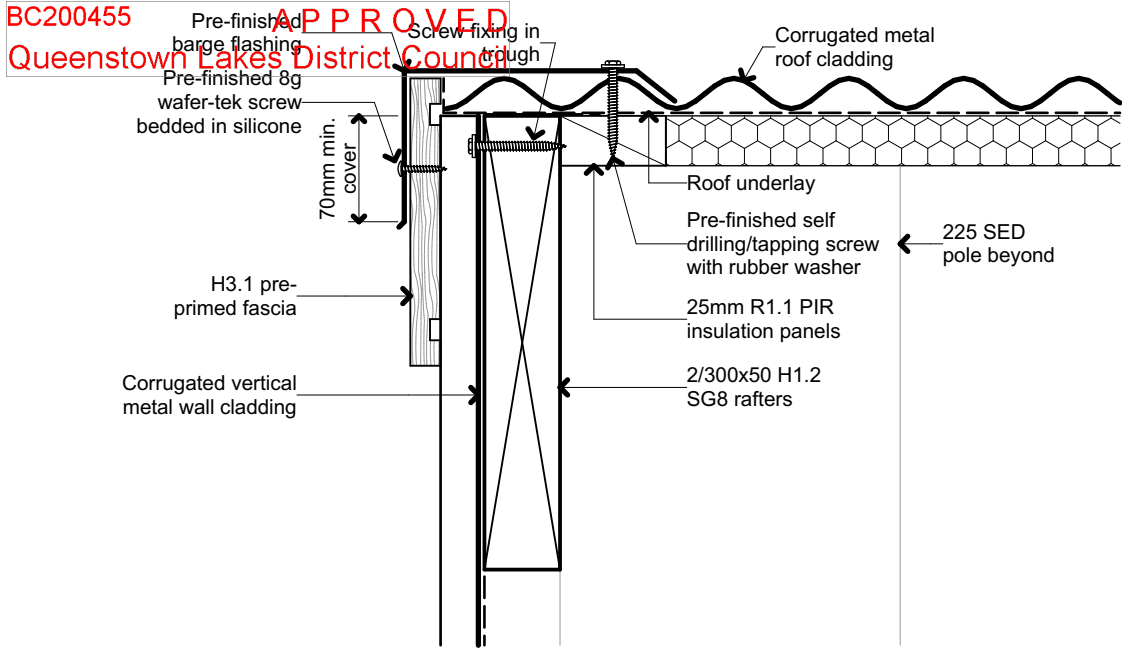
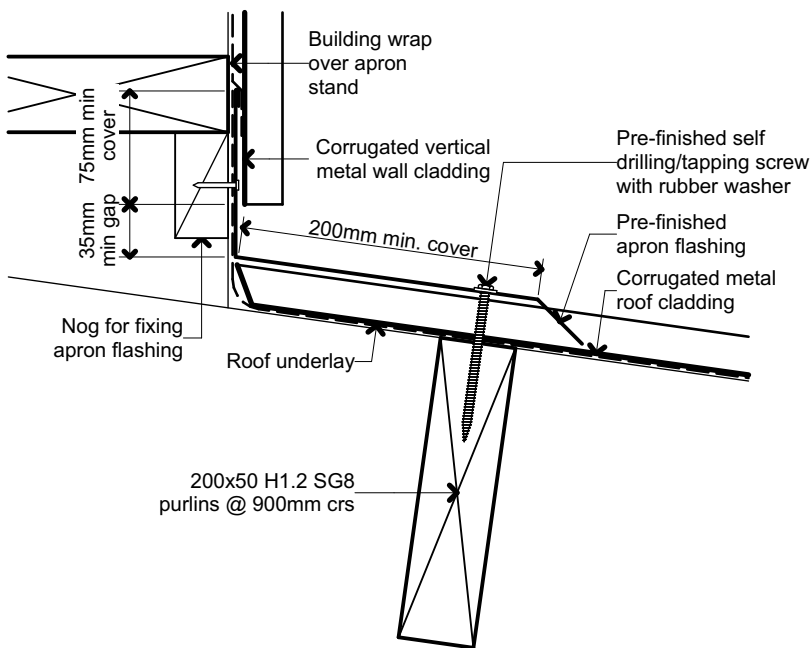


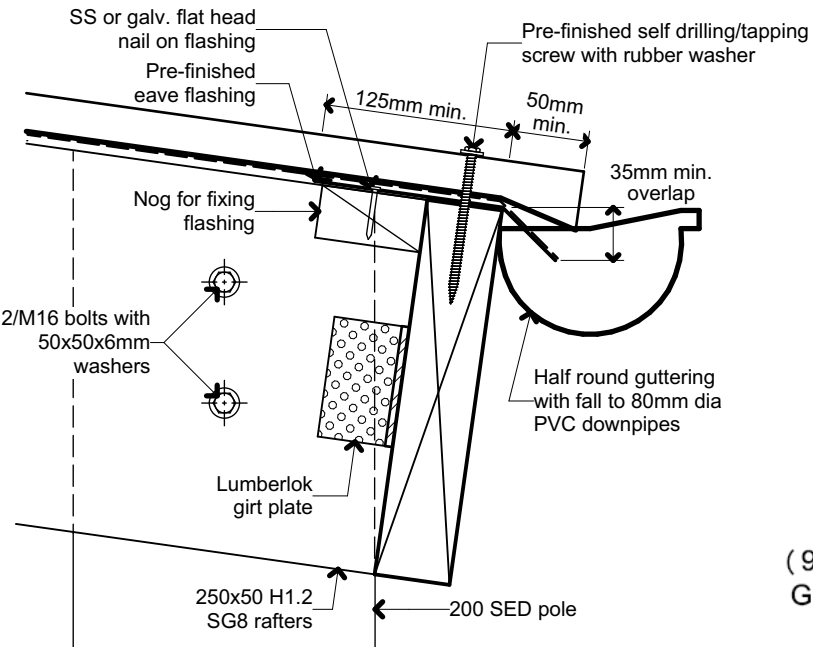
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	BC12							



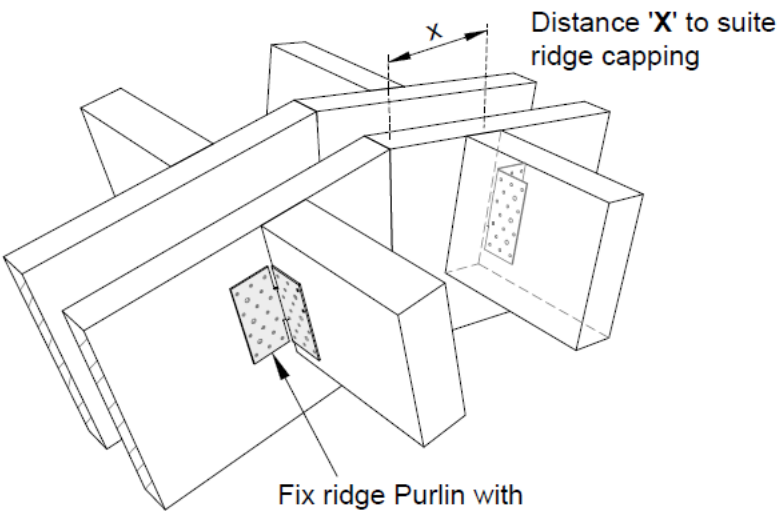
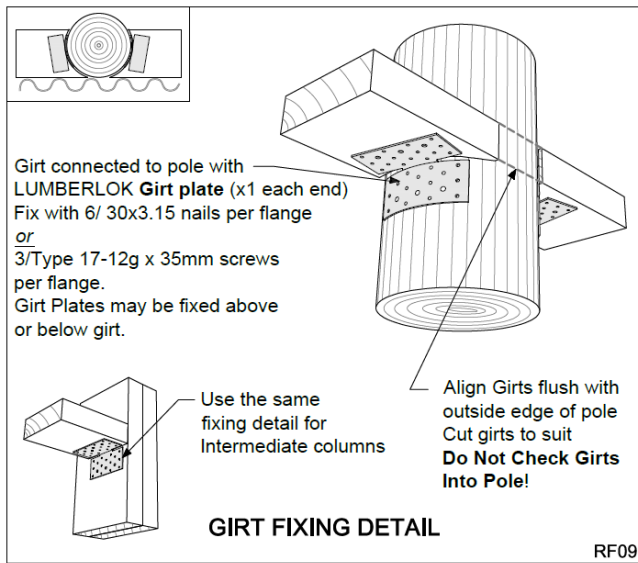
1 Barge Detail 1:5



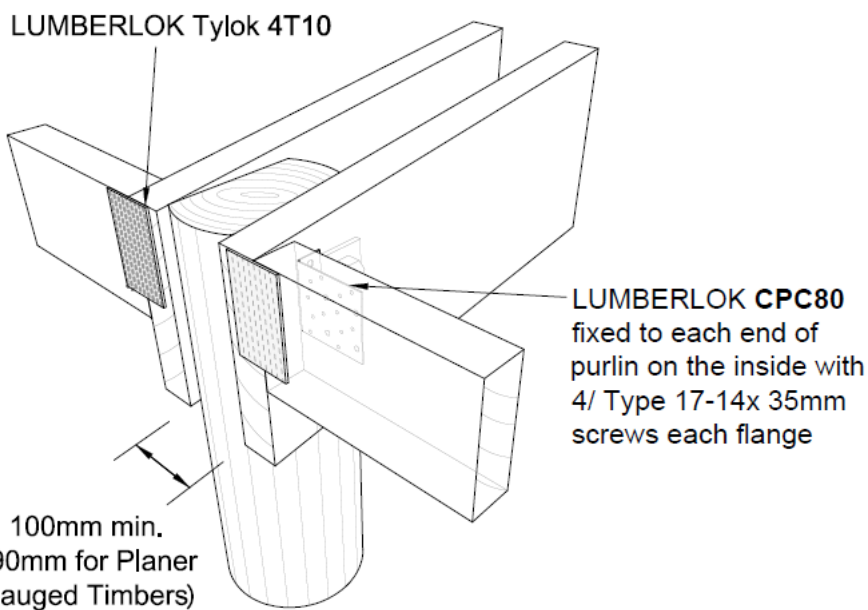
2 Apron Detail 1:5



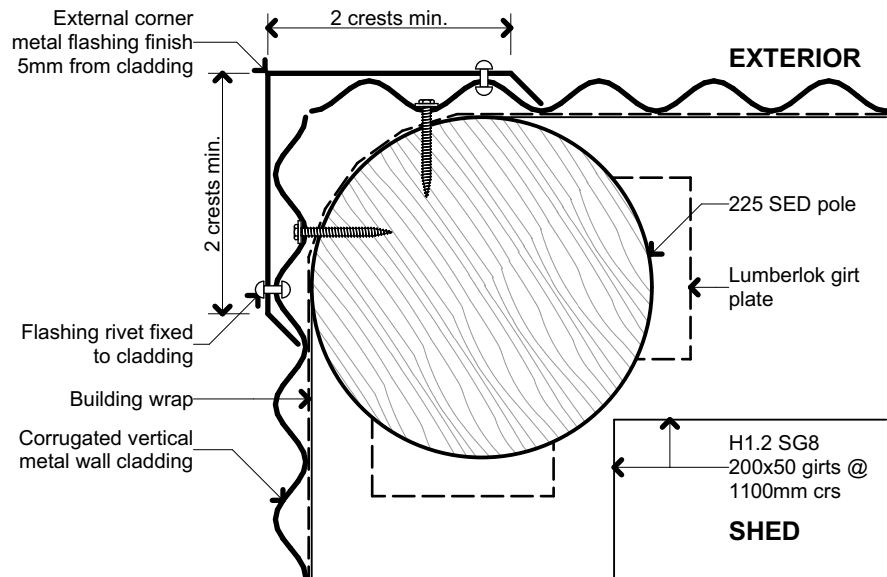
3 Verandah Rafter Detail 1:5



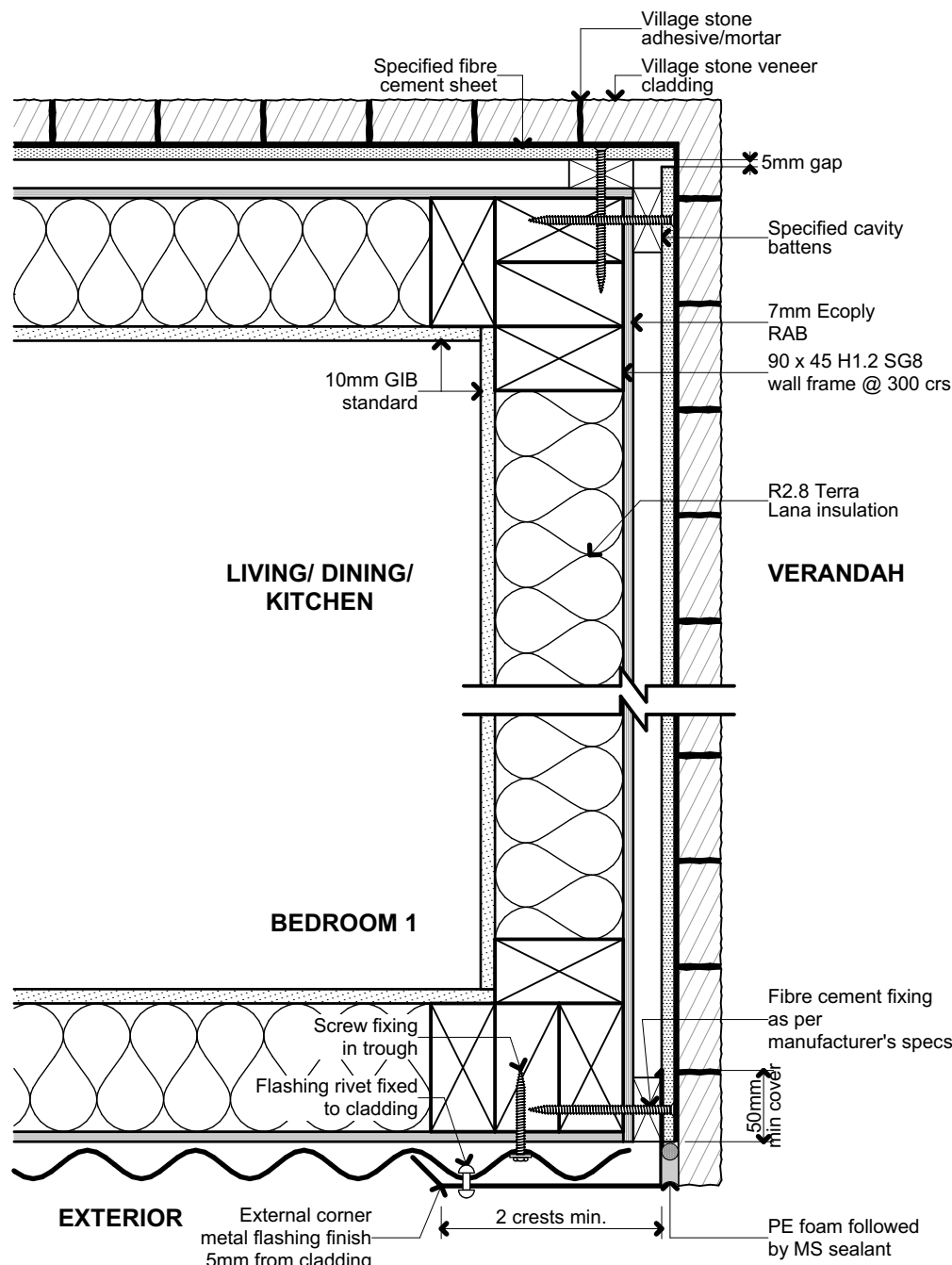
5 Ridge Purlin Detail



6 Rafter & Purlin Fixing Detail 1:20



4 Farm Building Corner Detail 1:5



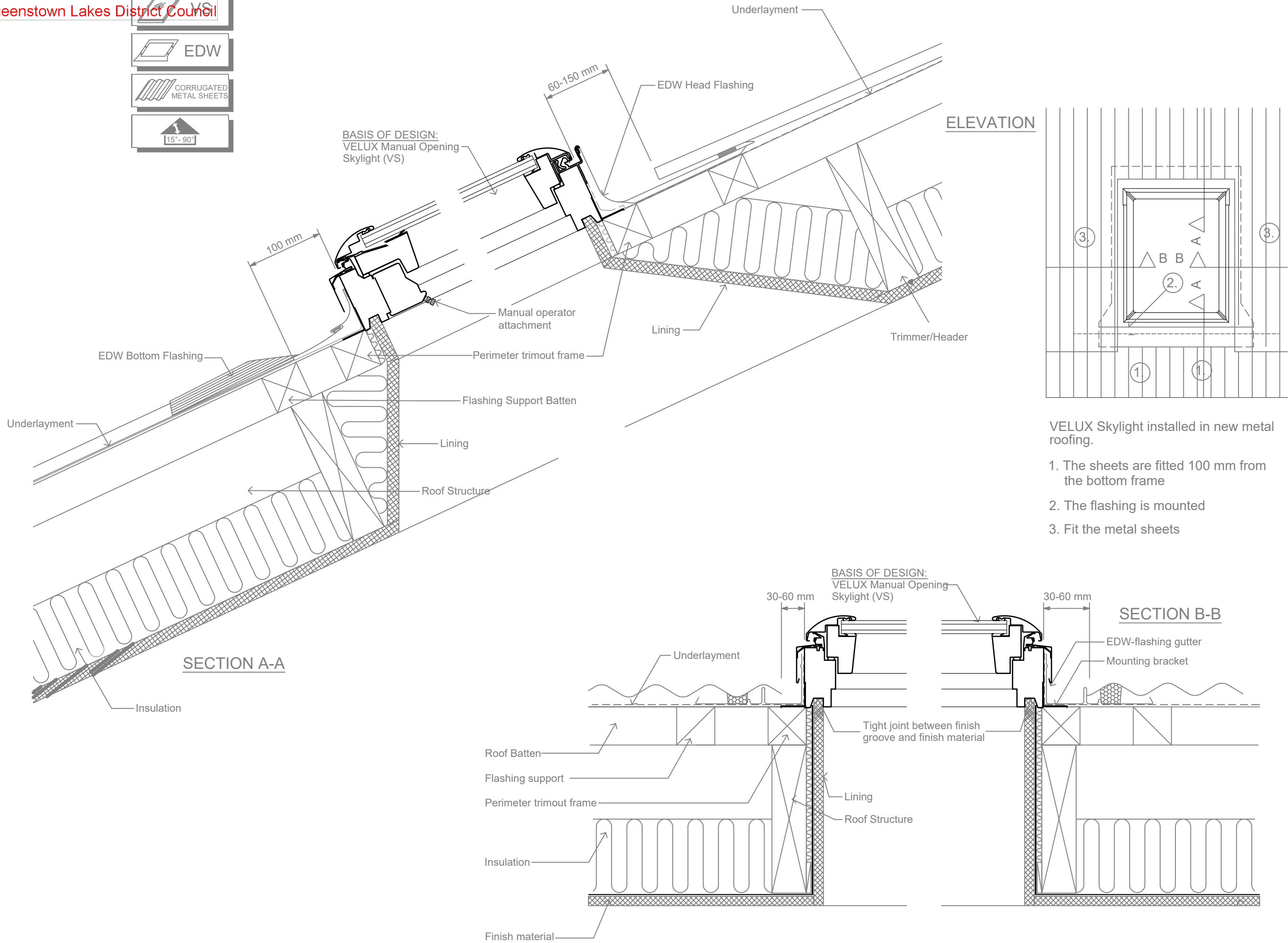
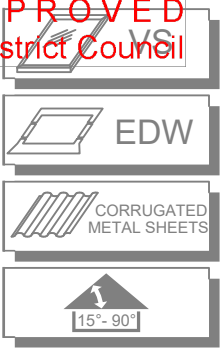
7 Schist Cladding Detail 1:5

