GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1 – To be submitted with Development Application

Development Application for _____
Name of Applicant

Address of site 7B Trentwood Park, Avalon

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk ***Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report***

I, Ben White *on behalf of* White Geotechnical Group Pty Ltd
(Insert Name) (Trading or Company Name)

on this the 14/12/21 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009 and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $10million.

I:
Please mark appropriate box

☒ have prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☒ am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☐ have examined the site and the proposed development in detail and have carried out a risk assessment in accordance with Section 6.0 of the Geotechnical Risk Management Policy for Pittwater - 2009. I confirm that the results of the risk assessment for the proposed development are in compliance with the Geotechnical Risk Management Policy for Pittwater - 2009 and further detailed geotechnical reporting is not required for the subject site.

☐ have examined the site and the proposed development/alteration in detail and I am of the opinion that the Development Application only involves Minor Development/Alteration that does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have examined the site and the proposed development/alteration is separate from and is not affected by a Geotechnical Hazard and does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have provided the coastal process and coastal forces analysis for inclusion in the Geotechnical Report

Geotechnical Report Details:

Report Title: Geotechnical Report **7B Trentwood Park, Avalon**
Report Date: 14/12/21

Author: BEN WHITE

Author's Company/Organisation: **WHITE GEOTECHNICAL GROUP PTY LTD**

Documentation which relate to or are relied upon in report preparation:

Australian Geomechanics Society Landslide Risk Management March 2007.

White Geotechnical Group company archives.

I am aware that the above Geotechnical Report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the Geotechnical Risk Management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature _____

Name Ben White

Chartered Professional Status MScGEOLAusIMM CP GEOL

Membership No. 222757

Company White Geotechnical Group Pty Ltd

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1(a) - Checklist of Requirements for Geotechnical Risk Management Report for Development Application

Development Application for _____
Name of Applicant

Address of site 7B Trentwood Park, Avalon

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certification (Form No. 1).

Geotechnical Report Details:

Report Title: Geotechnical Report **7B Trentwood Park, Avalon**

Report Date: 14/12/21

Author: BEN WHITE

Author's Company/Organisation: WHITE GEOTECHNICAL GROUP PTY LTD

Please mark appropriate box

- ☒ Comprehensive site mapping conducted **14/9/17** (date)
- ☒ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)
- ☒ Subsurface investigation required
  - ☐ No Justification _____
  - ☒ Yes Date conducted **14/9/17**
- ☒ Geotechnical model developed and reported as an inferred subsurface type-section
- ☒ Geotechnical hazards identified
  - ☒ Above the site
  - ☒ On the site
  - ☒ Below the site
  - ☐ Beside the site
- ☒ Geotechnical hazards described and reported
- ☒ Risk assessment conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
  - ☒ Consequence analysis
  - ☒ Frequency analysis
- ☒ Risk calculation
- ☒ Risk assessment for property conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
- ☒ Risk assessment for loss of life conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
- ☒ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater - 2009
- ☒ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.
- ☒ Design Life Adopted:
  - ☒ 100 years
  - ☐ Other _____ specify
- ☒ Geotechnical Conditions to be applied to all four phases as described in the Geotechnical Risk Management Policy for Pittwater - 2009 have been specified
- ☒ Additional action to remove risk where reasonable and practical have been identified and included in the report.
- ☐ Risk assessment within Bushfire Asset Protection Zone.

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature _____

Name Ben White

Chartered Professional Status MScGEOLAusIMM CP GEOL

Membership No. 222757

Company White Geotechnical Group Pty Ltd

GEOTECHNICAL INVESTIGATION:

New House at **7B Trentwood Park, Avalon**

1. Proposed Development

1.1 Construct a new house on the vacant lot by excavating ~3.2m into the slope.

1.2 Details of the proposed development are shown on 14 drawings prepared by Stothard Projects, sheets numbered 01 to 11 are Issue F and sheets numbered 21 to 23 are unrevised, all drawings dated 19/11/21.

2. Site Description

2.1 The site was inspected on the 14th September, 2017.

2.2 This residential property is on the high side of the road and has an E aspect. It is positioned on the moderate to steeply graded middle reaches of a hillslope. The natural slope rises across the property at an average angle of ~20°. The slope above and below the property continues at similar angles.

2.3 At the road frontage, a concrete driveway runs up the slope past the S side of the property (Photo 1). The driveway diverts to a lawn-covered parking area on the uphill side of the property (Photo 2). The fill for the lawn-covered parking area is battered to stable angles and merges into the natural slope (Photo 3). Between the road frontage and the lawn-covered parking area, the slope is sparsely vegetated with native trees (Photo 4).

3. Geology

The Sydney 1:100 000 Geological sheet indicates the site is underlain by the Newport Formation of the Narrabeen Group. This is described as interbedded laminite, shale, and quartz to lithic quartz sandstone.

