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REPORT OF SITE-SPECIFIC LANDSLIDE SUSCEPTIBILITY RISK ASSESSMENT AND SLOPE STABILITY ANALYSIS

Prepared for

Somerville Consultants

Project Name

Proposed Subdivisional and Retaining Walls Development

Site Address

3-5 Panorama Outlook, Slacks Creek QLD 4127

Job Number

SGT26230

Report Number

SGT26230-R1

Report Date

7 September 2026

1. Introduction

Sam Geotechnics (SGT) was commissioned to undertake site-specific landslide susceptibility risk assessment and slope stability analysis for proposed subdivisional and retaining walls development are to be located at 3-5 Panorama Outlook, Slacks Creek QLD 4127. The aim of the assessment was to:

- Identify the site in accordance with "Logan City Council" (LCC) Landslide Hazard Map Area.
- Carry out site-specific landslide susceptibility risk assessment based on LCC Landslide hazard and Steep Overlay Code of 8.2.8 and detailed assessment process provided by "Geotechnical Stability Assessment Guidelines" published in March 2016 by City of Gold Coast (CGC).
- Note that the "Geotechnical Stability Assessment Guidelines" (by CGC) incorporated Australian Geomechanics Society (AGS) guidelines for landslide hazard risk assessment. CGC guidelines are generally accepted guidelines for similar conditions as an appropriate tool to prepare a geotechnical stability assessment and reporting in accordance with LCC Landslide hazard and Steep Overlay Code of 8.2.8 and incorporated in this reporting.
- Carry out slope stability analyses for the proposed subdivisional and retaining walls development and provide advice (where required); and
- Prepare a geotechnical site-specific landslide susceptibility risk assessment and slope stability analysis report together with RPEQ certification in order to demonstrate general compliance with landslide hazard zone codes.

Subdivisional plans & drawings and soil test were available from the client during the preparation of this reporting, referenced, incorporated and attached to this report.

Based on the client supplied information, we also understand that the maximum height of the boulder wall will be about 2.5 m high and this information was incorporated in this reporting.

2. Site Description, Inspection and Landslide Susceptibility Risk Assessment

On relevant 1:100,000 Geological map, site plots within Devonian-Carboniferous Aged Neranleigh-Fernvale Sedimentary Rock Formation.

Based on the LCC interacting mapping database, the site lies within landslide hazard and steep slope map area. A check was made using CGC flowchart of geotechnical stability assessments. Based on this, site-specific landslide susceptibility risk assessment and slope stability analysis are required for the proposed subdivisional and retaining walls development. A copy of such flowchart is attached at the end of this report for further confirmation.

A site inspection was carried out on 4 September 2026 and carried out site-specific landslide susceptibility risk assessment for the existing site including the consideration of the proposed subdivisional and retaining walls development. The following Table 1 summarises the outcome of the site-specific landslide susceptibility risk assessment.

Assessment Type	Output	Susceptibility
Existing Site Condition Including the Consideration of the Proposed Subdivisional and Retaining Walls Development	0.22	Low

NOTE: The landslide susceptibility risk assessment was assessed to be low. However, we have included site-specific and generic recommendations included in Section 5 of this report for the cut, fill, foundations, drainage, retaining walls, consideration of good engineering and hillside construction practices. Such recommendations should be adopted by the client where appropriate.

Based on the site inspection, there are no indication of unstable condition within the existing site. Evidence of an open proposed subdivisional and retaining walls development area, tree stumps, flat to gentle (up to 19°) natural slope geometry and moderate vegetation were observed during the site inspection. The following photographs were taken during the site inspection.





Figures 1-4: Typical Site Condition Observed During the Site Inspection.

3. Slope Stability Analysis

The Section A-B with 2.5 m high boulder wall Section extracted from the client supplied drawings and other information gathered from the site inspection were used for slope stability analysis using commercially available *Slope/W* software. Soil test and site inspection records were used to model the ground conditions. The assumed boulder wall, soil, and its parameters adopted in the stability analysis are presented in Table 2 below.

<u>Material</u>	<u>Drained Cohesion, C' (kPa)</u>	<u>Drained Friction Angle, Φ' (°)</u>	<u>Unit Weight, γ (kN/m³)</u>
Boulder Wall	0	38	21
Natural Stiff Silty Clay/Proposed Compacted Fill	5	25	19

The slope profiles were modelled using the parameters given in Table 2 in line with the Morgenstern and Price method. Surcharge load of 10 kPa was adopted for residential/maintenance/vehicular load. Appropriate groundwater level has been incorporated into the modelling.

The analysis has considered a minimum long-term Factor of Safety (FOS) of 1.50 as required by "Geotechnical Stability Assessment Guidelines" by CGC and current industry practice for permanent civil engineering works.

Slope Stability Model Set-Up

The model adopted in this stability analysis is presented below.

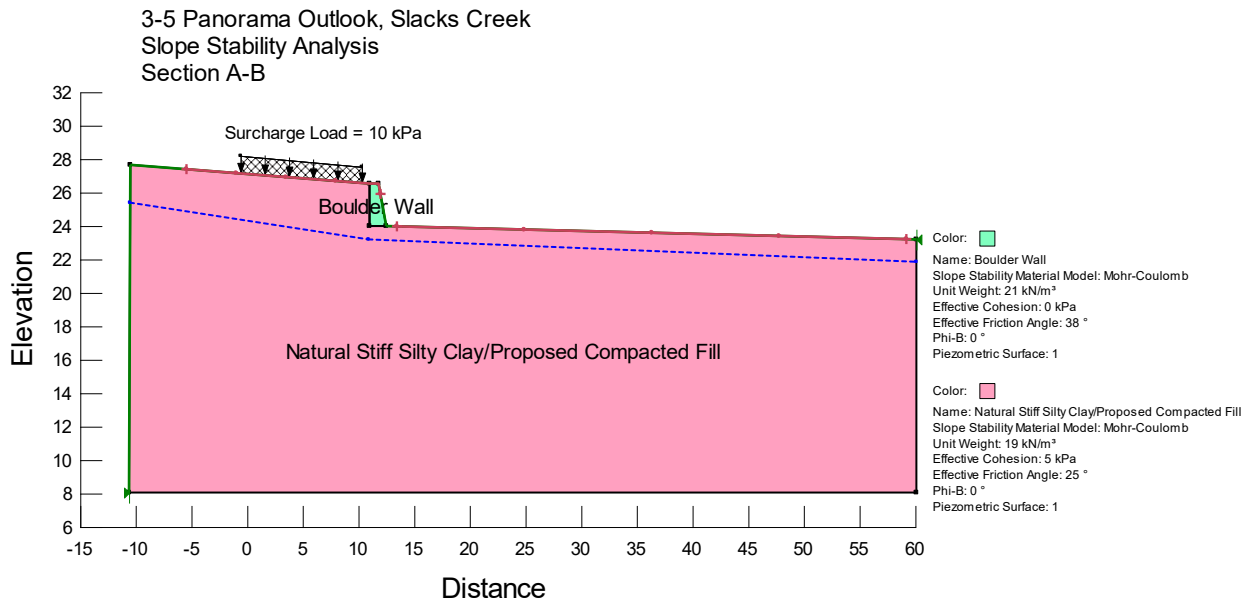


Figure 5: Section A-B Adopted in this Analysis.

The results of the stability analysis with groundwater conditions are presented in Table 3 below.

<u>Analysis Area</u>	<u>Analysis Condition</u>	<u>Long Term Factor of Safety (FOS) Achieved</u>	<u>Required Long Term FOS by "Geotechnical Stability Assessment Guidelines"</u>
Section A-B	Existing/Proposed Slope/Walls Geometry with Surcharge Load and Appropriate Groundwater (Global Stability – Entry and Exit Method)	1.68 (>1.50) (Drawing 1)	1.50

Stability analysis output is attached at the end of this report.

4. Safety in Design and Geotechnical Risk

The current industry practice incorporates, and details risks which may be associated with the geotechnical design addressed in this report. This section outlines risks which may have an effect during construction and also outlines relevant risks which may exist in the operation, maintenance and demolition stages of the proposed subdivisional and retaining walls development or design.

We do believe that the following potential geotechnical risks may be associated with this design component and need to be managed by the builder/contractor:

- Ground strata encountered differing from design assumptions – can be managed by engaging a suitably qualified geotechnical engineer during the construction stage.
- Plants and equipment's movements with possible slips and falls – can be managed by safety checks and using an appropriate safe work method statement (SWMS).
- Temporary slope stability of the proposed excavation (if required) – can be managed by safety checks, using appropriate SWMS and by engaging a suitably qualified geotechnical engineer during construction.
- Unexpected groundwater flow or seepage encountered in the sub-surface (if observed) – can be managed by installing drainage pipes and discharge pipes to enhance the drainage system.

As far as practical, we have included appropriate control measures associated with the above-mentioned risks. It is contractor's responsibility to reduce such risks practically low as possible to abide by relevant regulations and standards including safe working practices and methods.

5. Site-Specific and Generic Recommendations

The following site-specific/generic recommendations are required for the proposed subdivisional and retaining walls development where appropriate:

- In general, ongoing long-term stability will be subject to adequate crest and toe drainages and also slopes be vegetated (or any similar type of available erosion control methods) in order to prevent erosion and associated long term stability concerns.
- Instability is mainly caused by excavation and erosion. Unsupported/erosion prone excavation is not recommended.
- For safe batters up to 3.0 m high/depth, controlled fill/natural stiff or stronger clayey soils and very low strength weathered rock slopes are to be limited to 1V:2H (27°) and cut slopes within the low strength or stronger weathered rock are to be limited to 1V:1H (45°).
- Stormwater, rainwater, wastewater and overflow is to be properly diverted away from the site. All drainage is to be maintained in good working condition and regular inspections and maintenance are essential.

- All structural footings and slabs should be founded into underlying natural stiff or stronger clayey soils and/or weathered rock. Refer soil test records for further information on subsurface ground conditions.
- All site earthworks should be carried out in accordance with AS3798-2007 'Guidelines on Earthworks for Commercial and Residential Developments'.
- Reference may be made to "Australian Geomechanics Society's Guidelines" for Good and Bad Hillside Construction Practices and Hillside Constructions. A copy of such extract is attached at the end of this report for further recommendations for hillside constructions where required.

The above recommendations will not create or increase the likelihood of instability on the site or neighbouring sites and will achieve a long-term factor of Safety of 1.5 or greater against geotechnical failure.

6. Conclusion and Certification

Based on the outcomes in the above Sections 2 & 3 and assuming the client will adhere to appropriate recommendations included in Section 5 of this report, the site-specific landslide susceptibility risk assessment indicated that the existing site and the proposed subdivisional and retaining walls development will have a landslide susceptibility risk of 'low' based on site-specific geotechnical information and landslide susceptibility risk assessment outcome. This assessment is supported by the site-specific geotechnical information and also complies with the acceptable outcomes of the Logan City Council Logan Planning Scheme, Part 8 Overlays 8.2.8 – Landslide Hazard and Steep Slope Area Overlay Code.

Slope stability analysis indicates that the existing/proposed slope/walls geometry (as included in the attached Drawing 1) have FOS greater than "Geotechnical Stability Assessment Guidelines" by CGC and current industry practice for permanent civil engineering slope works of 1.50.

Seismic hazard is considered to be very low and not been adopted in this assessment.

Based on the above information, we certify that the existing site and the proposed subdivisional and retaining walls development are appropriate for the sloping nature of the site, and that the risk of landslide adversely affecting the subject site, adjoining properties and the proposed subdivisional and retaining walls development are 'low' which is considered to be acceptable for Logan City Council (LCC) and current engineering practice for permanent civil engineering slope works.

7. Report Limitations

The statements presented in this document are intended to advise the reader of recommendations in line with stated assumptions. This report has been prepared for the particular scope of works given to us and the data and opinions included in this report should not be used in other contexts or for any other purpose without our prior review and agreement.

This report has been prepared for the sole use of the client for the purpose described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.

The comments given in this report and the opinions expressed herein are based on the information received from the client, the conditions encountered during the geotechnical investigation and associated landslide susceptibility & slope stability analysis. However, there may be conditions prevailing at the site which have not been disclosed by the client/geotechnical investigation/landslide susceptibility & slope stability analysis, and which have not been taken into account in the report.

This report has been reasonably reviewed to eliminate human errors, inappropriateness, and omissions.

On Behalf of Sam Geotechnics Pty Ltd



Sam Jeyan

Principal Geotechnical Engineer
RPEQ - 13339 in Civil and Geotechnical
NSW - PRE0002414 in Civil and Geotechnical
RPEV - PE0015557 in Civil
MIEAust, NER, CPEng, IntPE (Aus) - 3439772 in Civil and Geotechnical
Accredited Slope Risk Assessor – RMS Guide to Slope Risk Assessment Version 4

Attachments:

Extracts from LCC Landslide Hazard Overlay Map
CGC Flowchart of Geotechnical Stability Assessments
Site-Specific Landslide Susceptibility Risk Assessment Report
Extract from Australian Geomechanics Society's Guidelines for Good and Bad Hillside Construction Practices and Hillside Constructions
Soil Test Records
Subdivisional Plans and Drawings by the Client
Slope Stability Analysis Output
Completed Standard Pro-forma for Geotechnical Certification
Form 15 – Landslide Hazard/Susceptibility Analysis – Low Risk Certification



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8. References

The following papers, reports or books have been consulted in preparing this report:

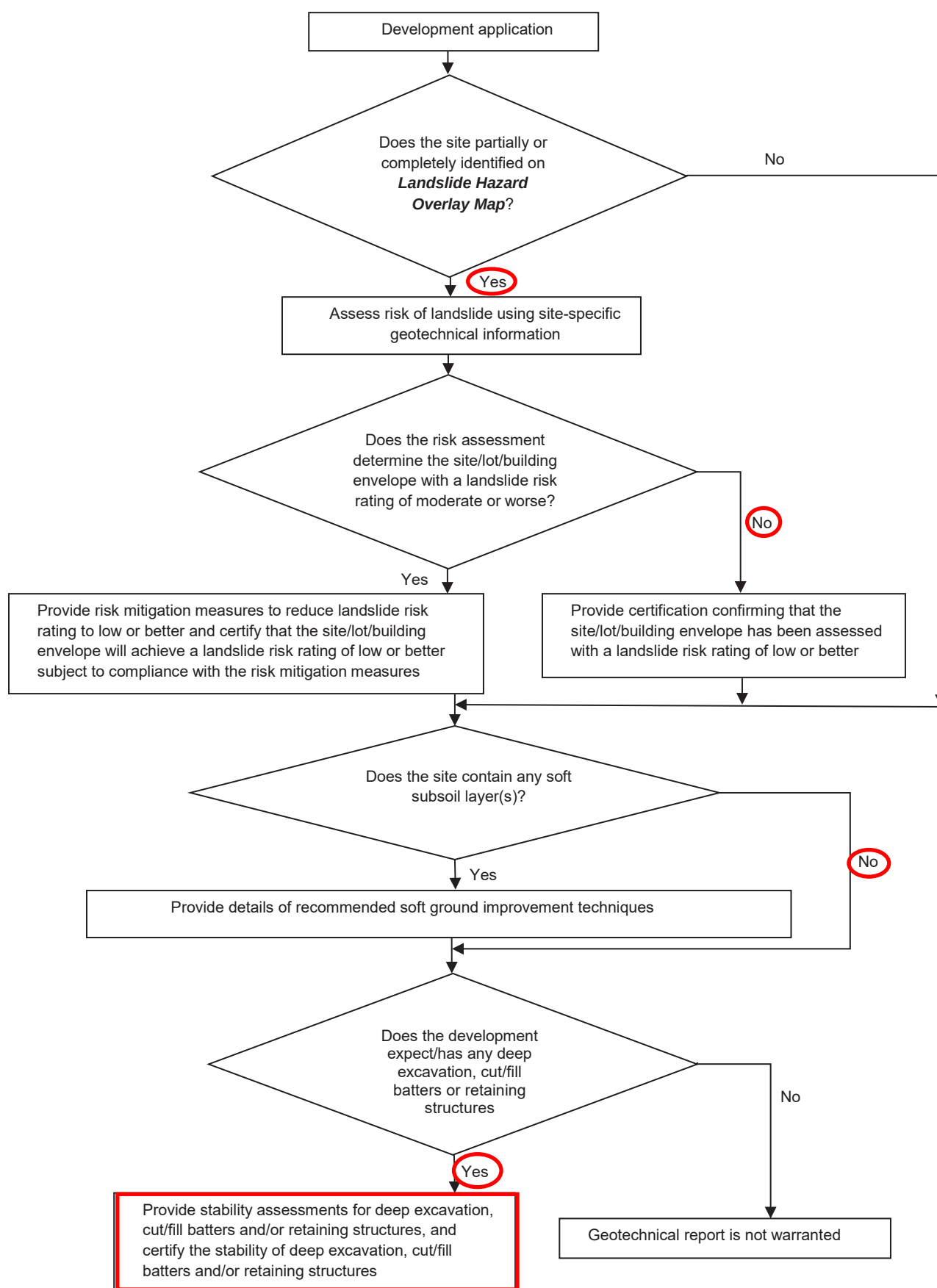
- "Geotechnical Stability Assessment Guidelines" by Gold Coast City Council (GCCC) – March 2016.
- SMEC (2011): Landslide Susceptibility Assessment Report for the City of the Gold Coast, August 2011.
- Australian Geomechanics Society (2007): Practice Note Guideline for Landslide Risk Management 2007, Journal of the Australian Geomechanics Society, Vol 42, No. 1, March 2007.
- Australian Standard AS 4678: Earth-Retaining Structures, February 2002.

