



Hi Noon Ski Club | 12 Banjo Drive, Thredbo | Proposed Concrete Access Ramp

Road Safety Assessment

P2094

Prepared for Hi Noon Ski Club Ltd

4 February 2025



Contact Information

Document Information

Greys Austral	ia Pty Ltd	Prepared for	Hi Noon Ski Club Ltd
ABN 62 609 92	21 593	Project Name File Reference	Road Safety Assessment P2094.003R Hi Noon Ski
404/7-11 Smith Ryde NSW 21			Club Thredbo Footpath RSA.docx
		Job Reference	P2094
Telephone: (02 Mobile: 0456 7		Date	4 th February 2025
alex@greysco www.greyscon	nsulting.com.au sulting.com.au	Version Number	003
Approved By:	Aux Gruy A.Grey FIEAust, CPEng Principal Traffic Engineer	Effective Date	February 2024
		Date Approved:	February 2024

Document History

Version	Date	Description of Revision	Prepared
001	19/01/25	Draft	AG
002	20/01/25	Final	AG
003	04/02/25	Final(Revised Plans)	AG



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Appendix A – Design Plans



1 Introduction

Hi Noon Ski Club Ltd has engaged Greys Consulting to perform a Road Safety Assessment (RSA) in accordance with the instructions outlined by the Department of Planning, Housing and Infrastructure (DPHI) in their letter dated 10 January 2025 regarding the proposed construction of a concrete access ramp and path to provide pedestrian and cyclist access from the club premises to Banjo Drive. The department has stipulated that a qualified traffic engineer should assess the proposed footpath discharging onto Diggings Terrace/Banjo Drive. This assessment shall encompass, but is not limited to, the following aspects:

- Sightlines
- Vehicles speed limits
- Vehicular and pedestrian safety
- Impact of snow and ice

This assessment aims to evaluate the proposed access ramp's safety implications and effectiveness, ensuring that it meets the necessary safety standards and enhances the club's overall safety. Greys Consulting will identify issues and provide recommendations to optimise cyclists' and pedestrians' safety while addressing access control requirements.

The location of the assessment and the proposed ramp and footpath are shown in Figure 1-1.



Figure 1-1 Subject Site Area

1.2 Scope of Safety Assessment

This RSA was generally undertaken in accordance with the relevant procedure set out in Austroads Guide to Road Safety Part 6: Road Safety Audit (AGRS06); however, this report was prepared as a Road Safety Assessment. It involved a site visit via video conference during the daytime and an assessment of the latest design plans and the road environment adjacent to the site to observe the conditions and evaluate the vehicle's



and pedestrians' movements, behaviours, and available road infrastructure surrounding the proposed concrete access ramp.

The proposed concrete access ramp will replace the existing metal staircase and ramp as part of other proposed renovations to the Ski Club, including bike and ski storage and further structural adjustments.

This report covers the following topics:

- Summary of existing conditions (pre-construction) and features of the subject site
- Outline of the safety concerns identified that need to be addressed
- Outline of the recommendations to address safety concerns identified during the assessment.

Specifically, the following items were reviewed from an operational road safety perspective:

- Existing traffic conditions and driving behaviour at Diggings Terrace and Banjo Drive
- Sight distances and grades
- Signs and pavement markings
- Roadside objects and hazards
- Interaction between development traffic and pedestrians

This RSA details a list of safety issues identified during the site visit (undertaken via video conference) that present a road safety risk to all road users. It raises detected issues to encourage the design and construction team to devise remedial mitigation measures to minimise the residual risks associated with the proposed access ramp.



2 Existing Conditions

2.1 Banjo Drive

Banjo Drive in Thredbo, NSW, is a curving road that fits into the mountainous landscape of the Thredbo Village area and extends between Alpine Way and Diggings Terrace. Like many roads in scenic, hilly areas, it features a winding layout designed to accommodate the terrain's natural slopes and contours. Banjo Drive includes bends and turns to navigate the hilly landscape. The road follows the varying elevations characteristic of a mountain village, adapting to both uphill and downhill sections. Banjo Drive is typically narrower than urban streets, suited to the village's scale and lighter traffic volume. The Banjo Drive Road section is illustrated in Figure 2-1.



Figure 2-1 Banjo Drive Road Section (Looking West)

2.2 Diggings Terrace

Diggings Terrace in Thredbo is another vital road in the village known for its proximity to ski resorts and other recreational activities. The road is extended between Banjo Drive to the east and Friday Drive to the west.

Like other roads in Thredbo, Diggings Terrace adapts to the mountainous terrain, featuring curves and varying elevations. The road is designed to accommodate both vehicles and pedestrians, and its width supports lower speed limits typical of residential and tourist areas. Diggings Terrace provides access to different parts of the village, including lodging, restaurants, and recreational areas.

