

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

Development Application for _____
Name of Applicant

Address of site 35 Therry Street, 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 8/3/22 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 35 Therry Street, Avalon
Report Date: 8/3/22

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	<u>35 Therry Street, Avalon</u>

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 <u>35 Therry Street, Avalon</u>
Report Date: <u>8/3/22</u>
Author: <u>BEN WHITE</u>
Author's Company/Organisation: <u>WHITE GEOTECHNICAL GROUP PTY LTD</u>

Please mark appropriate box

- ☒ Comprehensive site mapping conducted 18/2/22
(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 18/2/22
- ☒ 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 Granny Flat at **35 Therry Street, Avalon**

1. Proposed Development

- 1.1** Construct a new single storey granny flat requiring minor levelling.
- 1.2** Details of the proposed development are shown on 27 drawings prepared by Drafting Help. Sheets numbered 1 to 8, 10 to 16, NP, S1 to S3, SA, N1, N2, B1 and B2 are dated 1/12/21. Sheet number 9 is dated 12/2/19.

2. Site Description

- 2.1** The site was inspected on the 18th February, 2022.
- 2.2** This residential property is on the high side of the road and has a NE aspect. It is located on the moderately graded lower reaches of a hillslope. The natural slope rises across the property at an average angle of ~15°. The slope above the property gradually increases in grade. The slope below the property decreases in grade.
- 2.3** At the road frontage, a concrete driveway runs up the slope to a garage on the ground floor of the house (Photos 1 & 2). Fill provides a level platform for a garden/lawn area beside the driveway on the W neighbouring property. The fill is battered at stable angles. Fill terraces the slope and provides a level platform for a lawn and garden area on the downhill side of the house (Photos 1 & 3). The fill is supported by low timber retaining walls. The part two storey brick and timber clad house is supported by brick walls and brick piers (Photos 2 & 4). The supporting walls and piers stand vertical and show no significant signs of movement (Photo 5). Timber decks extend off the downhill and uphill sides of the house (Photos 2 & 4). A low concrete block retaining wall supports a cut on the E neighbouring property near the E common boundary. A stable concrete block retaining wall up to ~1.6m high supports

the cut for the house (Photos 6 & 7). Roughly placed rocks line a fill directly above the retaining wall on the W neighbouring property. See '**Section 13** Ongoing Maintenance'. Low timber retaining walls support filled lawn and garden areas on the uphill side of the house (Photo 8). No signs of slope instability were observed on the property.

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 Auger hole was put down to identify the soil materials. Two Dynamic Cone Penetrometer (DCP) tests were put down to determine the relative density of the overlying soil and the depth to weathered rock. The locations of the tests are shown on the site plan. 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 have been an issue for this site. But due to the possibility that the actual ground conditions vary from our interpretation there should be allowances in the excavation and foundation budget to account for this. We refer to the appended "Important Information about Your Report" to further clarify. The results are as follows:

AUGER HOLE 1 (~RL25.3) – AH1 (photo 9)

Depth (m)	Material Encountered
0.0 to 1.6	FILL , sandy soil and clay, dark brown, brown orange, dry to moist, fine to medium grained.
1.6 to 1.8	CLAY , brown orange, dry to moist, stiff.

End of Hole @ 1.8m in stiff clay. No watertable encountered.

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 (~RL26.3)	DCP 2 (~RL25.3)
0.0 to 0.3	6	4
0.3 to 0.6	6	6
0.6 to 0.9	7	7
0.9 to 1.2	10	12
1.2 to 1.5	10	10
1.5 to 1.8	10	15
1.8 to 2.1	19	21
2.1 to 2.4	19	20
2.4 to 2.7	30	18
2.7 to 3.0	#	22
3.0 to 3.3		23
3.3 to 3.6		28
3.6 to 3.9		#
	End of Test @ 2.7m	End of Test @ 3.6m

#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 @ 2.7m, DCP still very slowly going down, grey and orange red shale fragments on dry tip.

DCP2 – End of Test @ 3.6m, DCP still very slowly going down, orange red and grey shale fragments on dry tip.

