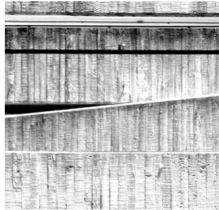
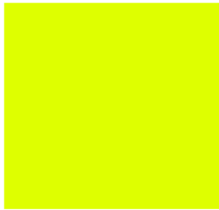




25 July 2022



Northern Beaches Council  
725 Pittwater Road  
DEE WHY NSW 2099  
Attn: General Manager



Dear Sir / Madam

Re: Flood Assessment – 21 Knightsbridge Avenue, Belrose

This letter is to advise that I have reviewed the architectural details for the proposed alterations and additions (Appendix A) with respect to the Council flood certificate dated 23 March 2022 (Appendix B).

The property is located outside the 1% Annual Exceedance Probability (AEP) flood extents and the existing floor level is above the Probable Maximum Flood (PMF) of 0.3m above the natural surface level on the western boundary of the property. The significant flows are within the adjacent properties to the south. It is proposed that the occupants shelter-in-place during a major storm event.

The proposed works will be carried out outside and above the extents of the 1% AEP flood and as such the works do not require special flood proofing or freeboard related measures. In particular the development is in compliance with Clause 3.5 of the State Environmental Planning Policy (2008).

Consequently the proposed works are considered satisfactory with respect to flooding of the site and it is considered that a site-specific Flood Risk Management Plan is not considered warranted in this instance.

Should you require any further information please contact the undersigned.

Yours faithfully  
TAYLOR CONSULTING

D M SCHAEFFER – Director  
B.E. Civil (Hons) M.I.E. Aust. N.E.R.



## Appendix A - Architectural Plans







#### CONTENTS

DA1	COVER PAGE - MATERIALS AND FINISHES
DA2	SURVEY
DA3	SITE ANALYSIS AND WASTE MNGMNT PLAN
DA4	GROUND FLOOR PLAN
DA5	FIRST FLOOR PLAN
DA6	ROOF FLOOR PLAN
DA7	ELEVATIONS, N, S
DA8	ELEVATIONS, E, W
DA9	SECTION A-A, B-B
DA10	LANDSCAPED OPEN SPACE
DA11	SOLAR JUNE 21 - 9AM
DA12	SOLAR JUNE 21 - 12PM
DA13	SOLAR JUNE 21 - 3PM
DA14	SAFETY NOTES
DA15	SEDIMENT CONTROL PLAN
DA16	BASIX

## private residence

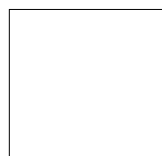
architectural perspectives

21 knightsbridge ave, belrose

additions and alterations  
development application



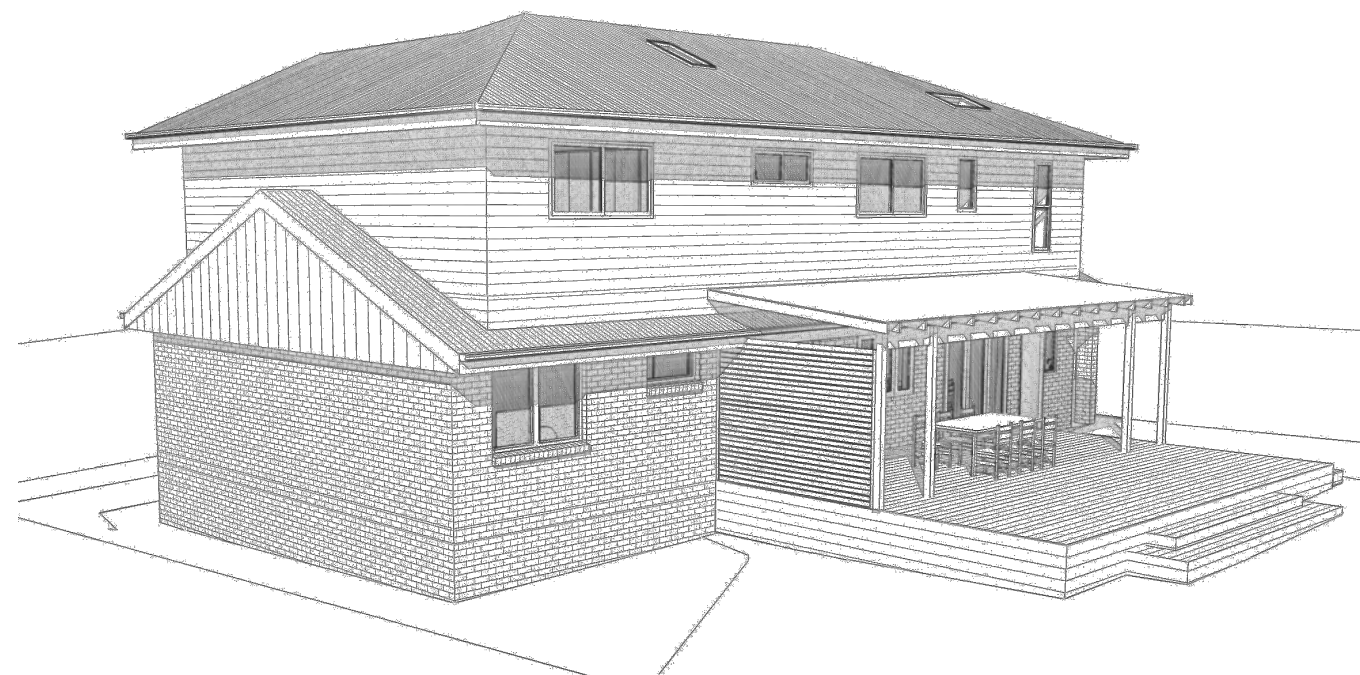
WINDOWS  
WHITE  
ALUMINIUM  
or similar



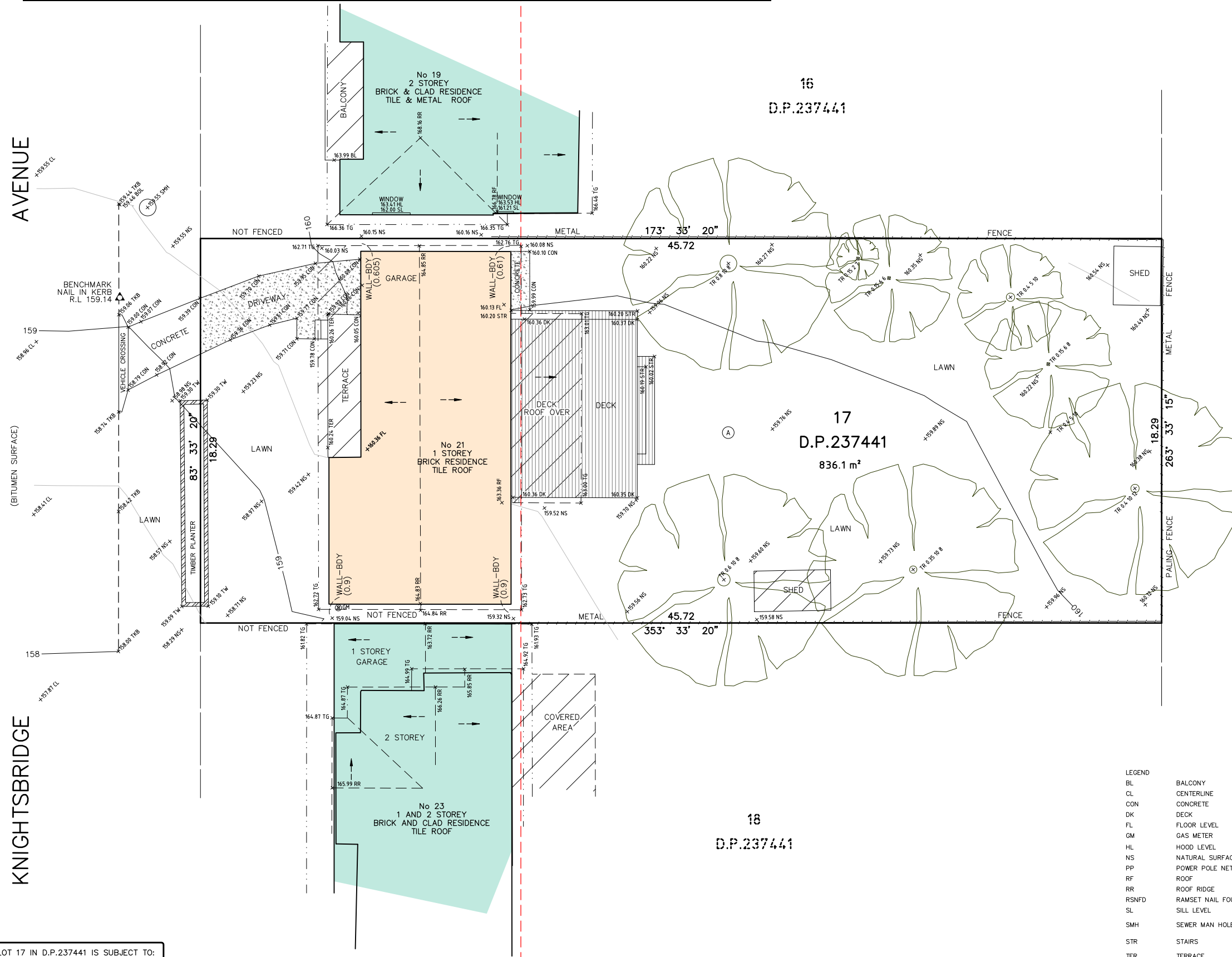
WEATHERBOARDS  
DUNE  
or similar



ROOF  
COLORBOND  
WINDSPRAY  
or similar







- LEGEND
- BL BALCONY
  - CL CENTERLINE
  - CON CONCRETE
  - DK DECK
  - FL FLOOR LEVEL
  - GM GAS METER
  - HL HOOD LEVEL
  - NS NATURAL SURFACE
  - PP POWER POLE NETWORK
  - RF ROOF
  - RR ROOF RIDGE
  - RSNFD RAMSET NAIL FOUND
  - SL SILL LEVEL
  - SMH SEWER MAN HOLE
  - STR STAIRS
  - TER TERRACE
  - TG TOP OF GUTTER
  - TKB TOP OF KERB
  - TR TREE DIA SPREAD HEIGHT
  - TW TOP OF WALL

A FIELD SURVEY OF THE BOUNDARIES HAS BEEN UNDERTAKEN, OFFSETS FROM STRUCTURES TO BOUNDARY SHOULD NOT BE USED FOR CONSTRUCTION SETOUT.  
IF CONSTRUCTION ON OR NEAR BOUNDARIES IS UNDERTAKEN THE BOUNDARIES OF THE LAND SHOULD BE MARKED OR THE WORKS SETOUT BY A REGISTERED SURVEYOR.

TREE SIZES ARE ESTIMATES ONLY.  
THIS PLAN HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF NICOLE & JAMES McMAHON  
RELATIONSHIP OF IMPROVEMENTS TO BOUNDARIES IS DIAGRAMMATIC ONLY. WHERE OFFSETS ARE CRITICAL THEY SHOULD BE CONFIRMED BY FURTHER SURVEY.  
EXCEPT WHERE SHOWN BY DIMENSION LOCATION OF DETAIL WITH RESPECT TO BOUNDARIES IS INDICATIVE ONLY.  
ONLY VISIBLE SERVICES HAVE BEEN LOCATED. UNDERGROUND SERVICES HAVE NOT BEEN LOCATED. DIAL BEFORE YOU DIG SERVICES (ph 1100) SHOULD BE USED AND A FULL UTILITY INVESTIGATION INCLUDING A UTILITY LOCATION SURVEY, SHOULD BE UNDERTAKEN BEFORE CARRYING OUT ANY CONSTRUCTION ACTIVITY IN OR NEAR THE SURVEYED AREA.  
CRITICAL SPOT LEVELS SHOULD BE CONFIRMED WITH SURVEYOR.  
THIS PLAN IS ONLY TO BE USED FOR THE PURPOSE OF DESIGNING NEW CONSTRUCTIONS.  
CONTOURS SHOWN DEPICT THE TOPOGRAPHY. EXCEPT AT SPOT LEVELS SHOWN, THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.  
CONTOUR INTERVAL - 0.5 metre. - SPOT LEVELS SHOULD BE ADOPTED.  
POSITION OF RIDGE LINES ARE DIAGRAMMATIC ONLY (NOT TO SCALE).  
THE INFORMATION IS ONLY TO BE USED AT A SCALE ACCURACY OF 1:100.  
DO NOT SCALE OFF THIS PLAN / FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED READINGS.  
IF ACCURATE TRUE NORTH IS REQUIRED A FURTHER SURVEY WOULD BE NECESSARY.  
COPYRIGHT WATERVIEW SURVEYING SERVICES  
NO PART OF THIS SURVEY MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF THE COPYRIGHT OWNER EXCEPT AS PERMITTED BY THE COPYRIGHT ACT 1968.  
ANY PERMITTED DOWNLOADING, ELECTRONIC STORAGE, DISPLAY, PRINT, COPY OR REPRODUCTION OF THIS SURVEY SHOULD CONTAIN NO ALTERATION OR ADDITION TO THE ORIGINAL SURVEY.  
THIS NOTICE MUST NOT BE ERASED.

