

## Application for Planning Permit

Cuckoo Lodge, 1 Beehive Lane (Lot 182B), Mount Buller

Alterations and additions to existing ski lodge (covered walkway and pedestrian entry)

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February 2022

# 1. Introduction

This report has been prepared on behalf of the owner of 1 Beehive Lane (Lot 182B), Mount Buller. Known as the Cuckoo Lodge, the existing two storey building was built in 1960 and is one of a pair of lodges, with the other being Wombat Lodge. Although Wombat Lodge has been altered in more recent years, our client's property remains essentially the same as when it was first constructed.

The purpose of the proposed works are twofold. Firstly, the new lean-to roof and gable entry provides weather protection for an existing pedestrian accessway and will address current safety concerns caused by the shedding of snow. Secondly, the new gabled entry will enhance the building's appearance and compliments Wombat Lodge's existing stone and timber porch.

The application site is located within the Mount Buller Alpine Resort, approximately 35 kilometres south-east of Mansfield., and is affected by the controls and policies contained in the Alpine Resorts Planning Scheme.

This report describes the proposed works and examines the context in which the development sits. It also analyses the relevant statutory and strategic planning controls that affect the site and discusses the town planning merits of the proposal. This report should be read in conjunction with architectural plans and 3d Images prepared by McIntyre Partnership Pty Ltd.

Our assessment finds that:

- The proposed works are comparatively minor in nature and will not impact surrounding properties.
- The appearance of the new gable roof entry and lean-to roof will add a 'traditional' design element to the existing host building and is befitting its alpine setting.
- The new roof and entrance canopy will enable the proper management of snow shed and addresses existing problems arising from snow shedding from the main roof.
- A planning permit should issue subject to appropriate conditions.

## 2. Subject Site and Surrounds

### 2.1. Location

The subject site is irregular in shape and has an overall area of approximately 838 sqm. It is formally known as Allotment 182B Section A Parish of Changue East. It is located at the northern end of Beehive Lane, with a limited street frontage, as shown at Figure 1 below.



**Figure 1.** Site Location (shaded)

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The land generally slopes from west to east and is developed by a free-standing building located downhill of the road and comprises Beehive and Wombat lodges.

The site contains a scattering of trees and is not fenced. It is connected to reticulated sewerage, gas, potable water and electricity supply.

Immediately east of the site is 2 Beehive Lane (Lot 183B) which is developed by St. Christina Lodge. To the south of the site is Cobbler Ski Club ('Cobbler') at 4 Cobble Lane (Lot 185), and La Grangette is located west of the site, within Lot 181, 2-3 Cobble Lane.

The site and surrounds are identified in Figure 2 below, with photographs included at **Attachment 1.**



**Figure 2.** Aerial showing subject building and nearby lodges

As described above, the subject site and neighbouring properties contain lodges used primarily during the winter months (i.e. ski season). They vary in their design, materiality and size. Likewise, their construction dates generally range from the 1960s to modern buildings.

The subject site is located within the Mt. Buller Alpine Village and is within a short distance of a variety of services, including the frees shuttle bus, supermarket and a variety of restaurants/cafes (open during the winter period).

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### 3. The Proposal

This application seeks approval to make external changes to the existing building, namely:

- Demolition of existing external timber stairs and removal of doorway;
- Installation of stone pathway;
- Addition of a lean-to roof (with 10° fall) over the existing pedestrian accessway, with associated stone plinth and vertical timber supports;
- Alterations to doorway and adjoining windows within the southern façade; and
- Construction of a new gable roof over pedestrian entry, with low stone wall and timber supports.

The extent and type of materials are detailed in the accompanying architectural drawings and as mentioned above, its overall appearance complements the existing entry to Wombat Lodge (see below).



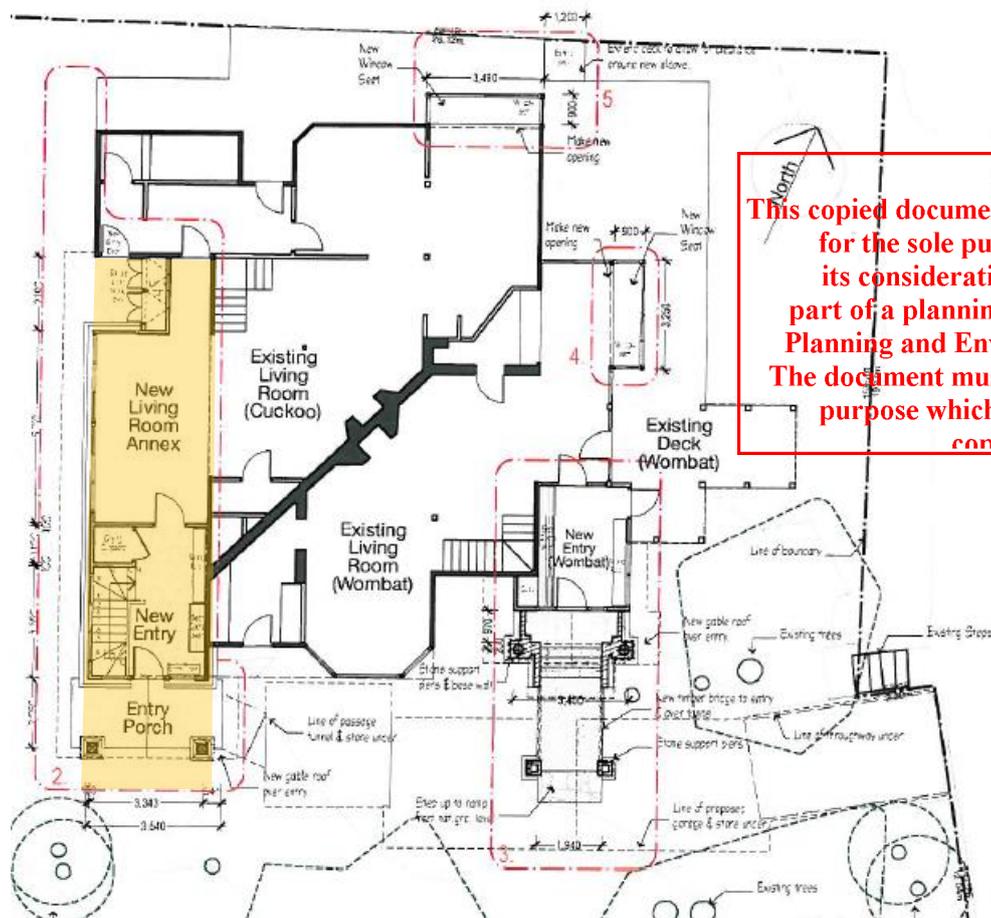
**Figure 3:** Entry to adjoining Wombat Lodge

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### 4. Previous Planning Approval

Planning Permit No. 2013/007709 was issued on 26 November 2013 allowing “buildings and works associated with an extension to existing buildings” at Lot 182 Beehive Lane, Mt. Buller. In summary, this earlier approval included the construction of two cellars and tandem basement garage within the front setback, accessed from a curved rampway from Beehive Lane, and a new pedestrian entry to Wombat Lodge. It also approved a ground and first floor extension to Cuckoo Lodge and new porch. Relevantly, the endorsed plans show an entry which is similar in appearance to the current request and the new living room annex extended over the current pedestrian accessway, as shaded at Figure 4 below. A copy of the permit and endorsed plan is included at **Attachment 2** of this report.

Although the new entrance to Wombat Lodge was subsequently built (as shown at Figure 3), the owners did not proceed with the more extensive underground works and entrance to Cuckoo Lodge.



**Figure 4:** Portion of endorsed plans – Ground Floor Plan (with existing accessway shaded)

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## 5. Alpine Resorts Planning Scheme

### 5.1. Planning Policy Framework

The State Planning Policy Framework contained within the Planning Scheme applies to all land in Victoria. There are a several policies which may be deemed broadly relevant to the proposal.

Clause 12.04-1S 'Sustainable development in alpine areas' has the objective *"to facilitate sustainable use and development of Alpine areas for year-round use and activity"*. Key strategies include:

*Promote intensive residential and commercial development at Falls Creek, Mt Baw Baw, Mt Buller and Mt Hotham.*

*Encourage best practice in design that responds to the alpine character of the area.*

Clause 12.05-1S 'Environmentally sensitive areas' and Clause 12.04-1L 'Sustainable development - Mt Buller Alpine Resort' aim to *"Protect environmentally sensitive areas with significant recreational value from development that would diminish their environmental conservation or recreational values"* and *"Maintain the character of the resort and its relationship to the broader natural and cultural landscape of Mt Buller and Mt Stirling."*

Clause 13.04-2L 'Erosion and landslip in alpine resorts' seeks *"To ensure that geotechnical hazards are managed throughout the resorts so as to minimise risk to property and persons."*

Clause 15.01-2L "Built form in alpine resorts' includes urban design outcomes that seek to:

*Limit the impact of development on the environment and adjacent development through the use of design and construction management techniques.*

*Ensure that the scale, intensity, bulk and appearance of any development enhances the character of the villages and is compatible with surrounding development.*

*Preserve the scale, materials and character and sense of place in the villages.*

*Provide façades that respect the village character through rhythm, scale, architectural features, fenestration and materials, as viewed from all sides of the building.*

*Design roofs to contain snow or to shed it onto safe areas within the site.*

*Use building materials, finishes and colours that blend in with the natural alpine environment.*

*Support the following materials and finishes:*

- *Wall materials: corrugated iron, profiled metal, timber, natural stone (preferably granite) and plastered masonry.*
- *Roof materials: profiled metal and corrugated iron (non-reflective and muted tones that blend the building into the landscape).*
- *Colours: minimise colour in the form of paintwork, using it only as a feature or element of contrast.*

### **Response**

The project architects have a proven track record for designing attractive and site responsive buildings within alpine settings. The new works are purposely designed to ensure that they read as a discrete and complementary elements. As such, the proposal complies with the policy directive to achieve best practice in design that responds to and enhances the alpine character of the area. Likewise, the proposed roof extension (lean-to) has been designed to direct snow shed to safe areas within the site and beyond the pedestrian accessway, as required by policy.

## **5.2. Comprehensive Development Zone**

The subject site is in the Comprehensive Development Zone - Schedule 1 (CDZ1) pursuant to Clause 37.02 of the Planning Scheme.

The purposes of the Schedule to the zone, titled 'Alpine Village', are:

- *To encourage development and the year round use of land for a commercially orientated, alpine resort.*
- *To provide for residential development in a variety of forms in an alpine environment.*
- *To encourage development and the use of the land which is in accordance with sound environmental management and land capability practices, and which takes into account the significance of the environmental resources.*
- *To provide for the integrated development of land in accordance with a comprehensive development plan incorporated in this scheme.*

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Pursuant to Clause 37.02-4 and section 4.1 of the Schedule to the zone, a planning permit is required to construct a building or construct or carry out works unless specifically exempt.

A Site Environmental Management Plan (SEMP) and all works carried out on the site must be to the satisfaction of the responsible authority in consultation with the relevant Alpine Resort Management Board.

### **Response**

As previously explained, the proposal provides a new and attractive element to the existing building which support the policy objective of providing “residential development in a variety of forms”.

The proposed works do not require the removal of any vegetation and the residential use will remain.

A SEMP is currently being prepared and shall be provided in due course.

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## **5.3. Design and Development Overlay**

Design and Development Overlay 1 (DDO1) is titled ‘Mount Buller Alpine Resort Village’ and the subject site is located within DDO1-A1. As such, a number of discretionary built form requirements apply.

