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

Development Application for _____
Name of Applicant

Address of site 14 Loquat Valley Road, Bayview

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 30/7/25 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 **14 Loquat Valley Road, Bayview**

Report Date: 30/7/25

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 MScGEOL AIG., RPGeo

Membership No. 10306

Company **White Geotechnical Group Pty Ltd**

REGISTERED PROFESSIONAL GEOSCIENTIST
AUSTRALIAN INSTITUTE OF GEOSCIENTISTS
BENJAMIN WHITE
RPGeo No: 10306

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 14 Loquat Valley Road, Bayview

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 **14 Loquat Valley Road, Bayview**

Report Date: 30/7/25

Author: BEN WHITE

Author's Company/Organisation: **White Geotechnical Group Pty Ltd**

Please mark appropriate box

- ☒ Comprehensive site mapping conducted **24/4/25** (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 **24/4/25**
- ☒ 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 MScGEOL AIG., RPGeo

Membership No. 222757

Company **White Geotechnical Group Pty Ltd**

GEOTECHNICAL INVESTIGATION:

House Alterations and Additions and New Pool at **14 Loquat Valley Road, Bayview**

1. Proposed Development

1.1 Partially demolish the existing house. Extend on the uphill and downhill side with first-floor above by excavating to a maximum depth of ~1.4m.

1.2 Construct a pool on the downhill side of the property by excavating to a maximum depth of ~1.5m.

1.3 Install an internal lift.

1.4 Demolish the existing carport and construct a new carport attached to the uphill side of the house.

1.5 Demolish the existing driveway and crossover and construct a new partially suspended driveway and crossover in the S corner of the property.

1.6 Various other minor internal and external alterations and additions.

1.7 Details of the proposed development are shown on 10 drawings prepared by Site Specific Designs, project number 2024 11, drawings numbered DA00 to DA09. All dated 30/07/2025.

2. Site Description

2.1 The site was inspected on the 24th April, 2025.

2.2 This residential property is on the low side of the road and has a N aspect. It is located on the moderate to gently graded lower reaches of a hillslope. The natural slope falls across the property at an average angle of ~14°. The slope above the property gradually increases in grade. The slope below the property eases to the valley floor.

2.3 At the road frontage, a concrete driveway runs downslope to a carport on the NE side of the house (Photo 1). The moderately graded slope between the road frontage and the house is lawn and garden covered (Photo 2). A ~1.3m cut for the lower ground floor of the house has been battered at steep angles. The cut batter is lined with boulders (Photo 3). This batter will be demolished as part of the proposed works. The two-story house is supported on concrete block and brick walls. No significant signs of movement were observed in the visible supporting walls. Fill has been laid off the downhill side of the house (Photo 4). The fill batter is ~1.4m high, stands at stable angles and is well vegetated. Below the fill batter is a moderately graded lawn (Photo 5). A natural watercourse which was dry at the time of inspection cuts across the property near the downhill property boundary (Photo 5).

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. six 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 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 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 (~RL8.1) **–** AH1 (Photo 7)

Depth (m)	Material Encountered
0.0 to 0.9	**FILL**, derived from natural clayey sandy soil, brown, Very Soft to Firm, damp, fine to medium grained.
0.9 to 1.2	**TOPSOIL**, clayey sandy soil, Firm, damp, fine to medium grained.
1.2 to 1.5	**RESIDUAL CLAY**, mottled brown and maroon, Firm, dry, fine grained.

End of test @ 1.5m in residual clay. No water table 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 (~RL6.4)	DCP 2 (~RL6.5)	DCP 3 (~RL8.1)	DCP 4 (~RL8.6)	DCP 5 (~RL10.5)	DCP 6 (~RL11.7)
0.0 to 0.3	5	4	2	9	9	14
0.3 to 0.6	4	5	9	21	14	30
0.6 to 0.9	9	7	9	36	30	27
0.9 to 1.2	11	21	9	#	#	32
1.2 to 1.5	16	35	8			#
1.5 to 1.8	21	#	17			
1.8 to 2.1	34		14			
2.1 to 2.4	#		21			
2.4 to 2.7			39			
2.7 to 3.0			#			
	End of Test @ 2.1m	End of Test @ 1.4m	End of Test @ 2.7m	End of Test @ 0.9m	End of Test @ 0.9m	End of Test @ 1.2m

#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 @ 2.1m, DCP still very slowly going down, clean dry tip, brown clay in collar above tip.

DCP2 – End of test @ 1.4m, DCP thudding and still very slowly going down, clean dry tip, brown clay in collar above tip.

