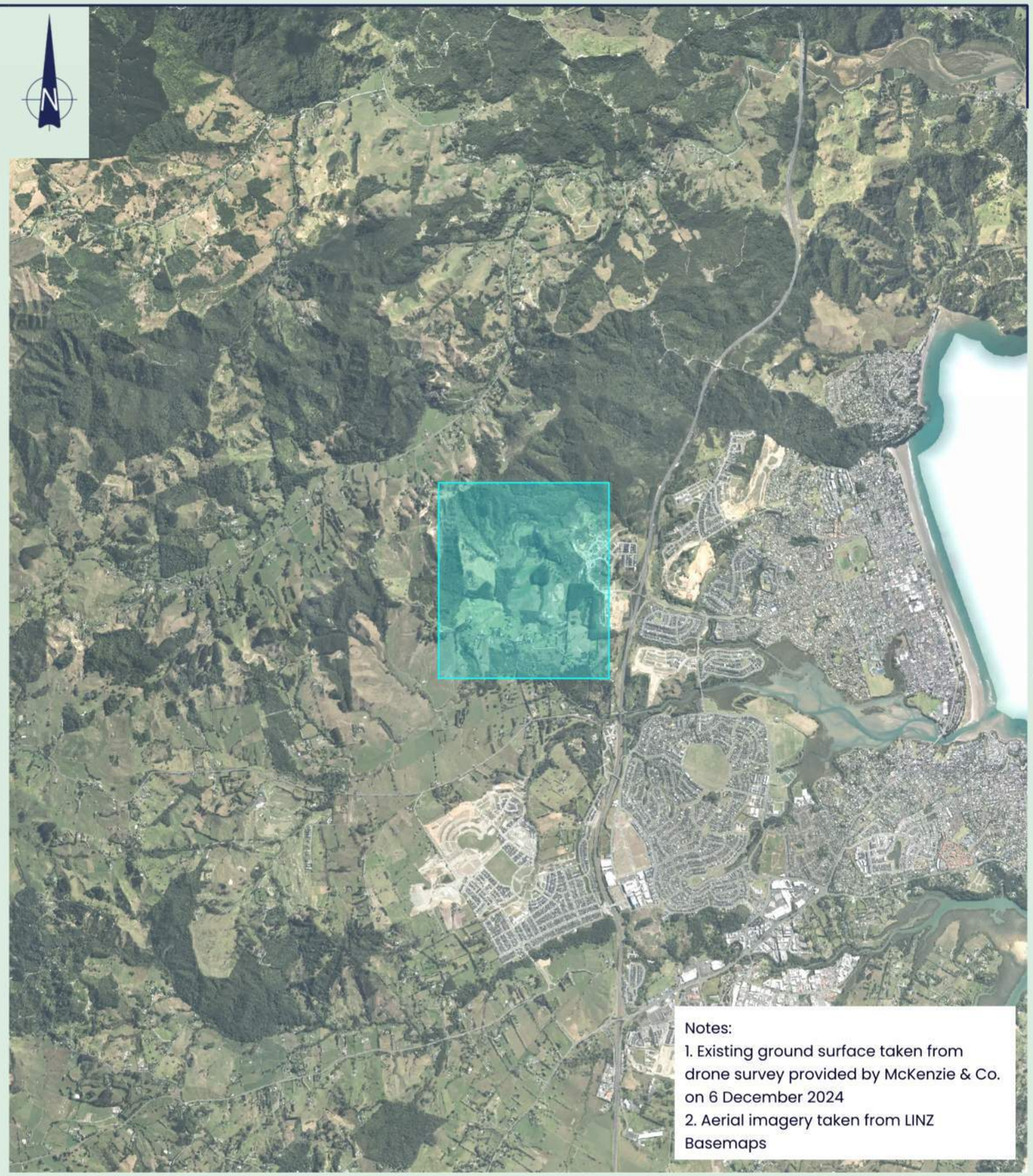
Appendix I

Riley Sketches

FOR INFORMATION/NOT FOR CONSTRUCTION

Sketch Number	Sketch Title	Revision	Rev Date
001	Drawing List and Locality Plan	B	2025-12-19
100	Overview Site Plan	B	2025-12-19
110	Geotechnical Site Plan - Sheet 1 of 15	B	2025-12-19
111	Geotechnical Site Plan - Sheet 2 of 15	B	2025-12-19
112	Geotechnical Site Plan - Sheet 3 of 15	B	2025-12-19
113	Geotechnical Site Plan - Sheet 4 of 15	B	2025-12-19
114	Geotechnical Site Plan - Sheet 5 of 15	B	2025-12-19
115	Geotechnical Site Plan - Sheet 6 of 15	B	2025-12-19
116	Geotechnical Site Plan - Sheet 7 of 15	C	2025-12-19
117	Geotechnical Site Plan - Sheet 8 of 15	B	2025-12-19
118	Geotechnical Site Plan - Sheet 9 of 15	B	2025-12-19
119	Geotechnical Site Plan - Sheet 10 of 15	C	2025-12-19
120	Geotechnical Site Plan - Sheet 11 of 15	C	2025-12-19
121	Geotechnical Site Plan - Sheet 12 of 15	C	2025-12-19
122	Geotechnical Site Plan - Sheet 13 of 15	B	2025-12-19
123	Geotechnical Site Plan - Sheet 14 of 15	B	2025-12-19
124	Geotechnical Site Plan - Sheet 15 of 15	B	2025-12-19
130	Approximate Extent of Rock Cuts at Finished Level	B	2025-12-19
131	Geological Map	B	2025-12-19
140	Geotechnical Remedials Overview Plan	B	2025-12-19
141	Geotechnical Remedials Plan - Sheet 1 of 4	F	2025-12-19
142	Geotechnical Remedials Plan - Sheet 2 of 4	F	2025-12-19
143	Geotechnical Remedials Plan - Sheet 3 of 4	D	2025-12-19
144	Geotechnical Remedials Plan - Sheet 4 of 4	D	2025-12-19
160	Geotechnical Cross Sections - A & B	B	2025-12-19
161	Geotechnical Cross Sections - C & D	B	2025-12-19
162	Geotechnical Cross Sections - E & F	B	2025-12-19
163	Geotechnical Cross Sections - G & H	B	2025-12-19
164	Geotechnical Cross Sections - I & J	B	2025-12-19
165	Geotechnical Cross Sections - K & L	B	2025-12-19
166	Geotechnical Cross Sections - M & N	B	2025-12-19
167	Geotechnical Cross Sections - O & P	B	2025-12-19