Subject Site



Figure 1 shows a flowchart for various geotechnical stability assessments that should be carried out and include in a *Geotechnical Report*.

Figure 1: Flowchart for geotechnical stability assessment



LANDSLIDE SUSCEPTIBILITY ANALYSIS - EXISTING/PROPOSED SITE CONDITION

Site Address: 3-5 Panorama Outlook, Slacks Creek QLD 4127.

Geology: Devonian-Carboniferous Aged Neranleigh-Fernvale Sedimentary Rock Formation.

Landslide Hazard Overlay Map: Located within Logan City Council (LCC) Landslide Hazard Overlay Map Area.

1 Natural Surface Slope			
Site		Level	Factor
	Less than 5 degrees	L	0.1
	Between 5 and 15 degrees	M	0.5
	Between 15 and 30 degrees	M	0.8
	Between 30 and 45 degrees	H	1.2
	More than 45 degrees	M	0.8

2 Slope Shape			
Site		Level	Factor
	Crest or ridge	L	0.7
	Planar / Convex	M	0.9
	Rough / Irregular	H	1.2
	Concave	H	1.5

3 Site geology			
Site		Level	Factor
	Volcanic Extrusive rock	H	1.1
	Sedimentary rock	M	1
	Low grade metamorphic rock	M	1
	High grade metamorphic rock	L	0.9
	Volcanic Intrusive rock	M	1

4 Soils			
Site		Level	Factor
	Rock at surface	VL	0.1
	Residual soil < 1m deep	L	0.5
	Residual soil 1-3m deep	M	0.9
	Residual soil > 3m deep	H	1.5
	Colluvial soil < 1m deep	H	1.5
	Colluvial soil 1-3m deep	VH	2
	Colluvial soil > 3m deep	VH	4

5 Fill height - Existing/Proposed			
Site		Level	Factor
	None	L	0.9
	Less than 1m	M	1.1
	Between 1 and 3m	M	1.3
	Between 3 and 6m	H	1.7
	More than 6m	VH	2.5

6 Evidence of groundwater			
Site		Level	Factor
	None apparent	L	0.7
	Minor moistness	M	0.9
	Generally wet	H	1.5
	Surface springs	VH	3

7 Cut height - Proposed/Assumed			
Site		Level	Factor
	None	L	0.9
	Less than 1m	M	1.1
	Between 1 and 3m	M	1.3
	Between 3 and 6m	H	1.7
	More than 6m	VH	2.5

8 Slope of Cut Face			
Site		Level	Factor
	Less than 30 degrees	L	0.5
	Between 30 and 45 degrees	M	1
	Between 45 and 60 degrees	H	1.5
	More than 60 degrees	VH	2

9 Material in cutting			
Site		Level	Factor
	High strength rock	L	0.5
	Medium strength rock	L	1
	Low strength rock	M	1.2
	Very low strength rock and soil	H	1.5
	Soil	VH	2

10 Cut slope support - Proposed/Assumed			
Site		Level	Factor
	Concrete/Block/Engineered Wall	L	0.5
	Crib wall	M	0.9
	Gabion wall	M	1
	Rock wall	H	1.5
	Unsupported	H	2

11 Concentration of surface water			
Site		Level	Factor
	Ridge	L	0.7
	Crest	M	0.8
	Upper slope	M	0.9
	Mid slope	H	1.2
	Lower slope	H	1.5

12 Wastewater disposal - Existing/Assumed			
Site		Level	Factor
	Fully Sewered	M	1
	Onsite disposal – Surface	M	1.2
	Onsite disposal – Soak Pit/Trenches	H	1.5

13 Stormwater disposal - Existing/Assumed			
Site		Level	Factor
	All stormwater piped into road drainage	L	0.7
	Rain water tank with overflows	M	1
	Stormwater discharge on site	H	1.5

14 Evidence of instability			
Site		Level	Factor
	No sign of instability	L	0.8
	Soil Creep	H	1.2
	Minor irregularity	VH	2
	Major irregularity	VH	5
	Active instability	VH	10

Summary

		Factor
1	Natural Surface Slope	0.8
2	Slope Shape	0.7
3	Site Geology	1.0
4	Soils	0.5
5	Fill Height	1.3
6	Evidence of Groundwater	0.7
7	Cut height	1.3
8	Slope of Cut Face	2.0
9	Material in Cutting	1.5
10	Cut Slope Support	0.5
11	Concentration of Surface Water	0.8
12	Wastewater Disposal	1.0
13	Stormwater Disposal	0.7
14	Evidence of Instability	0.8
Relative Susceptibility (1x2x3x4x5x6x7x8x9x10x11x12x13x14)		0.22

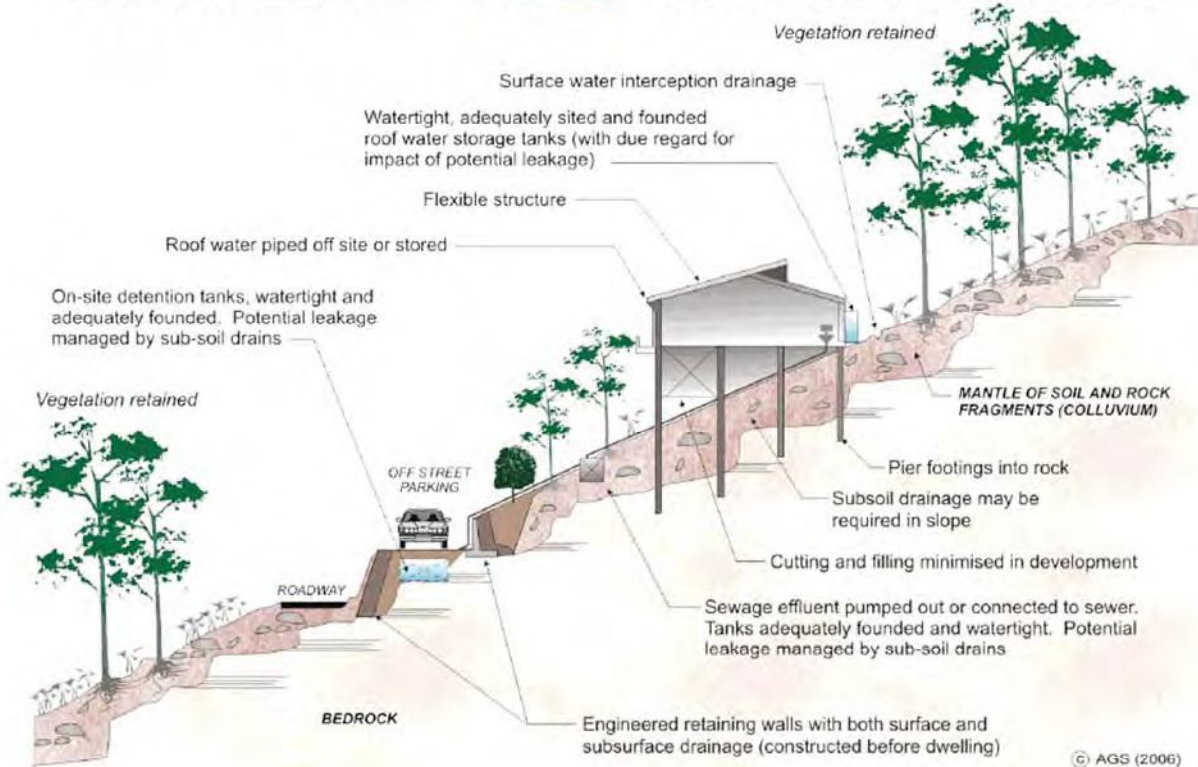
Low

Correlation between relative susceptibility and susceptibility rating

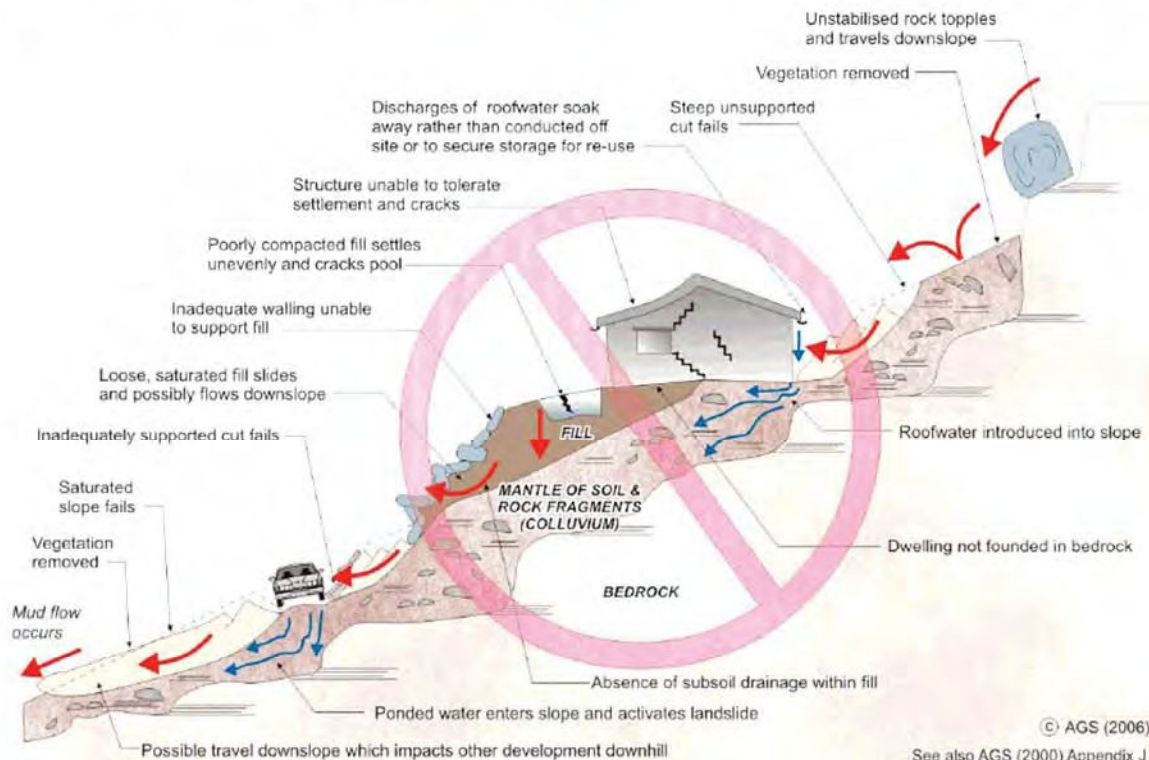
Relative Susceptibility	Susceptibility Rating
Less than 0.2	Very Low
0.2 – 0.6	Low
0.6 – 2.0	Moderate
2.0 – 6.0	High
Greater than 6.0	Very High