### **Response**

The design objectives which underpin the DDO require high quality architecture that is not visually intrusive and is sited to ensure the maximum retention of significant vegetation on the site. As discussed, the proposal represents a high-quality and well-considered architectural response to its alpine environment. The use of sloping and gabled roof forms featuring locally sourced stone and timber construction ensures that it matches the host building and blends in with elements found elsewhere within the village.

Policy objectives recommend that development should not be visually intrusive above the tree canopy or on the skyline when viewed from key vantage points within the Village and adjoining ski fields. The new structures are single storey and sit well below the existing two storey lodge.

A summary of the proposal against the relevant building and design requirements contained in sub-clause 2.3 of Schedule 1 to the DDO is provided in tabular format below.

DDO1 – A1	Assessment
<p><b>Maximum height – 3 storeys or 11 metres above natural ground level, whichever is the lesser. Roof structures or chimney may exceed the height by 1.5 metres provided no more than 20% of the roof area.</b></p>	<p><u>Complies.</u></p>
<p><b>Minimum building setbacks – 6 metres from closest kerbside or edge of road abutting the site frontage, and 3 metres from frontage boundary.</b></p> <p><b>3 metres from any other site boundary</b></p> <p><b>An average of 4 metres from any other building on the same site</b></p> <p><b>6 metres from any building on an adjoining site</b></p> <p><b>Boundary wall setbacks – minimum distance 100mm for every 300mm exceeding 3.6 metres.</b></p>	<p><u>Not applicable.</u> The application is for additions to an existing building and therefore it is not appropriate to apply the ground level setback requirements.</p> <div data-bbox="783 1066 1326 1368" style="border: 2px solid red; padding: 5px; text-align: center;"> <p><b>This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</b></p> </div>
<p><b>Maximum Site Coverage – 60% of the site area.</b></p>	<p><u>Complies.</u> There will be a minor increase in site coverage and the building’s overall site coverage is less than the 60% requirement.</p>
<p><b>Wall materials - Corrugated iron, profiled metal, timber, natural stone (preferably weathered granite), plastered masonry.</b></p> <p><b>Roof material - Profiled metal, corrugated iron (non-reflective and muted tones).</b></p>	<p><u>Complies.</u> Proposed profiled metal cladding.</p> <p>Corrugated iron roof to match existing.</p> <p>Materials palette to match adjoining lodge, with muted colour tones appropriate to its alpine setting and use of</p>

timber and stone materials.

**Colours - The use of colour in the form of paintwork should be minimised, and used only as a feature or element of contrast. The use of natural alpine colour tones should be used in materials and finishes.**

#### 5.4. Bushfire Management Overlay

The subject site is affected by the Bushfire Management Overlay – Schedule 1 (BMO1) and the proposed works are not exempt from requiring a planning permit. As such, the following bushfire objectives are to be achieved:

- *To require tailored bushfire protection measures unique to Victoria’s alpine resorts.*
- *To acknowledge the bushfire protection measures and protection of human life being achieved through emergency management arrangements unique to Victoria’s alpine resorts.*

##### **Response**

Due to the relatively minor extent of works, it is submitted that the requirements contained in the BMO are of little or no relevance. Nonetheless, all proposed materials are to be “non-combustible” in order to meet and/or exceed the required BAL 40 rating.

#### 5.5. Erosion Management Overlay

The site is covered by the Erosion Management Overlay – Schedule 1 (EMO1), titled ‘Management of Geotechnical Hazard’. Pursuant to the Overlay’s requirements, a permit is not required to construct a building or construct or carry out works (including the lopping, destruction or removal of vegetation) if a site development plan showing the proposed buildings and works and a Preliminary Geotechnical Assessment is prepared to the satisfaction of the responsible authority and the site development plan is generally in accordance with any relevant comprehensive development plan.

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### **Response**

The proposed works will result in minimal ground disturbance and are generally limited to footings required to support the new low level walls and the laying of the stone pathway (replacing an informal gravel path with steel grills).

Although a preliminary geotechnical assessment seems unnecessary for such minor works, it is accepted that written technical advice from a qualified specialist is required in order to satisfy the EMO.

Importantly, a preliminary site assessment was submitted and approved by the Department as part of the earlier planning approval (Planning Permit 2013/007709). No evidence of slope stability was observed and it was determined that the likelihood of slope instability occurring at the site was 'Rare'<sup>1</sup>. The previous approval involved extensive underground works (including tandem garage and two cellars) whereas the current proposal will result in minimal ground disturbance. A copy of the SMEC report is included at **Attachment 3**.

Moreover, the Mt Buller & Mt Stirling Resort Management Board (RMB) wrote to lease holders on 20 October 2021 advising that Golder Associates Pty Ltd had undertaken a geotechnical risk assessment for the subject site in 2019-2020. RMB confirmed that the site was rated 'ARL5' (the lowest risk category), which is considered an acceptable risk with periodic monitoring. A copy of the RMB letter and accompanying Golder assessment is provided at **Attachment 4**.

## **5.6. Cultural Heritage Management Plan (CHMP)**

The subject site has previously been the subject of significant ground disturbance during the construction of the lodges and subsequent installation of services. It is therefore submitted that the installation of shallow footings and new pathway is exempt from the requirement of a Cultural Heritage Management Plan (CHMP) pursuant to the *Aboriginal Heritage Act 2006*.

In support of our submission, we refer to the ground disturbance plan (TP.6) and written statement prepared by Peter McIntyre which shows, amongst other things, the extent of

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<sup>1</sup> Page 3; *Cuckoo/Wombat Lodge, Site 182 – Preliminary Site Assessment for Underground Car Park and Cellar Extension*; SMEC Holdings Ltd; 16 July 2013

earthworks which has previously taken place within the site. It should be noted that Peter McIntyre was the original designer and owner of the lodge and witnessed the excavation of the site during its construction and subsequent installation of water, gas, electricity, and sewerage. See **Attachment 5** for Peter McIntyre's statement.

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## 6. Conclusion

The proposal involves the construction of a new covered walkway and pedestrian entry to Cuckoo Lodge. The proposal adopts a design palette befitting the host building and successfully references elements of the “ski lodge vocabulary” through the inclusion of a gabled entry and understated lean-to roof form. In doing so, it responds favourably to the DDO’s design and siting guidelines and complements the property’s existing Alpine locale.

Further and importantly, the proposed works provide a practical solution to an existing snow shedding issue without impacting on the neighbouring properties.

For the reasons contained in this assessment, it is submitted that the permit application should be considered favourably by the Department

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## **Attachment 1:**

Photographs of Site and Surrounds

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**Photo 1:**

Existing pedestrian walkway  
(summer)

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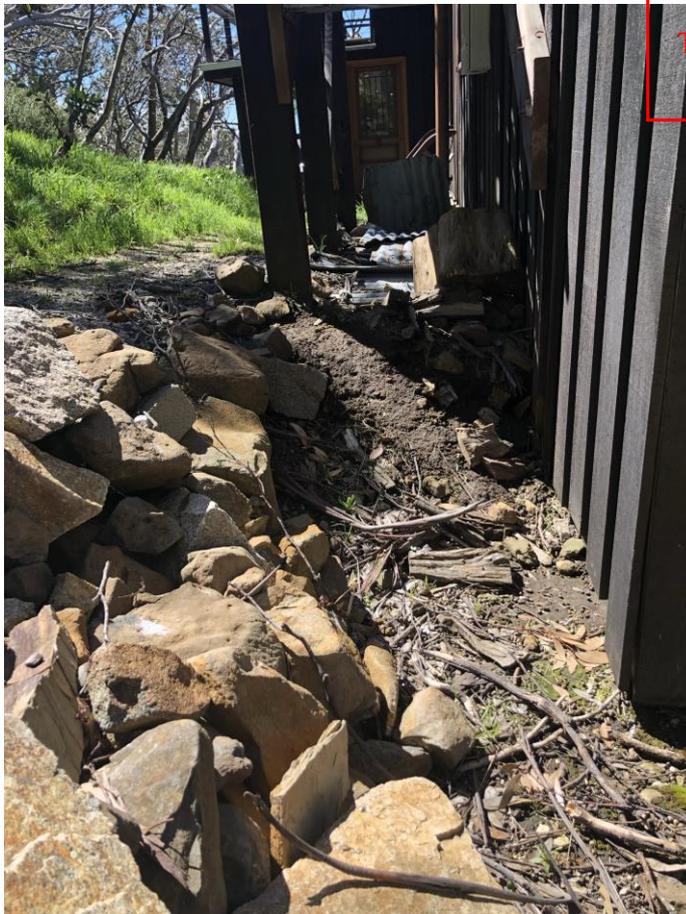
**Photo 2:**

Existing pedestrian walkway  
(winter – note snowshed)



**Photo 3:**  
Stairway to be removed

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**Photo 4:**  
Rock wall and existing excavation



**Photo 5:**

Raised walkway to Wombat Lodge



**Photo 6:** Gabled porch and stone/timber entry to Wombat Lodge

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## **Attachment 2:**

Planning Permit 2013/007709 and Endorsed Plans

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# PLANNING PERMIT

Application No.: 2013/007709

Planning Scheme: Alpine Resorts

Responsible Authority: Minister for Planning

**ADDRESS OF THE LAND:**

182 Beehive Lane (Cuckoo Lodge and Wombat Lodge), Mt Buller Alpine Resort

**THE PERMIT ALLOWS:**

Buildings and works associated with an extension to the existing buildings in accordance with the endorsed plans

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT

1. The buildings and works as shown on the endorsed plans must not be altered or modified in any way unless it is to the satisfaction of the Responsible Authority.
2. Once the development has started it must be continued and completed to the satisfaction of the Responsible Authority.

**Mt Buller and Mt Stirling Alpine Resort Management Board**

3. Prior to the commencement of works, an agreement must be entered into with the Mt Buller and Mt Stirling Alpine Resort Management Board covering:
  - a) location and protection of services on and in the vicinity of the site;
  - b) provision of services including construction, setout and inspection requirements and connection points for sewerage, potable water and storm water drainage;
  - c) maintaining continuity of services for the benefit of surrounding leaseholders; and
  - d) geotech management of the site.
4. All external construction activities must cease and the site must be left in a clean and tidy condition:
  - a) for the period between Christmas Day and New Year's Day (inclusive);
  - b) for the Easter holiday period;
  - c) for the duration of any major events occurring within the Mt Buller village area as may be notified by the Mt Buller and Mt Stirling Alpine Resort Management Board from time to time; and
  - d) from 15 May to the end of the declared snow season

unless the Responsible Authority consents in writing to another date after consultation with the Mt Buller and Mt Stirling Alpine Resort Management Board.

5. All building material and waste must be collected and transported to an appropriate waste transfer station off mountain. Clean fill, top soil and rock may be transported to an alternative location within the resort boundary in consultation with the General Manager – Resort Operations subject to spatial and operational parameters.

6. The applicant must ensure that no more than two vehicles are permitted to park in tandem in the proposed garage subject always to the winter vehicle permit system employed by the Mt Buller and Mt Stirling Alpine Resort Management Board.

#### **Country Fire Authority**

7. The bushfire mitigation measures forming part of this permit or shown on the endorsed plans, including those relating to construction standards, defensible space, water supply and access, must be maintained to the satisfaction of the responsible authority and the relevant fire authority on a continuing basis. This condition continues to have force and effect after the development authorised by this permit has been completed.
8. The Bushfire Management Statement prepared by GMR Engineering Services on 10 September 2013 must be endorsed as part of the permit. An amendment to the Bushfire Management Statement is endorsed and replaces the Defensible Space distances as set out in the original Bushfire Management Statement.
9. The water supply, access, vegetation management and buildings and works requirements identified in the Bushfire Management Statement must be implemented and maintained as prescribed.