168	Geotechnical Cross Sections - Q & R	B	2025-12-19
169	Geotechnical Cross Sections - S & T	B	2025-12-19
170	Geotechnical Cross Sections - U & V	B	2025-12-19
171	Geotechnical Cross Sections - W & X	B	2025-12-19
172	Geotechnical Cross Sections - Y & Z	B	2025-12-19
173	Geotechnical Cross Sections - AA & AB	B	2025-12-19
174	Geotechnical Cross Sections - AC & AD	B	2025-12-19
175	Geotechnical Cross Sections - AE & AF	A	2025-12-19
176	Geotechnical Cross Sections - AG & AH	A	2025-12-19
177	Geotechnical Cross Section - AI	A	2025-12-19
180	Investigation and Geological Features Plan - Overview	B	2025-12-19
181	Investigation and Geological Features Plan - Sheet 1 of 4	B	2025-12-19
182	Investigation and Geological Features Plan - Sheet 2 of 4	B	2025-12-19
183	Investigation and Geological Features Plan - Sheet 3 of 4	B	2022-12-19
184	Investigation and Geological Features Plan - Sheet 4 of 4	B	2025-12-19
185	Investigation and Proposed Cut/Fill Plan - Overview	B	2025-12-19
186	Investigation and Proposed Cut/Fill Plan - Sheet 1 of 4	B	2025-12-19
187	Investigation and Proposed Cut/Fill Plan - Sheet 2 of 4	B	2025-12-19
188	Investigation and Proposed Cut/Fill Plan - Sheet 3 of 4	B	2025-12-19
189	Investigation and Proposed Cut/Fill Plan - Sheet 4 of 4	B	2025-12-19
190	Cut/Fill Plan Showing Areas for Future Investigation - Sheet 1 of 4	B	2025-12-19
191	Cut/Fill Plan Showing Areas for Future Investigation - Sheet 2 of 4	B	2025-12-19
192	Cut/Fill Plan Showing Areas for Future Investigation - Sheet 3 of 4	B	2025-12-19
193	Cut/Fill Plan Showing Areas for Future Investigation - Sheet 4 of 4	B	2025-12-19
195	Existing Topsoil Contours - Overview	B	2025-12-19
196	Existing Topsoil Contours - Sheet 1 of 4	B	2025-12-19
197	Existing Topsoil Contours - Sheet 2 of 4	B	2025-12-19
198	Existing Topsoil Contours - Sheet 3 of 4	B	2025-12-19
199	Existing Topsoil Contours - Sheet 4 of 4	B	2025-12-19