4. Subsurface Investigation

One hand Auger Hole (AH) was put down to identify the soil materials. Three Dynamic Cone Penetrometer (DCP) tests were put down to determine the relative density of the overlying soil and the depth to bedrock. The locations of the tests are shown on the site plan attached. It should be noted that a level of caution should be applied when interpreting DCP test results. The test will not pass through hard buried objects so in some instances it can be difficult to determine whether refusal has occurred on an obstruction in the profile or on the natural rock surface. This is not expected to be an issue for the testing on this site. However, excavation and foundation budgets should always allow for the possibility that the interpreted ground conditions in this report vary from those encountered during excavations. See the appended "Important information about your report" for a more comprehensive explanation. The results are as follows:

AUGER HOLE 1 (~RL46.1) **–** AH1 (Photo 5)

Depth (m)	Material Encountered
0.0 to 0.3	**TOPSOIL,** sandy soil, brown-grey, fine to medium grained with fine trace organic matter and trace silt.
0.3 to 0.6	**CLAY**, orange-brown, firm to stiff, fine grained.

End of hole @ 0.6m in firm to stiff clay. No water table encountered.

GROUND TEST RESULTS CONTINUED ON NEXT PAGE

DCP TEST RESULTS – Dynamic Cone Penetrometer			
Equipment: 9kg hammer, 510mm drop, conical tip.			Standard: AS1289.6.3.2 - 1997
Depth(m) **Blows/0.3m**	**DCP 1** (~RL42.8)	**DCP 2** (~RL45.7)	**DCP 3** (~RL49.7)
0.0 to 0.3	29	16	38
0.3 to 0.6	26	23	28
0.6 to 0.9	30	20	30
0.9 to 1.2	#	30	#
1.2 to 1.5		#	
	End of Test @ 0.9m	Refusal @ 1.0m	End of Test @ 0.9m

#refusal/end of test. F = DCP fell after being struck showing little resistance through all or part of the interval.

DCP Notes:

DCP1 – End of test @ 0.9m, DCP still very slowly going down, light brown shale fragments on dry tip.

DCP2 – Refusal @ 1.0m, DCP bouncing, white to orange-brown shale fragments on dry tip.

DCP3 – End of test @ 0.9m, DCP still very slowly going down, white and maroon shale fragments on dry tip.

5. Geological Observations/Interpretation

The slope materials are colluvial at the near surface and residual at depth. They consist of a thin sandy topsoil over firm to stiff clays. In the test locations, the clays merge into the weathered zone of the underlying rocks at an average depth of ~0.6m below the current surface. The weathered zone of the underlying rock is interpreted as Extremely Low to Very Low Strength Shale. It is to be noted that this material is a soft rock and can appear as a mottled stiff clay when it is cut up by excavation equipment. See Type Section attached for a diagrammatical representation of the expected ground materials.

6. Groundwater

Normal ground water seepage is expected to move over the buried surface of the clay and rock and through the cracks in the rock.

Due to the slope and elevation of the block, the water table in the location is expected to be many metres below the base of the proposed excavations.

7. Surface Water

No evidence of surface flows were observed on the property during the inspection. It is expected that normal sheet wash will move onto the site from above the property during heavy down pours.

8. Geotechnical Hazards and Risk Analysis

No geotechnical hazards were observed beside the property. The moderate to steeply graded land surface that falls across the property and continues above and below is a potential hazard (**Hazard One**). The proposed excavations are a potential hazard until the retaining walls are in place (**Hazard Two**).

RISK ANALYSIS SUMMARY ON THE NEXT PAGE

Geotechnical Hazards and Risk Analysis - Risk Analysis Summary

HAZARDS	Hazard One	Hazard Two
TYPE	The moderate to steep slope that falls across the property and continues above and below failing and impacting on the proposed works.	The excavations collapsing onto the work site and impacting on the N neighbouring property.
LIKELIHOOD	'Unlikely' (10^{-4})	'Possible' (10^{-3})
CONSEQUENCES TO PROPERTY	'Medium' (15%)	'Medium' (30%)
RISK TO PROPERTY	'Low' (2 x 10^{-5})	'Moderate' (2 x 10^{-4})
RISK TO LIFE	5.5 x 10^{-7}/annum	5.6 x 10^{-4}/annum
COMMENTS	This level of risk is 'ACCEPTABLE'.	'UNACCEPTABLE' level of risk to life and property. To move risk to 'ACCEPTABLE' levels, the recommendations in **Section 13** are to be followed.

(See Aust. Geomech. Jnl. Mar 2007 Vol. 42 No 1, for full explanation of terms)

9. Suitability of the Proposed Development for the Site

The proposed development is suitable for the site. No geotechnical hazards will be created by the completion of the proposed development provided it is carried out in accordance with the requirements of this report and good engineering and building practice.

10. Stormwater

The fall is to the street. Roof water from the development is to be piped to the street drainage system through any tanks that may be required by the regulating authorities.

11. Excavations

An excavation to a maximum depth of ~3.2m will be required to construct the garage level of the proposed house. Another excavation to maximum depth of ~2.3m will be required to construct the upper level of the proposed house.

The excavations are expected to be through a thin sandy soil over firm to stiff sandy clays with Extremely Low to Very Low Strength Shale expected at an average depth of ~0.6m below the surface.