DCP3 – End of test @ 2.7m, DCP still very slowly going down, maroon clay on dry tip, brown clay in collar above tip.
DCP4 – End of test @ 0.9m, DCP still very slowly going down, brown clay on dry tip.
DCP5 – End of test @ 0.9m, DCP still very slowly going down, brown clay on dry tip.
DCP6 – End of test @ 1.2m, DCP still very slowly going down, mottled maroon and orange shale on dry tip and in collar above tip.

5. Geological Observations/Interpretation

The natural slope materials are colluvial at the near surface and residual at depth. In the test locations, the ground materials consist of shallow soils over clays. Filling has been laid across the property and to a height of 0.9m in the location of the proposed extension to the downhill side of the house. The clays merge into the weathered zone of the underlying shale at depths of between 0.3m to 0.6m below the current surface on the uphill side of the house, and between 0.6m to 2.4m deep on the downhill side of the house, noting that DCP test 3 was taken through the fill batter below the house. This variation in depth is due to the presence of filling and a variable weathering profile. The weathered zone is interpreted as Extremely Low Strength Shale. It is to be noted that this material 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 denser and less permeable clay and shale layers in the sub-surface profile. Due to the slope and site elevation, the water table is expected to be many metres below the base of the proposed excavations. However, as a watercourse cuts across the property near the downhill property boundary, groundwater seepage is expected to be slightly higher across the block as slope seepage will move toward the watercourse.

7. Surface Water

No evidence of significant surface flows were observed on the property during the inspection. Normal sheet wash from the slope above will be intercepted by the street drainage system for Loquat Valley Road above.

8. Geotechnical Hazards and Risk Analysis

No geotechnical hazards were observed below or beside the property. The moderate slope that falls across the property and continues above at increasing angles is a potential hazard (**Hazard One**). The proposed excavations are a potential hazard until the retaining walls / pool structure are in place (**Hazard Two**).

Risk Analysis Summary

HAZARDS	Hazard One	Hazard Two
TYPE	The moderate slope that falls across the property and increases in grade above failing and impacting on the proposed works.	The excavations collapsing onto the work site before retaining structures are in place.
LIKELIHOOD	'Unlikely' (10^{-4})	'Possible' (10^{-3})
CONSEQUENCES TO PROPERTY	'Medium' (12%)	'Medium' (25%)
RISK TO PROPERTY	'Low' (2×10^{-5})	'Moderate' (2×10^{-4})
RISK TO LIFE	8.3×10^{-7}/annum	5.9×10^{-5}/annum
COMMENTS	This level of risk is 'ACCEPTABLE'.	This level of risk to life and property is 'UNACCEPTABLE'. To move risk to 'ACCEPTABLE' levels, the recommendations in **Section 13 and 14** 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

There is fall to the creek below the property (Photo 5). Roof water from the development is to be piped to a spreader pipe positioned on the slope above the creek. Stormwater is to be directed through any tanks that may be required by the regulating authorities.

11. Excavations

Two excavations are required for the proposed development:

- An excavation to a maximum depth of ~1.4m for the storeroom with carport above on the uphill side of the house.
- An excavation to a maximum depth of ~1.5m for the proposed pool.

The excavations are expected to be through fill, soil, and clay, with Extremely Low Strength Shale expected at depths of between 0.3m to 0.6m in the location of the storeroom excavation, and between 1.2m to 2.4m in the location of the pool excavation. It is envisaged that excavations through fill, soil, clay, and Extremely Low to Very Low Strength Shale can be carried out with an excavator and toothed bucket.

12. Vibrations

It is expected the proposed excavations will be carried out with an excavator and bucket and the vibrations produced will be below the threshold limit for building or infrastructure damage using a domestic sized excavator up to 16 tonnes.

13. Excavation Support Requirements

Bulk Excavation for Storage Room

The excavation for the proposed storeroom will reach a maximum depth of ~1.4m. Allowing 0.5m for back wall drainage the excavation will be set back ~0.8m from the SW common boundary.

As such, the SW common boundary will lie within the zone of influence of the proposed excavation. In this instance, the zone of influence is the area above a theoretical 45° line (from horizontal) from the base of the excavation towards the surrounding structures and boundaries. This line reduces to 30° through the fill and soil.

As such, to protect the integrity of the SW neighbouring property, the SW side of the excavation will need to be temporarily supported prior to the commencement of the excavation, or during the excavation process in a staged manner, so cut batters are not left unsupported. See the site plan attached for the minimum extent of the required shoring. The support will need to be designed / approved by the structural engineer in consultation with the geotechnical consultant.

The remaining sides of the cut are expected to stand unsupported for a short period of time at near vertical angles until the retaining walls are in place provided they are kept from becoming saturated.