Locality Plan

SCALE: 1:50000

Scale: 1:50000 (A3)
0
1,000
2,000
3,000
4,000 m

made with QGIS

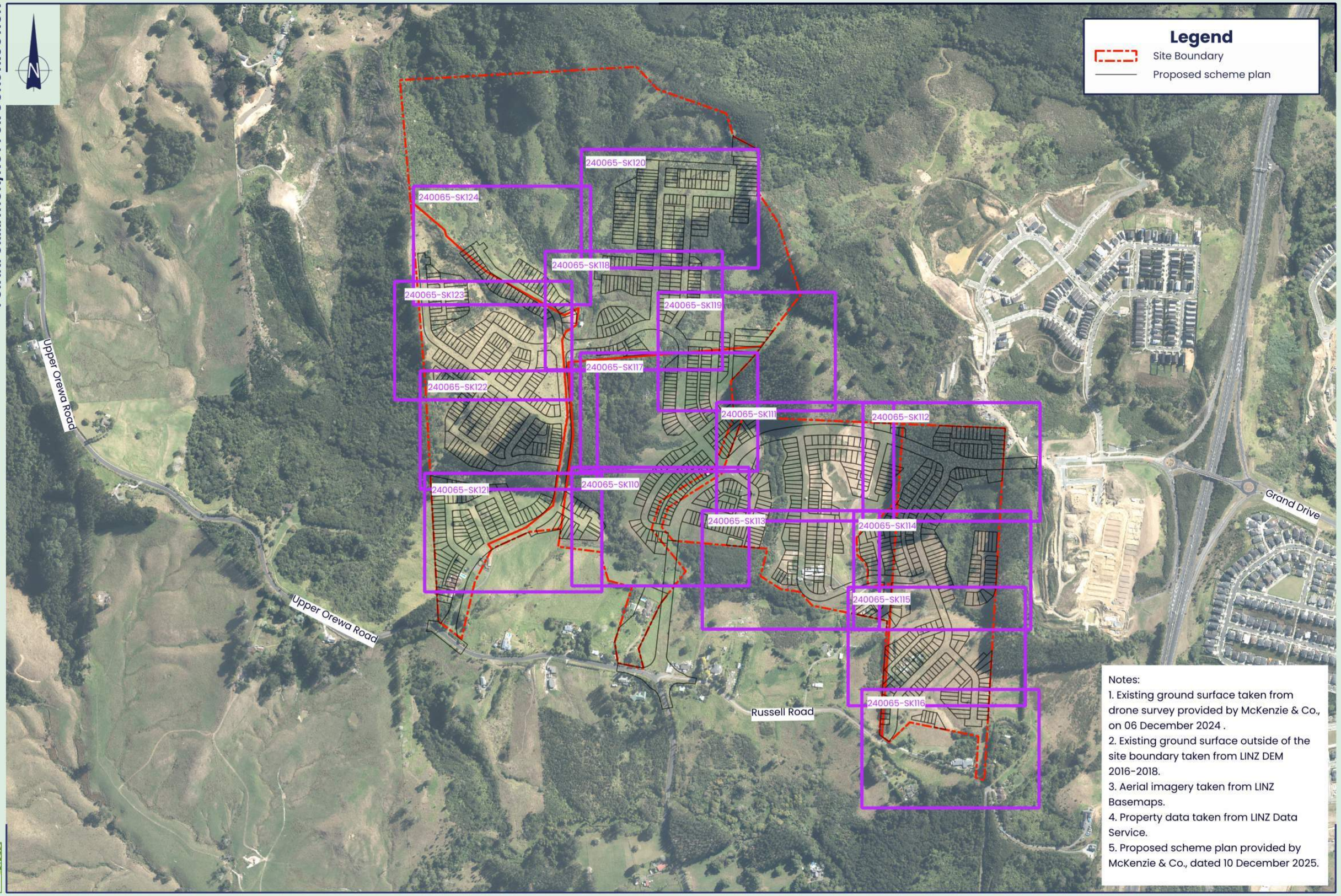
Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:50000