#### **Site Environmental Management Plan**

10. All construction activities must be undertaken in accordance with the Site Environmental Management Plan (SEMP) endorsed as part of this permit, unless otherwise approved by the Responsible Authority. All contractors working on the site must be provided with a copy of the endorsed SEMP and must retain a copy of the SEMP on-site at all times during the construction period.

#### **Geotechnical**

11. The recommendations of the geotechnical report endorsed as part of this permit must be adhered to in the final design of the development unless otherwise approved by the Responsible Authority.

#### **Snow Shed**

12. Snow shed from the development must be confined within the site at all times to the satisfaction of the Responsible Authority.

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#### Expiry of permit:

In accordance with section 68 of the *Planning and Environment Act 1987*, this permit will expire if one of the following circumstances applies:

- The development is not commenced within 2 years of the date of this permit.
- The development is not completed within 4 years of the date of this permit.

In accordance with section 69 of the *Planning and Environment Act 1987*, the responsible authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards.

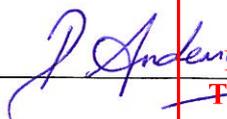
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#### **Date Issued:**

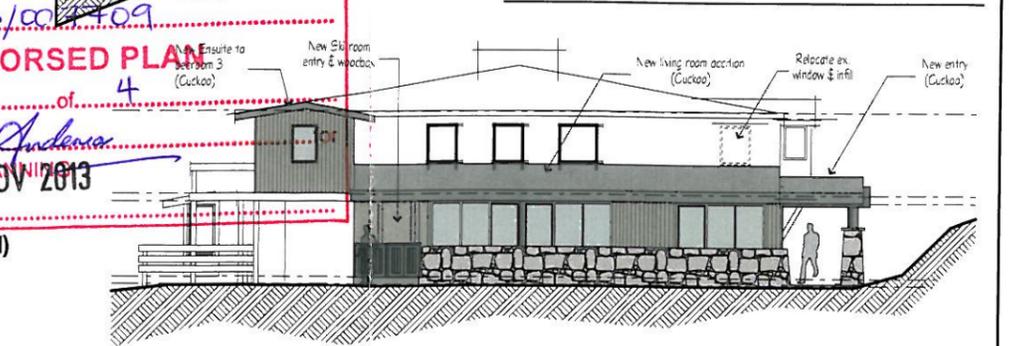
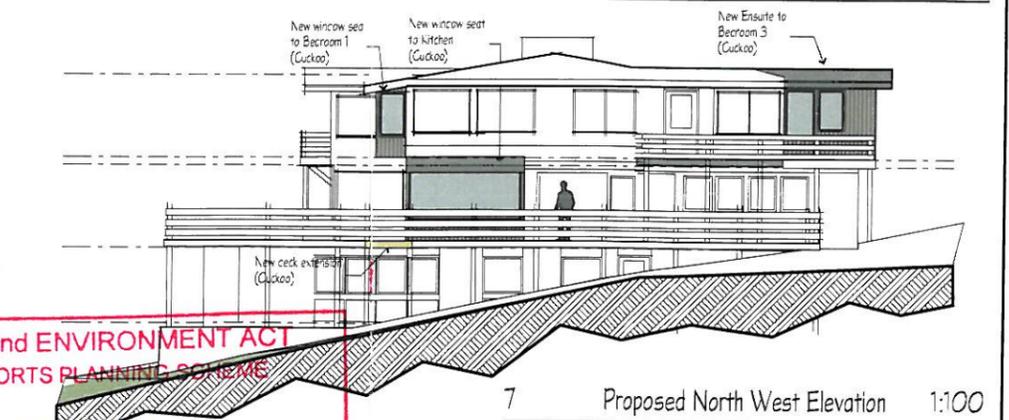
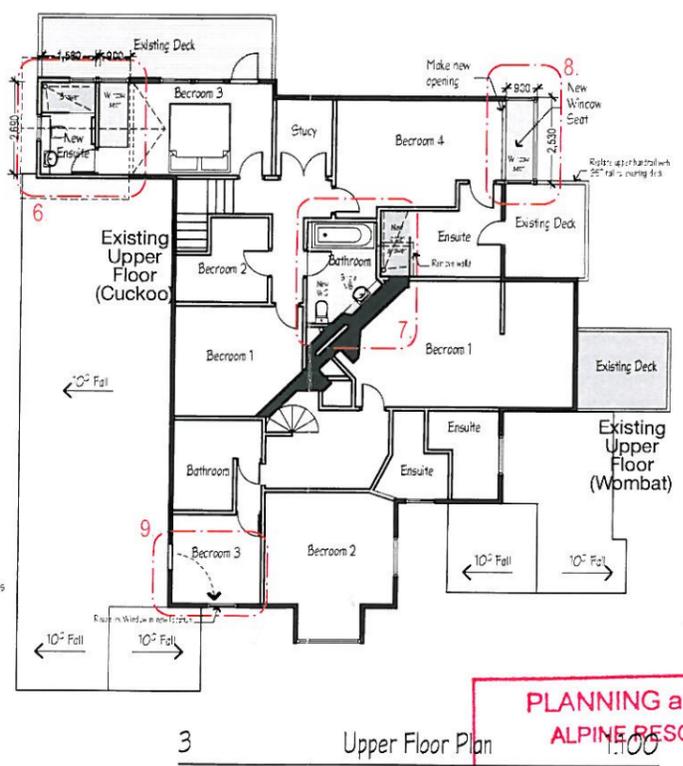
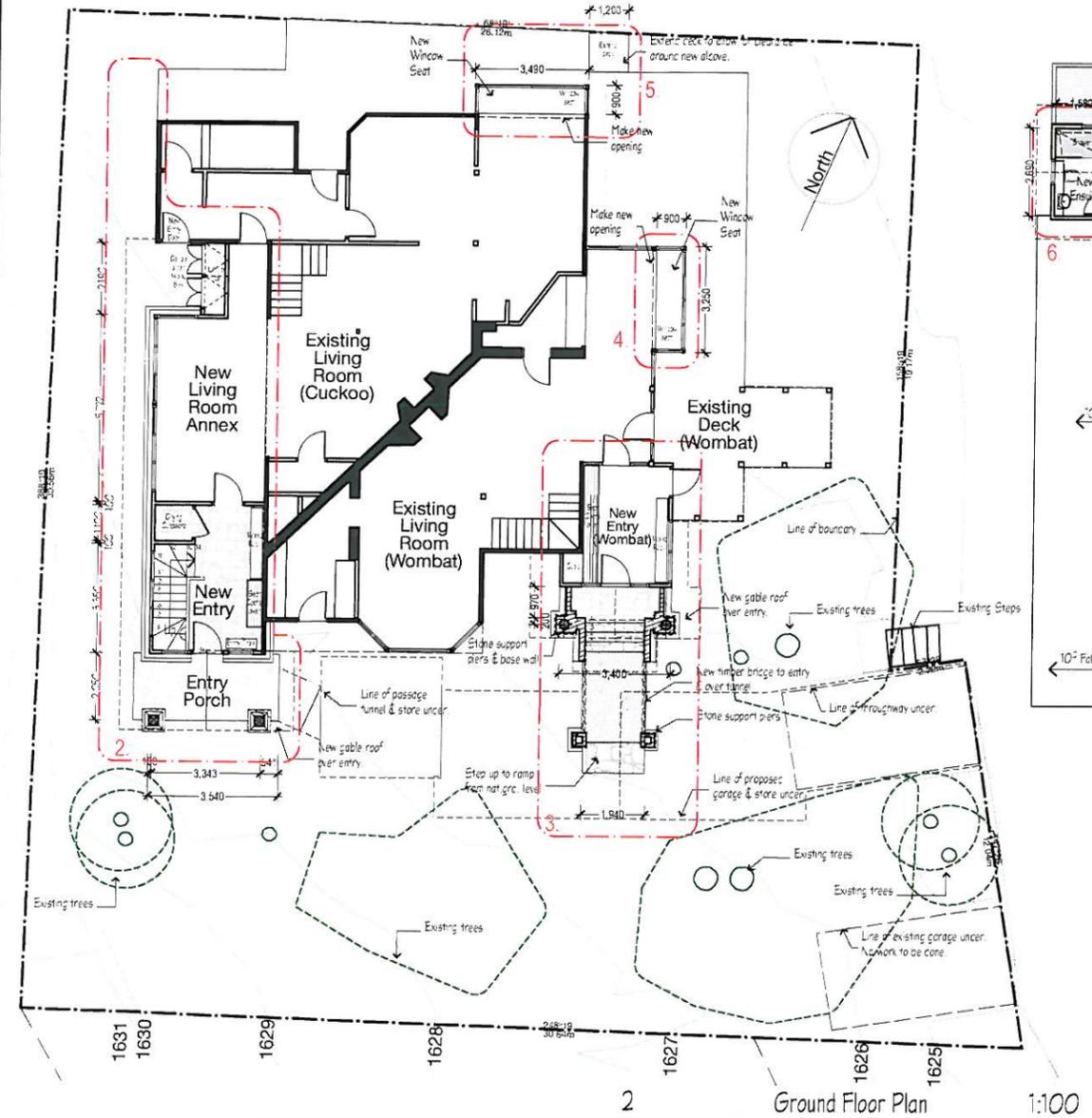
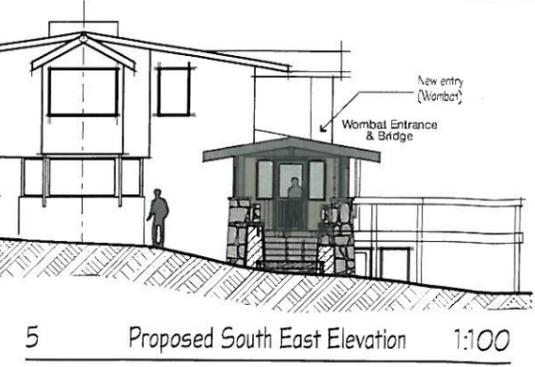
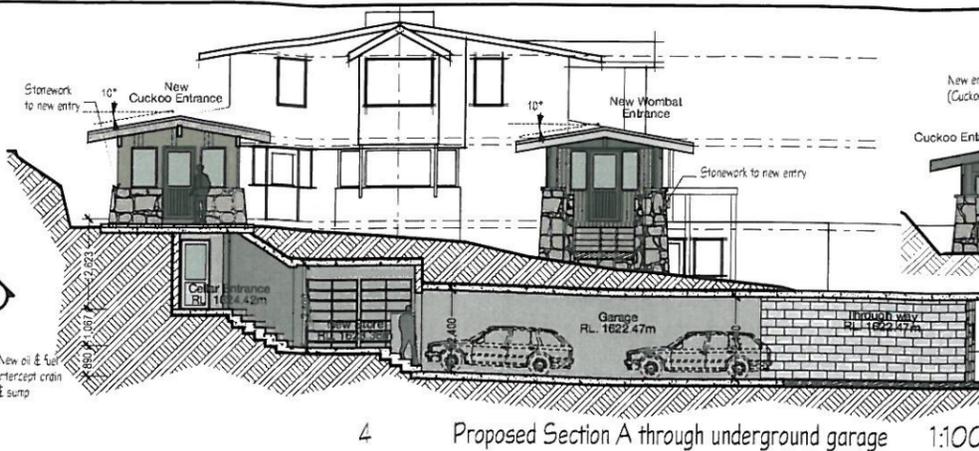
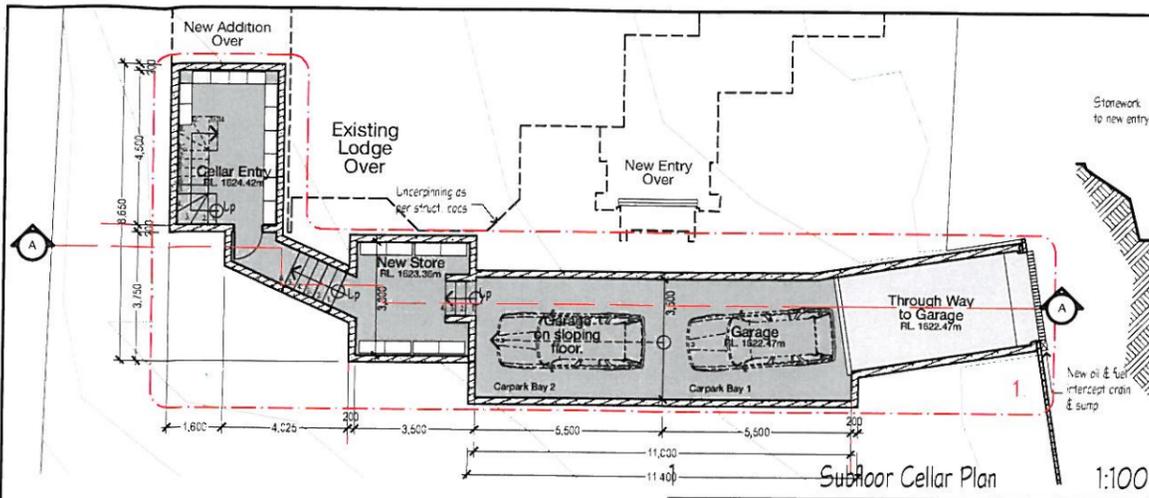
26 NOV 2013