Bulk Excavation for Pool

The excavation for the proposed pool will reach a maximum depth of ~1.5m. Following the demolition of the existing timber deck off the downhill side of the house, no structures or boundaries are expected to lie within the Zone of Influence of the pool excavation.

Due to the depth of the excavation and the depth of fill in this location, we recommend the uphill side of the cut be temporarily supported with typical pool shoring such as braced sacrificial form ply, until the pool structure is in place. The remaining sides of the cut are

expected to stand at near-vertical angles for short periods of time until the pool structure is installed provided the cut batters are kept from becoming saturated. If the cut batters through fill, soil and clay remain unsupported for more than a day before pool construction commences, they are also to be supported with typical pool shoring until the pool structure is in place. The support will need to be designed by the structural engineer. See site plan attached for extent of minimum required shoring shown in blue.

During the excavation process for the pool, 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 that the shoring is adequate.

Advice Applying to Both Excavations

Upslope runoff is to be diverted from the cut faces by sandbag mounds or other diversion works. All unsupported cut batters 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 cannot blow off in a storm. The materials and labour to construct the pool structure/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 structures it is suggested the design be based on a triangular distribution of lateral pressures using the parameters shown in Table 1.

Table 1 – Likely Earth Pressures for Retaining Structures

Unit	Earth Pressure Coefficients		
	Unit weight (kN/m^3)	'Active' K_a	'At Rest' K_0
Fill and Topsoil	20	0.40	0.55
Residual Clays	20	0.35	0.45
Extremely Low Strength Rock	22	0.25	0.38

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 structure, do not account for any surcharge loads from the slope immediately above and assume retaining structures are fully drained. Rock strength and relevant earth pressure coefficients are to be confirmed on site by the geotechnical consultant.

All retaining structures are to have sufficient back-wall drainage and be backfilled immediately behind the structure 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 structures the full hydrostatic pressures are to be accounted for in the retaining structure design.

15. Site Classification

The site classification is Class M in accordance with AS2870-2011.

16. Foundations

The proposed house extensions and lift can be supported on a thickened edge / raft slab with piers taken to Extremely Low Strength Shale where necessary. This material is expected to be

exposed across the uphill side of the proposed excavations. Where it is not exposed, and where the footprint of the proposed house extension falls outside the footprint of the proposed excavations, piers will be required to maintain a uniform foundation material across the structure. This ground material is expected at depths of between ~0.3m and ~0.6m below the current surface on the uphill side of the property. The piers for the downhill extension and decking are expected to encounter this material at between ~0.6m and ~2.4m as they will need to be taken through the existing fill batter in this location.

The foundations supporting the existing house are currently unknown. Where the footing material changes across the structure, construction joints or similar are to be installed to prevent differential settlement between the old and new portions of the structure.

The proposed carport is shown to be partially supported off the proposed storeroom structure, where this is not the case, piers to Extremely Low Strength Shale will be required.

The proposed pool is to be supported on piers embedded 0.6m into to the underlying Extremely Low Strength Shale. This material is expected at depths of between ~ 1.2m to 2.4m below the current surface in the location of the proposed pool. Total pier depths accounting for the required embedment into the weathered shale are expected to be between ~ 1.8 to 3.0m below the current surface.

A maximum allowable bearing pressure of 600kPa can be assumed for footings 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.

The proposed driveway can be supported off the natural surface after any organic matter has been stripped. A maximum allowable bearing pressure of 100kPa can be assumed for soil of the natural surface. The plans show that fill will be placed below portions of the proposed driveway. For ease of design and construction it is recommended the fill be used as formwork for the driveway, and the driveway be supported on piers taken to Extremely Low Strength Shale. If it is desired to support structures on fill, it is to be laid as an engineered fill. Our office

can be contacted for advice on this procedure. Where the foundation material changes across the driveway, construction joints are to be installed to separate the different foundation materials and to accommodate minor differential movement. Alternatively, the entire driveway can be supported on weathered rock.

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 and inspected by the geotechnical consultant.

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.

17. 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.

18. Inspections

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

- During the excavation process for the pool, 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 that the shoring is adequate.
- 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.

Nathan Gardner B.Sc. (Geol. & Geophys. & Env. Stud.)
AIG., RPGeo Geotechnical & Engineering.
No. 10307
Engineering Geologist & Environmental Scientist.

Reviewed By:

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No. 10306
Engineering Geologist.