RevID	ChID	Change Name	Date
0	A	Well stud size and spacing	22/04/2020
			10/08/2020

New Shed and Holiday Accomodation
Gibbston Highway, Gibbston
for Pringle Trustee Ltd

SHEET TITLE:	Wall, Roof & Farm Building Details	REVISION #:	REV A	ISSUED:	10/08/2020	JOB NO.:	19077
SHEET	BC13						





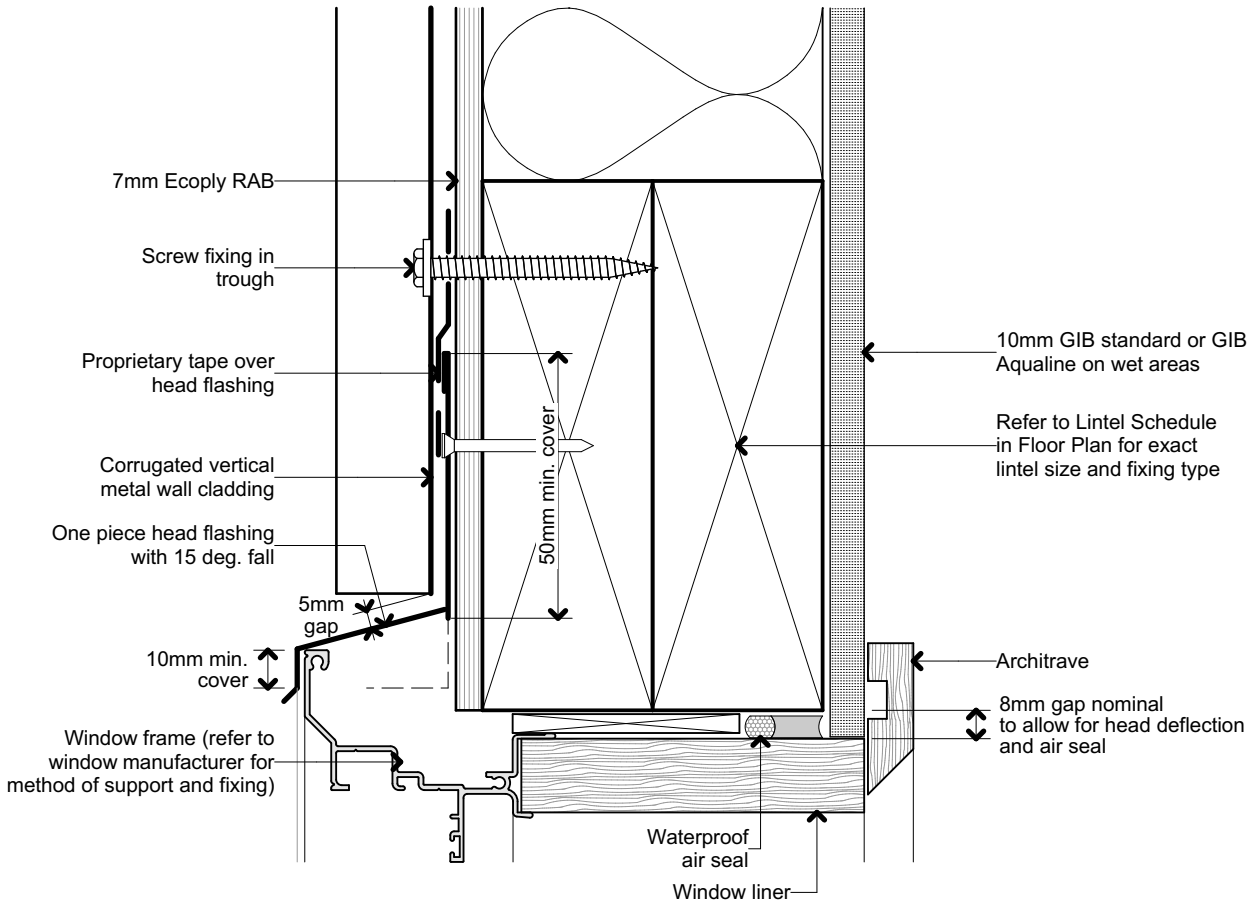
- VELUX Skylight installed in new metal roofing.
1. The sheets are fitted 100 mm from the bottom frame
 2. The flashing is mounted
 3. Fit the metal sheets

New Shed and Holiday Accomodation

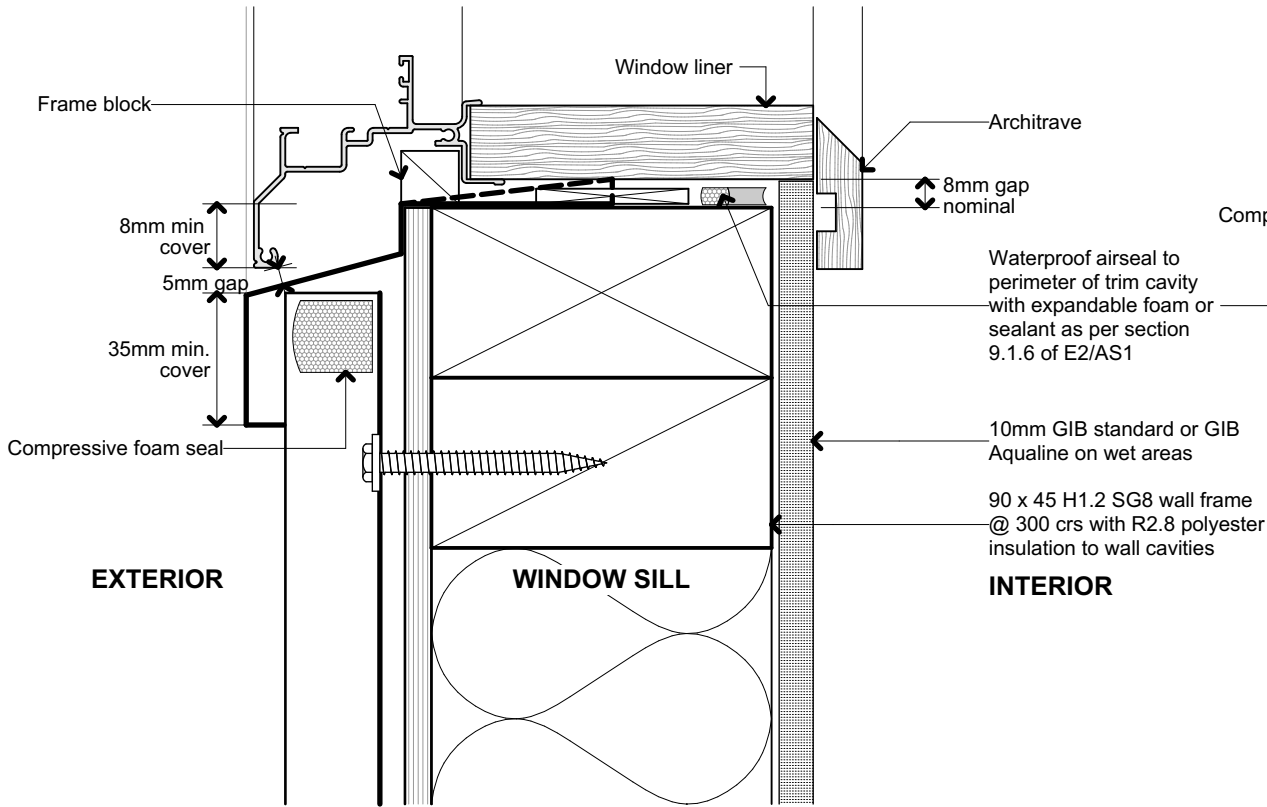
Gibbston Highway, Gibbston

for Pringle Trustee Ltd

SHEET BC14	SHEET TITLE:	REVISION #:	ISSUED: 22/04/2020	JOB NO.: 19077
	Skylight Details	Building Consent		



WINDOW HEAD



EXTERIOR

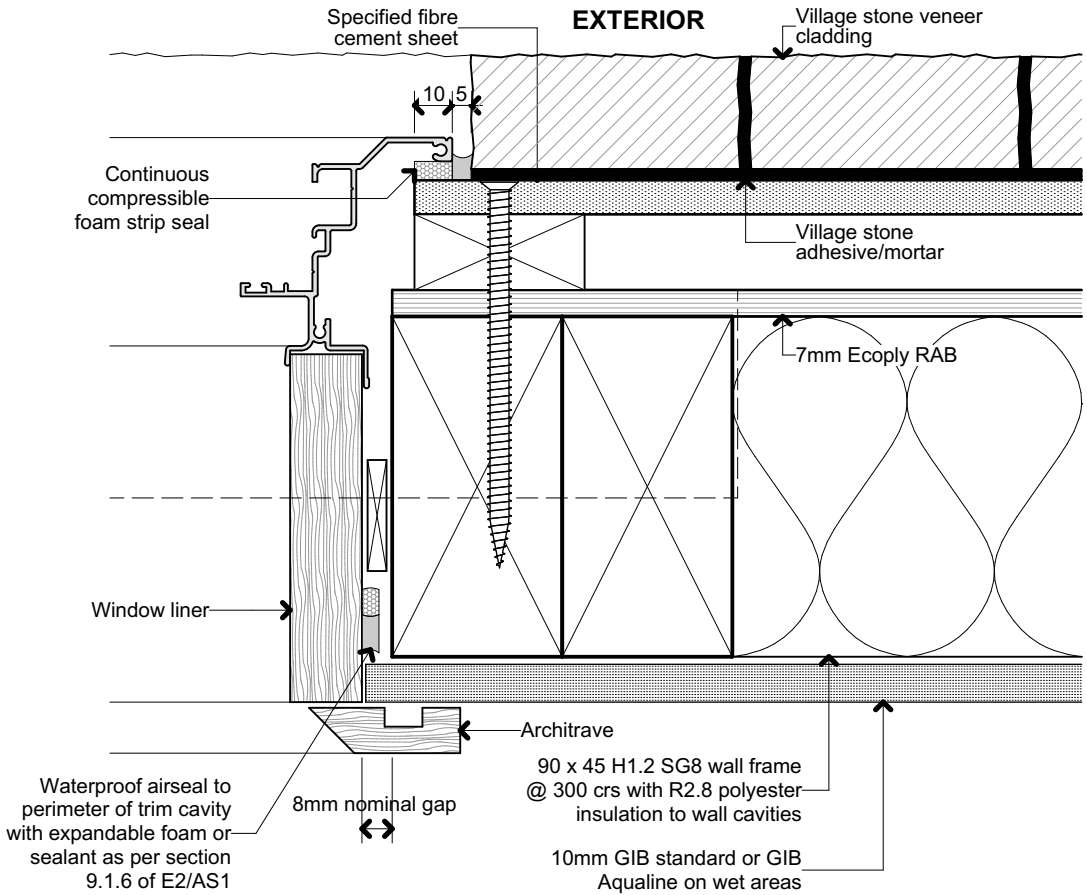
WINDOW SILL

INTERIOR

1

Joinery Details

1:2



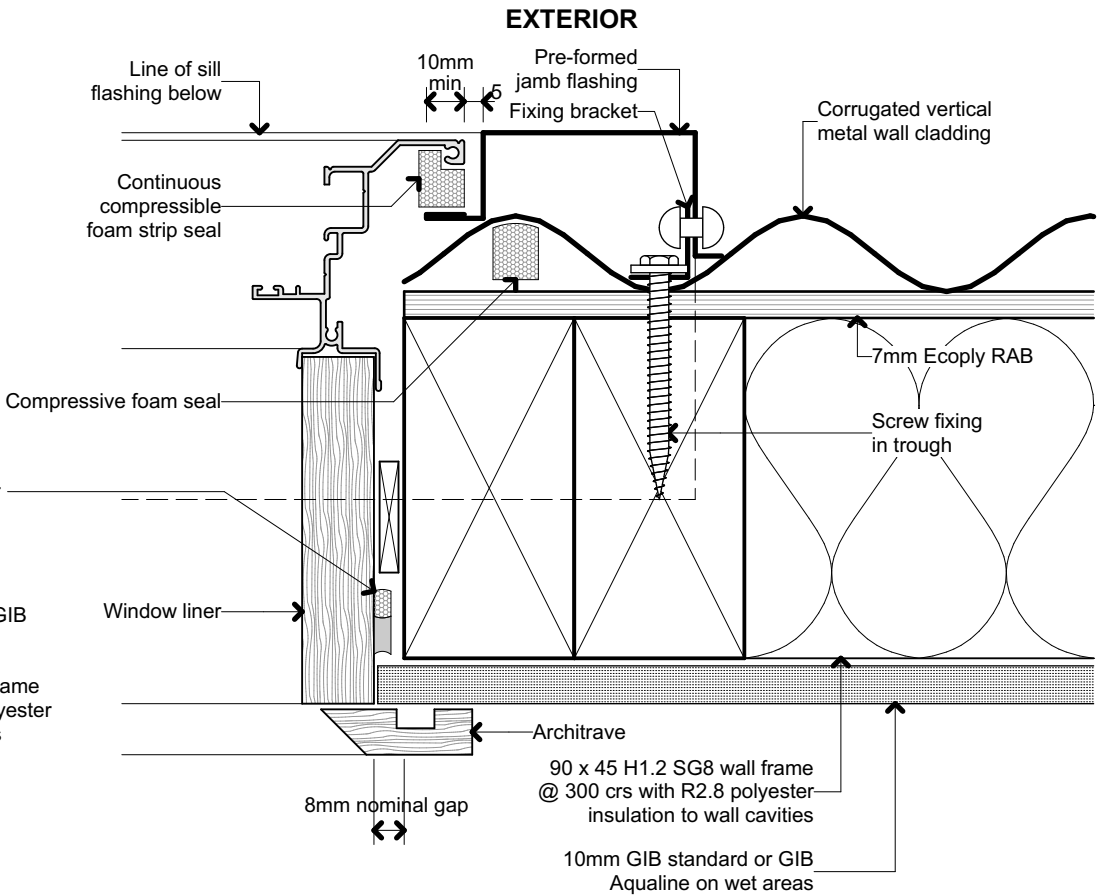
WINDOW JAMB

INTERIOR

2

Jamb Detail - Schist Cladding

1:2



WINDOW JAMB

INTERIOR

RevID	ChID	Change Name	Date
0			22/04/2020
A	A-1	Wall stud size and spacing	10/08/2020
B	B-1	Jamb Detail - Schist	20/08/2020

SHEET	SHEET TITLE:	Joinery Details	REVISION #:	REV B	ISSUED:	20/08/2020	JOB NO.:	19077
	BC15							





LUMBERLOK[®]

LINTEL FIXING SCHEDULE

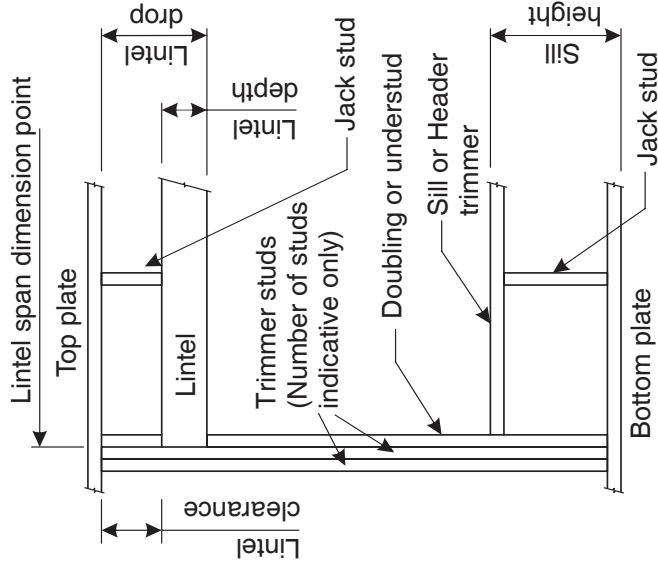
ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12
NZS 3604:2011

01/2017

NOTE:

- ★ All fixings are designed for vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa.
- ★ Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist horizontal loads.
- ★ These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- ★ All fixings assume bottom plate thickness of 45mm maximum. Note: TYLOK options on timber species.
- ★ Wall framing arrangements under girder trusses are not covered in this schedule.
- ★ All timber selections are as per NZS 3604:2011.