Note: Under Part 4, Division 1A of the Planning and Environment Act 1987, a permit may be amended. Please check with the responsible authority that this permit is the current permit and can be acted upon.

#### **Signature for the Responsible Authority:**



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**PLANNING and ENVIRONMENT ACT**  
**ALPINE RESORTS PLANNING SCHEME**  
 PERMIT No. 2013/0014709  
**ENDORSED PLAN**  
 Sheet 1 of 4  
 Signed: P. Anderson  
 MINISTER FOR PLANNING  
 Date: 26 NOV 2013

**Area Summary**

Gross Floor Areas Existing	
Lower ground floor	= 134.31m <sup>2</sup>
Ground floor	= 134.31m <sup>2</sup>
Upper Floor	= 151.52m <sup>2</sup>
Total	= 458.30m <sup>2</sup>
<b>Proposed additions</b>	<b>= 64m<sup>2</sup></b>
<b>Gross Floor Areas Proposed (Existing + Proposed)</b>	<b>= 522.3m<sup>2</sup></b>
<b>Area of Site</b>	<b>= 837.79m<sup>2</sup></b>

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All dimensions are to be verified on site. Discrepancies are to be reported to the Architect for resolution prior to proceeding. Drawings must not be used for construction unless issued by the Architect as a Stamped Construction Set.

**Wombat & Cuckoo Lodge Garage**  
**Lot 182b Beehive Lane.**  
**Mt Buller.**





**SEWER STANDARD DRAWINGS**  
(STANDARD WSA 02-2002 DRAWING TO BE READ IN CONJUNCTION WITH THE DRAWINGS)

- PIPELINE LAYOUT**  
 SEW-1105V SEWER IN EASEMENTS & INSIDE PROPERTY  
 SEW-1154M DETAILS FLEXIBLE PIPES  
 SEW-1155M DETAILS MISCELLANEOUS
- EMBEDMENT / TRENCH & SUPPORT SYSTEMS**  
 SEW-1200 ALL OBTAINABLE BEARING PRESSURES FOR BULKHEADS  
 SEW-1203 INADEQUATE FOUNDATIONS REQUIRING OVER EXCAVATION & REPLACEMENT
- ACCESS STRUCTURES**  
 SEW-1300V PRECAST TYPES P1 & P2  
 SEW-1301V CAST IN-SITU TYPES C1 & C2  
 SEW-1302V PIPE CONNECTION DETAILS  
 SEW-1303V CHANGES IN LEVELS DETAILS  
 SEW-1304V TYPICAL CHANNEL ARRANGEMENTS  
 SEW-1305V TYPICAL CHANNEL DETAILS  
 SEW-1306V ALTERNATIVE DROP CONNECTIONS  
 SEW-1307V STEP IRONS & LADDERS  
 SEW-1308V TYPICAL MH COVER ARRANGEMENTS  
 SEW-1313V MH CONNECTION DETAILS PVC, PE & PP PIPE

**SEWER NOTES**

- GENERAL**
- ALL LEVELS ARE IN METRES AND TO A.H.D.
  - WORKS MUST BE CONSTRUCTED ACCORDING TO WSA 02-2002 MRWA EDITION, SPECIFICATIONS AND STANDARD DRAWINGS, TECHNICAL AND CONSTRUCTION REQUIREMENTS. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH ALL THE CURRENT REVISIONS, AMENDMENTS AND UPDATES THAT THE RELEVANT WATER AGENCY HAVE MADE TO THEIR CONSTRUCTION STANDARDS.
  - NO. OF LOTS SERVICED: 1.
  - LENGTH OF SEWER TO BE CONSTRUCTED: 150mm DIA - 28m.
  - LENGTH OF EXISTING SEWER TO BE GROUTED AND ABANDONED: 11m TO BE REMOVED; 12m
  - NO. OF EXISTING SEWER MAINTENANCE HOLES TO BE DEMOLISHED: 0 MH.
  - EXISTING SEWER MAIN TO BE ABANDONED SHALL BECOME DISUSED, AFTER CAPPING EACH END OF A DISUSED SEWER THE MAIN SHALL BE FILLED WITH GROUT. EXISTING MAINTENANCE HOLE SHALL BE DEMOLISHED 1m BELOW THE SURFACE AND FILLED WITH CRUSHED ROCK.

**PIPELINE CONSTRUCTION**

- REFER TO STANDARD DRAWINGS AS PER WSA 02-2002 MRWA EDITION.

LOCATION	COVER	PIPE TYPE	PIPE CLASS	AUST. STANDARD	PIPE SIZE
PRIVATE PROPERTY VEHICULAR	750	PVC	SN 10	AS/NZS 1261-2006	100 DIA.
PRIVATE PROPERTY VEHICULAR NEW DEVELOPMENT	600	PVC	SN 8	AS/NZS 1261-2006	150 DIA.

PIPE JOINTING SHALL BE RUBBER RING SEALS. uPVC BEND JOINTS, CONNECTIONS AND ADAPTERS

**PROPERTY BRANCH SEWERS**

- ALL BRANCHES TO BE 100 DIA. PVC PIPES.
- PROPERTIES DO NOT REQUIRE BOUNDARY TRAPS.
- THE PROPERTY BRANCH CONNECTION TIES SHOWN ON THE DETAIL PLANS ARE FROM APPROPRIATE TITLE PEG AND THE INVERT OF THE BRANCH IS SHOWN OPPOSITE THE BRANCH POSITION. ALL PROPERTY SEWER CONNECTIONS ARE TO BE MARKED BY A COLOURED TAPE BROUGHT TO THE SURFACE.
- PROPERTY BRANCHES CONNECTING INTO NEW AND EXISTING SEWERS ARE TO BE CONSTRUCTED WITH STANDARD PVC PIPES AND FITTINGS.

**TESTING**

- TESTING OF SEWERS IN ACCORDANCE WITH THE WSA 02-2002 MRWA EDITION.
- ALL TESTING MUST BE UNDERTAKEN UNDER THE DIRECTION OF THE CONSULTANT.
- THE CONTRACTOR TO GIVE A MINIMUM OF TWO (2) DAYS NOTICE TO THE CONSULTANT PRIOR TO THE TESTING BEING UNDERTAKEN.
- CONTRACTOR IS NOT ALLOWED TO CARRY OUT ANY TESTING OPERATION IN THE ABSENCE OF THE CONSULTANT ON SITE.
- NONE OF THE PLUGS IN THE WATER AGENCIES SYSTEM SHALL BE OPENED UNTIL THE NEW MAIN HAS PASSED ALL THE TESTS MENTIONED ABOVE AND WRITTEN APPROVAL GIVEN TO THE CONTRACTOR STATING THE WORKS HAVE BEEN SATISFACTORILY COMPLETED.

**MAINTENANCE HOLES AND SHAFTS**

- REFER TO STANDARD DRAWINGS AS PER WSA 02-2002 MRWA EDITION.
- CRANKED GALVANISED OR PLASTIC ENCAPSULATED STEP IRONS MUST BE USED.
- PRECAST MAINTENANCE HOLES MAY BE USED SUBJECT TO THE CONDITIONS OF THE WSA 02-2002 MRWA EDITION.
- ALL COVERS SHALL BE CIRCULAR CLASS B.
- MAINTENANCE HOLE AND SHAFT COVERS SHALL BE LEVEL WITH AND SHALL CONFORM TO THE SLOPE AND CROSSFALL OF THE FINISHED SURFACE. MAINTENANCE HOLE AND SHAFTS IN ROAD RESERVES & R.O.W.'s CONSTRUCTED PRIOR TO THE CONSTRUCTION OF FOOTPATHS AND ROADS SHALL BE PROVIDED WITH A TEMPORARY COVER. THE PLACING OF THE FINAL COVER SHALL NOT BE CARRIED OUT UNTIL THE CONCRETE FOOTPATH OR ROAD PAVEMENT HAS BEEN CONSTRUCTED.
- WSA 02-2002 MRWA EDITION W1 N25 GRADE CONCRETE - GP TYPE CEMENT

**EARTHWORKS**

- IN AREAS SUBJECT TO EARTHWORKS, THE CONSTRUCTION OF SEWERS MUST NOT COMMENCE UNTIL THE EARTHWORKS HAVE BEEN COMPLETED OR THE SUPERINTENDENT GIVES WRITTEN NOTICE TO COMMENCE. WHERE CLEAR COVER IS LESS THAN 600mm, FC2 SUPPORT MUST BE USED.
- UNDER ROAD PAVEMENTS WHERE THE CLEARANCE BETWEEN THE TOP AND BOTTOM OF THE BOXING AND TO THE TOP OF SEWER IS LESS THAN 900mm, FC2 SUPPORT MUST BE USED.

**OUTLET**

- THESE WORKS DEPEND ON FUTURE SEWER WORKS FOR AN OUTLET.