REGISTERED PROFESSIONAL GEOSCIENTIST
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Photo 1

Photo 2

Photo 3

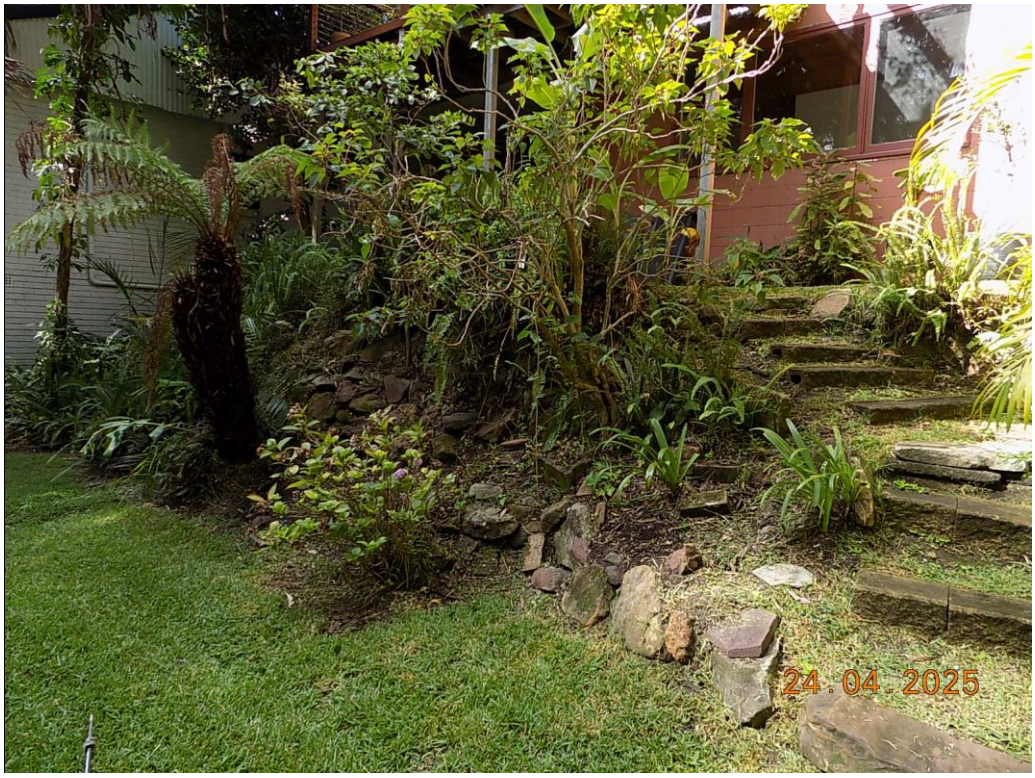


Photo 4

Photo 5

Photo 6 – downhole is 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.

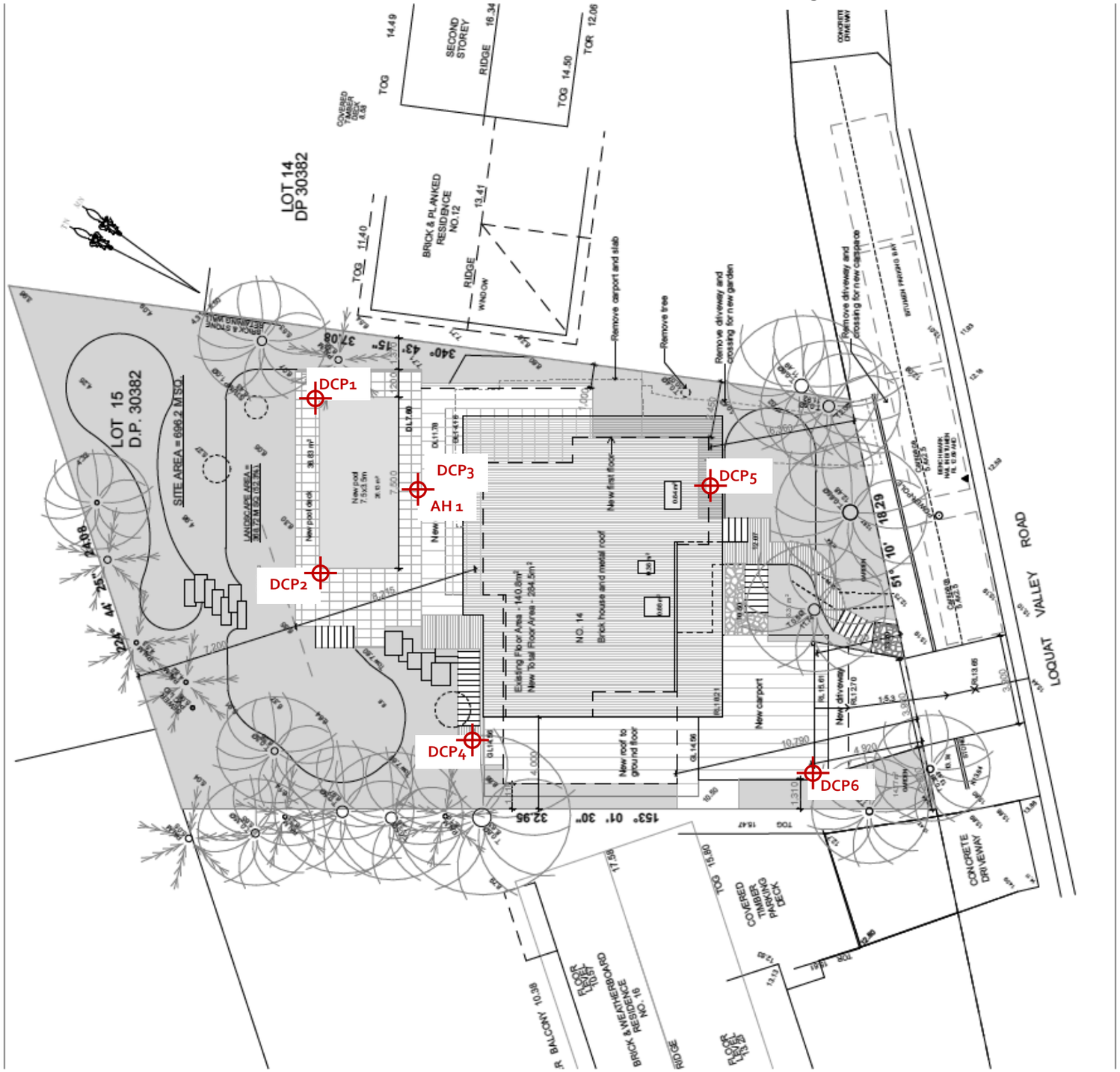
- The report addresses issues relating to your specific design and site. If the proposed project design changes, aspects of the report may no longer apply. Contact White Geotechnical if this occurs.

