Feathertop Lodge, Falls Creek

Preliminary Geotechnical Risk Assessment

Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust)

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1. Introduction

1.1 General

This report presents the preliminary geotechnical risk assessment for proposed redevelopment works at the Feathertop Lodge (Site 59), 14 Parallel St, Falls Creek, which GHD Pty Ltd (GHD) are undertaking for Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust).

It is a requirement that a Preliminary Geotechnical Risk Assessment is prepared when a planning permit is required under Schedule 1 to the Erosion Management Overlay (EMO) for a development within the Alpine Resorts Area. This report has been prepared for this purpose.

The report reviews and qualitatively assesses the geotechnical risks identified at the proposed project site in accordance with Clause 3.1 of the EMO and Australian Geomechanics, 'Practice Note Guidelines for Landslide Risk Management', Vol 42 No. 1, March 2007.

1.2 Scope

The scope of the preliminary geotechnical risk assessment included the following:

- Review of existing documents relevant to the subject site alongside the proposed development plans.
- A site visit to collect photographs, assess the existing site conditions and geotechnical hazards.
- Preliminary Qualitative Risk Assessment of the geotechnical hazards assessed at the site in relation to property.
- Preparation advice and recommendations on risk mitigation strategies and prioritisation of risk remediation works, if required.

1.3 Scope and Limitations

This report: has been prepared by GHD for Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust) and may only be used and relied on by Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust) for the purpose agreed between GHD and Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust) as set out in section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Feathertop Lodge Pty Ltd (The Trustee for Feathertop Lodge Trust) arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Feathertop Lodge Pty Ltd, drawings completed by Steven Bond, and others who provided information to GHD (including Falls Creek Resort Management and other Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

Accessibility of documents

If this report is required to be accessible in any other format, this can be provided by GHD upon request and at an additional cost if necessary.

1.4 Available information

Readily available information including published geological information, previous GHD reports, and historical risk assessments associated with Site 59 (Feathertop Lodge) and neighbouring properties, were reviewed as part of this assessment. This information includes:

- Australian Stratigraphic units Database (asud.ga.gov.au/search-stratigraphic-units).
- Geological Survey of Victoria, 2014, Seamless Geology 1:50,000 geology dataset viewed through Earth Resources' GeoVic portal (earthresources.vic.gov.au/geology-exploration/maps-reports-data/geovic)
- Geological Survey of Victoria, online digital maps of 1:50,000 and 1:100,000 scales accessed through Earth Resources' GeoVic portal (earthresources.vic.gov.au/geology-exploration/maps-reports-data/geovic).
- SMEC (1999) Assessment of Slope Instability, Feathertop Ski Club, Falls Creek, ref: FC 201
- GHD (2011) Report on Feathertop Alpine Lodge, Geotechnical Investigation and Risk Assessment, Feathertop Alpine Lodge, ref:31/27096/7175
- GHD (2012) Refinement of Geological and Hydrogeological Models, Falls Creek Geotechnical Risk Management Program, Falls Creek Resort Management, ref: 31/28685/06/6398
- Golder (2020) Victorian Alpine Resorts Geotechnical Risk Assessment Program 2018-2020, Falls Creek, ref: 18111998-007-R-Rev0
- GHD (2022) Falls Creek Alpine Risk Mitigation Program, 2021 Annual Monitoring Report, Falls Creek Resort Management, ref: 12526625

1.5 Proposed development

Proposed works at Feathertop Lodge, as shown on the Go Design preliminary drawing set (WD000 to WD014) dated July 2023 provided in Appendix A, include the following:

- The addition of an external balcony to be constructed along the rear of the building (northern aspect) on level 0 which will be overlain by a balcony on level 1, extending across the length of the rear of the building.
- An extension of level 1 to extend across the existing footprint of level 0 across the northern section of the building. Although this extension will add approximately 65 square metres of floorspace of level 1 and require the construction of a new concrete slab, it will not increase the footprint of the existing building.

1.6 Regional geology

The 2007-2014 Seamless Geology 1:50,000 map (produced by the Geological Survey of Victoria) indicates the project area is underlain by the Cobungra Granite, whilst the East Kiewa Granodiorite and Omeo Metamorphic Complex migmatite are mapped proximal to the east and south of the site, respectively. Geological mapping and the Australian Stratigraphic Units Database (Geoscience Australia) describe these units as:

- Early Silurian Cobungra Granite (G549): Granite, granodiorite: dark grey, fine to coarse-grained, massive to strongly foliated; abundant K-feldspar phenocrysts and variable muscovite-biotite-cordierite-sillimanite content; abundant metasedimentary enclaves
- Early Devonian East Kiewa Granodiorite (G151): Biotite granodiorite: grey, medium grained, equigranular; some muscovite-bearing phases; I-type
- Early Silurian Omeo Metamorphic Complex migmatite (Som): Quartzo-feldspathic migmatite: banded; with biotite, andalusite, cordierite, sillimanite; light bands are quartz-K -feldspar-plagioclase partial melts, dark bands are restite with biotite, sillimanite, andalusite, cordierite and rare garnet

A more recent geological interpretation by GHD (2012) (GHD report 31/28685/06/6398) suggests the wider Falls Creek area is predominantly comprised of gneiss to migmatite which is locally anatexised into isolated granodiorite bodies. Anatexis refers to the process of partial melting or recrystallisation due to high pressure and/or temperature conditions and may explain the common juxtaposition of medium-grained gneiss to migmatite rocks, which display common foliations, and the medium to coarse grained, unfoliated granodiorites across the greater Falls Creek Village area. According to this interpretation, Feathertop Lodge is considered likely to be situated on the border of the granodiorite and Omeo Metamorphic Complex migmatites (Figure 1).

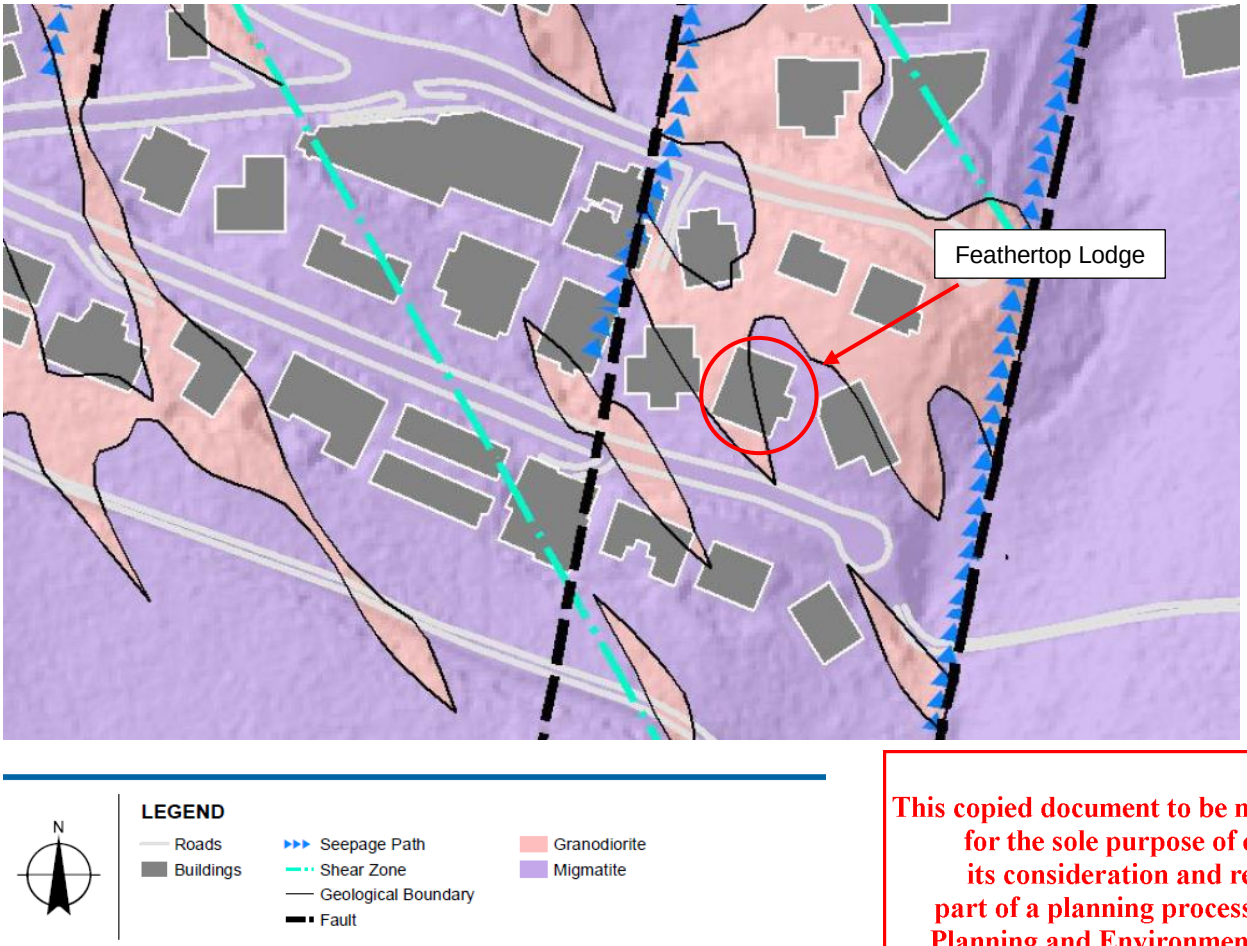


Figure 1 *Extract from the GHD (2012) geological and hydrogeological mapping*

1.7 Existing information

Several previous geotechnical risk assessments and geotechnical investigations have been completed at Site 59 (Feathertop Lodge) and surrounding properties. The key findings from these reports in relation to the proposed works, are presented below.

1.7.1 Previous geotechnical risk assessments

Table 1 *Summary of historical geotechnical risk assessments at Site 59*

Site	Previous geotechnical risk assessment reference	Assessment findings/results
Feathertop Lodge (Site 59)	SMEC (1999) Assessment of Slope Instability, report FC 201 Feathertop Ski Club	Natural shallow landslide **(Low)** Rockfall **(N/A)** Fill embankment **(Low)** Cut excavation **(Low)** *Comments: 20-degree natural slope, 0.5 m residual soil profile. Some evidence of instability observed in the 1.5 m thick fill profile (trees bent, some bulging)*
	GHD (2011) Report on Feathertop Alpine Lodge, Geotechnical Investigation and Risk Assessment, Feathertop Alpine Lodge, report 31/27096/7175	Natural shallow landslide **(Low)** Slope failure of unengineered boulder retaining wall near spa **(High)** Slope failure of unengineered boulder retaining wall between driveway and telephone pole **(Moderate)** Failure of telephone pole retaining wall **(High)**

Site	Previous geotechnical risk assessment reference	Assessment findings/results
		If proposed control measures are implemented, residual risk ratings for all identified hazards are downgraded to low to very low and quantitative or semi-quantitative risk assessments were not deemed necessary
Banool Ski Club (Site 60)	SMEC (1999) Assessment of Slope Instability, report FC 202 Banool Ski Club	Natural shallow landslide **(Low)** Fill embankment **(Low)** Cut excavation **(Low)** *Comments: 18-degree natural slope, 0.1-0.2 m residual soil profile. Some evidence of instability observed in the 3.0 m thick fill profile (trees bent, some bulging)*
	Golder (2020) Victorian Alpine Resorts Geotechnical Risk Assessment Program 2018-2020, Falls Creek, report 18111998-007-R-Rev0	Fill batter below road failing onto front of structure (ARL 4 – usually acceptable to regulators) Shallow soil slide impacting building (ARL 5 – acceptable)

A resort-wide geotechnical risk assessment program for assets in Falls Creek was completed by Golder Associates (Golder) on behalf of the Department of Environment, Land, Water and Planning (DELWP; now Department of Energy, Environment and Climate Action (DEECA)) as part of the 2018-2020 Alpine Geotechnical Risk Assessment (AGRA) program. The purpose of these reports is to inform the preliminary geotechnical risk assessments to be undertaken during planning applications at each site.

The Feathertop (Golder Site 2) was assessed as part of the AGRA program and key hazards identified during the assessment are summarised in Table 2.

Table 2 Hazards identified at Feathertop Lodge during the Golder (2020) Falls Creek resort risk assessment

Identified hazard	Assessed risk level*
Failure of log retaining wall, already tilted forward	ARL 5
Shallow soil slides impacting building	ARL 5
*The risk levels assigned to each hazards is based on a method of assessing risk adapted from the Transport for NSW, Guide to Slope Risk Analysis, Version 4, April 2014. The risk levels have been re-defined by Golder as the following: *ALR5: Acceptable. Mange by normal slope maintenance procedures. No requirement to reassess risks unless there are development changes or changes in usage that could alter the risk profile.*	

1.7.2 Historical geotechnical investigations

Previous geotechnical investigations have been completed in the vicinity of Feathertop Lodge. GHD (2011) completed two investigative test pits in relation to previous proposed developments and augmentations at the property (refer to Figure 2 for test pit locations). Boreholes from GHD's historical borehole database were also assessed and the location of these sites is illustrated in the hydrogeological model provided in Figure 3.

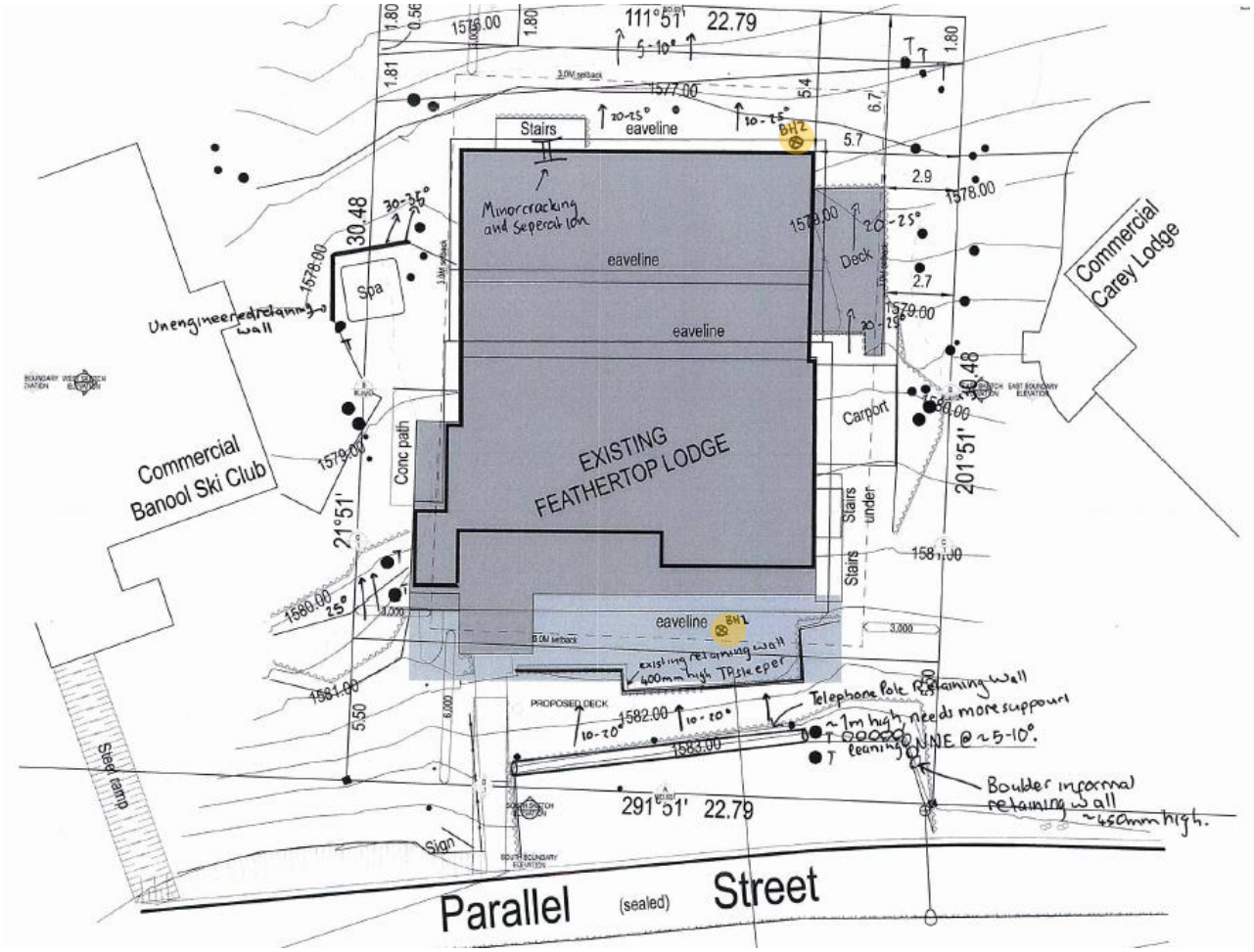


Figure 2 *Location of TP01 (BH1) and TP02 (BH2) completed by GHD (2011) in relation to Feathertop Lodge*