5. Geological Observations/Interpretation

The slope materials are colluvial at the near surface and residual at depth. In the test locations, the ground materials consist of fill and topsoil over clays. Fill to a maximum depth of 2.0m provides level platforms for lawn and garden areas across the property. The clays merge into the weathered zone of the under lying rock at depths from between ~2.7m to ~3.6m below the current surface, being deeper where the fill is deepest. The weathered zone

of the underlying rock is interpreted as Extremely 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 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 works.

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 moderately graded slope that falls across the property and continues above and below is a potential hazard (Hazard One).

RISK ANALYSIS SUMMARY ON NEXT PAGE

Geotechnical Hazards and Risk Analysis - Risk Analysis Summary

HAZARDS	Hazard One
TYPE	The moderately graded slope that falls across the property and continues above and below failing and impacting on the property.
LIKELIHOOD	'Unlikely' (10^{-4})
CONSEQUENCES TO PROPERTY	'Medium' (12%)
RISK TO PROPERTY	'Low' (2×10^{-5})
RISK TO LIFE	8.3×10^{-7} /annum
COMMENTS	This level of risk is 'ACCEPTABLE'.

(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 Therry Street. All stormwater from the proposed development is to be piped to the street drainage system through any tanks that may be required by the regulating authorities.

11. Excavations

Apart from those for footings and minor levelling, no excavations are required.

12. Foundations

The proposed granny flat is to be supported on spread footings or piers taken below the fill and embedded into the firm to stiff clays of the natural profile. This ground material is expected at depths from between ~0.5m to ~2.0m below the current surface, being deeper

near the NE corner where the fill is deepest. A maximum allowable bearing pressure of 200kPa can be assumed for footings supported on the firm to stiff clays of the natural profile.

For better quality footings or where little movement can be tolerated in accordance with a 'Class M' site piers can be taken to Extremely Low Strength Shale. This ground material is expected at depths from between ~2.4m to ~4.0m below the current surface. A maximum allowable bearing pressure of 600kPa can be assumed for footings supported on Extremely 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 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 professional 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.

13. Ongoing Maintenance

The Roughly placed rocks on the W common boundary that line a fill on the W neighbouring property (Photos 6 & 7) are to be monitored by the owner on an annual basis or after heavy and prolonged rainfall, whichever occurs first. A photographic record of these inspections is to be kept. Should movement occur the fill is to be supported by an engineered retaining wall. We can carry out these inspections upon request.

14. Geotechnical Review

The structural plans are to be checked and certified by the geotechnical engineer 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.

15. Inspection

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

- 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



Photo 6



Photo 7



Photo 8



Photo 9: AH1 – Downhole is from top to bottom.