- 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



2. Site and Roof Plan 1:200

Basix Certificate Commitments

Swimming Pool
Capacity - 38kL
Must be outdoors and have a pool cover
Install a pool pump timer
Solar only heating

Fixtures and Systems
Hotwater - Electric Heat Pump
Lighting - 40% new or altered to be LED, compact fluorescent, or fluorescent
Showerheads and taps to have flow rate <9ltrs/min, 3 Star minimum, Toilets <4ltrs/flush, 3 Star min

Construction and Insulation
Floor - suspended floor, open subfloor -R0.8 or R1.5 including construction
Floor - suspended floor, enclosed subfloor -R0.6 or R1.3 including construction
Floor - framed, above existing floor - nil
Wall - Framed, FC clad/weatherboard, R1.3 or R1.7 incl.const
Wall - Brick Veneer, R1.16 or R1.7 incl.construction
Roof - Dark roof colour - SA>0.7
Framed roof, flat ceiling, flat roof - R1.58+75mm foil backed blanket

Window and Glazed Doors - Aluminium Framed

W1-W4 +900mm eave - U7.63, SHGC 0.75 -Clear glass

W5, 0mm eave - U7.63, SHGC 0.75 -Clear glass

W6,W7,W20, 600mm eave - U7.63, SHGC 0.75 -Clear glass

W8-W17, 900mm eave, U7.63, SHGC 0.75 -Clear glass

W18, 0mm eave, U7.63, SHGC 0.75 -Clear glass

W19,W21, 900mm eave, U7.63, SHGC 0.75 -Clear glass

D01-D011
+900mm eave, U7.63, SHGC 0.75 -Clear glass

Skylights- timber framed
S1, 0.88m2, U 2.9 SHGC 0.456
S2, 0.38m2, U 2.9 SHGC 0.456
S3, 0.84m2, U 2.9 SHGC 0.456

Sheralee Hogan B.Sc.(Arch) B.(Arch)
0416 954 635 02 99793434
www.sitespecificdesigns.com.au
Site Specific SSD Designs

Drawn | Checked	SH |
Plot Date:	30/07/2025
Project NO.	2024 11
Project Status	Development Application
Client	Keith and Saskia Waters
Climate Zone	5
Wind Region	#Wind Region
Site:	14 Loquat Valley Rd Bayview NSW 2104