MICHAEL K. JOYCE  
REGISTERED SURVEYOR I.D. 8268

**Waterview**  
SURVEYING SERVICES

1A Mona Street Mona Vale NSW 2103  
ACN 610 583 572  
michael@wvsurveying.com.au  
0474 843 180

Vertical Datum

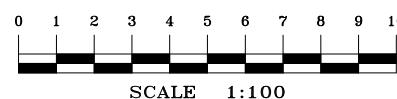
DATUM: AUSTRALIAN HEIGHT DATUM (AHD)  
B.M. SSM101519  
R.L. 136.822  
SOURCE:

Client Details NICOLE & JAMES McMAHON  
21 KNIGHTSBRIDGE  
BELROSE NSW 2085

Drawing Title DETAIL AND LEVELS OVER  
21 KNIGHTSBRIDGE  
BELROSE NSW 2085  
BEING LOT 17 IN DP.237441

PROJECT: 1475	PAGE 1 OF 1
Date of survey 03/12/2021	Drawing No. 1475detail 1
Scale 1:100 @ A1	Rev. A

TITLE INDICATES THAT LOT 17 IN D.P.237441 IS SUBJECT TO:  
- LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)  
- K351262 EASEMENT FOR TRANSMISSION LINE 30.48 WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM  
Z944756 TRANSFER OF EASEMENT TO SYDNEY ELECTRICITY  
- DP237441 RESTRICTION(S) ON THE USE OF LAND (NOT INVESTIGATED)

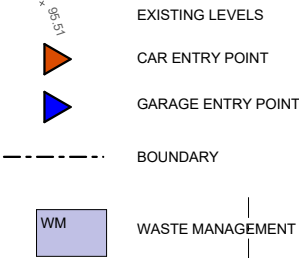


SCALE 1:100

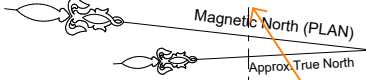
LEGEND



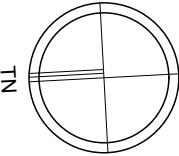
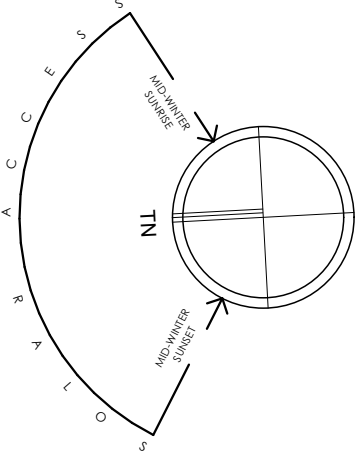
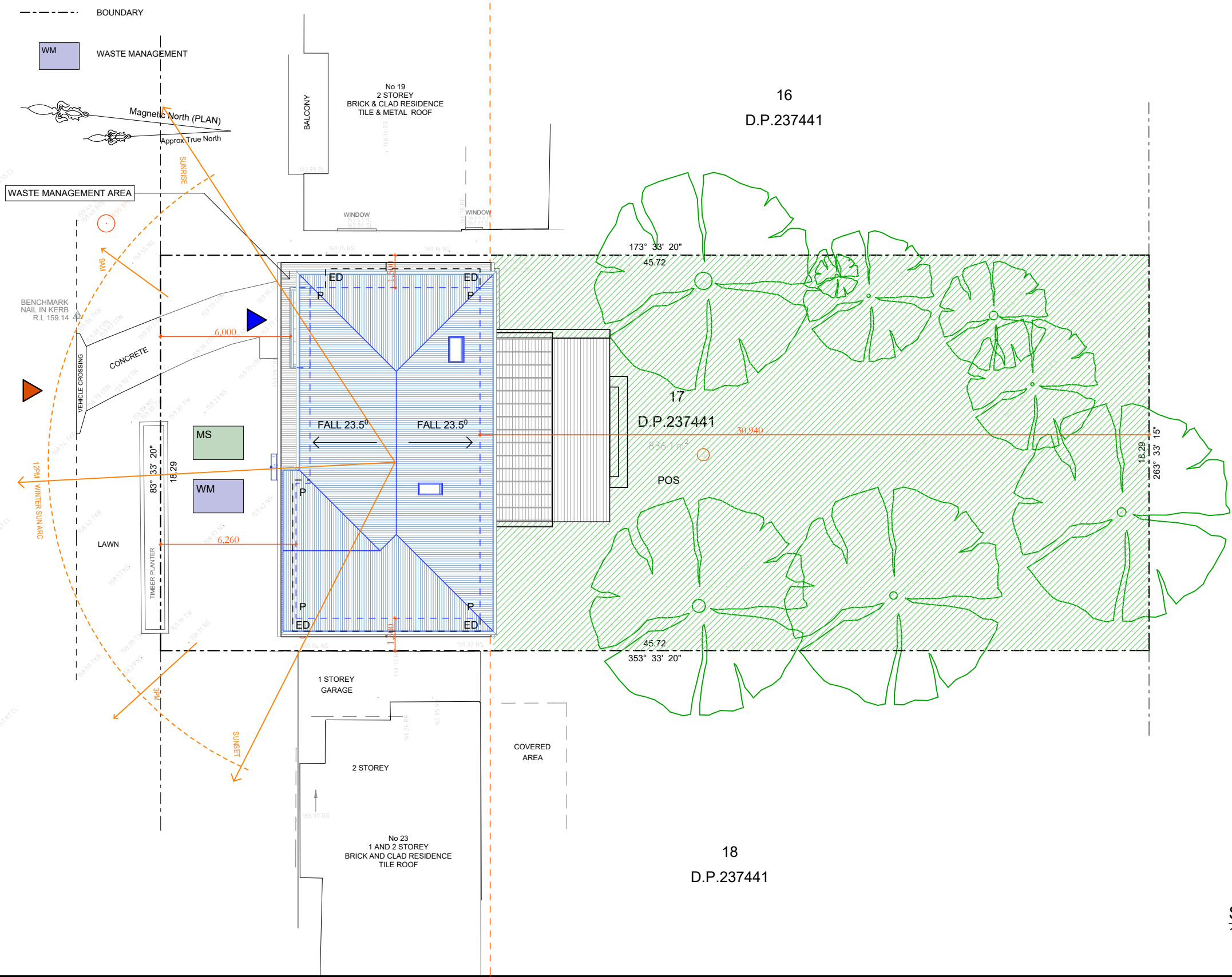
PROPOSED  
PRIVATE OPEN SPACE (EXISTING)  
EXISTING DWELLING  
MATERIAL STOCKPILE



EXISTING LEVELS  
CAR ENTRY POINT  
GARAGE ENTRY POINT  
BOUNDARY  
WASTE MANAGEMENT



KNIGHTSBRIDGE AVENUE  
(BITUMEN SURFACE)



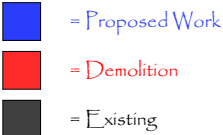
Site Analysis Plan  
1:200

Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence



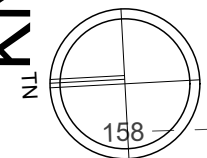
Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA3

Date : 080622  
Scale : 1:200 @ A3  
Issue :

Drawing : - Site Analysis Plan & Waste Mngmnt Plan

KNIGHTSBRIDGE

(BITUMEN SURFACE)



<b>Date :</b>	<b>Issue :</b>	<b>Description :</b>

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.

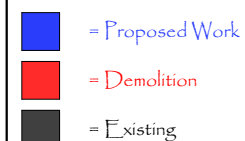


Postal address: P O Box 870, Narrabeen NSW 2101  
Office: 28 Cook Terrace, Mona Vale  
M 0432 125 244. Member no. BDA 2479-18

**Project :** Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2

**Client :** Private Residence

**Drawing : -** **Ground Floor Plan**



Drawn/Designed : PB/MW

Date : 080622

Project Number : 2142

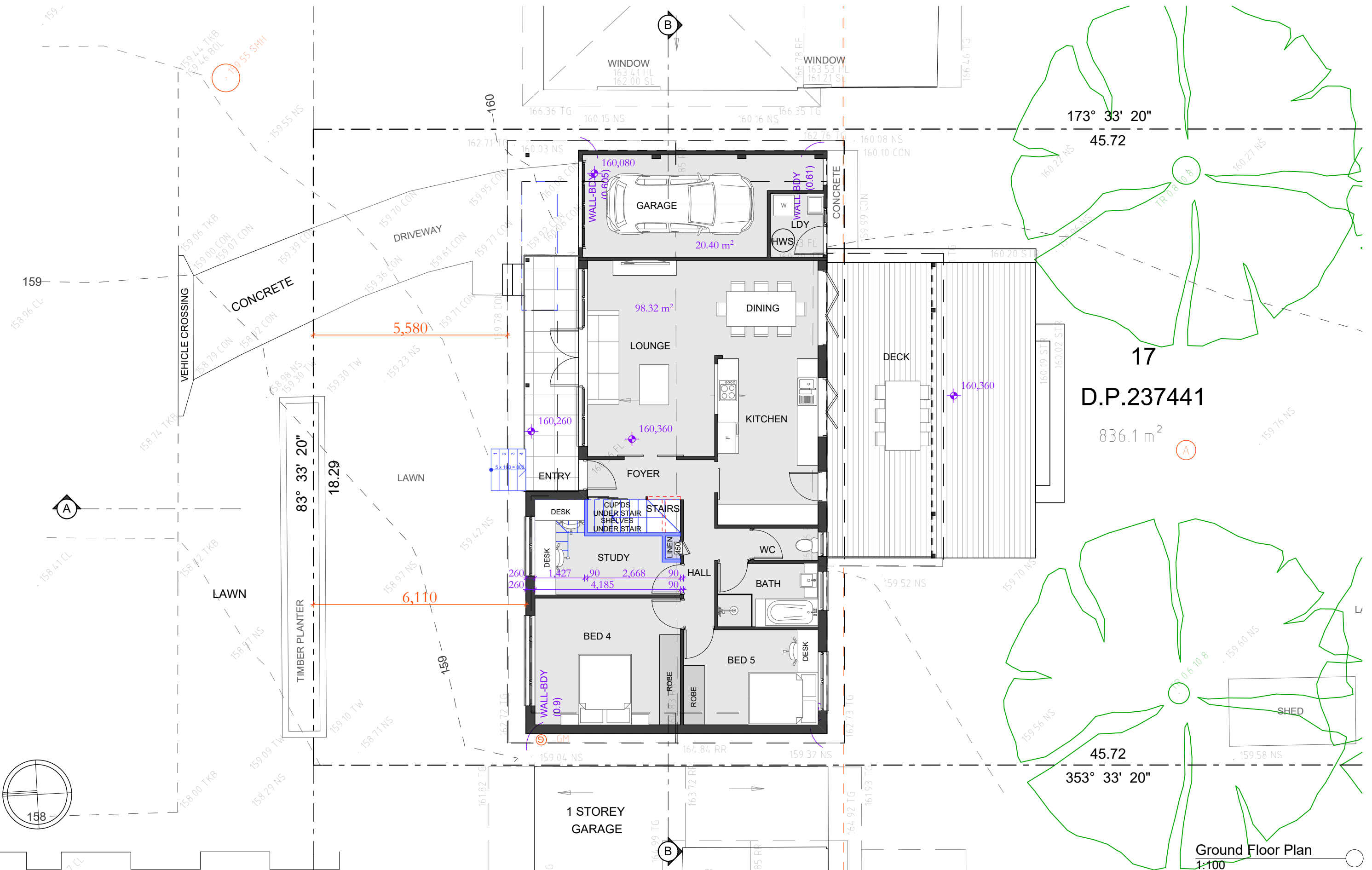
Scale : 1:100 @ A3

Drawing No. :

DA4

**Issue :**

## Ground Floor Plan



KNIGHTSBRIDGE AVENUE

(BITUMEN SURFACE)

KNIGHTSBRIDGE AVENUE

0

2

4

Date :

Issue :

Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.

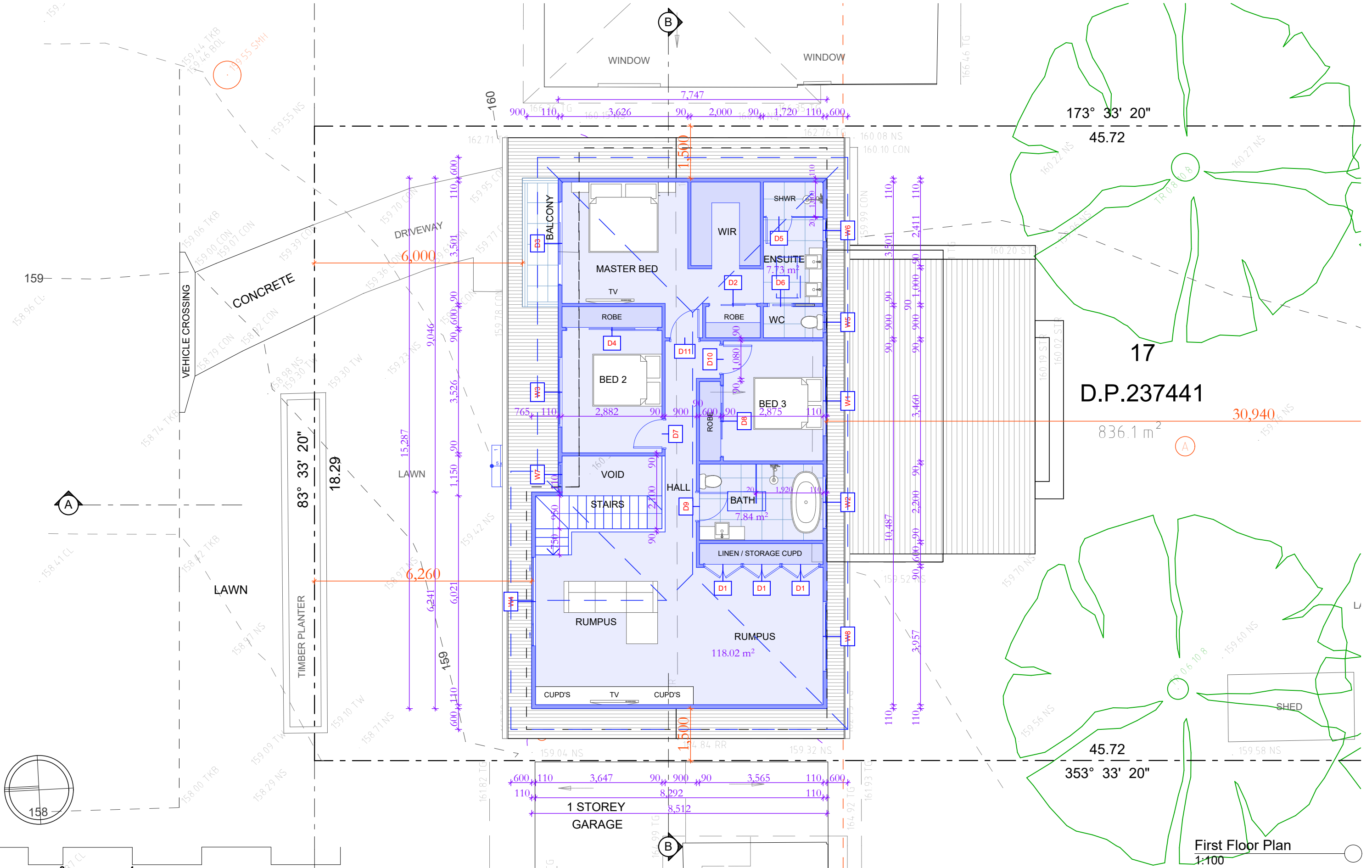


Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - First Floor Plan

Blue square = Proposed Work  
Red square = Demolition  
Black square = Existing

Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA5

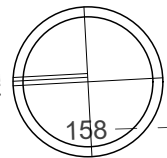
Date : 080622  
Scale : 1:100 @ A3  
Issue :