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Drawing List and Locality Plan

Sketch: 240065-SK001 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Scale: 1:7500 (A3)
0 100 200 300 400 m

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co., on 06 December 2024 .
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Aerial imagery taken from LINZ Basemaps.
4. Property data taken from LINZ Data Service.
5. Proposed scheme plan provided by McKenzie & Co., dated 10 December 2025.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:7500

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Overview Site Plan

Sketch: 240065-SK100 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)

0 20 40 60 80 m

HA143 TP39 HA18 HA01 TP44 HA142 HA141 HA140 TP01 HA139 TP40

AH 176 Q 168 H 163

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Notes:

1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by: aboyd | Date printed: 05/12/2025 | Scale: 1:1000

made with QGIS

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Site Plan - Sheet 1 of 15

Sketch: 240065-SK110 (Rev B)

Drawn By JAC | Checked By JLB

Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Scale: 1:1000 (A3)
0 20 40 60 80 m

Project Number: 240065 | Drawn by aboyd | Date printed: 17/12/2025 | Scale: 1:1000

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 2 of 15

Sketch: 240065-SK111 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Scale: 1:1000 (A3)

0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- ? Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- B — B Benching
- Water Course
- Ridge Line
- Contact
- Gully
- L — L Lineation

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 3 of 15

Sketch: 240065-SK112 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Scale: 1:1000 (A3)
0 20 40 60 80 m

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 4 of 15

Sketch: 240065-SK113 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)
0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 5 of 15

Sketch: 240065-SK114 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
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4. Property data taken from LINZ Data Service
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Scale: 1:1000 (A3)
0 20 40 60 80 m

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 6 of 15

Sketch: 240065-SK115 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Scale: 1:1000 (A3)
0 20 40 60 80 m

Notes:
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3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 7 of 15

Sketch: 240065-SK116 (Rev C)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Scale: 1:1000 (A3)

0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

HA146 HA145 TP36 TP37 TP38 TP21 HA144 HA17

T 169 S 169 S 169

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 8 of 15

Sketch: 240065-SK117 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)
0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

