable and unnecessary given the existing site conditions and the desired future character of Dover Heights.

The proposal will not lead to unreasonable amenity impacts to the surrounding residential properties in terms of bulk, scale, views, privacy and overshadowing. The proposed alterations and additions have been designed to provide a high standard of amenity for the residents and will enhance the existing streetscape. The proposed building height variation should therefore be considered favourably by Council.

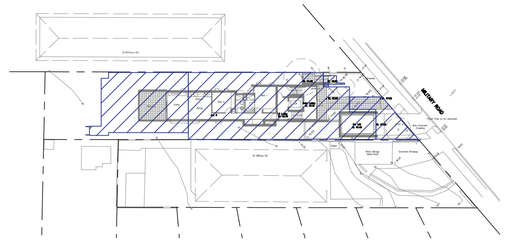
NOT FOR CONSTRUCTION

CIVIL CONSULTING ENGINEERS

NEW RESIDENTIAL UNIT DEVELOPMENT
34 MILITARY ROAD, NORTH BONDI



EXISTING IMPERVIOUS AREA: 284m² (46%)
SCALE = 1 : 500



PROPOSED IMPERVIOUS AREA: 480m² (77%)
SCALE = 1 : 500

ONSITE DRAINAGE PUMP OUT CALCULATIONS – AUSTRALIAN STANDARDS AS3500.3:2018 – PUMP OUT TANK PP2

PROVIDE TWO CENTRIFUGAL DRAINAGE SUMP PUMPS WITH SINGLE-PHASE ELECTRIC MOTOR CAPABLE OF DISCHARGING 14.0 L/S EACH AGAINST A TOTAL HEAD OF (10.0m) WITH 10 STARTS PER HOUR MAXIMUM. CLASS 1 ZONE 2 CERTIFIED PUMPS FOR HAZARDOUS AREAS ARE REQUIRED SWITCHING SHALL PROVIDE FOR ALTERNATIVE OPERATION OF THE PUMPS, HIGH LEVEL SWITCH ON/OFF, 2ND PUMP, AND A RED LIGHT ALARM PLACED PERMANENTLY IN THE BASEMENT AREA ACTIVATED BY HIGH LEVEL SWITCH ON. FINAL PUMP OUT VOLUME AND PUMP DUTY IS SUBJECT TO DETAILED GEOTECHNICAL INFORMATION OBTAINED DURING EARTHWORKS AND EXCAVATION.

REQUIRED VOLUME:

AREA DRAINING TO THE PUMPOUT PIT = 465 m^2 (EXCLUDING REAR YARD & GARAGE ROOF)
STORAGE MUST BE PROVIDED FOR THE 3HR DURATION 100 YEAR ARI STORM:

Q = F x C x I x A
= 1/3600 x 0.9 x 47.3 x 465
= 5.5 L/s

VOLUME ACCUMULATED (100 YEAR ARI, 2 HOUR STORM):

$V_{100/300}$ = (5.50L/s x 2hrs x 3600s)/1000
= 39.59 m^3

VOLUME PUMPED IN 30 MINS:

PC_{30} = (14.0L/s x 0.5hrs x 3600s)/1000
= 25.20 m^3

WET WELL STORAGE CAPACITY = $V_{10/120} - PC_{30}$ = 14.39 m^3

VOLUME PUMPED IN 5 MINS: VOLUME PROVIDED = 17.50 m^3

PC_5 = (14.0L/s x 0.083hrs x 3600s)/1000
= 4.18 m^3

NOTE: THE 1 IN 100 YEAR ARI STORM EVENT WAS USED TO MAXIMISE STORAGE REQUIRED TO REDUCE FREQUENCY OF OVERFLOW OCCURING TO REAR YARD. THIS HAS BEEN CHECKED USING THE COMPUTER PROGRAM DRAINS. PLEASE CONTACT RTS CIVIL CONSULTING ENGINEERS TO RECEIVE A COPY OF THE DRAINS FILE.

ONSITE DRAINAGE PUMP OUT CALCULATIONS – AUSTRALIAN STANDARDS AS3500.3:2018 – PUMP OUT TANK PP1

PROVIDE TWO CENTRIFUGAL DRAINAGE SUMP PUMPS WITH SINGLE-PHASE ELECTRIC MOTOR CAPABLE OF DISCHARGING 10.0 L/S EACH AGAINST A TOTAL HEAD OF (7.0m) WITH 10 STARTS PER HOUR MAXIMUM. CLASS 1 ZONE 2 CERTIFIED PUMPS FOR HAZARDOUS AREAS ARE REQUIRED SWITCHING SHALL PROVIDE FOR ALTERNATIVE OPERATION OF THE PUMPS, HIGH LEVEL SWITCH ON/OFF, 2ND PUMP, AND A RED LIGHT ALARM PLACED PERMANENTLY IN THE BASEMENT AREA ACTIVATED BY HIGH LEVEL SWITCH ON. FINAL PUMP OUT VOLUME AND PUMP DUTY IS SUBJECT TO DETAILED GEOTECHNICAL INFORMATION OBTAINED DURING EARTHWORKS AND EXCAVATION.

REQUIRED VOLUME:

AREA DRAINING TO THE PUMPOUT PIT = 150 m^2 (DUMMY AREA)
STORAGE MUST BE PROVIDED FOR THE 2HR DURATION 100 YEAR ARI STORM:

Q = F x C x I x A
= 1/3600 x 0.9 x 63 x 100
= 2.36 L/s

VOLUME ACCUMULATED (100 YEAR ARI, 2 HOUR STORM):

$V_{100/300}$ = (2.36L/s x 2hrs x 3600s)/1000
= 17.01 m^3

VOLUME PUMPED IN 30 MINS:

PC_{30} = (10.0L/s x 0.5hrs x 3600s)/1000
= 18.00 m^3

WET WELL STORAGE CAPACITY = $V_{10/120} - PC_{30}$ = -0.99 m^3
MINIMUM REQUIRED = 3.00 m^3

VOLUME PUMPED IN 5 MINS:

PC_5 = (10.0L/s x 0.083hrs x 3600s)/1000
= 2.99 m^3

VOLUME PROVIDED = 4.00 m^3

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

ONSITE DRAINAGE CALCULATIONS – WAVERLY COUNCIL WATER MANAGEMENT TECHNICAL MANUAL (2014)	
TOTAL SITE AREA	623 m^2
PRE-DEVELOPED IMPERVIOUS AREA	284 m^2 (46 %)
POST-DEVELOPED IMPERVIOUS AREA	480 m^2 (77 %)
UNCONTROLLED DISCHARGE AREA	158 m^2
UNCONTROLLED IMPERVIOUS AREA	150 m^2
PERMISSABLE SITE DISCHARGE	21 L/s
DESIGN METHOD USED	DRAINS & AS3500.3:2018
PRE-DEVELOPMENT RUNOFF	
5 YR ARI DISCHARGE	21 L/s
100 YR ARI DISCHARGE	41 L/s
POST-DEVELOPMENT RUNOFF	
5 YR ARI DISCHARGE	16 L/s
100 YR ARI DISCHARGE	21 L/s (14 L/s FROM OSD TANK)
ONSITE DETENTION TANK DETAILS	
TOTAL AREA TO OSD	465 m^2
TOTAL IMPERVIOUS AREA TO OSD	465 m^2 (100%)
OSD/PUMP OUT VOLUME REQUIRED	16.0 m^3 (17.5 m^3 PROVIDED)
OSD/PUMP OUT TANK SIZE PP2	13.5 m^3 x 1.3
OSD/PUMP CAPACITY PP2	14.0 L/s (BYPASS MAX FLOW = 7 L/s)
OVERFLOW TO STREET	NO
RAINWATER TANK DETAILS	
VOLUME OF RAINWATER (BASIX)	6,000 L
CONCENTRATED DISCHARGE TO KERB	20 L/s

INSPECTIONS BY ENGINEER

48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION. ANY STRUCTURAL ELEMENT NOT INSPECTED BY RTS CIVIL WILL NOT BE CERTIFIED BY RTS CIVIL CONSULTING ENGINEERS PTY LTD.
1. BEARING STRATA OF ALL FOOTINGS PRIOR TO CONCRETE POUR BY GEOTECHNICAL ENGINEER.
2. ANY REINFORCEMENT PRIOR TO CONCRETE POUR.
3. TIMBER AND STEEL FRAMING PRIOR TO CLADDING OR LINING.
4. STEEL LINTELS AFTER INSTALLATION.
5. CONTACT YOUR PCA (PRINCIPAL CERTIFYING AUTHORITY) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE INSPECTIONS IN ACCORDANCE WITH REVISED EP&A ACT REGULATIONS EFFECTIVE JULY 1, 2004.
6. INSPECTION BY GEOTECHNICAL ENGINEER OVER 1.5m OF VERTICAL CUT THROUGH SANDSTONE BED ROCK TO PERMIT IDENTIFICATION OF DEFECTS AND REMEDIAL MEASURES INITIATED.
7. SCHEDULE OF CONSTRUCTION STAGES REQUIRING INSPECTION:
a. FOLLOWING PLACEMENT OF PIPE BEDDING MATERIAL. CONFIRM TRENCH/PIPE LOCATION, ADEQUACY OF DEPTH OF COVER, BEDDING MATERIAL AND DEPTH.
b. FOLLOWING JOINING OF PIPES AND CONNECTION TO COUNCIL'S STORMWATER SYSTEM.
c. FOR ON-SITE DETENTION SYSTEMS: –
(i) FOLLOWING SET OUT OF DETENTION TANK/AREA TO CONFIRM AREA AND VOLUME OF STORAGE.
(ii) FOLLOWING PLACEMENT OF WEEP-HOLES, ORIFICE AND/OR WEIR FLOW CONTROL, OUTLET SCREEN AND OVEFLOW PROVISION.

NOTE:
A DRAINAGE EASEMENT WAS ATTEMPTED TO BE OBTAINED HOWEVER EFFORTS WERE UNSUCCESSFUL. THEREFORE A PUMP-OUT SYSTEM HAS BEEN PROPOSED. FOR FURTHER DETAILS PLEASE SEE RTS CIVIL CONSULTING ENGINEERS DESIGN STATEMENT.