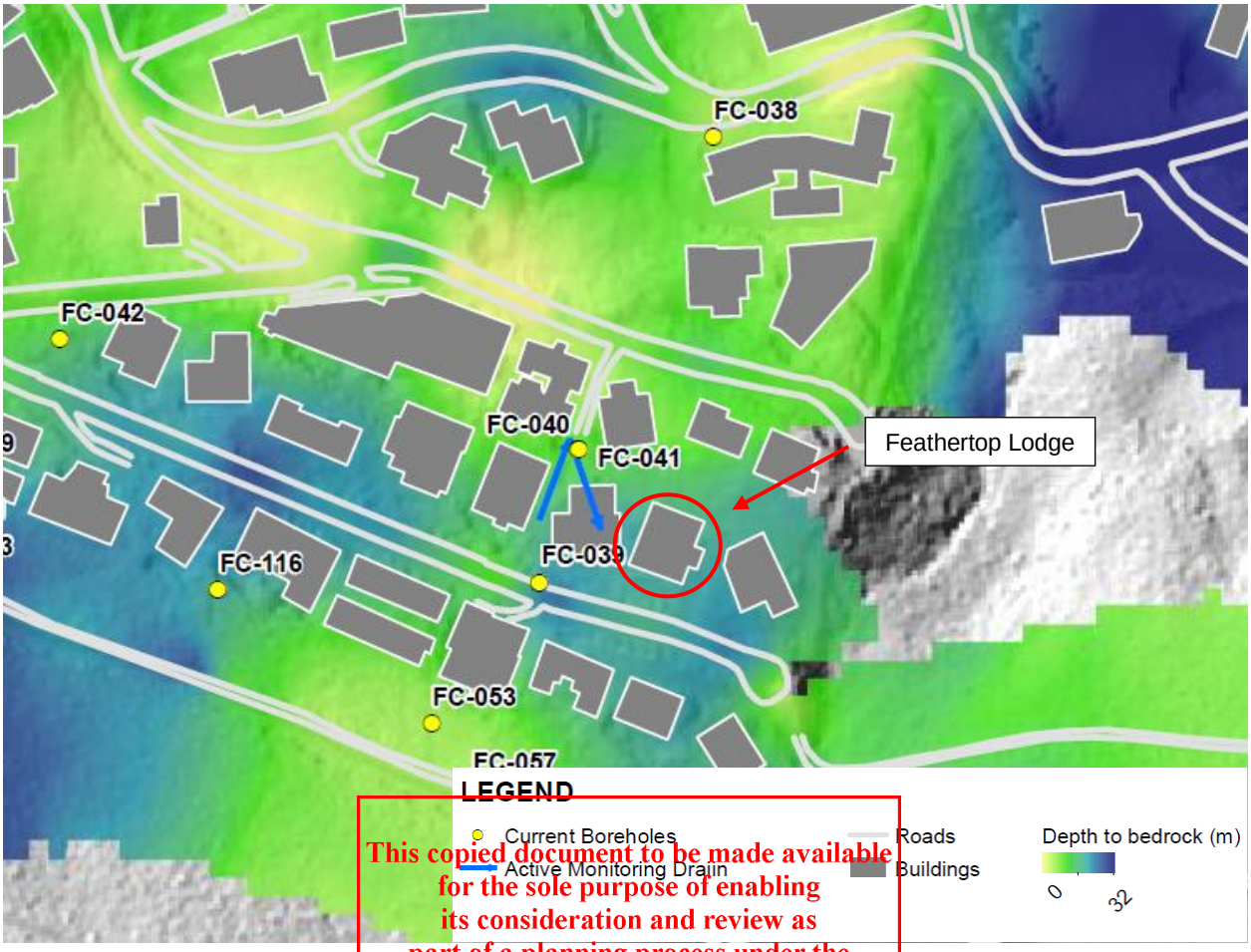


Figure 3 Extract from GHD (2012) showing borehole locations and depth to bedrock model

The relevant geotechnical boreholes in the vicinity of Feathertop Lodge are summarised in Table 3.

Table 3 Summary of historical borehole information

Borehole reference	Depth range (m)	Geological unit	Material description
TP01 (GHD, 2011)	0.0-0.2	TOPSOIL	TOPSOIL: SILT, dark brown, rootlets
	0.2-0.5	FILL	FILL: predominantly clayey SAND, orange-brown mottled grey
	0.5-1.8	MIGMATITE (RESIDUAL SOIL)	Silty SAND, pale grey-brown, fine to medium grained with frequent mica
TP02 (GHD, 2011)	0.0-0.4	FILL	FILL: dark brown, rootlets
	0.4-0.8	GRANODIORITE (RESIDUAL SOIL)	Clayey SAND, orange-brown
FC-039 (source unknown)	0-0.5	POSSIBLE FILL	Gravelly SAND; dark brown, fine to coarse grained
	0.5-20.8	MIGMATITE (RESIDUAL SOIL)	Silty SAND/ sandy SILT; dark brown, fine to coarse grained, with gravels (fine to medium grained)

1.7.3 Groundwater and rainfall monitoring

Borehole FC-039 and drains FC-040 and FC-041 are located in the vicinity of Feathertop Lodge and undergo routine monitoring by Falls Creek Resort Management (refer to Figure 3). Figure 4 and Figure 5 below present groundwater levels and rainfall reported for FC-039 and drain flow rates and rainfall for FC-040 and FC-041, respectively.

The groundwater levels in FC-039, which is located in the Banool Lodge site to the south-west of the property, generally fluctuate between 1578 and 1572 m (AHD) (approximately 6 to 12 m below ground level) and are generally stable across the monitoring record and appear to reflect longer term rainfall trends. It is noted that the monitoring well is installed in the lower (rock) zone.

Flows in sub-horizontal drains FC-040 and FC-041 are very responsive to rainfall, with short and 'flashy' spring peaks and very low summer troughs.

Water table mapping which utilises groundwater monitoring data across Falls Creek Village undertaken as part of the GHD (2022) annual monitoring program is shown on Figure 6 and indicates a spring average groundwater level of 5.1 – 10.0 m below ground level on the slopes encompassing the site. During geotechnical investigation by GHD (2011) at Feathertop Lodge, soil was noted as moist, however groundwater was not encountered. It should be noted that intrusive works as part of this investigation consisted of two test pits to maximum depths of 1.8 m.

Groundwater level may fluctuate significantly as a function of seasonal variation and environmental and anthropogenic factors and thus levels reported here should be used as a guide only.

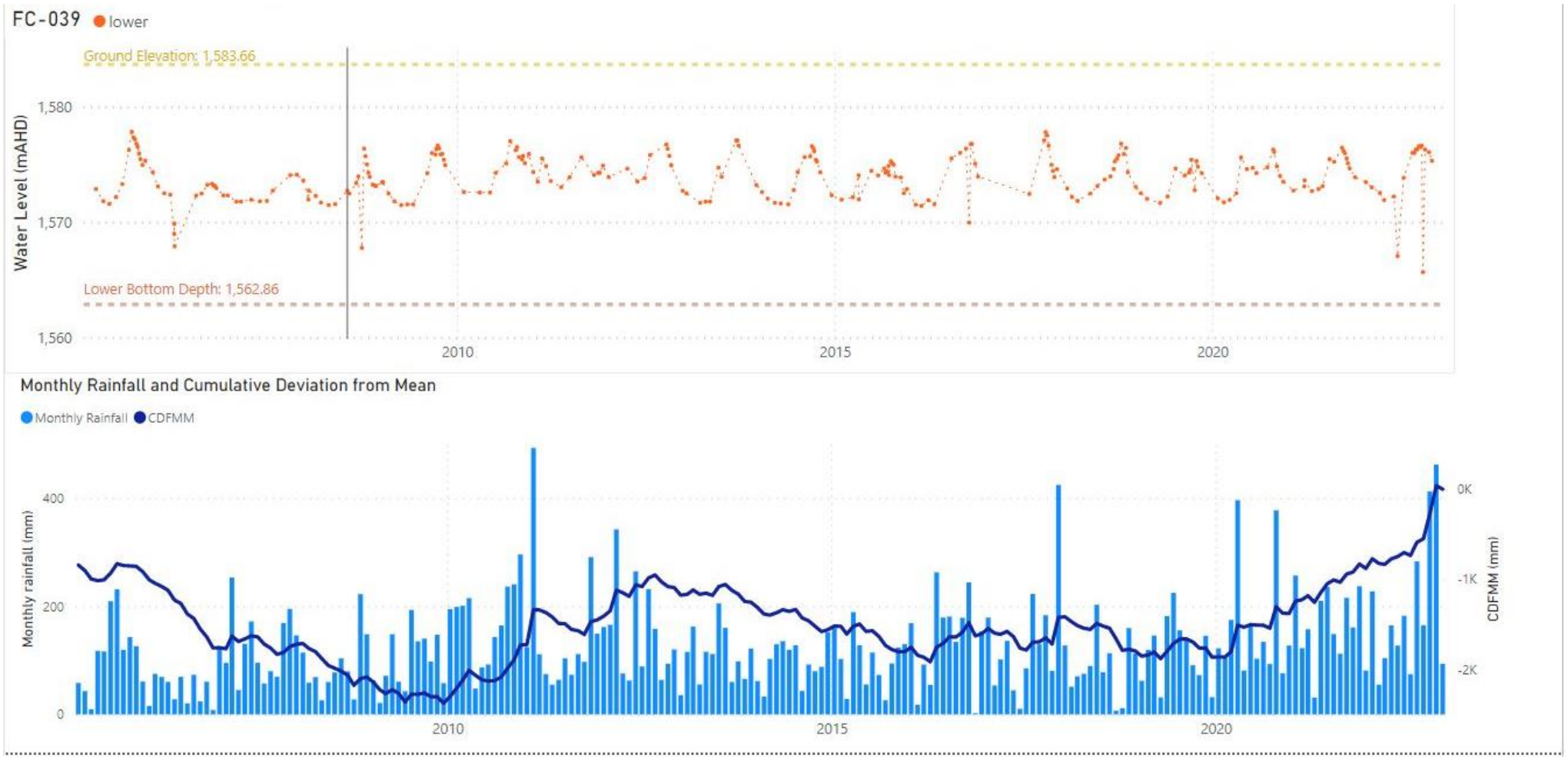


Figure 4 ***Groundwater monitoring data for FC-039 and rainfall data***

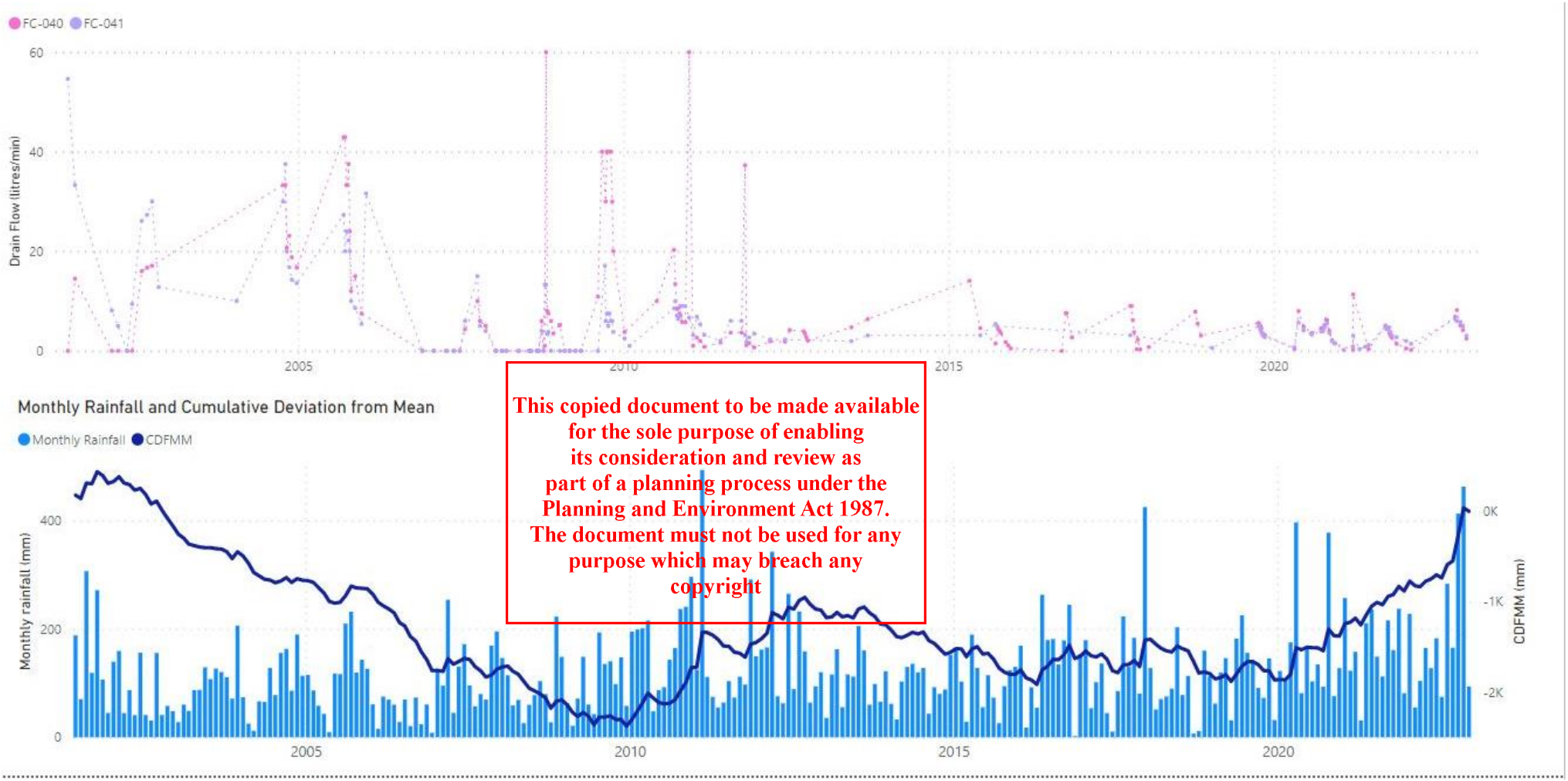


Figure 5 *Groundwater monitoring data for FC-040 and FC-041 and rainfall data*

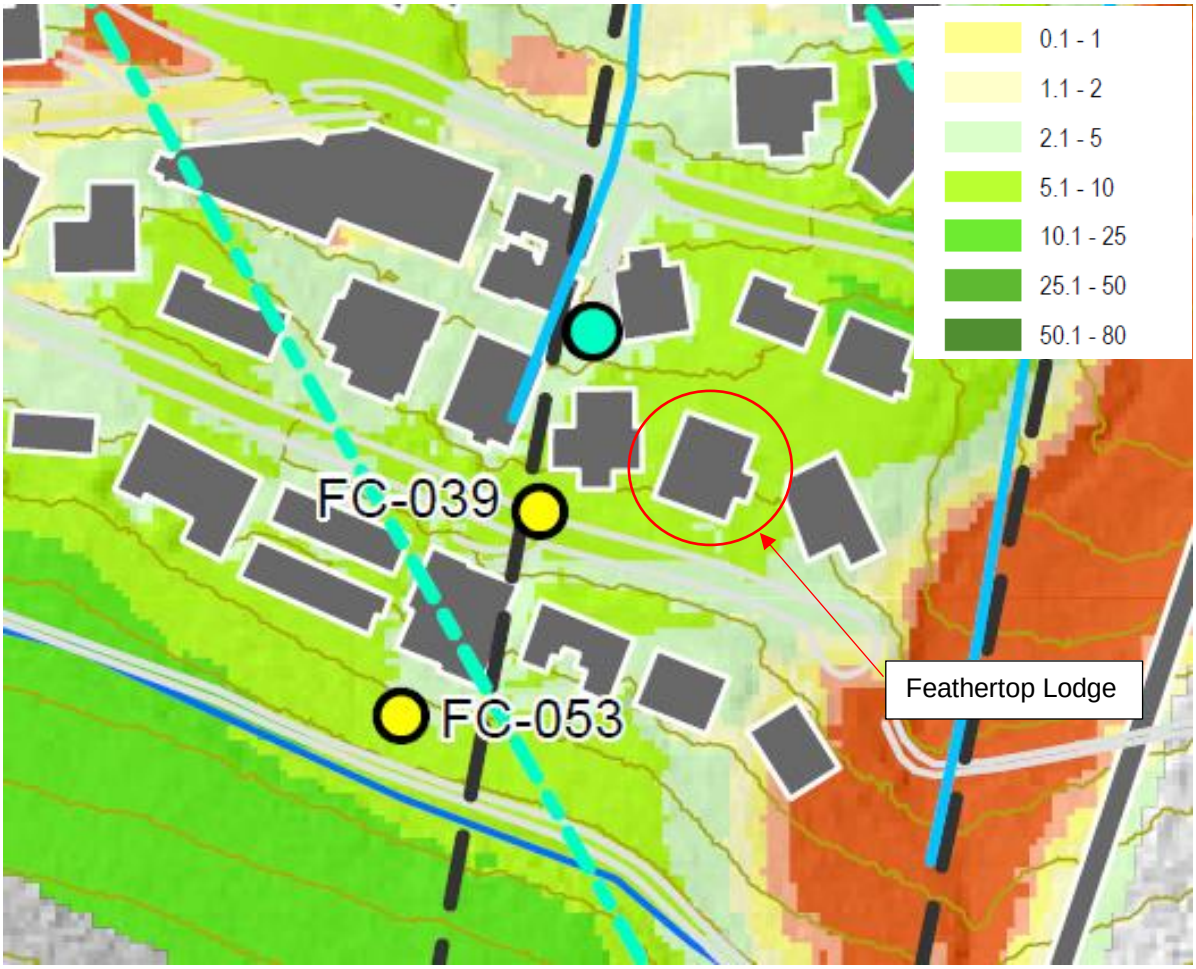


Figure 6 Extract from GHD (2022) showing lower aquifer groundwater level (m bgl) based on 2020-2021 spring average