HA151 HA150 TP29 TP28 HA148 HA149 TP31 TP32 TP34 TP33 HA16 TP51 HA15

Notes:
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2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
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4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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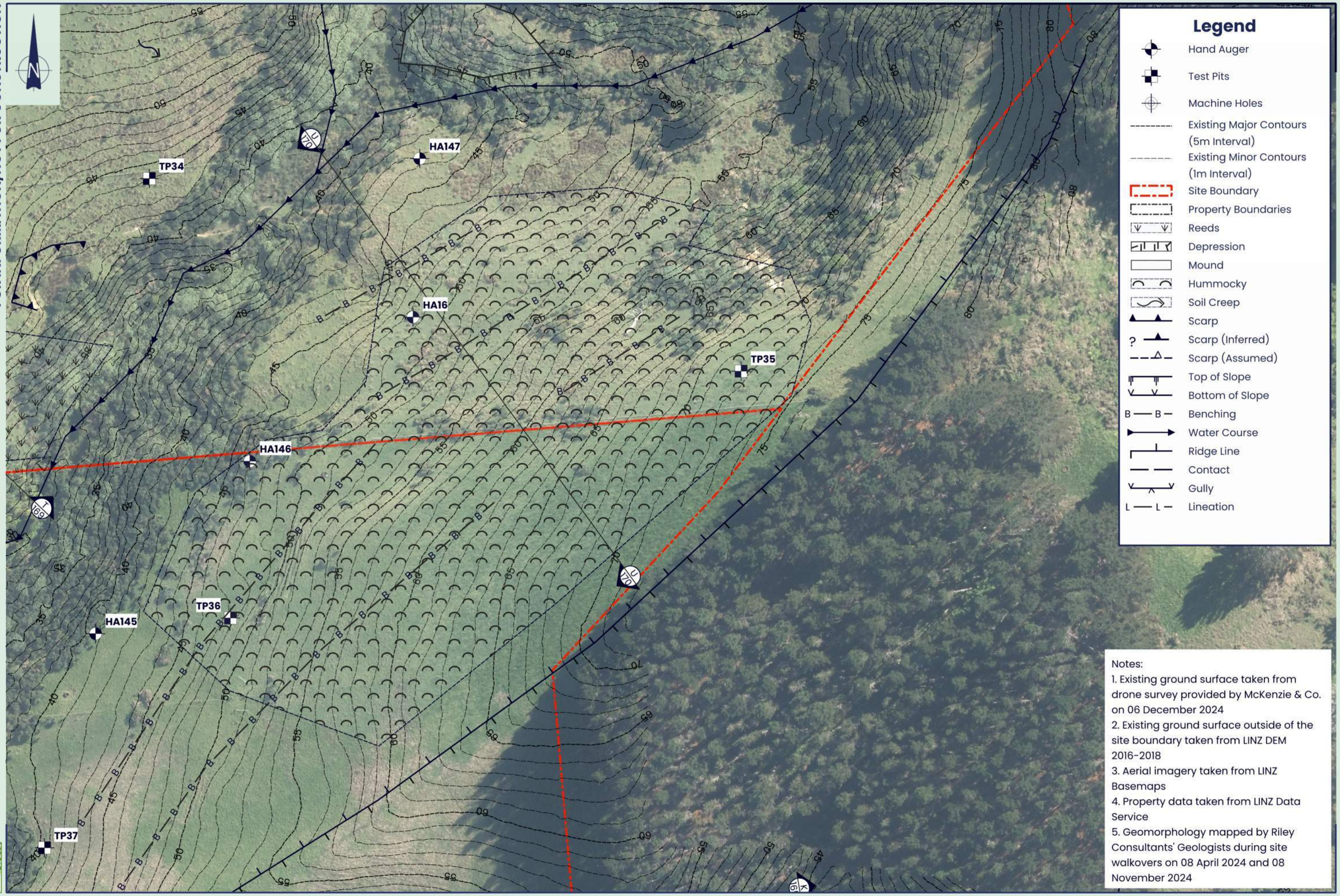
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 9 of 15