**SERVICE CONNECTIONS**

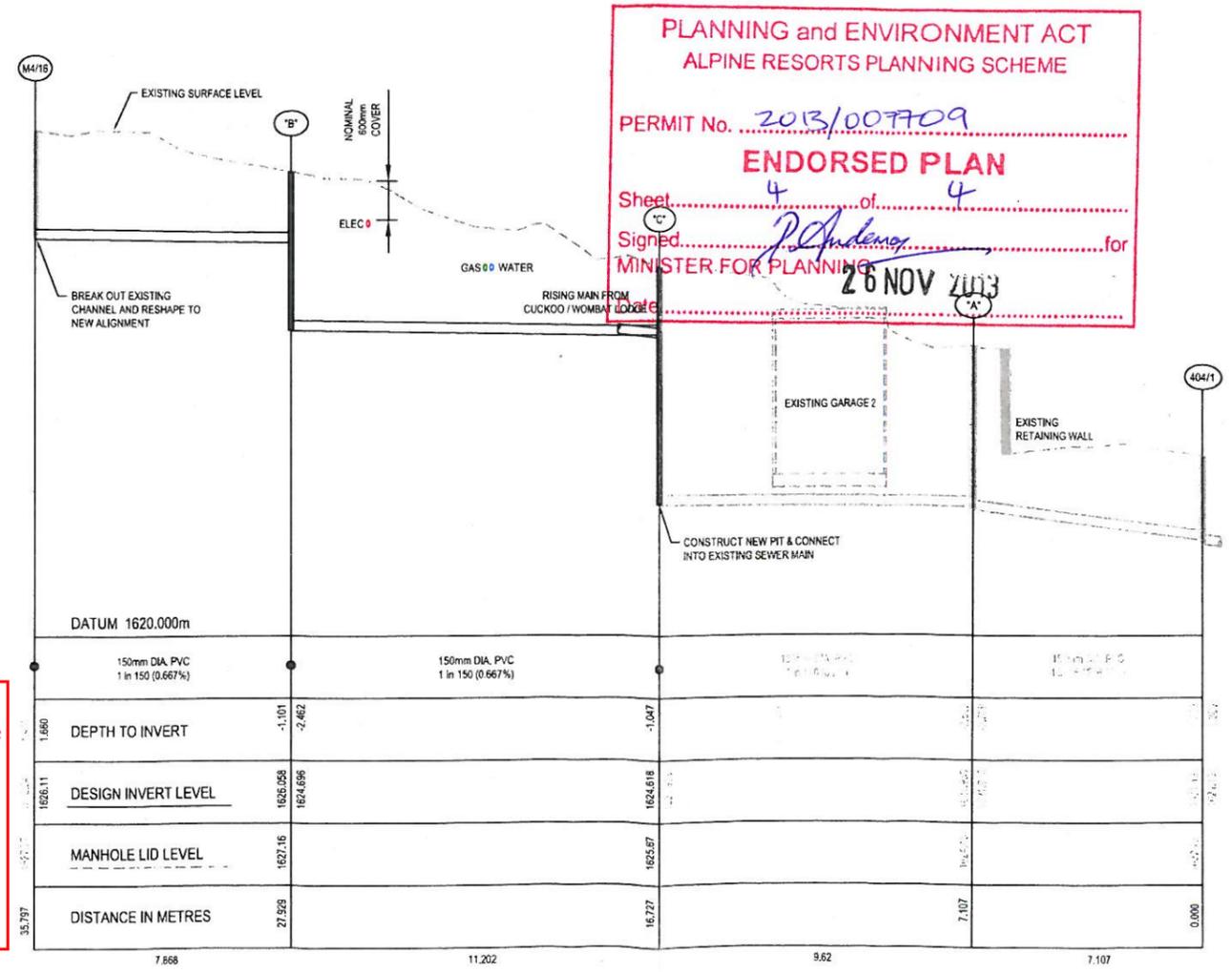
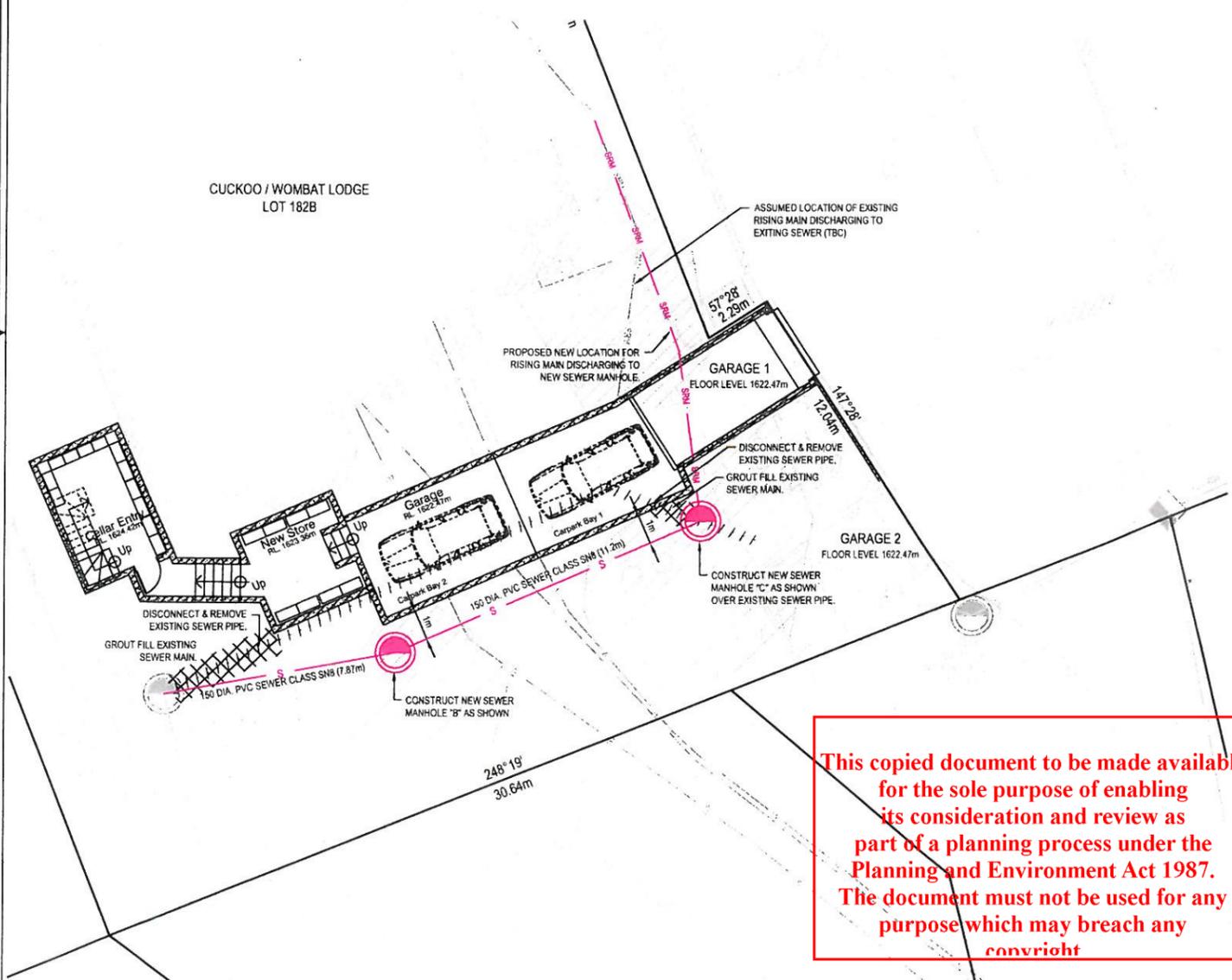
- ALL NEW SERVICE CONNECTIONS TO BE IN ACCORDANCE WITH WSA 02-2002 MRWA EDITION.

**WORK ON LIVE SEWERS**

- THE CONTRACTOR IS NOT PERMITTED TO BREAK INTO AN EXISTING LIVE PIPELINE, ENTER VIA A LIVE MAINTENANCE HOLE OR REMOVE THE COVER OF A LIVE MAINTENANCE HOLE UNLESS APPROVED BY THE WATER AGENCY.
- ALL WORKS ON LIVE SEWERS IS TO BE CARRIED OUT BY THE WATER AGENCIES LIVE WORKS APPROVED CONTRACTOR. THE CONTRACTOR IS TO NOTIFY THE CONSULTANT AT LEAST TWO (2) WORKING DAYS BEFORE PROCEEDING.

**ATTENTION TO CONTRACTOR**

- IN ACCORDANCE WITH CLAUSE 15 OF AS4000-1997, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTOR'S EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT TO THE SITE. THE CONTRACTOR MUST COMPLY WITH THE VICTORIAN OH & S ACT.
- THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE EMPLOYED ON THE SITE WEAR APPROVED SAFETY APPAREL. THIS INCLUDES SAFETY HELMETS, VESTS, SAFETY BOOTS, EAR & EYE PROTECTION.
- THE CONTRACTOR SHALL REINSTATE ANY AFFECTED FOOTPATH, VEHICLE CROSSINGS AND NATURE STRIP TO THE REQUIREMENTS OF THE MUNICIPAL COUNCIL.
- CHAINAGES SHOWN ON DETAIL PLAN ARE DISCONTINUOUS. CHAINAGES SHOWN ON LONGITUDINAL SECTION ARE CONTINUOUS.
- THE CONSULTANT IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE WORKS. ANY PROBLEMS ARISING DURING CONSTRUCTION SHALL BE DIRECTED TO THE CONSULTANT.
- THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR THE SET OUT. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR MUST CONTACT THE OFFICE OF THE CONSULTANT FOR CLARIFICATION BEFORE PROCEEDING.



**PLANNING and ENVIRONMENT ACT**  
**ALPINE RESORTS PLANNING SCHEME**

PERMIT No. 2013/007709

**ENDORSED PLAN**

Sheet 4 of 4

Signed: [Signature] for MINISTER FOR PLANNING

26 NOV 2013

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**GMR Engineering Services**  
 Phone: (03) 5822 0333  
 Fax: (03) 5822 0033  
 Website: gmreng.com.au

- LEGEND**
- EXISTING SEWER MAIN
  - SEWER MAIN REALIGNMENT
  - SEWER MANHOLE
  - SEWER RISING MAIN
  - SEWER MAIN TO BE REMOVED
  - SEWER MAIN TO BE GROUT FILLED

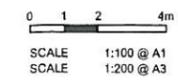
**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown.

**NOTE!**  
BEWARE OF EXISTING OVERHEAD POWER CABLES.

**PRELIMINARY**  
**(NOT FOR CONSTRUCTION)**  
21/10/2013

REDUCED SCALE

DESIGNED	Glen Ryan	July 2013
DRAFTED	Karen Tidd	July 2013
VERIFIED		
REV	AMENDMENTS	DATE
2	AMENDED SEWER ALIGNMENT TO AVOID TREE REMOVAL	21-10-13
1	AMENDED ALIGNMENT & LONG SECTION AS PER SURVEY DATA RECEIVED (21-09-2013) & LYONSLEY JACKWAYS'S EMAIL (25-09-2013)	30-09-13
A	INITIAL DRAFT	17-09-13



**GMR Engineering Services**  
**McIntyre Partnership Pty Ltd**  
 Wombat & Cuckoo Lodge Garage Connection  
 Beehive Lane, Mount Buller.

**Sewer Works Layout, Long Section and Notes**  
 Drawing No. GMR09001-12-1.S01  
 Revision. 2  
 Sheet No. 1  
 GMR09001-12-1.S1 sewer works.dwg

### **Attachment 3:**

Preliminary Geo Tech Report (2013)

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Level 4, 71 Queens Road  
Melbourne VIC 3004 Australia  
Telephone: +61 3 9514 1500  
Facsimile: +61 3 9514 1502  
[www.smec.com](http://www.smec.com)

16 July 2013

Frank Walker  
c/- McIntyre Partnership  
2 Hodgson Street  
Kew Vic 3101

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**Attention: Mr Frank Walker/Mr Peter McIntyre**

Dear Sir,

**RE: Cuckoo/Wombat Lodge, Site 182 – Preliminary Site Assessment for Underground Car Park and Cellar Extension**

## Introduction

This report presents a preliminary site assessment for the extension of the existing underground garage at Site 182 together with the construction of two new underground cellars, new entrances to the lodges and a new alcove area. Cuckoo/Wombat Lodge is located at the northern end of Beehive Lane/Cobbler Lane (Site 182). It is understood that these construction works will be generally undertaken as excavation works below the level of and to the south of the existing lodge. (Refer Figure 1).

SMEC was commissioned by Mr Reg Perkins of GMR Engineering Services (GMR) by email on 13 August 2013 subsequent to receipt of SMEC's proposal, email dated 9 August 2013.