LOCALITY PLAN
SCALE = N.T.S

LEGEND

STORMWATER PIT
NEW STORMWATER PIPE
STORMWATER PIPE FLOW DIRECTION
EXISTING STORMWATER PIPE
FLUSH-OUT LINE
BOUNDARY LINE

DP1 100ø — DENOTES DOWNPIPE

DENOTES SIZE OF DOWNPIPE
DP1 — 100mmø ROOFWATER DOWNPIPE TO RWT
DP2 — 100mmø BALCONY RUNOFF DOWNPIPE TO OSD/PP2
DP3 — 100mmø DOWNPIPE TO RWT
DP4 — 100mmø DOWNPIPE TO BOUNDARY PIT
GD1 — 150mm BALCONY OR PATH GRATED DRAIN TO ARCHITECTS DETAILS
GD2 — 150mm DRIVEWAY GRATED DRAIN TO ARCHITECTS DETAILS
FD1 — 200mm x 200mm PLANTER FLOOR DRAIN TO OSD/PP2
FD2 — 200mm x 200mm PLANTER FLOOR DRAIN TO BOUNDARY PIT
EG1 — EAVES GUTTER TO ARCHITECTS DETAIL TO RWT
DT1 — 4.0m MIN. LONG DISPERSION TRENCH
RW0 — 200mm x 200mm OR 200mmø MIN. ROOF RAINWATER OUTLET
DR1 — POSSIBLE PERIMETER BASEMENT DRAIN TO STRUCTURAL DETAILS
AH1–AH3 — 600mm x 900mm MIN. GRATED ACCESS HATCH
AH4–AH5 — 600mm x 600mm MIN. GRATED ACCESS HATCH
PP1 — 4,000L PUMP-OUT TANK FOR LOWER BASEMENT
OSD/PP2 — 17,500L ONSITE SITE STOMWATER DETENTION & PUMP-OUT TANK
RWT — 6,000L RAINWATER HARVESTING TANK TO BASIX REQUIREMENTS

SURVEY NOTES:

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE PROJECT SURVEY. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. RTS CIVIL CONSLTING ENGINEERS PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE.
2. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT THE ENGINEER.
3. REFERENCE SHOULD BE MADE DIRECTLY TO THE SURVEYOR BEFORE SETTING OUT.

EXISTING UNDERGROUND SERVICES NOTES:

1. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
2. RTS CIVIL CONSULTING ENGINEERS PTY LTD CANNOT GUARANTEE THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
3. CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
4. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
5. CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
6. CONTRACTOR IS TO CONFIRM FINDINGS FOR THE LOCAL COUNCL OR SYDNEY WATER IN RELATION TO THE SEWER OR WATER MAINS LOCATED. CONFIRMATION OF MAINS IS REQUIRED PRIOR TO CONSTRUCTION. POSSIBLE CONFLICT OF SERVICES ARE TO BE REPORTED TO THE SUPERINTENDENT OR ENGINEER FOR FURTHER DIRECTIONS.

EXTERNAL NOTES:

1. ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.
2. PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND.
3. RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TOTHE SATISFACTION OF THE AFFECTED PARTIES.
4. WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED BY OTHERS.

DRAWING SCHEDULE:

CP100 – COVER PAGE, NOTES & CALCULATIONS
CP101 – COVER PAGE, NOTES & CALCULATIONS CONT.
SW100 – BASEMENT, GROUND & LEVEL 1 STORMWATER MANAGEMENT PLAN
SW101 – LEVEL 2, LEVEL 3 & ROOF STORMWATER MANAGEMENT PLAN
SW200 – STORMWATER DRAINAGE DETAILS
SW201 – STORMWATER DRAINAGE DETAILS CONT.

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3:2018 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000

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DIAL 1100 BEFORE YOU DIG

NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN:DIGGING CAN:

- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG. – TEL. 1100

ALL DIMENSIONS MUST BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	16.03.22	AMENDED AS PER S.34 REVIEW	R.M
B	13.05.21	UPDATED WITH NEW ARCHITECTS PLANS & COUNCIL RFI	R.M
A	17.12.20	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: SECTION 34

Approved by:
Date : 16.03.22
Rhys Mikhail
Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	19.10.2020
DRAWN	S.M	19.10.2020
CHECKED	R.M	03.12.2020
APPROVED	R.M	03.12.2020

CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
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Architect: MHNDUNION

Client: D. MEGUIDECHE

Project and Drawing Title: 34 MILITARY ROAD, NORTH BONDI
COVERPAGE, NOTES & CALCULATIONS

Local Council: WAVERLY COUNCIL

Project Number:	Drawing ID:	Issue:
200807	CP100	C

NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

SEDIMENT AND EROSION CONTROL NOTES:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. GEOTECHNICAL ENGINEER IS TO PROVIDE SITE STABILITY REQUIREMENTS. CUTS ARE TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. AS A GUIDE, INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0m VERT. TO 1.7m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0m VERT. TO 1.7m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
6. CONTRCTOR TO MINIMISE DISTURBED AREAS.
7. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
8. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
9. ROADS AND FOOTPATH TO BE SWEPT DAILY.
10. CONSTRUCTION VEHICLES ARE TO LEAVE AND ENTER THE SITE OVER AN ALL WEATHER SURFACE CONSISTING OF COURSE CRUSHED STONE OR BLUE METAL CONSTRUCTED WITHIN THE FRONT SETBACK AREA OPPOSITE THE EXISTING FOOTPATH CROSSING UNLESS NOTED OTHERWISE.
11. EXCAVATION MACHINERY ARE TO BE UNLOADED AND LOADED UPON THIS ALL WEATHER SURFACE. CONCRETE PUMPS AND TRUCKS WILL ALSO UTILISE THE ALL WEATHER SURFACE FOR THEIR OPERATIONS.
12. MATERIALS WILL BE UNLOADED UPON THE ALL WEATHER SURFACE WITHIN THE FRONT SETBACK AREA BY MEANS OF CRANES MOUNTED ON THE BACK OF DELIVERY TRUCKS OR UNLOADED BY HAND. A MOBILE CRANE MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS.
13. SOME STOCKPILING OF TOPSOIL REMOVED FROM THE BUILDING AREA MAY BE STORED ON THE SITE DURING THE CONSTRUCTION WITHIN THE PROPERTY IN AN AREA ENCLOSED WITHIN THE SEDIMENT CONTROL FENCING.
14. ALL EXCAVATED & CONSTRUCTION MATERIALS, SHED, SKIP BINS, TEMPORARY WATER CLOSETS, SPOIL AND EQUIPMENT, ETC SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL STAND ON COUNICIL FOOTPATHS FOR LARGE LENGTHS OF TIME.
15. ALL RUBBISH & RECYCLABLE MATERIAL SHALL BE STOCKPILED IN WASTE BINS IN THE AREA NOMINATED ON THE SITE PLAN WITHIN THE SITE BOUNDARY. PUBLIC PROPERTY SHALL BE KEPT FREE OF RUBBISH AND RECYCLABLES AT ALL TIMES ANY WASTE MATERIALS SHALL BE REGULARLY COLLECTED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE FASHION.
16. ANY BUILDING OR DEMOLITION WORKS INVOLVING ASBESTOS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELAVANT STANDARDS.
17. VEHICLES LEAVING THE SITE WILL DO SO VIA THE ALL WEATHER BALLAST DRIVEWAY MADE OF COURSE AGGREGATE OR SIMILLAR LOCATED WITHIN THE FRONT SETBACK AREA OF THE DEVELOPMENT. ANY DIRT OR MATERIAL DEPOSITED ON THE ROAD RESERVE OR ROADWAY IS TO BE PROMPTLY CLEANED.
18. ANY EXCAVATED AREA REQUIRING SUPPORT WILL BE UNDERTAKEN BY THE OWNER USING STRUCTURALLY APPROVED RETAINING STRUCTURES.
19. ADEQUATE SAFETY SIGNAGE MUST BE ERECTED IN A PROMINENT POSITION ON THE WORK SITE, WARNING OF UNAUTHORISED ENTRY TO WORK SITE AND INTENDING DANGERS.
20. SAFETY FENCES SHALL BE PROVIDED AROUND ALL BOUNDARIES UNLESS A CONTINUOUS STRUCTURALLY ADEQUATE FENCE PRESENTLY EXISTS. THE FENCING SHALL BE ADEQUATE TO RESTRICT PUBLIC ACCESS TO THE SITE WHEN BUILDING WORK IS NOT IN PROGRESS OR THE SITE IS UNOCCUPIED.
21. NOISE LEVELS SHALL NOT EXCEED COUNCIL REGULATION LEVELS. BUILDING AND DEMOLITION WORKS SHALL ONLY BE CARRIED OUT BETWEEN HOURS AND DAYS SPECIFIED BY COUNCIL.
22. GEOTEXTILE FABRIC SHALL BE PLACED ON THE INSIDE OF THE SITE FENCING PRIOR TO SITE DISTURBANCE TO PREVENT SEDIMENT WASHING FROM CLEARED AND DISTURBED AREAS OF THE SITE INTO THE STORMWATER SYSTEM. DURING CONSTRUCTION, UNLESS OTHERWSIE NOTED, UNCONTAMINATED RUNOFF FROM CLEARED OR DISTURBED AREAS ARE TO BE DIRECTED TO A TEMPORARY SILT ARRESTOR PIT THAT SHALL BE PROVIDED WITHIN THE SITE AT THE STREET BOUNDARY PROCESSING SITE STORMWATER BEFORE IT IS DISCHARGED TO THE STREET DRAINAGE SYSTEM OR WATERCOURSE.
23. ALL TOP SOIL STRIPPED & STOCKPILED ONSITE IS TO BE BE PLACED IN NOMINATED AREAS ON PLAN OR TO COUNCIL REQUIREMENTS. ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS.
24. ALL SEDIMENT CONTROL STRUCTURES ARE TO BE CONTINUALLY MAINTAINED DURING CONSTRUCTION AND INSPECTED FOR STRUCTURAL DAMAGE AFTER EACH RAINFALL EVENT, WITH TRAPPED SEDIMENT BEING REMOVED TO THE TOPSOIL STOCKPILE.
25. WHERE THERE IS THE POTENTIAL OF SITE EROSION TO PRODUCE EXCESSIVE SEDIMENT RUNOFF, SUITABLE GEOTEXTILE BARRIERS SHALL BE PLACED TO ALLEVIATE THE RISK ACCORDINGLY. BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS. GEOTEXTILE FABRIC LOCATED ON THE INSIDE OF FENCES SHALL ALSO BE UTILISED FOR DUST CONTROL WHERE NECESSARY.

SCHEDULE OF WORKS:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTLILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

EROSION CONTROL NOTES:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
6. CONTRCTOR TO MINIMISE DISTURBED AREAS.
7. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
8. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
9. ROADS AND FOOTPATH TO BE SWEPT DAILY.