First Floor Plan  
1:100



# KNIGHTSBRIDGE



<b>Date :</b>	<b>Issue :</b>	<b>Description :</b>

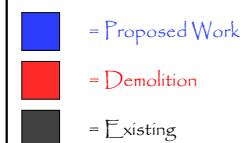
The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



**Project :** Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2

**Client :** Private Residence

**Drawing : -** **Roof Floor Plan**



Drawn/Designed : PB/MW

---

Project Number : 2142

---

Drawing No. : DA

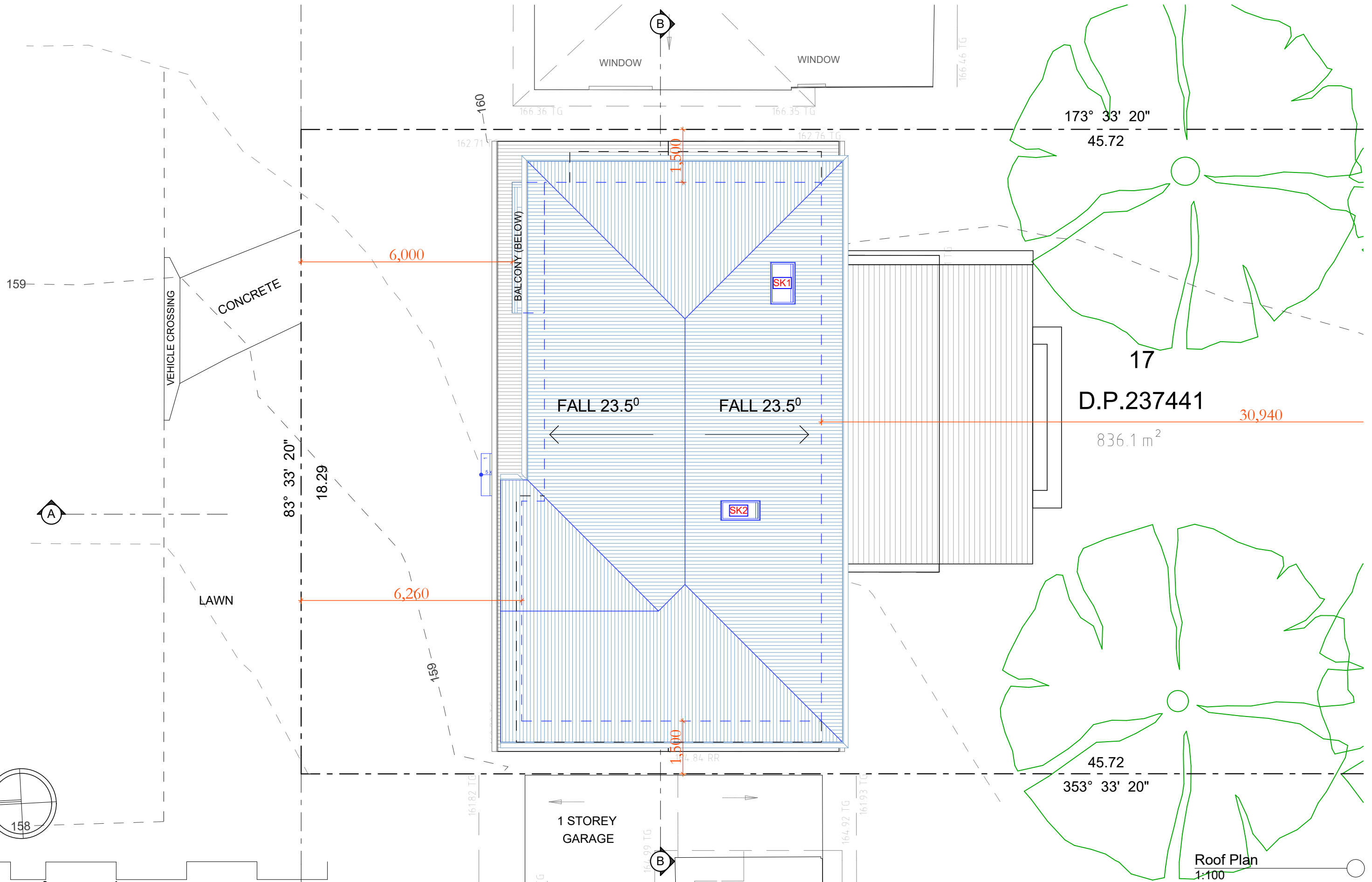
Date : 080622

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Scale : 1:100 @ A3

---

Issue :





RL + 167,950  
Ridge

RL +163,400  
First Floor

RL +160,360  
Ground Floor

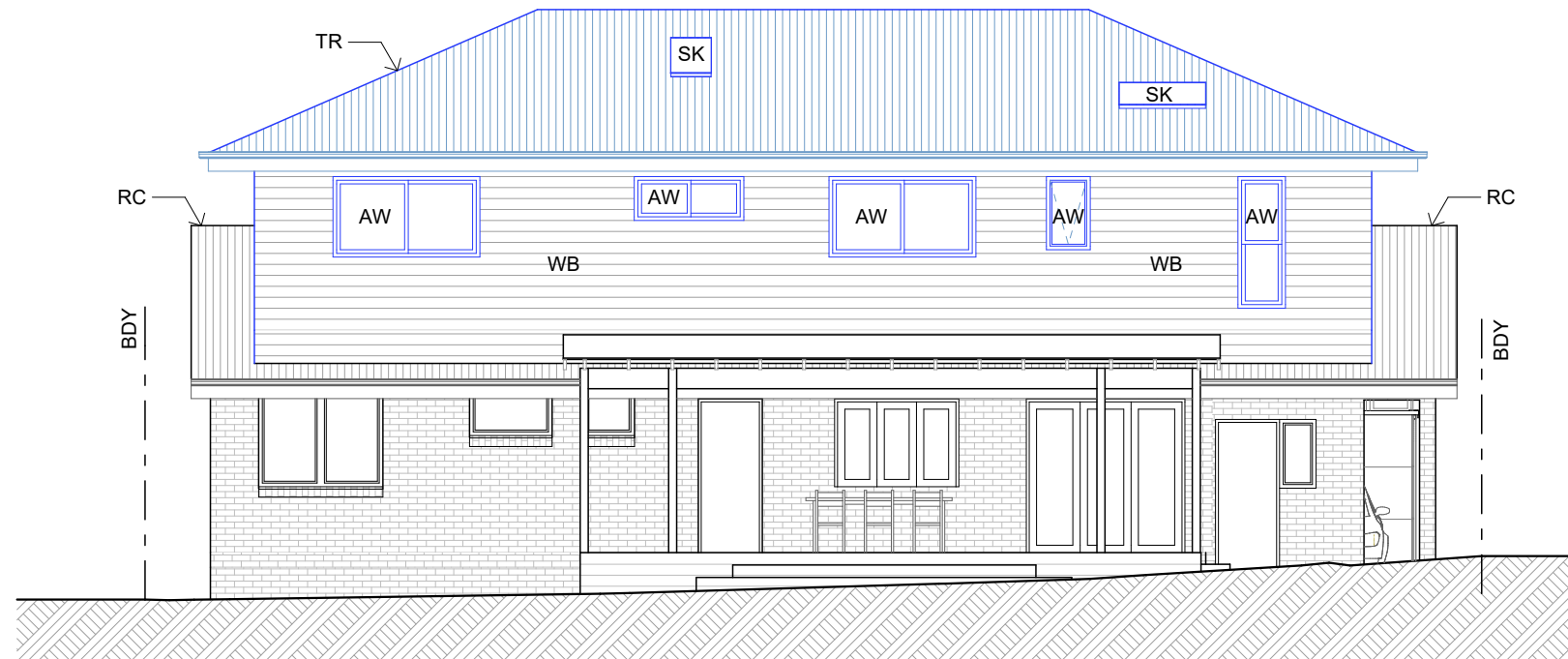


North Elevation  
1:100

RL + 167,950  
Ridge

RL +163,400  
First Floor

RL +160,360  
Ground Floor



South Elevation  
1:100

#### LEGEND

- TR Timber framed roof with Colorbond cladding
- RC Re-clad timber framed roof with Colorbond cladding
- WB Timber framed wall with weatherboard cladding
- AW Aluminium window
- RA Rail to BCA
- SK Skylight

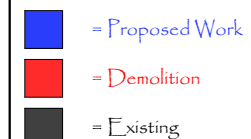


Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Elevations, N, S

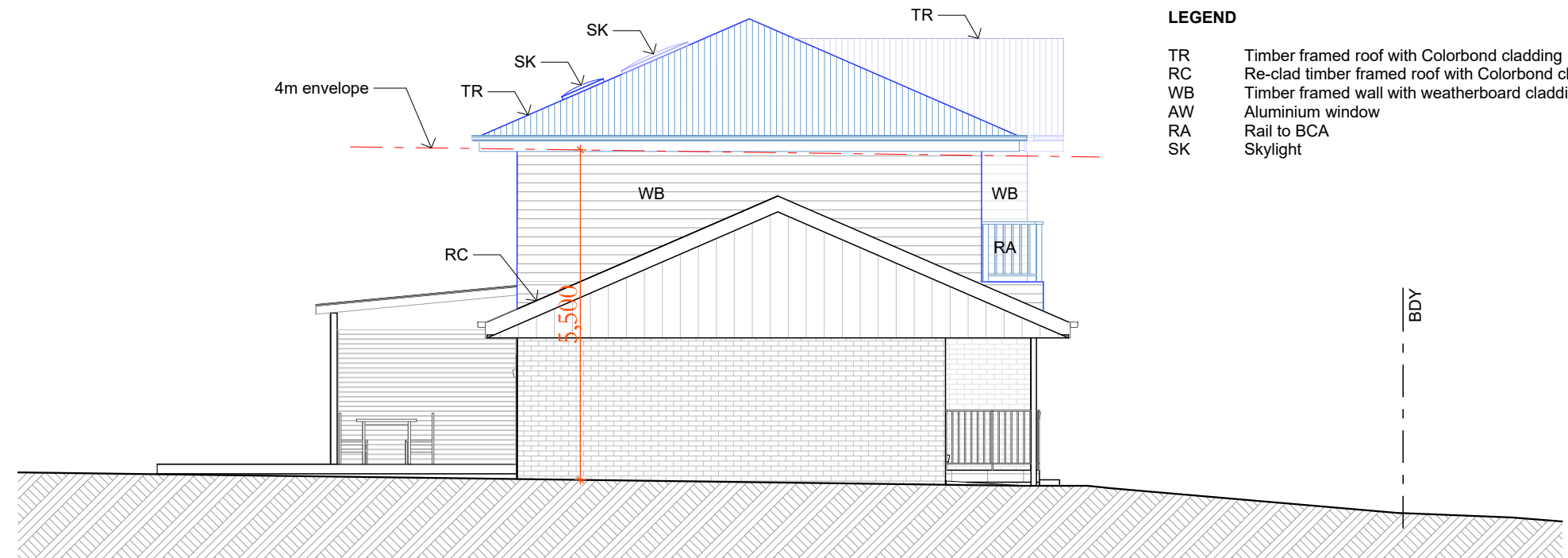


Drawn/Designed : PB/MW	Date : 080622
Project Number : 2142	Scale : 1:100 @ A3
Drawing No. : DA7	Issue :

RL + 167,950  
Ridge

RL +163,400  
First Floor

RL +160,360  
Ground Floor



#### LEGEND

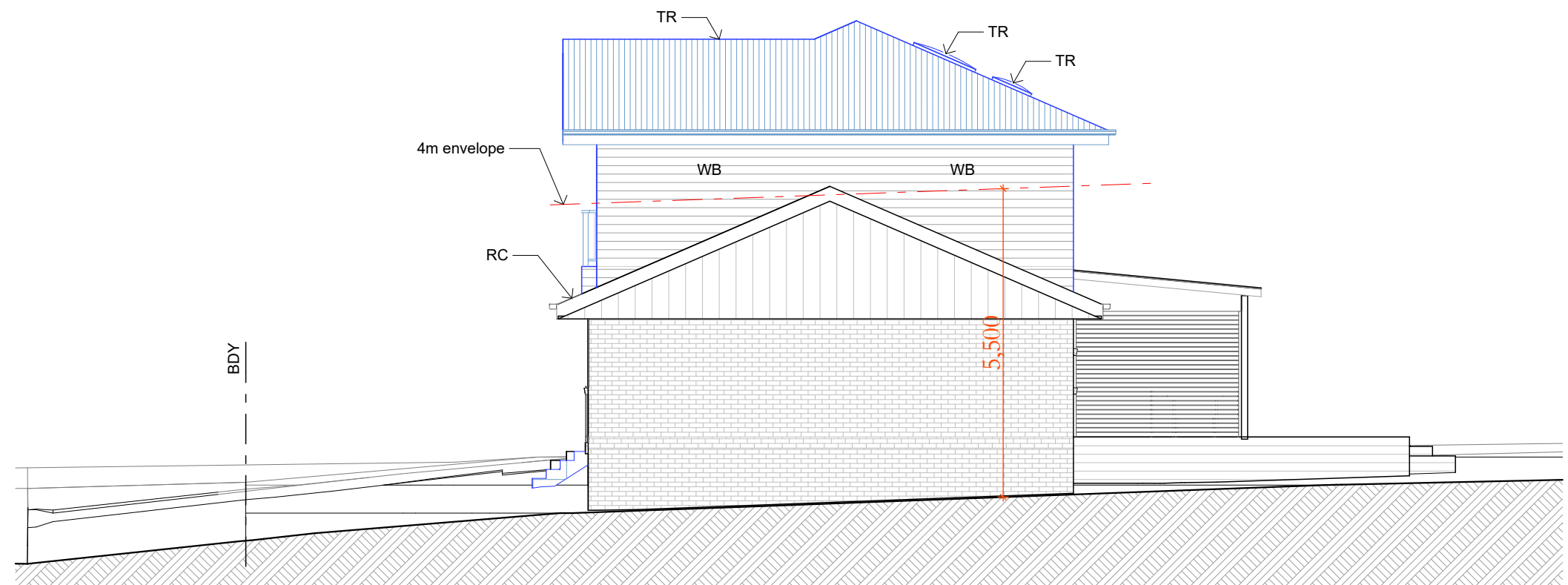
- TR Timber framed roof with Colorbond cladding
- RC Re-clad timber framed roof with Colorbond cladding
- WB Timber framed wall with weatherboard cladding
- AW Aluminium window
- RA Rail to BCA
- SK Skylight

East Elevation  
1:100

RL + 167,950  
Ridge

RL +163,400  
First Floor

RL +160,360  
Ground Floor



West Elevation  
1:100



Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.