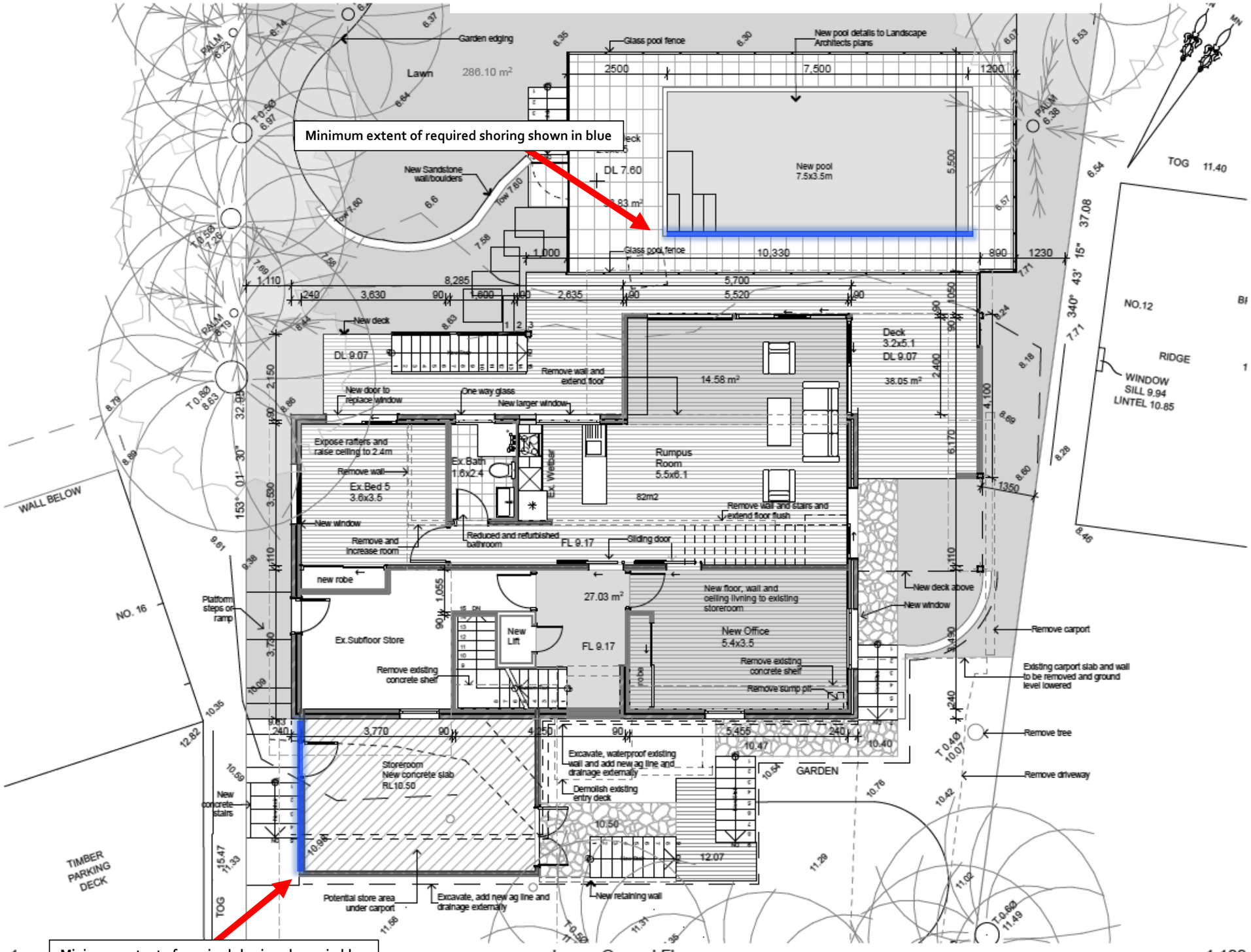
DRAWING TITLE :
DA Plans
Site Plan

PROJECT NAME :
Waters Residence

REVISION NO.

DRAWING NO.
DA 01

LOWER GROUND FLOOR PLAN – showing minimum extent of required shoring



-1. Lower Ground Floor 1:100

Basix Certificate Commitments

Swimming Pool
Capacity - 38kL
Must be outdoors and have a pool cover
Install a pool pump timer
Solar only heating

Fixtures and Systems
Hotwater - Electric Heat Pump
Lighting - 40% new or alterted to be LED, compact fluorescent, or fluorescent
Showerheads and taps to have flow rate <9ltrs/min, 3 Star minimum, Toilets <4ltrs/flush, 3 Star min

Construction and Insulation
Floor - suspended floor, open subfloor -R0.8 or R1.5 including construction
Floor - suspended floor, enclosed subfloor -R0.6 or R1.3 including construction
Floor - framed, above existing floor - nil
Wall - Framed, FC clad/weatherboard, R1.3 or R1.7 incl.const
Wall - Brick Veneer, R1.16 or R1.7 incl.construction
Roof - Dark roof colour - SA>0.7
Framed roof, flat ceiling, flat roof - R1.58+75mm foil backed blanket