The aim of the preliminary geotechnical site assessment is to provide a geotechnical site assessment in order to satisfy the requirements of the Alpine Resorts Planning Scheme Erosion Management Overlay – Schedule 1 Management of Geotechnical Hazard for planning application purposes.

## Available Information

The site assessment has been based on the following sources of information:

- McIntyre Partnership P/L drawing no. TP.01.
- SMEC Australia Pty Ltd Report AR MB 259 "Assessment of Slope Instability – Site 181, Holland Lodge" dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 243 "Assessment of Slope Instability – Site 182, Twentieth Rothbury Pty Limited - Wombats" dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 269 "Assessment of Slope Instability – Site 183, St Christina" dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 241 "Assessment of Slope Instability – Site 184, Pontresina – H Simon" dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 238 "Assessment of Slope Instability – Site 185, Cobbler Ski Lodge" dated 25 May 1999.

- SMEC Australia Pty Ltd Report AR MB 237 “Assessment of Slope Instability – Site 194, Crosscut Lodge” dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 239 “Assessment of Slope Instability – Site 199, Kandahar Ski Club” dated 25 May 1999.
- SMEC Australia Pty Ltd Report AR MB 236 “Assessment of Slope Instability – Site 192, Shaky Knees Lodge” dated 25 May 1999.
- SMEC Australia Pty Ltd Report MB 259 “Site Description – Site 181, Holland Lodge” dated 14 March 1999.
- SMEC Australia Pty Ltd Report MB 243 “Site Description – Site 182, Wombats” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 238 “Site Description – Site 185, Cobbler Ski Club” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 269 “Site Description – Site 183, St Christina” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 241 “Site Description – Site 184, Pontresina” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 237 “Site Description – Site 194, Crosscut Lodge” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 239 “Site Description – Site 199, Kandahar Ski Club” dated 12 March 1999.
- SMEC Australia Pty Ltd Report MB 236 “Site Description – Site 192, Shaky Knees Lodge” dated 12 March 1999.
- Department of Natural Resources and Environment 1:250,000 series Warburton Geological Map.
- Coffey Geosciences Pty Ltd Report AW1501/1-AA “Geotechnical Assessment, Proposed Ski Lodge Development Site 184, Engadin Site, Mt Buller, Victoria” dated 27 August 2001.
- Coffey Geosciences Pty Ltd Report AW1501/1-AD “Geotechnical Assessment, Engadin Redevelopment Site 184, Mt Buller, Victoria” dated 30 June 2004.
- Coffey Geosciences Pty Ltd Report AW1837.1AB “Geotechnical Assessment, Proposed Car Park Structure, Shaky Knees Lodge, Summit Road, Mt Buller, Vic” dated 10 January 2005.
- Coffey Geosciences Pty Ltd Report AW1703/1-AB “Geotechnical Assessment Report, Rear of Abom, Shaky Knees Lodge, Summit Road, Mt Buller, Vic” dated 10 January 2005.
- Personal knowledge of site by Mr Philip Styles (Principal Engineering Geologist, SMEC) gained over many site visits to Mt Buller.

Figure 2 shows the spatial relationship of these sites to one another.

## Site Conditions

The site is located on the northern end of Beehive Lane/Cobbler Lane, Mt Buller. This area is on the northern side of a major ridge line extending east – west that slopes at generally about 15 to 18 degrees to the north east. The existing building is located downhill of the road.

The natural surface below the fill slopes down the site at about 17 degrees.

The DNRE 1:250,000 series Warburton sheet indicates that the surface geology at the site comprises Quaternary age basalt.

The Coffey reports indicate that the geology in the area is generally consistent with this with the depth to rock at Site 184 (to the south west of Site 197) was found to be between 2.3m and 3m. Depth to rock at Site 192 (north east of Site 182) was not determined as the test pit was terminated at 1.7m deep. It should be noted that fill material was present at Sites 184 and 192 and that the depth to rock at Site 192 could vary.

No evidence of slope instability was observed by either Coffey or SMEC.

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# Risk Assessment

## Loss of Life

Based on the “Practice Note Guidelines for Landslide Risk Management” as prepared by the Australian Geomechanics Society (AGS) Sub-Committee on Landslide Risk Management (2007), for loss of life, the individual risk can be calculated from:

$$R_{(LoL)} = P_{(H)} \times P_{(S:H)} \times P_{(T:S)} \times V_{(D:T)}$$

Where

$R_{(LoL)}$  is the risk (annual probability of loss of life (death) of an individual).

$P_{(H)}$  is the annual probability of the landslide.

$P_{(S:H)}$  is the probability of spatial impact of the landslide impacting a building (location) taking into account the travel distance and travel direction given the event.

$P_{(T:S)}$  is the temporal spatial probability (e.g. of the building or location being occupied by the individual) given the spatial impact and allowing for the possibility of evacuation given there is warning of the landslide occurrence.

$V_{(D:T)}$  is the vulnerability of the individual (probability of loss of life of the individual given the impact).

Based on the available information and our assessment of the site conditions, we have assigned the following values to the probabilities/vulnerabilities above:

$$P_{(H)} = 10^{-5} \text{ (Rare)}$$

$$P_{(S:H)} = 10^{-2} \text{ (Likely)}$$

$$P_{(T:S)} = 10^{-3} \text{ (Possible)}$$

$$V_{(D:T)} = 10^{-3} \text{ (Possible)}$$

$$\text{Therefore, } R_{(LoL)} = 10^{-13}.$$

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The AGS suggested loss of life tolerable risk for an existing slope / existing development is  $10^{-4}$ /annum. On this basis, the risk of loss of life for Cuckoo/Wombat Lodge is considered to be acceptable.

## Property

The risk matrix, presented in Figure 3, is a simple, qualitative method of relating the hazard (what could happen) to the impacts (consequence of the hazard), to obtain the risks. Figure 4 presents descriptions for the likelihood and consequence of events or scenarios. A measure of the risks includes the vulnerability of installations, costs and many complex issues such as environment, safety, social, functionality, sustainability and reputation. The definitions for hazard and risk assessment used in this report are those used by the Australian Geomechanics Sub-Committee on Landslide Risk Management (2007).

Based on the available information and our knowledge of the site, it is considered that the likelihood of slope instability occurring at this site is “Rare”. The consequences to property should slope instability occur are assessed as being “Medium”. This gives a risk rating of “Low” which is considered to be acceptable for the proposed works.

## Schedule 1 Management of Geotechnical Hazard

Attachment A presents a completed Form 1 as required by the Alpine Resorts Planning Scheme Erosion Management Overlay – Schedule 1 Management of Geotechnical Hazard. This has been provided to assist GMR in obtaining planning permission for the proposed works.

Attachment B presents a copy of our certificate of currency for Professional Indemnity Insurance as required by the Planning Scheme.

## Closure

We trust this meets your present needs. If you have any questions regarding this matter, please do not hesitate to contact the undersigned.

Yours sincerely,



**Philip Styles**  
**Principal Engineering Geologist**  
**MAIG RPGeo 10,087**

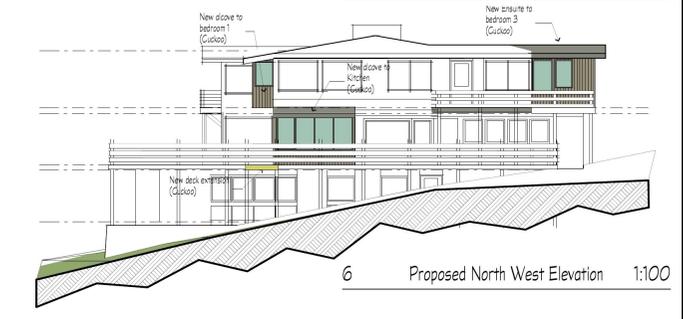
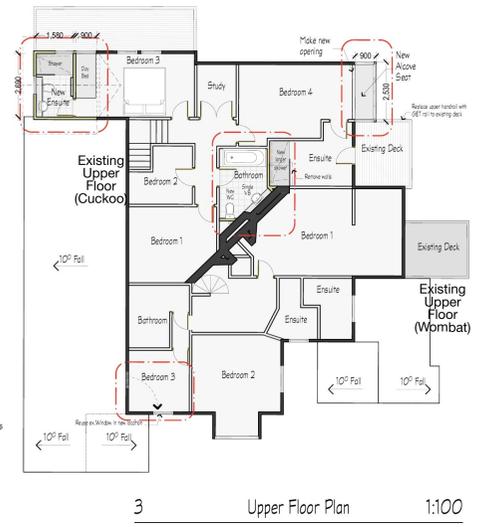
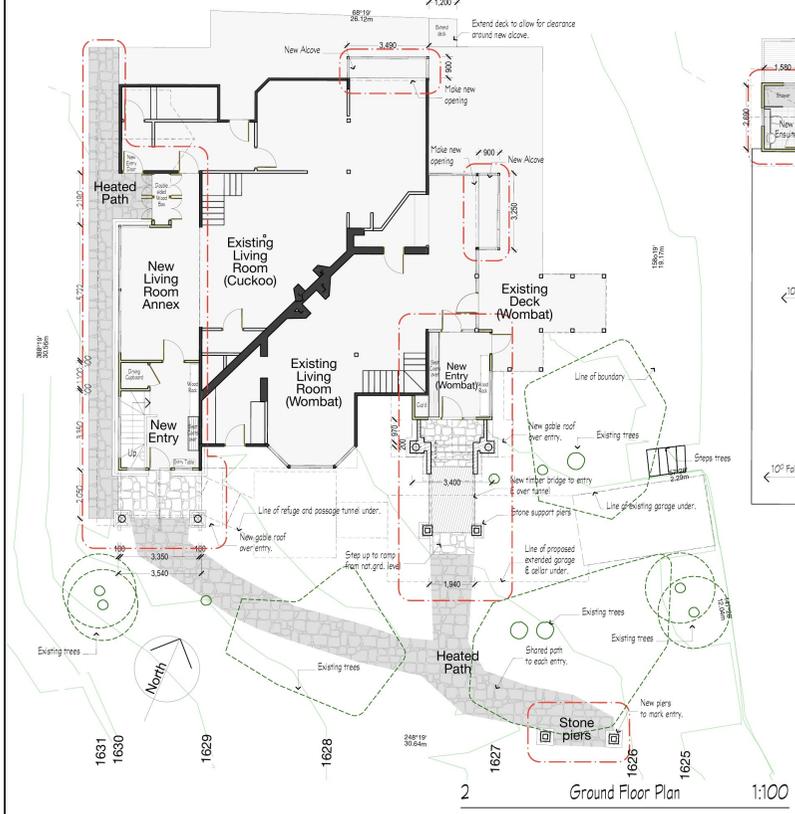
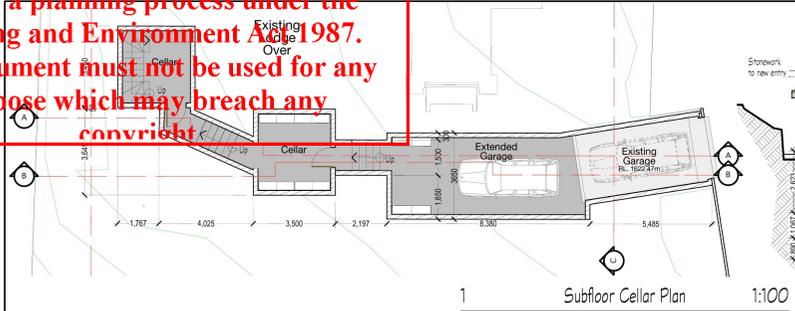
Attachments:

A - Form 1

B - Certificate of Currency

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**Area Summary**

Gross Floor Areas Existing	=134.31m <sup>2</sup>
Lower ground floor	=134.31m <sup>2</sup>
Ground floor	=151.52m <sup>2</sup>
Upper Floor	=458.30m <sup>2</sup>
<b>Total</b>	<b>=624.14m<sup>2</sup></b>

<b>Proposed additions</b>	<b>=64m<sup>2</sup></b>
<b>Gross Floor Areas Proposed (Existing + Proposed)</b>	<b>=522.3m<sup>2</sup></b>
<b>Area of Site</b>	<b>= 837.79m<sup>2</sup></b>



Figure 1  
Cuckoo/Wombats (Site 182)  
Site Works  
Scale : As Shown

PRELIMINARY

All dimensions are to be verified on site. Discrepancies are to be reported to the Architect for resolution prior to proceeding. Drawings must not be used for construction unless issued by the Architect as a Stamped Construction Set.