The road intersections, particularly at Banjo Drive, are typically designed to manage the moderate traffic volume that includes residents, tourists, and service vehicles. The land around Diggings Terrace surrounding land use includes a mix of residential properties and commercial premises, such as lodges and eateries.



Given the village's focus on winter sports and summer hiking and cycling, the road provides access to ski lifts, trails, and other recreational facilities. The Diggings Terrace Road section and the existing access ramp connecting the club to the corner of Banjo Drive/Diggings Terrace are illustrated in Figure 2-2.



Figure 2-2 Diggings Terrace (Looking West from Banjo Drive)

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2.3 Crash Data

TfNSW Crash Map shows no recorded crashes between 2019 and 2023 at Banjo Drive and Diggings Terrace. A snip of the crash map between 2019 and 2023 in the study area is illustrated in Figure 2-3.



Figure 2-3 2019-2023 Crash Map

Source: TfNSW Crash Map: Banjo Drive and Diggings Terrace, Crashes (2019-2023)



3 Road Safety Assessment

3.1 Definition, Objectives and Benefits

A Road Safety Assessment was conducted to review the existing metal staircase and access ramp and the proposed concrete path and ramp in the provided structural plans.

The following items were reviewed from an operational road safety perspective:

- Sightlines
- Vehicles' speed limits
- Vehicular and pedestrian safety
- Impact of snow and ice
- Signs and pavement markings
- Vehicle-pedestrian conflict points
- Pavement quality
- Infrastructure/signage conditions.

The Road Safety Assessment lists safety issues identified during the site visit (via video call) that present a road safety risk, detailed in Section 4.3.

The proposed concrete path is expected to improve overall safety at the site and enhance access to the nearby road network. However, this assessment has addressed all apparent safety concerns related to pedestrian and vehicle interactions. Therefore, the safety issues and conclusions raised may not be directly applicable to the proposed concrete path.

3.2 Assessment Team

The following person conducted the road safety assessment:

Alex Grey: Accredited Road Safety Auditor – Level 3 / Principal Traffic Engineer

3.3 Information Sources

Data sources utilised for the Road Safety Assessment include:

- Austroads Guide to Road Design publications
- Austroads Guide to Road Safety publications
- Transport for NSW Supplementary publications
- Structural Drawings
- Concept Design Plans
- Sixmaps aerial imagery
- Google Street View.

3.4 Site Inspection

Due to time limitations and distance, a formal site inspection was not undertaken. Instead, a video call with one of the site operators was conducted to observe the existing environmental and operating conditions and check sightlines from the existing and proposed access ramp locations to Banjo Drive/Digging Terrace and associated sightlines. Photographs taken on the same day by the site operator demonstrate the pavement conditions, sightlines, signage, and line marking at Banjo Drive and Diggings Terrace for this assessment.

The video call site inspection was undertaken on Thursday, 16th January 2025, between 6:00 p.m. and 6:30 p.m. The weather was fine, and few vehicle movements took place during the video call.



3.5 Safety Assessment History

Greys Consulting has not been informed of any previous road safety audits or assessments undertaken at the subject site.

3.6 Risk Assessment

The issues identified during the assessment have been prioritised using Austroads' standard risk assessment matrix. This matrix evaluates both the likelihood (or frequency) of each issue occurring and the severity of its potential consequences. This prioritisation process is illustrated in Figure 3.1.

			Severity*				
			Insignificant	Minor	Moderate	Serious	Fatal
			Property damage	Minor first aid	Major first aid and/or presents to hospital (not admitted)	Admitted to hospital	Death within 30 days of the crash
	Almost Certain	One per quarter	Medium	High	High	Extreme (FSI)	Extreme (FSI)
hood exposure)	Likely	Quarter to 1-year	Medium	Medium	High	Extreme (FSI)	Extreme (FSI)
lih(es exp	Possible	1 to 3 Years	Low	Medium	High	High (FSI)	Extreme (FSI)
Likelihood (includes exposure)	Unlikely	3 to 7 Years	Negligible	Low	Medium	High (FSI)	Extreme (FSI)
	Rare	7 years+	Negligible	Negligible	Low	Medium (FSI)	High (FSI)

*see Severity Guidance Sheet

Safe System crash outcome threshold

Source: Austroads GTRS Part 6, Figure 10.2 Figure 3.1: Austroads RSA Risk Matrix

Table 3.1 outlines the suggested treatment approach for each risk level.