Excavations through soil, clay, and Extremely Low to Very Low Strength Shale can be carried out with an excavator and bucket.

12. Vibrations

No excessive vibrations will be generated by excavation through soil, clay, or Extremely Low to Very Low Strength Shale. Any vibrations generated by a domestic machine and bucket up to 16 ton will be below the threshold limit for infrastructure or building damage.

13. Excavation Support Requirements

Bulk Excavation for Garage Level

The excavation for the proposed garage level will reach a maximum depth of ~3.2m and, allowing for back-wall drainage, will be taken close to flush with the N common boundary. The house on the N neighbouring property is cut into the slope, effectively reducing the impact of the zone of influence from the proposed excavation.

Due to the depth of the proposed excavation, the steep grade of the slope, and the proximity of the excavation to the N common boundary, ground support will need to be installed along all sides of the excavation with the support installed before, or as the excavation commences. See the site plan attached for the minimum extent of the required shoring. A spaced piled retaining wall is one of the suitable methods of support. Pier spacing is typically ~2.0m but

can vary between 1.6 to 2.4m depending on the design. The piers can be supported by embedment or propping installed as the excavation is lowered.

To drill the pier holes for the wall, a pilling rig that can excavate through Medium Strength Rock will be required. If a machine of this type is not available, we recommend carrying out core drilling before the construction commences to confirm the strength of the rock and to ensure the excavation equipment is capable of reaching the required depths. As the excavation is lowered in 1.5m lifts, infill sprayed concrete panels or similar are added between the piers to form the wall. Drainage is installed behind the panels. The walls are to be tied into the concrete floor and ceiling slabs of the proposed structure after which any temporary bracing/support can be released.

The geotechnical consultant is to inspect the drilling process of the entire first pile and the ground materials at the base of all pier holes/excavations for ground support purposes.

Bulk Excavation for Upper Level

The excavation for the proposed upper level will reach a maximum depth of ~2.3m and, allowing for back-wall drainage, will also be taken close to flush with the N common boundary. As such, the cut will require temporary support to maintain the integrity of the N neighbouring property until permanent retaining walls are in place.

The cut will require staged sacrificial temporary support such as braced form ply or similar support installed along the N side as the excavations are progressed in spans not less than 2.0m horizontally. The support is to be designed by the structural engineer. The temporary support is to remain in place until the retaining walls are built. See the site plan attached for the minimum extent of the required shoring.

Provided soils are battered at 1.0 Vertical to 2.0 Horizontal (26°) and clays are battered at 1.0 Vertical to 1.0 Horizontal (45°) for at least the top 1.0m, the remaining stiff clay/Extremely Low to Very Low Strength Shale is expected to stand unsupported at near-vertical angles for

short periods of time until retaining walls are in place provided the cuts are kept from becoming saturated.

During the excavation process, the geotechnical consultant is to inspect the cut in 1.5m intervals as it is lowered, while the machine/excavation equipment is on site, to ensure the ground materials are as expected and no additional temporary support is required.

Upslope runoff is to be diverted from the cut faces by sandbag mounds or other diversion works. Unsupported cut batters through soil, clay, and Extremely Low to Very Low Strength Shale are to be covered to prevent access of water in wet weather and loss of moisture in dry weather. The covers are to be tied down with metal pegs or other suitable fixtures so they can't blow off in a storm. The materials and labour to construct the retaining walls are to be organised so on completion of the excavations they can be constructed as soon as possible. The excavations are to be carried out during a dry period. No excavations are to commence if heavy or prolonged rainfall is forecast.

All excavation spoil is to be removed from site following the current Environmental Protection Agency (EPA) waste classification guidelines.

14. Retaining Walls

For cantilever or singly-propped retaining walls, it is suggested the design be based on a triangular pressure distribution of lateral pressures using the parameters shown in Table 1.

TABLE 1 IS ON THE NEXT PAGE

Table 1 – Likely Earth Pressures for Retaining Walls

Unit	Earth Pressure Coefficients			
	Unit weight (kN/m^3)	'Active' K_a	'At Rest' K_0	Passive
Soil and Residual Clays	20	0.40	0.55	N/A
Extremely Low Strength Rock	22	0.25	0.35	Kp 2.5 ultimate
Rock Up to Low Strength Rock	24	0.25	0.35	Kp 2.5 ultimate

For rock classes refer to Pells et al "Design Loadings for Foundations on Shale and Sandstone in the Sydney Region". Australian Geomechanics Journal 1978.

It is to be noted that the earth pressures in Table 1 assume a level surface above the wall, do not account for any surcharge loads, and assume retaining walls are fully drained. It should be noted that passive pressure is an ultimate value and should have an appropriate safety factor applied. No passive resistance should be assumed for the top 0.4m to account for any disturbance from the excavation. Rock strength and relevant earth pressure coefficients are to be confirmed on site by the geotechnical consultant.