INFILTRATION/ABSORPTION TRENCH NOTES (METHOD 1):

1. EXCAVATE THE TRENCH ALONG A LEVEL SITE CONTOUR TO PROVIDE AT LEAST 100mm COVER OVER THE TOP OF THE LINER.
2. THE TRENCH FLOOR SHOULD BE LEVEL, EVENLY RAKED, AND HAVE NO LOW SPOTS WHICH WOULD ALLOW "PONDING".
3. ALLOW AT LEAST 75mm OVERLAP FOR EACH LENGTH OF EVERTRENCH.
4. IDEALLY, THREE SPREADER BARS (OPTIONAL) SHOULD BE FITTED INTO EACH STANDARD EVERTRENCH LINER, THE FIRST 220mm FROM THE INLET END, THEN EQUALLY SPACED ALONG THE EXCAVATION.
5. CUT THE PIPE ENTRY HOLE IN ONE TRENCH LINER END CAP. AN EASYDRAIN™ PIT BOSS MAY BE USED TO ENSURE A SECURE CONNECTION. FIT THE CAPS TO THE LINER AND CONNECT THE PIPING FROM THE SEPTIC TANK OR SULLAGE DISTRIBUTOR.
6. COVER THE EVERTRENCH WITH GEOTEXTILE FABRIC AND PLACE A QUANTITY OF 20–25mm AGGREGATE MATERIAL ALONG THE TRENCH LINER AND AT BOTH ENDS, SO THAT THE TOP OF THE LINER IS JUST COVERED. RAKE LEVEL.
7. LAY GEOTEXTILE OVER THE AGGREGATE FOR THE FULL LENGTH OF THE TRENCH.
8. COVER THE GEOTEXTILE WITH A LAYER OF APPROVED SANDY LOAM AND LEAVE A MOUND FOR NATURAL COMPACTION. TURF MAY BE LAID OVER THE TRENCH AREA. DO NOT COMPACT THE TRENCH AREA OR EXPOSE IT TO TRAFFIC.
9. THESE TRENCHES ARE GENERALLY LIMITED TO SITES WHERE SOIL IS CONSIDERED PERMEABLE ENOUGH TO "SOAK UP" THE EXPECTED AMOUNTS OF WASTE–WATER. THE TRENCH SHOULD BE WIDE ENOUGH TO ACCEPT THE SELECTED EVERTRENCH LINER AND DEEP ENOUGH SO THAT THE TOP OF THE SELECTED LINER IS AT LEAST 100mm BELOW THE SOIL SURFACE LEVEL.
10. TRENCH TO BE HAND DUG AROUND TREE ROOT SYSTEM IN ACCORDANCE WITH ARBORIST AND/OR LOCAL COUNCIL REQUIREMENTS.
11. A GEOTECHNICAL ENGINEERS REPORT OR RECOMMENDATIONS MAY BE REQUIRED FOR AREAS OF LOW SOIL INFILTRATION RATES OR FOR LARGER DEVELOPMENTS. THE ENGINEER SHOULD BE NOTIFIEDDURING CONSTRUCTION AND EXCAVATION OF TRENCHES TO CONFIRM SUITABILITY OF SOILS.
12. WHERE POSSIBLE, INSTALL HIGH LEVEL EMERGENCY OVERFLOW PIPE AND CONNECT TO SITE DRAINAGE SYSTEM OR NEAREST DISCHARGE POINT IN ACCORDANCE WITH AS3500.3.2 AND/OR COUNCIL REQUIREMENTS.
13. DO NOT CONNECT SUB–SOIL DRAINAGE LINES THAT ARE LESS THAN 150mm ABOVE THE SURFACE LEVEL OF THE TRENCH. NOTIFY ENGINEER IF THE DEVELOPMENT HAS LOW LAYING SUB–SOIL DRAINAGE LINES..

TRANSPIRATION/DISPERSION TRENCH NOTES (METHOD 2):

1. EXCAVATE AN AREA 1800mm WIDE AND 300mm DEEP ALONG A LEVEL SITE CONTOUR.
2. EXCAVATE A CENTRAL TRENCH ALONG THE FULL LENGTH OF THE PREPARED AREA FOR THE SELECTED LINER. THE TOP OF THE LINER SHOULD BE LEVEL WITH THE BOTTOM OF THE PREPARED AREA. THE FLOOR SHOULD BE LEVEL, EVENLY RAKED, WITH NO LOW SPOTS.
3. CARRY OUT STEPS 3, 4, 5, 6 & 7 LISTED FOR METHOD 1 (ABSORPTION TRENCH).
4. COVER THE GEOTEXTILE AND FLOOR OF THE WIDER EXCAVATION WITH 100mm OF 10mm AGGREGATE, THEN 100mm OF COARSE SAND, AND FINALLY WITH SANDY LOAM.
5. LEAVE A MOUND FOR NATURAL COMPACTION. TURF MAY BE LAID OVER THE AREA. DO NOT COMPACT THE AREA OR EXPOSE IT TO TRAFFIC.
6. THIS METHOD ARE GENERALLY USED WHERE LOCAL SOIL CONDITIONS CANNOT COPE WITH THE VOLUME OF WASTE–WATER IN THE NORMAL NARROW ABSORPTION TRENCH SYSTEMS. TRANSPIRATION ENCOURAGES TREATED WASTE–WATER TO BE TAKEN UP BY PLANT ROOTS OVER A WIDE AREA, AS WELL AS PERMEATING THE SOIL, OFFERING ADDITIONAL SAFETY FOR SOIL ABSORPTION SYSTEMS. BEDS CONSIST OF STANDARD WIDTH TRENCHES THAT ARE DEEPER THAN NORMAL, WITH THE AREA ABOVE THE SELECTED TRENCH LINER OF MUCH GREATER WIDTH, AND FILLED WITH AGGREGATE TO ALLOW EASIER MOVEMENT OF MOISTURE.

STORMWATER HARVESTING REQUIREMENTS:

1. RTS CIVIL CONSULTING ENGINEERS PTY LTD RECOMMENDS PROVIDING A STORMWATER TANK FOR THE FOLLOWING USAGE:
   a) TO WATER GARDEN AREAS b) CAR WASHING c) BASIX REQUIREMENTS.
2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
3. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4–6mm AND DESIGNED TO BE SELF–CLEANING.
4. IF REQUIRED, FIRST FLUSH DEVICES, OR APPROVED ALTERNATIVES, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT AND RAINWATER HARVESTING NOTES FOR DETAILS.
5. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY MUST BE READ AND COMPLIED WITH ALL REQUIREMENTS.

NOTE:
A DRAINAGE EASEMENT WAS ATTEMPTED TO BE OBTAINED HOWEVER EFFORTS WERE UNSUCCESSFUL. THEREFORE A PUMP–OUT SYSTEM HAS BEEN PROPOSED. FOR FURTHER DETAILS PLEASE SEE RTS CIVIL CONSULTING ENGINEERS DESIGN STATEMENT.

RAINWATER HARVESTING REQUIREMENTS:

1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, HCCRENS WATER SMART PRACTICE NOTE (N).4) AND THE NSW HEALTH REQUIRMENTS FOR NON DRINKING USE ONLY AS FOLLOWS:
   a) TO WATER GARDEN AREAS b) CAR WASHING c) BASIX REQUIREMENTS.
2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
3. REFERENCES: COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS".
4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au OR FROM LOCAL COUNCIL GUIDLINES.
5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX–DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES AND AS3500.1.
6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.
7. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4–6mm AND DESIGNED TO BE SELF–CLEANING.
8. FIRST FLUSH DEVICES, OR APPROVED ALTERATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS. THIS SHOULD CATER FOR THE FIRST 1mm OF RAINFALL.
9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.
10. PRE–STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.
11. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230–200B
12. BUILDER OR PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK – HB 230–2008. IF IN DOUBT CONTACT ENGINEER.
13. NOISE EMISSIONS FROM ANY PUMPS DO NOT EXCEED 5dB(A) ABOVE AMBIENT BACKGROUND NOISE LEVEL MEASURED AT THE ALLOTMENT BOUNDARY.
14. AT THE COMPLETION OF THE WATER SERVICE INSTALLATION AND PRIOR TO HYDROSTATIC TESTING, THE SYSTEM SHALL BE THOROUGHLY FLUSHED TO REMOVE ANY FOREIGN MATTER. THE FLUSHING SHALL BE UNDERTAKEN IN ACCORDANCE WITH AS3500.1:2003 REQUIREMENTS – APPENDIX I, PARAGRAPH I3 AND CONTINUE UNTIL THE FLUSHED WATER RUNS COMPLETELY CLEAR. THE SYSTEM SHALL THEN BE PRESSURE TESTED IN ACCORDANCE WITH CLAUSE 16.3.1.
15. AT THE COMPLETION OF THE WATER SERVICE INSTALLATION THE RAINWATER STORAGE TANKS ARE TO BE TESTED IN ACCORDANCE WITH SECTION 16 OF AS3500.1:2003.

STORMWATER PUMP–OUT AND 'WET WELL' NOTES:

1. PUMPED SYSTEMS ARE FOR AREAS NORMALLY LESS THAN 2,000m2 WHERE IT IS NOT POSSIBLE FOR THE STORMWATER TO BE DISCHARGED BY GRAVITY THROUGH THE AVAILABLE GRAVITATIONAL POINT OF CONNECTION. ALL WORKS ARE TO BE IN ACCORDANCE WITH AS3500.3:2018 – PLUMBING AND DRAINAGE: STORMWATER DRAINAGE – SECTION 9 – PUMPED SYSTEMS.
2. TO ENSURE THAT SEEPAGE WATER IS NOT BEING PUMPED CONTINUALLY OUT TO THE STREET, THE PUMPS IN THE BASEMENT OR LOWER LEVEL OF PROPERTY SHALL BE ADJUSTED TO PERMIT STORAGE IN THE SYSTEM PRIOR TO THE PUMPS SWITCHING ON (REFER DETAILS FOR STORAGE VOLUME AND LEVELS). THE PUMPS SHOULD THEN DISCHARGE ALL WATER SO THAT ONLY MINIMAL WATER REMAINS OVER THE PUMP INTAKE, AS REQUIRED BY THE MANUFACTURER.
3. THE PUMPS SHALL OPERATE ALTERNATELY TO LEVELS INDICATED ON THE SUPPLIED ENGINEERING DETAILS WITH BOTH PUMPS OPERATING IN UNISON AT THE LEVELS INDICATED (SYSTEM TO BE FITTED WITH ALARM SYSTEM - BY OTHERS). THE SECOND PUMP WILL BEING TO OPERATE IF THE WATER LEVEL CONTINUES TO RISE ABOVE THE MAXIMUM WATER LEVEL AFTER THE FIRST PUMP HAS COME ON. SIGNAGE IS TO BE DISPLAYED WITHIN THE LOW AREA OF THE BASEMENT INDICATING PERMIT ADDITIONAL STORAGE VOLUME IS EXPECTED (UP TO 200mm IN DEPTH) DURING A MAJOR STORM EVENT.
4. THE REQUIRED PUMPING RATE SHALL BE CALCULATED BASED ON AN ASSESSMENT OF THE EXPECTED INFLOW AND, WHERE APPROPRIATE, THE ALLOWABLE DISCHARGE RATE. HOWEVER, UNLESS NOTED OTHERWISE, THE MINIMUM PUMP CAPACITY OF A BASEMENT (BELOWGROUND) SYSTEM SHOULD NOT BE LESS THAN 10 L/s.
5. PUMPS SHALL BE IN DUPLICATE. THE MAXIMUM CAPACITY OF EACH PUMP SHALL BE SELECTED SO THAT THE CAPACITY OF THE SYSTEM RECEIVING THE DISCHARGE IS NOT EXCEEDED. THE PUMP CONTROLS SHALL BE SET UP TO ENABLE ALTERNATE PUMP OPERATION AT EACH START. IN THE EVENT THAT A PUMP FAILS TO OPERATE WHEN THE WATER LEVEL IN THE WET WELL REACHES THE PUMP START, THE OTHER PUMP SHALL BE ACTIVATED AND A VISIBLE ALARM INITIATED. IF BOTH PUMPS FAIL TO OPERATE AN AUDIBLE ALARM SHALL BE INITIATED IN ACCORDANCE WITH SECTION 8.3.7 OF AS3500.3:2018. LOCATE HIGH AND LOW LEVEL ALARMS CLEAR OF INLETS TO PREVENT FALSE ALARMS. THE HIGH LEVEL ALARM SHOULD BE SET NO HIGHER THAN 100 MM ABOVE THE INVERT OF THE INLET PIPE, PROVIDED THAT FLOODING OF HABITABLE OR STORAGE AREAS AND VEHICLE GARAGES SHALL BE AVOIDED. WHERE FLOODING COULD OCCUR THE OVERFLOW AND HIGH–LEVEL ALARM SHALL BE LOWERED ACCORDINGLY TO PREVENT FLOODING.
6. THE MINIMUM WET WELL STORAGE BETWEEN THE HIGH AND LOW WORKING LEVELS EXPRESSED IN CUBIC METRES SHALL BE 1% OF THE CATCHMENT AREA IN m2 BUT IN ANY CASE SHALL NOT BE LESS THAN 3 m3, OR AS OTHERWISE DIRECTED OR APPROVED BY THE AUTHORITY HAVING JURISDICTION.
7. THE CAPACITY OF THE PUMPED SYSTEM (WET WELL) SHALL BE ACHIEVED BY A COMBINATION OF PUMP CAPACITY AND WET WELL STORAGE BETWEEN THE HIGH AND LOW WORKING LEVELS OF THE WET WELL. THE COMBINED EFFECTIVE STORAGE COMPRISING THE VOLUME ABLE TO BE PUMPED IN 30 MIN PLUS THE WET WELL STORAGE SHALL NOT BE LESS THAN THE VOLUME OF THE RUN–OFF FROM THE STORM OF ARI = 10 YEARS AND DURATION OF 120 MIN, OR AS OTHERWISE DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
8. PUMPING EQUIPMENT SHALL BE SECURELY FIXED TO THE WET WELL USING CORROSION RESISTANT FIXINGS.
9. PUMPS SHALL BE FITTED WITH A GATE VALVE AND NON–RETURN VALVE ON THE DELIVERY SIDE OF EACH PUMP.
10. PUMPS SHALL HAVE FLANGES OR UNIONS INSTALLED TO FACILITATE REMOVAL.
11. PUMPS SHALL BE CONTROLLED SO AS TO LIMIT THE NUMBER OF STARTS PER HOUR TO WITHIN THE CAPACITY OF THE ELECTRICAL MOTORS AND EQUIPMENT, AND SHALL, AS FAR AS PRACTICABLE, EMPTY THE CONTENTS OF THE WET WELL AT EACH OPERATION.
12. PUMPS ARE TO OPERATE ONLY DURING HOURS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION.
13. VALUE OF HEAD IS TO BE CONFIRMED ONCE EXCAVATION COMPLETE AND PRIOR TO ORDERING PUMPS AND EQUIPMENT.
14. PUMP SPECIFICATIONS AND PRESSUE PIPE DIAMETER ARE TO BE DETERMINED BY THE PUMP MANUFACTURER.
15. PROVIDE LITTER SCREEN ABOVE PUMP SET.
16. ALL ELECTRICAL MOTORS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH AS3000.

STORMWATER DRAINAGE NOTES:

1. ALL PIPES TO BE 100mm ø UNLESS NOTED OTHERWISE.
2. ALL PIPES TO BE uPVC TO AS 1254–2002 UNLESS NOTED OTHERWISE.
3. ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
4. ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS. (NO COMPACTION REQUIRED BELOW LANDSCAPING). COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM. BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
5. ALL DOWN PIPES TO BE 100mm ø UNLESS NOTED OTHERWISE.
6. DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
7. PROVIDE CLEANING EYES AT ALL DOWNPIPES.
8. ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 1 N12 TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 1000 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH N12 AT 250 EACH WAY UNLESS NOTED OTHERWISE.
9. ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
10. ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
11. PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
12. ALL LEVELS SHOWN ARE TO AHD UNLESS NOTED OTHERWISE.
13. ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
14. ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
15. ALL WORKS TO BE IN ACCORDANCE WITH AS 3500.3:2018 NATIONAL PLUMBING DRAINAGE CODE PART 3 – STORMWATER DRAINAGE.
16. UNLESS NOTED OTHERWISE, SUB–SOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.
17. IF NOT INDICATED ON PLANS, PROVIDE LEAF CATCHERS TO ALL DOWNPIPES.
18. ORIFICE PLATE MUST BE INSTALLED PRIOR TO INSTALLATION OF THE ROOF DRAINAGE SYSTEM AND CONNECTION OF THE SITE STORMWATER SYSTEM TO THE ONSITE DETENTION TANK.
19. EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED IN ACCORDANCE WITH AS 3500.3:2018.
20. CARE SHOULD BE TAKEN WHEN UNDERTAKING WORKS IN THE VICINITY OF SELECTED TREES NOT TO DISTURB THE TREE ROOT SYSTEM. HAND DIGGING OF TRENCHES MAY BE NECESSARY. REFER ARBORISTS REPORT WHERE REQUIRED.
21. CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF ANY POTENTIAL CLASHES WITH THE PROPOSED DRAINAGE EASEMENT PIPE LINE.
22. ALL SUB–SOIL DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH THE STRUCTURAL AND GEOTECHNICAL REQUIREMENTS, AUSTRALIAN STANDARDS AS 3500.3:2018 AND IS TO BE DIRECTED TO THE SITE DRAINAGE SYSTEM BY MEANS OF GRAVITY DISCHARGE ONLY. DO NOT CONNECT SUB–SOIL PIPES TO AREAS WITH HIGHER SURFACE LEVELS U.N.O..
23. ALL PIPES SHOWN ARE INDICATIVE ONLY AND MINIMUM CLEARANCES FROM THE EXTERNAL WALLS OF BUILDINGS, FOR THE EXCAVATION OF TRENCHES, ARE TO BE PROVIDED IN ACCORDANCE WITH AS 3500.3:2018.
24. ANY COMPONENTS OF THE EXISTING SYSTEM PROPOSED TO BE RETAINED ARE TO BE CERTIFIED DURING CONSTRUCTION TO BE IN GOOD CONDITION AND OF ADEQUATE CAPACITY TO CONVEY ADDITIONAL RUNOFF AND BE REPLACED OR UPGRADED IF REQUIRED.
25. ANY CHARGED PIPES MUST BE A MINIMUM OF 100mm (UNLESS NOTED OTHERWSIE) WITH ALL JOINTS MUST BE SOLVENT WELDED. A CLEANING EYE, OR FLUSH OUT POINT, MUST BE PROVIDED AT THE LOW POINT IN THE SYSTEM WITHIN A PIT THAT CAN BE DRAINED TO AN ONSITE DISPERSAL SYSTEM.
26. PROVISION IS TO BE MADE FOR THE COLLECTION AND DISPOSAL IN AN APPROVED MANNER OF ANY OVERLAND FLOW OR SUB–SURFACE FLOW ENTERING THE SUBJECT PROPERTY, OR CONCENTRATED AS A RESULT OF THE PROPOSED WORKS. ANY REDIRECTION OR TREATMENT OF FLOWS ENTERING THE PROPERTY SHALL NOT ADVERSELY AFFECT ANY OTHER PROPERTIES.
27. PREVENT ANY STORMWATER EGRESS INTO ADJACENT PROPERTIES BY CREATING PHYSICAL BARRIERS AND SURFACE DRAINAGE INTERCEPTION.
28. GUTTER GUARDS MUST BE INSTALLED ON ALL GUTTERS TO MINIMISE DEBRIS ENTERING THE SYSTEM.
29. ALL SUB–SOIL DRAINAGES, STRIP DRAINS AND DRAINAGE PITS SHALL DISCHARGE TO THE ESTABLISHED SITE DISCHARGE POINT U.N.O AND BE CONSTRUCTED IN ACCORDANCE WITH AS3500.3:2018 REQUIREMENTS.
30. OVERFLOW PATHS SHALL BE PROVIDED TO ALLOW FOR FLOWS IN EXCESS OF THE CAPACITY OF THE PIPE/DRAINAGE SYSTEM DRAINING THE SITE.
31. WHERE ANY NEW STORMWATER DRAINAGE SYSTEM CROSSES THE FOOTPATH AREA WITHIN ANY ROAD, SEPERATE APPROVAL UNDER SECTION 138 OF THE ROAD ACT 1993 MUST BE OBTAINED FROM COUNCIL FOR THOSE WORKS PRIOR TO THE ISSUE OF ANY CONSTRUCTION CERTIFICATE.
32. CONCEALED DOWNPIPES MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.5.6 OF AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS. BUILDER TO ENSURE LOCATIONS DO NOT RESTRICT NORMAL OPERATION OF DOORS, WINDOWS, ACCESS OPENINGS OR OCCUPANCY OF A BUILDING, DO NOT CAUSE NUISANCE OR LEAD TO INJURY OF A PERSON, DO NOT INTERFERE WITH THE STRUCTURAL INTEGRITY OF THE WALL OR COLUMN, AS CLOSE AS PRACTICABLE TO THE SUPPORTING STRUCTURE, ARE PROTECTED FROM MECHANICAL DAMAGE, AT LEAST 100mm CLEAR OF ANY ELECTRICAL CABLE OR GAS PIPE, AT LEAST 50mm FROM ANY OTHER PIPEWORK OR SERVICE. CONCEALED DOWNPIPES TO HAVE INSPECTION OPENINGS THAT EXTEND TO THE FACE OF THE WALL OR SLAB FOR MAINTENANCE. SEAMS AND JOINTS TO BE WATERTIGHT. IF INSPECTION OPENINGS ARE REQUIRED FOR TESTING AND MAINTENANCE PURPOSES, INSPECTION OPENINGS SHALL HAVE A NOMINAL SIZE OF NOT LESS THAT THE NOMINAL DIAMETER OF THE DOWNPIPE.
33. WHERE A DOWNPIPE IS CONNECTED TO A SITE STORMWATER DRAIN LOCATED BELOW A SLAB–ON–GROUND, THE CONNECTION OF A CONCEALED DOWNPIPE SHALL BE LOCATED ABOVE THE LEVEL OF THE FLOOR.
34. SUPPORT SYSTEMS OF DOWNPIPES OR PIPEWORK MUST BE INSTALLED IN ACCORDANCE AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS.
35. FOR CONCEALED EAVES GUTTERS, U.N.O THE TOP EDGE OF THE FASCIA SHOULD NOT BE LESS THAN 25mm BELOW THE TOP OF THE BACK OF THE GUTTER, OR INTEGRAL FLASHING (TAIL) WITH THE TOP EDGE OF THE FLASHING NOT LESS THAN 25mm ABOVE THE TOP OF THE FASCIA.
36. THE FOLLOWING ABBREVIATIONS DENOTE:
FSL – FINISHED SURFACE LEVEL OR RL – REDUCED LEVEL
IL – INVERT LEVEL OF PIPE
INV. – INVERT LEVEL OF PIT
CL – CENTRELINE OF ORIFICE
TWL – TOP WATER LEVEL