Table 3.1: Austroads Suggested Treatment Approach

Risk	Description
Negligible	No action required
Low	Should be corrected or the risk reduced if the treatment cost is low.
Medium	Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high
High	Should be corrected or the risk significantly reduced, even if the treatment cost is high
Extreme	Must be corrected regardless of cost

Source: Austroads GTRS Part 6



4 Road Safety Assessment Review

4.1 Identified Safety Issues

This section summarises the safety issues identified during the video call site inspection of the Road Safety Assessment. The key findings are outlined in Section 4.2, followed by a table of specific issues in Section 4.3.

4.2 Key Safety Assessment Findings

The subject site has been reviewed against relevant material such as Australian Standards and Austroads' standard risk matrix assessment to classify and score the identified risks.

A total of **4** issues/notes were identified in the existing conditions or due to the proposed concrete path, including:

- Improved sightline to Banjo Drive (related to the proposed concrete path)
- Deteriorated sightlines to Diggings Terrace, which is of less concern due to approaching vehicles travelling uphill in this direction (related to the proposed concrete path)
- Insufficient signage and delineation at Banjo Drive and Diggings Terrace (existing condition and also related to the proposed Concrete Path)
- Impact of Snow and Ice on the proposed concrete path (related to the proposed concrete path)
- Poor pavement conditions at Banjo Drive and Diggings Terrace (Existing conditions)

4.3 Assessment Findings

The various safety issues and concerns identified are detailed in Section 4.3. Initial recommendations to address the identified safety issues are also provided and further detailed in Section 4.3.

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Table 4-1 Road Safety Assessment – Findings

Item	Issue	Risk	Site Illustration(s)	Recommendation
1	Sightlines (Banjo Drive) Improved Visibility: Relocating the ramp landing point enhances visibility for both pedestrians and cyclists along Banjo Drive, improving sightlines for everyone, including drivers. The top figure shows the current sightlines for pedestrians on Banjo Drive. In contrast, the bottom figure illustrates the projected sightlines with the proposed concrete path landing point at the intersection of Banjo Drive and Diggings Terrace.	Low	<image/>	Ensure that no new structures or natural elements obstruct sightlines. Clear foliage or reposition structures as needed for optimal visibility.

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Item	Issue	Risk	Site Illustration(s)	Recommendation
2	Sightlines (Diggings Terrace) Acceptable Visibility: By relocating the ramp landing point, the sightlines for pedestrians and cyclists towards Diggings Terrace remain at an acceptable level. This is because approaching vehicles from Diggings Terrace are on the left side of the road, allowing for pedestrian visibility. The top figure depicts the current sightlines for pedestrians towards Diggings Terrace, while the bottom figure highlights the proposed changes to these sightlines at the new concrete path landing point at Banjo Drive/Diggings Terrace.	Low	<image/>	Ensure that no new structures or natural elements obstruct sightlines. Clear foliage or reposition structures as needed for optimal visibility.

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Item	Issue	Risk	Site Illustration(s)	Recommendation
3	 Speed Banjo Drive and Diggins Terrace are located within a formal High Pedestrian Activity Area where a 40km/h speed limit is enforced. During the video call site inspection, no instances of speeding were observed. Nevertheless, additional traffic surveys using 24/7 tube counters may be necessary to identify any potential speeding patterns at this location. This is deemed unlikely due to the configuration of the hairpin at the Banjo Drive and Diggings Terrace intersection. The proposed concrete path is not anticipated to affect potential speeding in the area. Instead, it enhances visibility for downhill movement on Banjo Drive, which is crucial for addressing speeding concerns. Speeding on the uphill section of Diggings Terrace is considered highly unlikely. 	Medium	<image/>	Speed-Calming Measures: Monitor speeding patterns in the neighbourhood, particularly during winter time. Consider implementing additional traffic calming measures, such as speed humps or signage, to maintain safe speeds around the access point if necessary.

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ltem	Issue	Risk	Site Illustration(s)	Recommendation
4	Signs, Line Marking & Lighting The current conditions for line marking, delineation, and signage present safety concerns for pedestrians and cyclists, particularly those exiting the ski club at this corner. Inadequate signage and delineation, especially on approaches to the hairpin, can lead to confusion about the right-of-way, increasing the risk of accidents, particularly at a point where vehicles and pedestrians/cyclists converge. Furthermore, insufficient signage may fail to effectively alert drivers to the presence of pedestrians and cyclists, particularly during peak usage times when foot and bike traffic increases. Although it is an existing condition, the street lighting on both approaches to the hairpin bend appears to be inadequate. The nighttime environment seems unsafe for both vehicles and pedestrians.	High	<image/>	Install adequate lighting and signage to enhance visibility during low-light conditions, ensuring pedestrian pathways and vehicle routes are clear. Improving line marking, delineation, an signage in this area is essential to enhance safety and promote awareness for all road users. Signage: Banjo Drive is signposted as HPAA at the entrance from Alpine Way A reminder pedestrian crossing sign at both approaches to the hairpin to warn vehicles that there are pedestrians in the area would be beneficial. Delineation: A double barrier centreline at the hairpin should be implemented to deter drivers from cutting corners at thi location.