All retaining walls are to have sufficient back-wall drainage and be backfilled immediately behind the wall with free-draining material (such as gravel). This material is to be wrapped in a non-woven Geotextile fabric (i.e., Bidim A34 or similar), to prevent the drainage from becoming clogged with silt and clay. If no back-wall drainage is installed in retaining walls, the likely hydrostatic pressures are to be accounted for in the structural design.

15. Foundations

The proposed house can be supported on a concrete slab and piers taken to Extremely Low to Very Low Strength Shale. This ground material is expected to be exposed across most of the bases of the excavations, and is expected at an average depth of ~0.6m below the current surface. A maximum allowable bearing pressure of 600kPa can be assumed for footings on

Extremely Low to Very Low Strength Shale. It should be noted that this material is a soft rock and a rock auger will cut through it so the builders should not be looking for refusal to end the footings.

As the bearing capacity of clay and shale reduces when it is wet, we recommend the footings be dug, inspected, and poured in quick succession (ideally the same day if possible). If the footings get wet, they will have to be drained and the soft layer of wet clay or shale on the footing surface will have to be removed before concrete is poured.

If a rapid turnaround from footing excavation to the concrete pour is not possible, a sealing layer of concrete may be added to the footing surface after it has been cleaned.

NOTE: If the contractor is unsure of the footing material required, it is more cost-effective to get the geotechnical consultant on site at the start of the footing excavation to advise on footing depth and material. This mostly prevents unnecessary over-excavation in clay-like shaly-rock but can be valuable in all types of geology.

16. Geotechnical Review

The structural plans are to be checked and certified by the geotechnical consultant as being in accordance with the geotechnical recommendations. On completion, a Form 2B will be issued. This form is required for the Construction Certificate to proceed.

17. Inspections

The client and builder are to familiarise themselves with the following required inspections as well as council geotechnical policy. We cannot provide geotechnical certification for the Occupation Certificate if the following inspections have not been carried out during the construction process.

- The geotechnical professional is to inspect the drilling process of the entire first pile of the retaining wall and the ground materials at the base of all the piers before any concrete is placed.

- During the excavation process, the geotechnical consultant is to inspect the cuts in 1.5m intervals as they are lowered, while the machine/excavation equipment is on site, to ensure the ground materials are as expected and no temporary support is required.

- All footings are to be inspected and approved by the geotechnical consultant while the excavation equipment and contractors are still onsite and before steel reinforcing is placed or concrete is poured.

White Geotechnical Group Pty Ltd.

Ben White M.Sc. Geol.,
AusIMM., CP GEOL.
No. 222757
Engineering Geologist

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5: AH1 – Downhole is from left to right

Important Information about Your Report

It should be noted that Geotechnical Reports are documents that build a picture of the subsurface conditions from the observation of surface features and testing carried out at specific points on the site. The spacing and location of the test points can be limited by the location of existing structures on the site or by budget and time constraints of the client. Additionally, the test themselves, although chosen for their suitability for the particular project, have their own limiting factors. The testing gives accurate information at the location of the test, within the confines of the test's capability. A geological interpretation or model is developed by joining these test points using all available data and drawing on previous experience of the geotechnical consultant. Even the most experienced practitioners cannot determine every possible feature or change that may lie below the earth. All of the subsurface features can only be known when they are revealed by excavation. As such, a Geotechnical report can be considered an interpretive document. It is based on factual data but also on opinion and judgement that comes with a level of uncertainty. This information is provided to help explain the nature and limitations of your report.

With this in mind, the following points are to be noted:

- If upon the commencement of the works the subsurface ground or ground water conditions prove different from those described in this report, it is advisable to contact White Geotechnical Group immediately, as problems relating to the ground works phase of construction are far easier and less costly to overcome if they are addressed early.

- If this report is used by other professionals during the design or construction process, any questions should be directed to White Geotechnical Group as only we understand the full methodology behind the report's conclusions.