EXAMPLES OF **GOOD** HILLSIDE PRACTICE



EXAMPLES OF **POOR** HILLSIDE PRACTICE

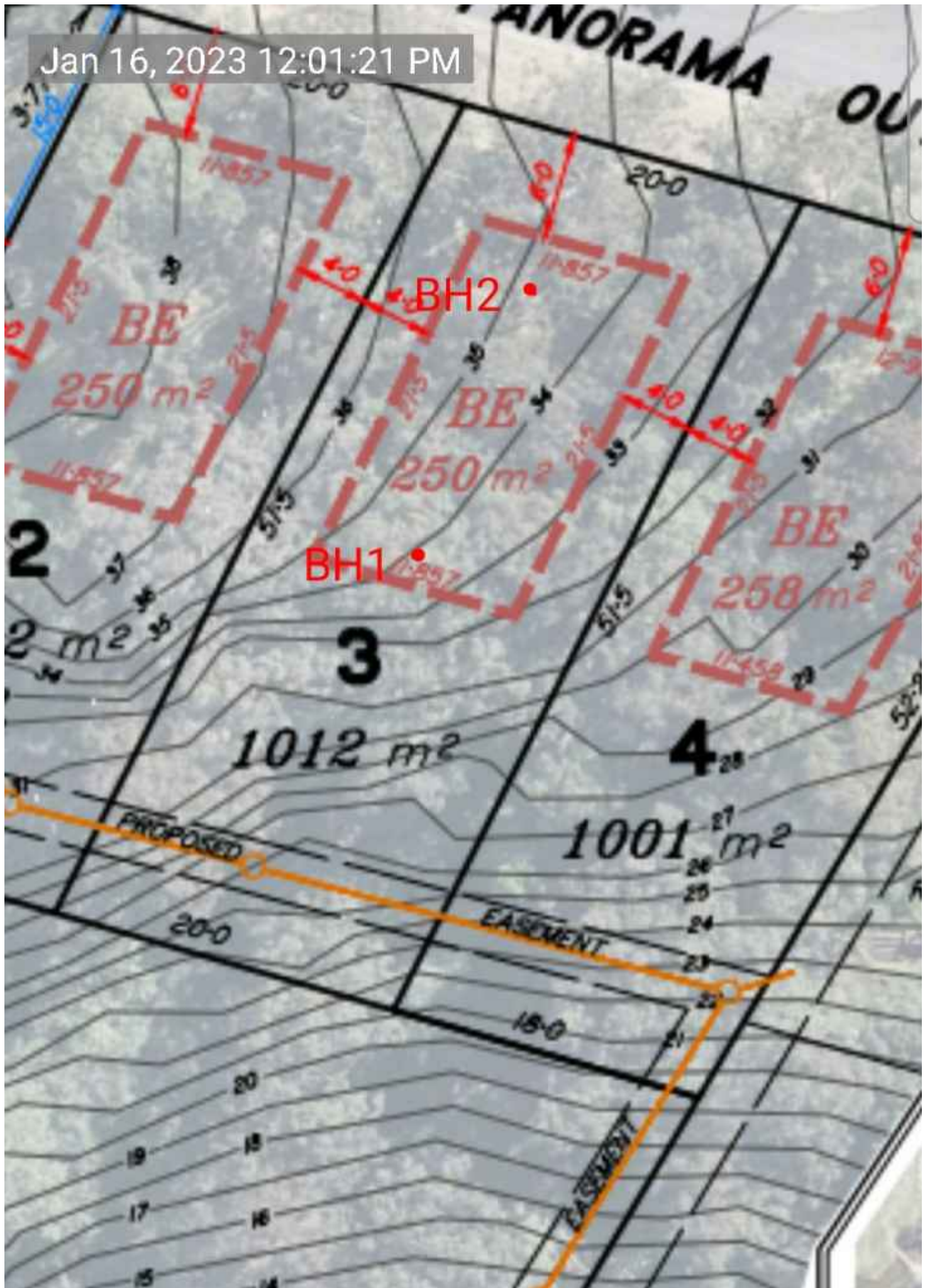


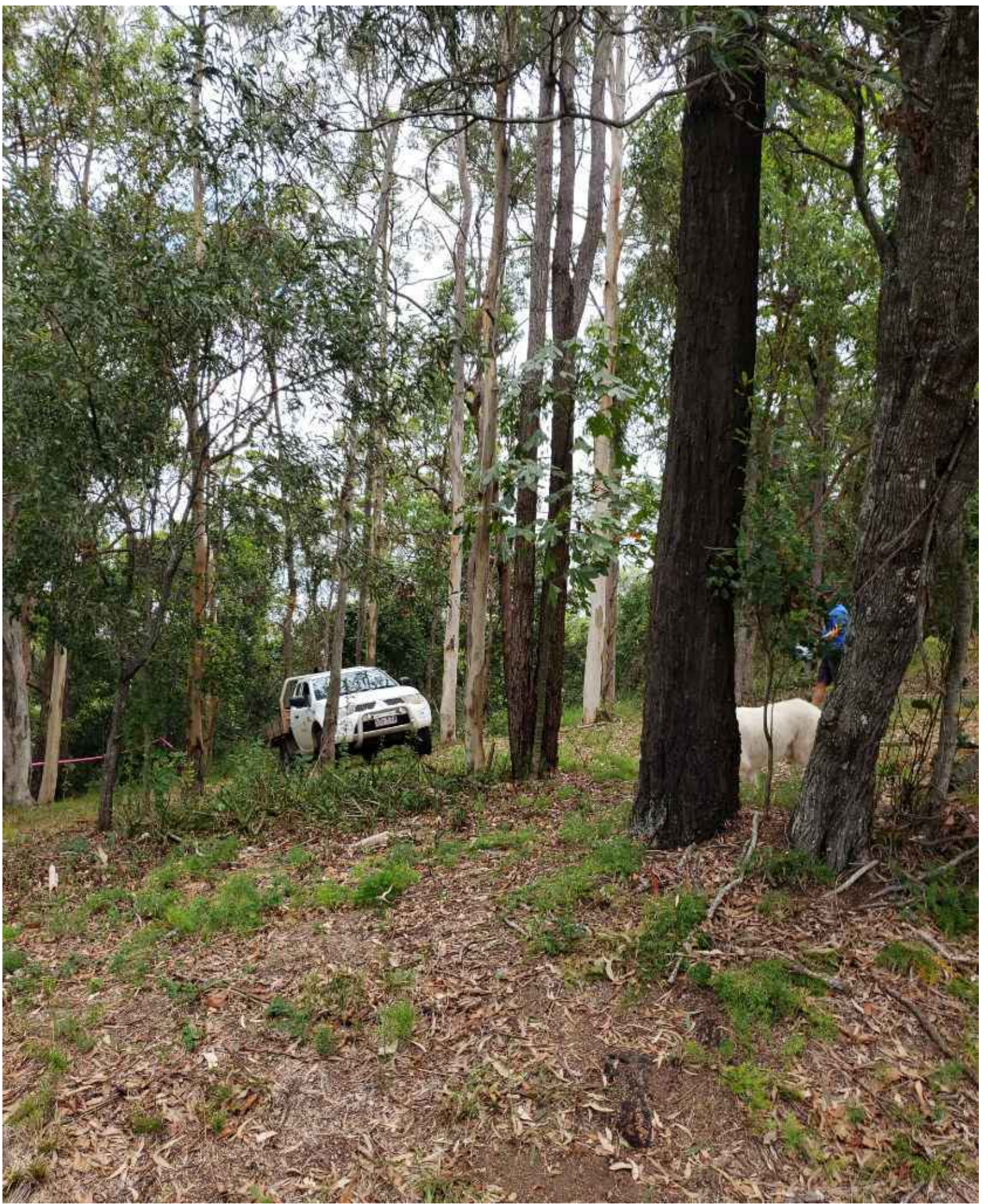
PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

APPENDIX G - SOME GUIDELINES FOR HILLSIDE CONSTRUCTION

<i>GOOD ENGINEERING PRACTICE</i>		<i>POOR ENGINEERING PRACTICE</i>
ADVICE		
GEOTECHNICAL ASSESSMENT	Obtain advice from a qualified, experienced geotechnical practitioner at early stage of planning and before site works.	Prepare detailed plan and start site works before geotechnical advice.
PLANNING		
SITE PLANNING	Having obtained geotechnical advice, plan the development with the risk arising from the identified hazards and consequences in mind.	Plan development without regard for the Risk.
DESIGN AND CONSTRUCTION		
HOUSE DESIGN	Use flexible structures which incorporate properly designed brickwork, timber or steel frames, timber or panel cladding. Consider use of split levels. Use decks for recreational areas where appropriate.	Floor plans which require extensive cutting and filling. Movement intolerant structures.
SITE CLEARING	Retain natural vegetation wherever practicable.	Indiscriminately clear the site.
ACCESS & DRIVEWAYS	Satisfy requirements below for cuts, fills, retaining walls and drainage. Council specifications for grades may need to be modified. Driveways and parking areas may need to be fully supported on piers.	Excavate and fill for site access before geotechnical advice.
EARTHWORKS	Retain natural contours wherever possible.	Indiscriminatory bulk earthworks.
CUTS	Minimise depth. Support with engineered retaining walls or batter to appropriate slope. Provide drainage measures and erosion control.	Large scale cuts and benching. Unsupported cuts. Ignore drainage requirements
FILLS	Minimise height. Strip vegetation and topsoil and key into natural slopes prior to filling. Use clean fill materials and compact to engineering standards. Batter to appropriate slope or support with engineered retaining wall. Provide surface drainage and appropriate subsurface drainage.	Loose or poorly compacted fill, which if it fails, may flow a considerable distance including onto property below. Block natural drainage lines. Fill over existing vegetation and topsoil. Include stumps, trees, vegetation, topsoil, boulders, building rubble etc in fill.
ROCK OUTCROPS & BOULDERS	Remove or stabilise boulders which may have unacceptable risk. Support rock faces where necessary.	Disturb or undercut detached blocks or boulders.
RETAINING WALLS	Engineer design to resist applied soil and water forces. Found on rock where practicable. Provide subsurface drainage within wall backfill and surface drainage on slope above. Construct wall as soon as possible after cut/fill operation.	Construct a structurally inadequate wall such as sandstone flagging, brick or unreinforced blockwork. Lack of subsurface drains and weepholes.
FOOTINGS	Found within rock where practicable. Use rows of piers or strip footings oriented up and down slope. Design for lateral creep pressures if necessary. Backfill footing excavations to exclude ingress of surface water.	Found on topsoil, loose fill, detached boulders or undercut cliffs.
SWIMMING POOLS	Engineer designed. Support on piers to rock where practicable. Provide with under-drainage and gravity drain outlet where practicable. Design for high soil pressures which may develop on uphill side whilst there may be little or no lateral support on downhill side.	
DRAINAGE		
SURFACE	Provide at tops of cut and fill slopes. Discharge to street drainage or natural water courses. Provide general falls to prevent blockage by siltation and incorporate silt traps. Line to minimise infiltration and make flexible where possible. Special structures to dissipate energy at changes of slope and/or direction.	Discharge at top of fills and cuts. Allow water to pond on bench areas.
SUBSURFACE	Provide filter around subsurface drain. Provide drain behind retaining walls. Use flexible pipelines with access for maintenance. Prevent inflow of surface water.	Discharge roof runoff into absorption trenches.
SEPTIC & SULLAGE	Usually requires pump-out or mains sewer systems; absorption trenches may be possible in some areas if risk is acceptable. Storage tanks should be water-tight and adequately founded.	Discharge sullage directly onto and into slopes. Use absorption trenches without consideration of landslide risk.
EROSION CONTROL & LANDSCAPING	Control erosion as this may lead to instability. Revegetate cleared area.	Failure to observe earthworks and drainage recommendations when landscaping.
DRAWINGS AND SITE VISITS DURING CONSTRUCTION		
DRAWINGS	Building Application drawings should be viewed by geotechnical consultant	
SITE VISITS	Site Visits by consultant may be appropriate during construction/	
INSPECTION AND MAINTENANCE BY OWNER		
OWNER'S RESPONSIBILITY	Clean drainage systems; repair broken joints in drains and leaks in supply pipes. Where structural distress is evident see advice. If seepage observed, determine causes or seek advice on consequences.	

Bore Hole Locations





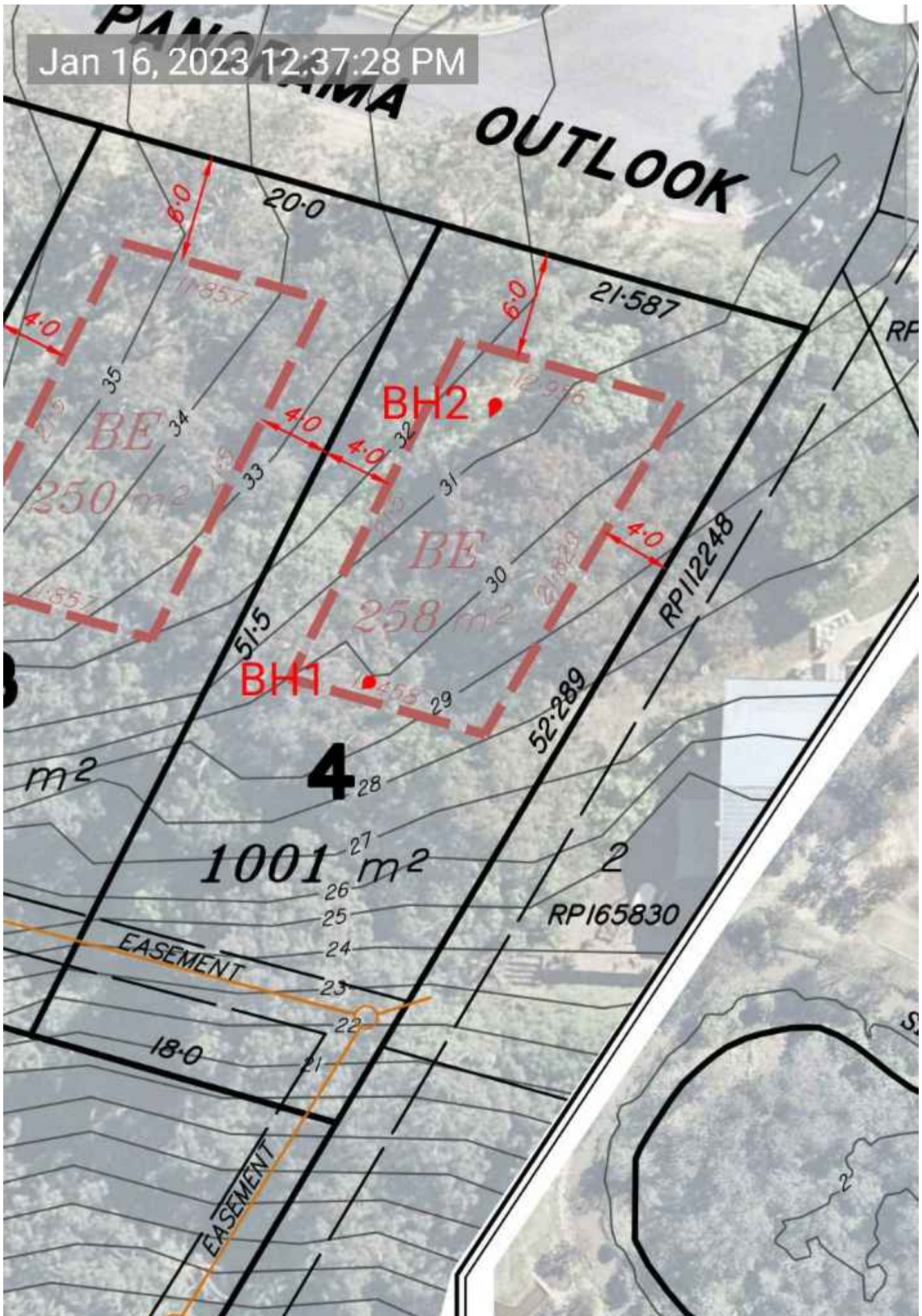
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Bore Hole Locations





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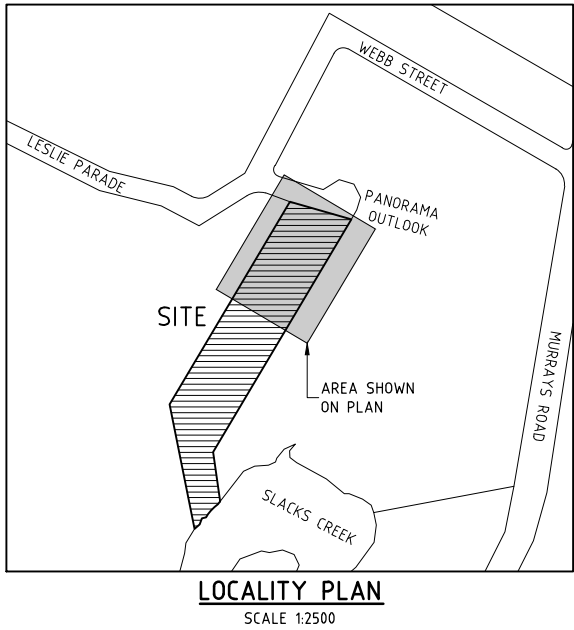


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1 INTO 2 SUBDIVISION
LOT 15 ON RP 112853
3-5 PANORAMA OUTLOOK
SLACKS CREEK, QLD 4127
DEVELOPMENT APPROVAL No. TBC

<u>DRAWING INDEX</u>	
<u>DRAWING No.</u>	<u>DESCRIPTION</u>
26207-C01	LOCALITY PLAN, DRAWING INDEX AND GENERAL NOTES
26207-SW01	STORMWATER DRAINAGE PLAN
26207-S00	SEWERAGE AND WATER RETICULATION NOTES
26207-S01	SEWERAGE PLAN
26207-S02	SEWERAGE LONGITUDINAL SECTION, LIVE WORKS AND NON-COMPLIANCE TABLES
26207-W01	WATER RETICULATION PLAN



GENERAL NOTES (v26.1)

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL TEMPORARY AND PERMANENT SIGNAGE AND LINEMARKING TO BE IN ACCORDANCE WITH MAIN ROADS STANDARDS (MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES).
3. ALL DIMENSIONS ARE TO BE CHECKED ON-SITE BEFORE WORK COMMENCES.
4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWING.
5. DURING CONSTRUCTION BARRIERS, LIGHTS & SIGNS SHALL BE MAINTAINED TO ENSURE SAFE PASSAGE OF TRAFFIC AND PEDESTRIANS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.
6. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH S.A.A. CODES & BY-LAWS AND ORDINANCES OF THE RELEVANT LOCAL AUTHORITY AND WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RELEVANT AUTHORITIES AND PAYING ALL FEES NECESSARY BEFORE COMMENCING WORK, FOR LOCATING ALL EXISTING SERVICES AND FOR REPAIR OF ANY SERVICES DAMAGED AS A RESULT OF THE WORKS.
8. CONTRACTOR TO VERIFY ALL INVERT LEVELS, SURFACE LEVELS, COVER OVER DRAINAGE LINES, AND MINIMUM FALLS ARE CORRECT & OBTAINABLE PRIOR TO COMMENCEMENT OF WORK.
9. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE WORK HEALTH AND SAFETY ACT 2011. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THIS ACT AND IN PARTICULAR THE CONTRACTOR IS TO ENSURE THE REQUIREMENTS OF THIS SPECIFICATION WITH REGARD TO 'NOTIFICATION IN RELATION TO A NOTIFIABLE PROJECT, ARE FULFILLED.
10. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL EXISTING SERVICES AND STRUCTURES ARE TO BE MAINTAINED IN GOOD ORDER FOR THE DURATION OF THE CONTRACT. ANY COST ASSOCIATED WITH REPAIRING DAMAGE TO EXISTING SERVICES SHALL BE BORNE BY THE CONTRACTOR.
11. THE PERSON RESPONSIBLE FOR THE DEMOLITION WORKS SHALL ENSURE THAT ALL VEHICLES LEAVING THE SITE CARRYING DEMOLITION MATERIALS HAVE THEIR LOADS COVERED AND DO NOT TRACK SOIL OR WASTE MATERIALS ONTO THE ROAD.
12. SHOULD ASBESTOS BE PRESENT, ITS REMOVAL SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NATIONAL OH&S COMMITTEE - CODE OF PRACTICE FOR SAFE REMOVAL OF ASBESTOS AND ITS CODE OF PRACTICE FOR THE MANAGEMENT AND CONTROL OF ASBESTOS IN THE WORKPLACE.