DEFINITIONS



Lintel Supporting Girder Trusses						
Roof Tributary Area	Light Roof			Heavy Roof		
	Wind Zone			Wind Zone		
	L, M, H	VH	EH	L, M, H	VH	EH
8.6m ²	G	G	H	G	G	H
11.6m ²	G	H	H	G	G	H
12.1m ²	G	H	H	G	H	H
15.3m ²	H	H	-	G	H	H
19.1m ²	H	-	-	G	H	-
20.9m ²	H	-	-	H	H	-
21.8m ²	H	-	-	H	-	-
34.3m ²	-	-	-	H	-	-

NOTES:

- Roof Tributary Area = approx. 1/2 x (Total roof area on girder and rafter trusses supported by lintel)
- Assumed girder truss is at mid-span or middle third span of lintel
- Use similar fixings for both ends of lintel
- All other cases require specific engineering design

Lintel Span (m)	Loaded Dimension (m) (See Fig. 1.3 NZS 3604:2011)	Light Roof Wind Zone				Heavy Roof Wind Zone			
		L	M	H	VH	L	M	H	VH
		EH				EH	L	M	H
1.0	2.0	E	E	E	F	F	E	E	E
	3.0	E	E	F	F	F	E	E	F
	4.0	E	F	F	F	G	E	F	F
	5.0	E	F	F	F	G	E	F	F
	6.0	E	F	F	F	G	E	F	F
1.2	2.0	E	E	F	F	F	E	E	F
	3.0	E	E	F	F	F	E	E	F
	4.0	E	F	F	F	G	E	F	F
	5.0	E	F	F	F	G	E	F	F
	6.0	F	F	G	G	H	E	F	G
1.5	2.0	E	E	F	F	F	E	E	F
	3.0	E	F	F	F	G	E	E	F
	4.0	E	F	F	F	G	E	F	F
	5.0	F	F	G	G	H	E	F	G
	6.0	F	F	G	G	H	E	F	G
2.0	2.0	E	F	F	F	G	E	E	F
	3.0	E	F	F	F	G	E	E	F
	4.0	F	F	G	G	H	E	F	G
	5.0	F	F	G	G	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
2.4	2.0	E	F	F	F	G	E	E	F
	3.0	F	F	G	G	H	E	F	G
	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
3.0	2.0	E	F	F	F	G	E	E	F
	3.0	F	F	G	G	H	E	F	G
	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
3.6	2.0	E	F	F	F	G	E	E	F
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	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
4.2	2.0	E	F	F	F	G	E	E	F
	3.0	F	F	G	G	H	E	F	G
	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
4.5	2.0	E	F	F	F	G	E	E	F
	3.0	F	F	G	G	H	E	F	G
	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
4.8	2.0	E	F	F	F	G	E	E	F
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	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G
5.1	2.0	E	F	F	F	G	E	E	F
	3.0	F	F	G	G	H	E	F	G
	4.0	F	F	G	G	H	E	F	G
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5.4	2.0	E	F	F	F	G	E	E	F
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	4.0	F	F	G	G	H	E	F	G
	5.0	F	G	G	H	H	E	F	G
	6.0	F	G	G	H	H	E	F	G

SHEET	SHEET TITLE:
	MITEK Lintel Fixing Schedule
BC16	REVISION #:
	Building Consent
ISSUED: 22/04/2020	
JOB NO.: 19077	

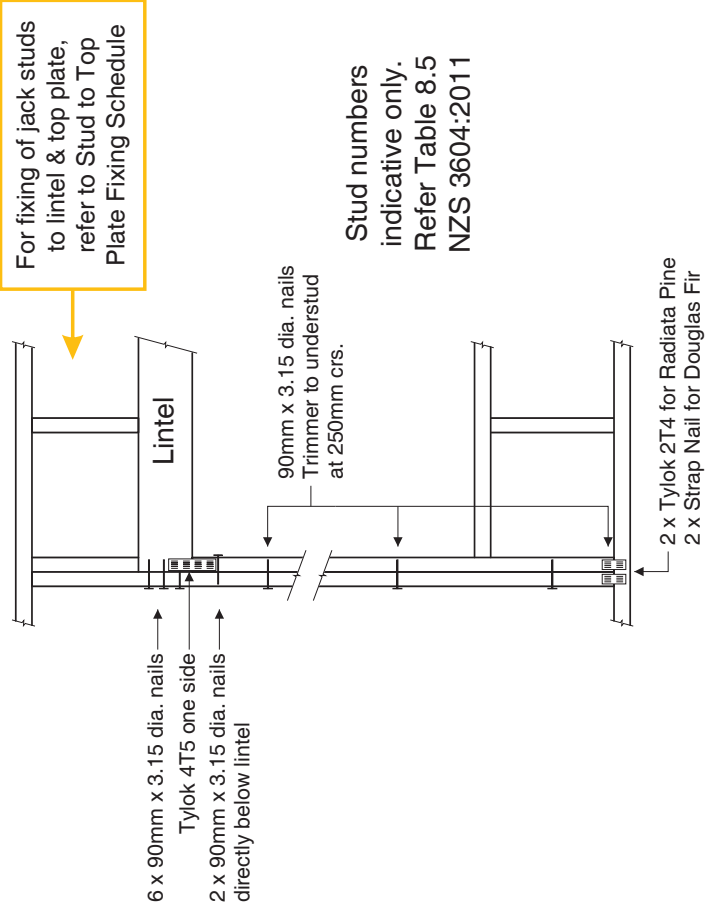
New Shed and Holiday Accomodation

Gibbston Highway, Gibbston

for Pringle Trustee Ltd

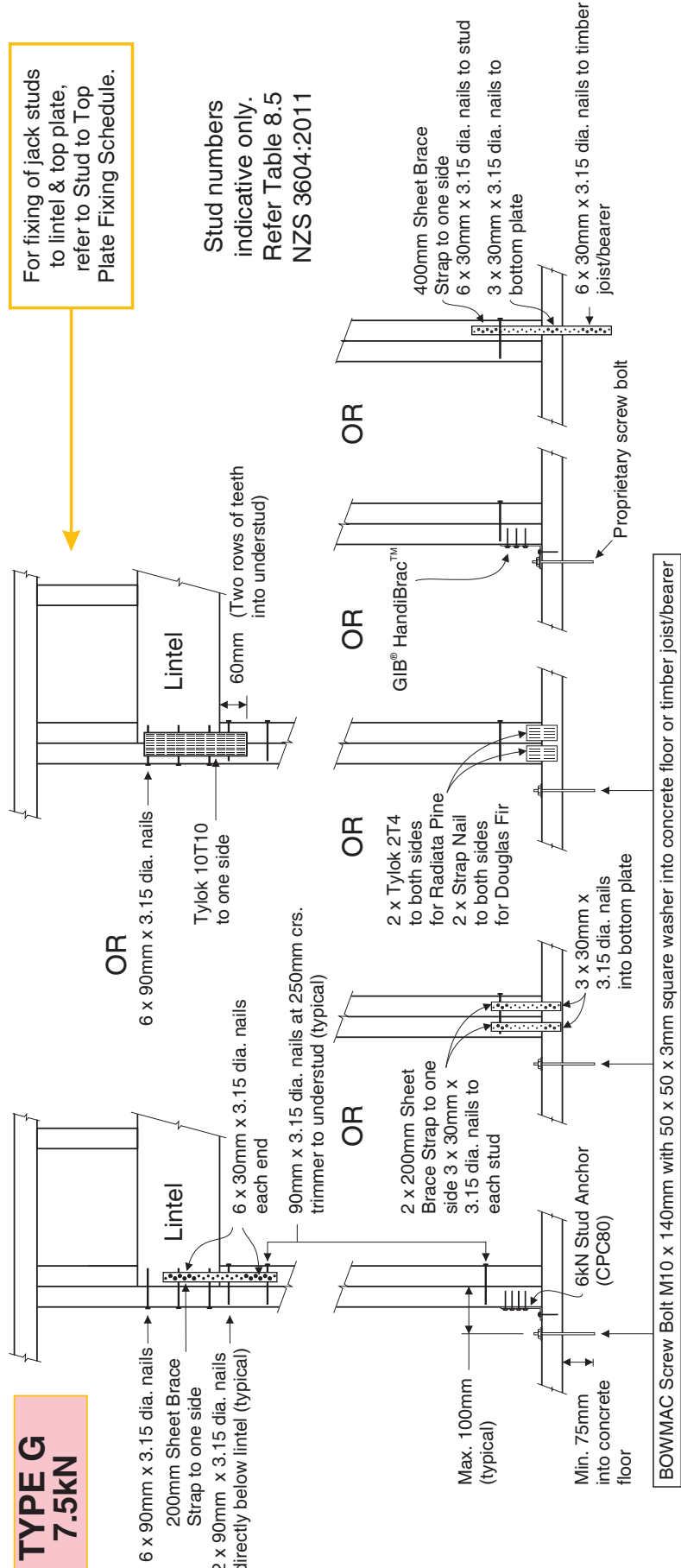
LINTEL FIXING OPTIONS

TYPE F
4.0kN

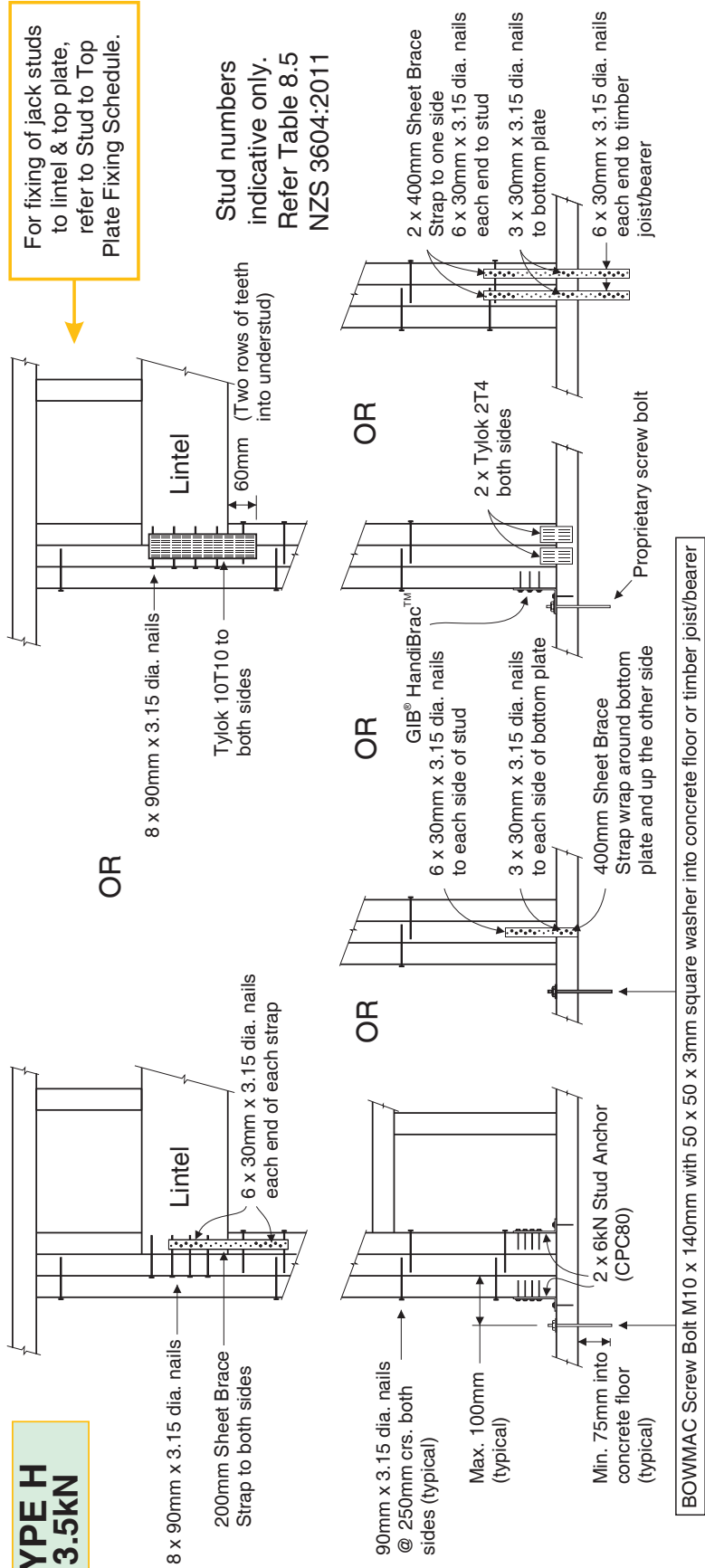


Stud numbers
indicative only.
Refer Table 8.5
NZS 3604:2011

TYPE G
7.5kN



TYPE H
13.5kN



SHEET	SHEET TITLE:
	MITEK LinTEL Fixing Guide
REVISION #:	Building Consent
ISSUED:	22/04/2020
JOB NO.:	19077

Table 1A	Requirements for radiata pine and Douglas fir solid timber to achieve a (minimum) 50 year durability performance		
Ref No.	Wood-based building components	Species or type	Level of treatment ⁽²⁾ to NZS 3640
C – Members protected from the weather but exposed to ground atmosphere (see section 108 of NZS 3602)			
1C.1	Jackstuds, subfloor braces, bearers, wall plates, floor joists to the subfloor, blocking, subfloor wall studs, wallings and battens, wall studs and noggs, diagonal boards	Radiata pine Douglas fir	H1.2
1C.3	Interior flooring, suspended ground floors	Radiata pine Douglas fir	H1.2
NOTE			
(2) Throughout Table 1A, timber treated to a higher level than the minimum satisfies the minimum requirements			
D – Members protected from the weather but with a risk of moisture penetration conducive to decay (see section 109 of NZS 3602)			
Roof members (in or associated with)			
1D.1	Sarking and framing not protected from solar driven moisture through absorbent cladding materials ⁽⁸⁾	Radiata pine Douglas fir	H1.2
1D.2	Enclosed flat roof framing and associated roof members	Radiata pine Douglas fir	H1.2
1D.3	Enclosed skillion roof framing and associated roof members	Radiata pine Douglas fir	H1.2
1D.4	Valley boards and boards supporting flashings or box gutters and flashings to roof penetrations and upstands to roof decks ⁽¹⁰⁾	Radiata pine Douglas fir	H1.2
Wall members (in or associated with)			
1D.5	Framing and other members within or beneath a parapet	Radiata pine Douglas fir	H1.2
1D.6	Framing, and other members within enclosed decks or balconies	Radiata pine Douglas fir	H1.2
1D.7	Cantilevered enclosed deck joists and associated framing including joist trimmers, noggs, and blocking ⁽⁵⁾	Radiata pine Douglas fir	H3.2
1D.8	Framing and other members supporting enclosed decks (including enclosed cantilevered decks) or balconies	Radiata pine Douglas fir	H1.2
1D.10	Battens used behind cladding to form a cavity	Radiata pine Douglas fir	H3.1
1D.14	All other exterior wall framing and other members including exterior and boundary joist ⁽⁹⁾ ⁽¹¹⁾	Radiata pine Douglas fir ⁽¹⁴⁾	H1.2
NOTE			
(5) H3.2 refers to preservative treatments outlined in NZS 3640.			
(8) Timber shakes and shingles, and similar absorbent claddings, absorb moisture that can be driven in frame cavities by evaporation. Unless the cavities are adequately drained and ventilate, continuing condensation caused by solar driven transfer increases the moisture content in the cavities and timber framing requiring a higher level of timber treatment to resist decay.			
(9) Such as joists, lintels, wall plate and double top plates, studs, together with parapets, enclosed balustrades, boxed columns and chimneys			
(10) Any metal flashing shall be separated from the treated timber with building paper.			
(11) Exposed ends of joists shall be protected by a boundary joist.			

Table 1A (continued)	Requirements for radiata pine and Douglas fir solid timber to achieve a (minimum) 50 year durability performance		
Ref No.	Wood-based building components	Species or type	Level of treatment ⁽²⁾ to NZS 3640
E – Members not exposed to weather or ground atmosphere and in dry conditions (see section 110 of NZS 3602)			
1E.1	All roof trusses, including gable end trusses, roof framing, ceiling and eaves framing, purlins and battens	Radiata pine Douglas fir ⁽¹⁴⁾	H1.2
1E.2	All midfloor framing including boundary joists, ceiling framing, ceiling battens, and double top plates	Radiata pine Douglas fir ⁽¹⁴⁾	H1.2
1E.3	Wall framing and roof framing (including trusses) protected from the weather, in unlined and unoccupied farm buildings and outbuildings except those not allowed in 110.2(f) of NZS 3602	Radiata pine Douglas fir	None
1E.5	Internal walls	Radiata pine Douglas fir ⁽¹⁴⁾	H1.2
1E.7	Interior flooring	Pinus species Douglas fir ⁽¹⁴⁾	H1.2
NOTE			
(14) Exceptions to the levels of treatment for Douglas fir are provided in Paragraph 3.2.2.2 of this <i>Acceptable Solution</i> B2/AS1.			

Table 2A	Requirements for radiata pine and Douglas fir solid timber to achieve a 15-year durability performance		
Ref No.	Wood-based building components	Species or type	Level of treatment ⁽²⁾
B – Members protected from the weather and dampness (see section 111 of NZS 3602)			
2B.1	Non-load bearing interior wall framing	Radiata pine Douglas fir ⁽⁹⁾	H1.2
2B.2	Stair treads, risers and handrails	Radiata pine Douglas fir ⁽⁹⁾	None
NOTE			
(2) Throughout Table 2A, timber treated to a higher level than the minimum satisfies the minimum requirements			
(9) Exceptions to the levels of treatment for Douglas fir are provided in Paragraph 3.2.2.2 of this <i>Acceptable Solution</i> B2/AS1.			

COMMENT:

Summary of requirements for radiata pine and Douglas fir framing for B2/AS1

Cantilevered enclosed balcony and balustrade

Enclosed balcony and balustrade with living space below

Enclosed balcony and balustrade open below

■ ■ ■ H 1.2

■ ■ ■ H 3.2

■ ■ ■ H 5

Note: Post is H5 if in ground contact.