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3:2018 – TABLE 7.5.2.1

DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000

LEGEND

STORMWATER PIT
NEW STORMWATER PIPE
STORMWATER PIPE FLOW DIRECTION
EXISTING STORMWATER PIPE
FLUSH–OUT LINE
BOUNDARY LINE

DP1 100ø DENOTES DOWNPIPE
DENOTES SIZE OF DOWNPIPE

DP1	100mmø ROOFWATER DOWNPIPE TO RWT
DP2	100mmø BALCONY RUNOFF DOWNPIPE TO OSD/PP2
DP3	100mmø DOWNPIPE TO RWT
DP4	100mmø DOWNPIPE TO BOUNDARY PIT
GD1	150mm BALCONY OR PATH GRATED DRAIN TO ARCHITECTS DETAILS
GD2	150mm DRIVEWAY GRATED DRAIN TO ARCHITECTS DETAILS
FD1	200mm x 200mm PLANTER FLOOR DRAIN TO OSD/PP2
FD2	200mm x 200mm PLANTER FLOOR DRAIN TO BOUNDARY PIT
EG1	EAVES GUTTER TO ARCHITECTS DETAIL TO RWT
DT1	4.0m MIN. LONG DISPERSION TRENCH
RWO	200mm x 200mm OR 200mmø MIN. ROOF RAINWATER OUTLET
DR1	POSSIBLE PERIMETER BASEMENT DRAIN TO STRUCTURAL DETAILS
AH1–AH3	600mm x 900mm MIN. GRATED ACCESS HATCH
AH4–AH5	600mm x 600mm MIN. GRATED ACCESS HATCH
PP1	4,000L PUMP–OUT TANK FOR LOWER BASEMENT
OSD/PP2	17,500L ONSITE SITE STOMWATER DETENTION & PUMP–OUT TANK
RWT	6,000L RAINWATER HARVESTING TANK TO BASIX REQUIREMENTS

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	16.03.22	AMENDED AS PER S.34 REVIEW	R.M
B	13.05.21	UPDATED WITH NEW ARCHITECTS PLANS & COUNCIL RFI	R.M
A	17.12.20	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: SECTION 34
Approved by:
Date : 16.03.22
Rhys Mikhail ....
Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
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Title:	Initial:	Date:
DESIGN	R.M	19.10.2020
DRAWN	S.M	19.10.2020
CHECKED	R.M	03.12.2020
APPROVED	R.M	03.12.2020

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Architect: MHNDUNION
Client: D. MEGUIDECHE

Project and Drawing Title:
34 MILITARY ROAD, NORTH BONDI
COVERPAGE, NOTES & CALCULATIONS CONT.

Local Council: WAVERLY COUNCIL
Project Number: 200807
Drawing ID: CP101
Issue: C

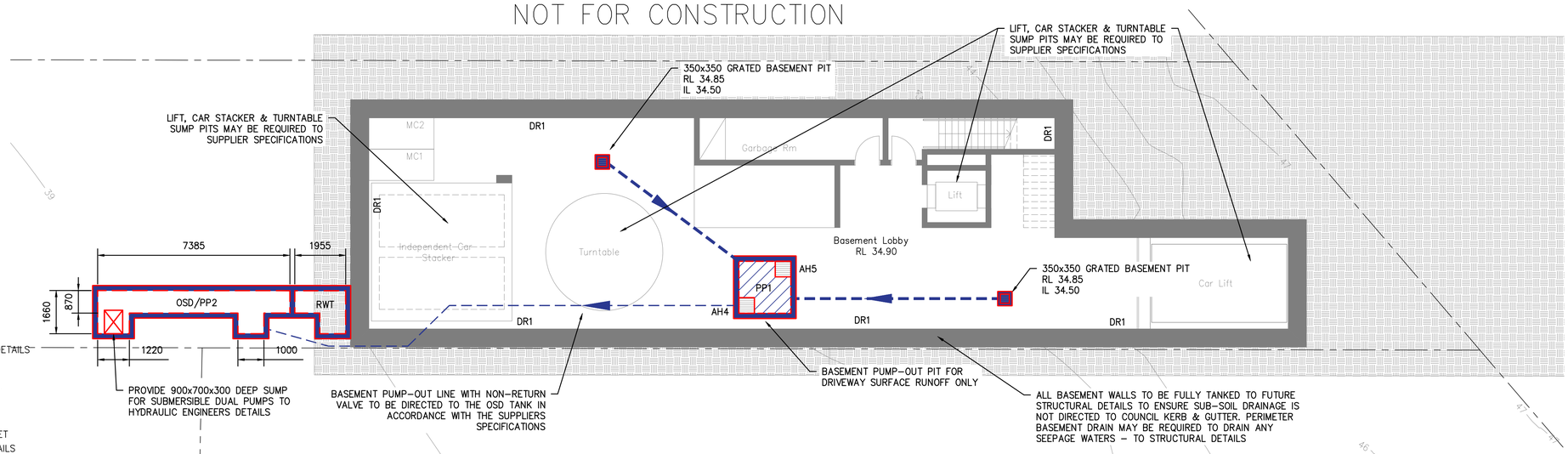
NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

LEGEND

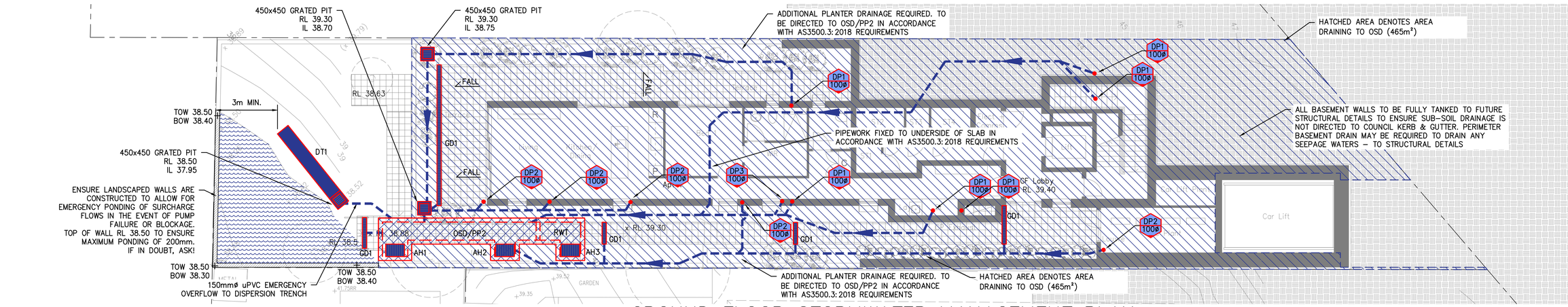
- STORMWATER PIT
- NEW STORMWATER PIPE
- STORMWATER PIPE FLOW DIRECTION
- EXISTING STORMWATER PIPE
- FLUSH–OUT LINE
- BOUNDARY LINE

DP1 100ø	DENOTES DOWNPIPE
	DENOTES SIZE OF DOWNPIPE
DP1	100mmø ROOFWATER DOWNPIPE TO RWT
DP2	100mmø BALCONY RUNOFF DOWNPIPE TO OSD/PP2
DP3	100mmø DOWNPIPE TO RWT
DP4	100mmø DOWNPIPE TO BOUNDARY PIT
GD1	150mm BALCONY OR PATH GRATED DRAIN TO ARCHITECTS DETAILS
GD2	150mm DRIVEWAY GRATED DRAIN TO ARCHITECTS DETAILS
FD1	200mm x 200mm PLANTER FLOOR DRAIN TO OSD/PP2
FD2	200mm x 200mm PLANTER FLOOR DRAIN TO BOUNDARY PIT
EG1	EAVES GUTTER TO ARCHITECTS DETAIL TO RWT
DT1	4.0m MIN. LONG DISPERSION TRENCH
RW0	200mm x 200mm OR 200mmø MIN. ROOF RAINWATER OUTLET
DR1	POSSIBLE PERIMETER BASEMENT DRAIN TO STRUCTURAL DETAILS
AH1–AH3	600mm x 900mm MIN. GRATED ACCESS HATCH
AH4–AH5	600mm x 600mm MIN. GRATED ACCESS HATCH
PP1	4,000L PUMP–OUT TANK FOR LOWER BASEMENT
OSD/PP2	17,500L ONSITE SITE STOMWATER DETENTION & PUMP–OUT TANK
RWT	6,000L RAINWATER HARVESTING TANK TO BASIX REQUIREMENTS