2. Site assessment

2.1 General

The following methodology has been undertaken to assess the conditions at the site and inform the preliminary geotechnical risk assessment:

– A site visit undertaken on 11 May 2023 by a Senior Engineering Geologist and Graduate Geologist to observe the current site conditions. Site photographs obtained during the inspection at Feathertop Lodge are presented in Section 2.2.
– A desktop review of pre-existing geotechnical investigation reports and geotechnical risk assessments completed in proximity to Feathertop Lodge (Section 1.7).
– A review of the anticipated geological conditions present at the site.

2.2 Existing conditions

The Feathertop Lodge site occupies moderate natural slopes (approx. 11°) sloping south-west down towards the north-east with local elevations ranging between approximately 1585 m RL along the rear to the property (northern aspect) to 1595 m RL proximal to Parallel Street. The front entryway of the property is accessed from Parallel Street through an uncovered walkway (Figure 7) with several shallow stairs which are cut into the road batter slope. The entryway is approximately 2 m below road level. A section of the road fill batter in front of the property is supported by a retaining wall constructed with wooden logs forming a flat area for a trampoline (Figure 8). The retaining wall appears to be in apparent good condition, with no obvious signs of deterioration. Figure 9 illustrates the lack of formal drainage at the front of the property and there is evidence of water pooling to the east of the front entryway. The lower weatherboards at the front of the property were observed to have rotted away as a result of persistent dampness in the area.

Several established trees are situated along the eastern aspect of the property and likely provide stabilisation to the moderate slope (Figure 10). A small retaining wall, presumably backfilled with uncontrolled fill materials, has been constructed to support the shed structure along the eastern side of the building. It is noted the shed and wooden decking present in Figure 10 will be removed as part of the redevelopment. No formal drainage was observed along the eastern aspect of the property, however, the slope is well vegetated with no obvious signs of instability.

To the north, the property is bounded by the Red Onion Ski Chalet (7 Arlberg Street). The area is generally well grassed with several established trees present, however in the absence of formal drainage, localised zones of erosion and sediment loss were observed forming a hummocky surface (particularly beneath the rear building eaves) (refer Figure 11).

Feathertop Lodge is bound by Banool Ski Club (12 Parallel Street) along the western aspect of the property. An non-engineered retaining wall/fill batter, presumably constructed from uncontrolled materials, underlies the outdoor uncovered spa area (refer Figure 12) with a side entryway situated to the south of the spa. The retaining wall is relatively low well grassed and appears to be in apparent good condition. No formal drainage is evident along the western aspect of the property and localised evidence of sediment loss and erosion was observed.

Figure 7 *Front (southern aspect) of the property, taken from Parallel Street*

Figure 8 *Log retaining wall along the southern boundary of the property. The retaining wall is situated between the front of the property and Parallel Street*

Figure 9 *The southern aspect (front) and entryway of Feathertop Lodge. Note the absence of formal drainage and evidence of surface water pooling.*

Figure 10 *Eastern aspect of Feathertop Lodge including the shed, small log retaining wall, decking and side entryway.*

Figure 11 *Northern aspect (rear) of Feathertop Lodge.*

Figure 12 *The western aspect of the property including stone retaining wall underlying the spa.*

2.3 Subsurface conditions

The anticipated subsurface conditions at Feathertop Lodge are based on a review of available desktop information including historical geotechnical investigations, geological mapping as well as observations made during the site assessment on 11 May 2023. The anticipated subsurface ground conditions are illustrated on the conceptual geological cross section Figure 14. Investigations by GHD (2011) and observations during the site assessment indicate subsurface conditions likely consist of up to 0.5 m of fill materials underlain by residual soil and extremely weathered rock of Migmatite and Granodiorite of silty to clayey sand whilst regional interpretations by GHD (2012) suggest these ground materials are underlain by granodiorite and migmatite rock at a depth of approximately 12 to 20 m below ground level (refer Figure 1).

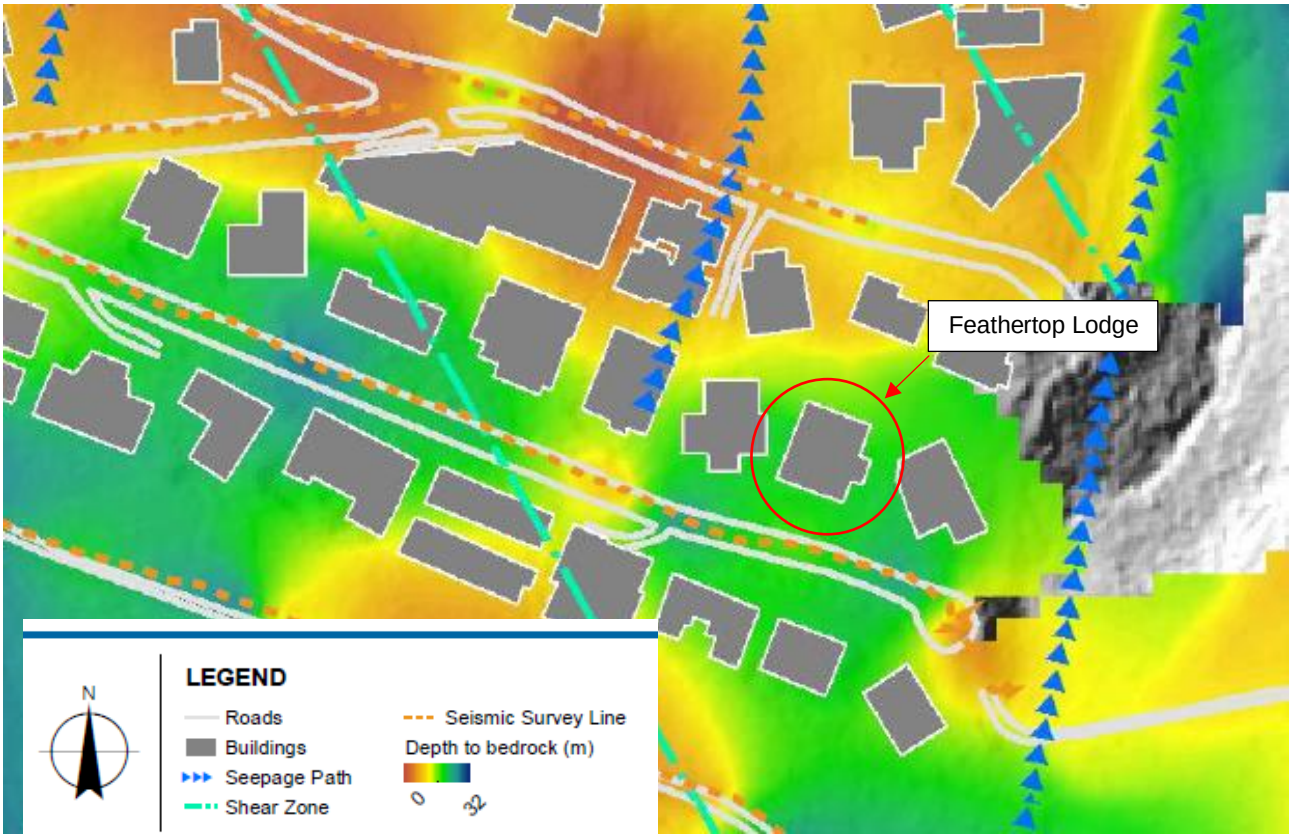


Figure 13 *Extract of the interpreted depth to bedrock model from GHD (2012) Refinement of Geological and Hydrogeological Models – Falls Creek Geotechnical Risk Management Program*

2.4 Geotechnical site hazards

Several conceivable hazards that may affect the Feathertop Lodge site in its existing condition, during construction and over the design life of the development were assessed during this preliminary geotechnical risk assessment. These include:

– Shallow landslide within the natural slopes encompassing the site.
– Failure of fill slope batter below Parallel Street.
– Failure of existing retaining wall along the front (southern aspect) of the building
– Failure of the non-engineered retaining wall underlying the spa at the western aspect of the building

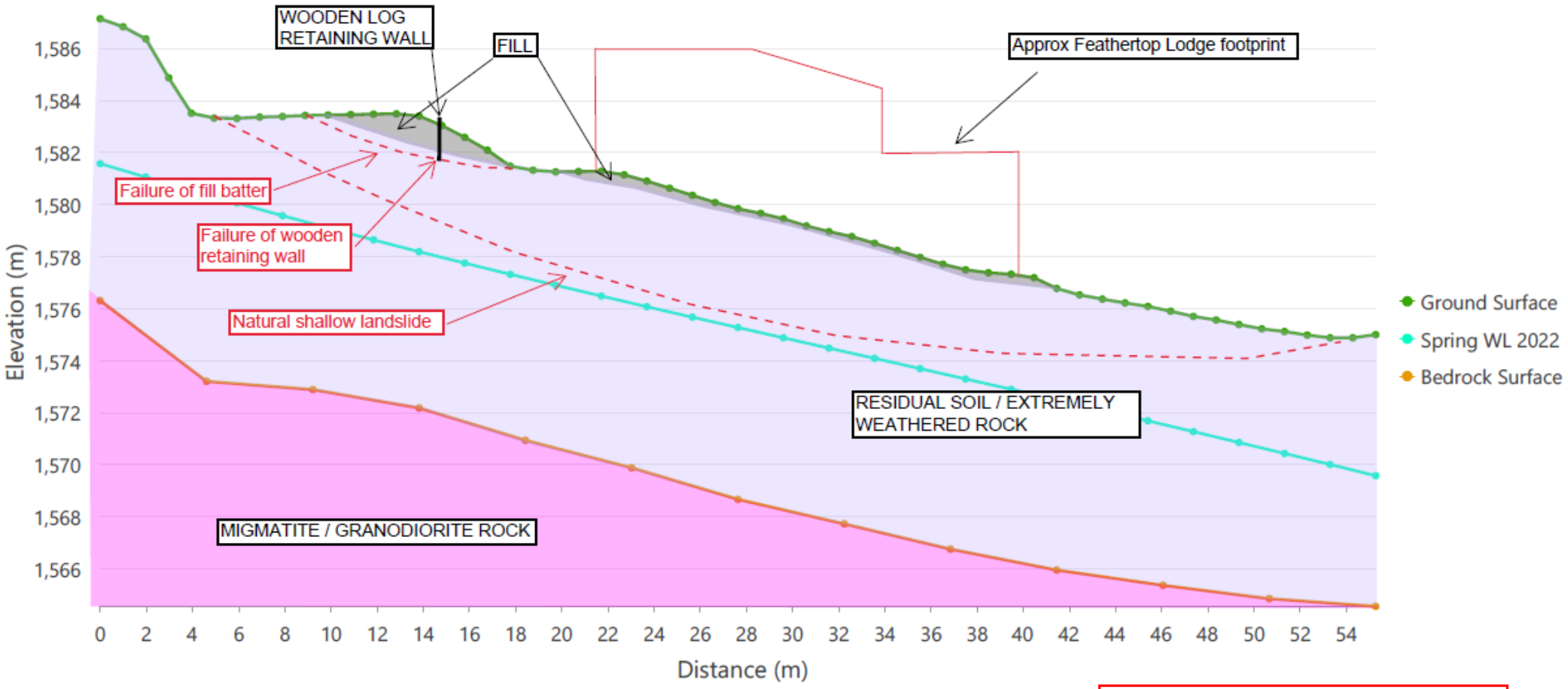


Figure 14 Conceptual geological section of the site illustrating anticipated subsurface conditions and potential landslide hazards

3. Qualitative risk assessment

3.1 General

A qualitative assessment has been undertaken for the proposed development. This is an assessment of the "Likelihood" and "Consequence" using descriptors provided in the Australian Geomechanics Society (AGS) Guidelines for Landslide Risk Management (2007).

The estimated likelihood and consequence have been used to derive a risk rating from the risk matrix presented in the AGS (2007) guidelines and reproduced below.

In accordance with Section 3.2 of the EMO if no risks exceed a "Low" risk rating, a Qualitative Risk Assessment is a suitable level of assessment for the proposed works.

Where appropriate risk has been assessed for pre, during and post development conditions in accordance with Section 3.1 of the EMO.

No consideration has been given to snow avalanches which are not considered to fall within the scope of geotechnical hazards.

Details of the qualitative risk assessment are provided below.

3.2 Likelihood of failure

The likelihoods of occurrence of the identified hazards are presented below. These ratings are qualitative estimates of how likely a failure is without consideration of the consequences of this failure. The assessment of the likelihood of failure for each hazard has been determined based on the following factors:

– Observations made of existing site conditions
– Review of existing data
– Engineering geology experience

Appendix C contains details of the qualitative descriptors used for likelihood of failure from AGS (2007).

3.3 Consequence of failure

Consequences of the hazards identified above have been estimated based on observations of existing site conditions. Potential consequences of failure include:

– Impacts on the existing and proposed structures

For the hazards identified, the associated consequences to property have been estimated based on the qualitative descriptors presented in AGS (2007) and included in Appendix C.

3.4 Risk rating for property

The following matrix (Table 4) has been used to rate the risk for each of the hazards identified, based on the estimated likelihood and consequence. The risk matrix is reproduced from AGS (2007). Risk ratings for each of the hazards identified are summarised in Table 5, and for, along with recommended control measures to mitigate these risks where applicable.