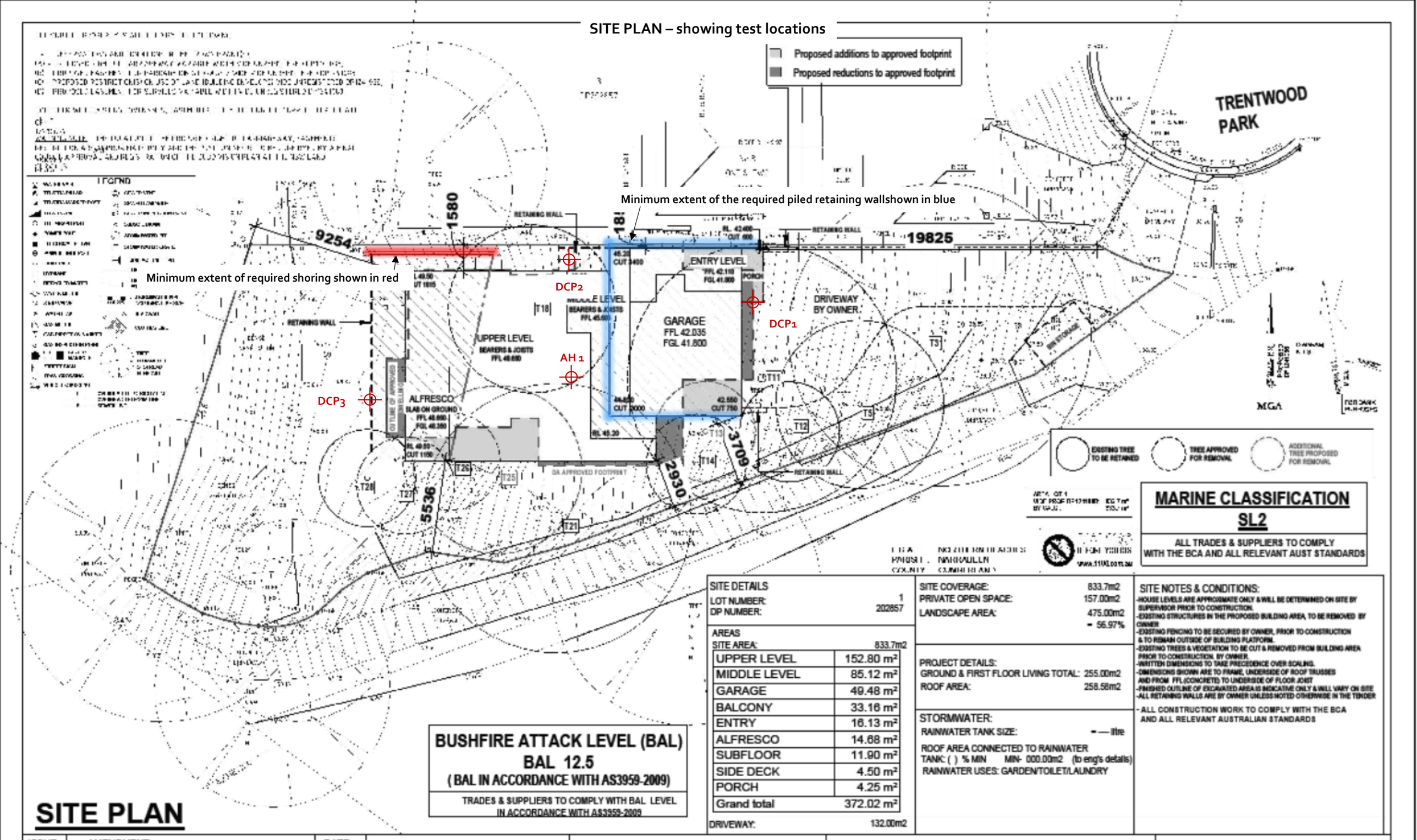
- The report addresses issues relating to your specific design and site. If the proposed project design changes, aspects of the report may no longer apply. Contact White Geotechnical if this occurs.

- This report should not be applied to any other project other than that outlined in section 1.0.

- This report is to be read in full and should not have sections removed or included in other documents as this can result in misinterpretation of the data by others.

- It is common for the design and construction process to be adapted as it progresses (sometimes to suit the previous experience of the contractors involved). If alternative design and construction processes are required to those described in this report, contact White Geotechnical Group. We are familiar with a variety of techniques to reduce risk and can advise if your proposed methods are suitable for the site conditions.

SITE PLAN – showing test locations



MARINE CLASSIFICATION
SL2

ALL TRADES & SUPPLIERS TO COMPLY WITH THE BCA AND ALL RELEVANT AUST STANDARDS

BUSHFIRE ATTACK LEVEL (BAL)
BAL 12.5
(BAL IN ACCORDANCE WITH AS3959-2009)

TRADES & SUPPLIERS TO COMPLY WITH BAL LEVEL IN ACCORDANCE WITH AS3959-2009

SITE DETAILS	
LOT NUMBER:	1
DP NUMBER:	202857

AREAS	
SITE AREA:	833.7m2
UPPER LEVEL	152.80 m²
MIDDLE LEVEL	85.12 m²
GARAGE	49.48 m²
BALCONY	33.16 m²
ENTRY	16.13 m²
ALFRESCO	14.68 m²
SUBFLOOR	11.90 m²
SIDE DECK	4.50 m²
PORCH	4.25 m²
Grand total	372.02 m²
DRIVEWAY:	132.00m2

SITE COVERAGE:	833.7m2
PRIVATE OPEN SPACE:	157.00m2
LANDSCAPE AREA:	475.00m2 = 56.97%

PROJECT DETAILS:
GROUND & FIRST FLOOR LIVING TOTAL: 255.00m2
ROOF AREA: 258.58m2

STORMWATER:
RAINWATER TANK SIZE: — litre
ROOF AREA CONNECTED TO RAINWATER TANK: ( ) % MIN MIN- 000.00m2 (to eng's details)
RAINWATER USES: GARDEN/TOILET/LAUNDRY