SCALE 1:2500 (A1)



(SCALE BEFORE REDUCTION)



HCE Engineers Pty Ltd
ABN 42 664 382 610
mail@hce-engineers.com.au
07 3829 1399



PROJECT	TITLE	CLIENT	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©		
3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127	LOCALITY PLAN, DRAWING INDEX AND GENERAL NOTES	SIDNEY INVESTMENTS PTY LTD		A	ISSUED FOR COMMENT	19.08.26	Designed MN	Drawn AB	Date 28/07/26
							Approval No.	Scale	AS SHOWN
							Drawing No.	Rev.	A
							26207-C01		

SUBMITTED FOR COMMENT
 DRAFT

STORMWATER DRAINAGE NOTES (v26.1)

1. LEVELS TO AHD.
2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON-SITE BEFORE WORK COMMENCES.
4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWING.
5. DURING CONSTRUCTION BARRIERS, LIGHTS & SIGNS SHALL BE MAINTAINED TO ENSURE SAFE PASSAGE OF TRAFFIC AND PEDESTRIANS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.
6. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LOCAL AUTHORITY'S CURRENT SPECIFICATIONS AND STANDARDS.
7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH S.A.A. CODES & BY-LAWS AND ORDINANCES OF THE RELEVANT LOCAL AUTHORITY AND WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RELEVANT AUTHORITIES AND PAYING ALL FEES NECESSARY BEFORE COMMENCING WORK, FOR LOCATING ALL EXISTING SERVICES AND FOR REPAIR OF ANY SERVICES DAMAGED AS A RESULT OF THE WORKS.
9. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE WORKPLACE HEALTH AND SAFETY ACT 2011. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THIS ACT AND IN PARTICULAR THE CONTRACTOR IS TO ENSURE THE REQUIREMENTS OF THIS SPECIFICATION WITH REGARD TO 'NOTIFICATION IN RELATION TO A NOTIFIABLE PROJECT, ARE FORFILLED.
10. PIPES SHALL NOT BE LAID WITHIN THE ZONE OF INFLUENCE OF STRUCTURAL LOADINGS UNLESS BRIDGING OF THE LOAD IS PROVIDED. ANY BRIDGING IS TO BE DESIGNED BY A RPEQ.
11. BENCHING OF PIT STRUCTURES SHALL HAVE A SMOOTH FINISHED SURFACE, AND PIPES SHALL NOT PROJECT INSIDE THE SHAFT OF THE PIT.
12. FOLLOWING STORMS, THE ROAD RESERVE AND SEDIMENT BARRIERS ARE TO BE INSPECTED AND ALL SEDIMENT RESIDUES ARE TO BE REMOVED.
13. OPEN PIPES AND GULLY PITS DURING CONSTRUCTION ARE TO BE CAPPED OR PLUGGED (SOLID OR FILTER CLOTH) AT THE END OF EACH DAYS WORK.
14. ROAD EFFECTED BY WORKS ARE TO BE KEPT CLEAN. MATERIAL IS TO BE SWEEPED FROM ROAD SURFACE.
15. REPAIR ANY DAMAGE TO EXISTING KERB AND CHANNEL, FOOTPATH OR ROADWAY THAT MAY OCCUR DURING ANY WORKS CARRIED OUT WITH THE APPROVED DEVELOPMENT.

LEGEND

- 10.0---
- EXISTING SURFACE CONTOURS (1.00m INTERVAL)

WM

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X

PLAN
SCALE 1:250

DETAIL A
SCALE 1:50

DETAIL B
SCALE 1:50

ELEVATION
SCALE 1:25

THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.

SCALE 1:25 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:50 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:250 (A1)
(SCALE BEFORE REDUCTION)

		PROJECT 3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127	TITLE STORMWATER DRAINAGE PLAN	CLIENT SIDNEY INVESTMENTS PTY LTD	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright © Designed MN Drawn AB Date 28/07/26 Approval No. --- Scale AS SHOWN Drawing No. 26207-SW01 Rev. A
						A	ISSUED FOR COMMENT	20.08.26	

SEWERAGE NOTES (v26.1)

GENERAL

- ALL CONSTRUCTION WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION BY PHONE ON 1300 362 128.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT GRAVITY SEWERAGE CODE OF AUSTRALIA – SEQ EDITION STANDARDS AND LOGAN CITY COUNCIL ADDITIONAL REQUIREMENTS.
- UNLESS SPECIFIED OTHERWISE, ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO LOGAN CITY COUNCIL SEWERAGE SYSTEM.
- ALL LEVELS TO A.H.D.
- CLEARANCES TO OTHER SERVICES TO BE IN ACCORDANCE WITH TABLE 5.4 OF THE SEQ GRAVITY SEWERAGE CODE OF AUSTRALIA SPECIFICATIONS UNLESS NOTED OTHERWISE.
- HORIZONTAL TOLERANCES TO BE +/- 100mm LATERAL DISPLACEMENT FROM THE DESIGN ALIGNMENT FOR SEWER MAINS AND PROPERTY SERVICES.
- ALL SEWER LENGTHS AND GRADES ARE MEASURED FROM CENTRE OF STRUCTURE UNO.

EXISTING FEATURES

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING SERVICES PRIOR TO COMMENCING WORKS.
- IF EXISTING CONCRETE PATHWAYS/DRIVEWAYS NEED TO BE MODIFIED OR CUT, FULL WIDTH PANELS OF PATHWAYS/DRIVEWAYS BETWEEN EXISTING JOINTS ARE TO BE REMOVED, NO PATHWAYS/DRIVEWAYS TO BE CUT LONGITUDINALLY IN HALF OR OTHER PART THEREOF. REINSTATEMENT TO BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARD DRAWINGS FOR FOOTPATHS AND DRIVEWAYS. WHEN MAINTENANCE STRUCTURES NEED TO BE INSTALLED WITHIN COUNCIL CONCRETE FOOTPATHS, LOCALISED REINSTATEMENT OF IMMEDIATE FITTING SURROUND IS NOT PERMITTED. NEW CONCRETE PANELS SHALL BE PROVIDED IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARD DRAWINGS, WITH NEW AND EXISTING JOINTS SPACING NO LESS THAN 1m.

PERMITS

- PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL ARRANGE FOR ROAD OPENING AND TRAFFIC PERMITS FROM THE RELEVANT AUTHORITIES. WORK MAY BE REQUIRED TO BE CARRIED OUT DURING WEEKENDS AND / OR LATE AT NIGHT ONLY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS ASSOCIATED WITH VEGETATION REMOVAL/MANAGEMENT.

CONSTRUCTION NOTES

- ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE “ACCEPTED CIVIL PRODUCTS AND MATERIALS LIST”.
- EACH RESIDENTIAL HOUSE ALLOTMENT SHALL BE SERVED BY A DN110 PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PROPERTY CONNECTION SHALL BE PROVIDED. A MAXIMUM OF 2 RESIDENTIAL PREMISES IS ALLOWED ON A DN110. PROPERTY CONNECTION SEWER DETAILS SHALL COMPLY WITH THE DETAILS GIVEN IN GRAVITY SEWERAGE CODE OF AUSTRALIA – SEQ EDITION STANDARD DRAWINGS SEQ-SEW-1106-1 TO 1106-6.
- PROPERTY CONNECTIONS JUNCTIONS SHALL BE LOCATED 1.20m FROM THE DOWNSTREAM ALIGNMENT. IF THIS IS NOT POSSIBLE PROPERTY CONNECTION JUNCTIONS SHALL NOT BE GREATER THAN 3.50m FROM THE DOWNSTREAM ALIGNMENT.
- PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300mm AND A MAXIMUM OF 750mm.
- WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH AS 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE COUNCIL UNLESS CERTIFICATES ARE PROVIDED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
- WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULK HEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CL.9.10 OF GRAVITY SEWERAGE CODE OF AUSTRALIA – SEQ EDITION.
- SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN CL.5.2.9 OF GRAVITY SEWERAGE CODE OF AUSTRALIA -SEQ EDITION.
- EMBEDMENT AND TRENCHING TO BE ‘TYPE 3’ UNLESS NOTED OTHERWISE IN ACCORDANCE WITH THE GRAVITY SEWERAGE CODE OF AUSTRALIA – SEQ EDITION STD DRG SEQ-SEW-1201-1.
- CONSTRUCT BULKHEADS AND TRENCH STOPS TO SEQ-SEW-1206-1 AND TRENCH DRAINS TO SEQ-SEW-1207-1.
- CONSTRUCT MHs TO SEQ-SEW-1300-1, 1301-1, 1302-1 TO 1307-1 AND 1313-1.
- TERMINAL ENTRY POINTS TO BE CONSTRUCTED TO SEQ-SEW-1314-1. TYPE J NOT ACCEPTED BY LOGAN CITY COUNCIL.
- CONSTRUCT BENDS TO SEQ-SEW-1314-3.
- INSTALL MH/MS TYPE B COVERS TO SEQ-SEW-1308-1.
- INSTALL MH/MS TYPE D COVERS TO SEQ-SEW-1308-8 TO 1308-11.
- CONSTRUCT PROPERTY CONNECTIONS TO SEQ-SEW-1104-1 & 1105-1.
- INSTALL DETECTABLE MARKER TAPE ON ALL SEWER MAINS AND PROPERTY CONNECTIONS. DETECTABLE MARKER TAPE SHALL BE PROVIDED EITHER ABOVE THE EMBEDMENT ZONE OR 1000mm BELOW THE FINISHED SURFACE LEVEL, WHICHEVER IS CLOSEST TO FINISHED SURFACE LEVEL.
- NEW MANHOLES THAT MEET ANY ONE OR MORE OF THE FOLLOWING CONDITIONS SHALL BE PE LINED.
 - THE MH IS A RECEIVING MH FOR A SEWER RISING MAIN OR WITHIN 100m OF SUCH A RECEIVING MH.
 - THE MH IS THE COLLECTION MH IMMEDIATELY UPSTREAM OF A SEWAGE PUMPING STATION.
 - THE MH HAS AN INTERNAL DIAMETER OF 1500mm OR MORE.
 - THE MH EXCEEDS 4m DEPTH TO THE INVERT OF ITS OUTLET SEWER.
 - THE OUTFLOW SEWER FROM THE MH HAS A DIAMETER GREATER THAN 300mm.
 - THE MH IS SERVICING AN INDUSTRIAL AREA.
 - WHERE AN ASSESSMENT OF CORROSION OR ODOUR HAS INDICATED PROTECTION IS REQUIRED.
- CONCRETE FOR MH CONSTRUCTION SHALL BE SPECIAL CLASS TO WSA PS-358 WITH REQUIREMENT FOR CALcareous AGGREGATE.

SOIL CLASSIFICATION

- THE CONTRACTOR SHALL ASSESS SOIL CONDITIONS TO DETERMINE CLASSIFICATION IN ACCORDANCE WITH SEQ-SEW-1200-1.
- IF THE CONTRACTOR ENCOUNTERS SOIL IN TRENCHES WITH AN ALLOWABLE BEARING PRESSURE OF LESS THAN 50kPa, THEY SHALL IMMEDIATELY CONTACT THE RPEQ AND AWAIT DIRECTION.
- IF ACID SULPHATE SOILS ARE FOUND (OR ARE EXPECTED TO BE) IN THE WORKS AREA, THE OUTPUTS FROM THE RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL REQUIRES THAT ACID SULPHATE SOILS BE MANAGED AS PER LEGISLATED PROCEDURES.

TESTING AND CONNECTING

- ALL SEWERS AND MAINTENANCE STRUCTURES SHALL BE INSPECTED BY CCTV. THE FIRST CCTV INSPECTION SHALL BE MADE PRIOR TO COMMISSIONING AFTER ALL BACKFILLING OPERATIONS HAVE BEEN SATISFACTORILY COMPLETED AND ALL JUNCTIONS HAVE BEEN INSTALLED.
- A SECOND CCTV INSPECTION IS REQUIRED PRIOR TO BUT NOT MORE THAN 2 WEEKS BEFORE, THE ON-SITE INSPECTION FOR OFF-MAINTENANCE CERTIFICATION.
- CCTV EQUIPMENT IN ACCORDANCE WITH SECTION 21.8 OF THE GRAVITY SEWERAGE CODE OF AUSTRALIA AND THE WSAA CONDUIT INSPECTION REPORTING CODE OF AUSTRALIA WSA05 AND THE RESULTS SUBMITTED TO LOGAN CITY COUNCIL FOR COMPLIANCE CHECKING.
- TESTING AND QA REQUIREMENTS SHALL BE UNDERTAKEN IN ACCORDANCE WITH GRAVITY SEWERAGE CODE OF AUSTRALIA.
- VACUUM / PRESSURE TESTING AS PER SECTION 21.1. ON ALL NEW MAINS, STRUCTURES, PROPERTY SERVICES 12m OR GREATER IN LENGTH.
- CCTV FOOTAGE AND REPORT FOR ALL SEWER MAINS AND ALL PROPERTY SERVICES THAT ARE 12m OR GREATER. TO BE SUBMITTED AS PER SEQ CODE FORMAT AND REQUIREMENTS.
- CONCRETE DELIVERY DOCKETS TO BE PROVIDED TO THE SUPERVISING ENGINEERS FOR ALL CONCRETE USED AS PART OF MANHOLES.
- COMPACTION TEST RESULTS FOR ALL NEW SEWER MAINS AND PROPERTY SERVICES CROSSING ROADS IN ACCORDANCE WITH SECTION 21.3 OF GRAVITY SEWERAGE CODE OF AUSTRALIA.
 - FREQUENCY – TRAFFICABLE AREAS – ONE TEST IN EACH 300mm LAYER OF FILL FOR EACH 50 LINEAL METRES OF SEWER OR PART THEREOF. THE ROAD OWNER MAY SPECIFY ADDITIONAL COMPACTION TESTING REQUIREMENTS.
 - FREQUENCY – NON-TRAFFICABLE AREAS – ONE TEST IN EACH 900mm LAYER OF FILL FOR EACH 100 LINEAL METRES OF SEWER OR PART THEREOF.
 - FREQUENCY – FOR MAINTENANCE AND INSPECTION STRUCTURES – ONE TEST WITHIN EACH 1m DEPTH AT ONE LOCATION WITHIN 300mm OF EACH.
- RE-FILLING OF “EXCESSIVE EXCAVATION” TO BE IN ACCORDANCE WITH SECTION 14.9. CONTRACTOR SHALL SEEK SITE SPECIFIC DIRECTION FROM THE CERTIFYING CONSULTING ENGINEER IF DEPTH AND WIDTH OF EXCAVATION EXCEEDS THOSE SPECIFIED IN SECTION 22 – TOLERANCES ON AS CONSTRUCTED WORK.