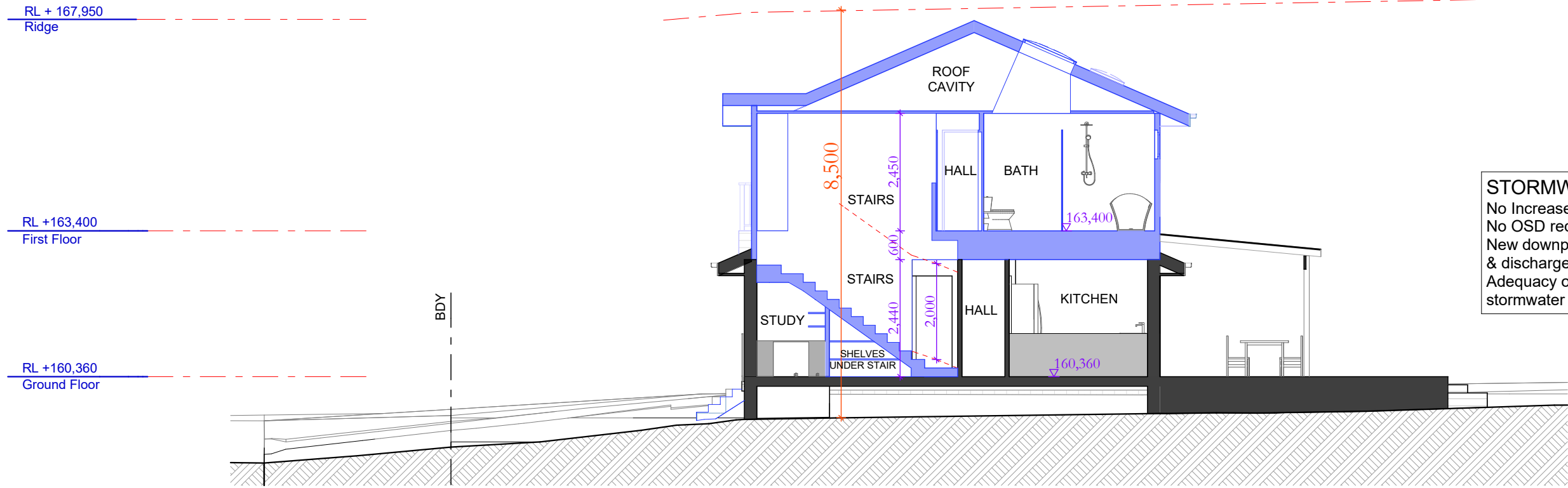


Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Elevations, E, W

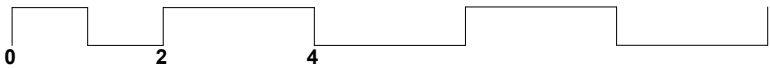
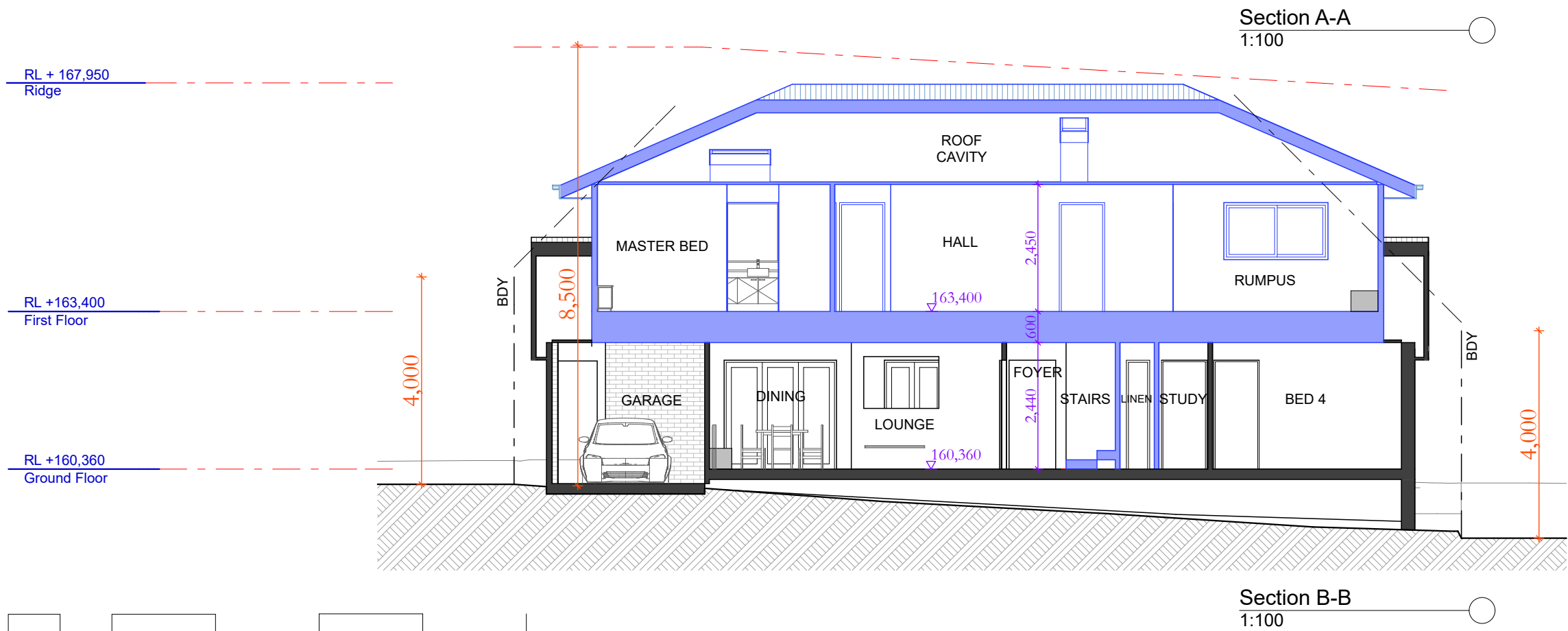
- = Proposed Work
- = Demolition
- = Existing

Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA8

Date : 080622  
Scale : 1:100 @ A3  
Issue :

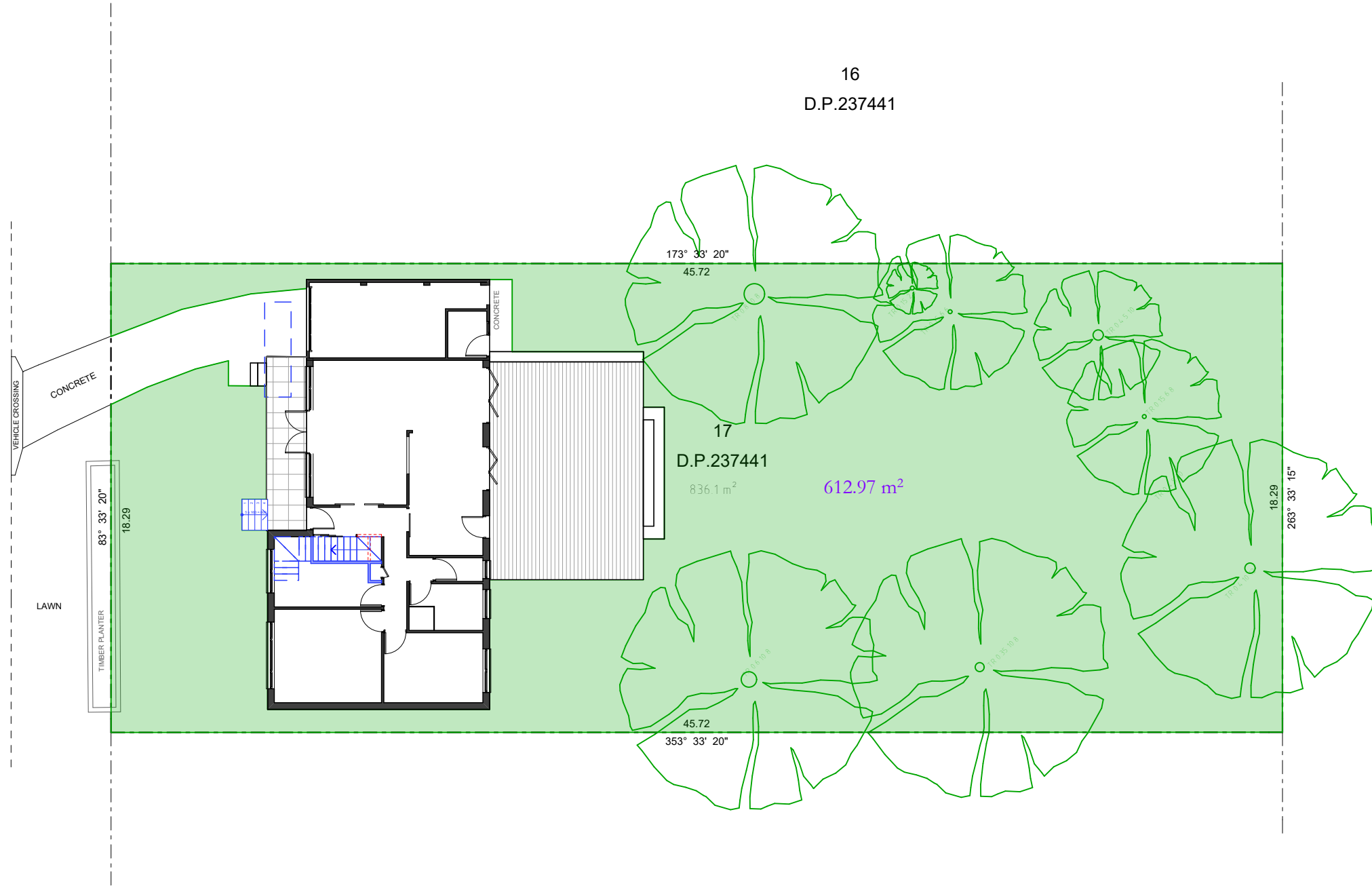


**STORMWATER DETAILS**  
No Increase in impervious areas by 50m2.  
No OSD required for alterations.  
New downpipes connected to existing stormwater line  
& discharged to street stormwater drainage system.  
Adequacy of existing system to be checked by  
stormwater engineer at construction stage.





KNIGHTSBRIDGE AVENUE  
(BITUMEN SURFACE)



SITE AREA = 836.1m<sup>2</sup>

LANDSCAPED AREA MIN. 40% SITE AREA

= 334.44m<sup>2</sup>

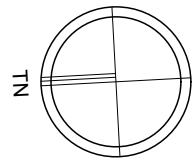


LANDSCAPED AREA PROPOSED

= 612.97m<sup>2</sup> (73.3%)