Window and Glazed Doors - Aluminium Framed

W1-W4 +900mm eave - U7.63, SHGC 0.75 -Clear glass

W5, 0mm eave - U7.63, SHGC 0.75 -Clear glass

W6,W7,W20, 600mm eave - U7.63, SHGC 0.75 -Clear glass

W8-W17, 900mm eave, U7.63, SHGC 0.75 -Clear glass

W18, 0mm eave, U7.63, SHGC 0.75 -Clear glass

W19,W21, 900mm eave, U7.63, SHGC 0.75 -Clear glass

D01-D011
+900mm eave, U7.63, SHGC 0.75 -Clear glass

Skylights- timber framed
S1, 0.88m2, U 2.9 SHGC 0.456
S2, 0.38m2, U 2.9 SHGC 0.456
S3, 0.84m2, U 2.9 SHGC 0.456

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Site Specific SSD Designs

Drawn | Checked	SH |
Plot Date:	30/07/2025
Project NO.	2024 11
Project Status	Development Application
Client	Keith and Saskia Waters
Climate Zone	5
Wind Region	#Wind Region
Site:	14 Loquat Valley Rd Bayview NSW 2104

DRAWING TITLE :
DA Plans
Lower Ground Floor

PROJECT NAME :
Waters Residence

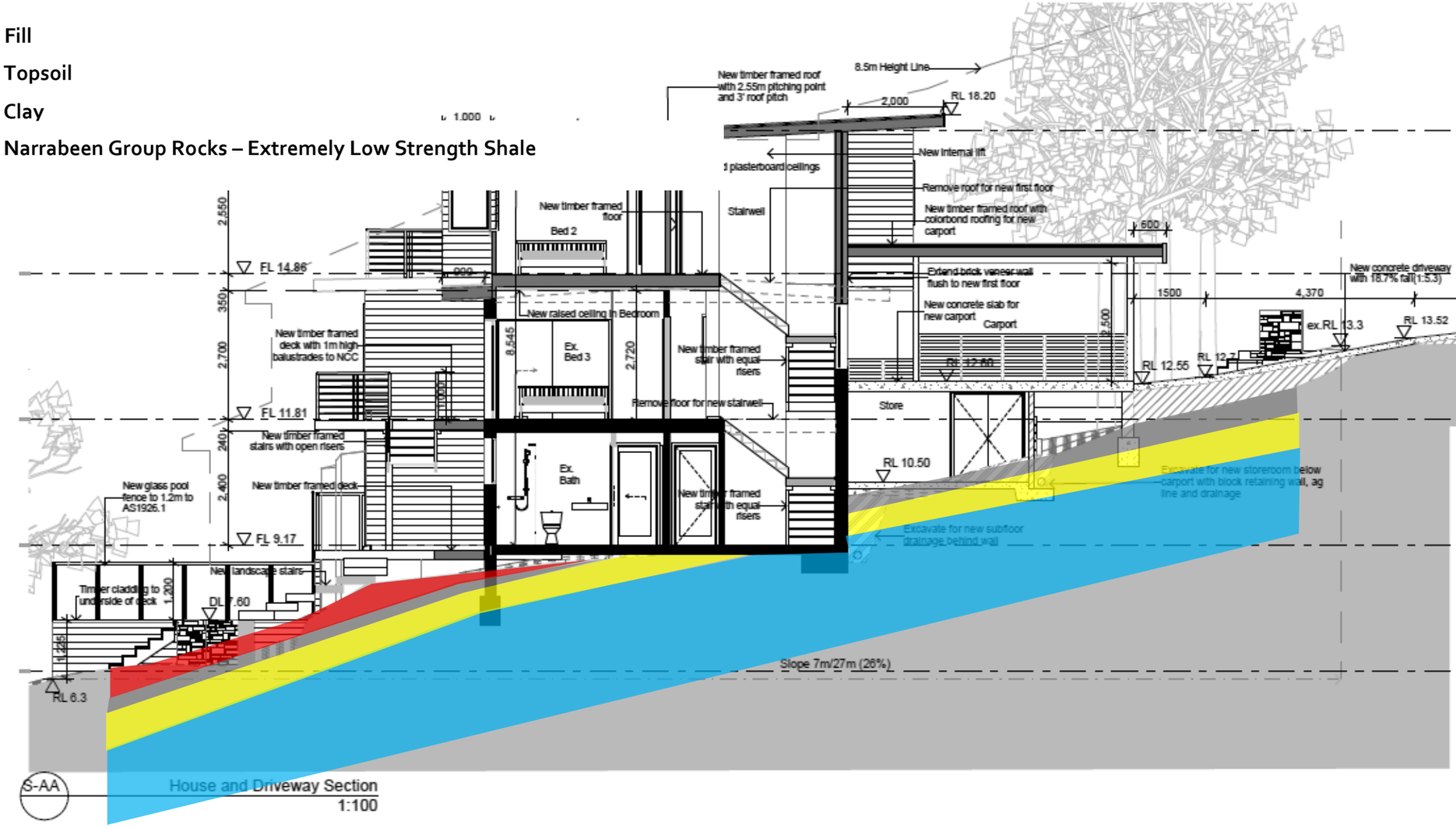
REVISION NO.