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Item	Issue	Risk	Site Illustration(s)	Recommendation
5	Impact of Snow and Ice The proposed concrete path for pedestrians and cyclists may present safety concerns during the	High		Surface Treatment: Use textured concrete or anti-slip treatments on the ramp to prevent slipping during icy conditions.
	winter months due to the accumulation of snow and ice. Slippery conditions can significantly increase the risk of slips and falls for			Regular Maintenance: Schedule regular maintenance checks for snow removal and de-icing, prioritising the ramp and pathways.
	pedestrians. Additionally, inadequate snow removal or ice management could restrict access or lead to hazardous walking			Drainage Solutions: Integrate efficient drainage solutions to manage snowmelt and prevent water accumulation on the ramp surface.
	conditions.			Using rubber or plastic mats during wet seasons can help make slippery surfaces safer.
				Cyclists should be advised to dismount their bikes when using the access ramp.

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Item	Issue	Risk	Site Illustration(s)	Recommendation
6	Road Pavement Condition Although it is unrelated to the construction of the concrete path, the poor condition of the existing pavement at Banjo Drive and Diggings Terrace could present significant safety concerns during winter due to snow and ice accumulation. Slippery conditions increase the risk of slips and falls for pedestrians, while uneven surfaces and hidden potholes can further complicate safety, causing vehicles to lose traction. This convergence of hazards can lead to more frequent conflicts between pedestrians and vehicles as both attempt to navigate the challenging conditions. Inadequate snow removal or ice management can exacerbate these issues, restricting access and heightening the potential for accidents.	High		Effective maintenance and timely winter management strategies are essential to address these risks and ensure safer travel for all users.



5 Concluding Statement

A Road Safety Assessment was conducted to identify and evaluate potential safety hazards associated with the proposed construction of the pedestrian concrete path and ramp connecting Hi Noon Ski Club to Banjo Drive/Diggings Terrace in Thredbo. Overall, the safety assessment included a review of:

- Sightlines
- Vehicles' speed limits
- Vehicular and pedestrian safety and conflict points
- Impact of snow and ice
- Signs and pavement markings
- Pavement quality

Recommendations to address the identified safety issues and to enhance the safety of the proposed concrete path and connecting road network:

- Ensure that no new structures or natural elements obstruct sightlines. Clear foliage or reposition structures as needed for optimal visibility.
- Monitor speeding patterns in the neighbourhood, particularly during winter time. Consider implementing
 additional traffic calming measures, such as speed humps or signage, to maintain safe speeds around the
 access point if necessary
- Provide street lighting, double barrier line delineation at the hairpin and pedestrian signage at both approaches to the bend
- To enhance road safety during icy conditions, apply textured or anti-slip treatments to ramps, ensure regular snow removal and de-icing, implement effective drainage, consider using rubber or plastic mats, and advise cyclists to dismount when using access ramps.
- Consider pavement rehabilitation and maintenance at Banjo Drive and Diggings Terrace, particularly in wintertime.

The proposed replacement of the metal ramp with a concrete access ramp offers several safety improvements, including better sightlines and enhanced pedestrian and vehicular separation. By addressing potential hazards such as vehicle speeds and winter conditions, the new design will support safer and more efficient access for skiers, cyclists, and pedestrians. Ongoing maintenance and monitoring will ensure these safety measures remain effective.

This Road Safety Assessment was generally undertaken in accordance with the procedures set out in *Austroads Guide to Road Safety Part 6.*

The assessment was carried out to identify apparent features of the project that could be altered or removed to improve safety for road users and others, but it does not guarantee the identification of every safety issue. As a result, resolving all concerns listed in this report does not ensure a fully 'safe' transport network. However, taking these steps will improve road safety.

Slex Gruy

Alex Grey Greys Consulting Principal Traffic Engineer and Transport Planner Accredited Level 3 Road Safety Auditor (Lead Auditor)

Greys

Appendix A – Design Plans

 PRACTICAL ENGINEERING SOLUTIONS PTY LTD

 Civil & Structural Consulting Engineers

 Residential & Commercial Buildings

 office@practicalengineers.com.au

 Our Reference: 2023 072713A

 Contact Officer – Ovi Boaru MIEAust CPEng



M 0402 15 22 16

03 February 2025

Dear Planning Department,

Owners of Hi Noon Ski Club 12 Banjo Drive Thredbo NSW 2625 Care of Paul Kupacz – Hi Noon Club

Re: Civil & Structural Engineering Design for proposed alterations and additions – bike storage – at Hi Noon Ski Club – Thredbo NSW as per Practical Engineering Design – No 20230727A – Sheets S01 to S06 dated 15.07.2024 with S03, S04 S05 & S06 attached V2 dated 15.07.2024

Please note that Practical Engineering Design Shows the tree outside of the footpath as it is the intension of the design and site measurements to protect the tree while building a pedestrian access footpath at Hi Noon Thredbo

The club has provided a sketch attached – where it indicates that the location of the tree is to remain.