LANDSCAPED AREA COMPLIES

Landscaped Open Space Proposed  
1:200



Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence

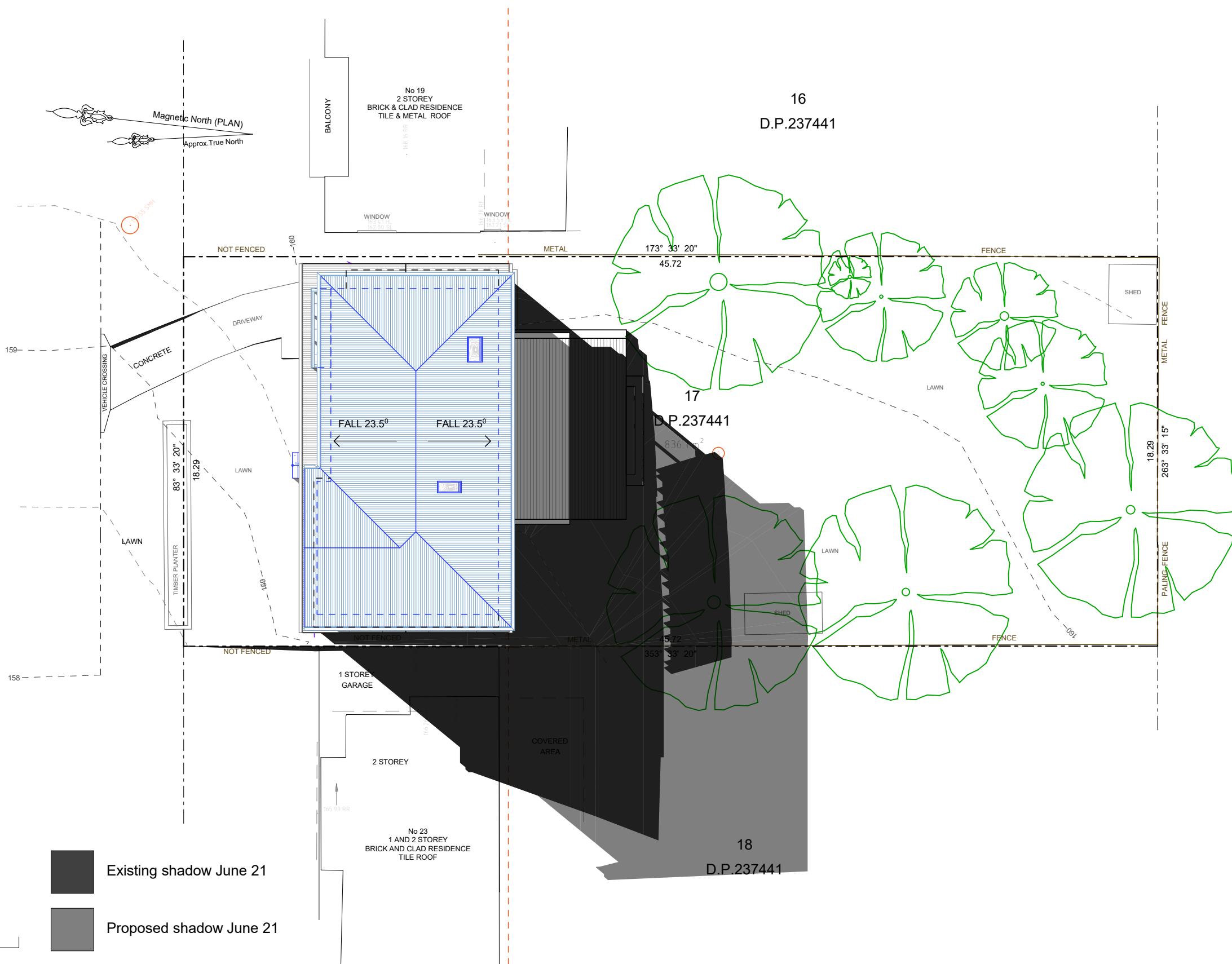
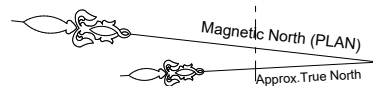
= Proposed Work  
 = Demolition  
 = Existing

Drawing : - Landscaped Open Space Plan

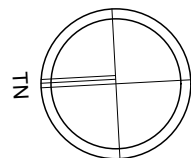
Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA10

Date : 080622  
Scale : 1:200 @ A3  
Issue :

KNIGHTSBRIDGE AVENUE  
(BITUMEN SURFACE)



Solar June 21 9am  
1:200



Existing shadow June 21  
Proposed shadow June 21

Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



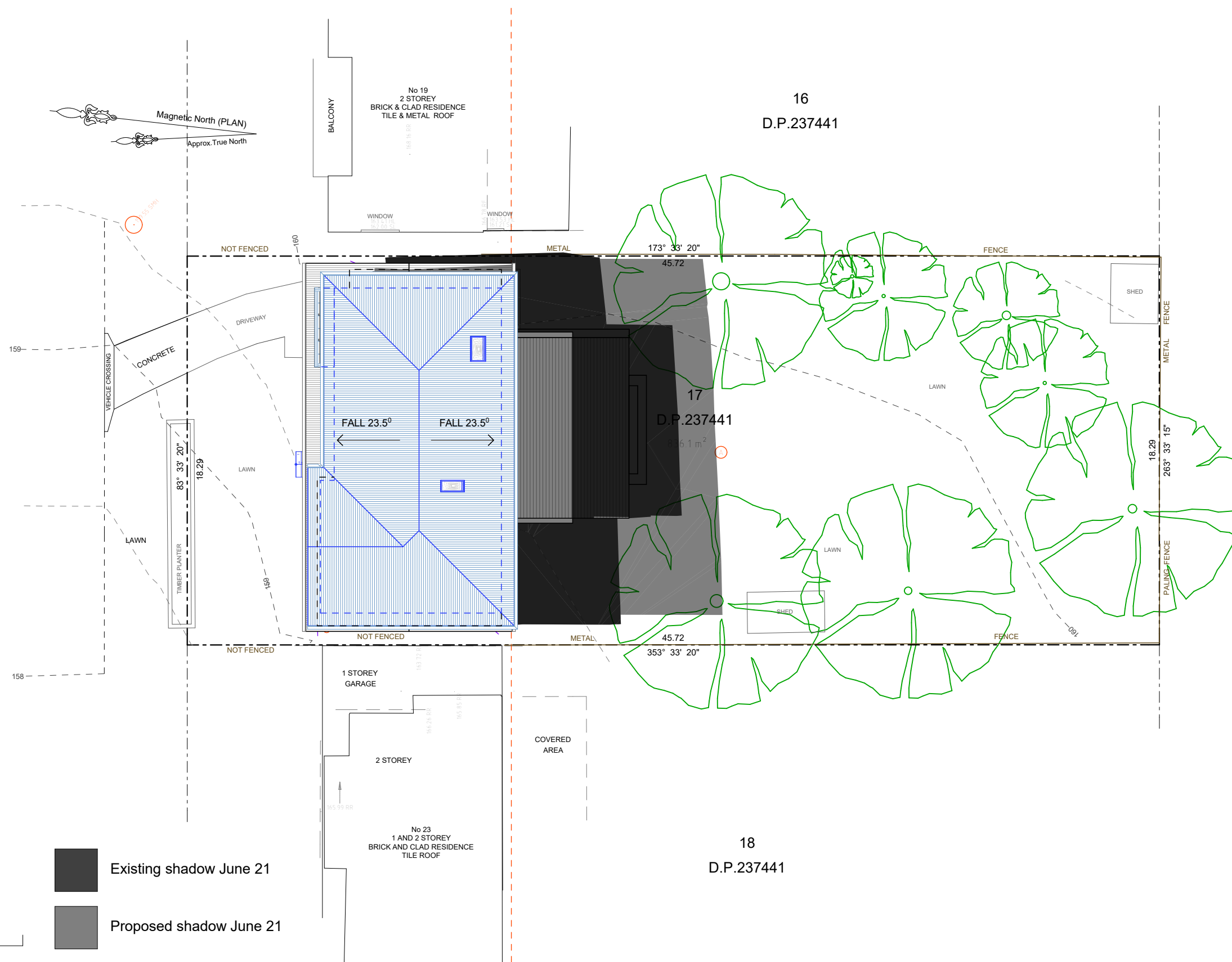
Project : Additions & Alterations  
DA  
21 Knightsbridge Avenue  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Solar June 21-9am

Blue square = Proposed Work  
Red square = Demolition  
Grey square = Existing

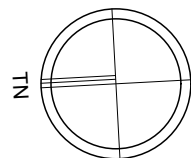
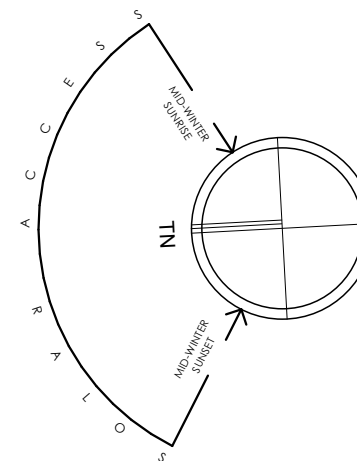
Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA11  
Date : 080622  
Scale : no scale  
Issue :

KNIGHTSBRIDGE AVENUE  
(BITUMEN SURFACE)

Magnetic North (PLAN)  
Approx. True North



Solar June 21 12pm  
1:200



Existing shadow June 21  
Proposed shadow June 21

Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave not to scale  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Solar June 21-12pm

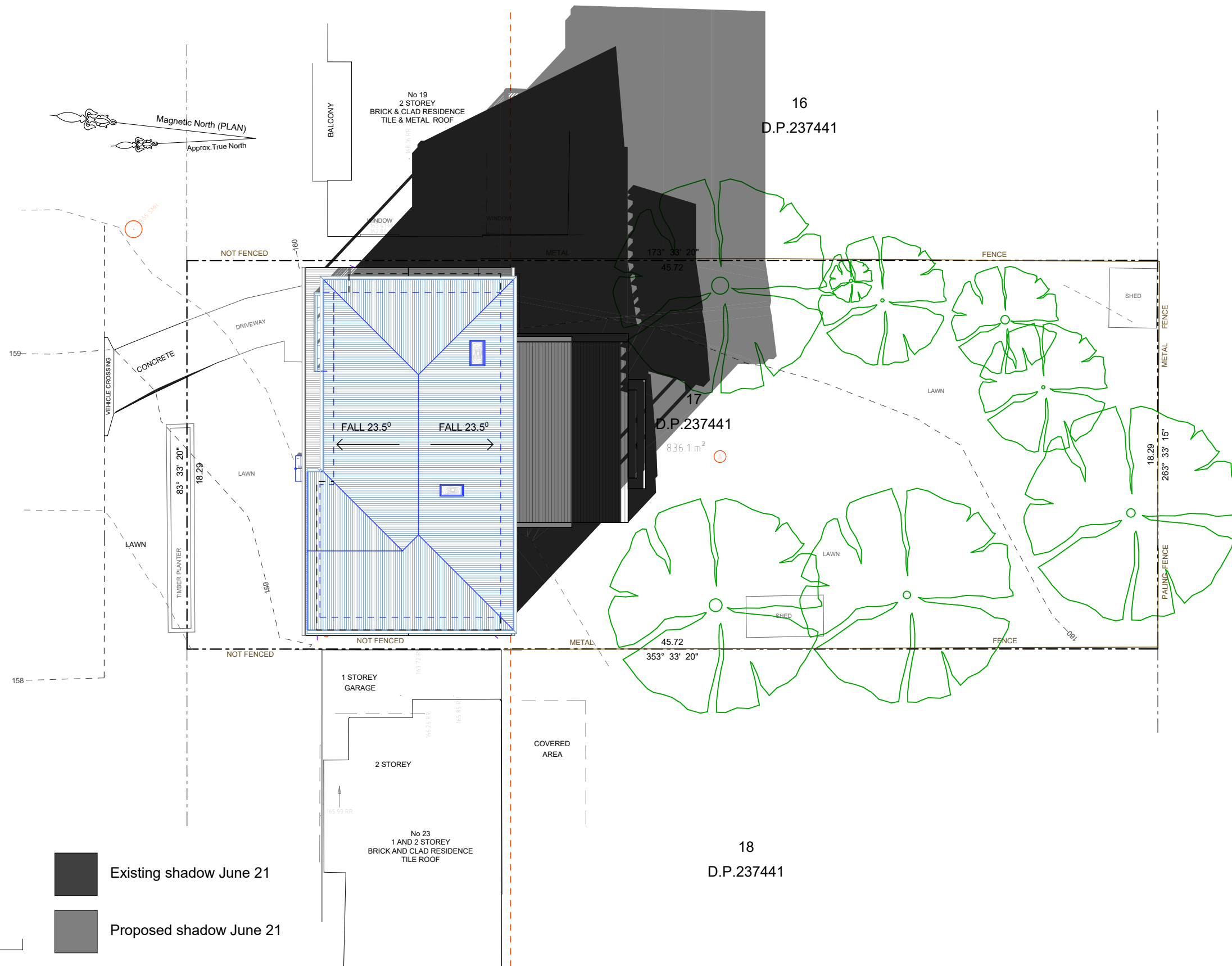
= Proposed Work  
 = Demolition  
 = Existing

Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA12  
Date : 080622  
Scale : no scale  
Issue :

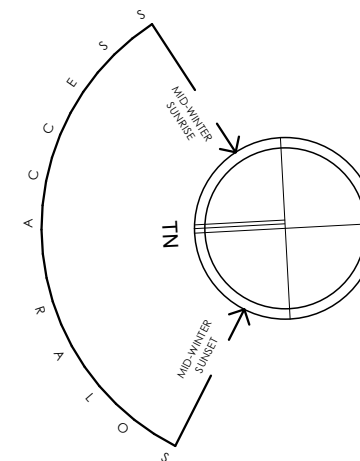
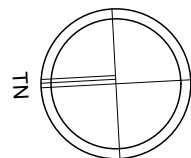


KNIGHTSBRIDGE AVENUE  
(BITUMEN SURFACE)

Magnetic North (PLAN)  
Approx. True North



Solar June 21 3pm  
1:200



Date :	Issue :	Description :

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Project : Additions & Alterations  
DA  
21 Knightsbridge Ave  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Solar June 21-3pm

= Proposed Work  
 = Demolition  
 = Existing

Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA13  
Date : 080622  
Scale : no scale  
Issue :

### a) WORKING AT HEIGHTS

Wherever possible, components for this building should be prefabricated off-site or at ground level to minimise the risk of workers falling more than two metres. However, construction of this building will require workers to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier wherever a person is required to work in a situation where falling more than two metres is a possibility.

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment (PPE) should be used in accordance with relevant codes of practice, regulations or legislation.

Anchorage points for portable scaffold or fall arrest devices have been included in the design for use by maintenance workers. Any persons engaged to work on the building after completion of construction work should be informed about the anchorage points.

Contractors should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

## LOOSE MATERIALS OR SMALL OBJECTS

1. Prevent or restrict access to areas below where the work is being carried out.
2. Provide toeboards to scaffolding or work platforms.
3. Provide protective structure below the work area.
4. Ensure that all persons below the work area have Personal Protective Equipment (PPE).

During construction, renovation or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility.

Mechanical lifting of materials and components during construction, maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the load is prevented or restricted.

For all buildings:  
 Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan supervised by trained traffic management personnel should be adopted for the work site.

Overhead power lines MAY be near or on this site. These pose a risk of electrocution if struck or approached by lifting devices or other plant and persons working above ground level. Where there is a danger of this occurring, power lines should be, where practical, disconnected or relocated. Where this is not practical adequate warning in the form of bright coloured tape or signage should be used or a protective barrier provided.