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

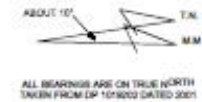
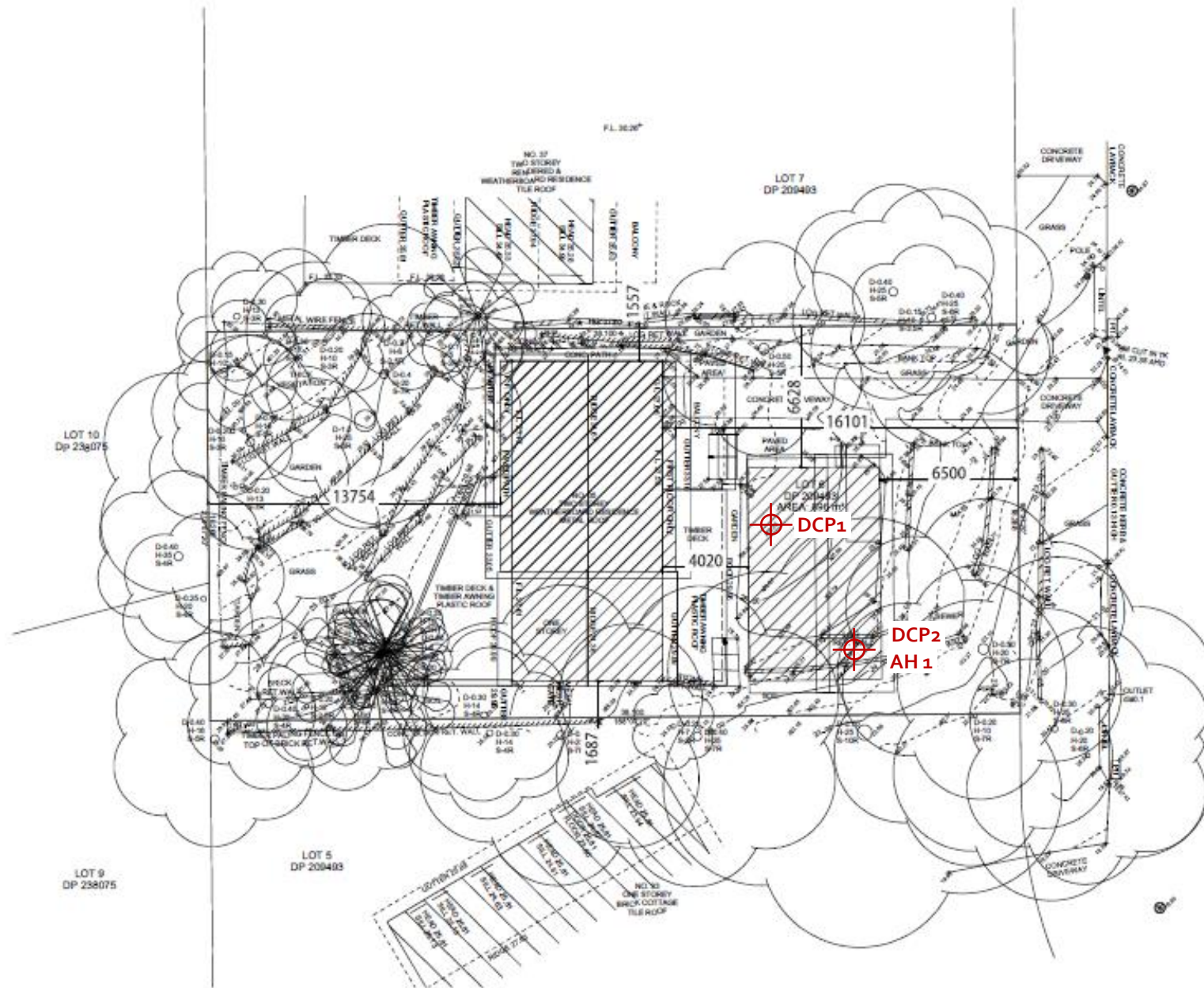
- General Notes**
- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH DURING THE COURSE OF THE PROJECT. ANY DISCREPANCIES ARE TO BE REFERRED TO THE PRINCIPAL FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G2. ALL DIMENSIONS RELATIVE TO SETTING OUT AND OFF-SITE FABRICATION WORK SHALL BE VERIFIED BY THE BUILDER BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- G3. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- G4. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE S.A. CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY.
- G5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL LEVELS ARE EXPRESSED IN METRES.
- G6. FLASHINGS AND DAMPROOF COURSE TO BE PLACED IN ACCORDANCE WITH GOOD BUILDING PRACTICES WHETHER SHOWN ON THE DETAILS OR NOT.
- G7. THIS DRAWING TO BE READ IN CONJUNCTION WITH R14 GENERAL HOUSING SPECIFICATION.
- Foundations**
- F1. UNDERFLOOR FILL SHALL BE IN ACCORDANCE WITH AS 2870.
- F2. TERMITES TREATMENT SHALL BE IN ACCORDANCE WITH AS 3660.1.
- F3. THE UNDER FLOOR VAPOUR BARRIER SHALL BE IN ACCORDANCE WITH AS 2870.
- F4. REINFORCEMENT SHALL CONFORM AND BE PLACED IN ACCORDANCE WITH AS 3600, AS 2870 AND THE ENGINEERS RECOMMENDATIONS.
- F5. STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH AS 3600. PRE-MIXED CONCRETE SHALL BE MANUFACTURED IN ACCORDANCE WITH AS 1676.
- F6. PROVIDE ADEQUATE CROSS FLOOR VENTILATION TO THE SPACE UNDER SUSPENDED GROUND FLOOR.
- F7. ALL SLABS SHALL BE CURED IN ACCORDANCE WITH AS 3600.