Table 4 Risk matrix

		Consequences				
		Catastrophic	**Major**	**Medium**	**Minor**	**Insignificant**
Likelihood	Almost Certain	VH	VH	VH	H	M or L
	Likely	VH	VH	H	M	L
	Possible	VH	H	M	M	VL
	Unlikely	H	M	L	L	VL
	Rare	M	L	L	VL	VL
	Barely Credible	L	VL	VL	VL	VL

Table 5 Risk to property rating

Hazard	Location	Initial Risk Rating			Control Measures	Residual Risk Rating		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
Hazard								
Shallow natural landslide failure of natural slopes	Slopes encompassing and surrounding the site	**Rare** There are no signs of obvious slope instability within the area. Minor erosion and sediment loss was reported at the back of the building. There are no documented landslide in the areas surrounding the site that we are aware of. The slopes encompassing and surrounding the site are generally gentle to moderate gradients.	**Major** Failure could cause significant structural damage to the building	**Low**		N/A	N/A	N/A
Failure of fill batter	Parallel Street batter slope in front (southern aspect) of the building	**Unlikely** The slopes show no obvious signs of slope instability	**Medium** Failure could impact the front of the building	**Low**		N/A	N/A	N/A
Failure of non-engineered retaining walls	Retaining walls along the east and west of the building, and the timber log retaining wall along the front of the building	**Possible** There are currently no obvious signs of distress or deterioration. However poor construction techniques have been adopted for the retaining walls.	**Minor** Failure may result in damage to minor infrastructure. Failure may require remediation of slopes, particularly below Parallel St.	**Moderate**	Where retaining walls remain as part of the redevelopment, consider monitoring for significant distress and/or replacement of the retaining walls with an engineered solutions that is backfilled with suitably controlled fill.	**Unlikely**	**Medium**	**Low**
During Construction								
Shallow failure of slopes during	Slopes surrounding the site,	**Possible** If unsuitable batter angles of cut slopes adopted with	**Minor** Failure may require reinstatement and	**Moderate**	Avoid any earthworks during or following significant rainfall.	**Unlikely**	**Minor**	**Low**

Hazard	Location	Initial Risk Rating			Control Measures	Residual Risk Rating		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
redevelopment of the site	particularly along the eastern and southern side of the building.	respect to the subsurface conditions. If construction is undertaken during wet weather conditions. If excess vegetation is removed.	remediation of the natural slope		Maintain effective drainage across the site during construction. Adopt a maximum temporary batter of 1 (H) : 1 (V) for any cut slopes.			
Post Construction								
Shallow failure of slope encompassing new footings	Footings to support new balconies are proposed along the northern aspect of the building.	**Possible** If footings are not suitable for the foundation conditions.	**Medium** Failure may require reinstatement and remediation of the footings and balconies. Failure may cause damage to the building and may require repair.	**Moderate**	Avoid excess removal of vegetation. Backfill with suitably controlled fill where required. Permanent effective drainage of the site should be employed which diverts surface water away from the slopes encompassing the lodge.	**Unlikely**	**Medium**	**Low**

3.5 Risk control measures

To reduce, manage and maintain the assessed risk ratings of the proposed works, it is advised that the risk control measures provided in Table 5 above are implemented.

In summary, control measures to maintain or reduce all hazards to a low risk rating may include:

- Employ good development practices for building on hillsides as outlined in AGS (2007) Landslide Risk Management. An extract from this AGS guide is provided in Appendix B.
- Minimise the removal of excess vegetation, particularly established trees which aid with stabilising the slope.
- Implement formal surface drainage to divert surface water from the property, particularly at the front of the property where there is evidence of water pooling.
- Where cut batters are required during construction, maintain temporary batters no steeper than 1.0H:1.0V.
- Ensure construction works are undertaken during drying months and not during or immediately following heavy rainfall.

Ensure the qualitative risk assessment is reviewed should changes to land use or drainage conditions surrounding site be proposed or should subsurface conditions differ from those summarised in Section 2.

4. Conclusions

The qualitative assessment resulted in a residual risk rating of Low for the Feathertop Lodge site. In accordance with Clause 3.2 of the EMO, further quantitative or semi-qualitative risk assessment is not deemed necessary for this project and the site is considered suitable for the proposed development, subject to the recommended control measures being implemented.

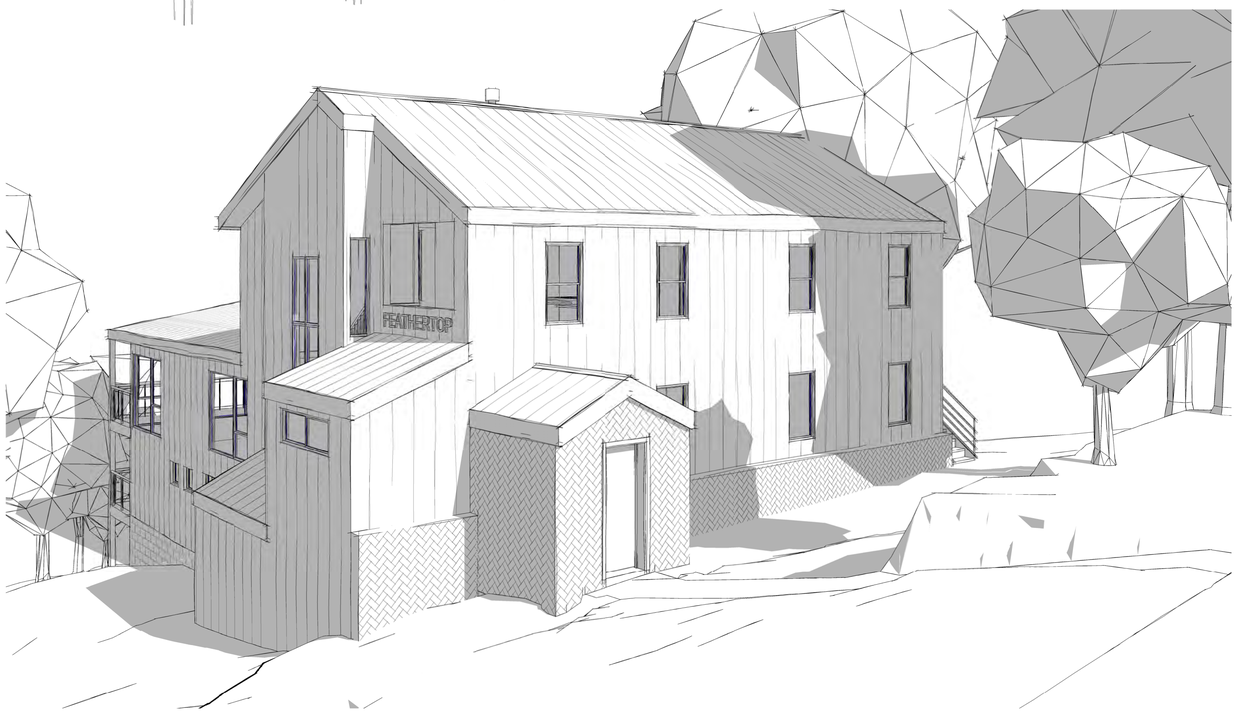
Appendices

Appendix A

Preliminary Go Design drawings

PROPOSED EXTENSION & ALTERATIONS

Feathertop Lodge, 14 Parallel St, Falls Creek



ADVERTISED PLAN

Sheet List	
Sheet Number	Sheet Name
WD000	Cover Page
WD001	General Notes
WD002	Location Plan
WD003	Site Plan - Existing
WD004	Site Plan - Proposed
WD005	Floor Plan - LVL 0
WD006	Floor Plan - LVL 1
WD007	Floor Plan - LVL 2
WD008	Roof Plan
WD009	External Elevations - Existing
WD010	External Elevations - Proposed
WD011	Renders - Existing
WD012	Renders - Existing
WD013	Renders - Proposed
WD014	Renders - Proposed

GENERAL NOTES

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2. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
3. READ IN CONJUNCTION WITH OTHER DRAWINGS, SPECIFICATIONS & CONSULTANTS DOCUMENTATION.
4. REFER ANY DISCREPANCIES IMMEDIATELY TO THE DESIGNER & AWAIT WRITTEN INSTRUCTION.

ABN: 98 646 509 444

REGISTRATION INFORMATION

KYLE DAVIDSON — DP - AD 62580

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23004

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PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
Cover Page

DRAWING NO. — REVISION
WD000

10/07/2023 12:44:01

CONTRACTOR AND ALL SUBCONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE PRIOR TO MANUFACTURE. SCOPE OR WORK TO BE CLARIFIED PRIOR TO COMMENCEMENT.

SUBCONTRACTOR TO CO-ORDINATE WITH ALL TRADES AS REQUIRED TO SATISFACTORILY COMPLETE THE WORKS. ALL WORKS TO BE CARRIED OUT IN A NEAT, SUBSTANTIAL AND SKILLFUL MANNER BY QUALIFIED TRADES PEOPLE.

ALL COMPONENT ELEMENTS TO BE ACCURATELY ALIGNED AND LEVELED IN ACCORDANCE WITH THE BEST TRADE PRACTICES AND MANUFACTURER'S RECOMMENDATIONS.

ANY MATERIAL SUBSTITUTIONS ARE TO BE OF EQUIVALENT QUALITY AND FUNCTIONS AND SHALL BE APPROVED BY THE CLIENT PRIOR TO ORDERING / MANUFACTURE / CONSTRUCTION.

ALL MATERIALS SHALL BE NEW (UNLESS OTHERWISE NOTED) AND HIGH QUALITY.

PROPRIETARY ITEMS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

ALL TIMBER FRAMING SHALL COMPLY WITH THE LATEST "LIGHT TIMBER FRAMING CODE AS1684" AND RELEVANT SUPPLEMENTS.

ALL MASONRY EXPANSION/ARTICULATION JOINTS TO COMPLY WITH B.C.A PART 3.3.1.8. WEATHERPROOFING OF MASONRY TO COMPLY WITH B.C.A PART 3.3.4

ALL WINDOWS ARE NOMINAL ONLY CHECK ON SITE PRIOR TO MANUFACTURE.

ALL GLAZING TO COMPLY WITH AS 1288 AND AS 2047.

ALL DOORS TO BE A MIN. 2040 HIGH.

LIFT OFF HINGES TO WC DOORS WHERE DOOR OPENS IN AND DOOR FRAME CLOSER THAN 1200mm FROM FRONT EDGE OF PAN.

WET AREAS TO HAVE IMPERVIOUS FLOOR FINISH i.e.. TO KITCHEN, WC, BATHROOM, ETC. WATERPROOFING TO COMPLY WITH BCA PART F1.7.

WATERPROOFING TO WALLS AND FLOORS TO WET AREAS TO BE PROVIDED WHERE REQUIRED BY CLAUSE F1.7 IN ACCORDANCE WITH AS-3740.

DISABLED AMENITY AREAS TO COMPLY WITH AS 1428 AND ALL PARTS.

BRAILLE AND TACTILE SIGNAGE TO COMPLY WITH D3.6 AND INCORPORATING THE INTERNATIONAL SYMBOL OF ACCESS OR DEAFNESS OR OTHER SYMBOLS IN ACCORDANCE WITH AS1428.1 TO EACH SANITARY FACILITY.

LIGHT SWITCH IN DISABLED TOILET TO BE 1000mm ABOVE FFL AND WITHIN 500mm OF DOORWAY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH CONSULTANT STRUCTURAL ENGINEER'S DETAILS AND SPECIFICATIONS. STORM WATER DESIGN AS SHOWN ON CIVIL DOCUMENTS. PROVIDE DOWNPIPES TO FLOOR AREAS AT INTERVALS NO GREATER THAN 12 METRES APART.

PROVIDE I.O.'S TO STORMWATER DRAINS @ 9.0 METRE MAXIMUM INTERVALS OR AT ANY CHANGE IN DIRECTION. SURFACE SURROUNDING BUILDING TO BE GRADED AWAY FROM BUILDING TO MOVE SURFACE WATER FROM BUILDING GRADED AT A SLOPE OF NOT LESS THAN 50mm OVER THE FIRST 1m FROM BUILDING.

FIRE INDICES OF MATERIALS, LININGS AND SURFACE FINISHES TO COMPLY WITH SPECIFICATION C1.10 & C1.10a OF THE BUILDING CODE OF AUSTRALIA.

GENERAL NOTES
PORTABLE FIRE EXTINGUISHERS TO COMPLY WITH AS-2444. PROVIDE DRY CHEMICAL FIRE EXTINGUISHER ADJACENT TO EACH ELECTRICAL SWITCHBOARD, PLANT ROOM, KITCHEN AND TEA AREA.

FIRE BLANKETS TO ALL KITCHENS AND KITCHENETTES. LOCATION TO BE DETERMINED ON SITE.

ALL GLAZING TO COMPLY WITH AS-1288. ALL OPENINGS & FLOOR, WALL & ROOF JUNCTIONS MUST BE FULLY SEALED AND CALKED TO PREVENT AIR LEAKAGE IN ACCORDANCE WITH SECTION J3 OF THE BCA.

ALL EXTERNAL OPENINGS (DOORS & OPERABLE WINDOWS) MUST BE FITTED WITH DRAFT SEALS TO ALL SIDES OF OPENINGS.

VERIFY ALL DIMENSIONS / SETOUT DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.

ALL SERVICES CUPBOARD & PENETRATIONS MATERIALS ARE TO BE SMOKE SEALED WITH NON COMBUSTIBLE MATERIAL.

ALL FLASHINGS & CAPPINGS TO BE COLORBOND WHERE VISIBLE, ZINCALUME ELSEWHERE.

DISABLED SANITARY FACILITY TO COMPLY IN ALL RESPECTS TO AS-1428.1 - 2009.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH CONSULTANT STRUCTURAL ENGINEER'S DETAILS AND SPECIFICATIONS.

STORM WATER DESIGN AS SHOWN ON CIVIL DOCUMENTS.

FIRE INDICES OF MATERIALS, LININGS AND SURFACE FINISHES TO COMPLY WITH SPECIFICATION C1.10 & C1.10a OF THE BUILDING CODE OF AUSTRALIA..

EXTERNAL STEELWORK EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANISED, PAINT FINISH - REFER TO ENGINEER'S DRAWING FOR DETAIL AND EXTERNAL FINISHES SCHEDULE FOR COLOUR SELECTIONS.

ALL INTERNAL STEELWORK IS TO BE SHOP PRIMED. VERIFY ALL DIMENSIONS / SETOUT DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.

ALL SITE DIMENSIONS TO FACE OF KERB UNLESS NOTED OTHERWISE.

EXTERNAL LEVELS, STORMWATER DRAINAGE AND ALL GENERAL CIVIL DETAILS, REFER TO CIVIL CONSULTANT DOCUMENTS.

MAKE GOOD EXISTING STRUCTURES INTO NEW STRUCTURES.

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SPECIFICATION AND ALL ITS APPENDICES, INCLUDING (BUT NOT LIMITED TO) THE DOOR SCHEDULE, DOOR HARDWARE SCHEDULE, COLOUR AND FINISHES SCHEDULE (INTERNAL AND EXTERNAL), FIXTURES, FITTINGS AND APPLIANCES SCHEDULE.

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE OF SCALING. IF ANY CLARIFICATION IS REQUIRED, THIS IS TO BE PROVIDED BY THE DESIGNER PRIOR TO CONSTRUCTION AND MANUFACTURE.

ALL DOOR HANDLES TO BE LOCATED 1000mm ABOVE FFL. DOOR HANDLE TO DISABLED TOILET TO BE LEVER ACTION TYPE.

BRICKWORK CONTROL JOINTS TO BE FIRE SEALED WITH A PRODUCT TESTED IN ACCORDANCE WITH AS1530.4 TO MAINTAIN FIRE RATING.

LINTELS SUPPORTING FIRE WINDOWS TO BE FIRE RATED. SERVICE PENETRATIONS IN EXTERNAL WALLS REQUIRED TO BE FIRE RATED TO BE FIRE SEALED TO MAINTAIN THE RATING OF THE WALL.

ARTIFICIAL LIGHTING TO COMPLY WITH AS 1680.0

MECHANICAL VENTILATION TO COMPLY WITH AS 1668.2

SEE BUILDING FABRIC ANALYSIS IN SPECIFICATION
ALL INSULATION WITHIN THE BUILDING MUST BE INSTALLED IN ACCORDANCE WITH AS/NZS 4859.1 AND BE INSTALLED SO THAT IT—
1. ABUTS OR OVERLAPS ADJOINING INSULATION OTHER THAN AT SUPPORTING MEMBERS SUCH AS STUDS, NOGGINGS, JOISTS, FURRING CHANNELS AND THE LIKE WHERE THE INSULATION MUST BE AGAINST THE MEMBER;
2. FORMS A CONTINUOUS BARRIER WITH CEILINGS, WALLS, BULKHEADS, FLOORS OR THE LIKE THAT INHERENTLY CONTRIBUTE TO THE THERMAL BARRIER; AND
3. DOES NOT AFFECT THE SAFE OR EFFECTIVE OPERATION OF A SERVICE OR FITTING.