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**Figure 3. Risk Matrices<sup>1</sup>**

**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 <sup>-1</sup>	VH	VH	VH	H	M or L <sup>(1)</sup>
B – Likely	10 <sup>-2</sup>	VH	VH	H	M	L
C – Possible	10 <sup>-3</sup>	VH	H	M	M	VL
D – Unlikely	10 <sup>-4</sup>	H	M	L	L	VL
E – Rare	10 <sup>-5</sup>	M	L	L	VL	VL
F – Barely Credible	10 <sup>-6</sup>	L	VL	VL	VL	VL

Notes: <sup>(1)</sup> For Cell A5, MAY BE SUBDIVIDED SUCH THAT A CONSEQUENCE OF LESS THAN 0.1% IS Low Risk.

<sup>(2)</sup> 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.

<sup>1</sup> Figures 1 and 2 have been taken from “Practice Note Guidelines For Landslide Risk Management 2007”, B. Walker et alia, Australian Geomechanics Vol 42 No 1 March 2007

## Risk Level Implications

Risk Level		Example Implications <sup>(3)</sup>
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 impractical. Work likely to cost more than the 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 possible.
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.

Notes: <sup>(3)</sup> 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.

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**Figure 4. Risk Matrix Definitions**

**Qualitative Measures of Likelihood**

Approximate Annual Probability		Implied Indicative Landslide Recurrence Interval		Description	Descriptor	Level
Indicative Value	Notional Boundary					
$10^{-1}$	5x10 <sup>-2</sup>	10 years	20 Years	The event is expected to occur over the design life.	Almost Certain	A
$10^{-2}$		100 years		The event will probably occur under adverse conditions over the design life.	Likely	B
$10^{-3}$	5x10 <sup>-3</sup>	1000 years	200 years	The event could occur under adverse conditions over the design life.	Possible	C
$10^{-4}$	5x10 <sup>-4</sup>	10,000 years	2,000 years	The event might occur under very adverse conditions over the design life.	Unlikely	D
$10^{-5}$	5x10 <sup>-5</sup>	100,000 years	20,000 years	The event is conceivable, but only under exceptional circumstances over the design life.	Rare	E
$10^{-6}$	5x10 <sup>-6</sup>	1,000,000 years	200,000 years	The event is inconceivable or fanciful over the design life.	Barely Credible	F

Note: <sup>(4)</sup> The table should be used from left to right; use Approximate Annual Probability or Description to assign Descriptor, not *vice versa*.

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### Qualitative Measures of Consequences to Property

Approximate Cost of Damage		Description	Descriptor	Level
Indicative Value	Notional Boundary			
200%	100%  40%  10%  1%	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%		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%		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%		Limited damage to 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:
- (5) 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.
  - (6) The Approximate Cost is to be an estimate of the direct cost of the damage, such as the cost of reinstatement 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.
  - (7) The table should be used from left to right; Approximate Cost of Damage or Description to assign Descriptor, not *vice versa*.

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**ATTACHMENT A**  
**EROSION MANAGEMENT OVERLAY**  
**SCHEDULE 1 MANAGEMENT OF GEOTECHNICAL HAZARD**

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**Department of  
Sustainability and  
Environment**

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: CUCKOO/WOMBATS LODGE CAR PARK & CELLAR EXTENSION

Address of subject site: SITE 182, BEEHIVE / CUCKOO LANE, Mt BULLER, 3723

I, PHILIP STYLES (insert name) of SMEC AUSTRALIA PTY LTD (trading or company name)

on 16 August 2013 (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:	<u>CUCKOO/WOMBAT LODGE, SITE 182 - PRELIMINARY SITE ASSESSMENT FOR UNDERGROUND CARPARK &amp; CELLAR EXTENSION</u>
Report date:	<u>16 AUGUST 2013</u>
Report reference:	<u>AS ABOVE</u>
Author:	<u>PHILIP STYLES</u>
Author's affiliation:	<u>MEMBER AUST INST GEOSCIENTISTS RPCEO 10,087</u>

**Documentation relied upon in report preparation:**

<u>SMEC Rpts ARMB 259, 263, 264, 241, 238, 237, 229, 236, MB259, 215, 269, 241, 238, 237, 239, 236, COFFEY RPTS, AW1501/1-AD, 1501/L-AD, AW1872-1A8, AW1703/1-AD, GEOLVIC MAD WARBURTON 1125V, 00V</u> <u>PERSONAL KNOWLEDGE</u>
---

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 SITE 182 EXTENSIONS (name of development) 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 PHILIP STYLES Signature Philip Styles  
Date 16/8/13



**ATTACHMENT B**  
**CERTIFICATE OF CURRENCY**

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**ENGINEERING CONSULTANTS UNDERWRITERS LTD.**

**Certificate of Currency**

We hereby certify that the undermentioned Insurance Policy has been issued with effect from 4:00 p.m. EST on **June 30, 2013**.

Class of Insurance: Professional Indemnity

Insured: SMEC Holdings Limited, SMEC International Pty. Ltd. and their subsidiaries as noted in Appendix A and Joint Ventures.

Period of Insurance: June 30<sup>th</sup> 2013 at 4:00 p.m. EST to June 30<sup>th</sup> 2014 at 4:00 p.m. EST

Form: Claims Made

Policy No.: ECUL-PI-002-2013

Per Claim Limit: AUD 2,000,000

Annual Aggregate Limit: AUD 2,000,000

Wording: Insurer will pay the Losses of the Insured that arises from any Claim first made against the Insured and which is notified to the Insurer during the Policy Period for any civil liability arising out of the conduct of the professional business.

Jurisdiction: Worldwide excluding U.S.A. and Canada

Territory: Worldwide excluding U.S.A. and Canada

Reinsured By: Swiss Reinsurance Company Limited, and Liberty International Underwriters

Adrienne Hintz  
Authorized Representative  
Engineering Consultants Underwriters Ltd.

---

**Butterfield Bank Building, 6th Floor, 65 Front Street, Hamilton HM 12, Bermuda**  
Tel: (441) 295-2144; Fax: (441) 292-8062  
Postal Address: P.O. Box HM 2087, Hamilton HM HX, Bermuda

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**Appendix A  
Subsidiaries of SMEC Holdings Limited  
Dated June 25, 2013**

<p>ACE Consultants Ltd. Brisbane City Enterprises Pty Ltd Energy Holdings Limited Engineering General Consultants EGC (Pvt.) Ltd Frontier Energy Limited Frontier Hydro Limited Himalayan Green Energy Private Limited Ocyana Pvt Ltd PT SMEC Denka Indonesia SMUrban Pty Ltd t/a SMEC Urban. SMEC Asia Limited SMEC Australia Pty Limited SMEC Bangladesh Limited SMEC Beijing Co Ltd SMEC Central Asia LLP SMEC China Engineering &amp; Management Consulting Co. Engineering Consultants Contracting Limited SMEC New Zealand Limited</p>	<p>SMEC Holdings Limited SMEC India Pvt Ltd SMEC International Pty Limited SMEC International (Malaysia) SDN. Berhad SMEC Mongolia LLC SMEC Operations Pty Limited SMEC Pakistan (Pvt) Limited SMEC Philippines Inc. SMEC PNG Ltd SMEC Services Pty Limited SMEC Vietnam Joint Stock Company Snowy Mountains Engineering Corporation Limited TT Energy Private Ltd Combined Engineering &amp; Integrated Solutions (Pvt) Limited SMEC Energy SDN Berhad SMEC Foundation Limited Lean and Hayward Pty Ltd</p>
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 Adrienne Hintz  
 Authorized Representative

---

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## **Attachment 4:**

RMB Correspondence and Golder Geotechnical Risk  
Assessment

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# 2019 - 2020 Victorian Alpine Resorts Geotechnical Risk Assessment



Site Details - Golder Site Number 240

Greatest Assessed Risk Rating

Resort **Mt Buller**  
 Site Name **Wombat Lodge**  
 VicMap Address **1 BEEHIVE LANE MOUNT BULLER 3723**

**ARL 5**

Coordinates [MGA 94] Easting **450691** Northing **5888903**

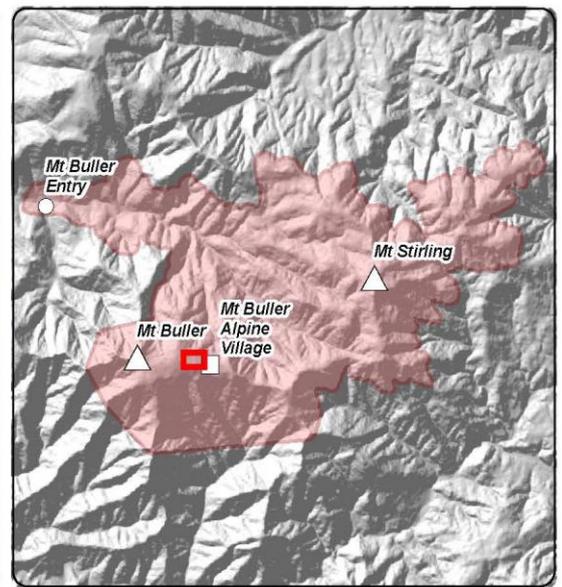
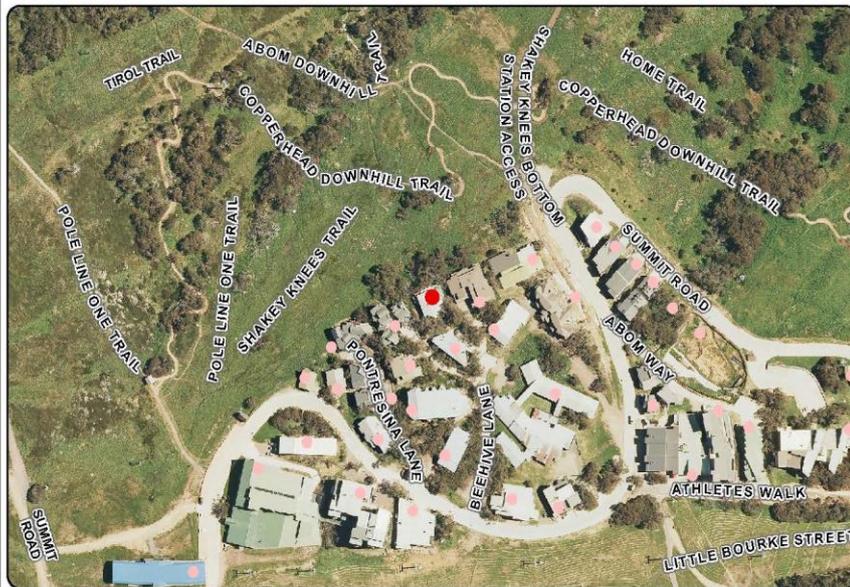
< 1 in 1 million