TIMBER TREATMENT SCHEDULE

New Shed and Holiday Accomodation

Gibbston Highway, Gibbston

for Pringle Trustee Ltd

SHEET TITLE:

Timber Treatment Schedule

REVISION #:

Building Consent

ISSUED:

22/04/2020

JOB NO.:

19077

SHEET

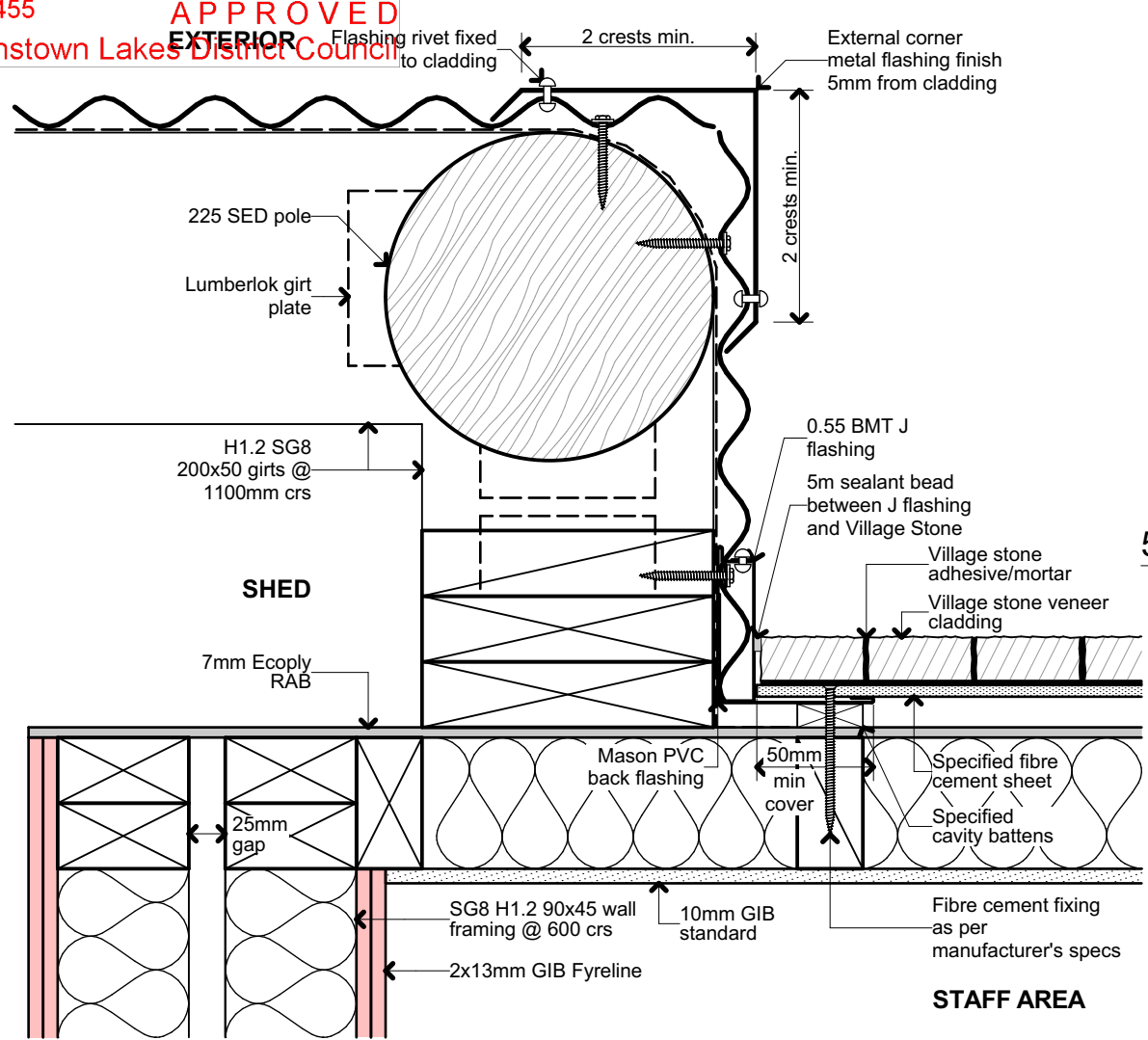
BC18

GREENHAUS ARCHITECTS

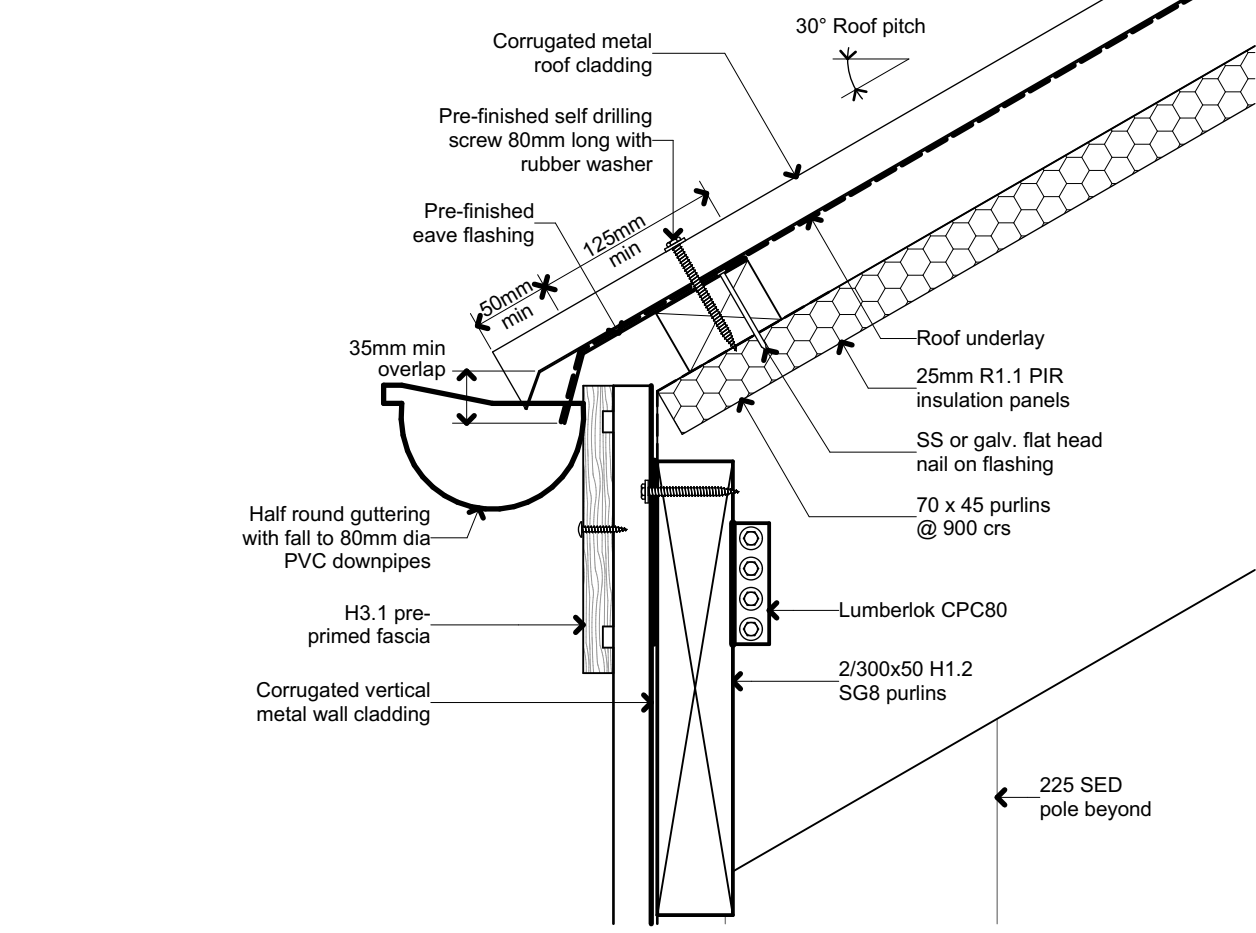
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architects@greenhausarchitects.co.nz

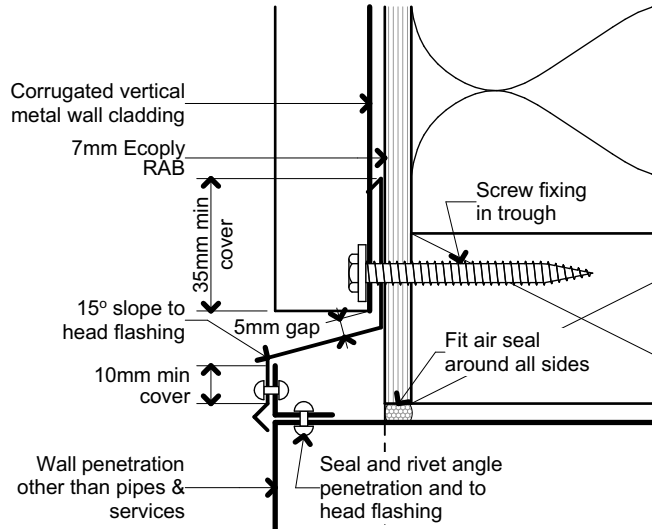
www.greenhausarchitects.co.nz



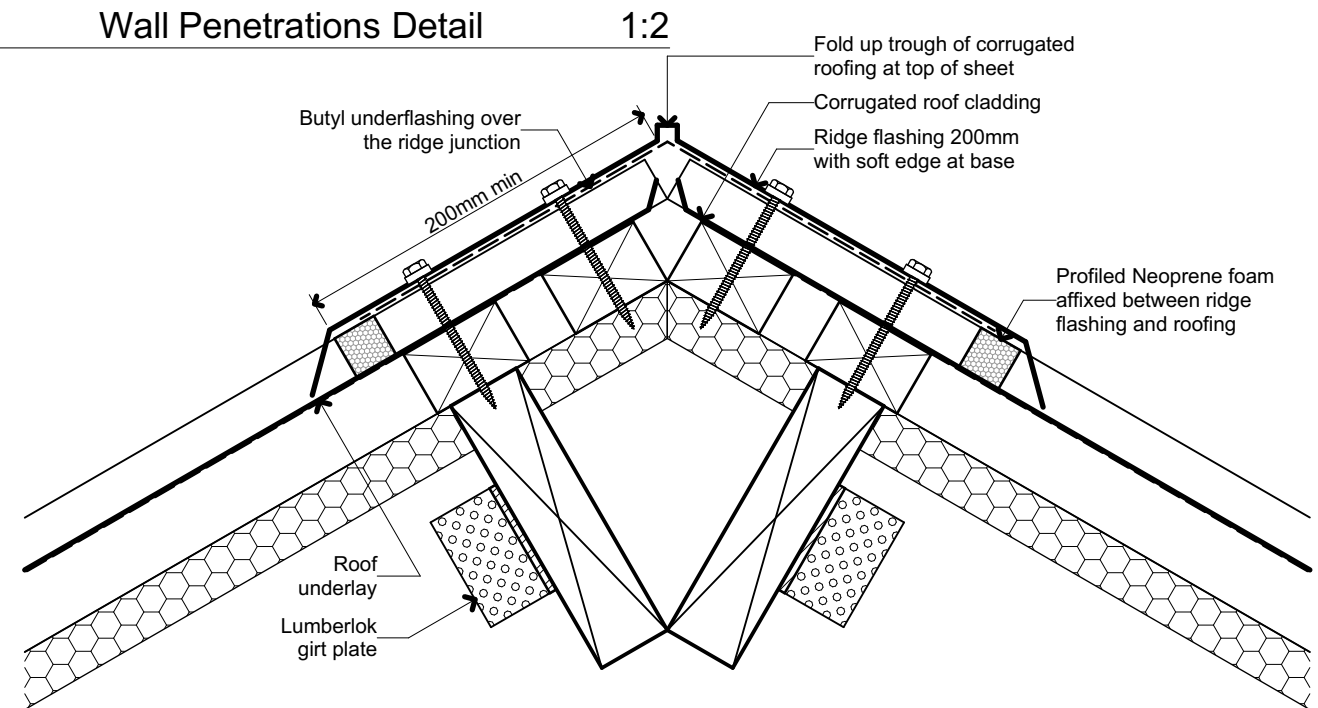
1 Internal Cornder - Schist Wall and Vertical Metal Cladding 1:5



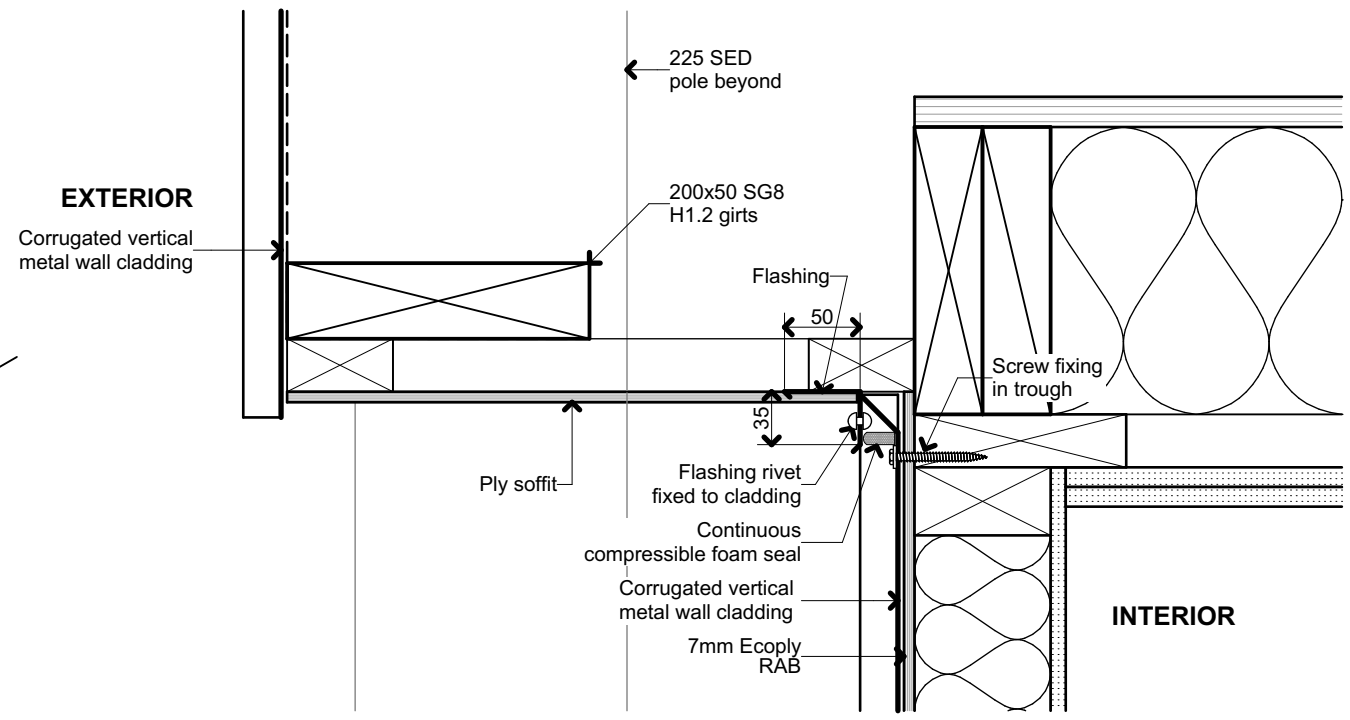
4 Gutter Detail 1:5



5 Wall Penetrations Detail 1:2



2 Ridge Flashing Detail 1:5



3 Soffit Detail 1:5

RevID	ChID	Change Name	Date
A			10/08/2020
B	B-1	Soffit detail	20/08/2020
	B-2	Wall penetration detail	

New Shed and Holiday Accomodation

Gibbston Highway, Gibbston
for Pringle Trustee Ltd

SHEET	SHEET TITLE:		
	Additional Details		
	REVISION #:		
BC19	REV B		
	ISSUED: 20/08/2020		JOB NO.: 19077

SHEET **BC19**

Table 7.5 – Nailing schedule for hand-driven and power-driven nails (see 7.6)

Joint	Hand-driven nails		Power-driven nails	
	Length (mm) x diameter (mm) and type	Number/ Location	Length (mm) x diameter (mm) and type	Number/ Location
Floor framing				
Boundary joist to end of each joist	100 x 3.75	2 (end nailed)	90 x 3.15	2 (end nailed)
Curtailed joist not exceeding 3 m long to trimmer	100 x 3.75	3 (end nailed)	90 x 3.15	5 (end nailed)
Curtailed joist to trimmer when half housed	100 x 3.75	2 (end nailed)	90 x 3.15	3 (end nailed)
Flitched joint in joist	100 x 3.75	4 (each end)	90 x 3.15	6 (each end)
Herringbone strutting to joist	60 x 2.8	2 (skewed)	60 x 2.8	2 (skewed)
Joist to plate on foundation walls	100 x 3.75	12 (skewed) per 1.5 m length	90 x 3.15	18 (skewed) per 1.5 m length
Joist to plate or bearer	100 x 3.75	2 (skewed)	90 x 3.15	3 (skewed)
Lapped joint in joist	100 x 3.75	2 (each side)	90 x 3.15	3 (each side)
Solid blocking between joists to plate bearer or stringer	100 x 3.75	4 (skewed)	90 x 3.15	6 (skewed)
Solid blocking to joist	100 x 3.75 or 75 x 3.15	2 (end nailed) 4 (skewed)	90 x 3.15	2 (end nailed)
Flooring				
Sheet decking (not exceeding 21 mm thick): (a) Supports at sheet edges (b) Intermediate supports	60 x 3.06 ring shanked galv. or 60 x 2.8	150 mm centres 300 mm centres	60 x 2.8 ring shanked galv.	150 mm centres 300 mm centres
Strip flooring not exceeding 75 mm wide to floor joist	2½ x finished thickness	1	–	1
Strip flooring not exceeding 100 mm wide to floor joist	2½ x finished thickness	2	–	2
NOTE – (1) Nail lengths and diameters are the minimum required. (2) See 4.4 for required protective coatings for metal fasteners.				

Table 8.18 – Fixing of top plate of wall to supporting members such as studs and lintels at 600 mm centres (see 8.7.6 and figure 8.12)

Loaded dimension of wall (m)	Light roof										Heavy roof				
	Roof member spacing (mm)														
	900					1200					900				
	Wind zone					Wind zone					Wind zone				
	L	M	H	VH	EH	L	M	H	VH	EH	L	M	H	VH	EH
	Fixing type (see below)														
2.0	A	A	B	B	B	A	A	B	B	B	A	A	A	B	B
3.0	A	B	B	B	B	A	B	B	B	B	A	A	B	B	B
4.0	A	B	B	B	B	A	B	B	B	B	A	A	B	B	B
5.0	B	B	B	B	B	B	B	B	B	B	A	A	B	B	B
6.0	B	B	B	B	B	B	B	B	B	B	A	A	B	B	B
Fixing type	Fixing to resist uplift										Capacity of alternative fixing (kN)				
A	2 / 90 x 3.15 end nails										0.7				
B	2 / 90 x 3.15 end nails + 2 wire dogs										4.7				

SHEET	SHEET TITLE:		REVISION #:	ISSUED:	JOB NO.:
	NZS3604 Tables				
BC20		REV A		10/08/2020	
				19077	

PREPARED FOR PRINGLE TRUSTEE (2016) LIMITED

8 AUGUST 2023

J2006

LANDSCAPE AND VISUAL EFFECTS ASSESSMENT

PROPOSAL TO UNDERTAKE A TWO LOT
SUBDIVISION, RECONFIGURE AN EXISTING
BUILDING PLATFORM AND CREATE AN
ADDITIONAL BUILDING PLATFORM AT LOT 5
DP 27121 IN THE GIBBSTON VALLEY.

vivian+espie
resource management and landscape planning

INTRODUCTION & DESCRIPTION OF THE PROPOSAL

- 1 This report identifies and evaluates the landscape and visual effects likely to arise from a proposal to subdivide the 4.77ha property legally described as Lot 5 DP 27121 (**the site**) to create two allotments, create a building platform and reconfigure a consented building platform accessed off the Gibbston Highway/State Highway 6 (**SH6**), Queenstown.
- 2 The proposed layout of activities is shown in Appendix 2 to this report, which is a proposed Structural Landscape Plan. The site comprises open paddock, rocky outcrops with remnant native vegetation, productive vineyards and a shed that contains workers accommodation in accordance with BC200455. The site is located amongst a cluster of similar rural living allotments to the south of SH6. The site is located in the Gibbston Character Zone (**GCZ**). The nearest Outstanding Natural Feature (**ONF**) is the incised Kawarau River Gorge approximately 350m north of the site.
- 3 The details and layout of the proposed activities are set out in the resource consent application and its various appendices. Those details are not repeated here, other than to make the following summary points that are relevant to an assessment of landscape issues.
 - The proposal is to subdivide the site into two allotments.
 - Lot 1 is to be 1.79ha and will contain the existing shed and workers accommodation building that is partially located within a consented platform.
 - The existing 1200m² building platform within Lot 1 is to be reconfigured from a 30mx40m rectangular shape to an L shape that take in the existing building and as well as a vacant area.
 - Lot 2 is to be 2.98ha and contain a proposed 612.5m² building platform.
 - The maximum building height within the proposed platform is to be six metres above 365.35 masl, being a datum ground level within the platform.
 - A 713m² existing parcel that also forms part of the site (Lot 25 DP 302492) is to be amalgamated with proposed Lot 1.
 - The proposed structural landscaping involves:

- Retention of existing rocky outcrops and native grey shrubland planting identified on the Structural Landscape Plan attached as Appendix 2 to this report.
- Additional grey shrubland planting within the rocky outcrop areas surrounding the reconfigured and proposed platforms.
- Additional amenity/shelter trees are proposed within the open pastoral areas surrounding the reconfigured and proposed platform.