MISCELLANEOUS

- IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT ‘BEFORE YOU DIG AUSTRALIA’ FOR THE LOCATION OF EXISTING PUBLIC UTILITIES PRIOR TO EXCAVATION. ANY DAMAGE CAUSED TO EXISTING PUBLIC UTILITIES BY THE CONTRACTOR WILL BE REPAIRED BY THE RELEVANT AUTHORITY AT THE CONTRACTORS EXPENSE.

REHABILITATION

- ALL DISTURBED AREAS TO BE REINSTATED TO THEIR ORIGINAL CONDITION.

VEGETATION PROTECTION

- TREES LOCATED ALONG THE FOOTPATH SHALL BE TRANSPLANTED PRIOR TO CONSTRUCTION OR REPLACED IF DESTROYED.
- WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD, GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES MUST BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT ARBORIST FOR FURTHER ADVICE.
- ANY TREE LOPPING REQUIRED SHALL BE UNDERTAKEN BY AN APPROVED ARBORIST.

CONTRACTOR ACCREDITATION

- DURING ANY CONSTRUCTION ACTIVITY AT LEAST ONE PERSON ON SITE MUST HAVE COMPLETED A PIPE LAYING TRAINING COURSE APPROVED BY THE PIPE SUPPLIER OR MANUFACTURER AND APPROPRIATE TO THE PIPELINE UNDER CONSTRUCTION. THE TRAINING COURSE MUST HAVE BEEN COMPLETED WITHIN THE LAST TEN YEARS.
- THE CONTRACTOR SHALL PROVIDE DOCUMENTED EVIDENCE OF ACCEPTABLE QUALIFICATIONS.

LIVE WORKS

- ALL LIVE WORKS SHALL BE UNDERTAKEN BY LOGAN CITY COUNCIL, OR APPROVED CONTRACTOR VIA THE DEVELOPER DELIVERED LIVE CONNECTION PROCESS.

CURRENCY

- CONTRACTOR TO ENSURE CURRENCY OF STANDARDS AT TIME OF CONSTRUCTION.

WATER RETICULATION NOTES (v26.1)

GENERAL

- ALL CONSTRUCTION WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION BY PHONE ON 1300 362 128.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SEQ WATER SUPPLY CODE, LOGAN CITY COUNCIL ACCEPTED PRODUCTS AND MATERIALS LIST (IPAM LIST) AND LOGAN CITY COUNCIL ADDITIONAL REQUIREMENTS.
- UNLESS SPECIFIED OTHERWISE, ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO LOGAN CITY COUNCIL RETICULATION SYSTEM.
- ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
- CLEARANCES TO OTHER SERVICES TO BE IN ACCORDANCE WITH TABLE 5.5 OF THE SEQ WATER SUPPLY CODE SPECIFICATIONS UNLESS NOTED OTHERWISE.
- HORIZONTAL TOLERANCES TO BE +/- 100mm LATERAL DISPLACEMENT FROM THE DESIGN ALIGNMENT FOR WATER MAINS, PROPERTY SERVICES AND WATER METERS.
- ENERGEX PILLARS ARE TO BE 1.10m MINIMUM CLEAR OF WATER METERS AND HYDRANTS.

EXISTING FEATURES

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING SERVICES PRIOR TO COMMENCING WORKS.
- IF EXISTING CONCRETE PATHWAYS/DRIVEWAYS NEED TO BE MODIFIED OR CUT, FULL WIDTH PANELS OF PATHWAYS/DRIVEWAYS BETWEEN EXISTING JOINTS ARE TO BE REMOVED, NO PATHWAYS/DRIVEWAYS TO BE CUT LONGITUDINALLY IN HALF OR OTHER PART THEREOF. REINSTATEMENT TO BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARD DRAWINGS FOR FOOTPATHS AND DRIVEWAYS. WHEN VALVE OR HYDRANTS NEED TO BE INSTALLED WITHIN COUNCIL CONCRETE FOOTPATHS, LOCALISED REINSTATEMENT OF IMMEDIATE FITTING SURROUND IS NOT PERMITTED. NEW CONCRETE PANELS SHALL BE PROVIDED IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARD DRAWINGS, WITH NEW AND EXISTING JOINTS SPACING NO LESS THAN 1 METRE.

PERMITS

- PRIOR TO THE COMMENCEMENT OF WORK THE CONTRACTOR SHALL ARRANGE FOR ROAD OPENING AND TRAFFIC PERMITS FROM THE RELEVANT AUTHORITIES. WORK MAY BE REQUIRED TO BE CARRIED OUT DURING WEEKENDS AND / OR LATE AT NIGHT ONLY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS ASSOCIATED WITH VEGETATION REMOVAL/MANAGEMENT.

PIPE WORKS

- CONSTRUCT EMBEDMENT AND TRENCHFILL TO SEQ-WAT-1200-2, SEQ-WAT-1201-1 TO SEQ-WAT-1204-1 (TYPE C) SUPPORT UNLESS OTHERWISE NOTED.
- PROVIDE BULKHEADS/TRENCHSTOPS IN ACCORDANCE WITH SEQ WATER SUPPLY CODE TABLE 7.5 AND SEQ-WAT-1209-1 AND 1210-1.
- CONSTRUCT THRUST BLOCKS ON ALL VALVES, BENDS, TEES, TAPERS, DEAD ENDS, AND TRANSITIONS TO UNRESTRAINED PIPEWORK TO SEQ-WAT-1205-1 AND 1206-1.
- INSTALL DETECTABLE MARKER TAPE ON ALL WATER MAINS AND PROPERTY SERVICES.
- CONSTRUCT FIRE HYDRANTS AND STOP VALVES TO SEQ-WAT-1301-1, 1302-1, 1303-1, 1305-1, 1306-1 AND 1409-1.
- COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN ON STD DRG SEQ-WAT-1200-2.
- FLANGED JOINTS SHALL NOT BE ENCASED IN CONCRETE
- SCL UNDER OTHER SERVICES SHALL BE CONCRETE ENCASED WITH MINIMUM 150mm THICK CONCRETE ENCASEMENT, WITH A FURTHER MINIMUM 150mm (300mm DESIRABLE) CLEARANCE TO SERVICES. SERVICES WITH DEPTH TO INVERT OVER 1.50m SHALL BE FULLY CONCRETE ENCASED. CONCRETE ENCASEMENT SHALL STOP NOMINALLY 300mm BEFORE FLANGES TO ALLOW FOR MAINTENANCE ACCESS.
- ALL WATERMAINS SHALL BE LOCATED WHOLLY, WITHIN THE DESIGNATED WATERMAIN CORRIDOR. COUNCIL & HCE ENGINEERS RESERVES THE RIGHT TO REQUEST THE CONTRACTOR TO RE-CONSTRUCT THOSE PORTIONS OF THE WATERMAIN WHICH ARE CONSTRUCTED OUTSIDE THE DESIGNATED CORRIDORS.
- PROTECTION METHODS TO ELECTRICAL INFRASTRUCTURE SHALL INCORPORATE THE REQUIREMENTS OF AS/NZS 3000 AND ENERGEX.
- ALL MILD STEEL PIPE TO BE SINTAKOTED.
- ALL FLANGES AND WELDED JOINTS TO BE PROTECTED WITH DENSO WRAPPING TAPE.

SOIL CLASSIFICATION

- THE CONTRACTOR SHALL ASSESS SOIL CONDITIONS TO DETERMINE CLASSIFICATION IN ACCORDANCE WITH SEQ-WAT-1200-1
- IF THE CONTRACTOR ENCOUNTERS SOIL IN TRENCHES WITH AN ALLOWABLE BEARING PRESSURE OF LESS THAN 50kPa, THEY SHALL IMMEDIATELY CONTACT THE RPEQ AND AWAIT DIRECTION.
- IF ACID SULPHATE SOILS ARE FOUND (OR ARE EXPECTED TO BE) IN THE WORKS AREA, THE OUTPUTS FROM THE RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL REQUIRES THAT ACID SULPHATE SOILS BE MANAGED AS PER LEGISLATED PROCEDURES.

WATER SERVICES

- PROPOSED AND EXISTING WATER METER BOXES TO BE CLEANED OF DIRT AND DEBRIS PRIOR TO PLAN SEALING.
- WATER SERVICES FROM EXISTING WATER MAINS TO BE CONSTRUCTED BY LCC AT BUILDING STAGE.
- WATER SERVICES FROM NEW MAINS TO BE CONSTRUCTED BY CIVIL CONTRACTOR PRIOR TO SURVEY PLAN SEALING, WITH METERS TO BE INSTALLED BY LCC AT BUILDING STAGE. METER BOXES TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
- POLYETHYLENE SERVICE LINE MUST COMPLY WITH AS/NZS 4130 SERIES 1 DN20 PN16.
- TAPPING BANDS MUST BE USED WHEN PROVIDING CONNECTION, UNLESS OTHERWISE APPROVED BY LCC.
- WATER METER CONNECTIONS AND ASSOCIATED WATER SERVICES TO BE IN ACCORDANCE WITH

- SEQ STANDARD DRAWINGS SEQ-WAT-1110-1 AND SEQ-WAT-1110-2.
- CROSS ROAD SERVICES TO BE DN25 (OR DN32 FOR REAR LOTS) TO EACH LOT, MAXIMUM OF 2 SERVICES IN EACH CROSS ROAD CONDUIT.

TESTING AND CONNECTING

- TESTING AGAINST LIVE MAINS AND VALVES IS NOT PERMITTED.
- THE WATER SUPPLY CODE OF AUSTRALIA SEQ SERVICE PROVIDERS VERSION 1.3 (WSA03:2011-3.1) AND ALL OTHER APPLICABLE LEGISLATION AND REQUIREMENTS FOR SAFE HANDLING AND REMOVAL OF MATERIALS THAT CONTAIN ASBESTOS. REMOVAL TO BE UNDERTAKEN IN ACCORDANCE WITH THE ABOVE DOCUMENTS.
- ALL LIVE WORKS TO BE UNDERTAKEN BY LOGAN CITY COUNCIL, OR APPROVED CONTRACTOR VIA THE DEVELOPER DELIVERED LIVE CONNECTION PROCESS.
- LIVE WORKS MAY NOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED TO AND ACCEPTED BY LOGAN CITY COUNCIL AND HCE ENGINEERS.

MISCELLANEOUS

- INSTALL PAVEMENT MARKERS AND MARKER POSTS I.A.W. SEQ-WAT-1300-1 AND 1300-2.
- SERVICE CONDUITS SHALL EXTEND 300mm BEYOND ALL EXISTING OR PLANNED CONCRETE. FOOTPATHS, BIKEWAYS AND OTHER HARD STANDING AREAS AND INSTALLED IN ACCORDANCE WITH THE SEQ WATER SUPPLY CODE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT ‘BEFORE YOU DIG AUSTRALIA’ FOR THE LOCATION OF EXISTING PUBLIC UTILITIES PRIOR TO EXCAVATION. ANY DAMAGE CAUSED TO EXISTING PUBLIC UTILITIES BY THE CONTRACTOR WILL BE REPAIRED BY THE RELEVANT AUTHORITY AT THE CONTRACTORS EXPENSE.

REHABILITATION

- ALL DISTURBED AREAS TO BE REINSTATED TO THEIR ORIGINAL CONDITION.

VEGETATION PROTECTION

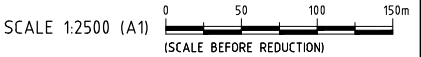
- TREES LOCATED ALONG THE FOOTPATH SHALL BE TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD, GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES MUST BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT ARBORIST FOR FURTHER ADVICE.
- ANY TREE LOPPING REQUIRED SHALL BE UNDERTAKEN BY AN APPROVED ARBORIST.

CONTRACTOR ACCREDITATION

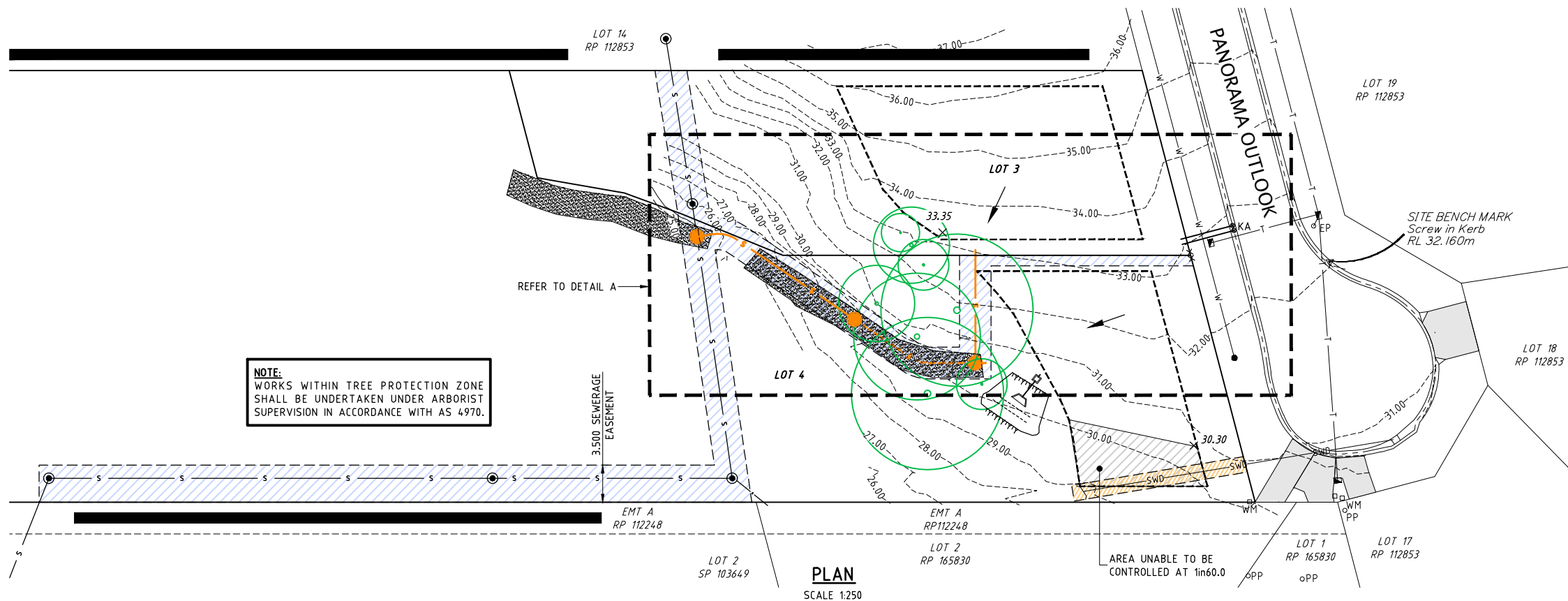
- DURING ANY CONSTRUCTION ACTIVITY AT LEAST ONE PERSON ON SITE MUST HAVE COMPLETED A PIPE LAYING TRAINING COURSE APPROVED BY THE PIPE SUPPLIER OR MANUFACTURER AND APPROPRIATE TO THE PIPELINE UNDER CONSTRUCTION. THE TRAINING COURSE MUST HAVE BEEN COMPLETED WITHIN THE LAST TEN YEARS.
- THE CONTRACTOR SHALL PROVIDE DOCUMENTED EVIDENCE OF ACCEPTABLE QUALIFICATIONS.
- SCL WORK SHALL BE UNDERTAKEN BY A LICENSED CONTRACTOR EXPERIENCED IN WELDING OF PRESSURE PIPELINES. CONTRACTOR ACCREDITATION SHALL BE PROVIDED.