For material packaging, building and maintenance components should clearly show the total mass of packages and where practical all items should be stored on site in a way which minimises bending before lifting. Advice should be provided on safe lifting methods in all areas where lifting may occur.

Construction, maintenance and demolition of this building will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer's specifications and not used where faulty or (in the case of electrical equipment) not carrying a current electrical safety tag.

All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance with manufacturer's specification.

either in cladding material or in fire retardant insulation material. In either case, the builder should check and, if necessary, take appropriate action before demolishing, cutting, sanding, drilling or otherwise disturbing the existing structure.

Many materials used in the construction of this building can cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

The design of this building may include provision for the inclusion of treated timber within the structure. Dust or fumes from this material can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material to be released. Do not burn treated timber.

Many types of glue, solvents, spray packs, paints, varnishes and some cleaning materials and disinfectants have dangerous emissions. Areas where these are used should be kept well ventilated while the material is being used and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

ibreglass, rockwool, ceramic and other material used for thermal or sound insulation may contain synthetic mineral fibre which may be harmful if inhaled or if it comes in contact with the skin, eyes or other sensitive parts or the body. Personal Protective Equipment including protection against inhalation of harmful material should be used when installing, removing or working near bulk insulation material.

Areas where finishes are applied should be kept well ventilated during sanding and application and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

Construction of this building and some maintenance on the building will require excavation and installation of items within excavations. Where practical, installation should be carried out using methods which do not require workers to enter the excavation. Where this is not practical, adequate support for the excavated area should be provided to prevent collapse. Warning signs and barriers to prevent accidental or unauthorised access to all excavations should be provided.

design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter enclosed spaces, air testing equipment and Personal Protective Equipment should be provided.

Some small spaces within this building will require access by construction or maintenance workers. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter small spaces they should be scheduled so that access is for short periods. Manual lifting and other manual activity should be restricted in small spaces.

Public access to construction and demolition sites and to areas under maintenance causes risk to workers and public. Warning signs and secure barriers to unauthorised access should be provided. Where electrical installations, excavations, plant or loose materials are present they should be secured when not fully supervised.

This building has been designed as a residential building. If it, at a later date, it is used or intended to be used as a workplace, the provisions of the Work Health and Safety Act 2011 or subsequent replacement Act should be applied to the new use.

Due to the history of serious incidents it is recommended that particular care be exercised when undertaking work involving steel construction and concrete placement. All the above applies.

THIS INCLUDES (but is not excluded to): OWNER, BUILDER, SUB-CONTRACTORS, CONSULTANTS, RENOVATORS, OPERATORS, MAINTENORS, DEMOLISHERS.

## Work Health and Safety Regulation - important information

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# SEDIMENT CONTROL PLAN

## EROSION & SEDIMENT NOTES.

Minimise area to be cleared and leave as much vegetation as possible. Install temporary fences to define 'no go' areas that are not to be disturbed.

Install sediment fence(s) along the low side of the site before work begins.

Divert water around the work site and stabilise channels, but ensure that you do not flood the neighbouring property. Establish a single stabilised entry/exit point. Clearly mark the access point and give an access map that has a delivery point indicated for all supplies.

Leave or lay a kerb-side turf strip (for example, the nature strip) to slow the speed of water flows and to trap sediment.

Check the erosion and sediment controls every day and keep them in good working condition.

Stockpile topsoil within the sediment controlled zone.

Always be aware of the weather forecast.

Stabilise exposed earth banks (e.g. vegetation, erosion control mats).

Fill in and compact all trenches immediately after services have been laid.

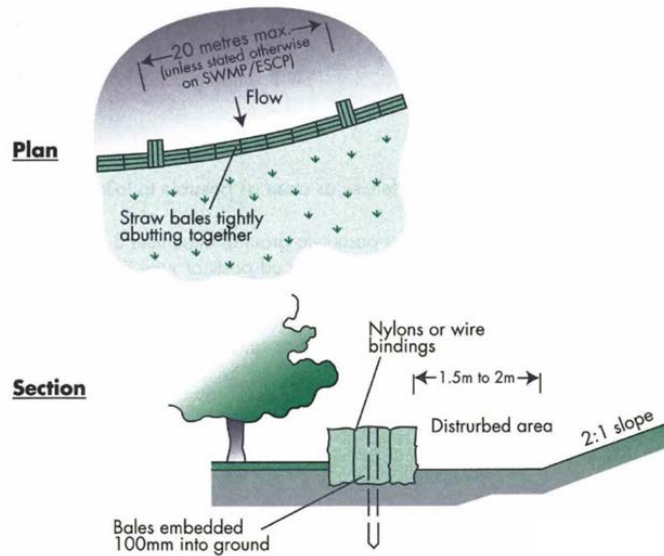
Install site waste receptacles (mini-skip, bins, wind-proof litter receptors).

Sweep the road and footpath every day and put soil behind the sediment controls. Hosing down roads and footpaths is unacceptable.

Connect downpipes from the guttering to the stormwater drain as soon as the roof is installed.

Revegetate the site as soon as possible. The erosion and sediment control devices must be kept in place until 70% of the site has been revegetated.

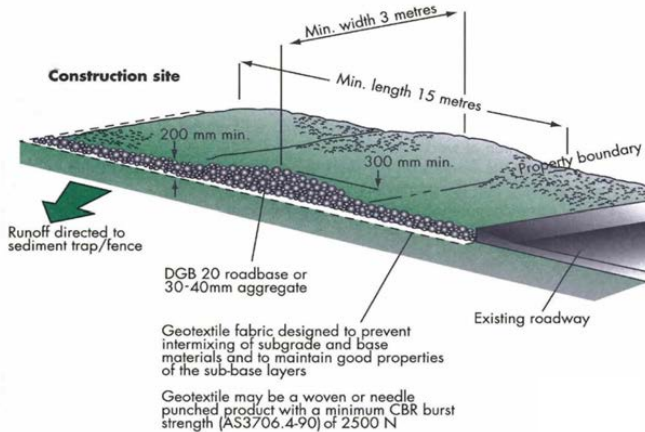
## STRAW BALES



### Construction Notes

- Construct the straw bale filter as close as possible to being parallel to the contours of the site.
- Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws are to be placed parallel to ground.
- Ensure that the maximum height of the filter is one bale.
- Embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets or stakes. Angle the first star picket or stake in each bale towards the previously laid bale. Drive them 600 mm into the ground and, if possible, flush with the top of the bales. Where star pickets are used and they protrude above the bales, ensure they are fitted with safety caps.
- Where a straw bale filter is constructed downslope from a disturbed batter, ensure the bales are placed 1 to 2 metres downslope from the toe.
- Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.

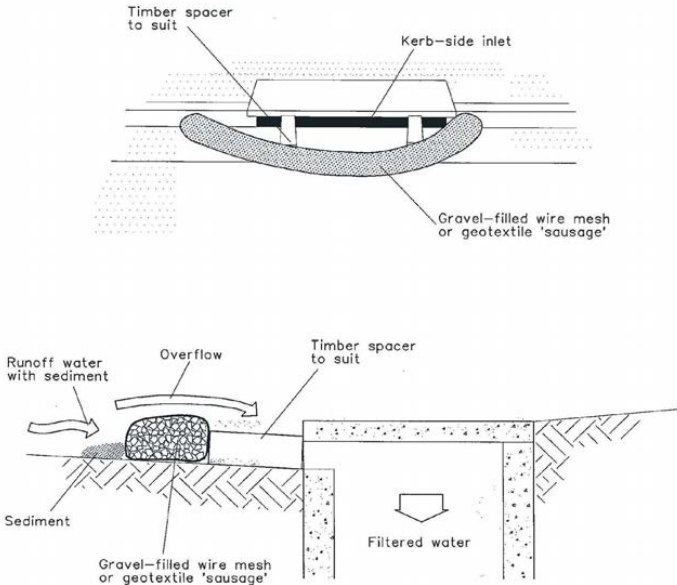
## STABILISED ENTRY / EXIT



### Construction Notes

- Strip at least 150 mm of topsoil, level area and stockpile on site if space available.
- Compact sub-grade.
- Cover area with needle-punched geotextile.
- Construct a 200 mm thick pad over geotextile using aggregate at least 40 mm in size. Minimum length 15 metres or to building alignment. Minimum width 3 metres.
- Construct diversion hump immediately within boundary to divert water to a sediment fence or other sediment trap.

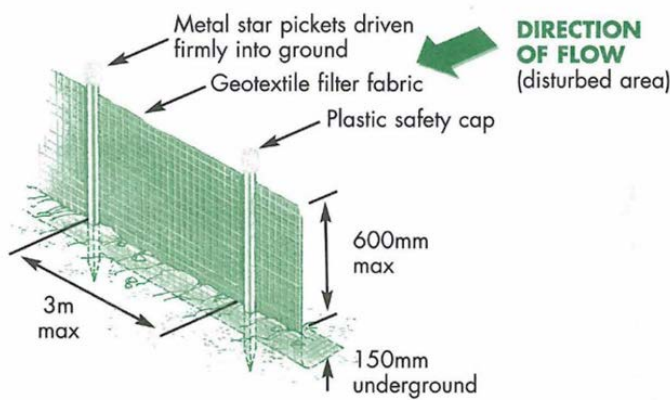
## INLET SEDIMENT TRAP



### Construction Notes

- Install filters to kerb inlets only at sag points.
- Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
- Form an elliptical cross-section about 150 mm high x 400 mm wide.
- Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
- Form a seal with the kerb to prevent sediment bypassing the filter.
- Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.

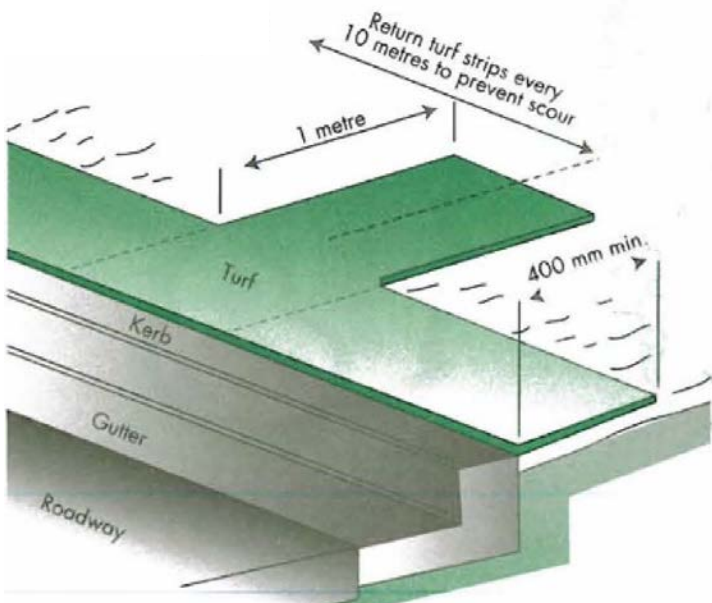
## SEDIMENT FENCING



### Construction Notes

- Construct sediment fences as close as possible to follow the contours of the site.
- Drive 1.5 metre long posts into ground, maximum 3 metres apart.
- Staple to 40 mm square hardwood posts or wire tied to steel posts.
- Dig a 150 mm deep trench along the up-slope line of the fence for the bottom of the fabric to be entrenched.
- Backfill trench over base of fabric and compact on both sides.

## GRASS FILTER STRIPS



### Construction Notes

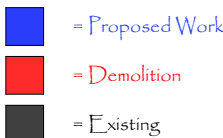
- Install a 400-mm minimum wide roll of turf on the footpath next to the kerb and at the same level as the top of the kerb.
- Lay 1.4 metre long turf strips normal to the kerb every 10 metres.
- Rehabilitate disturbed soil behind the

Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - Sediment Control Plan



Drawn/Designed : PB/MW  
Project Number : 2142  
Drawing No. : DA15  
Date : 080622  
Scale : 1:200 @ A3  
Issue :



# BASIX®Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Alterations and Additions

Certificate number: A460193

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 Alterations and Additions Definitions" dated 06/10/2017 published by the Department. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Thursday, 19, May 2022

To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning,  
Industry &  
Environment

Project address	
Project name	Knightsbridge
Street address	21 Knightsbridge Avenue Belrose 2085
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan 237441
Lot number	17
Section number	
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at \$50,000 or more, and does not include a pool (and/or spa).