Sketch: 240065-SK118 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Scale: 1:1000 (A3)
0
20
40
60
80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
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- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Notes:
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3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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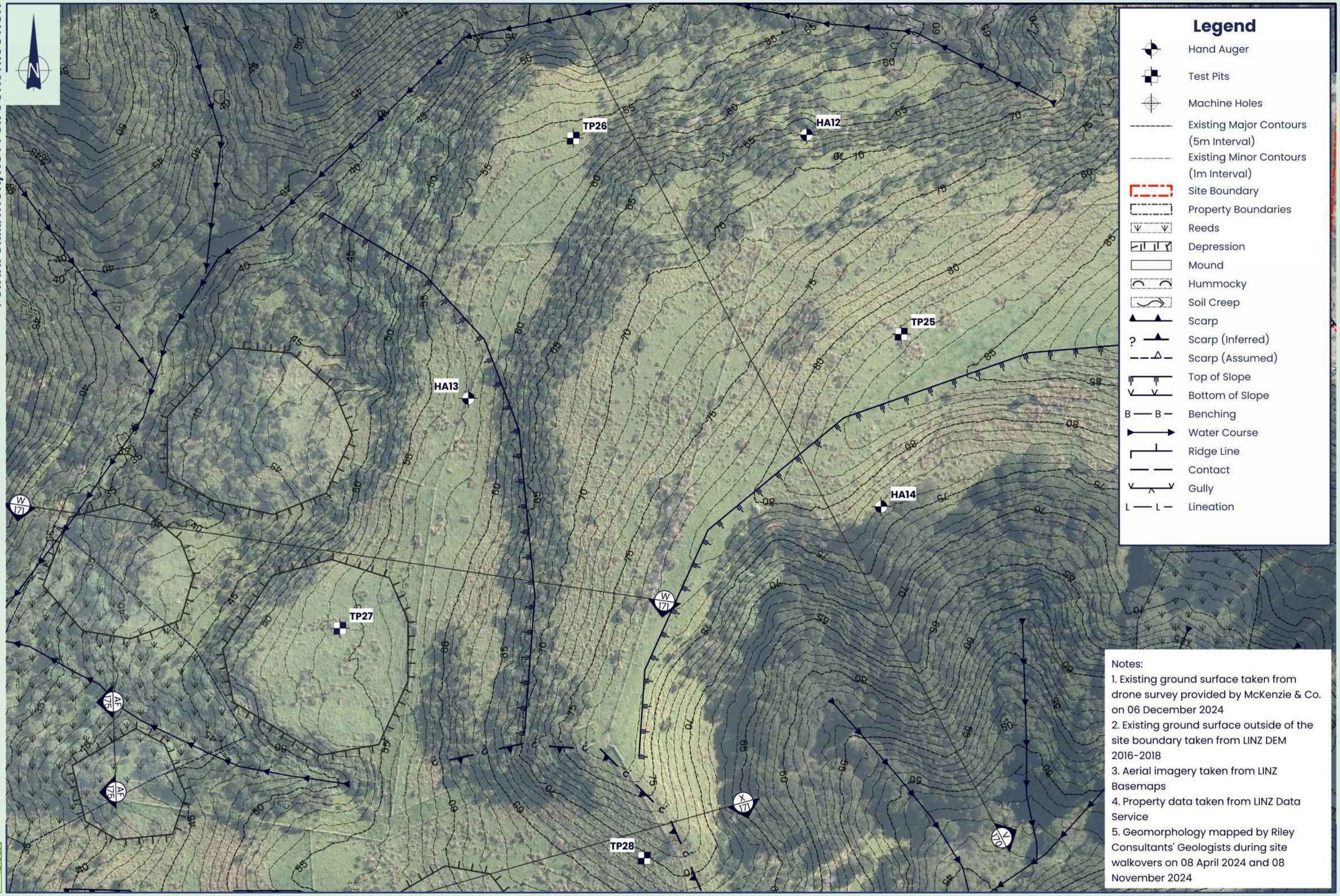
RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 10 of 15

Sketch: 240065-SK119 (Rev C)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Scale: 1:1000 (A3)

0 20 40 60 80 m

Notes:
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5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 11 of 15

Sketch: 240065-SK120 (Rev C)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)

0 20 40 60 80 m

HA164 HA165 TP42 HA163 HA162 HA161 HA159 TP43 HA19 HA160 TP41

AB 173 AA 173 R 168 AH 176

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
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- Bottom of Slope
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- Water Course
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Notes:

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2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