SITE NOTES & CONDITIONS:
-HOUSE LEVELS ARE APPROXIMATE ONLY & WILL BE DETERMINED ON SITE BY SUPERVISOR PRIOR TO CONSTRUCTION.
-EXISTING STRUCTURES IN THE PROPOSED BUILDING AREA, TO BE REMOVED BY OWNER
-EXISTING FENCING TO BE SECURED BY OWNER, PRIOR TO CONSTRUCTION & TO REMAIN OUTSIDE OF BUILDING PLATFORM.
-EXISTING TREES & VEGETATION TO BE CUT & REMOVED FROM BUILDING AREA PRIOR TO CONSTRUCTION, BY OWNER.
-WRITTEN DIMENSIONS TO TAKE PRECEDENCE OVER SCALING.
-DIMENSIONS SHOWN ARE TO FRAME, UNDERSIDE OF ROOF TRUSSES AND FROM FFL(CONCRETE) TO UNDERSIDE OF FLOOR JOIST
-FINISHED OUTLINE OF EXCAVATED AREA IS INDICATIVE ONLY & WILL VARY ON SITE
-ALL RETAINING WALLS ARE BY OWNER UNLESS NOTED OTHERWISE IN THE TENDER
- ALL CONSTRUCTION WORK TO COMPLY WITH THE BCA AND ALL RELEVANT AUSTRALIAN STANDARDS

SITE PLAN

ISSUE	AMENDMENT	DATE
A	CONCEPT DESIGN	03.09.21
B	FIRST DRAFT	29.09.21
C	SUBFLOOR	01.10.21
D	PLAN VARIATIONS	06.10.21
E	COUNCIL PLANS	21.10.21
F	DRIVEWAY CUT & FILL PLAN	19.11.21

LOCATION: C:\Users\JoseLuSwan\OneDrive - Stothard Projects\Designs\ TRENTWOOD PARK, AVALON BEACH - Iander\CONSTRUCTION PLANS\7 Trentwood Park, Avalon.rvt

info@stothardprojects.com.au
T: (02) 9138 0608
www.stothardprojects.com.au
BUILDING DESIGNERS

STOTHARD PROJECTS

PROPOSED RESIDENCE FOR:
CLIENT: DARGAVILLE

ADDRESS:
LOT 1, No 7B TRENTWOOD PARK
AVALON
NORTHERN BEACHES COUNCIL

JOB NO:	DATE: 19.11.21
DRAWN: EC	CHECKED: .
SCALE: 1 : 200	SHEET NO: 01

PLEASE DISCARD ALL OTHER PLANS
DO NOT SCALE DRAWING

TYPE SECTION – Diagrammatical Interpretation of expected Ground Materials

NOTE:
PROVIDE ENG'S DETAILS FOR ALL:
CONCRETE SLABS
FOOTINGS
TIMBER & STEEL BEAMS

NOTE:
SECTIONS ARE DIAGRAMMATIC ONLY

Proposed additions to approved footprint

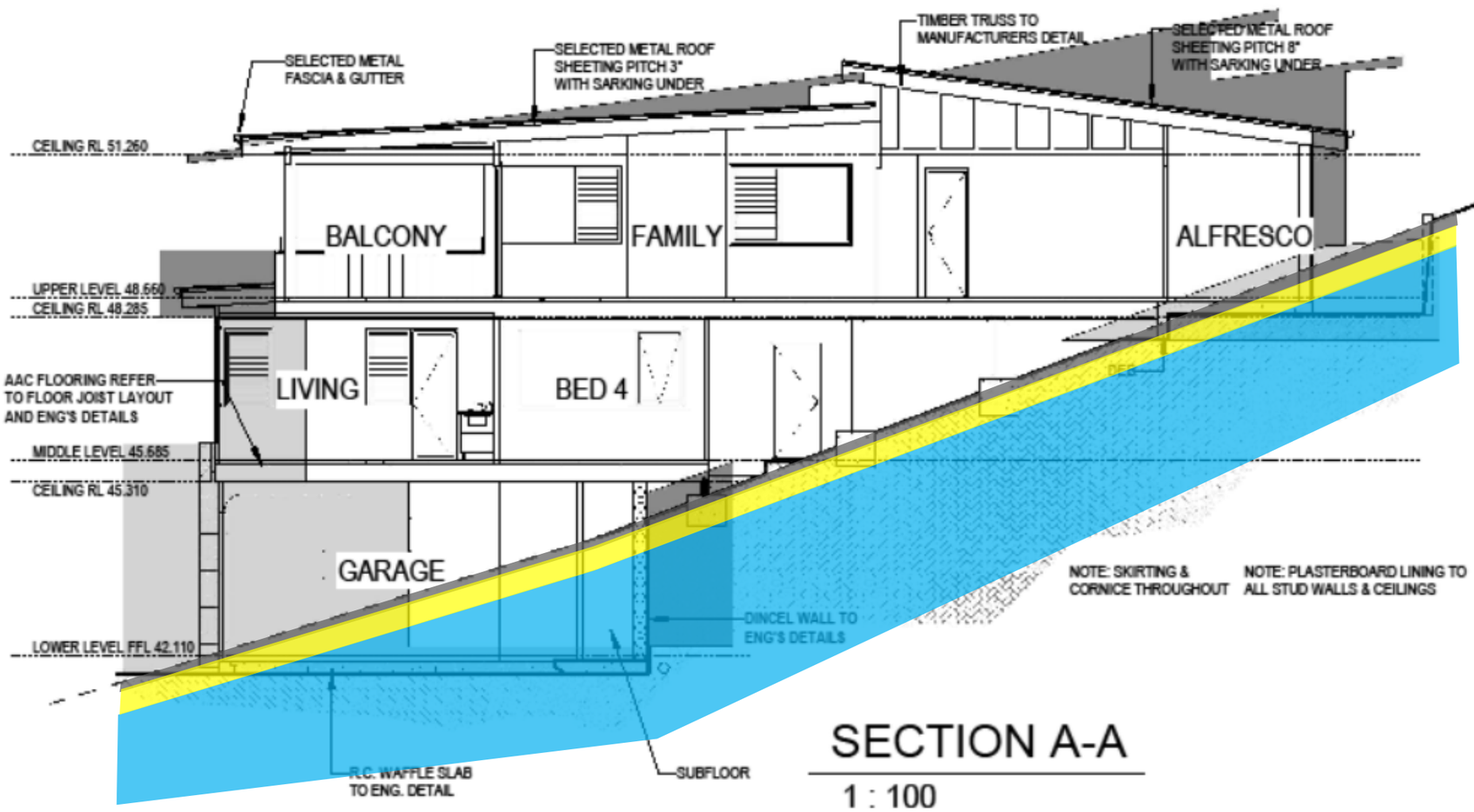
Proposed reductions to approved footprint