CURRENCY

- CONTRACTOR TO ENSURE CURRENCY OF STANDARDS AT TIME OF CONSTRUCTION.

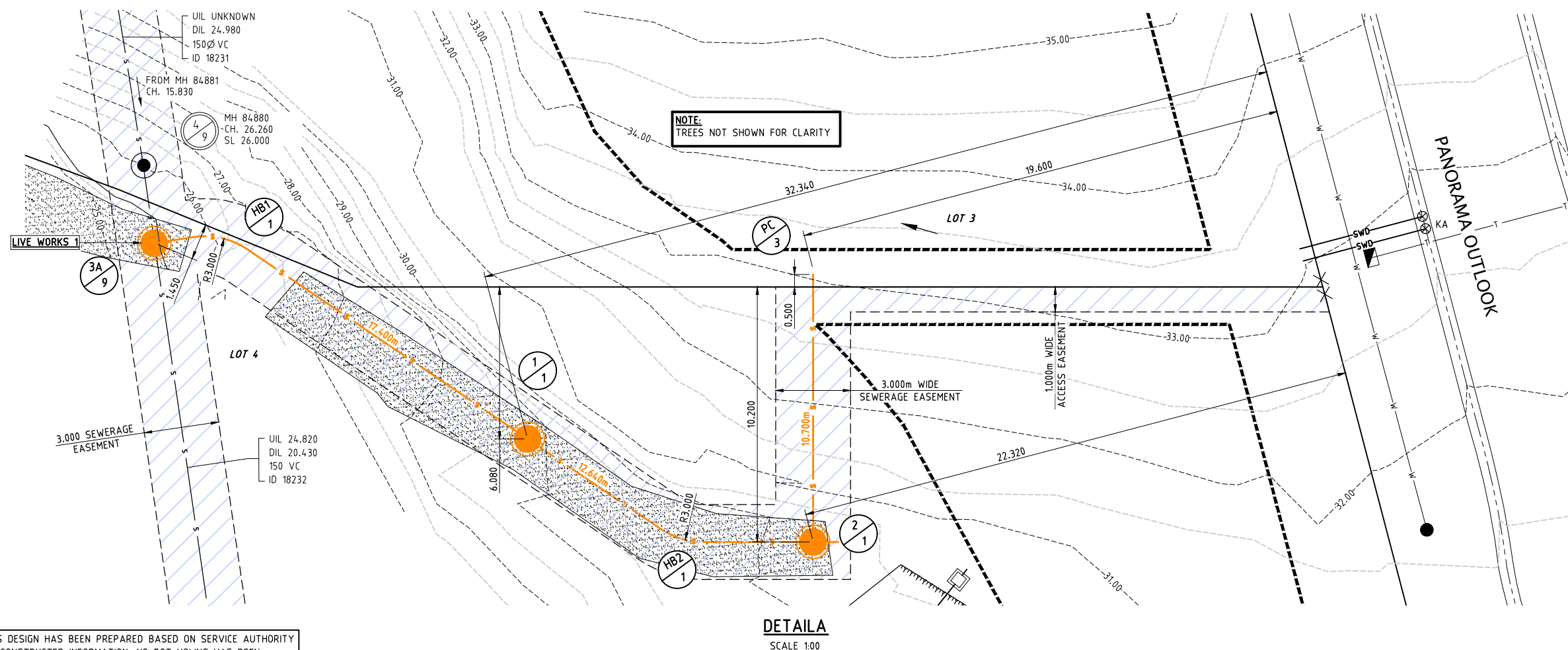


 HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399 	PROJECT	TITLE	CLIENT	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©		
	3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127 LOT 15 ON RP 112853	SEWERAGE AND WATER RETICULATION NOTES	SIDNEY INVESTMENTS PTY LTD		A	ISSUED FOR COMMENT	20.08.26	Designed	Drawn	Date
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LEGEND

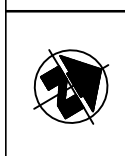
- 10.0--- EXISTING SURFACE CONTOURS
(1.00m INTERVAL)
- EXISTING SURFACE CONTOURS
(0.50m INTERVAL)
- 1/1 PROPOSED SEWERAGE STRUCTURE
- 1/1 EXISTING SEWERAGE STRUCTURE
- LOTS TO BE SEWERED
- 39.72 ALLOTMENT CONTROL POINT
(NOT FOR CONSTRUCTION)
- S EXISTING SEWERAGE
- PROPOSED SEWERAGE
- SWD EXISTING STORMWATER DRAINAGE
- SWD PROPOSED STORMWATER DRAINAGE
- W EXISTING WATER RETICULATION
- T EXISTING TELECOMMUNICATIONS
- EXISTING KERB AND CHANNEL
- EXISTING CONCRETE
- EXISTING FIRE TRAIL
- SEWERAGE EASEMENT
- EXISTING TREE
TPZ
- WM EXISTING WATER METER
- X PROPOSED WATER METER
- KA PROPOSED KERB ADAPTOR
- EXISTING FIRE HYDRANT
- EP EXISTING ELECTRICAL POLE
- X EXISTING VALVE
- BUILDING ENVELOPE



THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY
AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN
UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND
DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE
POT HOLING TO VERIFY THE DESIGN.

SCALE 1:100 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:250 (A1)
(SCALE BEFORE REDUCTION)

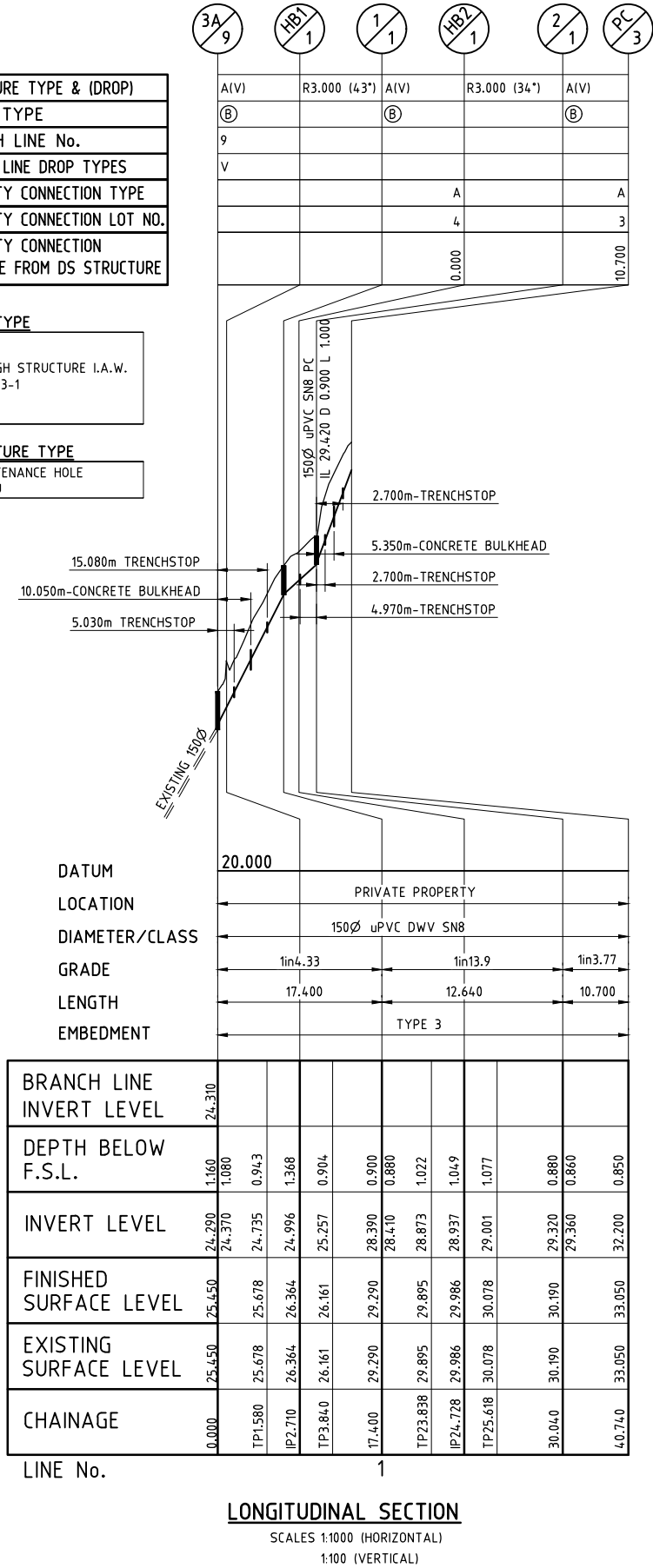
		PROJECT 3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127 LOT 15 ON RP 112853	TITLE SEWERAGE PLAN	CLIENT SIDNEY INVESTMENTS PTY LTD	CERTIFICATION	REVISION A	AMENDMENT ISSUED FOR COMMENT	DATE 17.08.26	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright © Designed MN Drawn AB Date 28/07/26 Approval No. AS SHOWN Drawing No. 26207-S01 Rev. A

STRUCTURE TYPE & (DROP)
COVER TYPE
BRANCH LINE No.
BRANCH LINE DROP TYPES
PROPERTY CONNECTION TYPE
PROPERTY CONNECTION LOT NO.
PROPERTY CONNECTION DISTANCE FROM DS STRUCTURE

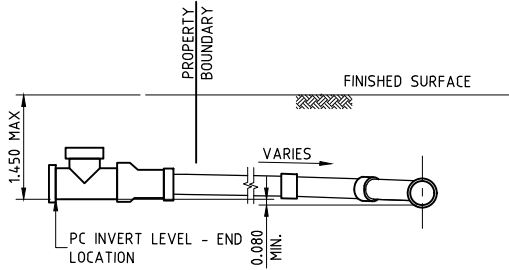
LEGEND - DROP TYPE	
V	
W	FALL THROUGH STRUCTURE I.A.W. SEQ-SEW-1303-1
X	
Y	

LEGEND - STRUCTURE TYPE	
A	1050Ø MAINTENANCE HOLE CAST IN SITU

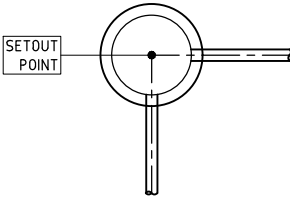
NOTE:
MAINTENANCE HOLE COVERS SHALL NOT HAVE A CROSSFALL OF GREATER THAN 1in7.0 IN ACCORDANCE WITH THE GRAVITY SEWERAGE CODE CLAUSE 7.9.2



THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.



SEWERAGE PROPERTY CONNECTION DETAIL
NTS



SEWERAGE MAINTENANCE STRUCTURE SETOUT LOCATION
NTS

GRAVITY SEWERAGE CODE (SEQ EDITION) NON-COMPLIANCE REGISTER

ITEM No.	SEQ CODE REFERENCE	DETAILS OF NON-COMPLIANCE	REASON FOR NON-COMPLIANCE
1	5.6.5.3	AREA OF SITE UNCONTROLLED AT 1in60	THE PROPOSED SEWERAGE MAIN HAS BEEN DESIGN AS SHALLOW AS POSSIBLE DUE TO THE LOCATION OF VEGETATION IN THE CONSTRUCTION ZONE. CONSEQUENTLY PART OF LOT 4 CANNOT BE CONTROLLED AT 1in60. FUTURE BUILDING WORKS CAN ENSURE THE FINISHED FLOOR LEVEL CAN BE CONTROLLED.

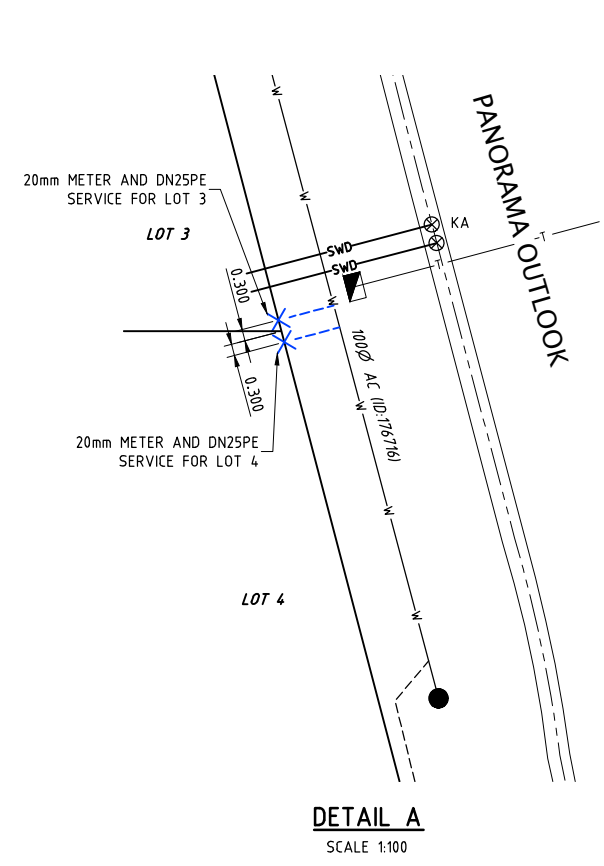
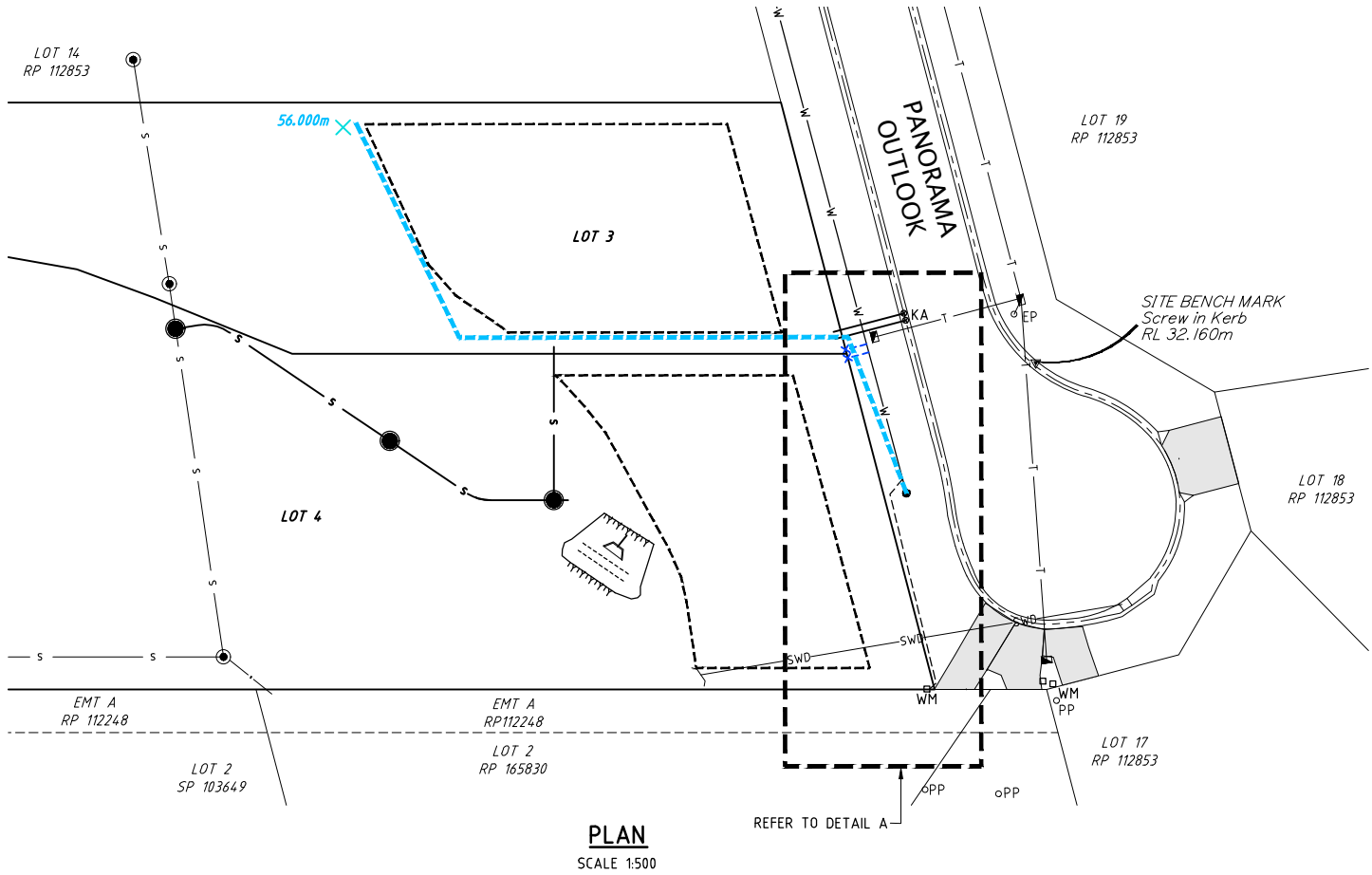
CONTRACTOR LIVE SEWERAGE WORKS