METHODOLOGY

4 The methodology for this assessment has been guided by:

- The Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines.
- The landscape-related provisions of the Proposed District Plan.

5 When describing effects, we will use the hierarchy of adjectives given in the bottom row of the table below. The top rows show how the adjectives that we use can be related to specific wording within the RMA¹.

			SIGNIFICANT			
LESS THAN MINOR	MINOR		MORE THAN MINOR			
VERY LOW	LOW	LOW-MOD	MODERATE	MOD-HIGH	HIGH	VERY HIGH

EXISTING LANDSCAPE

*Physical Attributes*²

6 The Gibbston Valley is a flat and terraced valley, located approximately 25 kilometres east of Queenstown. The valley floor is approximately seven kilometres long, contained to the west by Cowcliff Hill (and the Kawarau Bridge), and to the east by the Nevis Bluff. The valley is approximately three kilometres wide at its widest part, defined to the north by the Kawarau River, and the mountain slopes on the northern side of the river. These include Mount Hocken, Rock

¹ Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022.

² The NZILA Guidelines define physical attributes as "both the natural and human-derived features, and the interaction of natural and human processes over time", at paragraph 4.23.

Peak, Mount Allen and Mount Malcolm. The valley is defined to the south by Mount Mason, Mount Rosa, Mount Edward, Mount Salmond and Ben Cruachan.

- 7 The Gibbston Valley is dominated by rural farming and viticultural activities on terraced areas, enclosed by dry, sparsely vegetated mountain slopes. Areas of exposed rock outcrops, gullies and escarpments within Gibbston Valley have been left relatively undisturbed and provide permanent natural elements amongst the more transient shelter and amenity planting, pasture and vineyard blocks.
- 8 In relation to the existing landscape character and values of the Gibbston Valley, the soils and microclimate are particularly suitable for viticulture, and considerable vine plantings already cover much of the valley. The character within the valley landform is largely a modified productive landscape (rather than natural) character, the existing viticultural development provides pleasantness and aesthetic coherence that contribute to visual amenity.
- 9 In a broad sense, grapevines dominate the visual landscape experience of travelling through the Gibbston Valley. Buildings, including dwellings and winery buildings, are also readily visible although many are partially hidden by topography and vegetation. Stands and lines of shelter trees are also scattered throughout the valley, punctuating the open areas of grapevines.
- 10 The subject site sits relatively centrally in the Gibbston Valley, on the lower flats and terraces adjacent to SH6. The site is part of a group of rural living lots that occupy the flats and terraces adjacent to the road.
- 11 The rural living area, in which the subject site sits centrally, comprises nine rural living sites with building platforms on the southern side of SH6. The lots were created by RM960512 and range in size with most being around 4.0ha. These lots are of such a size that they are used for both rural living and productive uses, with blocks of vines surrounding the residential development.

Associative Attributes³

- 12 I have no specific knowledge of Tangata Whenua associations with this landscape. This Gibbston Valley is known for the vineyards and wine production. The Gibbston Valley is for recognised for tourism with various cellar doors, restaurants, pubs and boutique accommodation making the valley a destination.

³ The NZILA Guidelines define associative attributes at paragraph 4.23 as "the intangible things that influence how places are perceived – such as history, identity, customs, laws, narratives, creation stories, and activities specifically associated with a landscape".

Perceptual Attributes⁴

- 13 The Gibbston Valley is recognised for its aesthetic qualities relating to the viticultural landscape on the valley floor and the rugged, natural landscape of the enclosing mountain ranges. The valley floor is viewed as a more modified landscape with a backdrop of the natural hillslopes. These views contribute to the aesthetic experience of both residents and visitors traveling on SH6. The steep, dry, eroding mountain slopes create a strong sense of enclosure.
- 14 The formative patterns of the Gibbston Valley are highly legible and expressive and can be seen in the river gorge and the open and craggy mountain slopes. The upper slopes evoke a sense of relative naturalness and wildness, particularly when contrasted with the more cultivated viticultural landscape of the valley floor and lower slopes.
- 15 The Gibbston valley has transient values relating to seasons and light. The foliage of the vines change colour across seasons, changing the hue of the valley floor from greens in the spring and summer, to autumnal hues and bare vines in the colder months. The interplay of light and shadow on the craggy mountain slopes also contribute to the transient values of the valley.
- 16 The Gibbston Valley is part of a highly memorable journey through the viticultural landscape that leads to the barren landscape of the Kawarau Gorge. The contrast between the cultivated landscape and wildness and inhospitable nature of the gorge contribute to its memorability.

Landscape Values⁵

- 17 The area is valued for productive viticulture and wineries. It has a pleasant bucolic quality and is in close proximity to the township Queenstown.
- 18 ONLs that surround the Gibbston Character Zone and include the rugged schist mountains, and the Kawarau River and its margins which are valued for their dramatic form and aesthetic quality.

⁴ The NZILA Guidelines define perceptual attributes at paragraph 24.3 as being "both sensory experience and interpretation. Sensory appreciation typically occurs simultaneously with interpretation, knowledge, and memory".

⁵ The NZILA Guidelines define landscape values at paragraph 5.6 and the glossary as "the reasons a landscape is valued – the aspects that are important or special or meaningful" and note that "values are embodied in certain attributes". Also, at paragraph 5.55, it is helpfully notes that "hybrid terms such as 'visual amenity', 'rural amenity' and 'natural amenity' are shorthand for 'landscape values that contribute to amenity values'".

RELEVANT STATUTORY CONTEXT

- 19 The site is within the GCZ pursuant to both the ODP and PDP. No appeals seek to change the zoning of the relevant land. We therefore understand that considerable weight can be placed on the PDP.
- 20 A detailed assessment against the relevant assessment matters is attached as Appendix 1 to this report.

ASSESSMENT OF LANDSCAPE AND VISUAL EFFECTS VISUAL CATCHMENT AND VIEWING AUDIENCES

- 21 The proposed activity may be partially visible to:
- Users of State Highway 6 (SH6).
 - Users of neighbouring and nearby properties.
 - Elevated public and private land.

EFFECTS ON VIEWS AND VISUAL AMENITY

- 22 Visual effects are:

“effects on landscape values as experienced in views. ... A proposal that is in keeping with the landscape values, for example, may have no adverse visual effects even if the proposal is a notable change to the view. Conversely, a proposal that is completely out of place with landscape values may have adverse effects even if only occupying a portion of the view”⁶.

- 23 Appendix 1 of this report gives comments in relation to the relevant PDP assessment matters, some of which relate to effects on views and visual amenity. In this section of our report, we set out our overall findings in relation to views and visual amenity. Appendix 3 to this report is a Context and Viewpoint Map and Appendix 4 contains the associated photographs.

⁶ Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines, April 2021, New Zealand Institute of Landscape Architecture, paragraphs 6.25 and 6.27.

Users of State Highway 6 (SH6)

- 24 SH6 connects Cromwell and Queenstown passing through the Gibbston Valley. The highway passes the northern boundary of the site. Access to the site and several other rural living sites in the vicinity is via a vehicle crossing that connects the subject site to SH6.
- 25 Views into the site will be gained from a stretch of SH6 for a stretch of road approximately 600m. Future development within the proposed platform, when experienced from SH6 will appear similar in size and scale to the existing rural living development within neighbouring properties. The proposed platform will sit between the site's existing platform and the neighbouring dwelling on Lot 4 DP27121. The site is situated within a part of the Gibbston Valley where the configuration of rural living development changes from a more linear configuration of building platforms and dwelling to the east of the site and a more clustered configuration of residential development within a rocky outcrop to the west. As such, the clustering of the houses will appear cohesive, and the proposed and altered platforms will not disrupt a currently legible pattern.
- 26 The proposed development will be visibly evident only from a short stretch of SH6. We do not consider that it will appear visually prominent, nor will it detract from views characterised by the surrounding viticultural landscape. The type of visual amenity that is currently experienced will remain intact and the overall view will not be markedly degraded in any way, albeit that residential land use will intensify. Overall, we consider that the adverse effects of views and visual amenity, on the users of SH6 Road will be of a low degree.

Neighbouring and nearby properties

- 27 We understand that Affected Party Approval (**APA**) has been obtained from several neighbours including 2114 Gibbston Highway, 2128 Gibbston Highway, 2124 Gibbston Highway, Lot 2 DP 27121 Gibbston Highway, and Lot 6 DP 302492 Gibbston Highway. Effects on these properties can be disregarded.
- 28 The property at 2116 Gibbston Highway, to the west of the site, has not provided affected party approval. This property is a rural living lot that is currently vineyard, open paddocks and rocky outcrop with a building platform that has not been built on. The property sits within a cluster of rural living development and the existing views and amenity values include both rural, residential and productive activities (generally relating to the wine industry). The proposal will introduce one additional instance of rural living into a part of the Gibbston Valley where rural living forms part of

the existing visual amenity. Proposed structural landscaping and the location of the proposed platform on the toe of the hill slope will ensure that any future building within the proposed platform will not be visually prominent or detract from the existing views or visual amenity from this property to any significant degree. Overall, the degree of adverse effects on views and visual amenity from the neighbouring property is considered to be low at most.

Elevated public and private land.

- 29 The Pisa Conservation area takes in parts of the crown escarpment that forms the northern wall of this part of the Gibbston Valley and overlooks the site. An unformed legal road also traverses this escarpment.
- 30 This public land is generally very steep, scrubby hillside that does not contain any formalised public trails. As such, it is unlikely that members of the public will frequent this land. In the unlikely event that a member of the public views the proposal from this public land, the proposal will form a very small part of expansive views of the Gibbston Valley. The proposal will appear as a cohesive part of the more developed Gibbston Valley floor that contains several clusters of rural living amongst the open paddock land and vineyards. Overall, the degree of adverse effects on views and visual amenity from the elevated public land is considered to be very low at most.

LANDSCAPE EFFECTS

- 31 *“A landscape effect is a consequence of changes in a landscape’s physical attributes on that landscape’s values. Change is not an effect: landscapes change constantly. It is the implications of change on landscape values that is relevant. To assess effects, it is therefore necessary to first identify the landscape’s ‘values’ – and the attributes on which such values depend”⁷.*
- 32 The proposed development will result in a subdivision and the addition of one instance of rural living within the site, and the reconfiguration of an existing platform. The existing building is partially within the building platform and contains a shed and accommodation. We understand an additional residential unit can be constructed within this platform as a permitted activity provided the combined building coverage does not exceed 500m². The reconfigured platform will enable an equivalent amount of built form compared to the consented situation, albeit situated in a slightly different area.

⁷ Ibid, paragraphs 6.1 and 6.2.

- 33 The visibility of the proposed development is discussed above. The proposed development is adjacent to the SH6 and sits within a cluster of rural living lots that comprise dwellings or building platforms, domestication, vineyards, open pasture and rocky outcrops. The reconfiguration of the existing platform will not affect the existing landscape character.
- 34 The additional lot and its associated activities will form an internal increase of domestication within this cluster. Proposed development will be contained within the immediate vicinity of this cluster and will not create an increase in sprawl along the district's roads or the more natural upper slopes that enclose the Gibbston Valley. It will intensify the existing cluster rather than impact the more natural landscape. We consider that the site and its immediately surrounding area can absorb this level of development without any extensive degradation of landscape character. We consider that the proposed development aligns with the existing landscape character. Due to this, we consider that the proposal will not compromise the character of the Gibbston Valley in any material way.
- 35 When experienced from the surrounding landscape, the proposed development will retain adequate visual access to the surrounding vineyards, open paddock land and natural upper slopes that inform the character of the Gibbston Valley. While the rural living elements are visible, they remain subordinate to the bucolic landscape in which they sit. The cluster of rural living activity will internally become more modified, occupied and busy, but this effect will align with the existing landscape character. It will not affect the patterns or attributes of the broader landscape.
- 36 In summary, the additional lot, building platform and its associated activities will provide for a small increase in domestic activities occurring within the site and its surroundings. Due to the context of the site, we consider that the proposed development will be appropriately absorbed into the cluster of rural living within this part of the Gibbston Valley. Overall, we consider that any adverse effects of this proposal on landscape character of the site and surrounding area will be low.
- 37 We consider that the relevant PDP Objectives and Policies (particularly Objective 23.2.1 and its associated Polies) seek to maintain existing landscape character. While rural living and other activities not based on production are provided for, these activities should remain subordinate to the overall rural/productive/viticultural landscape character. We consider that, if the proposal proceeds, the finished picture will accord with these provisions.

CUMULATIVE EFFECTS

- 38 Visibility of the proposed building platform and associated activities alongside the neighbouring rural living activities, when experienced from the surrounding public and private places is discussed above.
- 39 The proposed development, as mentioned will create an internal increase in domestic activities within a cluster of rural living development. The increase in domestic activities is at a similar size and scale and will appear consistent with the surrounding neighbouring properties. This area of development comprises an existing rural living character made up of dwellings or building platforms within the productive vineyards. We consider that these landscape elements provide the site and its immediate surrounds the ability to appropriately absorb the proposed development and contain the potential spread of domestic elements to this vicinity without considerably degrading views and visual amenity or landscape character.
- 40 Due to the above, we do not consider that the increase in domestic activities within the site will significantly degrade or domesticate the landscape to a degree where it creates or breaches a threshold with respect to the vicinity's ability to absorb further change. However, it may be that any significant future development in this vicinity may potentially create significant cumulative degradation.

CONCLUSIONS

- 41 It is proposed to subdivide the site into two lots. An existing building and building platform that is to be reconfigured are located in proposed Lot 1, a proposed building platform is to be located Lot 2.
- 42 The proposed development will result in an internal increase of domestication within a cluster of rural living activities within the Gibbston Valley. The proposal will be akin to the immediately surrounding development. It will not detract considerably from or alter the landscape character of this enclave of rural living activities. The increase in rural living activities will not spread beyond the confines of this contained area. Due to this, we consider that the proposal will not alter the landscape character of the surrounding rural landscape of the Gibbston Valley.
- 43 In relation to visual effects:
- Visibility of parts of the proposed building platform and its associated activities will be intermittently experienced from SH6. The increase in built form and associated activities will

appear alongside existing rural living development in the vicinity. Topography, existing and proposed vegetation and the existing activities within surrounding properties will somewhat screen the proposed reconfigured building platform, the proposed building platform and associated activities. Parts of the rural living development will be visible from SH6 adjacent to the site and will appear as a continuation of the existing rural living development.

- APA has been obtained from almost all neighbouring properties. Visual screening is provided by proposed and existing vegetation, existing built form, and topography. As such, we consider that the proposed development will not be visually prominent when experienced from neighbouring properties who have not given APA and private properties further afield.

44 Overall, we consider the proposed development will have no more than a low degree of adverse effects on the landscape character or visual amenity experienced by users of the surrounding public and private places. The proposed activities will be appropriately absorbed into this existing part of the Gibbston Valley, which has a rural living character and will sit comfortably within the relevant assessment matters in the PDP.

vivian+espie

8 August 2023

Quality Assurance

Report prepared by Vivian and Espie for Pringle Trustee (2016) Limited			
Reviewed and Approved By	Jess McKenzie	Landscape Architect	8 August 2023

APPENDIX 1: QUEENSTOWN LAKES PROPOSED DISTRICT PLAN ASSESSMENT MATTERS RELATING TO THE GIBBSTON CHARACTER ZONE			
HEADING	ASSESSMENT MATTER		ASSESSED EFFECTS
23.7.1 Effects on landscape character:	The following shall be taken into account:	23.7.1 Where the activity is adjacent to an Outstanding Natural Feature or Landscape, whether and the extent to which the proposed development will adversely affect the quality or character of the adjacent Outstanding Natural Landscape or Feature.	<p>The Rural Zone that surrounds the Gibbston Character Zone is categorised by the PDP as being part of an Outstanding Natural Landscape (Maps 13 and 15a).</p> <p>The edge of the nearest ONL is the Kawarau River and Crown Escarpment, ONL located approximately 320m to the north of the site. The lower slopes of Camp Hill, approximately 760 metres to the south of the subject site are also within an ONL. The proposed development is located within existing topography and will not be backed by the ONL in any view. The quality and character of the ONL that surrounds Gibbston Valley will not be affected by the proposal.</p>
		23.7.1.2 Whether and the extent to which the scale and nature of the proposed development will degrade the character of the surrounding landscape.	<p>The subject site and several lots in the immediate vicinity of the site are rural living sites that comprise both rural living and productive vineyards. These sites sit within the broader Gibbston Valley that is, at least in part, used productively.</p> <p>The rural living area of which the subject site is a part consists of 9 building platforms consented by RM960512. In terms of scale and nature, the proposal will ultimately add an additional instance of rural living to an area where rural living of this scale and character is clearly evident. The rural living sites sit within vineyards such that the productive rural character of the zone is retained.</p> <p>Additional built form enabled by the proposed building platform and reconfiguring of the existing platform will accord with a rural living character and will slightly intensify it by increasing the degree of human occupation. We consider that the proposed activities are congruent with existing character and will not cause any degradation in this regard.</p>

		23.7.1.3 Whether the design and landscaping would be compatible with or would enhance the character of the landscape.	The design confines future development to a relatively developed part of the Gibbston Valley. Structural landscaping is proposed that will enhance natural character (in a relatively minor way) and will assist in incorporating a future dwelling into the existing character of the vicinity.
23.7.2 Effects on visual amenity:	Whether the development will result in a loss of the visual amenity of the Gibbston Valley Landscape, having regard to whether and the extent to which:	23.7.2.1 The visual prominence of the proposed development from any public places, in particular State highway 6, cycleways and bridleways.	The proposed activity will be visible from SH6. Views are available from a relatively short section of road. Views from this section of road are fleeting and take in a large portion of the Gibbston Valley including all of its varied land uses. In these views the proposed building platform will sit between two buildings within a cluster of existing rural residential development that is visible. We consider that one additional dwelling in these views will be consistent with the existing level of development in these views and will not materially affect the amenity of a user of SH6.
		23.7.2.2 The proposed development is likely to be visually prominent such that it detracts from private views.	There will be some visibility from the adjacent rural living site to the southeast (2114 Gibbston Highway) and the adjacent rural living properties to the northwest. Several neighbouring properties have given written approval and adverse effects on these properties can be disregarded. With regard to visual prominence from properties that have not given written approval, any buildings within the proposed and reconfigured platform will sit low in the landscape. The existing raised rocky outcrops, grey shrubland planting and built form will provide some screening, particularly of the lower part, of any future building within the reconfigured platform.
		23.7.2.3 Any screening or other mitigation by any proposed method such as earthworks and/or new planting will detract from the landscape character or obstruct views of the	The proposed planting consists of sweeps of native grey shrubland vegetation, to tie in with and enhance the existing planting within the rocky outcrops. Additional amenity trees are proposed to be planted within the more open paddock land. The planting will not detract from the character or obstruct views.