IN ACORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ALL RELEVANT STANDARDS

ALL WORK TO COMPLY WITH CDC, COUNCIL REQUIREMENTS AND ALL OTHER AUTHORITES

BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK

ALL DIMENSIONS, SIZES etc ARE IN MILLIMETRES



NOTE: SKIRTING & CORNICE THROUGHOUT

NOTE: PLASTERBOARD LINING TO ALL STUD WALLS & CEILINGS

SECTION A-A

1 : 100

Window and Sl . door Schedule

wt	Windo w No.	Height	Width	Window Style	Glazing
W	1	1800	850	FIXED	CLEAR ENERGY-TECH DBL. GLAZE
W	2	1450	3200	STACKER SL. WINDOW	CLEAR ENERGY-TECH DBL. GLAZE
W	3	1450	3200	STACKER SL. WINDOW	CLEAR ENERGY-TECH DBL. GLAZE
W	4	1414	850	LOUVRE	CLEAR
W	5	1414	850	LOUVRE	CLEAR
W	7	1414	850	LOUVRE	CLEAR
W	8	1414	3000	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	9	850	2550	LOUVRE	CLEAR ENERGY-TECH DBL. GLAZE
W	10	1414	850	LOUVRE	CLEAR
W	11	1414	2160	LOUVRE	CLEAR ENERGY-TECH DBL. GLAZE
W	12	1414	600	LOUVRE	LUMINA MIST FROSTED
W	13	1450	600	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	14	1450	600	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	15	850	3000	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	16	1450	600	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	17	1450	600	AWNING	CLEAR ENERGY-TECH DBL. GLAZE
W	18	850	3010	LOUVRE	LUMINA MIST FROSTED
W	19	600	2450	AWNING	LUMINA MIST FROSTED - ENERGY-TECH DBL. GLAZE
W	20	850	2550	LOUVRE	CLEAR
SSD	1	2400	6100	STACKER SL.DOOR	CLEAR ENERGY-TECH DBL. GLAZE
SD	1	2400	2410	SLIDING DOOR	CLEAR ENERGY-TECH DBL. GLAZE
SD	2	2400	2410	SLIDING DOOR	CLEAR ENERGY-TECH DBL. GLAZE
CW	1	1414	1450	FIXED	CLEAR
AD	1	2400	850 /2200	ALUMINIUM DOOR	CLEAR ENERGY-TECH DBL. GLAZE
AD	2	2100	850	ALUMINIUM DOOR	CLEAR
AD	3	2400	1100	ALUMINIUM DOOR	CLEAR ENERGY-TECH DBL. GLAZE

NOTE:
Windows typically with standard glass - Awning Uw 6.35 & SHGC 0.64, Sliding Uw 6.42 & SHGC 0.76, Bifold door Uw 6.12 & SHGC 0.76, Double hung Uw 6.24 & SHGC 0.74, Sliding doors and stacking doors Uw 6.25 & SHGC 0.72

NOTE:
ALL BED ROOM WINDOW OPENINGS HIGHER THAN 2.0m FROM FINISHED GROUND LEVEL TO BE PROTECTED IN ACCORDANCE WITH CLAUSE 3.9.2.5 VOLUME 2 OF THE BUILDING CODE OF AUSTRALIA

- Topsoil
- Silty Clay – Firm to Stiff
- Narrabeen Group Rocks – Extremely Low to Very Low Strength Shale - after being cut up by excavation equipment can resemble a stiff to hard clay.