LOGAN CITY COUNCIL DELIVERED LIVE WORKS ☐
 DEVELOPER DELIVERED LIVE WORKS ☒

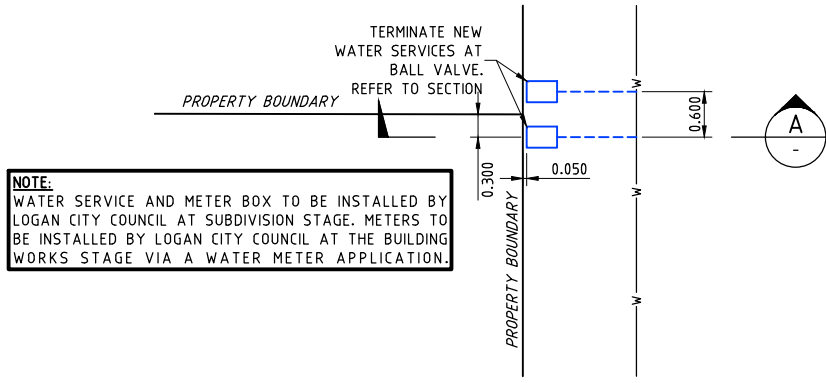
No.	DESCRIPTION	DIA. SEWER	EX. ASSET ID AT CONNECTION	STRUCTURE TYPE	COVER TYPE	LOT AND PLAN NO.	FSL	ESL	CONNECTION IL	CONNECTION DEPTH TO INVERT	ALTERATION TO MH BENCHING REQUIRED
1(a)	CONTRACTOR TO CONSTRUCT NEW MAINTENANCE HOLE 3A/9 OVER EXISTING SEWER AND BENCH AND RENDER UP TO PIPE BUT NOT REMOVE CROWN OF PIPE.	150	18232	A	B	LOT 4	25.450	25.450	24.290	1.160	N
1(b)	CONTRACTOR TO LAY LINE 1 AND INSTALL PROPERTY CONNECTIONS.										
1(c)	CONTRACTOR, UNDER COUNCIL SUPERVISION, TO REMOVE CROWN OF PIPE AND COMPLETE BENCHING AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION										

SCALE 1:100 (A1) 0 2 4 6m (SCALE BEFORE REDUCTION) SCALE 1:1000 (A1) 0 20 40 60m (SCALE BEFORE REDUCTION)

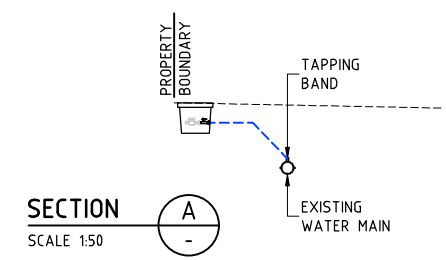
HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	COMPASS ASSURANCE SERVICES ISO 9001	PROJECT 3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127 LOT 15 ON RP 112853	TITLE SEWERAGE LONGITUDINAL SECTION LIVE WORKS, AND NON-COMPLIANCE TABLES	CLIENT SIDNEY INVESTMENTS PTY LTD	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright © Designed MN Drawn AB Date 28/07/26 Approval No. ----- Scale AS SHOWN Drawing No. 26207-S02 Rev. A
						A	ISSUED FOR COMMENT	20.08.26	



- LEGEND**
- W— EXISTING WATER RETICULATION
 - EXISTING WATER SERVICE
 - PROPOSED WATER SERVICE
 - 54.000m FIRE COVERAGE ROUTE AND DISTANCE TO NEAREST STREET HYDRANT
 - S— EXISTING SEWERAGE
 - S— PROPOSED SEWERAGE
 - SWD— EXISTING STORMWATER DRAINAGE
 - SWD— PROPOSED STORMWATER DRAINAGE
 - T— EXISTING TELECOMMUNICATIONS
 - ===== EXISTING KERB AND CHANNEL
 - EXISTING CONCRETE
 - WM □ EXISTING WATER METER
 - ✕ PROPOSED WATER METER
 - KA ⊗ PROPOSED KERB ADAPTOR
 - EXISTING FIRE HYDRANT
 - EP ○ EXISTING ELECTRICAL POLE
 - X— EXISTING VALVE
 - ▭ BUILDING ENVELOPE



TYPICAL PROPERTY SERVICES DETAIL
GENERALLY IN ACCORDANCE WITH SEQ-WAT-1110-1 AND 1110-2
SCALE 1:50



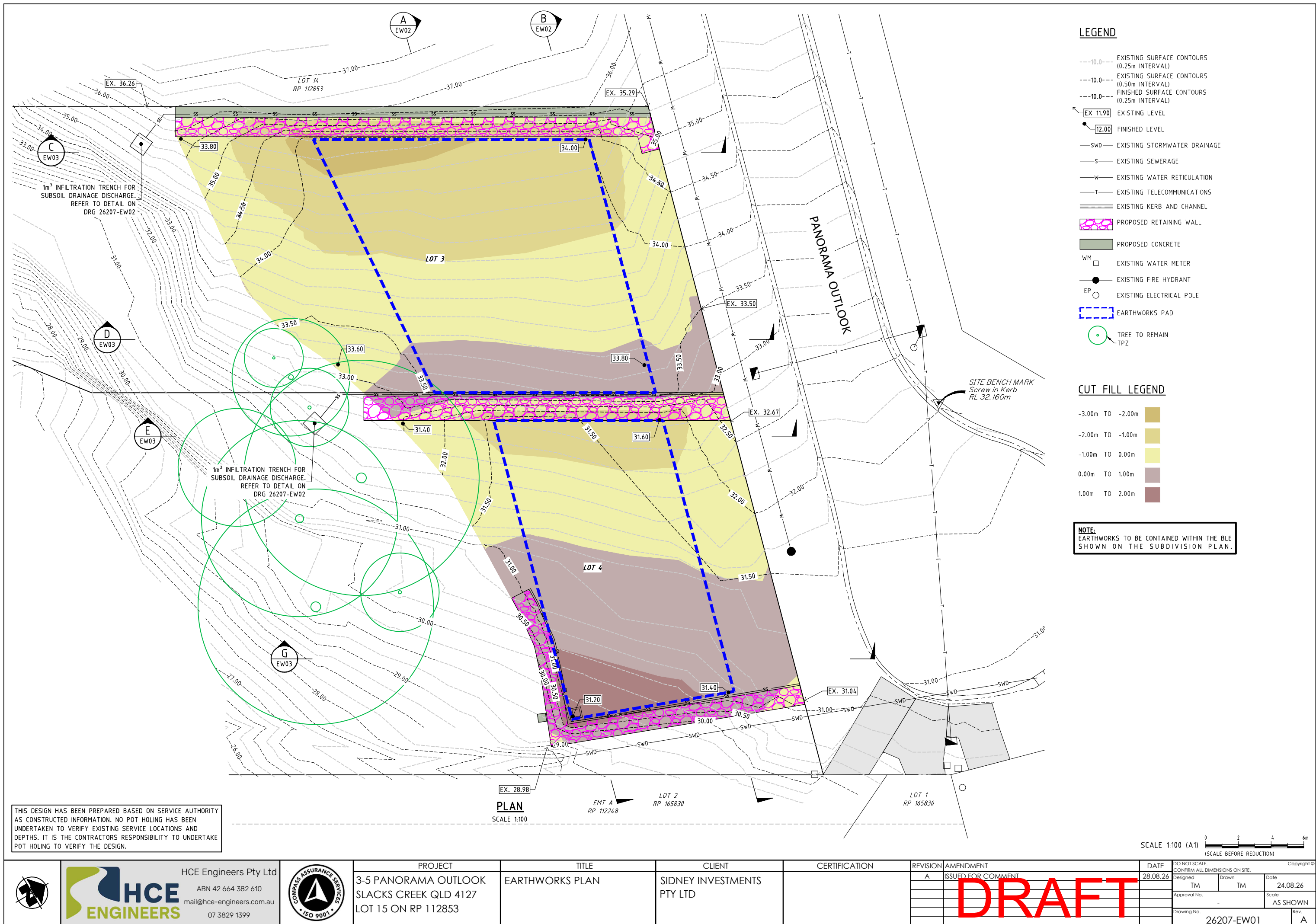
THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.



 HCE ENGINEERS HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399		PROJECT	TITLE	CLIENT	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©		
		3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127 LOT 15 ON RP 112853	WATER RETICULATION PLAN	SIDNEY INVESTMENTS PTY LTD		A	ISSUED FOR COMMENT	17.08.26	Designed	Drawn	Date
									MN	AB	28/07/26
									Approval No.	Scale	AS SHOWN
									Drawing No.	Rev.	

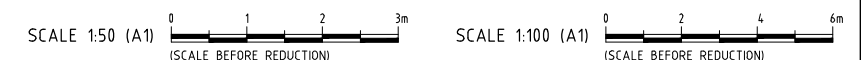
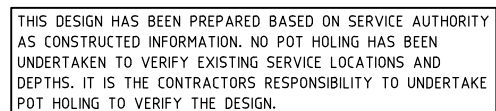
DRAFT

26207-W01 A

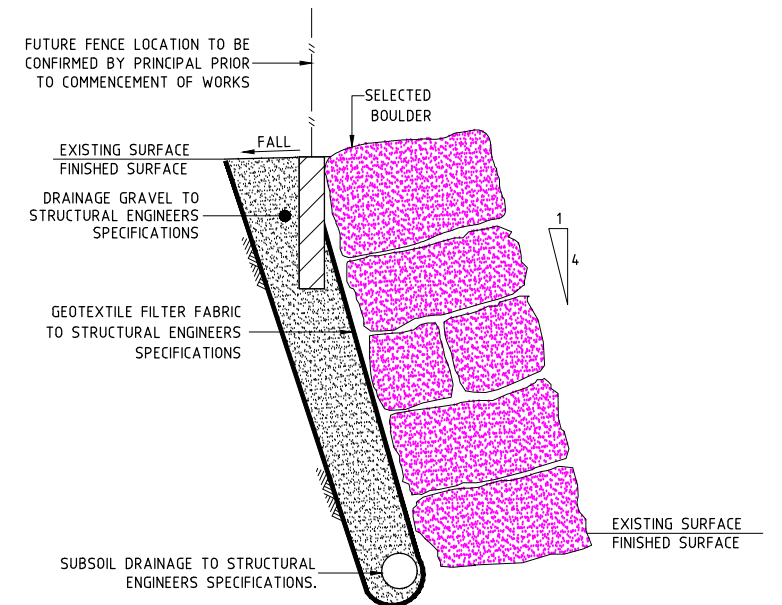
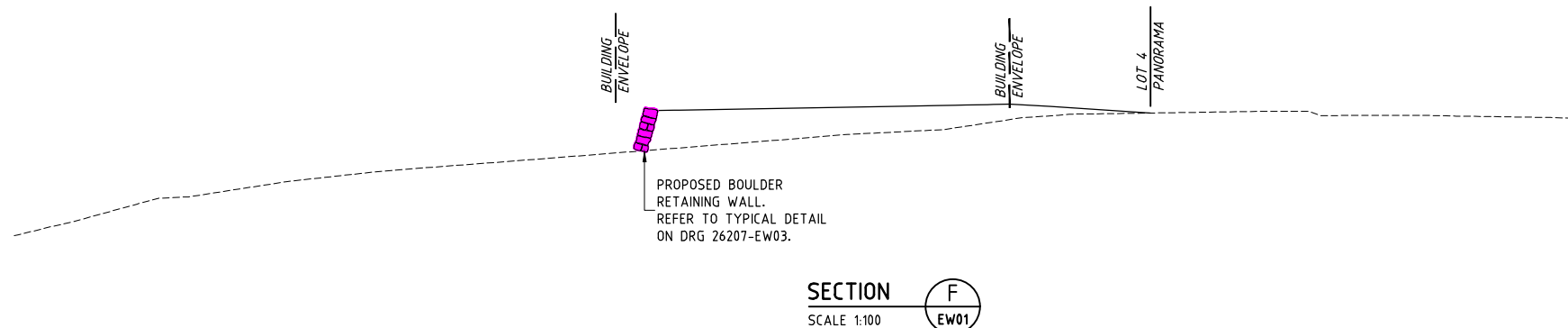
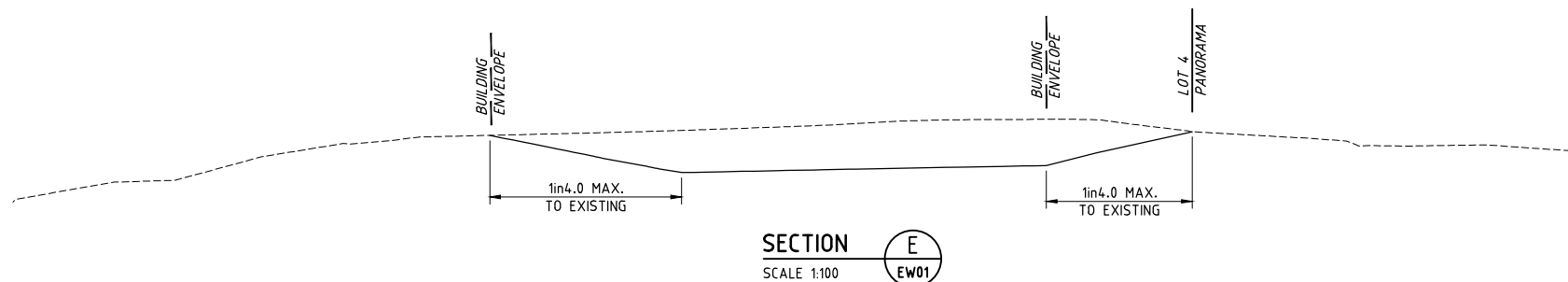
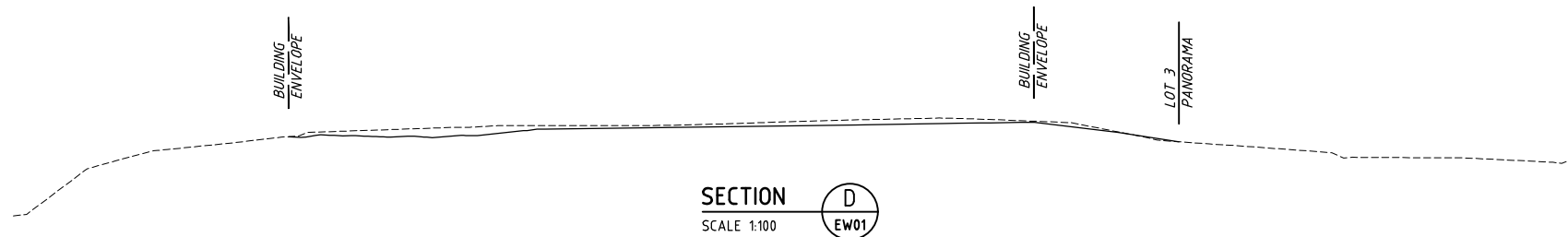
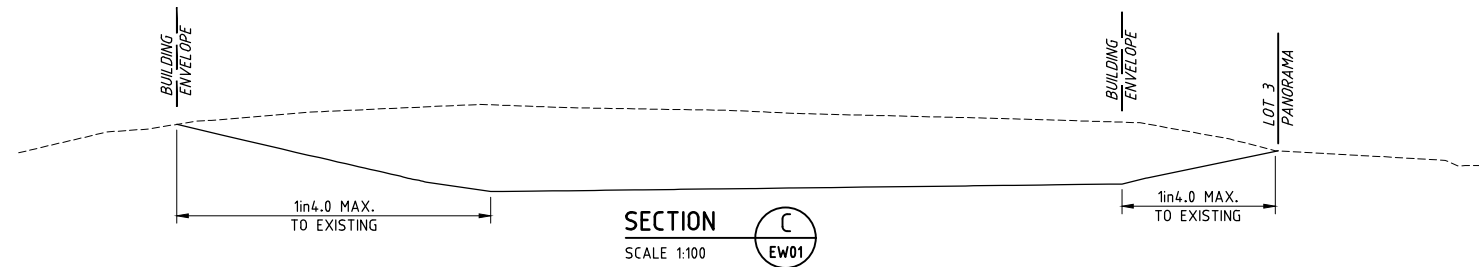