## Previous Assessments and References at or within 100 m of site - [Up to Nearest 5 locations]

Year	Author	Title / Reference	Boreholes	Hazard/Risk
2000	SMEC	MB 243 TWENTIETH ROTHBURY P/L WOMBATS [0m]	N	Worst Hazard Rating: L
2018	Coffey	La Grangette [14m]	Y	
1998	Coffey	St Christina Lodge [20m]	Y	
2000	SMEC	MB 269 ST CHRISTINA [31m]	N	Worst Hazard Rating: L
2000	SMEC	MB 259 HOLLAND LODGE [33m]	N	Worst Hazard Rating: L

## 2019/2020 Assessment

Date	<b>29/10/2019</b>	Weather	<b>Clear</b>	Assessor	<b>MGW</b>	Checked By	<b>DFS</b>
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General Comments *Natural slope 20 degrees*

# 2019 - 2020 Victorian Alpine Resorts Geotechnical Risk Assessment



## Risk Evaluation - by hazard

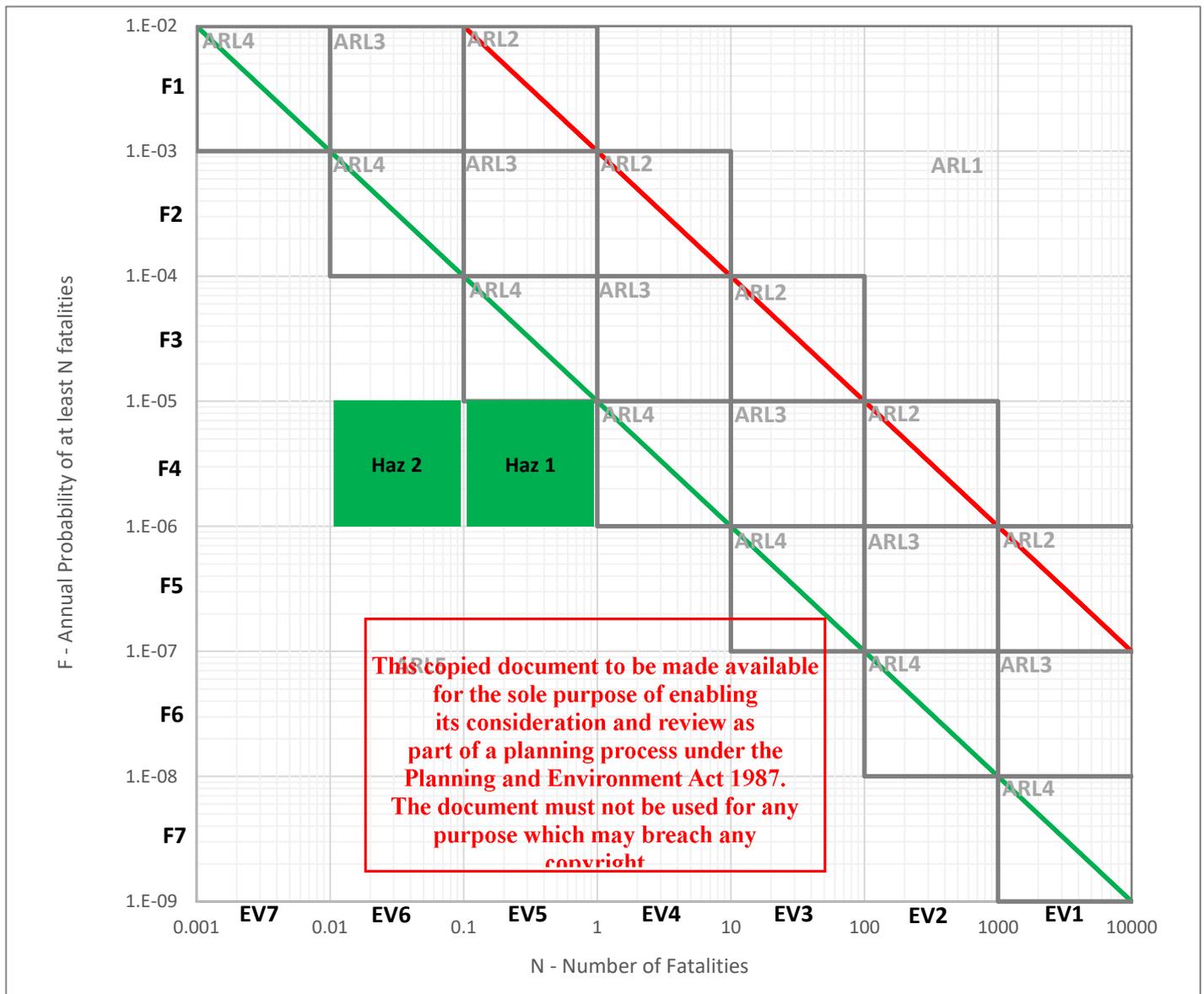
Hazard	Number		Description	Season	
	Type	Services		Any	
				Assessed Risk	
Frequency Probability	Detachment P(d)		0.75 m high, vertical	L5	F4
	Travel P(t)		No offset		
Temporal		Collapse of retaining wall near rear entry door		T3	
Expected Value	Number Exposed to Hazard		Failure of wall onto person	N4	EV5
	Vulnerability		Rapid wall collapse	V3	
<b>ASSESSED RISK LEVEL</b>				<b>ARL5</b>	
Hazard	Number		Description	Season	
	Type	Services		Any	
				Assessed Risk	
Frequency Probability	Detachment P(d)		2 m high, 60 degree slope angle	L6	F4
	Travel P(t)		6.5 m offset		
Temporal		Damage to building		T2	
Expected Value	Number Exposed to Hazard		0.75 m diameter boulder dislodge and roll into building	N4	EV6
	Vulnerability		Minor damage to building	V4	
<b>ASSESSED RISK LEVEL</b>				<b>ARL5</b>	
Hazard	Number		Description	Season	
	Type	Services		Assessed Risk	
				Assessed Risk	
Frequency Probability	Detachment P(d)		Description		
	Travel P(t)				
Temporal		Description			
Expected Value	Number Exposed to Hazard		Description		
	Vulnerability				
<b>ASSESSED RISK LEVEL</b>					
Hazard	Number		Description	Season	
	Type	Services		Assessed Risk	
				Assessed Risk	
Frequency Probability	Detachment P(d)		Description		
	Travel P(t)				
Temporal		Description			
Expected Value	Number Exposed to Hazard		Description		
	Vulnerability				
<b>ASSESSED RISK LEVEL</b>					
Hazard	Number		Description	Season	
	Type	Services		Assessed Risk	
				Assessed Risk	
Frequency Probability	Detachment P(d)		Description		
	Travel P(t)				
Temporal		Description			
Expected Value	Number Exposed to Hazard		Description		
	Vulnerability				
<b>ASSESSED RISK LEVEL</b>					

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# 2019 - 2020 Victorian Alpine Resorts Geotechnical Risk Assessment



## Risk Evaluation



<b>ARL 1</b>	Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to at least ARL 3 and preferably to ARL 4 or 5 where practical to do so; may be too expensive and not practical. Immediate action may be required to exclude people from the hazard.
<b>ARL 2</b>	Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to at least ARL 3 and preferably to ARL 4 or 5 where practical to do so. Consider immediate action to exclude or protect people from the hazard.
<b>ARL 3</b>	May be tolerated in certain circumstances (subject to regulators' approval) but requires investigation, planning and implementation of treatment options. Where practical, treatment options to reduce risk to ARL4 or 5 should be implemented as soon as possible. If risk treatment options are not practical, inspection and risk monitoring should be implemented. Reassess risks within 5 years.
<b>ARL 4</b>	Usually acceptable to regulators. Where treatment has been required to reduce the risk to this level, ongoing inspection and maintenance is required. Reassess risks within 10 years.
<b>ARL 5</b>	Acceptable. Manage 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.

Method of assessing risk adapted from Roads and Maritime Services NSW, Guide to Slope Risk Analysis, Version 4, April 2014

### Other Risk Assessments by Golder at sites within 100 m of site - [Up to Nearest 4 locations]

ARL	Site Name	Easting (m)	Northing (m)	Proximity (m)
ARL 4	St Christina Apartments	450722	5888900	31
ARL 4	Burnt Hut, AMO Lodge and The Bunker	450666	5888885	31
ARL 4	Cobbler Ski Club	450706	5888871	35
ARL 5	Kandahar Ski Club	450676	5888861	45

# 2019 - 2020 Victorian Alpine Resorts Geotechnical Risk Assessment

## Photographs



East aspect

# 2019 - 2020 Victorian Alpine Resorts Geotechnical Risk Assessment

## Photographs



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North aspect

Photographs



*West aspect, showing boulder fill*

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20 October 2021

Twentieth Rothbury Pth Ltd  
Alan Yildiz  
PO Box 514  
Bentleigh East VIC 3165

Via email: [alan@austcorpserv.com.au](mailto:alan@austcorpserv.com.au)

Dear Alan

### **Geotechnical Risk Assessment**

While we all like being within an alpine environment, one of the risks is the increased chance of a landslip or other earth movement due to geotechnical or geological failure.

Under all Alpine resort leases, tenants are responsible for issues of land stability within their site. To support tenants in this regard, the Department of Environment, Land, Water and Planning contracted Golder Associates Pty Ltd to undertake a geotechnical risk assessment focusing on risk to life from landslide and geotechnical instability.

The risk assessment rated 235 sites across Mt Buller in accordance with a standard Assessed Risk Level (ARL) Risk Guide (attached). Pleasingly, there were no sites rated as unacceptable (ARL1 or ARL2) and 143 sites rated as acceptable (ARL5). There were 13 sites rated as tolerable subject to further investigation or treatment (ARL3), and 79 sites rated as acceptable with periodic monitoring (ARL4).

Your site was rated ARL5, which is considered an acceptable risk with periodic monitoring. If there is a mitigation recommendation within the attached report, it will be intended to further reduce the risk and may be limited to ongoing inspection and/or maintenance.

Golder is available to provide advice on a for fee basis. If you would like to discuss this option, please contact Darren Paul, Principal Engineering Geologist at [dpaul@golder.com.au](mailto:dpaul@golder.com.au).

If you have any questions about your responsibilities as a tenant, please contact Amanda Vogt at [property@mtbuller.com.au](mailto:property@mtbuller.com.au).

Yours sincerely,



Amanda Vogt  
Manager, Property and Contracts

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## **Attachment 5:**

Written Statement by Peter McIntyre, McIntyre Partnership Pty  
Ltd Architects & Planners

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# McIntyre Partnership Pty Ltd Architects & Planners

A.B.N. 38 005 592 101 A.C.N 005 592 101

2 HODGSON STREET KEW 3101

To Whom It May Concern -

Reference

The Cuckoo Lodge and Wombat Lodge were built as one building in 1960 and known as the *SCV Family Unit No 1*

They were one of four Lodges that the Ski Club of Victoria allowed families to build on the Club leasehold. They were the first self-contained accommodation units permitted to be built. Only Clubs could be built at Mt Buller at the time and the Family Units were considered part of SCV.

There were no public services available, and each building was serviced as follows –

- Sewerage –  
Concrete Septic Tank and effluent drains were installed.
- Gas –  
Bottled Gas was used for lighting.
- Heat –  
Open Fireplace.
- Water –  
Not available.

Cuckoo and Wombat both used an internal water tank, feeding water from the roof gutter under roofing material. Normal guttering could not be used. Tank located on the top level and feed by gravity to the lower floor.

All these Services caused considerable ground excavation along the perimeter of the building.

In subsequent years, public services became available. The ground was excavated for water, gas, electricity, and sewerage with great disturbance of the ground. I can bear witness to these ground excavations because I worked on site in the summer when all these works were being undertaken.

Peter McIntyre  
9 August 2021.

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