This is to assess that there are no changes to the engineering design drawings listed above – regarding maximum slopes, etc - for wheel chair access footpath, while the tree is being retained.

If you have any further queries, please contact myself on 0402 15 22 16, thank you.

Ovi Boaru Civil & Structural Engineer CPEng NER for Practical Engineering Solutions Pty Ltd Office & Mail: 46 Egan Street COOMA NSW 2630



Proposed Alterations & Additions HI NOON SKI CLUB 12 BANJO DRIVE THREDBO NSW 2625

PRACTICAL ENGINEERING SOLUTIONS P/L



STRUCTURAL DRAWING LIST

SHEET NO	TITLE
S01	COVER
S02	SPECIFICATIONS
S03	FOOTING, ACCESS PATH & FLOOR PLAN
S04	PATH LONG SECTION
S05	FRAMING PLAN
S06	SECTIONS

PRACTICAL ENGINEERING SOLUTIONS P/L
ABN 67 157 931 069 Structural &
Project Management ENGINEERS
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Cooma NSW 2630
M: 0402 15 22 16
office@practicalengineers.com.au
Drawing Name:
Proposed Alterations & Additions HI NOON SKI CLUB 12 BANJO DRIVE THREDBO NSW 2625
Client: HI NOON SKI CLUB
Structural Sheet No. S01 of 6
Scale: NTS
Date: 15.07.2024
Drawing No: 20230727A
COVER PAGE
Sheet Size: A3
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Approved:
Ovi Boaru MIEAust CPEng
ISSUE DATE AMENDMENT INITIALS V1 08.08.24 FOOTPATH OB
This document is Copyright and shall not be copied without written approval, nor shall it be used except for the Development and the Site Specified. All workmanship and materials to conform with latest edition of the Building Code of Australia and relevant Australian Standards.
The contractor is to confirm all
dimensions prior to commencing any works on site.

NOTES:

- 1. All workmanship and materials to conform with the latest edition of the building code of Australia and relevant Australian standards.
- 2. It is not implied or guaranteed that all structural designs and details shown in these plans are complete. The scope of the work has been determined by the Engineer based on the information supplied by the client or the clients consultants. The Engineer will provide further designs if required, but is not responsible for any associated cost where design details have not been specifically requested.
- 3. All dimensions on these plans should be checked on site by the builder and verified using Architectural plans and other contract documents. Discrepancies to be referred to the Architect or Engineer.

4. DO NOT SCALE FROM THESE DRAWINGS

5. The structural details shown in these plans are applicable to the Architectural plans and building elements by TZ DESIGN Architect indicated therein: Plans No. - 353 revision E Plan date -09.01.23 Roof Structure -Wall Structure -

Floor Structure - BEARERS & JOISTS

- 6. Reference to UNO = Unless Noted Otherwise & NA = Not Applicable.
- 7. Handrail construction to BCA requirements. NA
- 8. Where disturbed existing building must have bracing and tie-down investigated by the builder and referred to the Engineer for compliance checking.

SITE CONDITIONS:

1. Stability/Vegetation -

- 2. Drainage -
- 3. Soil Type/profile -

4. AS2870 - 2011 site classification -

report

- 5. AS4055 2012 wind classification N3
- 6. AS1170.3 2003 Ultimate Ground Design 1 / 150 Snow Load AT Thredbo - 9.3 KPa

CONCRETE:

- 1. All concrete works to be in accordance with AS3600 200
- 2. Concrete strength cover and durability details (refer AS3) Footings -32 MPa Internal Slab Garage -25MPa External Slab -40 MPa (or 20MPa if weather proo Beams/Columns -NA
- 3. All reinforcement to be adequately supported on bar chair correct positions.
- 4. Concrete to be formed as required by AS3610 and comp in accordance with AS3600 and AS3610 to achieve spec or relevant density durability and strength.
- 5. All reinforced fabric to be lapped one mesh panel plus 25 and reinforcement bars lapped 40 bar diameters, UNO.

FOOTINGS:

1. Footings and slabs on ground designs conform with AS 2

MASONRY:

- 1. All masonry (clay, stone and concrete) to comply with AS3 masonry code.
- 2. Masonry control joints to AS3700.
- 3. Core fill grout mix for hollow block fill to be 20 MPa.