- Masonry**
- M1. ALL CLAY BRICKS AND BLOCKWORK SHALL COMPLY WITH AS/NZS 4455, AS/NZS 4456 AND AS 3700.
- M2. CONCRETE BLOCKS ARE TO BE IN ACCORDANCE WITH AS 2700.
- M3. ALL DAMPROOF COURSES SHALL COMPLY WITH AS 2700 AND AS 2864.
- M4. CAVITY VENTILATION (GAP) HOLES SHALL BE IN ACCORDANCE WITH AS 3700.
- M5. MORTAR SHALL COMPLY WITH AS 3700, JOINT TOLERANCES SHALL BE IN ACCORDANCE WITH AS 3700.
- M6. ALL WALL TIES SHALL BE MANUFACTURED IN ACCORDANCE WITH AS 2699 AND BE INSTALLED IN ACCORDANCE WITH AS 3700.

- Timber Framing**
- T1. ALL TIMBER FRAMEWORK SHALL COMPLY WITH AS 1684.
- T2. ROOF FRAMING TO BE IN ACCORDANCE WITH AS 1684.
- T3. TIMBER ROOF TRUSSES TO MANUFACTURED BY TIES AND SPECIFICATIONS.
- T4. TIMBER RAKING TO BE IN ACCORDANCE WITH AS 1684.

- Tiling**
- T1. CEMENT MORTAR AND OTHER ADHESIVES SHALL COMPLY WITH AS 3950.1.
- T2. INSTALLATION OF TILES SHALL BE IN ACCORDANCE WITH AS 3950.
- Claddings & Linings**
- C1. THE LINING OF HOT AREA WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS 1596.
- C2. ALL INTERNAL WET AREAS AND BALCONIES OVER INHABITABLE ROOMS TO BE WATER PROOFED TO AS 3740.
- Joinery**
- J1. ALL INTERNAL AND EXTERNAL TIMBER DOOR AND DOOR SETS SHALL BE IN ACCORDANCE WITH AS 1689. TIMBER DOORS AND DOOR SETS SHALL BE MANUFACTURED IN ACCORDANCE WITH AS 2688 AND AS 2689.
- J2. ALL GLAZING SHALL COMPLY WITH AS 1288.

- Steel Framing**
- ALL STEEL FRAMING INCLUDING FLOORS, WALLS AND ROOF FRAMING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND AS 9423.
- Roofing**
- R1. CONCRETE AND TERRAZZOTA TILES SHALL COMPLY WITH AS 2840 AND BE INSTALLED IN ACCORDANCE WITH AS 2840.
- R2. METAL RAINWATER GUTTERS SHALL BE MANUFACTURED IN ACCORDANCE WITH AS 2179 AND INSTALLED IN ACCORDANCE WITH AS 2180.
- R3. SARKING TO COMPLY AND BE FIXED IN ACCORDANCE WITH AS/NZS 4200.1 & AS/NZS 4200.2.
- R4. WEATHER ROOFINGS AND FLASHINGS SHALL COMPLY WITH AS 2894, AS 1804 AND AS 3790.

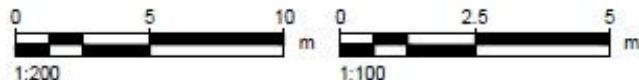


TERRY STREET

SITE PLAN - PROPOSED

SCALE 1:200

- GENERAL NOTES**
- G1. REFER TO CONFIRM ALL LEVELS AND DIMENSIONS ON SITE BEFORE WORK BEGINS.
- G2. ALL WORK TO BE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS AND S.C.A. REQUIREMENTS.
- G3. CONNECT D.P.S TO EXISTING STORMWATER SYSTEM. ALL STRUCTURAL DETAILS TO ENGINEERS SPECIFICATIONS.