BASEMENT STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100



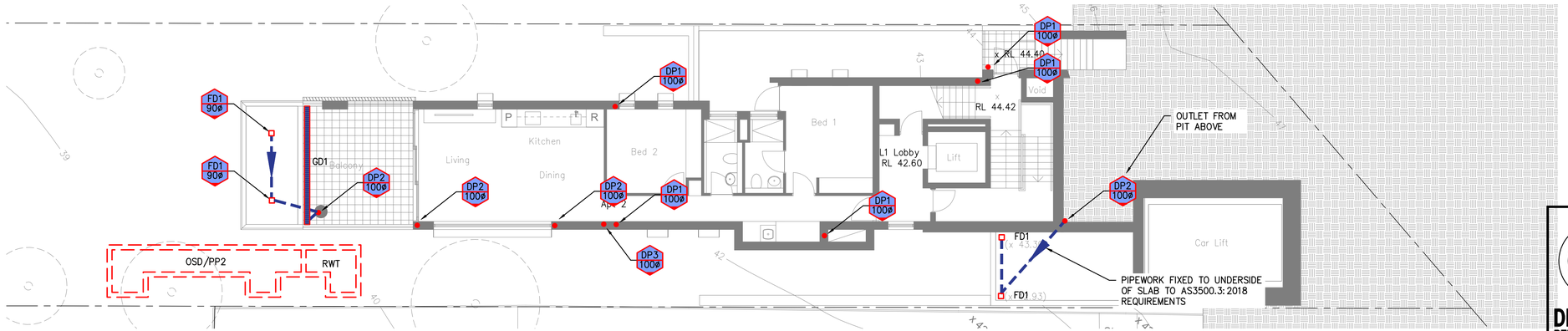
GROUND FLOOR STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3: 2018 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000

NOTE:
A DRAINAGE EASEMENT WAS ATTEMPTED TO BE OBTAINED HOWEVER EFFORTS WERE UNSUCCESSFUL. THEREFORE A PUMP–OUT SYSTEM HAS BEEN PROPOSED. FOR FURTHER DETAILS PLEASE SEE RTS CIVIL CONSULTING ENGINEERS DESIGN STATEMENT.

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.



LEVEL 1 STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	16.03.22	AMENDED AS PER S.34 REVIEW	R.M
B	13.05.21	UPDATED WITH NEW ARCHITECTS PLANS & COUNCIL RFI	R.M
A	17.12.20	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: SECTION 34

Approved by:

Date : 16.03.22

Rhys Mikhail

Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	19.10.2020
DRAWN	S.M	19.10.2020
CHECKED	R.M	03.12.2020
APPROVED	R.M	03.12.2020

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Architect: MHNDUNION

Client: D. MEGUIDECHE

Project and Drawing Title: 34 MILITARY ROAD, NORTH BONDI BASEMENT, GROUND & LEVEL 1 STORMWATER MANAGEMENT PLAN

Local Council: WAVERLY COUNCIL

Project Number:	Drawing ID:	Issue:
200807	SW100	C

NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

LEGEND

	STORMWATER PIT
	NEW STORMWATER PIPE
	STORMWATER PIPE FLOW DIRECTION
	EXISTING STORMWATER PIPE
	FLUSH–OUT LINE
	BOUNDARY LINE
DP1 100ø	DENOTES DOWNPIPE
	DENOTES SIZE OF DOWNPIPE
DP1	100mmø ROOFWATER DOWNPIPE TO RWT
DP2	100mmø BALCONY RUNOFF DOWNPIPE TO OSD/PP2
DP3	100mmø DOWNPIPE TO RWT
DP4	100mmø DOWNPIPE TO BOUNDARY PIT
GD1	150mm BALCONY OR PATH GRATED DRAIN TO ARCHITECTS DETAILS
GD2	150mm DRIVEWAY GRATED DRAIN TO ARCHITECTS DETAILS
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EG1	EAVES GUTTER TO ARCHITECTS DETAIL TO RWT
DT1	4.0m MIN. LONG DISPERSION TRENCH
RWO	200mm x 200mm OR 200mmø MIN. ROOF RAINWATER OUTLET
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PP1	4,000L PUMP–OUT TANK FOR LOWER BASEMENT
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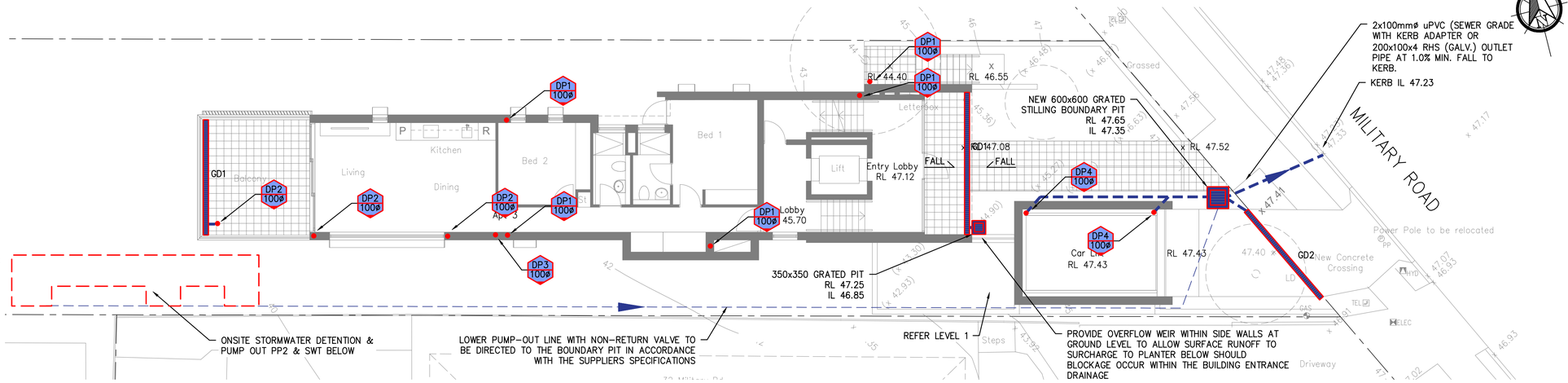
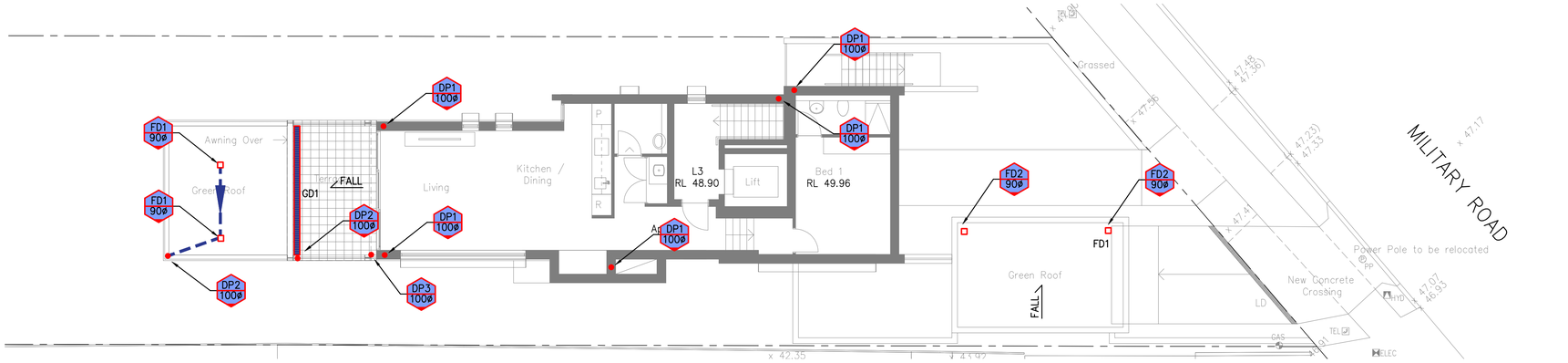


LEVEL 2 STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

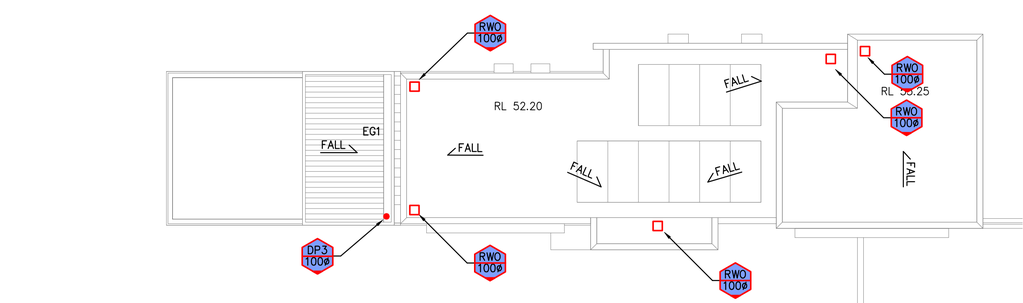
NOTE:
A DRAINAGE EASEMENT WAS ATTEMPTED TO BE OBTAINED HOWEVER EFFORTS WERE UNSUCCESSFUL. THEREFORE A PUMP–OUT SYSTEM HAS BEEN PROPOSED. FOR FURTHER DETAILS PLEASE SEE RTS CIVIL CONSULTING ENGINEERS DESIGN STATEMENT.