DRAWING NO.
DA 02

TYPE SECTION – Diagrammatical Interpretation of expected Ground Materials

Expected Ground Materials

- Fill
- Topsoil
- Clay
- Narrabeen Group Rocks – Extremely Low Strength Shale



S-AA House and Driveway Section
1:100

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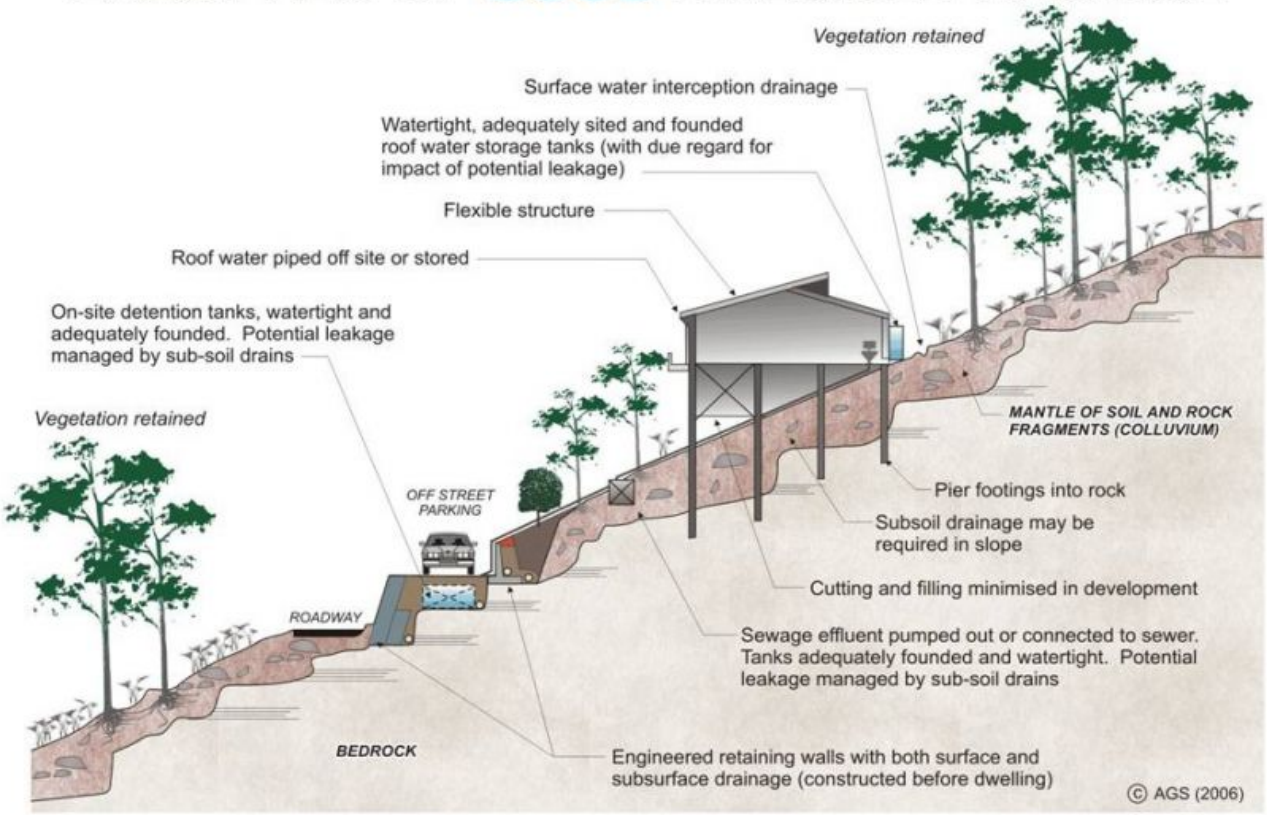
DRAWING TITLE :
DA Sections
Sections

PROJECT NAME :
Waters Residence

REVISION NO.

DRAWING NO.
DA 05

EXAMPLES OF **GOOD** HILLSIDE PRACTICE



EXAMPLES OF **POOR** HILLSIDE PRACTICE