EXTERNAL A/C UNIT, A/C VENTS AND DROPPERS (IF REQUIRED) ARE APPROX. ONLY AND MAY BE RE-POSITIONED ON SITE TO SUIT DIFFERENT CONSTRUCTION OR NOISE REQUIREMENTS. FINAL POSITION TO BE DETERMINED BY A/C CONTRACTOR

PROVIDE 2340H INTERNAL DOORS TO MIDDLE LEVEL & UPPER LEVEL

ALL BUILDING WORK SHALL BE CARRIED OUT IN ACORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ALL RELEVANT STANDARDS

ALL WORK TO COMPLY WITH CDC, COUNCIL REQUIREMENTS AND ALL OTHER AUTHORITES

BUILDER TO CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK

ALL DIMENSIONS, SIZES etc ARE IN MILLIMETRES

MARINE CLASSIFICATION
SL2

ALL TRADES & SUPPLIERS TO COMPLY WITH THE BCA AND ALL RELEVANT AUST STANDARDS

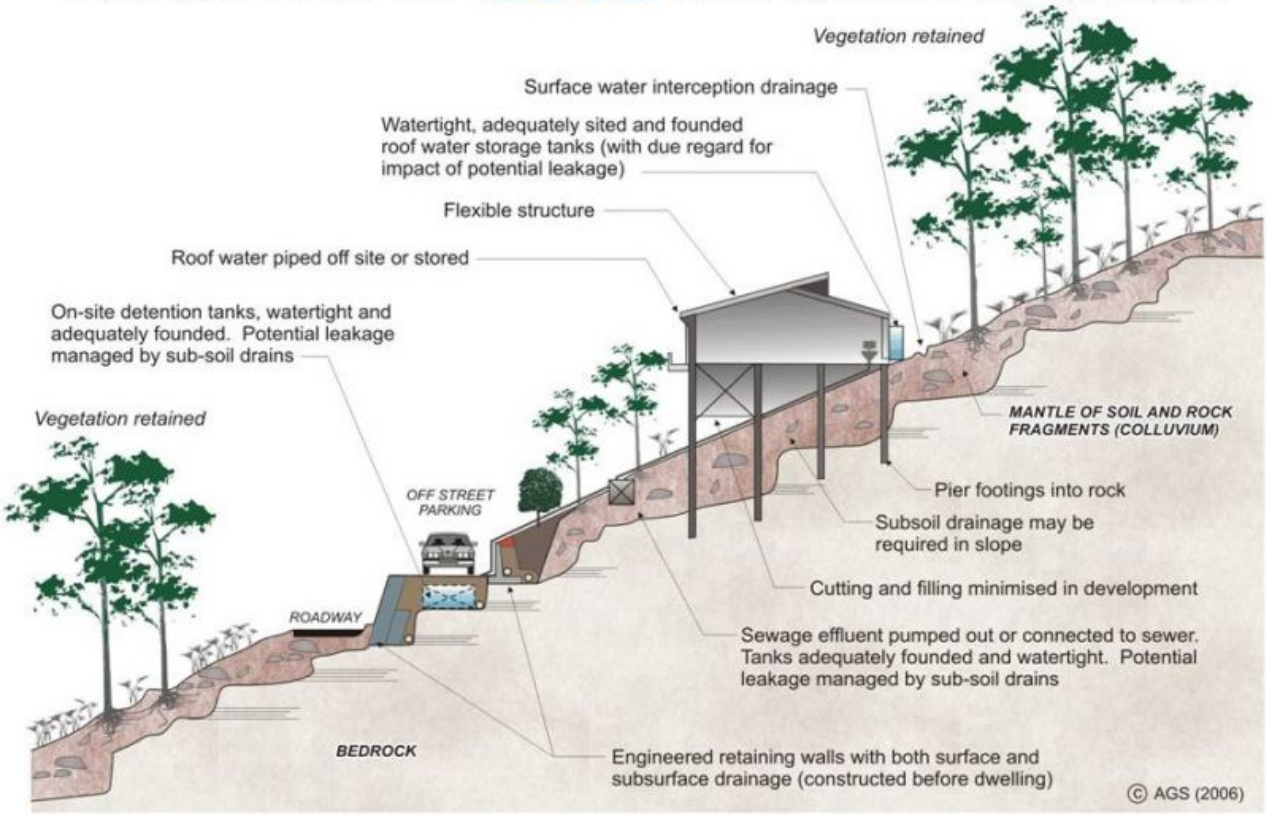
PROPOSED RESIDENCE FOR:
CLIENT: DARGAVILLE

ADDRESS: LOT 1, No 7B TRENTWOOD PARK
AVALON
NORTHERN BEACHES COUNCIL

JOB NO:	DATE: 19.11.21
DRAWN: EC	CHECKED .
SCALE: 1 : 100	SHEET NO:07 /
ISSUE: F Please discard all other plans	

SECTION/SCHEDULES

EXAMPLES OF **GOOD** HILLSIDE PRACTICE



EXAMPLES OF **POOR** HILLSIDE PRACTICE