LEVEL 3 STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3: 2018 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000



ROOF STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

NOTE:
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DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	16.03.22	AMENDED AS PER S.34 REVIEW	R.M
B	13.05.21	UPDATED WITH NEW ARCHITECTS PLANS & COUNCIL RFI	R.M
A	17.12.20	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: SECTION 34

Approved by:

Date : 16.03.22

Rhys Mikhail

Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	19.10.2020
DRAWN	S.M	19.10.2020
CHECKED	R.M	03.12.2020
APPROVED	R.M	03.12.2020

RTS CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au

Architect: MHNDUNION

Client: D. MEGUIDECHE

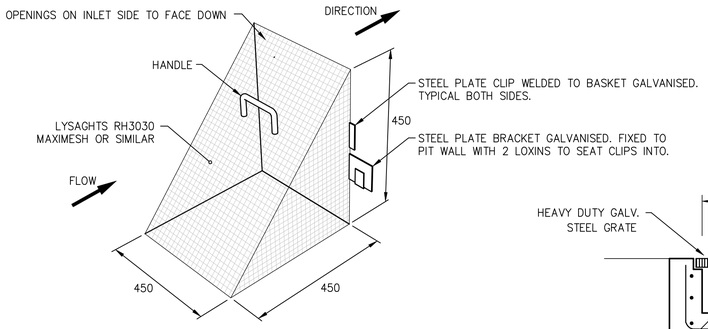
Project and Drawing Title: 34 MILITARY ROAD, NORTH BONDI
LEVEL 2, LEVEL 3 & ROOF
STORMWATER MANAGEMENT PLAN

Local Council: WAVERLY COUNCIL

Project Number:	Drawing ID:	Issue:
200807	SW101	C

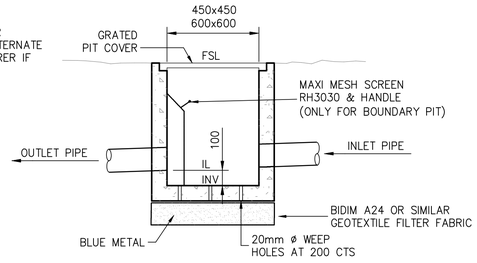
NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

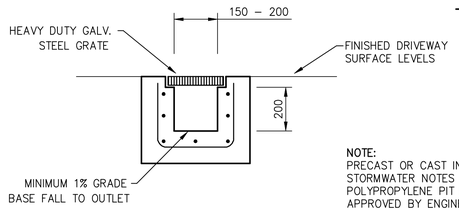


MAXI MESH SCREEN DETAIL
SCALE = N.T.S.

NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

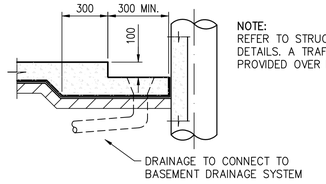


TYPICAL PIT DETAIL
SCALE = 1 : 20



TYPICAL DRIVEWAY GRATED DRAIN (GD2)
SCALE = 1 : 20

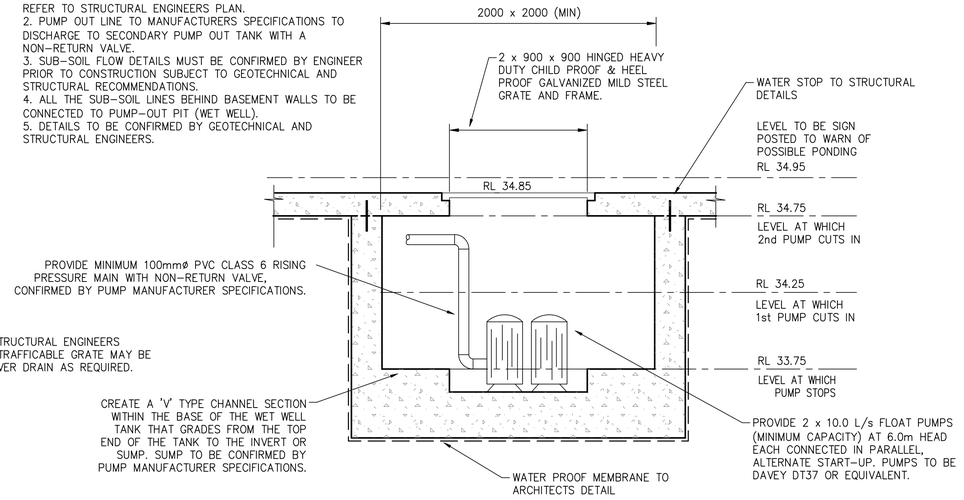
NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER



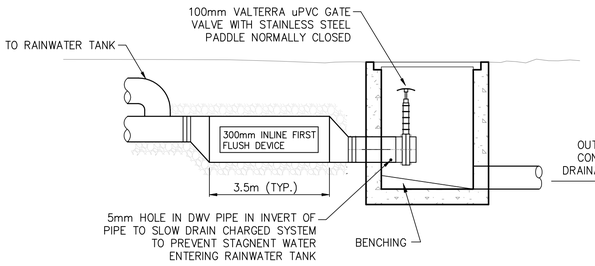
NOTE:
REFER TO STRUCTURAL ENGINEERS DETAILS. A TRAFFICABLE GRATE MAY BE PROVIDED OVER DRAIN AS REQUIRED.

BASEMENT DRAIN (DR1) DETAIL
SCALE = 1 : 20

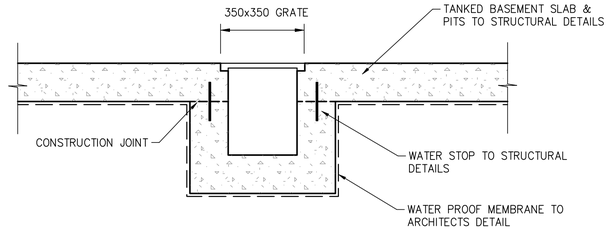
NOTE:
1. WET–WELL STRUCTURE TO STRUCTURAL ENGINEERS DETAILS. REFER TO STRUCTURAL ENGINEERS PLAN.
2. PUMP OUT LINE TO MANUFACTURERS SPECIFICATIONS TO DISCHARGE TO SECONDARY PUMP OUT TANK WITH A NON–RETURN VALVE.
3. SUB–SOIL FLOW DETAILS MUST BE CONFIRMED BY ENGINEER PRIOR TO CONSTRUCTION SUBJECT TO GEOTECHNICAL AND STRUCTURAL RECOMMENDATIONS.
4. ALL THE SUB–SOIL LINES BEHIND BASEMENT WALLS TO BE CONNECTED TO PUMP–OUT PIT (WET WELL).
5. DETAILS TO BE CONFIRMED BY GEOTECHNICAL AND STRUCTURAL ENGINEERS.



BASEMENT WET WELL (PUMP–OUT TANK) DETAIL
SCALE = 1 : 20



OUTLET PIPE CONNECT TO DRAINAGE SYSTEM



FIRST FLUSH DETAIL – INGROUND
SCALE = 1 : 20

NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

NOTE:
THIS CAN BE ANY TYPICAL PIT PROVIDED OR IF NEEDED TO BE FITTED AT LOW POINT OF SITE AND THERE IS NO ADEQUATE DISCHARGE POINT NEARBY, PROVIDE 300mm SUMP. CONTACT ENGINEER IF IN DOUBT.

NOTE:
A DRAINAGE EASEMENT WAS ATTEMPTED TO BE OBTAINED HOWEVER EFFORTS WERE UNSUCCESSFUL. THEREFORE A PUMP–OUT SYSTEM HAS BEEN PROPOSED. FOR FURTHER DETAILS PLEASE SEE RTS CIVIL CONSULTING ENGINEERS DESIGN STATEMENT.

NOTE:
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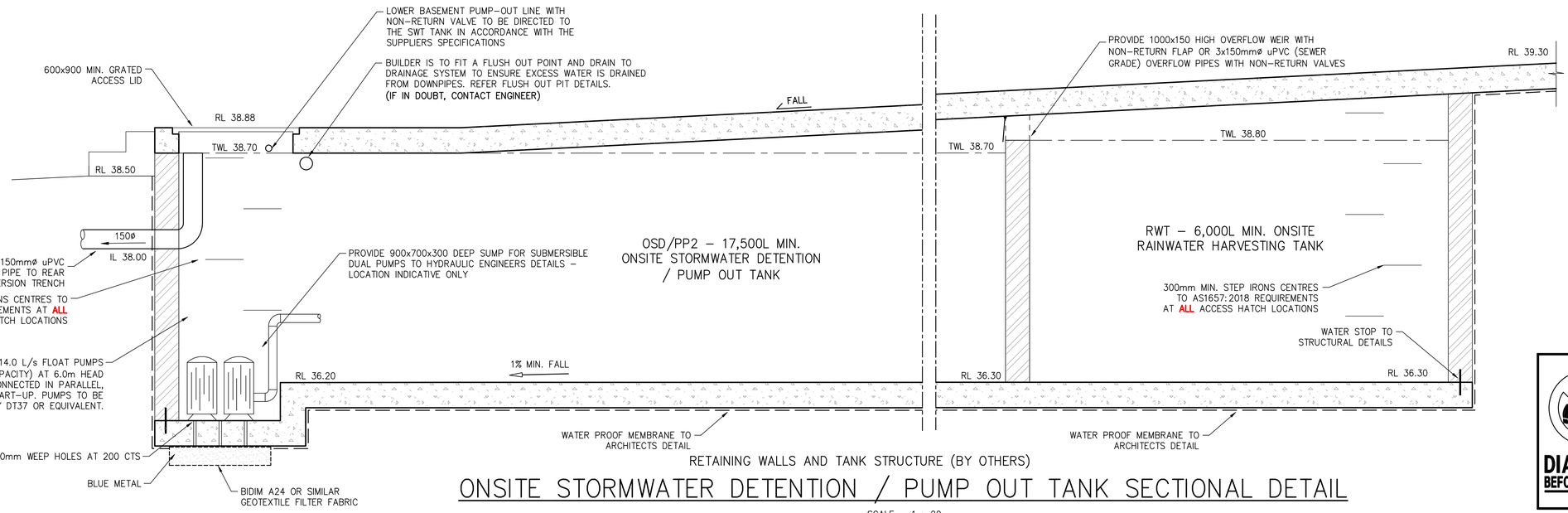
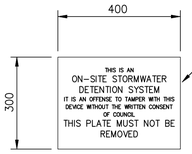
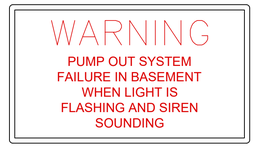
BASEMENT SLAB PIT DETAIL (TANKED BASEMENT)
SCALE = 1:20



ONSITE STORMWATER DETENTION / PUMP OUT TANK SECTIONAL DETAIL
SCALE = 1 : 20



ORIFICE PLATE WARNING SIGN
SCALE = N.T.S.