<b>Certificate Prepared by</b> (please complete before submitting to Council or PCA)
Name / Company Name: Northern Beaches designs
ABN (if applicable): 47121229166

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
<b>Lighting</b>		✓	✓
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.			
<b>Fixtures</b>		✓	✓
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

NSW Certificate Number: A460193

Page 1 of 6

Legend
In these commitments, "applicant" means the person carrying out the development.
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).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

page 1 / 6

Description of project

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
<b>Insulation requirements</b>			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓
<b>Construction</b>	<b>Additional insulation required (R-value)</b>	<b>Other specifications</b>	
floor above existing dwelling or building.	nil		
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)		
flat ceiling, pitched roof	ceiling: R1.45 (up), roof: foil backed blanket (55 mm)	dark (solar absorptance > 0.70)	

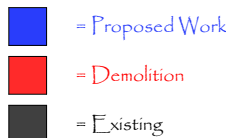
Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check																																																																													
<b>Windows and glazed doors</b>																																																																																
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓																																																																													
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓																																																																													
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		✓	✓																																																																													
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓																																																																													
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓																																																																													
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓																																																																													
<b>Windows and glazed doors glazing requirements</b>																																																																																
<table><tr><th>Window / door no.</th><th>Orientation</th><th>Area of glass inc. frame (m2)</th><th colspan="2">Overshadowing</th><th>Shading device</th><th>Frame and glass type</th></tr><tr><td></td><td></td><td></td><th>Height (m)</th><th>Distance (m)</th><td></td><td></td></tr><tr><td>W1</td><td>S</td><td>2.21</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W2</td><td>S</td><td>0.9</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W3</td><td>N</td><td>2.41</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W4</td><td>N</td><td>3.06</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W5</td><td>S</td><td>0.6</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W6</td><td>S</td><td>1.17</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W7</td><td>N</td><td>1.4</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>W8</td><td>S</td><td>2.21</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr><tr><td>D03</td><td>N</td><td>5.04</td><td>0</td><td>0</td><td>eave/verandah/pergola/balcony &gt;=600 mm</td><td>standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)</td></tr></table>	Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type				Height (m)	Distance (m)			W1	S	2.21	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W2	S	0.9	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W3	N	2.41	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W4	N	3.06	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W5	S	0.6	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W6	S	1.17	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W7	N	1.4	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	W8	S	2.21	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)	D03	N	5.04	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)			
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D03	N	5.04	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single toned, (or U-value: 7.57, SHGC: 0.57)																																																																										
<b>Skylights</b>																																																																																
The applicant must install the skylights in accordance with the specifications listed in the table below.	✓	✓	✓																																																																													
The following requirements must also be satisfied in relation to each skylight:		✓	✓																																																																													
Each skylight may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below.		✓	✓																																																																													
<b>Skylights glazing requirements</b>																																																																																
<table><tr><th>Skylight number</th><th>Area of glazing inc. frame (m2)</th><th>Shading device</th><th>Frame and glass type</th></tr><tr><td>S1</td><td>0.8</td><td>no shading</td><td>timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)</td></tr><tr><td>S2</td><td>0.8</td><td>no shading</td><td>timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)</td></tr></table>	Skylight number	Area of glazing inc. frame (m2)	Shading device	Frame and glass type	S1	0.8	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)	S2	0.8	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)																																																																				
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Date :	Issue :	Description :

The builder shall check and verify all dimensions and verify all errors and omissions to the Designer. Do not scale from the drawings. Drawings shall not be used for construction purposes until issued by the Designer for construction. Drawings and design is subject to copyright and may not be reproduced without prior written consent by Northern Beaches Designs.



Project : Additions & Alterations  
DA  
21 Knightsbridge Ave, Belrose  
Lot 17 in DP 237441 - 836.1m2  
Client : Private Residence  
Drawing : - **BASIX**



Drawn/Designed : PB/MW  
Project Number : **2142**  
Drawing No. : **DA16**

Date : 080622  
Scale :  
Issue :

## Appendix B - Council Flood Information Report - Comprehensive



## FLOOD INFORMATION REPORT – COMPREHENSIVE

**Property:** 21 Knightsbridge Avenue BELROSE NSW 2085

**Lot DP:** Lot 17 DP 237441

**Issue Date:** 23/03/2022

**Flood Study Reference:** Frenchs Creek Flood Study 2010, DHI

---

### Flood Information for lot <sup>1</sup>:

#### **Flood Risk Precinct – See Map A**

Low Flood Risk Precinct

#### **Flood Planning Area – See Map A**

No Flood Planning Area for the site

#### **1% AEP Flood – See Flood Map B**

The site is not affected by the 1% AEP flood.

#### **Probable Maximum Flood (PMF) – See Flood Map C**

The PMF level is 0.3m above the natural ground level within the PMF extent shown on Map C.

#### **Flood Life Hazard Category – See Map D**

#### **Indicative Ground Surface Spot Heights – See Map E**



<sup>1</sup> The flood information does not take into account any local overland flow issues nor private stormwater drainage systems.

<sup>2</sup> Overland flow/mainstream water levels may vary across a sloping site, resulting in variable minimum floor/flood planning levels across the site. The maximum Flood Planning Level may be in a different location to the maximum 1% AEP flood level.

<sup>3</sup> Intensification of development in the former Pittwater LGA requires the consideration of climate change impacts which may result in higher minimum floor levels.

<sup>4</sup> Vulnerable/critical developments require higher minimum floor levels using the higher of the PMF or FPL.

### **General Notes:**

- All levels are based on Australian Height Datum (AHD) unless otherwise noted.
- This is currently the best available information on flooding; it may be subject to change in the future.
- Council recommends that you obtain a detailed survey of the above property and surrounds to AHD by a registered surveyor to determine any features that may influence the predicted extent or frequency of flooding. It is recommended you compare the flood level to the ground and floor levels to determine the level of risk the property may experience should flooding occur.
- Development approval is dependent on a range of issues, including compliance with all relevant provisions of Northern Beaches Council's Local Environmental Plans and Development Control Plans.
- Please note that the information contained within this letter is general advice only as a detail survey of the property as well as other information is not available. Council recommends that you engage a suitably experienced consultant to provide site specific flooding advice prior to making any decisions relating to the purchase or development of this property.
- The Flood Studies on which Council's flood information is based are available on Council's website.

### **Property Notes:**

- The Frenchs Creek Flood Study is one of Council's oldest current flood studies, and the flood information available from it is not as comprehensive as for the newer studies.
- Council is currently undertaking the Middle Harbour Flood Study, the results from which will supersede the flood information in this certificate some time during 2022. If a DA is to be submitted in 2022 or later, Council should be consulted to check whether the flood information in this report has been updated.

## FLOOD MAP A: FLOOD RISK PRECINCT MAP

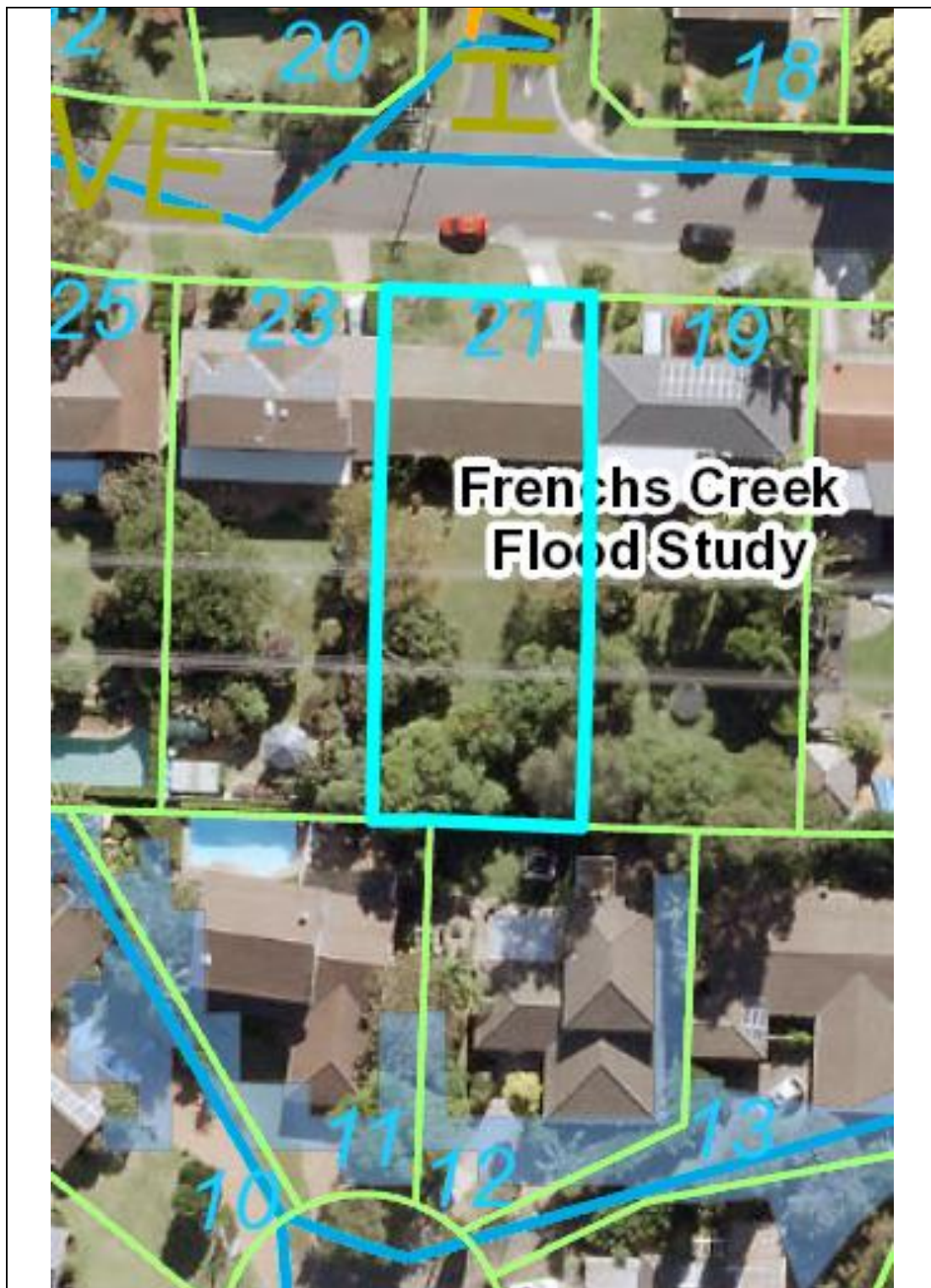


Pink = Low Flood Risk Precinct

### Notes:

- **Low Flood Risk precinct** means all flood prone land not identified within the High or Medium flood risk precincts.
- **Medium Flood Risk precinct** means all flood prone land that is (a) within the 1% AEP Flood Planning Area; and (b) is not within the high flood risk precinct.
- **High Flood Risk precinct** means all flood prone land (a) within the 1% AEP Flood Planning Area; and (b) is either subject to a high hydraulic hazard, within the floodway or subject to significant evacuation difficulties (H5 or H6 Life Hazard Classification).
- The **Flood Planning Area** extent is equivalent to the Medium Flood Risk Precinct extent, and includes the High Flood Risk Precinct within it. The mapped extent represents the 1% annual Exceedance Probability (AEP) flood event + freeboard.
- None of these mapped extents include climate change.

## FLOOD MAP B: FLOODING - 1% AEP EXTENT

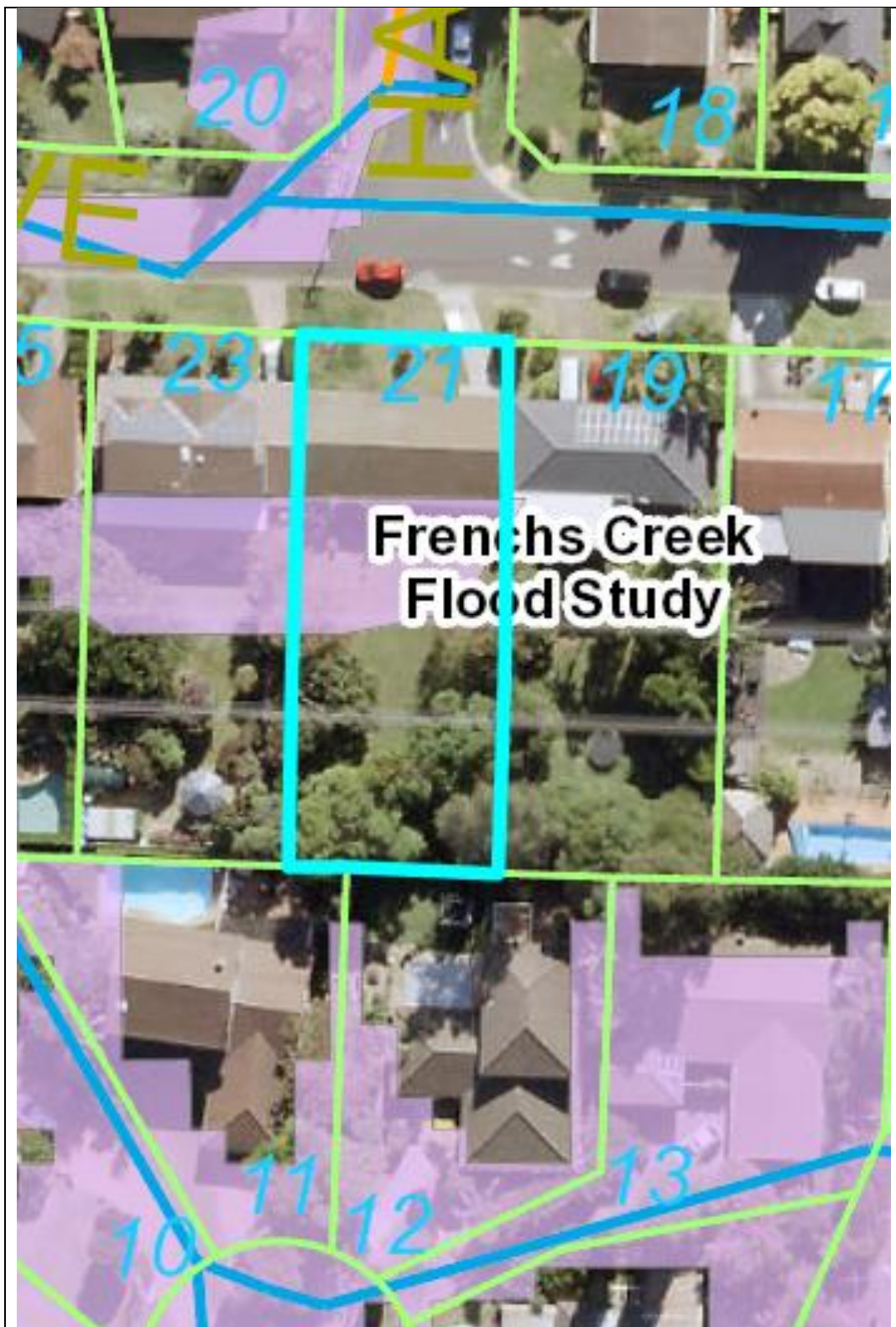


### Notes:

- Extent represents the 1% annual Exceedance Probability (AEP) flood event.
- Flood events exceeding the 1% AEP can occur on this site.
- Extent does not include climate change.
- Cadastre Lines (Source: NSW Government Land and Property Information), flood levels/ extents (Source: Frenchs Creek Flood Study 2010, DHI) and aerial photography (Source: Near Map 2014) are indicative only.