PART J NOTES:
PART J1 - BUILDING FABRIC
TO DEMONSTRATE COMPLIANCE WITH PART J2, THE GLAZING HAS BEEN ASSESSED USING THE GLAZING CALCULATOR 2013 DEVELOPED BY THE AUSTRALIAN BUILDING CODES BOARD (ABCB) - SEE SPECIFICATION.

PART J2 - EXTERNAL GLAZING
A FIBROUS SEAL OR FOAM OR RUBBER COMPRESSION STRIP MUST BE FITTED TO EACH EDGE OF THE DOORS OR OPENABLE WINDOWS THAT ARE LOCATED EITHER ON THE CONDITIONED BUILDING ENVELOPE (REFER APPENDIX X) OR EXTERNAL DOORS TO HABITABLE ROOMS. WINDOWS THAT COMPLY WITH AS2047 ARE EXEMPT.

EXTERNAL SWING DOORS TO CONDITIONED OR HABITABLE AREAS MUST BE FITTED WITH A DRAFT PROTECTION DEVICE ON THE BOTTOM EDGE OF THE DOOR.

SLIDING DOORS TO ENTRY IS TO BE AUTOMATED; ALL OTHER EXTERNAL DOOR SERVICE THE HABITABLE CONDITIONED SPACE MUST BE FITTED WITH A SELF-CLOSING DEVICE.

EXHAUST FANS (IF PROPOSED) WITHIN THE LUNCHROOMS MUST BE FITTED WITH A SELF-CLOSING DAMPER OR THE LIKE. ROOFS, CEILINGS, WALLS, FLOORS AND ANY OPENING SUCH AS A WINDOW FRAME, DOOR FRAME OR THE LIKE MUST BE CONSTRUCTED IN A FASHION TO MINIMISE AIR LEAKAGE THROUGH CLOSE FITTING INTERNAL LINING SYSTEMS, OR BE SEALED BY CAULKING, ARCHITRAVES, SKIRTING, CORNICES ETC.

ACCESS AND EGRESS

ELECTRICAL SWITCBOARDS
ELECTRICAL SWITCHBOARDS IN THE PATH OF TRAVEL TO AN EXIT MUST BE WITH A METAL CABINET OR LINED WITH NON COMBUSTIBLE MATERIAL AND PROVIDED WITH SMOKE SEALS.

DISABILITY ACCESS
FLOOR SURFACES
ALL FLOOR AND GROUND SURFACES MUST PROVIDE A SMOOTH CONTINUATION FOR ABUTMENT OF SURFACES WITH A MAXIMUM TOLERANCE OF 5MM FOR BEVELED OR ROUNDED EDGES BETWEEN SURFACES.

VISUAL INDICATORS
VISUAL INDICATORS ON GLAZING BEING A SOLID NON TRANSPARENT
CONTRASTING LINE AT LEAST 75MM WIDE FOR THE FULL WIDTH OF OPENINGS CAPABLE OF BEING MISTAKEN FOR OPENINGS AT 900-1000MM ABOVE FINISHED FLOOR LEVEL SHALL BE PROVIDED.

REFER TO STRUCTURAL DRAWINGS, IF DISCREPANCY IS FOUND, STRUCTURAL DRAWINGS TAKE PRECEDENCE

	BAL–LOW	BAL–12.5	BAL–19	BAL–29	BAL–40	BAL–FZ (FLAME ZONE)
SUBFLOOR SUPPORTS	No special construction requirements	As for BAL–19	Enclosure by external wall or by steel, bronze or aluminium mesh. Non-combustible or naturally fire resistant timber supports where the subfloor is unenclosed	Enclosure by external wall or by steel, bronze or aluminium mesh. Non-combustible or naturally fire resistant timber supports where the subfloor is unenclosed	If enclosured by external wall refer below 'External Walls' section in table or non-combustible subfloor supports or tested for bushfire resistance to AS 1530.8.1	Subfloor supports – enclosure by external wall or non-combustible with an FRL of 30/-/- or be tested for bushfire resistance to AS 1530.8.2
FLOORS	No special construction requirements	As for BAL–19	Concrete slab on ground or enclosure by external wall, metal mesh as above or flooring less than 400 mm above ground level to be non-combustible, naturally fire resistant timber or protected on the underside with sarking or mineral wool insulation	Concrete slab on ground or enclosure by external wall, metal mesh as above or flooring less than 400 mm above ground level to be non-combustible, naturally fire resistant timber or protected on the underside with sarking or mineral wool insulation	Concrete slab on ground or enclosure by external wall or protection of underside with a non-combustible material such as fibre cement sheet or be non-combustible or be tested for bushfire resistance to AS 1530.8.1	Concrete slab on ground or enclosure by external wall or an FRL of 30/30/30 or protection of underside with 30 minute incipient spread of fire system or be tested for bushfire resistance to AS 1530.8.2
EXTERNAL WALLS	No special construction requirements	As for BAL–19	External walls - Parts less than 400 mm above ground or decks etc to be of non-combustible material, 6 mm fibre cement clad or bushfire resistant/naturally fire resistant timber	Non-combustible material (masonry, brick veneer, mud brick, aerated concrete, concrete), timber framed, steel framed walls sarked on the outside and clad with 6 mm fibre cement sheeting or steel sheeting or bushfire resistant timber	Non-combustible material (masonry, brick veneer, mud brick, aerated concrete, concrete) or timber framed or steel framed walls sarked on the outside and clad with 9 mm fibre cement sheeting or steel sheeting or be tested for bushfire resistance to AS 1530.8.1	Non-combustible material (masonry, brick veneer, mud brick, aerated concrete, concrete) with minimum thickness of 90 mm or an FRL of -/30/30 when tested from outside or be tested for bushfire resistance to AS 1530.8.2
EXTERNAL WINDOWS	No special construction requirements	4mm Grade A Safety Glass or glass blocks within 400 mm of ground, deck etc with Openable portion metal screened with frame of metal or metal reinforced PVC-U or bushfire resisting timber. Above 400mm annealed glass can be used with 30 gauge screened	5 mm toughened glass or glass blocks within 400 mm of ground, deck etc with Openable portion metal screened with frame of metal or metal reinforced PVC-U or bushfire resisting timber. Above 400mm annealed glass can be used with 30 gauge screened	5 mm toughened glass with openable portion screened and frame of metal or metal reinforced PVC-U, or bushfire resisting timber and portion within 400 mm of ground, deck etc screened	6 mm toughened glass. Fixed and Openable portion screened with steel or bronze mesh	Protected by bushfire shutter or FRL of -/30/- and openable portion screened with steel or bronze mesh or be tested for bushfire resistance to AS 1530.8.2
EXTERNAL DOORS	No special construction requirements	As for BAL–19 except that door framing can be naturally fire resistant (high density) timber	Screened with steel, bronze or aluminium mesh or glazed with 5 mm toughened glass, non-combustible or 35 mm solid timber for 400 mm above threshold, metal or bushfire resisting timber framed for 400 mm above ground, decking, etc, tight-fitting with weather strips at base	Screened with steel, bronze or aluminium mesh or non-combustible, or 35 mm solid timber for 400 mm above threshold. Metal or bushfire resisting timber framed tight-fitting with weather strips at base	Non-combustible or 35 mm solid timber, screened with steel or bronze mesh, metal framed, tight-fitting with weather strips at base	Protected by bushfire shutter or tight-fitting with weather strips at base and an FRL of -/30/-
ROOFS	No special construction requirements	As for BAL–19 (including roof to be fully sarked)	Non-combustible covering. Roof/wall junction sealed. Openings fitted with non-combustible ember guards. Roof to be fully sarked	Non-combustible covering. Roof/wall junction sealed. Openings fitted with non-combustible ember guards. Roof to be fully sarked	Non-combustible covering. Roof/wall junction sealed. Openings fitted with non-combustible ember guards. Roof to be fully sarked and no roof mounted evaporative coolers	Roof with FRL of 30/30/30 or tested for bushfire resistance to AS 1530.8.2. Roof/wall junction sealed. Openings fitted with non-combustible ember guards. No roof mounted evaporative coolers
VERANDAS DECKS ETC.	No special construction requirements	As for BAL–19	Enclosed sub-floor space – no special requirement for materials except within 400 mm of ground. No special requirements for supports or framing. Decking to be non-combustible or bushfire resistant within 300 mm horizontally and 400 mm vertically from a glazed element	Enclosed sub-floor space or non-combustible or bushfire resistant timber supports. Decking to be non-combustible or bushfire-resisting timber	Enclosed sub-floor space or non-combustible supports. Decking to be non-combustible	Enclosed sub-floor space or non-combustible supports. Decking to have no gaps and be non-combustible

Please note: The information in the table is a summary of the construction requirements in the November 2018 standard and is not intended as a design or construction guide. You should consult the standard for the full technical details and amendments issued from time to time.

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PROJECT NO.:
23004

PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
General Notes

DRAWING NO.	REVISION
WD001	1

10/07/2023 12:44:06

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

PROPOSED CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
LEVEL 1	287.2m² (incl. balconies)	
LEVEL 2	129.5m²	
TOTAL	697.4m²	

ADVERTISED PLAN

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Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 1000	A1

SHEET
Location Plan

NORTH

DRAWING NO. WD002

REVISION

10/07/2023 12:44:21

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

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SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
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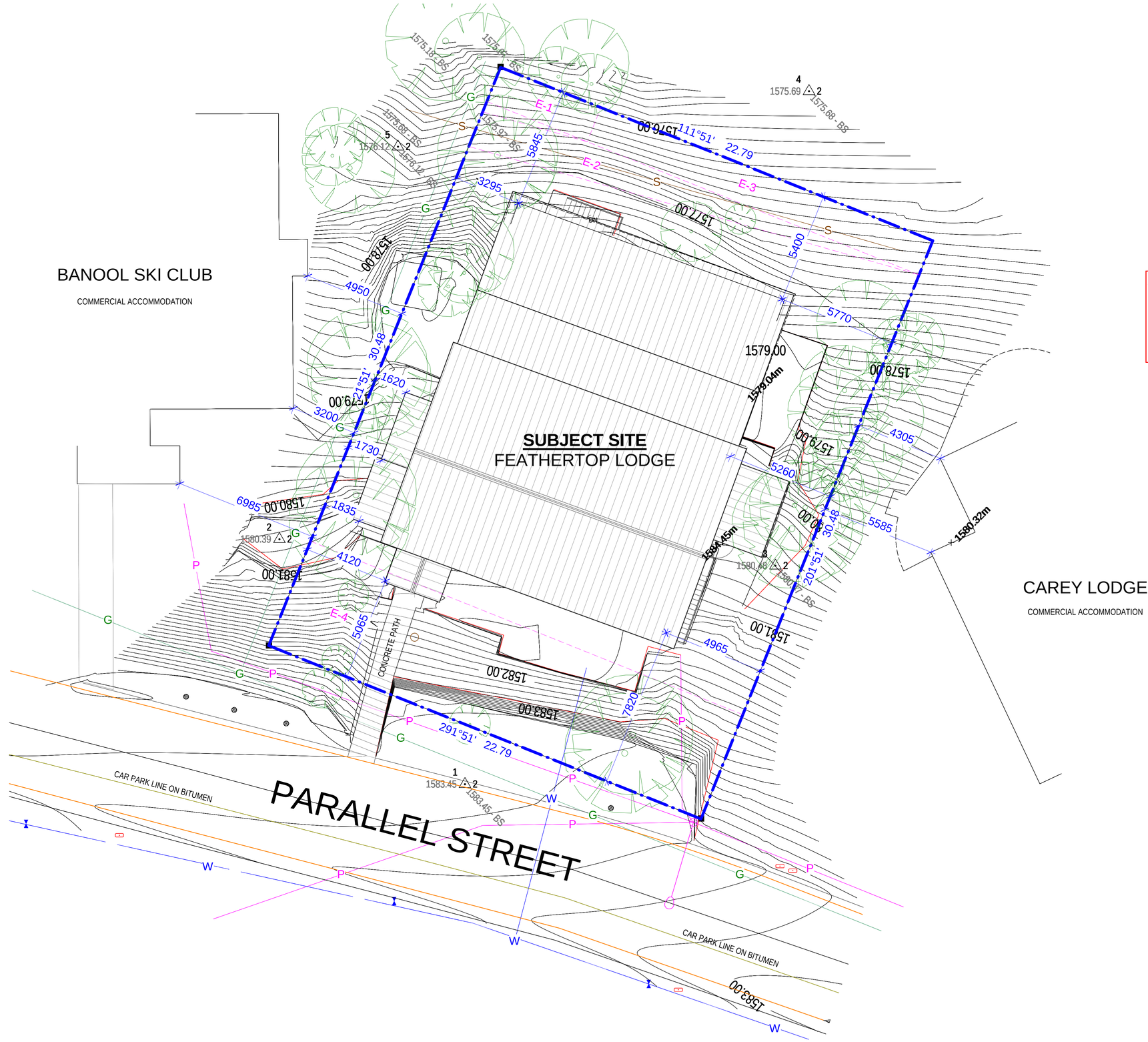
LEVEL 2	129.5m²	
TOTAL	697.4m²	

LEGEND

- S — SEWER MAIN & MANHOLE
- W — WATER MAIN
- G — GAS MAIN
- P — UG ELECTRICITY & PIT



ADVERTISED PLAN

NOTE:
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Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
Site Plan - Existing

NORTH

DRAWING NO. WD003

REVISION

10/07/2023 12:44:23

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
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LEVEL 2	129.5m²	
DECK	15.8m²	
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TOTAL	595.4m²	

PROPOSED CONDITIONS

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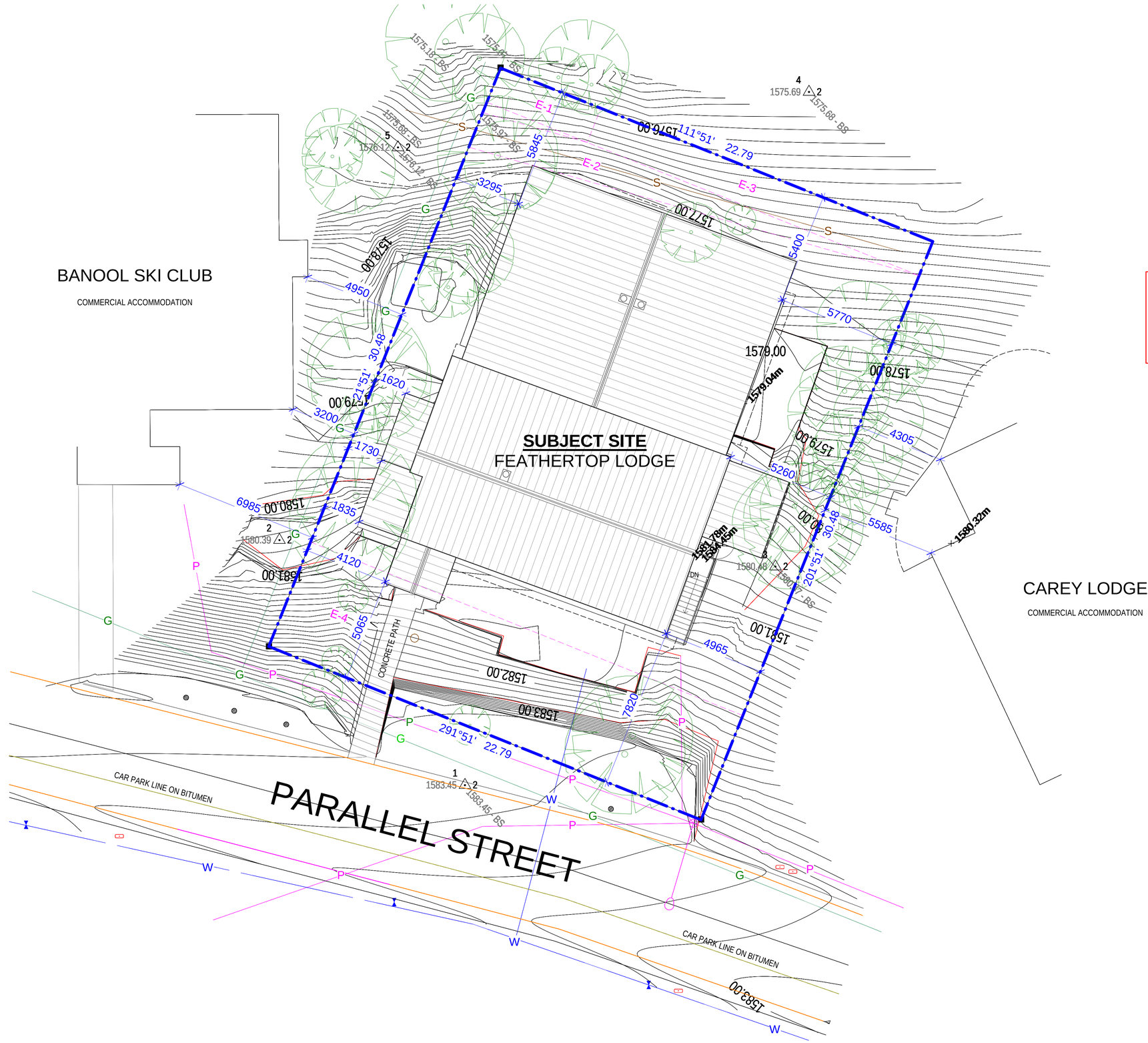
LEVEL 2	129.5m²	
TOTAL	697.4m²	