		landscape from both public and private locations.	
		23.7.2.4 The proposed development is enclosed by any confining elements of topography and/or vegetation and the ability of these elements to reduce visibility from public and private locations.	<p>In a broad sense, the Gibbston Valley as a whole is contained by the mountain slopes that surround it.</p> <p>The proposed building platforms sit on a north-facing slope with partially vegetated, rocky outcrops to the north of both the reconfigured platform and the proposed platform providing visual softening and screening from State Highway 6.</p>
		23.7.2.5 Any roads, access boundaries and associated planting, earthworks and landscaping will reduce visual amenity, with particular regard to elements that are inconsistent with the existing natural topography and patterns.	<p>One new boundary will be created by the proposal. The proposed grey shrubland vegetation is concentrated amongst the existing native vegetation on the rocky outcrops within the site and mimics natural patterns such that the new boundary will not be visually evident. Driveway access is proposed to be shared between the two lots with the bulk of the access following the existing alignment, small changes to the alignment of the access are proposed to the existing building and an extension to the access to service the proposed platform. We consider that these elements will have no effect on the visual amenity of observers.</p>

		23.7.2.6 Boundaries follow, wherever reasonably possible and practicable, the natural lines of the landscape or landscape units.	The proposed boundary follows the base of the slope. As discussed, it will not be visually demarcated other than by post and wire fencing.
23.7.3 Design and density of development:	In considering the appropriateness of the design and density of proposed development, whether and to what extent:	23.7.3.1 Opportunity has been taken to aggregate built development to utilise common access ways including roads, pedestrian linkages, services and open space (i.e. open space held in one title whether jointly or otherwise).	The proposed platform and the reconfigured platform have been located to aggregate built form. Accessways have been aggregated as described. No communal open space or pedestrian links are proposed. It is hard to see how these elements could usefully be included.
		23.7.3.2 There is merit in clustering the proposed building(s) or building platform(s) having regard to the overall density of the proposed development and whether this would exceed the ability of the landscape to absorb change.	The proposed building platform on Lot 2 is within close proximity of the existing building platform that will sit on Lot 1 and the neighbouring dwelling to the east. In a loose sense, the proposed building platform will be clustered with the other platforms of the RM960512 subdivision. We consider that there is some merit in this in that the new platform will sit as part of a rural living enclave that is surrounded by the coherent character of the broader Gibbston Valley. The application will not result in a scattering of built form.
		23.7.3.3 Development is located within the parts of the site where they will be least visible from public and private locations.	The reconfigured and proposed platforms are located within the vicinity of existing rural living development. The existing rocky outcrops, grey shrubland planting, and structural landscaping will soften views from locations outside the site and any visibility towards the proposal will read as an extension of the existing rural living in the vicinity. The upper, more displayed parts of the site will remain in their current state. There is no where on the site where built form would be less visible.

		23.7.3.4 Development is located in the parts of the site where they will have the least impact on landscape character.	The proposed development is located within a site (and neighbouring sites) that is used for rural living and production. The part of the site that is a productive vineyard will not be changed by this proposal. We understand, the proposed and reconfigured platforms are located outside areas suitable for production. As such, we do not consider that the character of one part of the site is more sensitive than the character of another. As described, we consider that there will be no significant adverse effect in terms of landscape character.
23.7.4 Tangata Whenua, biodiversity and geological values:	The Council acknowledges that Tangata Whenua beliefs and values for a specific location may not be known without input from iwi.	23.7.4.1 Whether and to what extent the proposed development will degrade Tangata Whenua values including Tōpuni or nohoanga, indigenous biodiversity, geological or geomorphological values or features and, the positive effects any proposed or existing protection or regeneration of these values or features.	We have no knowledge of Tangata Whenua values associated with the site or vicinity.
23.7.5 Cumulative effects of development on the landscape:	Taking into account whether and to what extent any existing, consented or permitted development (including unimplemented but existing resource consent or zoning) has degraded landscape	23.7.5.1 The proposed development will not further degrade landscape quality and character and visual amenity values, with particular regard to situations that would result in a loss of rural character and openness due to the prevalence of residential activity within the Gibbstown Valley landscape.	The proposal will add one more dwelling to an existing rural living enclave within the Gibbston Valley. In a broad sense, this will have a cumulative effect in that more human occupation and modification will exist within the valley. In essence, we consider that the PDP provisions of the Gibbston Character Zone seek to strike a balance between rural productive activity within the valley and residential/tourism/commercial activities, such that a pleasant, rural, productive landscape character is dominant. We consider that the current proposal will achieve this.

	<p>quality, character, and visual amenity values. The Council shall be satisfied;</p>	<p>23.7.5.2 Where in the case resource consent may be granted to the proposed development but it represents a threshold to which the landscape could absorb any further development. Whether any further cumulative adverse effects would be avoided by way of imposing a covenant, consent notice or other legal instrument that maintains open space.</p>	<p>The rural living enclave of which the site is a part is able to absorb further development if carefully located and designed. It does not appear that the subject site itself could easily absorb any additional development beyond that proposed. In my understanding, no restrictive covenants form part of the current proposal.</p>
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23.7.6 Other factors and positive effects:	In considering whether there are any positive effects in relation to the proposed development, or remedying or mitigating the continuing adverse effects of past subdivision or development, the Council shall take the following matters into account:	23.7.6.1 Whether the proposed subdivision or development provides an opportunity to protect the landscape from further development and may include open space covenants or esplanade reserves.	As above, I understand that no protection of open space is offered, over and above that which is afforded by the PDP. It is hard to see how this could be particularly useful on this site in any event.
		23.7.6.2 Whether the proposed subdivision or development would enhance the character of the landscape, or protects and enhances indigenous biodiversity values, in particular the habitat of any threatened species, or land environment identified as chronically or acutely threatened on the Land Environments New Zealand (LENZ) threatened environment status.	There are no significant existing biodiversity values associated with the site. The proposal will add to the natural landscape values to a relatively minor degree by (re)introducing areas of mixed native shrub vegetation, which will in turn provide lizard and bird habitat.
		23.7.6.3 Any positive effects including environmental compensation, easements for public access to lakes, rivers or conservation areas.	Apart from the enhancement of native grey shrub vegetation, the proposal will not lead to any particular positive effects in relation to landscape character and/or visual amenity.
		23.7.6.4 Any opportunities to retire marginal farming land and revert it to indigenous vegetation.	The site is not currently grazed. Parts of the site will be reverted to indigenous vegetation.

		23.7.6.5 Where adverse effects cannot be avoided, mitigated or remedied, the merits of any compensation.	It is not considered that compensation is warranted in this case. No significant unmitigated effects have been identified.
		23.7.6.6 In the case of a proposed residential activity or specific development, whether a specific building design, rather than nominating a building platform, helps demonstrate the proposed development would maintain or enhance the character of the Gibbston Valley landscape.	No specific design is proposed. The proposed building platform is 612.5m ² in area with a height restriction of 6m above 365.35msl. Given the three-dimensional building envelope created by the building platform outline and the height restriction (along with the building design controls in the PDP standards), we consider that a clear understanding of the maximum extent of future built form can be gained. We do not see that a specific building design is required in order to correctly assess landscape and visual effects.



LEGEND

- Proposed boundaries
- Existing building
- Consented building platform
- Proposed building platforms
- Proposed curtilage area
- Proposed mound
- Proposed grey shrubland
- Proposed trees

PLANTING NOTES

All existing native vegetation on the site outside of the curtilage areas shall be retained. This consists of scattered grey shrubland vegetation within the southern part of proposed Lot 1. 250 native grey shrubland plants shall be planted on the rocky outcrops outside of the building platforms approximately as indicated on this plan. The final location of planting shall be determined on site in areas where ground conditions are appropriate. The grey shrubland planting shall consist of *Coprosma propinqua*, *Coprosma brunnea*, *Discaria toumatou*, *Muehlenbeckia axillaris*, *Muehlenbeckia complexa*, and *Olearia nummulariifolia*, *Sophora microphylla*.

the indicated proposed tree planting shall be limited to *Quercus* species, *Populus* species, *Salix* species and *Cupressus macrocarpa* on the gently sloping grass areas, as indicated.

All Planting shall be implemented in the first planting season following the construction of the building.

All tree planting shall be planted at a minimum height of 1.5m, all shrub planting shall be planted at 1.5m centres and a minimum grade of 2.5L. All planting shall be irrigated and maintained, and replaced in the next planting season if any plants die or are removed.

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TITLE

Structural Landscape Plan
PRINGLE TRUSTEE (2016) LIMITED

DRAWING NUMBER

2006.01

DRAWN BY

JM

DATE

8/08/2023

SCALE

1:1000

FILE NAME

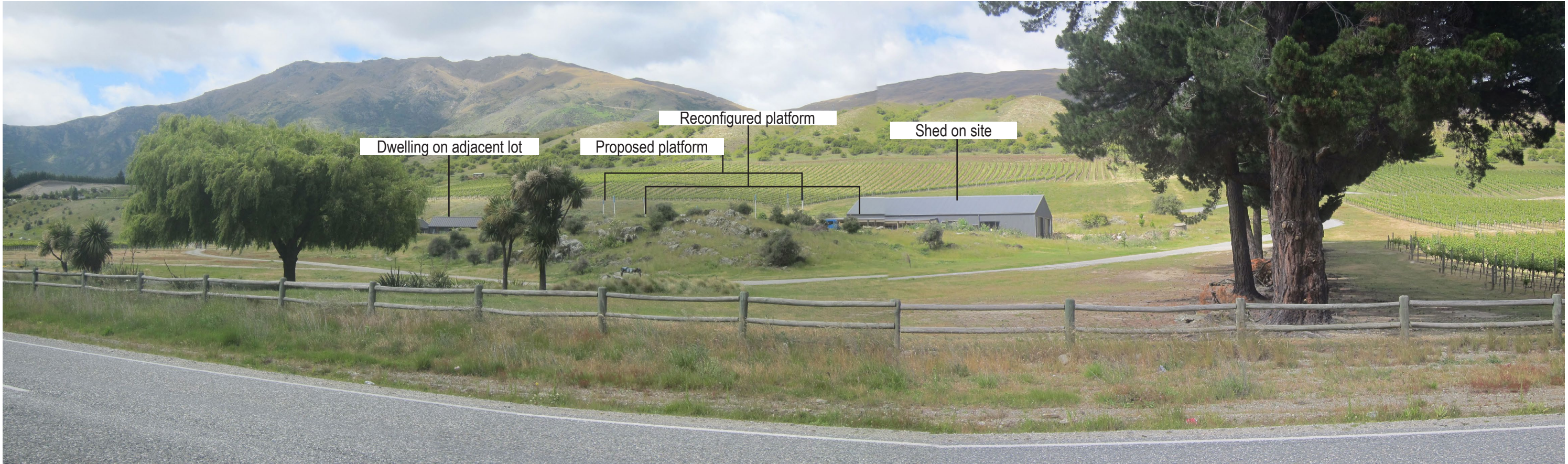
2006.01.vwx

PRINGLE TRUSTEE (2016) LIMITED - LANDSCAPE REPORT - MCKENZIE - APPENDIX 3: CONTEXT PLAN



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TITLE			Context and Viewpoint Plan PRINGLE TRUSTEE (2016) LIMITED		
DRAWING NUMBER		DRAWN BY		DATE	
2006.01		JM		2/06/2023	
SCALE	1:7500	FILE NAME	2006.01.vwx		



Viewpoint 1 - Looking towards the site from SH6. Built form would extend left from the existing shed partially obscured by the rocky outcrop.



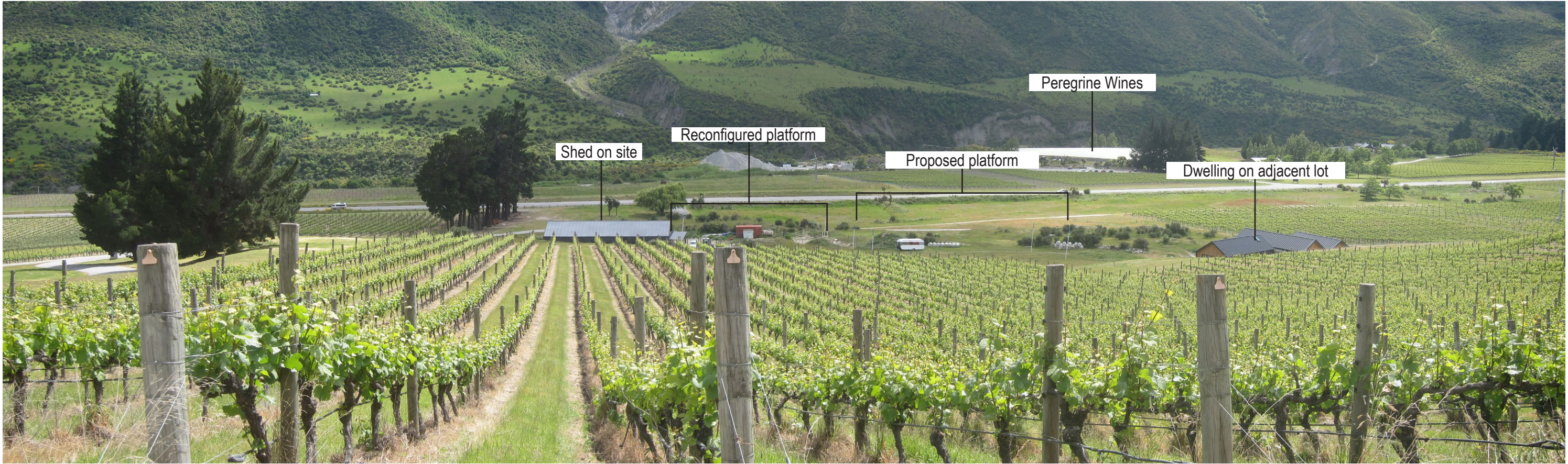
Viewpoint 2 - Looking towards the site from SH6 adjacent to the site.

PRINGLE TRUSTEE (2016) LIMITED- LANDSCAPE REPORT – MCKENZIE – APPENDIX 4 : PHOTOGRAPHS

Photographs were taken with a fixed focal length of 50mm. Photographs are intended to illustrate points made in this report. If this sheet is printed at A3 size, the photographs are not at full size so as to replicate the full-scale field of view as taken in by the human eye. The poles illustrating the extent of the proposed platform were 6m from existing ground level at the time the photographs were taken, rather than from the proposed 365.35 masl datum. As such, the poles shown in these photographs are slightly higher than the height limits proposed in this application.



Viewpoint 3 - Looking towards the site from SH6 to the east of the site.



Viewpoint 4 - Looking towards the proposed development from the shared access way within the southern section of the site.

PRINGLE TRUSTEE (2016) LIMITED - LANDSCAPE REPORT – MCKENZIE – APPENDIX 4: PHOTOGRAPHS
 Photographs were taken with a fixed focal length of 50mm. Photographs are intended to illustrate points made in this report. If this sheet is printed at A3 size, the photographs are not at full size so as to replicate the full-scale field of view as taken in by the human eye.
 The poles illustrating the extent of the proposed platform were 6m from existing ground level at the time the photographs were taken, rather than from the proposed 365.35 masl datum. As such, the poles shown in these photographs are slightly higher than the height limits proposed in this application.



LEGEND

- Proposed boundaries
- Existing building
- Consented building platform
- Proposed building platforms
- Proposed curtilage area
- Proposed mound
- Proposed grey shrubland
- Proposed trees

PLANTING NOTES

All existing native vegetation on the site outside of the curtilage areas shall be retained. This consists of scattered grey shrubland vegetation within the southern part of proposed Lot 1. 250 native grey shrubland plants shall be planted on the rocky outcrops outside of the building platforms approximately as indicated on this plan. The final location of planting shall be determined on site in areas where ground conditions are appropriate. The grey shrubland planting shall consist of *Coprosma propinqua*, *Coprosma brunnea*, *Discaria toumatou*, *Muehlenbeckia axillaris*, *Muehlenbeckia complexa*, and *Olearia nummulariifolia*, *Sophora microphylla*.

the indicated proposed tree planting shall be limited to *Quercus* species, *Populus* species, *Salix* species and *Cupressus macrocarpa* on the gently sloping grass areas, as indicated.

All Planting shall be implemented in the first planting season following the construction of the building.

All tree planting shall be planted at a minimum height of 1.5m, all shrub planting shall be planted at 1.5m centres and a minimum grade of 2.5L. All planting shall be irrigated and maintained, and replaced in the next planting season if any plants die or are removed.

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TITLE

Structural Landscape Plan
PRINGLE TRUSTEE (2016) LIMITED

DRAWING NUMBER

2006.01

DRAWN BY

JM

DATE

21/06/2023

SCALE

1:1000

FILE NAME

2006.01.vwx

PRINGLE TRUSTEE (2016) LIMITED - LANDSCAPE REPORT - MCKENZIE - APPENDIX 2: STRUCTURAL LANDSCAPE PLAN

Volunteered consent notice conditions [H]

Volunteered Consent Notice Conditions

Landscaping (lots 1 and 2)

1. Existing native vegetation on the site is to be retained. Landscaping shown on the stamped as approved landscape plan from RM23#### (labelled 'Structural Landscape Plan Pringle Trustee (2016) Ltd, Ref 2006.01 dated 21/06/2023') shall be retained and maintained in perpetuity. .
2. Boundary fencing shall be of traditional post-and-wire only. Courtyard or garden fencing within the lot shall be of post-and-wire, post-and-rail or materials to match house cladding. No composite or corrugated iron fencing is permitted.

Lot 1 Building Platform Controls

3. All buildings must be located within the building platform.
4. Any residential unit shall be single storey and not exceed a height of 6m above original ground level.
5. Any residential unit (excluding the residential flat and shed already on site) shall not exceed a gross floor area of 350m².