## FLOOD MAP C: PMF EXTENT MAP

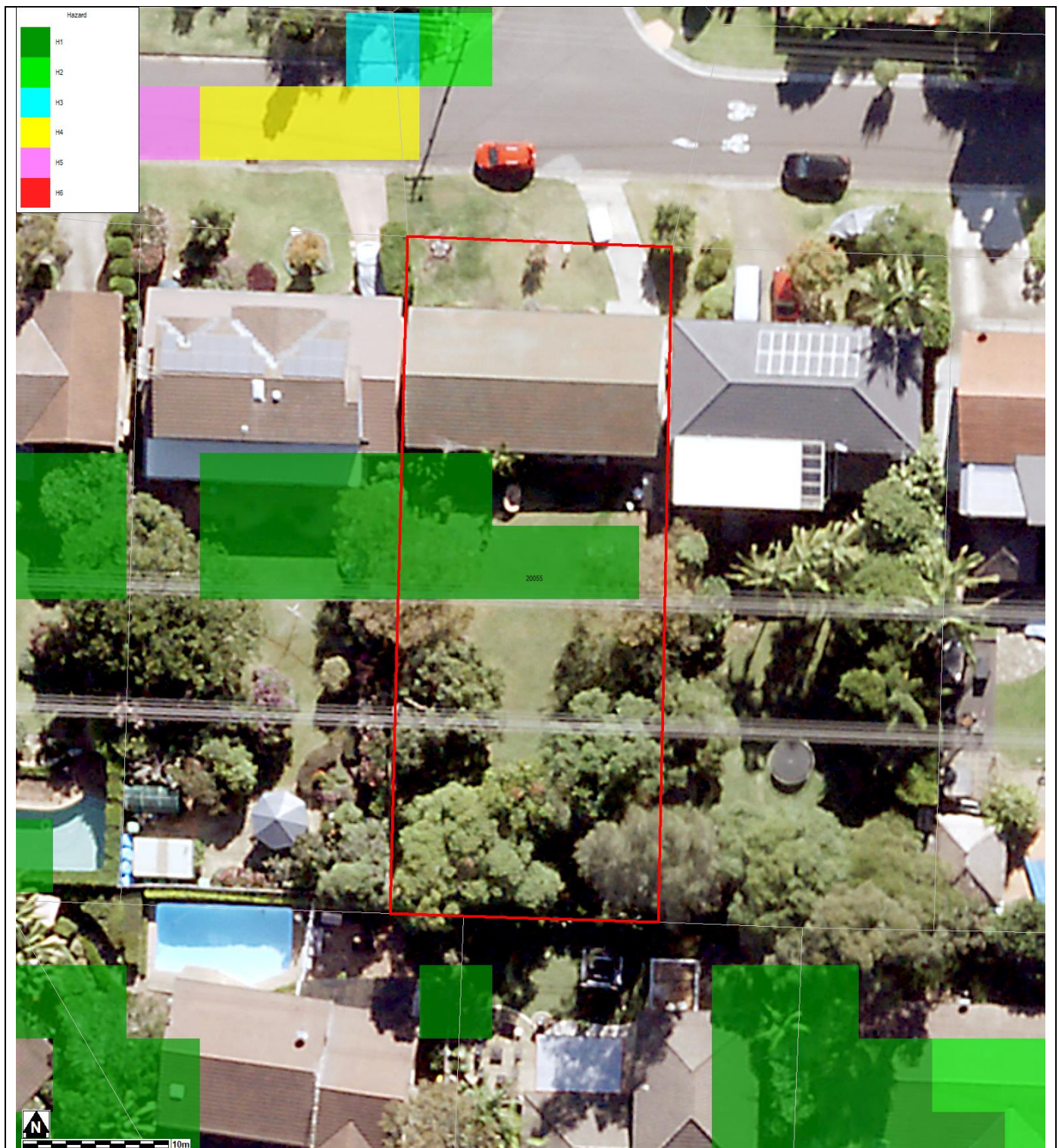


### Notes:

- Extent represents the Probable Maximum Flood (PMF) flood event
- Extent does not include climate change
- Cadastre Lines (Source: NSW Government Land and Property Information), flood levels/extents (Source: Frenchs Creek Flood Study 2010, DHI) and aerial photography (Source: NearMap 2014) are indicative only



# FLOOD MAP G: FLOOD LIFE HAZARD CATEGORY

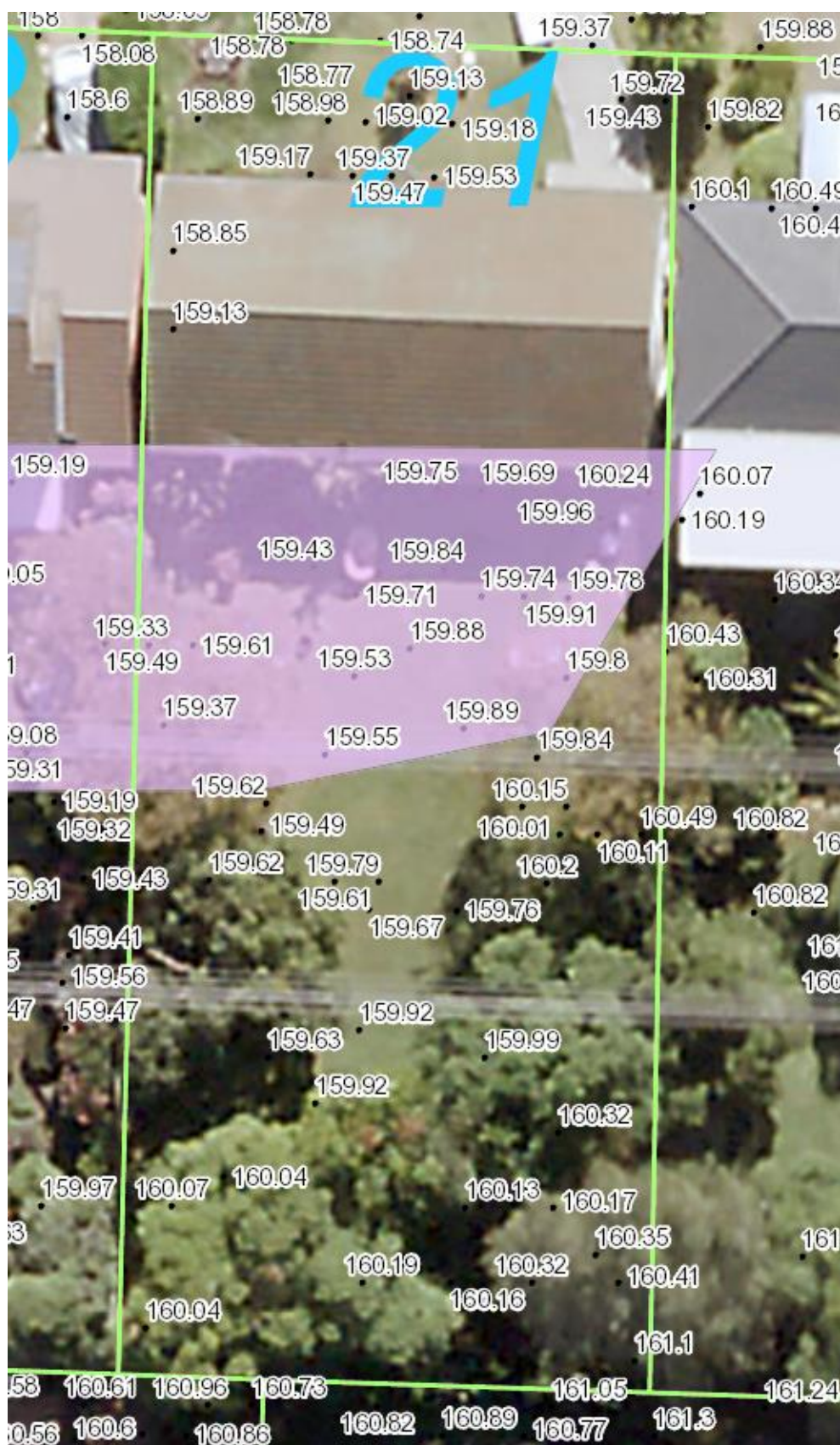


## Notes:

- Cadastre Lines (Source: NSW Government Land and Property Information), flood levels/extents (Source: Frenchs Creek Flood Study 2010, DHI) and aerial photography (Source Near Map 2014) are indicative only.



## MAP H: INDICATIVE GROUND SURFACE SPOT HEIGHTS



### Notes:

- The surface spot heights shown on this map were derived from Airborne Laser Survey and are indicative only.
- Accuracy is generally within  $\pm 0.2\text{m}$  vertically and  $\pm 0.15\text{m}$  horizontally, and Northern Beaches Council does not warrant that the data does not contain errors.
- If accuracy is required, then survey should be undertaken by a registered surveyor.



# Preparation of a Flood Management Report

## Introduction

These guidelines are intended to provide advice to applicants on how to determine what rules apply on flood prone land, and how to prepare a Flood Management Report. The purpose of a Flood Management Report is to demonstrate how a proposed development will comply with flood related planning requirements.

## Planning Requirements for Flood Prone Land

Development must comply with the requirements for developing flood prone land set out in the relevant Local Environment Plan (LEP) and Development Control Plan (DCP). There are separate LEPs and DCPs for each of the former Local Government Areas (LGAs), although preparation of a LGA-wide LEP and DCP is currently under way.

The clauses specific to flooding in the LEPs and DCPs are as follows:

LEP Clauses	DCP Clauses
Manly LEP (2013) – 6.3 Flood Planning	Manly DCP (2013) – 5.4.3 Flood Prone Land
Warringah LEP (2011) – 6.3 Flood Planning Warringah LEP (2000) – 47 Flood Affected Land *	Warringah DCP (2011) – E11 Flood Prone Land
Pittwater LEP (2014) – 7.3 Flood Planning Pittwater LEP (2014) – 7.4 Flood Risk Management	Pittwater 21 DCP (2014) – B3.11 Flood Prone Land Pittwater 21 DCP (2014) – B3.12 Climate Change

\* The Warringah LEP (2000) is relevant only for the “deferred lands” which affects only a very small number of properties, mostly in the Oxford Falls area.

Development on flood prone land must also comply with Council’s Water Management for Development Policy, and if it is in the Warriewood Release Area, with the Warriewood Valley Water Management Specification. Guidelines for Flood Emergency Response Planning are available for addressing emergency response requirements in the DCP. These documents can be found on Council’s website on the [Flooding page](#).

Note that if the property is affected by estuarine flooding or other coastal issues, these need to be addressed separately under the relevant DCP clauses.

## When is a Flood Management Report required?

A Flood Management Report must be submitted with any Development Application on flood prone land (with exceptions noted below), for Council to consider the potential flood impacts and applicable controls. For Residential or Commercial development, it is required for development on land identified within the Medium or High Flood Risk Precinct. For Vulnerable or Critical development, it is required if it is within any Flood Risk Precinct.

There are some circumstances where a formal Flood Management Report undertaken by a professional engineer may not be required. However the relevant parts of the DCP and LEP would still need to be addressed, so as to demonstrate compliance. Examples where this may apply include:

- If all proposed works are located outside the relevant Flood Risk Precinct extent
- First floor addition only, where the floor level is above the Probable Maximum Flood level
- Internal works only, where habitable floor areas below the FPL are not being increased

Note that development on flood prone land will still be assessed for compliance with the relevant DCP and LEP, and may still be subject to flood related development controls.

### What is the purpose of a Flood Management Report?

The purpose of a Flood Management Report is to demonstrate how a proposed development will comply with flood planning requirements, particularly the development controls outlined in the relevant LEP and DCP clauses. The report must detail the design, measures and controls needed to achieve compliance, following the steps outlined below.

A Flood Management Report should reflect the size, type and location of the development, proportionate to the scope of the works proposed, and considering its relationship to surrounding development. The report should also assess the flood risk to life and property.

### Preparation of a Flood Management Report

The technical requirements for a Flood Management Report include (where relevant):

1. Description of development

- Outline of the proposed development, with plans if necessary for clarity
- Use of the building, hours of operation, proposed traffic usage or movement
- Type of use, eg vulnerable, critical, residential, business, industrial, subdivision, etc

2. Flood analysis

- 1% AEP flood level
- Flood Planning Level (FPL)
- Probable Maximum Flood (PMF) level
- Flood Risk Precinct, ie High, Medium or Low
- Flood Life Hazard Category
- Mapping of relevant extents
- Flood characteristics for the site, eg depth, velocity, hazard and hydraulic category, and the relevance to the proposed development

If the property is affected by an Estuarine Planning Level (EPL) which is higher than the FPL, then the EPL should be used as the FPL. If the FPL is higher than the PMF level, then the FPL should still be used as the FPL, as it includes freeboard which the PMF does not.

3. Assessment of impacts

- Summary of compliance for each category of the DCP, as per the table below.

	Compliance		
	N/A	Yes	No
A) Flood effects caused by Development			
B) Building Components & Structural Soundness			
C) Floor Levels			
D) Car parking			
E) Emergency Response			
F) Fencing			
G) Storage of Goods			
H) Pools			

- Demonstration of how the development complies with any relevant flood planning requirements from the DCP, LEP, Water Management for Development Policy, and if it is in the Warriewood Valley Urban Land Release Area, with the Warriewood Valley Water Management Specification (2001)
- For any non-compliance, a justification for why the development should still be considered.
- Calculations of available flood storage if compensatory flood storage is proposed
- Plan of the proposed development site showing the predicted 1% AEP and PMF flood extents, as well as any high hazard or floodway affectation
- Development recommendations and construction methodologies
- Qualifications of author - Council requires that the Flood Management Report be prepared by a suitably qualified Engineer with experience in flood design / management who has, or is eligible for, membership to the Institution of Engineers Australia
- Any flood advice provided by Council
- Any other details which may be relevant

Further information and guidelines for development are available on Council's website at:

<https://www.northernbeaches.nsw.gov.au/planning-and-development/building-and-renovations/development-applications/guidelines-development-flood-prone-land>

Council's Flood Team may be contacted on 1300 434 434 or at [floodplain@northernbeaches.nsw.gov.au](mailto:floodplain@northernbeaches.nsw.gov.au) .