NOTE: THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. IF USED FOR CONSTRUCTION, THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR LOCAL CODE COMPLIANCE. ALL DRAWINGS, PLANS, SKETCHES ETC. ARE PROVIDED TO OUR CLIENTS BASED UPON INFORMATION PROVIDED BY THE CLIENT AND DRAWN IN ACCORDANCE WITH COMMON BUILDING PRACTICES AND LOCAL CODES. NONE OF THE EMPLOYEES OF DRAFTING HELP ARE REGISTERED ARCHITECTS, ENGINEERS OR LAND SURVEYORS. ALL DIMENSIONS AND SPECIFICATIONS SHOULD BE VERIFIED BY CLIENT AND/OR CONTRACTOR BEFORE ACTUAL CONSTRUCTION BEGINS. IF DIMENSIONS AND SPECIFICATIONS ARE NOT VERIFIED BY CLIENT AND/OR CONTRACTOR BEFORE ACTUAL CONSTRUCTION BEGINS DRAFTING HELP WILL BE HELD HARMLESS. DRAFTINGHELP ASSUMES NO LIABILITY FOR CHANGES AND/OR REVISIONS MADE TO PLANS BY CLIENT AND/OR CONTRACTOR.

ARCHITECTURAL DRAFTING
3D VISUALISATION
DEVELOPMENT APPLICATION
ASSISTANCE
COUNCIL COMPLIANT PLANS

LEGEND:
EXISTING BUILDING OUTLINE
PROPOSED WORK

General Notes



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Project
ADDRESS AND
ALTERNATIVE
Date
17/03/2021
Scale
1:200

SP

DP No. 208483

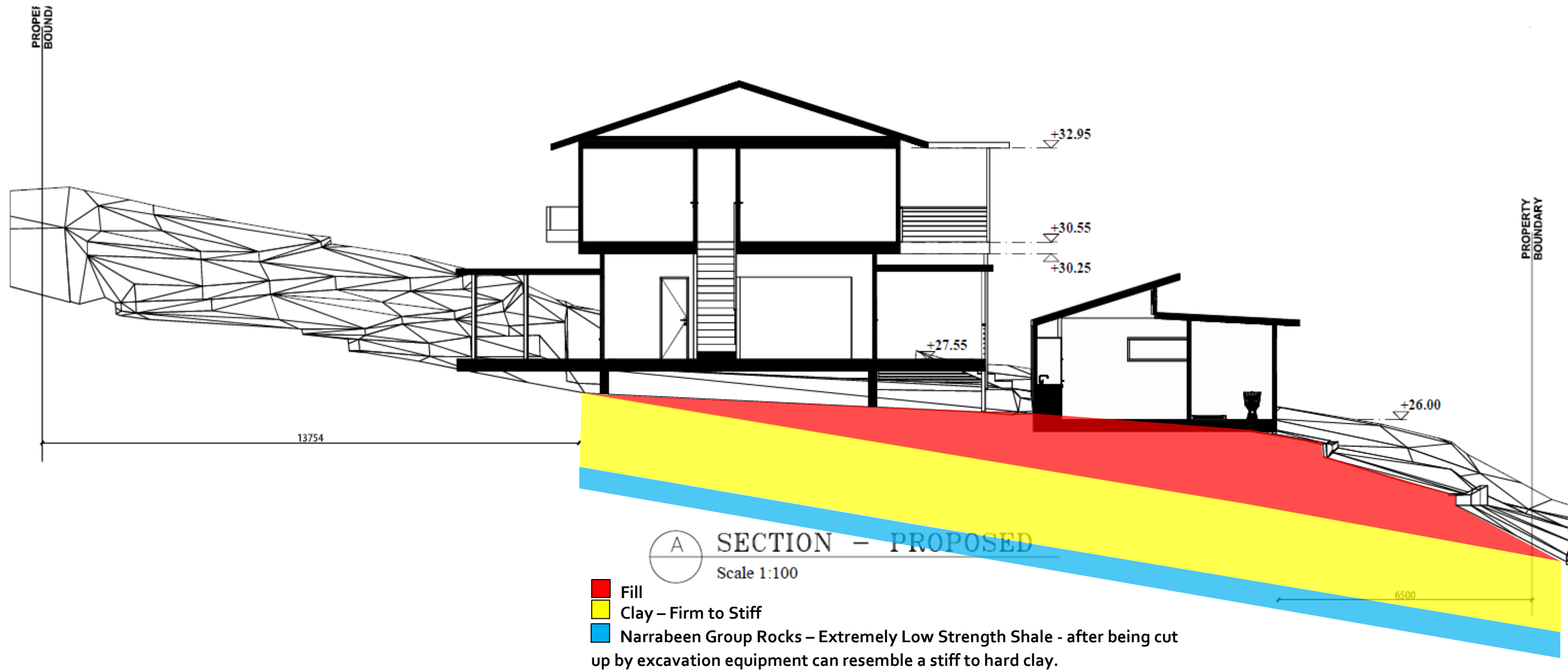
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A ISSUED FOR DA XXXX
No. Revision Date