TIMBER:

- 1. All timber construction to comply with Australian Framing AS1684.2 - 2010.
- 2. Bracing and tie down as shown on These Sheets comply with AS 1684.2-2010.
- 3. For external use, use Class 1 or Class 2 HW or Treated T

STEEL:

- 1. All steel construction to comply with AS4100 steel structu code and AISC Connection Details.
- NA NA

NA

Class 'P' See geotech

50m/s (Vh,u).

	PRACTICAL ENGINEERIN SOLUTIONS P/L	IG
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	Refer to specification for othe relevant information details.	er



KEY:

- PF1 THROUGH TO PF4 - 450 Ø CONCRETE PIERS BORED 400 mm INTO 150 KPa NATURAL GROUND AND REINFORCED AS FOLLOWS: FOR PIERS BETWEEN 600 & 1 METER DEEP PROVIDE 2 N12 VERTICAL BARS CENTRAL REINFORCED

* FOR PIERS BETWEEN 1 AND 2 METERS - SOCKET PIERS 300 mm INTO DECOMPOSED GRANITE AND PROVIDE A CAGE OF 4 N12 WITH R6 @ 220 CRS IN EACH PIER. UNDER FOOTINGS EXTEND BARS TO TOP MESH.

PF5 - 600 Ø BORED 400 INTO NATURAL GROUND AND REINFORCED AS PER PF1

BR1 100 x 5.0 SHS SUPPORTED BETWEEN EXISTING BR* 2.60 m BR1a 125 x 75 x 3.0 RHS SUPPORTED ON 75 x 5.0 SHS POSTS 2.60 m 100 x 5.0 SHS SUPPORTED ON 89 x 5.0 SHS POSTS BR2 2.30 m BR3 100 x 50 x 3.0 RHS 1.6 m P1, P2, P3 75 x 5.0 SHS - 4 M12 TO FOOTING Pa, Pb 75 x 3.0 SHS - 2 M12 TO EXISTING FOOTING PB1 - PB2 75 x 6.0 SHS - 2 M12 TO EXISTING FOOTING. PB3 - PB4 75 x 5.0 SHS - 2 M12 TO EXISTING FOOTING. B1, B2 180 PFC - SECURED TO EXISTING - SEE SECTION 1-1 P* EXISTING POSTS BR* EXISTING BEARERS 125 x 75 x 3.0 SHS J1 190 x 45 F7 TP @ 450 CRS - 2 M12 TO BEARERS 2.4 m 100 x 50 x 2.0 RHS or 75 x 50 x 3.0 RHS @ 450 CRS - WELDED 2.4 m

SYMBOL

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	The contractor is to confirm a dimensions prior to commencin any works on site.	
	Refer to specification for othe relevant information details.	r



J2 BR2 or BR3 0.2mm uPVC MOISTURE MIN 100 mm BARRIER OVER 50mm SAND 300 GAP ABOVE AND TO BCA **FINISHED SOIL** N12 Z BARS @ 3-11 TM BOTTOM 300 CRS - 200 TOTAL TH1 BOTTOM LEG AND 450 TOP DEPTH MAY TH1 SLAB 1 AT VARY UP TO LEG 600 mm FLOOR JUNCTION SCALE 1:20

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	Client: HI NOON SKI CLU	JB
	Structural Sheet	No. S04 of 6
	Scale: Date:	12:20,1:100 15.07.2024
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ABN 67 157 931 069 Structural &		
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Drawing Name:		
Proposed Alterations & Additions HI NOON SKI CLUB 12 BANJO DRIVE THREDBO NSW 2625		
Client: HI NOON SKI CLUB		
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All workmanship and materials to conform with latest edition of the Building Code of Australia and relevant Australian Standards.	of	
The contractor is to confirm all dimensions prior to commencing any works on site.		

Refer to specification for other relevant information details.



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Client: HI NOON SKI CLUB
Structural Sheet No. S06 of 6
Scale: 1:20
Date: 15.07.2024
Drawing No: 20230727A
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Approved: Ovi Boaru MIEAust CPEng
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PROPOSED DEVELOPMENT - HI NOON SKI CLUB 12 BANJO DRIVE THREDBO NSW 2625

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Alterations & Additions [Bike Storage]



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	Notes
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٠L	Lower Level Floor Plan - Existing
٠L	Lower Level Floor Plan - Proposed
٠L	Plan Detail - Bike Storage Area
٠L	Elevations 1 & 2 - Existing
٠L	Elevations 1 & 2 - Proposed
٠L	Int Elevation - Bike Storage Area
٠L	Lower Level Electrical Plan - Proposed
٠L	Upper Level Floor Plan - Existing

Project Details

PROJECT TYPE ALTERATIONS & ADDITIONS

Applicant - HI NOON SKI CLUB Location - 12 BANJO DRIVE THREDBO NSW 2625 Deposited Plan Number - 1119757 Lot Number - 721 Site Area - 713 sg.m

General Notes

1. These drawings are copyright and shall remain the property of TZ Design Pty Ltd. Unauthorised amendment, retension, copying and use of these documents, in any form whatsoever, is strictly prohibited.