Lot 2 Building Platform Controls

6. All buildings must be located within the building platform.
7. Any residential unit shall be single storey and not exceed a height of 6m above a ground level of 365.35 masl (the earthworked level of the platform).
8. Any residential unit (excluding the residential flat and shed already on site) shall not exceed a gross floor area of 350m².

Lot 1 and Lot 2 Non-objection Requirement

9. The respective owners of Lot 1 and 2 DP#### shall not object to winegrowing (farming) operations being conducted on any lot within the greater Gibbston Valley (including horticulture and vineyard) nor to any noise and spray drift (where it is unavoidable in usual winegrowing (farming) practice) nor bring any proceedings for damages, negligence, nuisance, trespass or interference arising from such operations, or make or be party to, or finance or be party to, the cost of any submission, application, proceeding or appeal designed to limit, prohibit or restrict such operations.

SERVICES ASSESSMENT

**PROPOSED SUBDIVISION OF LOT 5 DP 27121, 2218 GIBBSTON
HIGHWAY For PRINGLE TRUSTEE (2016) LTD**



CLARK FORTUNE MCDONALD & ASSOCIATES
REGISTERED LAND SURVEYORS, LAND DEVELOPMENT & PLANNING CONSULTANTS

Revision No	Date	Description	Prepared by	Checked by	Approved by
	3.11.2023	Issued for Resource Consent	Ben McLeod	Hayden Knight	Chris Hansen

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1 INTRODUCTION

Clark Fortune McDonald & Associates (CFM) has been engaged by Pringle Trustee (2016) Ltd to assess servicing for the proposed subdivision comprising 1 existing and 1 new rural living sites. The analysis considers the servicing options available to provide for the proposed demand.

The subdivision comprises one site containing an existing residential dwelling. The property is legally described as Lot 5 D.P. 27121. The total area of the subject sites comprises approx. 4.77 ha. The site is located at 2118 Gibbston Highway, Queenstown.



Image credit - Grip map

This report is preliminary for resource consent purposes. Further information and detailed engineering design will be required should development proceed.

The report considers servicing demands and capacity based on proposed residential activities.

2 SCOPE OF WORK

The scope of work includes examination of existing QLDC as-built records, confirmation of capacity of existing services to determine the adequacy of the existing infrastructure, and recommendation of servicing options.

3 DESIGN STANDARDS

Site subdivision standards include, but are not limited to, the following:

- QLDC Land Subdivision and Subdivision Code of Practice adopted 8/10/2020.
- NZS4404:2010
- Drinking-Water Standards for New Zealand 2005 (revised 2008).
- NZS PAS 4509:2008, New Zealand Fire Service Fire-fighting Water Supplies Code of Practice.
- Water for Otago, Otago Regional Council regional water plan.
- Document for New Zealand Building Code Surface Water - Clause E1 / Verification Method 1.
- On-site domestic wastewater management AS/NZS 1547:2012

4 PROPOSED SUBDIVISION CONCEPT

The proposed subdivision will result in one additional rural living site. A subdivision scheme plan is attached to the application showing the layout of the proposed allotments.

The following report examines the feasibility of servicing the additional allotments.

5 ACCESS

The property is serviced off Gibbston Highway, State Highway 6. The subject lot was originally created in the late 1990's as part of the Wentworth Station subdivision that created 14 rural living sites, 6 vineyard blocks and the site of the Peregrine Winery.

The Wentworth development spanned both sides of the State Highway and constructed new intersections on both sides in a staggered arrangement to meet NZTA's standards and specifications.

On the south side, 9 rural living sites were created in two stages in circa 1998-2000. Those 9 sites share a common intersection with State Highway 6 within the application site. The intersection with the state highway has been constructed to Waka Kotahi (NZTA) diagram D standard and has tapers on both sides of the Highway.

The applicant has sought approval from Waka Kotahi for the additional traffic demand who have confirmed satisfaction with the proposal.

The intersection arrangement can be seen in the aerial image below.



Wentworth intersections - Credit – Google.

From the intersection, the 9 existing allotments are serviced by a private accessway. The private accessway is sealed, with varying widths and contained within a 10.0m wide legal easement. The first section of the accessway is nominally 6.0m wide with 0.5m unsealed shoulders and swales. After the first bend, the accessway narrows on the straighter sections of road to 4.5m sealed width but retains 5.5m minimum width on the bends. The 4.5m sealed width still enables two lanes of moving traffic. The gradient is gentle, and the winding geometry ensures a low-speed environment. Good visibility is offered of the driveways that intersect the road.

The existing access is generally in accordance with Code of Practice figure E2, albeit some of the sealed width is less than the prescribed 5.5m minimum by the Code.

As part of the subdivision proposal, it is proposed to re-align the driveway to the existing dwelling on proposed Lot 1. The vehicle crossing is therefore to be moved approx. 20m north.

The new Lot 2 will join the private accessway approx. 210m from the Highway intersection. A new vehicle crossing is to be formed in accordance with CoP drawing B5-20.

The vehicle crossing for the allotment is located at the outside of a bend in the accessway which affords sight distances in each direction that exceed the minimum of 45m.

The addition of the new residential allotment brings the total number of users of the private accessway to 10.



Looking up hill from Lot 2 crossing



Looking down hill from Lot 2 crossing

6 EARTHWORKS

Minor earthworks are proposed to re-locate the driveway for the existing dwelling on lot 1.

The new Lot 2 will be serviced by an existing farm track so no significant earthworks are required for access however, works will be needed to form the driveway pavement and

associated swale. The driveway is to be formed with nominal 3.0m carriageway of 100mm compacted depth AP40. A swale on the uphill side will treat and dispose of stormwater from the driveway. The driveway will need a culvert to convey any flows from the small channel that traverses the site at the edge of the alluvial fan.

It is proposed to excavate a level building platform on proposed Lot 2. The spoil from the excavation is then to be mounded over the old driveway for proposed Lot 1 to create screening from the adjoining accessway.

Earthworks are proposed to create the building platform and driveways.

The following earthworks quantities are anticipated.

Area of earthworks = 1,375m²

Topsoil stripping = 206m³

Volume of cut = 430m³

Volume of fill = 430m³

Max height of cut = 2.2m

Max height of fill = 2.6m

All earthworks are to be contained on site.

No fill is proposed to be placed within the buildable areas of the allotments.

A low landscape wall less than 1.0m high is proposed at the south side of the building platform on Lot 2. This is to minimise the batter extent for the excavation behind. The wall design shall be undertaken by a suitably qualified engineer.

The batter for lot 2 daylights near an existing services trench. The batter extents have been checked to confirm they will not be in the zone of influence of the services from the as-built data available. It is recommended however that the earthworks contractor pothole and locate the existing services prior to commencing on the excavation in accordance with accepted practices.

All earthworks are to be carried out in accordance with an approved Environmental Management Plan in accordance with QLDC guidelines.

All earthworks are to be carried out in accordance with the recommendations of the Geosolve report dated 25 September 2023 ref: 200381.01

7 WASTEWATER

7.1 Existing reticulation

The property is located outside the QLDC reticulation scheme boundaries and as such there is no Council owned wastewater assets in the immediate area.

The Wentworth subdivision constructed a private wastewater reticulation network and communal sewage treatment plant to service the demand of that development.

The existing network is owned and operated by Station Services Ltd, a company whose shareholders are the lot owners of the development. The network was designed and built and has discharge permits with a finite capacity that did not anticipate additional demand from this subdivision, it only has capacity for the existing residential unit on the site.

7.2 Proposed residential demand

The proposed new site is intended to accommodate a standard residential dwelling. Under QLDC COP residential demand would be 250 litres per person per day based on 3 people per dwelling.

7.3 On Site Wastewater Disposal

Australian/New Zealand Standard 1547:2012 was published superseding the previous standard from 2000. The standard was updated to reflect a risk-management approach to wastewater treatment. It is noted however that much of the methodology is unchanged from the earlier standard.

Geosolve have completed an onsite wastewater site and soils assessment and concluded that on-site disposal is feasible under section 7 of their report.

7.4 Conclusion and recommendations

Connection to the Station Services private network may be feasible, however based on the Geosolve investigations that the site is of a suitable size and geology it is concluded that onsite wastewater disposal is the preferred method of disposing of wastewater generated from proposed dwelling on Lot 2.

An appropriate location on site can be identified as being suitable for the disposal of wastewater.

OSWWD technology has enabled packaged proprietary tertiary treatment systems to be readily available and are considered to be a good option.

Detailed design is required to be completed as part of the Building Consent process. The new standard requires a robust design process. The necessary guidance and comprehensive application forms are available on QLDC website.

<https://www.qldc.govt.nz/media/xfrhma43/af-osw-onsite-wastewater-disposal-application-form-rev-4.docx>

Provided the correct design, approval, construction and monitoring processes are followed for the establishment and operation of the wastewater disposal system there will be no adverse effects arising from the disposal of wastewater to ground from the future dwelling.

8 STORMWATER

8.1 Existing Stormwater Infrastructure

There is currently no reticulated stormwater infrastructure servicing the site. The original Wentworth development formed open channel drains or swales where necessary to manage pre and post development run-off. The stormwater channels ultimately conveyed run-off to amenity and irrigation ponds adjoining the State Highway. These can be seen from 2004 aerial imagery. The ponds then fed an irrigation race that runs east to Camp Creek.



Credit: Google Earth

The ponds were later drained and appear to have been empty since circa 2010.

The subject site geology is described in the Geosolve report, and the proposed building platform for Lot 2 sits on an alluvial fan.

8.2 Stormwater Catchments

The subject property is sitting on the Kwarau River terraces of the Gibbston Valley. To the south the land rises up towards Mt Edward and the Coal Pit Saddle. Camp Creek is the main watercourse to the east of the site and an un-named creek that follows Resta Road is to the West. As shown on the topo map below.



Credit: Topomap.co.nz

The proposed building site sits atop an alluvial fan. The fan material has been bought down from the river terrace material above the site.

The upstream catchment area is approx. 3.0ha from the terrace ridge to the top of the alluvial fan.

The catchment above consists of vineyard and patches of shrubland on the terrace faces.



Upstream catchment – Image credit: Grip Map

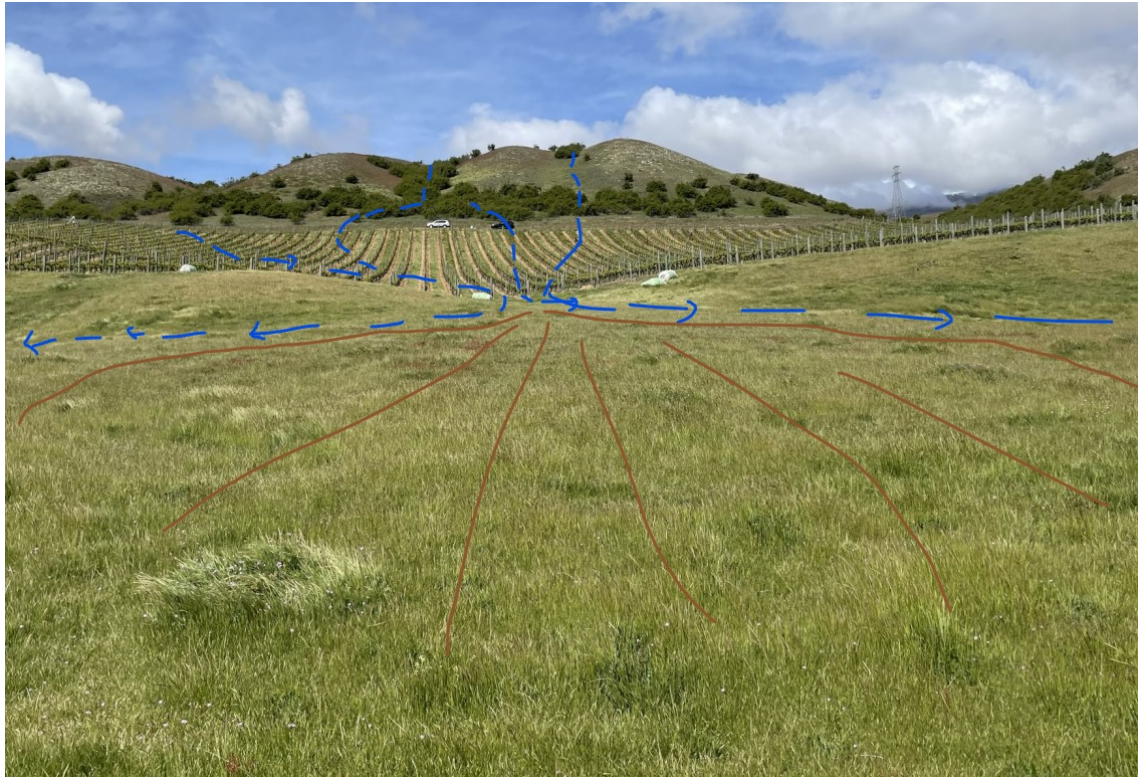
The vehicle accessway servicing the subdivision was formed in the natural flow path from a more significant gully feature to the west of the site.
All overland flows ultimately terminate at the old ponds to the north of the site.

As the proposed building site is on the crest of the fan, water sheds to each side. However, there may be some residual risk of overland flows being spread across the fan in extreme

rain events that could be directed towards the proposed building platform. It is recommended that a low deflection bund or shallow swale be constructed to ensure the flows continue to run each side of the fan.



Natural flow paths and alluvial fan. Image credit: Grip map



Looking from the proposed lot 2 platform to the top of the catchment.



Looking towards the proposed lot 2 platform from the accessway, overland channels either side of the fan marked for clarity.

8.3 Onsite treatment and disposal

For any future dwelling, stormwater design would be completed in accordance with NZ Building Code E1 – Surface water and/or section 4 of QLDC COP 2020.

Stormwater run-off from new impervious areas would be disposed to ground. The design shall be undertaken in accordance with Verified Method E1/VM1 and/or QLDC COP. This would take the form of a soakpit or similar on-site storage/soakage system. Given the size, geology and topography of the proposed lot, location and size of soakage areas are not constrained allowing for flexibility of design options.

Section 8 of the Geosolve report confirms the feasibility of onsite stormwater disposal.

Detailed design is required to be supplied with the building consent documentation and shall be completed by a suitably qualified person.

9 WATER RETICULATION

9.1 Water supply design

To assess the demand and supply requirements for the proposed subdivision the following aspects have been considered:

- Water demands
- Water availability
- Existing infrastructure
- Storage requirements
- Irrigation requirements

9.2 Design flows

Demand based on the anticipated activities for the potential development have been determined in accordance with the subdivision standards:

Refer QLDC code of practice 6.3.5.6.

No of additional residential units:	1.
Average daily demand:	700 l / person / day.
Occupancy:	3.0 person / du.
Peak Day factor:	6.6.

Average Daily demand (ADD):	2.1 m³ / day.
Peak day demand:	0.16 l / sec.

One significant consideration for the Average Daily Demand for the QLDC code of practice is irrigation demand. Irrigation for private use varies greatly and is generally uncontrolled. The Irrigation allowance in the demand is 400l/person/day.

9.3 Required Firefighting demand

The design of the new water infrastructure will need to meet the requirements of SNZ PAS 4509 – NZ Fire Service Firefighting Water Supplies Code of Practice.

9.3.1 Residential fire fighting demand – reticulated supply - non sprinklered

Water supply classification:	FW2.
Required water flow within 135m:	12.5 l / sec
Additional water flow within 270m:	12.5 l / sec.
Max No. of hydrants to provide flow:	2.
Minimum pressure	100kPa.

9.4 Existing Infrastructure

The property is located outside the QLDC reticulation scheme boundaries and as such there is no Council owned water assets in the immediate area.

The subject property is currently serviced by a private water supply scheme established for the Wentworth Development.

As with the private wastewater network, The Wentworth subdivision constructed a private water reticulation network including water take from a well adjoining the Kowarau River and storage tanks to service the demand of that development. The network provides for firefighting, potable and irrigation demands for the development.

The network is owned and operated by Station Services Ltd a company whose shareholders are the lot owners of the development. The network was designed and built and has water permits with a finite capacity that did not anticipate additional demand from this subdivision, it only has capacity for the existing residential unit on the site.

It is noted that there is an existing fire hydrant within the property in close proximity to the proposed platform on Lot 2.



9.5 Concept Design

There are considered to be 2 feasible options to service the proposed development.

First option is to utilise the existing private scheme that already services the subject property.

However as noted above, the existing network may not have considered the additional demand from additional residences.

The second option is to utilise a new bore to service the subdivision.

A new water bore has been established on site by Southdrill in July of this year. The bore construction report is attached.

A Bore of ~21m depth was established and the static ground water level encountered at ~15m depth from the top of the casing.

The bore was test pumped at a rate of 2.0l/s for 3 hours and the drawdown recorded to be 5cm showing a sustainable yield from the bore that exceeds the demand required for the new dwelling.

The water quality was analysed by Hill Laboratories for chemical and bacteriological qualities and determined to meet the NZDWS. A copy of the test results are attached.

The new bore is considered the preferred option for supplying water to the new allotment.

If the new allotment is not to be reliant on the existing Wentworth system, the new allotment will require water storage tanks to provide for firefighting and domestic buffer storage and be installed at the time of dwelling construction.

10 POWER, TELECOMMUNICATIONS

Aurora Energy have high voltage network within the property. The network could supply suitable underground electrical supply to the additional lot. Below is a screen shot of Aurora's GIS showing location of existing electrical infrastructure.



Chorus telecommunications cables exist in the existing development. It is anticipated that connection to the network can be made, and that the new lot would be serviced with reticulation to meet the service providers standards.

There are also now proven alternative telecommunications options for servicing the new allotment. Starlink and Lightspeed are examples of services providing suitable high speed wireless internet and would be appropriate for this subdivision.

All existing and proposed servicing infrastructure is underground.

It is not anticipated that there will be any supply or capacity issues for these services and connection will be made available from existing infrastructure in accordance with the relevant service provider's specifications.

11 CONCLUSION

The proposed subdivision is not considered to have significant impacts on the infrastructure network. Infrastructure already exists that can cater for additional demand.

Any new infrastructure will be constructed and paid for the by the applicant.
Other non-Council infrastructure and network utilities exist and have capacity to supply this subdivision.



11 September 2023

Blair Devlin
Vivian + Espie Limited
1/211B Glenda Drive
Frankton
Queenstown 9300

Re. Preliminary Environmental Site Investigation at Lot 5 DP27121 Gibbston Highway, Gibbston

Our Reference: 23037

1 Introduction

Blair Devlin of Vivian + Espie Limited requested, on behalf of the K Pringle Trust, that JKCM Ltd, trading as Insight Engineering (IE), undertake a preliminary environmental site investigation (PSI) of a portion of the property legally described as Lot 5 DP27121 on Gibbston Highway, Gibbston (herein referred to as “the site”), as outlined in our proposal (reference P23037, fully executed on 1 August 2023).