LEGEND

- S — SEWER MAIN & MANHOLE
- W — WATER MAIN
- G — GAS MAIN
- P — UG ELECTRICITY & PIT



ADVERTISED PLAN

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PROJECT NO.: 23004
PROJECT: Proposed Extension & Alterations
PROJECT STATUS: PRELIMINARY
PROJECT ADDRESS: Feathertop Lodge, 14 Parallel St, Falls Creek
PROJECT CLIENT: Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET: Site Plan - Proposed

NORTH
DRAWING NO. WD004
REVISION

10/07/2023 12:44:24

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
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DECK	15.8m²	
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LEVEL 0	280.7m² (incl. balconies)	
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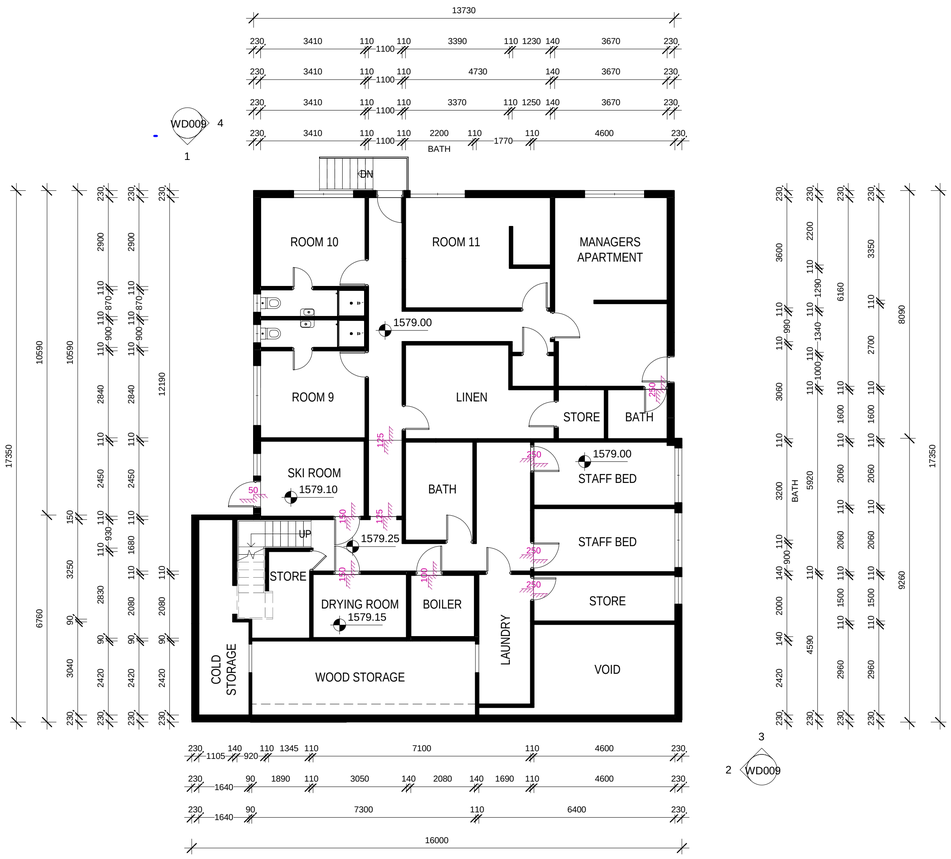
TOTAL	697.4m²	

ADVERTISED PLAN



1 Existing - LVL 0
1 : 100

NOTE:
ALL HEIGHTS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM (AHD) U.N.O.

GENERAL NOTES

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PROJECT NO.:
23004
PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
Floor Plan - LVL 0

NORTH

DRAWING NO. WD005

REVISION

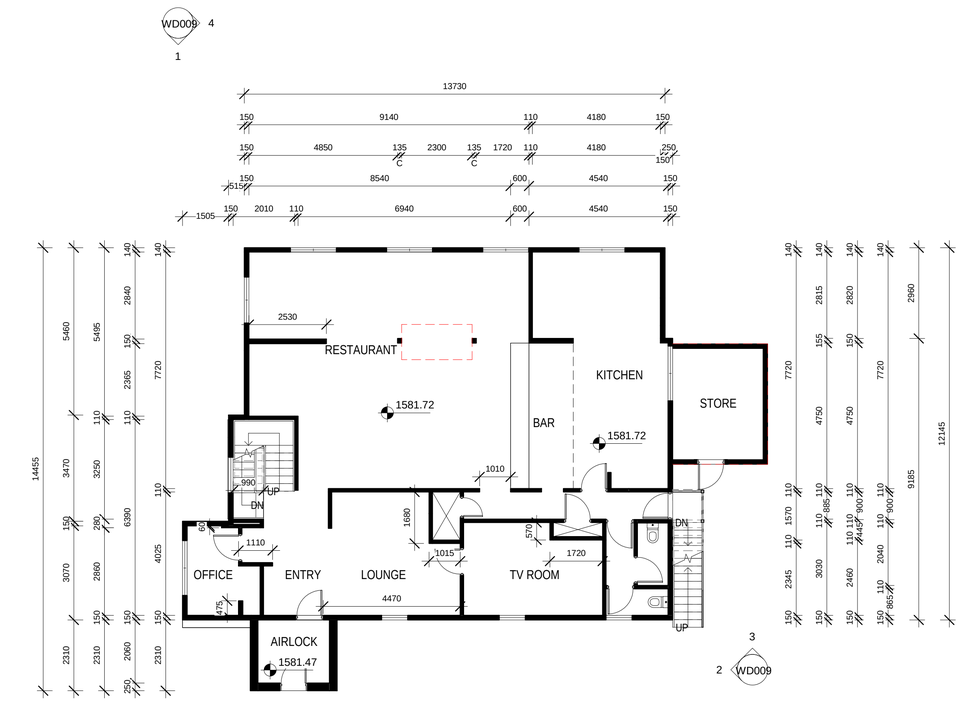
10/07/2023 12:44:25

EXISTING CONDITIONS

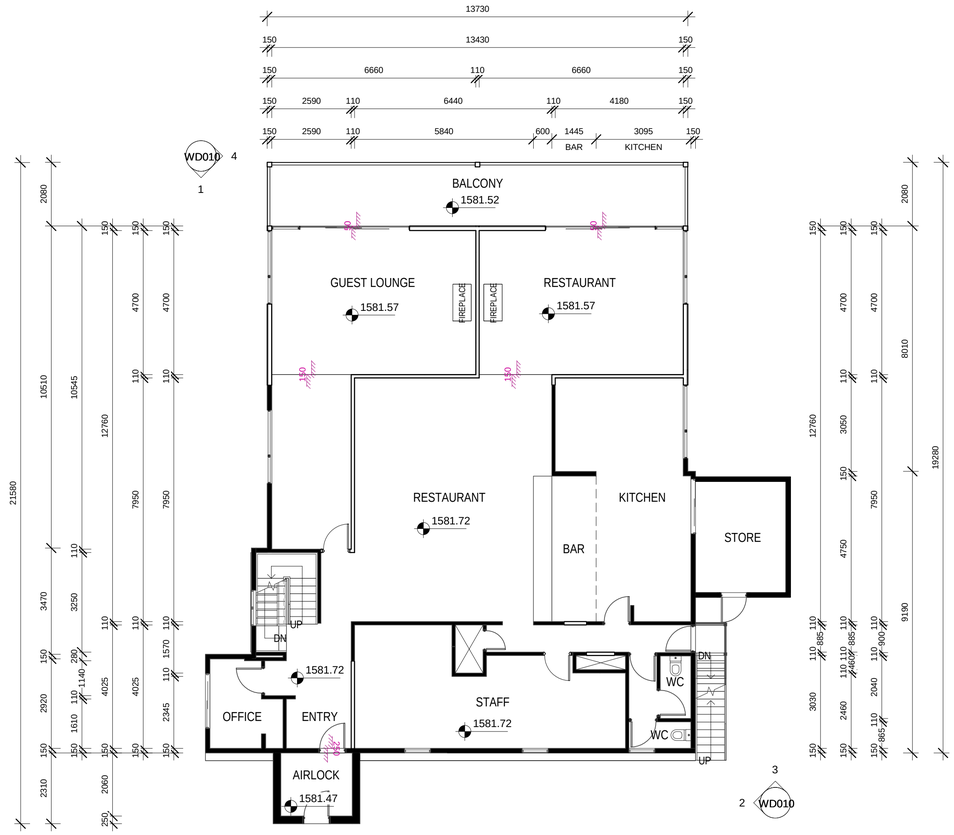
SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

PROPOSED CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
LEVEL 1	287.2m² (incl. balconies)	
LEVEL 2	129.5m²	
TOTAL	697.4m²	



1 Existing - LVL 1
1 : 100



2 Proposed - LVL 1
1 : 100

NOTE:
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ADVERTISED PLAN

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23004

PROJECT:
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PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
Floor Plan - LVL 1

NORTH

DRAWING NO. WD006

REVISION

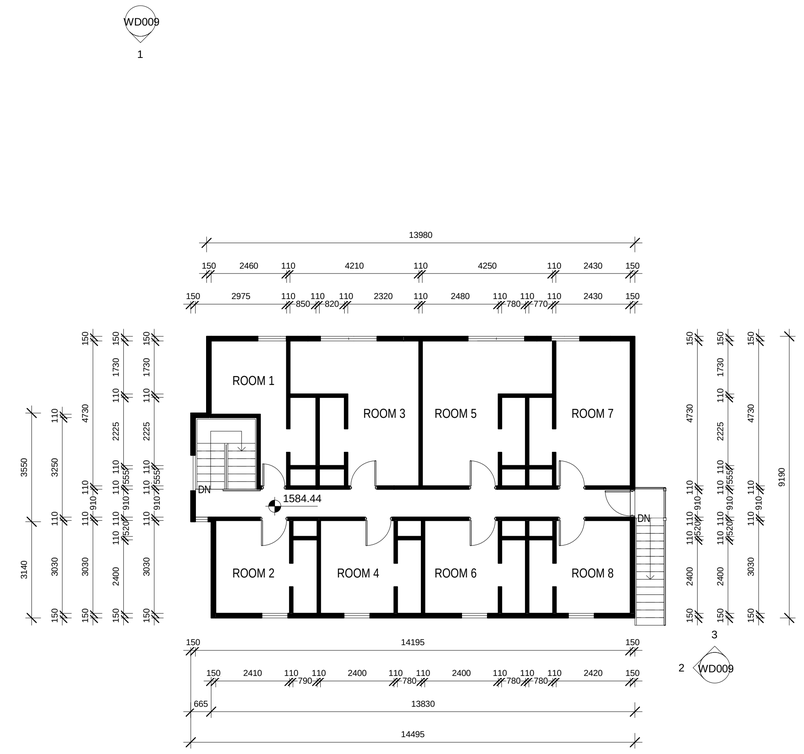
10/07/2023 12:44:25

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

PROPOSED CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
LEVEL 1	287.2m² (incl. balconies)	
LEVEL 2	129.5m²	
TOTAL	697.4m²	



1 Existing - LVL 2
1 : 100

ADVERTISED PLAN

NOTE:
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PROJECT NO.:
23004
PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
Floor Plan - LVL 2