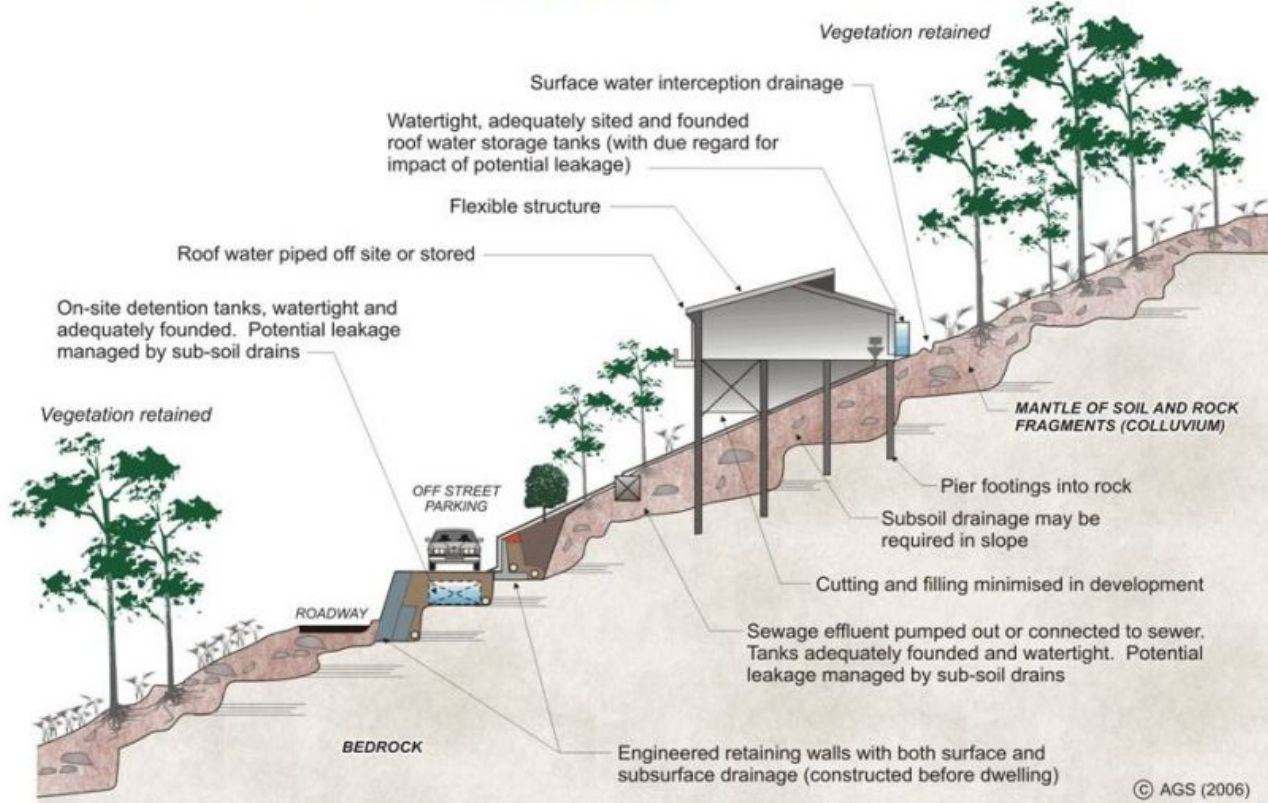
dh DRAFTING HELP
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Project Name and Address
PETER STEWART
35 TERRY ST
AVALON BEACH
NSW 2107

TYPE SECTION – Diagrammatical Interpretation of expected Ground Materials



EXAMPLES OF **GOOD** HILLSIDE PRACTICE



EXAMPLES OF **POOR** HILLSIDE PRACTICE