2. These drawings are to be read in conjunction with all other consultants documents.

3. All dimensions in millimetres unless noted otherwise. Figured dimensions are to be used in preference to scaling from drawings. Any discrepancies shall be immediately referred to TZ Design. Setting out of the works by the architectural drawings unless noted otherwise.

4. Contractor must verify all dimensions on site before commencing any work or making any shop drawings which must be approved before manufacture.

5. All workmanship and materials to comply with the Building Code of Australia, relevant Australian Standards, and the requirements of all associated authorities having jurisdiction over the works.

6. Refer to the specification. The specification forms part of these drawings.

7. These drawings are intended as a guide only. Whilst every care has been taken in the preparation of these documents, no liability is assumed for the material contained herein.

8. No warranty is given or implied as to the accuracy of the whole or any part.

9. These drawings form part of the proprietor's requirements for the design and construction of this project. The builder may vary the works described in these drawings with the prior approval of TZ Design.

10. Contractors should make their own investigations and satisfy themselves with respect to all aspects of the project, including existing conditions, adjoining properties and access to the site.

Specification Notes

GENERAL NOTES All construction is to be in accordance with the National Construction Code 2022.

Earthworks to comply with Part 3.2 of the NCC.

Drainage to comply with Part 3.3 of the NCC.

Termite risk management to comply with Part 3.4 of the NCC and AS3660.

Footings, slabs and associated elements to comply with Part 4.2 of the NCC.

Masonry to comply with Part 5 of the NCC. Framing to comply with Part 6 of the NCC.

Roof and wall cladding to comply with Part 7 of the NCC.

Glazing to comply with Part 8 of the NCC and AS2047.

Smoke alarms to comply with Part 9.5 of the NCC.

Wet area waterproofing to comply with Part 10.2 of the NCC and AS 3740-2021.

Sanitary compartments to comply with Part 10.4 of the NCC.

Lighting in all areas to comply with Part 10.5 of the NCC.

Stairway and ramp construction to comply with Part 11.2 of the NCC.

Barriers and handrails to comply with Part 11.3 of the NCC.

Domestic solid fuel burning appliances to comply with Part 12.4 or H7D5[a] of the NCC and

AS2918. Condensation Management to comply with Part

H4 Health and Amenity [Condensation and water

vapour management] of the NCC, ABCB Part 10.8 and AS 4200.

Concrete construction to comply with AS3600.

Masonry construction to comply with AS3700.

Steel construction to comply with AS4100.

Timber construction to comply with AS1720, AS1684 and the Timber Framing Code.

All dimensions and levels on plans are to be confirmed on site prior to commencing construction.

All dimensions are in millimetres unless noted otherwise.

STRUCTURAL ENGINEERING NOTE Refer to Structural Engineering Design & Specification for all structural components. Any discrepancies with Architectural Drawings shall be immediately referred to TZ Design.

Scope of Works

1. DEMOLITION

- REMOVE EXISTING STEEL RAMP / WALKWAY / STAIRS / LANDING / HANDRAIL AND ALL ASSOCIATED STEEL FRAMING IN PREPARATION FOR PROPOSED BIKE STORAGE AREA. - REMOVE EXISTING FRONT ENTRY DOOR / PORTION

OF WALL AND WINDOWS AS PER DWG'S 353-02L & 03L. - REMOVE PORTION OF WALL IN STORE ROOM AND

STORAGE IN SKI ROOM AS PER DWG 353-02L. - REMOVE PORTION OF WALL IN WC AS PER DWG 353-02L.

- REMOVE WINDOW AWNING ABOVE STORE ROOM WINDOW AS PER DWG 353-05L.

2. EXTERNAL ACCESS AREA

- NEW CONCRETE PATH FROM ROAD TO LODGE AS PER DWG 353-03L AND STRUCTURAL ENGINEERS SPECIFICATION.

- NEW STEEL ACCESS RAMP/SUPPORTS/FRAMING FROM CONCRETE PATH TO LODGE AS PER DWG'S 353-03L & 06L AND STRUCTURAL ENGINEERS SPECIFICATION.

3. ENTRY / SKI STORE

- NEW EXTERNAL WALLS / DOOR / WINDOWS AS PER DWG'S 353-03L & 05L AND STRUCTURAL ENGINEERS SPECIFICATION.