NORTH

DRAWING NO. WD007
REVISION

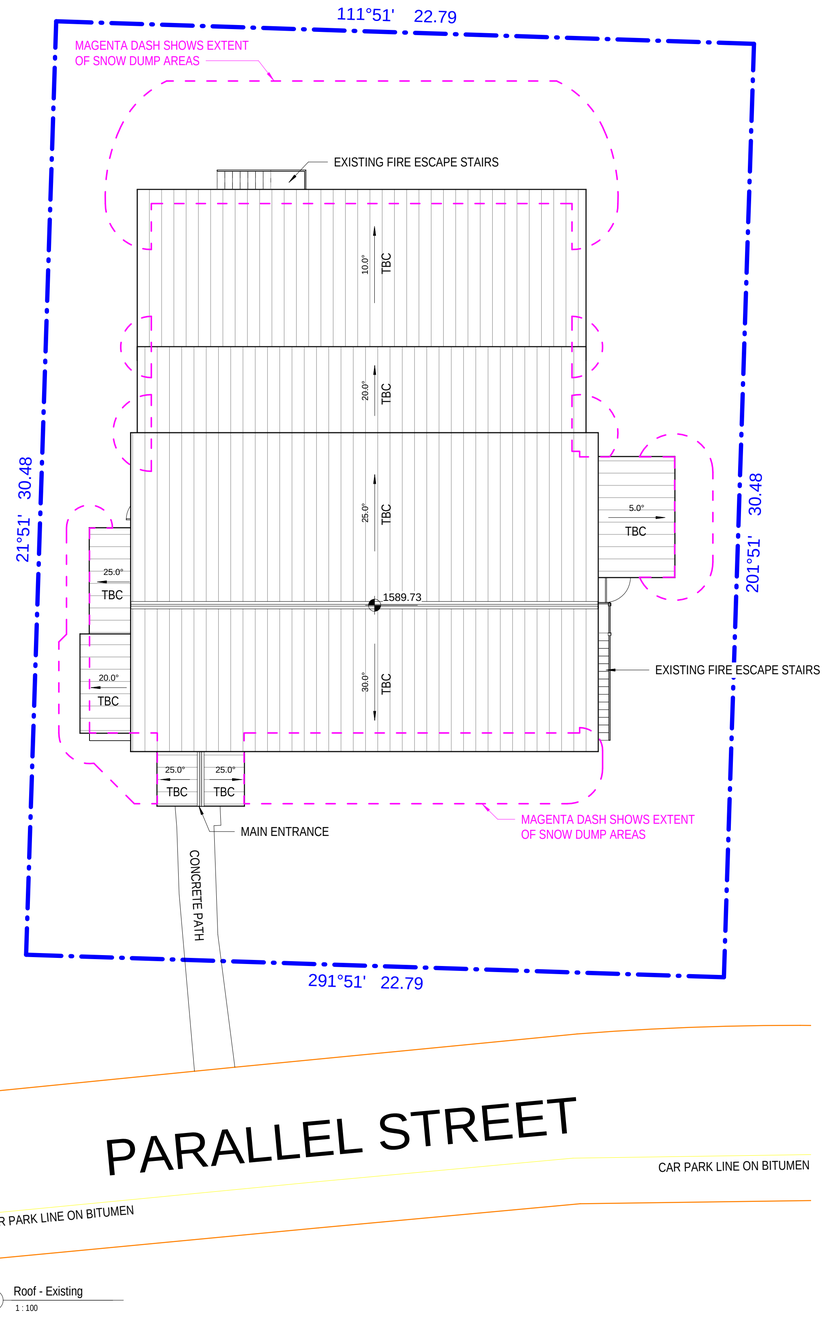
10/07/2023 12:44:25

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

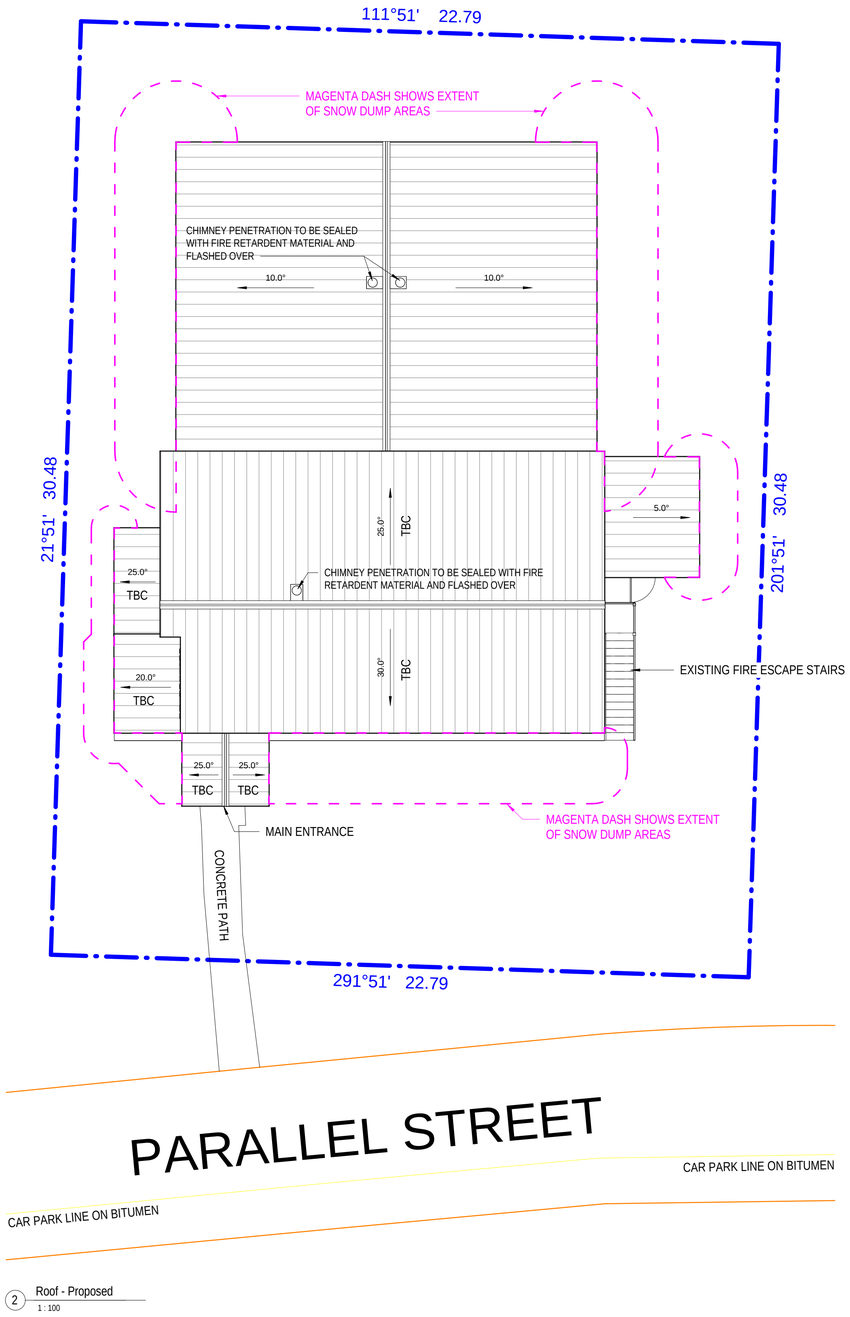
PROPOSED CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
LEVEL 1	287.2m² (incl. balconies)	
LEVEL 2	129.5m²	
TOTAL	697.4m²	



1 Roof - Existing
1 : 100

ADVERTISED PLAN



2 Roof - Proposed
1 : 100

NOTE:
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PROJECT NO.: 23004
PROJECT: Proposed Extension & Alterations
PROJECT STATUS: PRELIMINARY
PROJECT ADDRESS: Feathertop Lodge, 14 Parallel St, Falls Creek
PROJECT CLIENT: Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET: Roof Plan

NORTH

DRAWING NO. WD008 REVISION

10/07/2023 12:44:25

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

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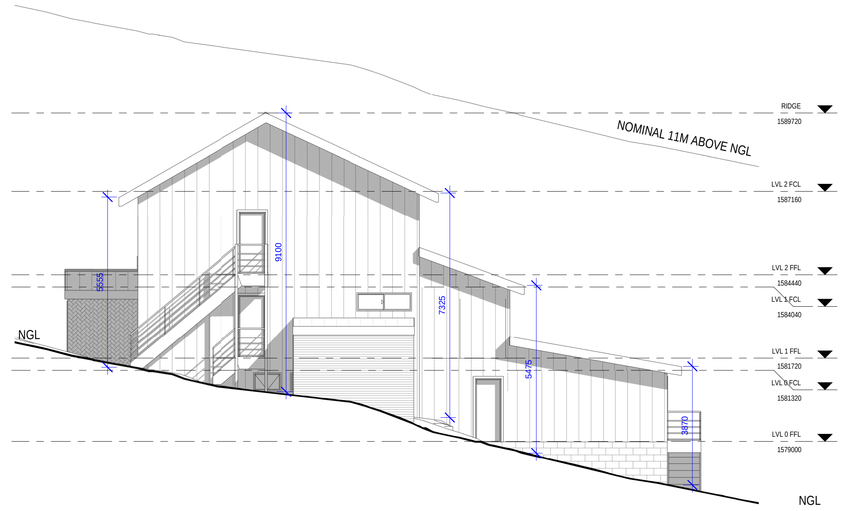
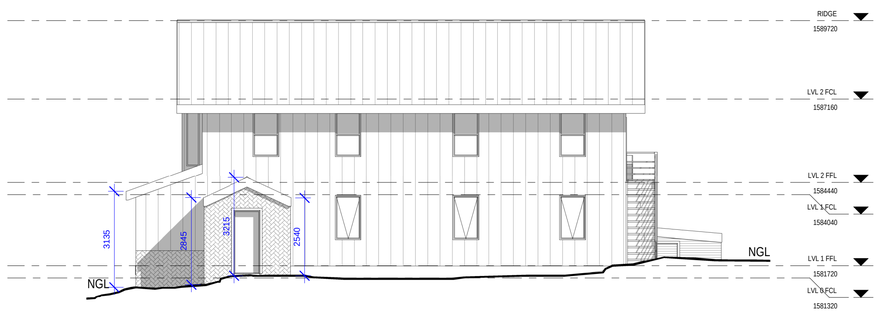
SITE AREA	694.6m²	
SITE COVERAGE	288.6m²	41.5%
BUILDING FOOTPRINT	257.9m²	
LEVEL 0	280.7m² (incl. balconies)	
LEVEL 1	287.2m² (incl. balconies)	
LEVEL 2	129.5m²	
TOTAL	697.4m²	

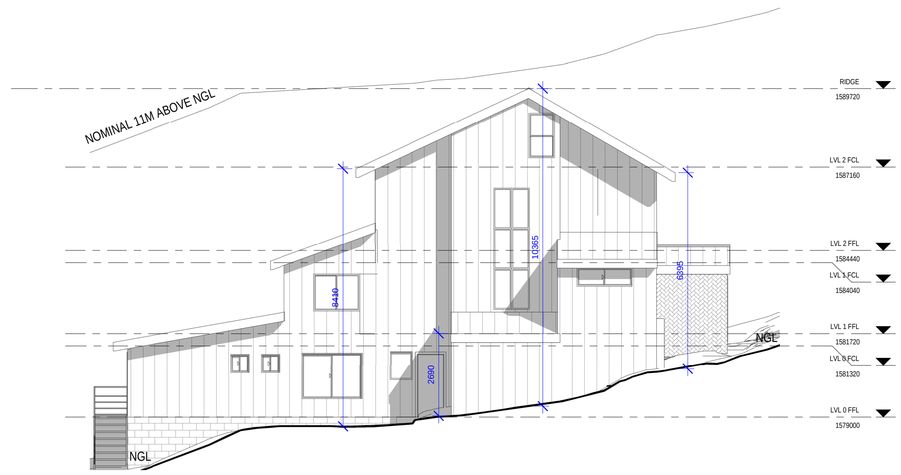
1 Existing - North
1 : 100



2 Existing - East
1 : 100



3 Existing - South
1 : 100



4 Existing - West
1 : 100

NOTE:
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PROJECT NO.:
23004

PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
External Elevations - Existing

DRAWING NO. REVISION
WD009

10/07/2023 12:44:36

EXISTING CONDITIONS

SITE AREA	694.6m²	
SITE COVERAGE	299.5m²	43.1%
BUILDING FOOTPRINT	260.7m	
LEVEL 0	254.2m²	
LEVEL 1	189.3m²	
LEVEL 2	129.5m²	
DECK	15.8m²	
SHED	6.6m²	
TOTAL	595.4m²	

PROPOSED CONDITIONS

SITE AREA	694.6m²	
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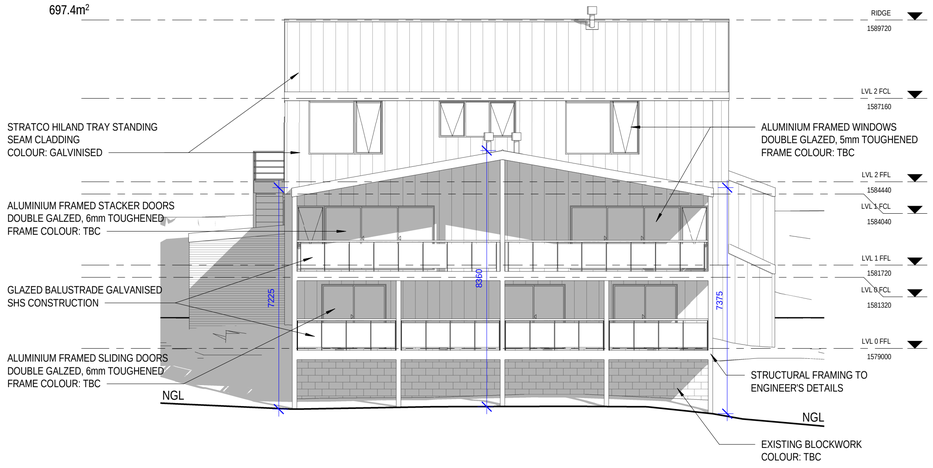
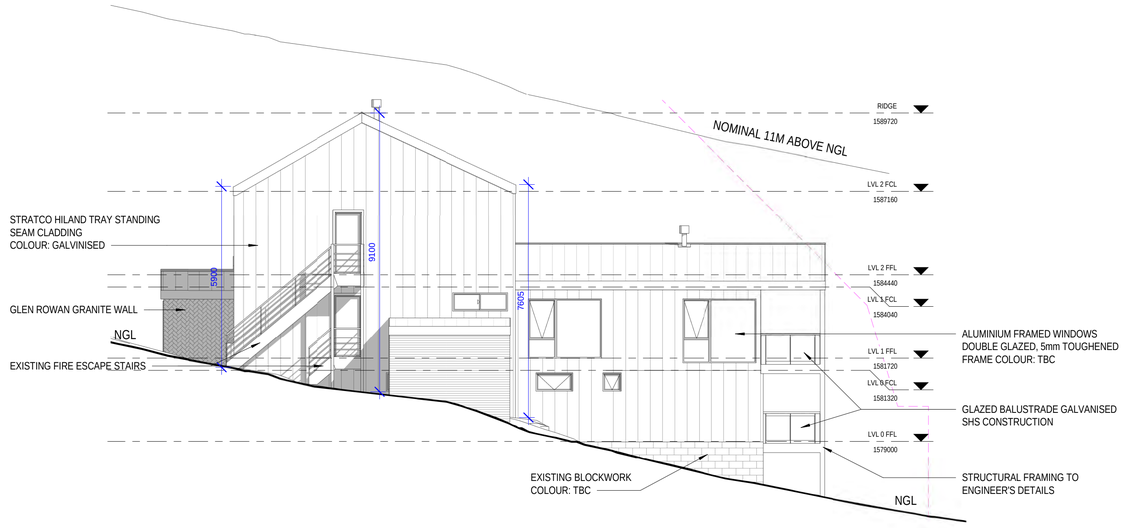
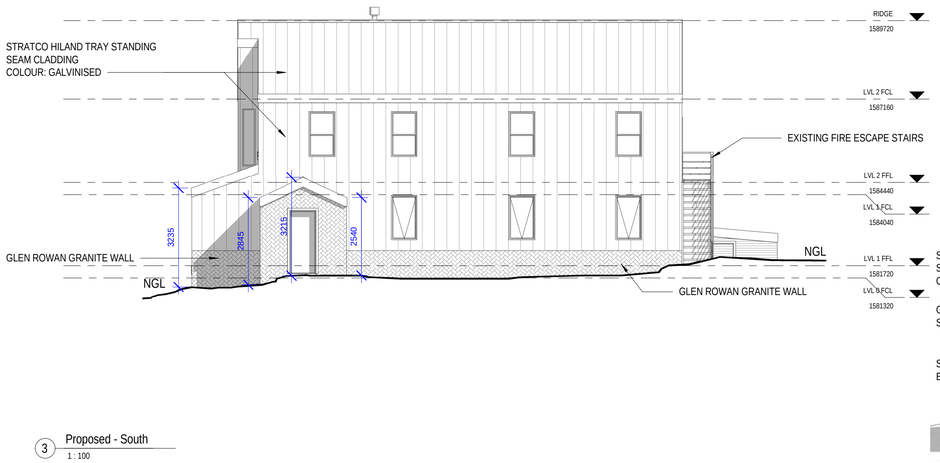


1 Proposed - North
1 : 100

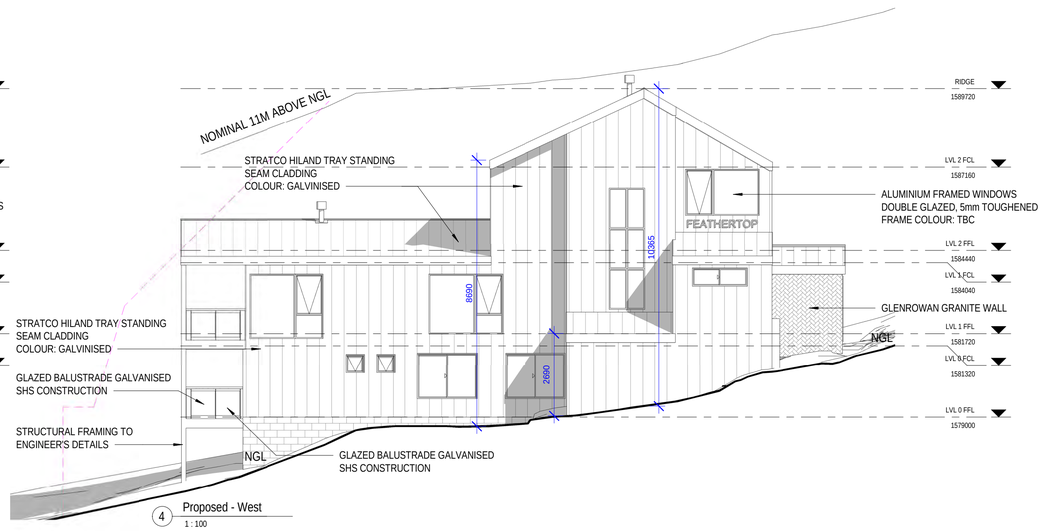


2 Proposed - East
1 : 100

ADVERTISED PLAN



3 Proposed - South
1 : 100



4 Proposed - West
1 : 100

NOTE:
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PROJECT NO.:
23004

PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

PROJECT ADDRESS
Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD	1 : 100	A1

SHEET
External Elevations - Proposed

DRAWING NO. WD010

REVISION

10/07/2023 12:44:48

GENERAL NOTES

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PROJECT:
Proposed Extension & Alterations

PROJECT STATUS
PRELIMINARY

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Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
Renders - Existing

DRAWING NO. REVISION
WD011

10/07/2023 12:44:55

GENERAL NOTES

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PROJECT:
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PROJECT STATUS
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Feathertop Lodge, 14 Parallel St, Falls Creek