TYPICAL TANK SIGNAGE
N.T.S

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

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Issued for: SECTION 34

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RTS CIVIL CONSULTING ENGINEERS
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ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au

Architect: MHNDUNION

Client: D. MEGUIDECHE

Project and Drawing Title:
34 MILITARY ROAD, NORTH BONDI
STORMWATER DRAINAGE DETAILS

Local Council: WAVERLY COUNCIL

Project Number:	Drawing ID:	Issue:
200807	SW200	C

NOTES:
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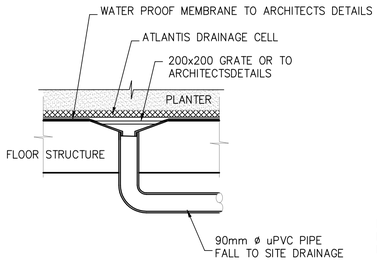
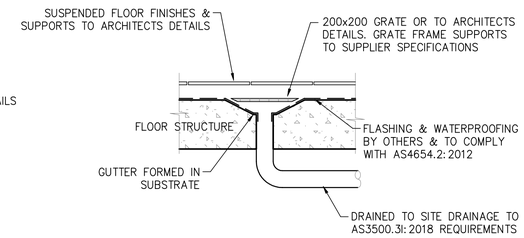
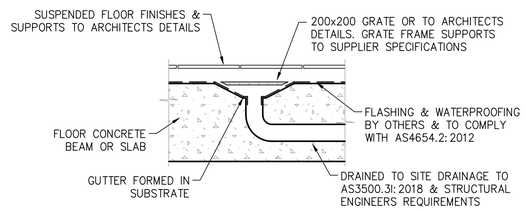


STANDARD FLOOR DRAIN
SCALE = 1 : 20

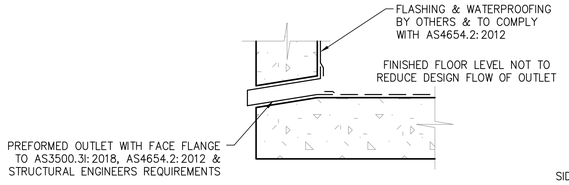


STANDARD FLOOR DRAIN (OPTION FOR BALCONIES ONLY)
SCALE = 1 : 20

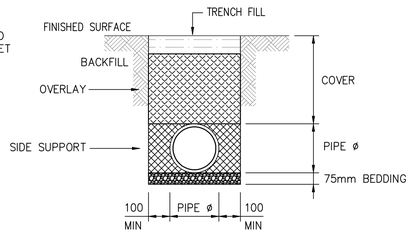
NOTE:
FLOOR DRAINS TO BE INSTALLED WITHIN ALL PLANTERS AND PATIOS TO ARCHITECTS DETAILS AND AS3500.3 REQUIREMENTS. FLOOR DRAINS ARE TO DRAIN BY GRAVITY TO THE NEAREST DRAINAGE STRUCTURE AND MUST BE LOCATED AT LEAST 500mm ABOVE CONNECTION POINT. BALCONY HOB TO ARCHITECT DETAILS. ENSURE ALL BALCONIES ARE FITTED WITH 2 x 50mmø SPITTER PIPES TO ACT AS OVERFLOW POINT IN ACCORDANCE WITH AS4564.2:2012 REQUIREMENTS.
IF IN DOUBT, CONTACT THE ENGINEER.



STANDARD FLOOR PATIO DRAIN
SCALE = 1 : 20

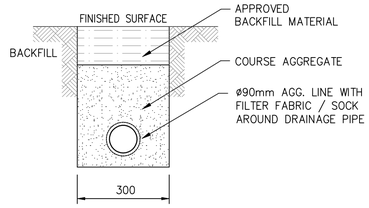


PREFORMED OUTLET TO PARAPET OR BALCONY OVERFLOW
NOT TO SCALE

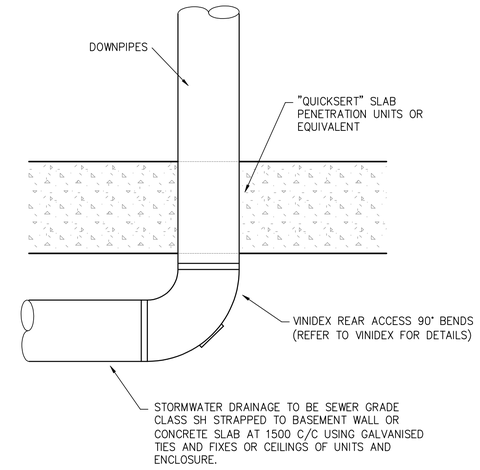


TYPICAL uPVC PIPE TRENCH DETAIL
SCALE = N.T.S.

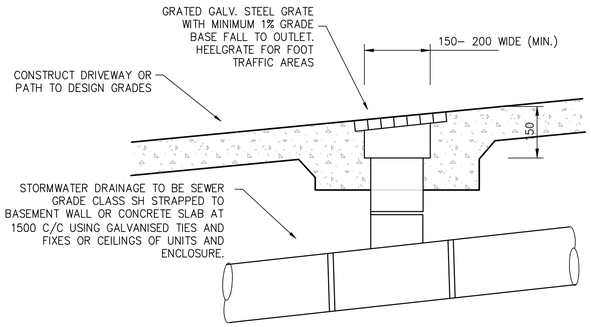
NOTE – STANDARD uPVC PIPE TRENCH:
SUITABLE BEDDING TO AS2032:
1. SAND FREE FROM ROCK OR OTHER HARD AND SHARP OBJECTS THAT WOULD BE RETAINED ON 13.2 SIEVE.
2. CRUSHED ROCK OR GRAVEL OF APPROVED GRADING UP TO MAXIMUM SIZE OF 14mm.
3. THE EXCAVATED MATERIAL MAY BE USED IF IT IS FREE FROM ROCK OR HARD MATTER AND BROKEN UP SO THAT IT CONTAINS NO SOIL LUMPS HAVING ANY DIMENSIONS GREATER THAN 75mm WHICH WOULD PREVENT ADEQUATE COMPACTION OF THE BEDDING.
SIDE SUPPORT: MATERIAL FOR PIPE SUPPORT SHOULD BE ADEQUATELY TAMPED IN LAYERS OF NOT MORE THAN 150mm.
OVERLAY: PIPE OVERLAY MATERIAL SHOULD BE LEVELED AND TAMPED IN LAYERS TO A MINIMUM HEIGHT OF 150mm ABOVE THE CROWN OF PIPE.
COVER: FOR MIN COVER REFER TO AS3500.3: 2018.



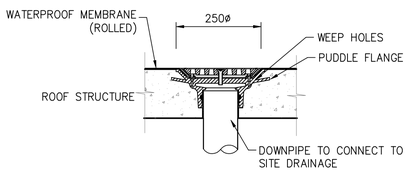
TYPICAL SUB–SOIL TRENCH DETAIL
SCALE = N.T.S.



DOWNPIPE PENETRATION THROUGH SLAB DETAIL
NOT TO SCALE

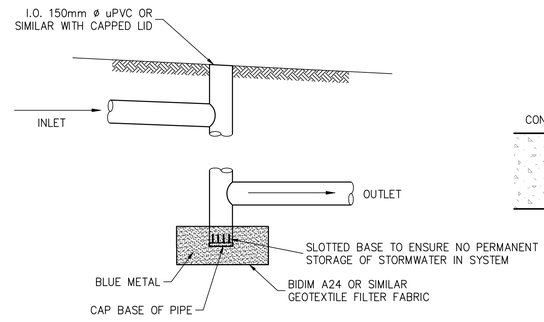


GRATED DRAIN DETAIL (GD)
NOT TO SCALE

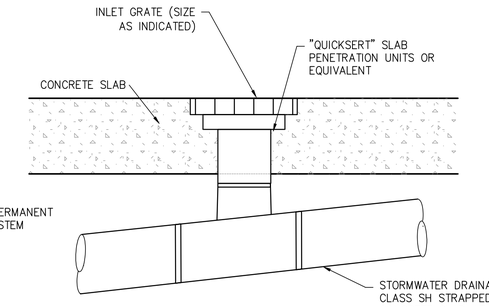


www.acowexel.com.au
Ph: 1300 765 266 (Australia)
OR EQUIVALENT PRODUCT

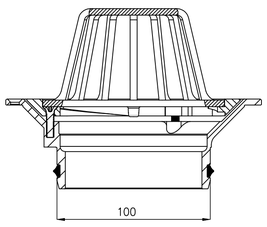
TYPICAL RAINWATER OUTLET (RWO) DETAIL
SCALE = 1 : 20



SECTION THROUGH INSPECTION OPENING DENOTED I.O. ON PLAN
SCALE = 1 : 20



200 x 200 FLOOR DRAIN DETAIL
NOT TO SCALE



TYPICAL RAINWATER OUTLET (RWO) DETAIL
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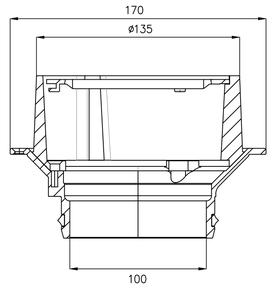
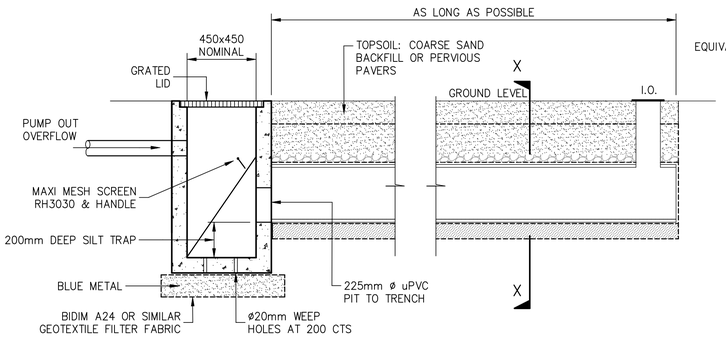


TYPICAL RAINWATER OUTLET OVERFLOW DETAIL
SCALE = 1 : 20



DISPERSION TRENCH LONGITUDINAL SECTION
NOT TO SCALE

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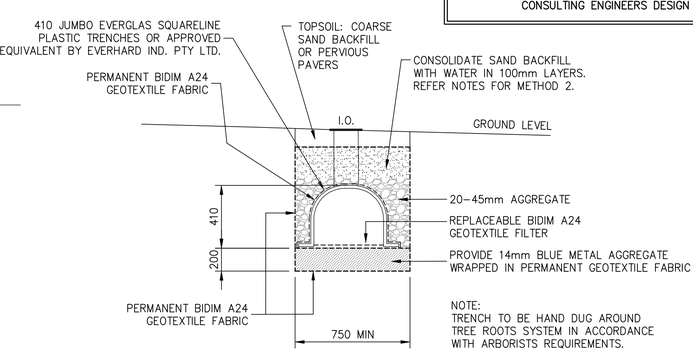

SECTION X–X
NOT TO SCALE

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	16.03.22	AMENDED AS PER S.34 REVIEW	R.M
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RTS CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au

Architect: MHNDUNION

Client: D. MEGUIDECHE

Project and Drawing Title:
34 MILITARY ROAD, NORTH BONDI
STORMWATER DRAINAGE DETAILS CONT.

Local Council: WAVERLY COUNCIL

Project Number:	Drawing ID:	Issue:
200807	SW201	C