 NEW INSULATED CEILING / ROOF PANELS TO EXISTING DECK ABOVE [ABOVE PROPOSED BIKE AREA ADDITION AND ENTRY LANDING AREA] AS PER DWG 353-05L AND STRUCTURAL ENGINEERS SPECIFICATION.
 NEW CLADDING AND WINDOWS AS SELECTED TO MATCH EXISTING.
 NEW SKI / BIKE RACK SYSTEM AS PER CLIENT'S REQUIREMENTS. REFER TO DWG'S 353-04L & 07L.

4. STORE ROOM / SOU

- NEW INTERNAL WALLS / RE-USE EXISTING WINDOW AS PER DWG'S 353-03L & 05L AND STRUCTURAL ENGINEERS SPECIFICATION.

5. BATHROOM

 NEW INTERNAL WALLS TO INCREASE FLOOR SPACE AS PER DWG 353-03L.
 NEW INT BATHROOM FITOUT, FINISHES AS SELECTED.

4. ELECTRICAL

- NEW POWER POINTS / LIGHT POINTS / LIGHT SWITCHES / TELEVISION POINT AS PER DWG 353-08L. FINISHES AS SELECTED.



Notes



FLOOR AREA

SITE AREA [COS] -	713 sq.m

SITE COVERAGE:	
EXIST LOWER LEVEL FOOTPRINT -	175 sq.m
EXIST LOWER LEVEL PORCH / LANDING -	5 sq.m
PROPOSED LOWER LEVEL ADDITION -	14 sq.m
PROPOSED LOWER LEVEL STEEL RAMP -	18 sq.m
PROPOSED LOWER LEVEL CONCRETE PATH	- 18 sq.m
EXISTING PARKING AREA [APPROX] -	140 sq.m
TOTAL FOOTPRINT AREA -	370 sq.m
SITE COVERAGE -	52%
OPEN SPACE AREA:	
LANDSCAPED OPEN SPACE AREAS -	343 sq.m
TOTAL OPEN SPACE AREA -	343 sq.m
SITE COVERAGE -	48%

-PROPOSED ACCESS RAMP.



CLUB	Drawing Title SITE PLAN			
(GE]	Date	Scale	Drawing No.	Revision
,	09.01.23	1:200 @ A3	353-01	L



1. Lower Level Floor Plan - Existing

Contractor must verify all dimensions on site before commencing any work or making any shop drawings which must be approved before manufacture. All dimensions in millimetres unless noted otherwise. Figured dimensions are to be used in preference to scaling from drawing.

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Revisions: Issued for DA.

L Contour survey details added to Site Plan.

09.12.24



PROPOSED DEVELOPMENT - HI NOON SKI CLUB ALTERATIONS & ADDITIONS [BIKE STORAGE] 12 BANJO DRIVE THREDBO NSW 2625















1. North/West Elevation - Existing



Contractor must verify all dimensions on site before commencing any work or making any shop drawings which must be approved before manufacture. All dimensions in millimetres unless noted otherwise. Figured dimensions are to be used in preference to scaling from drawing.

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Issued for DA.



1. North/West Elevation - Proposed





Contractor must verify all dimensions on site before commencing any work or making any shop drawings we must be approved before manufacture.
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lev	visions:	
L	Contour survey details added to Site Plan. Issued for DA.	09.12



PROPOSED DEVELOPMENT - HI NOON SKI CLUB ALTERATIONS & ADDITIONS [BIKE STORAGE] 12 BANJO DRIVE THREDBO NSW 2625

Date	Scale	Drawing No.	Revision
09.01.23	1:100 @ A3	353-07	L



1. Lower Level Electrical Plan - Proposed

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 Revisions:
 09.12.24

 L
 Contour survey details added to Site Plan.
 09.12.24

 Issued for DA.
 Upper level floor plan added.
 21.01.25

 Single Occupancy Unit [SOU] added in lieu of Storeroom.
 04.02.25



PROPOSED DEVELOPMENT - HI NOON SKI CLUB ALTERATIONS & ADDITIONS (BIKE STORAGE) 12 BANJO DRIVE THREDBO NSW 2625







09.12.24

21.01.25

04.02.25

CARPARKS / STONE WALL

1. Upper Level Floor Plan - Existing

Contractor must verify all dimensions on site before commencing any work or making any shop drawings which must be approved before manufacture. All dimensions in millimetres unless noted otherwise. Figured dimensions are to be used in preference to scaling from drawing.

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L	Contour survey details added to Site Plan. Issued for DA.
	Upper level floor plan added. Single Occupancy Unit [SOU] added in lieu of Storeroom.
	Concrete path adjusted to suit.



PROPOSED DEVELOPMENT - HI NOON SKI CLUB ALTERATIONS & ADDITIONS [BIKE STORAGE] 12 BANJO DRIVE THREDBO NSW 2625