PROJECT CLIENT
Steven & Danielle Bond

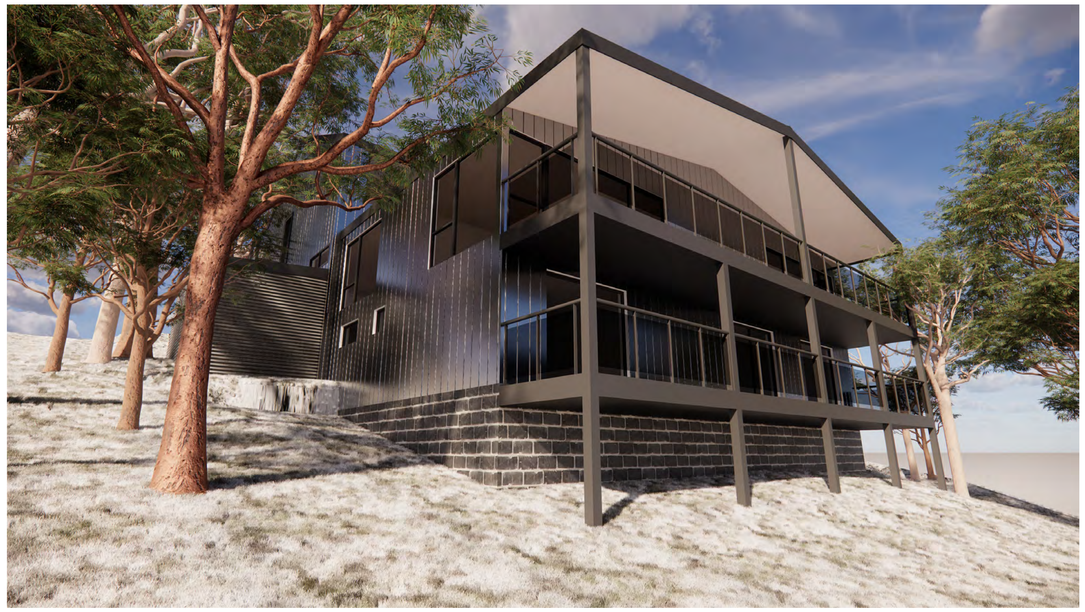
DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
Renders - Existing

DRAWING NO. REVISION

WD012

10/07/2023 12:45:02



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Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
Renders - Proposed

DRAWING NO. REVISION

WD013

10/07/2023 12:45:05

GENERAL NOTES

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PRELIMINARY

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PROJECT CLIENT
Steven & Danielle Bond

DRAWN	CHECKED	SCALE	SIZE
DD	KD		A1

SHEET
Renders - Proposed

DRAWING NO. REVISION
WD014

10/07/2023 12:45:08

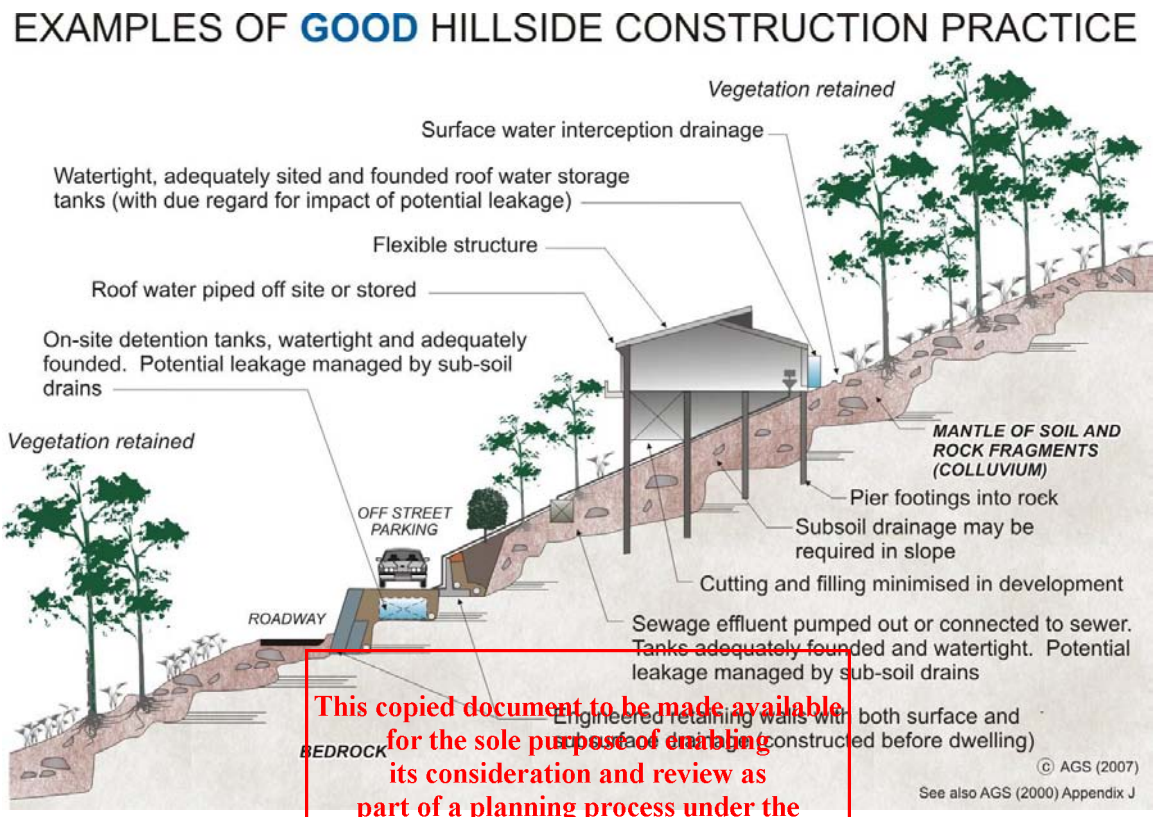
Appendix B

Good Hillside Practice (Extract from AGS (2007) Landslide Risk Management

AUSTRALIAN GEOGUIDE LR8 (CONSTRUCTION PRACTICE)

HILLSIDE CONSTRUCTION PRACTICE

Sensible development practices are required when building on hillsides, particularly if the hillside has more than a low risk of instability (GeoGuide LR7). Only building techniques intended to maintain, or reduce, the overall level of landslide risk should be considered. Examples of good hillside construction practice are illustrated below.



WHY ARE THESE PRACTICES GOOD?

Roadways and parking areas - are paved and incorporate kerbs which prevent water discharging straight into the hillside (GeoGuide LR5).

Cuttings - are supported by retaining walls (GeoGuide LR6).

Retaining walls - are engineer designed to withstand the lateral earth pressures and surcharges expected, and include drains to prevent water pressures developing in the backfill. Where the ground slopes steeply down towards the high side of a retaining wall, the disturbing force (see GeoGuide LR6) can be two or more times that in level ground. Retaining walls must be designed taking these forces into account.

Sewage - whether treated or not is either taken away in pipes or contained in properly founded tanks so it cannot soak into the ground.

Surface water - from roofs and other hard surfaces is piped away to a suitable discharge point rather than being allowed to infiltrate into the ground. Preferably, the discharge point will be in a natural creek where ground water exits, rather than enters, the ground. Shallow, lined, drains on the surface can fulfil the same purpose (GeoGuide LR5).

Surface loads - are minimised. No fill embankments have been built. The house is a lightweight structure. Foundation loads have been taken down below the level at which a landslide is likely to occur and, preferably, to rock. This sort of construction is probably not applicable to soil slopes (GeoGuide LR3). If you are uncertain whether your site has rock near the surface, or is essentially a soil slope, you should engage a geotechnical practitioner to find out.

Flexible structures - have been used because they can tolerate a certain amount of movement with minimal signs of distress and maintain their functionality.

Vegetation clearance - on soil slopes has been kept to a reasonable minimum. Trees, and to a lesser extent smaller vegetation, take large quantities of water out of the ground every day. This lowers the ground water table, which in turn helps to maintain the stability of the slope. Large scale clearing can result in a rise in water table with a consequent increase in the likelihood of a landslide (GeoGuide LR5). An exception may have to be made to this rule on steep rock slopes where trees have little effect on the water table, but their roots pose a landslide hazard by dislodging boulders.

Possible effects of ignoring good construction practices are illustrated on page 2. Unfortunately, these poor construction practices are not as unusual as you might think and are often chosen because, on the face of it, they will save the developer, or owner, money. You should not lose sight of the fact that the cost and anguish associated with any one of the disasters illustrated, is likely to more than wipe out any apparent savings at the outset.

ADOPT GOOD PRACTICE ON HILLSIDE SITES

Appendix C

Qualitative terminology for use in assessing risk to property

PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

APPENDIX C: LANDSLIDE RISK ASSESSMENT

QUALITATIVE TERMINOLOGY FOR USE IN ASSESSING RISK TO PROPERTY

QUALITATIVE MEASURES OF LIKELIHOOD

Approximate Annual Probability		Implied Indicative Landslide Recurrence Interval		Description	Descriptor	Level
Indicative Value	Notional Boundary					
10^{-1}	$5x10^{-2}$	10 years	20 years	The event is expected to occur over the design life.	ALMOST CERTAIN	A
10^{-2}	$5x10^{-3}$	100 years	200 years	The event will probably occur under adverse conditions over the design life.	LIKELY	B
10^{-3}	$5x10^{-4}$	1000 years	2000 years	The event could occur under adverse conditions over the design life.	POSSIBLE	C
10^{-4}	$5x10^{-5}$	10,000 years	20,000 years	The event might occur under very adverse circumstances over the design life.	UNLIKELY	D
10^{-5}	$5x10^{-6}$	100,000 years	200,000 years	The event is conceivable but only under exceptional circumstances over the design life.	RARE	E
10^{-6}		1,000,000 years		The event is inconceivable or fanciful over the design life.	BARELY CREDIBLE	F

Note: (1) The table should be used from left to right; use Approximate Annual Probability or Description to assign Descriptor, not *vice versa*.

QUALITATIVE MEASURES OF CONSEQUENCES TO PROPERTY

Approximate Cost of Damage		Description	Descriptor	Level
Indicative Value	Notional Boundary			
200%	100%	Structure(s) completely destroyed and/or large scale damage requiring major engineering works for stabilisation. Could cause at least one adjacent property major consequence damage.	CATASTROPHIC	1
60%	40%	Extensive damage to most of structure, and/or extending beyond site boundaries requiring significant stabilisation works. Could cause at least one adjacent property medium consequence damage.	MAJOR	2
20%	10%	Moderate damage to some of structure, and/or significant part of site requiring large stabilisation works. Could cause at least one adjacent property minor consequence damage.	MEDIUM	3
5%	1%	Limited damage to part of structure, and/or part of site requiring some reinstatement stabilisation works.	MINOR	4
0.5%		Little damage. (Note for high probability event (Almost Certain), this category may be subdivided at a notional boundary of 0.1%. See Risk Matrix.)	INSIGNIFICANT	5

Notes: (2) The Approximate Cost of Damage is expressed as a percentage of market value, being the cost of the improved value of the unaffected property which includes the land plus the unaffected structures.

(3) The Approximate Cost is to be an estimate of the direct cost of the damage, such as the cost of reinstatement of the damaged portion of the property (land plus structures), stabilisation works required to render the site to tolerable risk level for the landslide which has occurred and professional design fees, and consequential costs such as legal fees, temporary accommodation. It does not include additional stabilisation works to address other landslides which may affect the property.

(4) The table should be used from left to right; use Approximate Cost of Damage or Description to assign Descriptor, not vice versa

APPENDIX C: – QUALITATIVE TERMINOLOGY FOR USE IN ASSESSING RISK TO PROPERTY (CONTINUED)

QUALITATIVE RISK ANALYSIS MATRIX – LEVEL OF RISK TO PROPERTY

LIKELIHOOD		CONSEQUENCES TO PROPERTY (With Indicative Approximate Cost of Damage)				
	Indicative Value of Approximate Annual Probability	**1: CATASTROPHIC 200%**	**2: MAJOR 60%**	**3: MEDIUM 20%**	**4: MINOR 5%**	**5: INSIGNIFICANT 0.5%**
A – ALMOST CERTAIN	10^{-1}	VH	VH	VH	H	M or **L** (5)
B - LIKELY	10^{-2}	VH	VH	H	M	**L**
C - POSSIBLE	10^{-3}	VH	H	M	M	**VL**
D - UNLIKELY	10^{-4}	H	M	**L**	**L**	**VL**
E - RARE	10^{-5}	M	**L**	**L**	**VL**	**VL**
F - BARELY CREDIBLE	10^{-6}	**L**	**VL**	**VL**	**VL**	**VL**

Notes: (5) For Cell A5, may be subdivided such that a consequence of less than 0.1% is Low Risk.
(6) When considering a risk assessment it must be clearly stated whether it is for existing conditions or with risk control measures which may not be implemented at the current time.

RISK LEVEL IMPLICATIONS

Risk Level		**Example Implications** (7)
VH	VERY HIGH RISK	Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to Low; may be too expensive and not practical. Work likely to cost more than value of the property.
H	HIGH RISK	Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to Low. Work would cost a substantial sum in relation to the value of the property.
M	MODERATE RISK	May be tolerated in certain circumstances (subject to regulator's approval) but requires investigation, planning and implementation of treatment options to reduce the risk to Low. Treatment options to reduce to Low risk should be implemented as soon as practicable.
L	LOW RISK	Usually acceptable to regulators. Where treatment has been required to reduce the risk to this level, ongoing maintenance is required.
VL	VERY LOW RISK	Acceptable. Manage by normal slope maintenance procedures.

Note: (7) The implications for a particular situation are to be determined by all parties to the risk assessment and may depend on the nature of the property at risk; these are only given as a general guide.

Appendix D

EMO Schedule 1 Management of Geotechnical Hazard Form 1

DEPARTMENT OF ENVIRONMENT, LAND, WATER & PLANNING

ALPINE RESORTS PLANNING SCHEME
Erosion Management Overlay – Schedule 1 Management of Geotechnical Hazard

FORM 1
Declaration and/or verification made by geotechnical engineer or engineering geologist as part of a geotechnical report

Name of application: ___Feathertop Lodge, Falls Creek_____
Address of subject site: _Feathertop Lodge, Schuss St, Falls Creek, VIC _____
I, __Andrew Hunter_____ of _GHD Pty Ltd_____
(insert name) (trading or company name)
on _____15 June 2023_____
(insert date)

certify that I am a geotechnical engineer or engineering geologist as defined by the Erosion Management Overlay (Schedule 1 – Management of Geotechnical Hazard) and I have: (tick appropriate box):

☐ prepared the Geotechnical Report referenced below in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and Clause 3 of the EMO1

or

☒ technically verified that the geotechnical report referenced below has been prepared in accordance with the AGS's Geotechnical Risk Management Guidelines and Clause 3 of the EMO1.

Geotechnical report details:

Report title: Feathertop Lodge Preliminary Geotechnical Risk Assessment

Report date: June 2023

Report reference: 12612126

Author: Ryan Hayes

Author's affiliation: Senior Engineering Geologist at GHD Pty Ltd

Documentation relied upon in report preparation:

Development Details
Drawings:
Preliminary Go Design drawings set (WD000 to WD014) dated July 2023

I am aware that the Geotechnical Report I have either prepared or am technically verifying for the above development is to be submitted in support of a development application for the proposed development Feathertop Lodge, Falls Creek Ski Resort, VIC requiring approval from the Minister for Planning.

Further, I hold a current professional indemnity insurance policy of at least $2 million, evidence of which is attached with this form.

Name _Andrew Hunter_____ Signature _____ 

Date __15 June 2023_____

Appendix E

GHD Professional Indemnity

Telephone: +61 2 9285 4000
Website: www.wtwco.com
Direct Line: +61 2 9285 4060
Email: tanya.stevenson@wtwco.com

Issue Date: 18 November 2022

To Whom It May Concern

Certificate of Placement – Professional Indemnity

In our capacity as Insurance Broker to the Named Insured shown below, we confirm having arranged the following insurance, the details of which are correct as at the Issue Date:

Named Insured:	GHD Group Limited and Subsidiaries including GHD Pty Ltd
Form:	Civil Liability Wording which includes coverage for the Trade Practices Act and the Competition and Consumer Act
Primary Policy Number:	B080113856P22
Limit of Indemnity:	AUD2,000,000 any one claim and in the aggregate
Period of Insurance:	1 December 2022 at 4.00pm to 1 December 2023 at 4.00pm
Insurer:	Certain Underwriters at Lloyd's of London

Signed for and on behalf of
Willis Australia Ltd ("WTW")