Figure 1 (Appendix 1) indicates the location of the site, which we understand is proposed to be subdivided and a new building platform developed for residential purposes (Appendix 2). A driveway alignment is also proposed for the existing dwelling on the property.

The purpose of this investigation was to assess whether the Resource Management (*National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*) Regulations¹ (herein referred to as the NES) apply to the site, according to criteria specified in NES Regulation 5. If the NES applies, the investigation would assess the suitability of the site for residential use.

This report was prepared in general accordance with the Ministry for the Environment (MfE) *Contaminated Land Management Guidelines (CLMG) No. 1: Reporting on Contaminated Sites in New Zealand*².

2 Objectives of the Investigation

The objective was to determine if potentially contaminating historical activities pose an unacceptable risk to human health during and post site development.

2.1 Approach

IE completed the following scope of work to satisfy the investigation objectives:

2.1.1 Review of Site Information

Several sources were contacted for information relating to the sites past and present uses and to identify any other environmental issues which may be on record. This consisted of:

- Undertaking a site walkover to assess whether any visual or olfactory evidence of contamination is present at the site;
- Interviewing the current land owner, to obtain information relating to potentially contaminating activities that may have been undertaken at the site;
- Reviewing publicly available Resource Consent information held by the Otago Regional Council (ORC);
- Review of the Otago Regional Council Hazardous Activities, Industries and Bore Search database in terms of any property specific records of hazardous activities or industries that are held in their database of potentially contaminated sites;
- Reviewing the Queenstown Lakes District Council (QLDC) online property files to determine whether any records of contamination, or potentially contaminating activities at the site are held in their database;
- Reviewing publicly available historical aerial photographs and maps of the site and surrounding area.

3 Site Description

Site information is summarised in Table 1.

Table 1: Site Information

Location	Gibbston Highway, Gibbston
Legal Description	Lot 5 DP27121
Property Owner	Pringle Trustee (2016) Ltd
Current Site Use	The majority of the proposed new lot is used for viticulture purposes. The northern portion of the proposed new lot is disused turf.
Proposed Site Use	Residential and viticulture
Property Area	Approximately 47,700 m ² (4.77 ha)
Site Area	Approximately 1,000 m ² (0.1 ha)
Territorial Authority	Queenstown Lakes District Council
Zoning	Gibbston Character Zone (ODP, PDP S1 and S2)

The site setting is summarised in Table 2.

Table 2: Site Setting

Topography	<p>The sites slopes gently to moderately towards the north with elevations ranging between approximately 400 m above mean sea level (amsl) in the south and 350 m amsl in the north. The steepest slopes are located in the southern portion of the site.</p> <p>The proposed new building platform contains gentle slopes towards the north.</p>
Local Setting	<p>The site is located in the Gibbston Valley, which contains a mosaic of agricultural, horticultural and rural residential properties. The site is situated in the south western portion of the valley.</p>
Nearest Surface Water & Use	<p>The Kawarau River, used for recreational, irrigation and potable purposes, is located approximately 525 m north of the proposed new Lot. Camp Creek, the uses of which are unknown, is located approximately 510 m east of the site.</p>
Geology	<p>Near surface soil observed on site was described as light brown to grey silty gravel.</p> <p>The GNS New Zealand Geology Webmap³ indicates that the site is located within the Middle Pleistocene river deposits geological unit described as “<i>Slightly to moderately weathered sandy gravel.</i>”</p> <p>The Nevis Fault, located approximately 1.6 km towards the south west, is the nearest active fault, shown on the GNS webmap.</p>
Hydrogeology	<p>The ORC Resource Consents database⁴ does not contain records including groundwater depth within a sufficient distance of the site. A bore log for a well that was recently installed on the site encountered groundwater at 14.81 m below the top of the well casing. Groundwater flow direction is likely to be towards the north or north east, in the direction of the Kawarau River.</p>
Groundwater Abstractions ⁴	<p>No groundwater abstraction points are recorded within 250m of the site. However, IE is aware of a recent ORC consent to construct a bore on the site. The bore log and results of water testing are included under Appendix 4.</p>
Discharge Consents ⁴	<p>IE searched the ORC Resource Consents database within 250 m of the site and found no discharge consents.</p>

3.1 Current Site Conditions

Claude Midgley of IE completed a site walkover inspection on 5 September 2023. Observations made at that time are summarised in Table 3 and photographs are presented in Appendix 3.

Table 3: Current Site Conditions

Visible signs of contamination	<p>No signs of potential contamination were observed on the proposed new building platform.</p> <p>A vineyard was located approximately 50 m south of the proposed new building platform. The vineyard included treated timber posts. Burnt and unburnt waste was observed in three pits located in the area directly east of the existing dwelling.</p>
Surface water appearance	No surface water was present on site at the time of our visit.
Current surrounding land use	Predominantly rural residential and horticultural (viticulture) use.
Local sensitive environments	The Kawarau River and the associated riparian zone, located 525 m north of the site, is considered a sensitive environment.
Visible signs of plant stress	There were no obvious signs of plant stress observed at the site.
Additional Observations	<p>A soil stockpile was present in the area between the existing dwelling and the proposed new building platform. The property owner confirmed that the stockpile consists of spoil excavated from the existing dwelling's foundation area.</p> <p>An empty above-ground fuel storage tank, with a stand, were located north east of the dwelling, adjacent to a shipping container.</p>

3.2 Interview with Current Owner

Sam and Zeta Pringle (*pers. comm.*), two of the site owners, provided the following information:

- The K Pringle Trust purchased the land from Michael John Hogan-McBride of Armoy Investment Trust Limited in September 2017.
- The organic vineyard in the southern portion of the property is managed by Precision Viticulture Limited, who applied organic management practices.
- Pindone has been used to control rabbits, as well as shooting and live capture.
- No waste has been buried on the proposed new Lot. The burnt waste located near to the existing dwelling will be covered with soil sourced from elsewhere on the property when the building construction is complete.
- Empty 44 gallon drums nearby to the existing dwelling are intended to be used to protect new trees from rabbit damage after planting. The drums were empty when they were placed on site.
- Mr and Ms Pringle cannot think of any activities, other than the presence and management of vineyards, that could have resulted in contamination impacts at the site.

3.3 ORC Property Database

IE reviewed the ORC Hazardous Activities, Industries and Bore Search database⁵ on 5 September 2023. The search confirmed that property is not currently on the ORC database, however the absence of information is stated to not necessarily mean that no contamination impacts are present at the property.

The neighbouring property at 2116 Gibbston Highway, located approximately 85 m towards the west and legally described as Lot 7 DP 302492, is recorded on the database. Notes in the database for site number HAIL.02105.01 provide the following information: "*Vineyard identified by aerial image.*"

3.4 QLDC Property File

The property file⁶ contained documents relating to a 2019 application to construct a “*working shed for the vineyard, workers accommodation, family holiday home and Air BnB accommodation*”. This application appears to be related to the dwelling that is currently located on the property, approximately 50 m north west of the proposed new building platform. The records did not contain information related to potential contamination impacts.

A 2020 and 2021 application for an amendment to the building design and a 2023 application for a right of way included no information related to potentially contaminating activities at the site.

No other records contained information relating to potentially contaminating activities at the site.

3.5 Review of Historical Aerial Photographs and Maps

Photographs in the Crown Collection⁷, and Google Earth⁸ as well as topomaps on the MapsPast⁹ website, have been reviewed to obtain information on the past uses of the site. Aerial photographs taken between 1958 and 2022, as well as maps created between 1939 and 2019, have been reviewed.

Table 4 summarises the features visible in each image.

Table 4: Historical Aerial Photographs and Maps

1939 ⁹	The site is visible as part of a block of land labelled '26' and '47,2,22', south of the Gibbston Highway. An area east of the site, with a creek marked as flowing approximately north / south into the Kawarau River, is labelled 'Crown Land'. No other significant features are visible on the map.
1949 ⁹	No significant changes are visible, compared with the 1939 the map.
1958 ⁷	The site appears to be pastoral land, or for growing animal feed crops, as the site surface appears to have been mowed / ploughed or harvested. The area where the present-day dwelling is located has not been mowed and several large rocks are visible in that part of the site. The moderate slopes in the area south of the proposed new building platform were also not mowed. In the surrounding land, a shed with livestock yards is visible on the northern side of Gibbston Highway, approximately 200 m towards the north east. The remainder of the surrounding area appears to be pastoral or disused land.
1959 ⁷	No significant changes are visible on the image.
1960 ⁷	No significant changes are visible on the image.
1964 ⁷	No significant changes are visible on the image.
1966 ⁷	The image resolution is too poor to distinguish any significant details, but the site appears to be unchanged.
1969 ⁷	No significant changes are visible on the image.
1969 ⁹	Apart from a few symbols indicating the presence of trees in the area west of the site, no significant features are visible on the map.
1970 ⁷	The northern portion of the property appears to have undergone flood irrigation, as the area north of the rocky outcrop is a darker colour than the surrounding land towards the west, south and south east. The neighbouring property towards the east appears to be part of the flood irrigation scheme. No other significant features or changes are visible at the site or in the surrounding area.
1976 ⁷	No significant changes are visible on the image.
1978 ⁷	No significant changes are visible on the image.
1979 ⁹	No significant changes are visible compared with the 1969 map.
1983 ⁷	No significant changes are visible on the image.

Table 4 (cont.): Historical Aerial Photographs and Maps

1984 ⁷	No significant changes are visible on the image.
1989 ⁹	No significant changes are visible compared with the 1979 map.
1999 ⁹	No significant changes are visible compared with the 1989 map.
2001 ⁷	The southern portion of the site, as well as the surrounding land towards the west and east, has been developed with vineyards and tracks leading from the site entrance on Gibbston Highway towards the south and south east. The northern portion of the site appears to be vegetated with turf. Another new vineyard is visible on the northern side of Gibbston Highway. No other significant features or changes are visible at the site or in the surrounding area.
2004 ⁸	The northern portion of the site has been developed with ponds that extend towards onto the neighbouring property towards the east. In the surrounding land, two dwellings have been constructed properties towards the south east. No other significant changes are visible on the image.
2006 to 2019 ⁸	During this time, very few changes occur at the site. The ponds in the northern portion of the site dried by 2010 and two shipping containers are visible near to the present-day dwelling by 2019. No other significant features or changes are visible at the site or in the surrounding area.
2009 ⁹	Apart from symbols indicating the presence of a vineyard west of the site and a black square indicating that a building is located on the property, there are no significant changes compared with the 1999 map.
2019 ⁹	Apart from the vineyard area being extended to cover the land south and east of the black square on the site, there are no significant changes compared with the 1999 map.
2021 ⁸	A new building is visible in the area where the present-day dwelling is located. Three shipping containers are visible in the area north east of the dwelling. On the neighbouring property towards the east, a new building is under construction approximately 105 m south east of the dwelling. A short, light-coloured object is visible on the western side of the proposed new building platform. Observations made on site during the site walkover confirmed that the object is associated with an underground water line. No other significant features or changes are visible at the site or in the surrounding area.
2022 ⁸	The proposed new building platform remains unchanged. Several unidentifiable objects are visible in the area east of the new dwelling. Only one shipping container remains in the area north east of the dwelling. In the surrounding land, the building construction has been completed on the neighbouring property towards the south east. No other significant features or changes are visible at the site or in the surrounding area.

3.6 Summary of Identified Hazardous Activities and Industries

The following activities noted on the MfE Hazardous Activities and Industries List ¹⁰ (HAIL) have been identified during review of the site history:

Category A1 – Agrichemicals including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application.

- This category is represented by the use of agrichemical products on vineyard areas. The risk to health from the organic agrichemicals used at the property is considered to be very low.

Category G5 – Waste disposal to land

- This category represented by the disposal of burnt waste to ground in the area east of the existing dwelling. The risk to human health at the proposed new building platform is considered to be very low.

According to Regulation 5 of the NES, the Regulations apply if a HAIL activity has been undertaken, or currently is being undertaken on the property.

4 Conceptual Site Model

A contamination conceptual site model, presented in Table 5, consists of three primary components to allow the potential for risk to be determined. These are:

- Source of contamination;
- Pathway to allow the contamination to mobilise; and
- Sensitive receptors which may be impacted by the contamination.

Table 5: Conceptual Site Model

Source	Pathway	Receptor
Heavy metals; PAHs; PCBs; Petroleum hydrocarbons	Inhalation of dust Dermal absorption (direct contact) Ingestion of soil and / or produce grown in the soil	Maintenance / Excavation workers Construction workers Future residents and visitors
Acceptable risk to human health	<p>Earthworks Associated with Land Development; Future Rural Residential Land Use</p> <p>Yes: The types of contaminants used at the property, as well as the distribution of potential contamination impacts, are not considered likely to result in a significant risk to human health within the proposed building platform and residential use area.</p>	

5 Conclusions

Information obtained as part of this investigation (refer to Section 3) indicates that the site was either disused, used to grow animal feed crops, or used for pastoral grazing until a vineyard was established in the southern portion of the site, as well as in the surrounding areas towards the west, and east in the period between 1999 and 2001.

Anecdotal evidence suggests that the vineyard has been managed organically. The types of agrichemicals used in the vineyards are therefore not expected to have resulted in contamination impacts that could pose a significant risk to health. However, treated timber vineyard posts are known^{11, 12} to result in highly localised and isolated contamination impacts in the soil. Significant horizontal impacts from the leaching of arsenic, copper and chromium are reportedly limited to within 50 mm of the post footprints. Vertical impacts are expected to be limited to 600 mm to 800 mm below the base of the posts. Vineyard posts and the zone of contamination around them take up an area of 0.05% of the total vineyard area and the distribution of contaminants around the posts has been well documented^{11, 12}.

Therefore, it can be assumed that 0.05% of the soil volume within the vineyard contains arsenic at concentrations exceeding the Soil Contaminant Standard (SCS) for rural residential land use. Concentrations of copper and chromium are not expected to exceed their respective SCSs, as those contaminants are significantly less toxic than arsenic. It is anticipated that the micro-hotspots^{11, 12} will not pose a significant risk to human health beyond the extents of the vineyard.

Burnt waste was observed in the area east of the existing dwelling. It is recommended that appropriate health precautions are taken if that area is proposed to be disturbed in the future, after the waste has been buried.

A groundwater well was recently installed on the property and water tests (Appendix 3) confirmed that the water is suitable for potable use.

Based on the current contamination status of the site, given the potential sources identified, it is considered highly unlikely that there will be a risk to human health if the following activities are done:

- Subdividing the property and creating a new rural residential building platform in the location indicated on the plans provided in Appendix 2; and
- Future use of the building platform for rural residential purposes.

6 Recommendations

It is recommended that the subdivision and change of land use be allowed as a Permitted Activity under the NES, because the requirements of Regulation 8(4) have been met.

The volume of soil that requires disturbance to prepare the new building platform and construct the new dwelling exceeds 50 m³, which is the maximum volume that can be disturbed as a Permitted Activity under Regulation 8(3). Therefore, it is recommended that a Discretionary Activity Consent is granted under NES Regulation 11, without the need for further environmental investigations in the soil disturbance area, because no contamination sources were identified within the proposed building platform and associated residential use area, or within the proposed driveway alignment area.

If the disturbance of a volume of soil that exceeds the Permitted Activity criteria under NES Regulation 8(3), or change of land use to a more sensitive category is required on any other part of the new properties in the future, the potential risks to health should be assessed in accordance with the NES prior to undertaking the work.

7 References

1. Ministry for the Environment 2011: Users' Guide National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
2. Ministry for the Environment 2021: Contaminated Land Management Guidelines No.1: Reporting on Contaminated Sites in New Zealand
3. GNS Webmap Institute of Geological and Nuclear Sciences 2013: 1:250,000 Geology. Viewed at: <http://data.gns.cri.nz/geology/>
4. Otago Regional Council 2023: Otago Regional Council Resource Consent Database. Viewed at: <https://maps.orc.govt.nz/OtagoViewer/?map=2b72476ec76446cf8270dad325952215>
5. Otago Regional Council 2023: Mapping Resource Hazardous Activities, Industries and Bores Search. Viewed at: <https://maps.orc.govt.nz/portal/apps/MapSeries/index.html?appid=052ba04547d74dc4bf070e8d97fd6819>

6. Queenstown Lakes District Council 2023: eDocs Portal. Viewed at: <http://edocs.qldc.govt.nz/>
7. Local Government Geospatial Alliance 2023: Retrolens - Historical Image Resource Project. Viewed at: <http://retrolens.nz>
8. Google Earth v7.3.6.9345. Gibbston, Central Otago, New Zealand. -45.022579° lon, 168.946528° lat, Eye alt 341m. Airbus 2023. <http://www.earth.google.com>. [September 2023]
9. Mapspast 2023: Current and Historical Topographic Maps (Topomaps) of New Zealand. Viewed at: <http://www.mapspast.org.nz/>
10. Ministry for the Environment 2011: Ministry for the Environment Hazardous Activities and Industries List
11. Waikato Regional Council 2018: Making Good Decisions: Risk Characterisation and Management of CCA Post Hotspots at Vineyards and Kiwifruit Orchards. Document Reference: 12606189. Viewed at: <https://www.waikatoregion.govt.nz/services/publications/tr201811/>
12. Otago Regional Council 2019: CCA Treated Timber Vineyard Posts: Ceres Vineyard Sampling. Document Reference: A1143902

8 Limitations

- i. We have prepared this report in accordance with the brief as provided. This report has been prepared for the use of our client, the K Pringle Trust, their professional advisers and the relevant Territorial Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- ii. The recommendations in this report are based on the ground conditions indicated from published sources, site assessments and subsurface investigations described in this report based on accepted normal methods of site investigations. Only a limited amount of information has been collected to meet the specific financial and technical requirements of the client's brief and this report does not purport to completely describe all the site characteristics and properties. The nature and continuity of the ground between test locations has been inferred using experience and judgement and it should be appreciated that actual conditions could vary from the assumed model.
- iii. Subsurface conditions relevant to construction works should be assessed by contractors who can make their own interpretation of the factual data provided. They should perform any additional tests as necessary for their own purposes.
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We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on 021 556 549 if you require any further information. The author is a Certified Environmental Practitioners (CEnvP) under the Environment Institute of Australia and New Zealand (EIANZ) accreditation system.

Report prepared by



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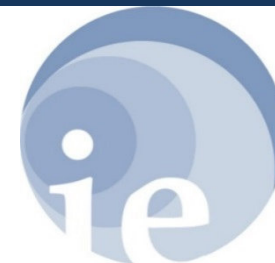


APPENDIX 1

Figures



Description	Site Location	Figure Number	1
Project	Preliminary Site Investigation Lot 5 DP27121 Gibbston Highway, Gibbston	Date	Sep-23
Client	Key Pringle Trust	Drawn by	CM
Project Number	23037	Approved by	JK



APPENDIX 2

Proposed Subdivision Plan