made with QGIS

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

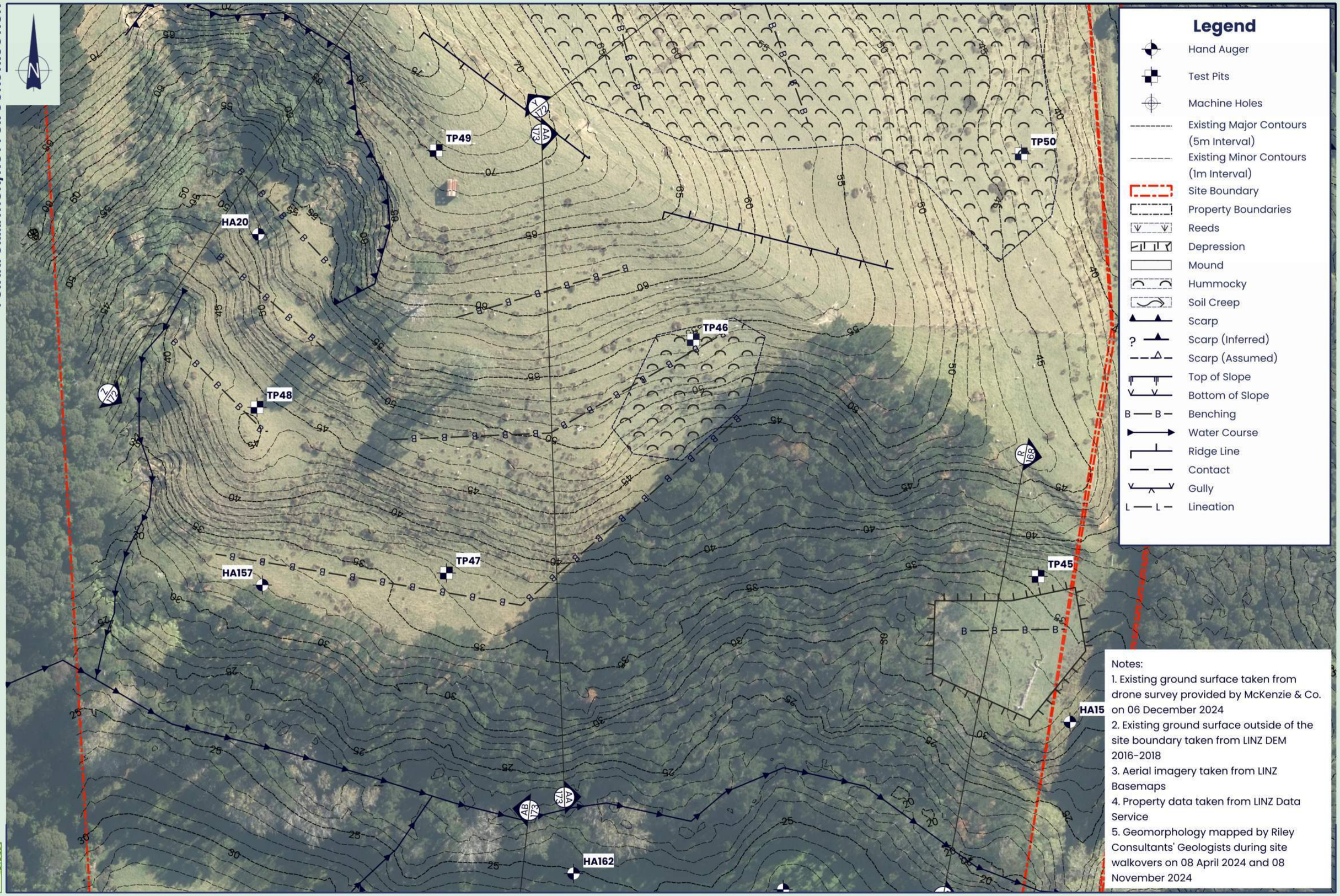
Geotechnical Site Plan - Sheet 12 of 15

Sketch: 240065-SK121 (Rev C)

Drawn By JAC | Checked By JLB

Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
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- Scarp (Inferred)
- Scarp (Assumed)
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- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

Scale: 1:1000 (A3)

0 20 40 60 80 m

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
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Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 13 of 15

Sketch: 240065-SK122 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)

0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
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- Reeds
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4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 14 of 15

Sketch: 240065-SK123 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

N

Scale: 1:1000 (A3)

0 20 40 60 80 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Contact
- Gully
- Lineation

HA153
HA152
HA154
HA151
TP30
TP54
TP31
AD 174

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018
3. Aerial imagery taken from LINZ Basemaps
4. Property data taken from LINZ Data Service
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024

Project Number: 240065 | Drawn by aboyd | Date printed: 05/12/2025 | Scale: 1:1000

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Site Plan - Sheet 15 of 15

Sketch: 240065-SK124 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

- Site Boundary

Exposed Rock Depth - ECBF (m)

- 0.0 - 2.0
- 2.0 - 4.0
- 4.0 - 6.0
- 6.0 - 8.0
- 8.0 - 10.0
- 10.0 - 12.0

Exposed Rock Depth - NAM (m)

- 0.0 - 2.0
- 2.0 - 4.0
- 4.0 - 6.0
- 6.0 - 8.0
- 8.0 - 10.0
- 10.0 - 12.0

Upper Orewa Road

Upper Orewa Road

Russell Road

Grand Drive

Scale: 1:7500 (A3)
0 100 200 300 400 m

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
4. Aerial imagery taken from LINZ Basemaps.
5. Property data taken from LINZ Data Service.
6. Proposed scheme plan provided by McKenzie & Co., dated 10 December 2025.
7. Geological layer depths determined from geomorphology mapping and avaliable intrusive site investigations.