1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL EXISTING SERVICES AND STRUCTURES ARE TO BE MAINTAINED IN GOOD ORDER FOR THE DURATION OF THE CONTRACT. ANY COSTS ASSOCIATED WITH REPAIRING DAMAGE TO EXISTING SERVICES SHALL BE PAID FOR BY THE CONTRACTOR.
2. ALL EARTHWORKS UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE NEAREST OFFICE OF THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION. Phone : 1300 369915
3. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.
4. ALL LEVELS ARE TO A.H.D.
5. IF ACID SULPHATE SOILS ARE FOUND (OR ARE EXPECTED TO BE) IN THE WORKS AREA, THE OUTPUTS FROM THE RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL REQUIRES THAT ACID SULPHATE SOILS BE MANAGED AS PER LEGISLATED PROCEDURES.
6. THE ENTIRE SITE SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, REDUNDANT MASONRY REMAINS, GARBAGE, DEBRIS, AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.
7. CLEARED MATERIAL AND EARTHWORKS SPOIL SHALL BE REMOVED FROM THE SITE.
8. THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY ALL EARTHWORKS AND CLEARING OPERATIONS.
9. SITE EARTHWORKS GENERALLY, SHALL BE CARRIED OUT IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3798, GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS, UNLESS NOTED OTHERWISE.
10. TOPSOIL WHERE ENCOUNTERED SHALL BE STRIPPED AND STOCKPILED PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS OPERATION. THE LOCATION OF THE STOCKPILE ON SITE SHALL BE AS DIRECTED BY THE SUPERINTENDENT. TOPSOIL SHALL BE RESPREAD OVER LOTS AT 200mm THICKNESS AND ROAD VERGES AT 100mm THICKNESS UNO. ANY EXCESS TOPSOIL FOLLOWING COMPLETION OF RESPREADING SHALL BE REMOVED FROM SITE.
11. STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVERCUTTING. IF TOPSOIL IS CONTAMINATED BY OVERCUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RESPREADING.
12. IF DURING EARTHWORKS OPERATIONS UNSUITABLE SUBGRADE MATERIAL IS ENCOUNTERED, THEN PRIOR TO ANY FILLING OPERATION THIS MATERIAL SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE SUPERINTENDENT WITH AN APPROVED SUITABLE MATERIAL.
13. FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.
 - 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.
 - 95% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.
 - 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.
14. IMPORTED GENERAL FILL MATERIAL SHOULD BE COHESIVE IN NATURE, WITH A SOAKED CBR > 5% AND A MAXIMUM PARTICLE SIZE OF 75mm)
15. THROUGHOUT THE EARTHWORKS OPERATION THE CONTRACTOR IS TO ENSURE THAT THE SITE IS SELF DRAINING. DAMAGE RESULTING FROM THE EXPOSURE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
17. SPECIFICATIONS FOR SELECT FILL:
 - SOAKED CBR
 - LIQUID LIMIT
 - PLASTICITY INDEX
 - MAXIMUM AGGREGATE INDEX
 - PASSING 19mm SIEVE
 - PASSING 0.075mm SIEVE
 - SHRINK/SWELL INDEX

MINIMUM OF 10%
<45%
<15%
<75mm
80% MINIMUM
20% MAXIMUM
MAXIMUM OF 1%

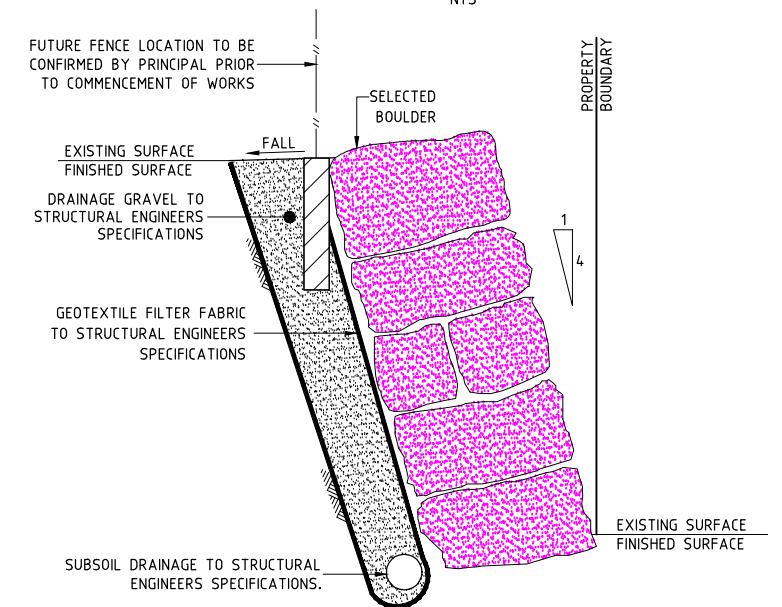


PROJECT	TITLE	CLIENT	CERTIFICATION	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©		
3-5 PANORAMA OUTLOOK SLACKS CREEK QLD 4127 LOT 15 ON RP 112853	EARTHWORKS SECTIONS SHEET 1 OF 2, NOTES AND INFILTRATION TRENCH DETAIL	SIDNEY INVESTMENTS PTY LTD		A	ISSUED FOR COMMENT	28.08.26	Designed	Drawn	Date
							TM	TM	24.08.26
							Approval No.		Scale
							-		AS SHOWN
							Drawing No.	26207-FW02	
								A	



TYPE C6 BOULDER WALL
TYPICAL SECTION

NTS



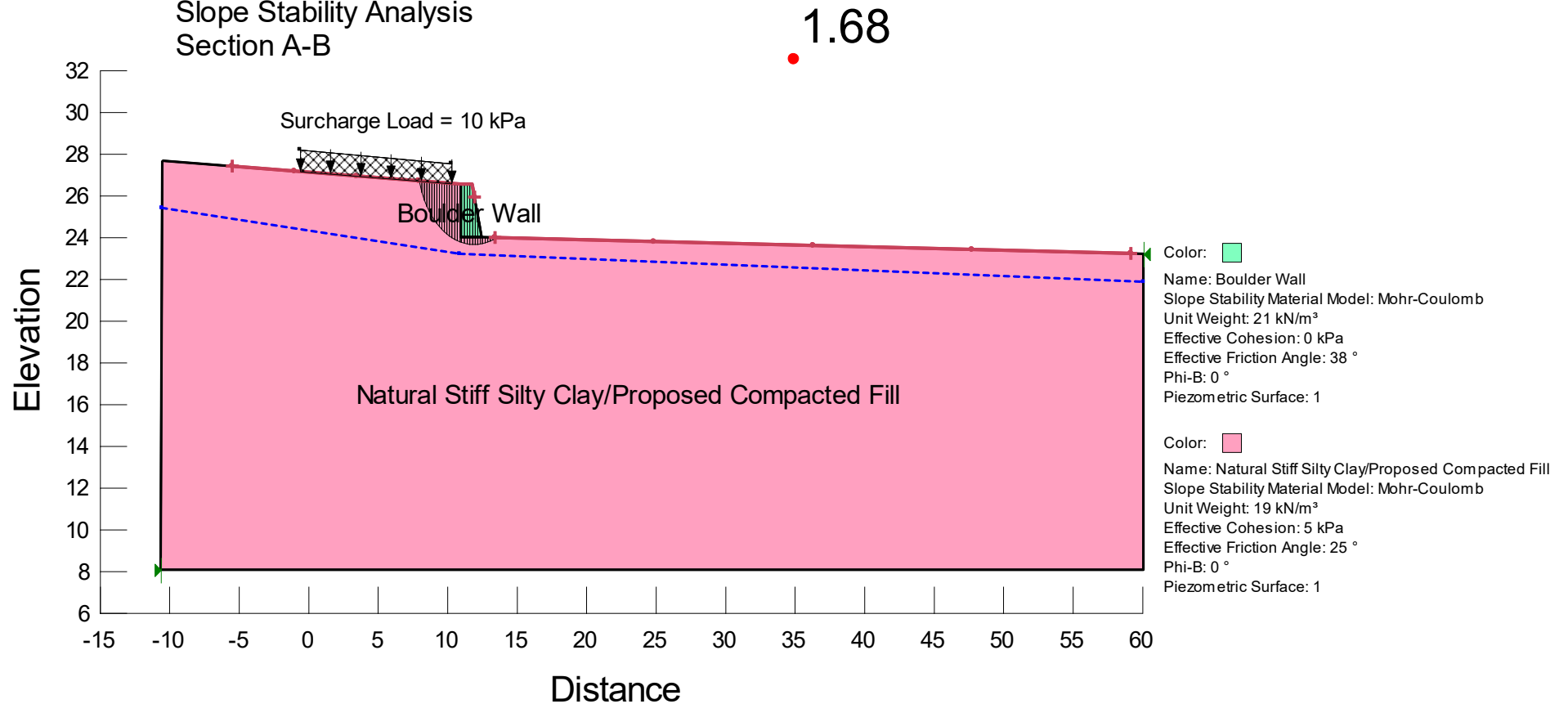
TYPE F4 BOULDER WALL
TYPICAL SECTION

NTS

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SCALE 1:100 (A1)
(SCALE BEFORE REDUCTION)

3-5 Panorama Outlook, Slacks Creek
Slope Stability Analysis
Section A-B



Geotechnical stability assessment guidelines

Appendix D – Standard pro-forma for geotechnical certification

Property details	
Lot Number If Applicable	Lot 15
Registered Plan Number	RP 112853
Site Address	3-5 Panorama Outlook, Slacks Creek QLD 4127.

Proposed works	
Description	Proposed Subdivisional and Retaining Walls Development.

Proposed development	
Description	Proposed Subdivisional and Retaining Walls Development.

Declaration			
I,	Sam Jeyan	Registered Professional Engineer of Queensland (RPEQ) number	13339
of	Sam Geotechnics Pty Ltd	(Consulting engineer's firm)	
being duly authorised on this behalf, do certify that:			
the existing site and the proposed subdivisional and retaining walls development are appropriate for the sloping natural of the site, and the risk of landslide adversely affecting the subject site, adjoining properties and the proposed subdivisional and retaining walls development are 'low' (as detailed in Sections 2, 3, 5 & 6 of the report).			
I am aware that Logan City Council (LCC) will rely upon this certificate and any associated maps, structural & drainage plans, drawings, tables and attachments etc. produced as a consequence of commissioning this development proposal.			
Accredited Slope Risk Assessor - RMS Guide to Slope Risk Assessment - Version 4			
Signature		Designation	Principal Geotechnical Engineer
Certified this	7	Day of	September Year 2026

This form is the approved form that must be used in accordance with section 10 of the *Building Act 1975* and sections 73 and 77 of the *Building Regulation 2021* (Design-specification certificate) stating that an aspect of building work or specification will, if installed or carried out as stated in this form, comply with the building assessment provisions.

Additional explanatory information is included in the Appendix at the end of this form.

1. Property description

This section need only be completed if details of street address and property description are applicable.

E.g. in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.

Where applicable, the description must identify all land the subject of the application.

The lot and plan details (e.g. SP/RP) are shown on title documents or a rates notice.

If the plan is not registered by title, provide previous lot and plan details.

Street address	3-5 Panorama Outlook		
	Suburb/locality	Slacks Creek	
State	QLD	Postcode	4127
Lot and plan details (<i>attach list if necessary</i>)			
Lot 15 and RP 112853			
Local government area the land is situated in			
Logan City Council (LCC)			

2. Description of aspect/s certified

Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.

Landslide Susceptibility Risk Assessment – Low Risk Category
--

3. Basis of certification

Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications were relied upon.

Geotechnical Site-Specific Landslide Susceptibility Risk Assessment and Slope Stability Analysis Reporting by Sam Geotechnics (Job No: SGT26230 and Dated 6 September 2026). Relevant References Considered: Gold Coast City Council (GCCC) Geotechnical Stability Assessment Guidelines and Australian Geomechanics Society (2007) Practice Notes. Logan Planning Scheme, Part 8 Overlays, 8.2.8: Landslide Hazard and Steep Slope Area Overlay Code.

4. Reference documentation

Clearly identify any relevant documentation, e.g. numbered structural engineering plans.

1. Subdivisional Plans and Drawings by the Client. Attached.
2. Soil Test Report by the Client. Relevant Extract Attached.

5. Building certifier reference number and building development approval number

Building certifier reference number		Building development application number (if available)	
-------------------------------------	--	--	--

6. Appointed competent person details

Under Part 6 of the Building Regulation 2021 a person must be assessed as a competent for the type of work (design-specification) by the relevant building certifier.

Name (in full)	Sam Jeyan		
Company name (if applicable)	Sam Geotechnics Pty Ltd		
Contact person	Sam Jeyan		
Business phone number	0412 763 865	Mobile	0412 763 865
Email address	sjeyan@samgeotechnics.com.au/samgeotechnics@gmail.com		
Postal address	PO Box 219		
		Suburb/locality	Capalaba
State	QLD	Postcode	4157
Licence class or registration type (if applicable)	Registered Professional Engineer of Queensland (RPEQ)		
Licence or registration number (if applicable)	RPEQ - 13339		

7. Signature of appointed competent person

This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.

Signature		Date	7/09/2026
-----------	---	------	-----------

LOCAL GOVERNMENT USE ONLY

Date received	Click or tap to enter a date.	Reference number/s	
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