made with QGIS

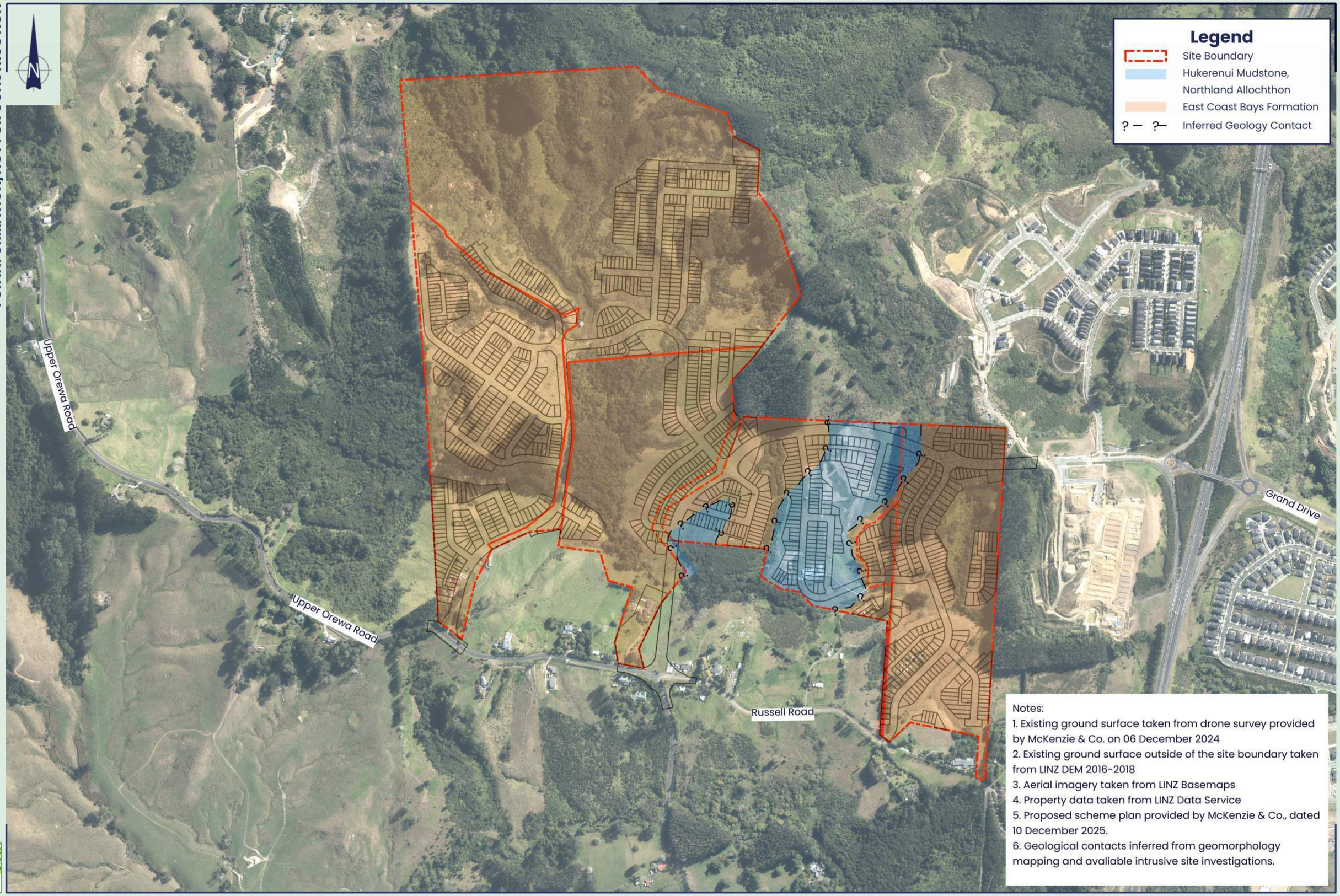
Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:7500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Approximate Extent of Rock Cuts at Finished Level

Sketch: 240065-SK130 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Scale: 1:7500 (A3)
0 100 200 300 400 m

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:7500

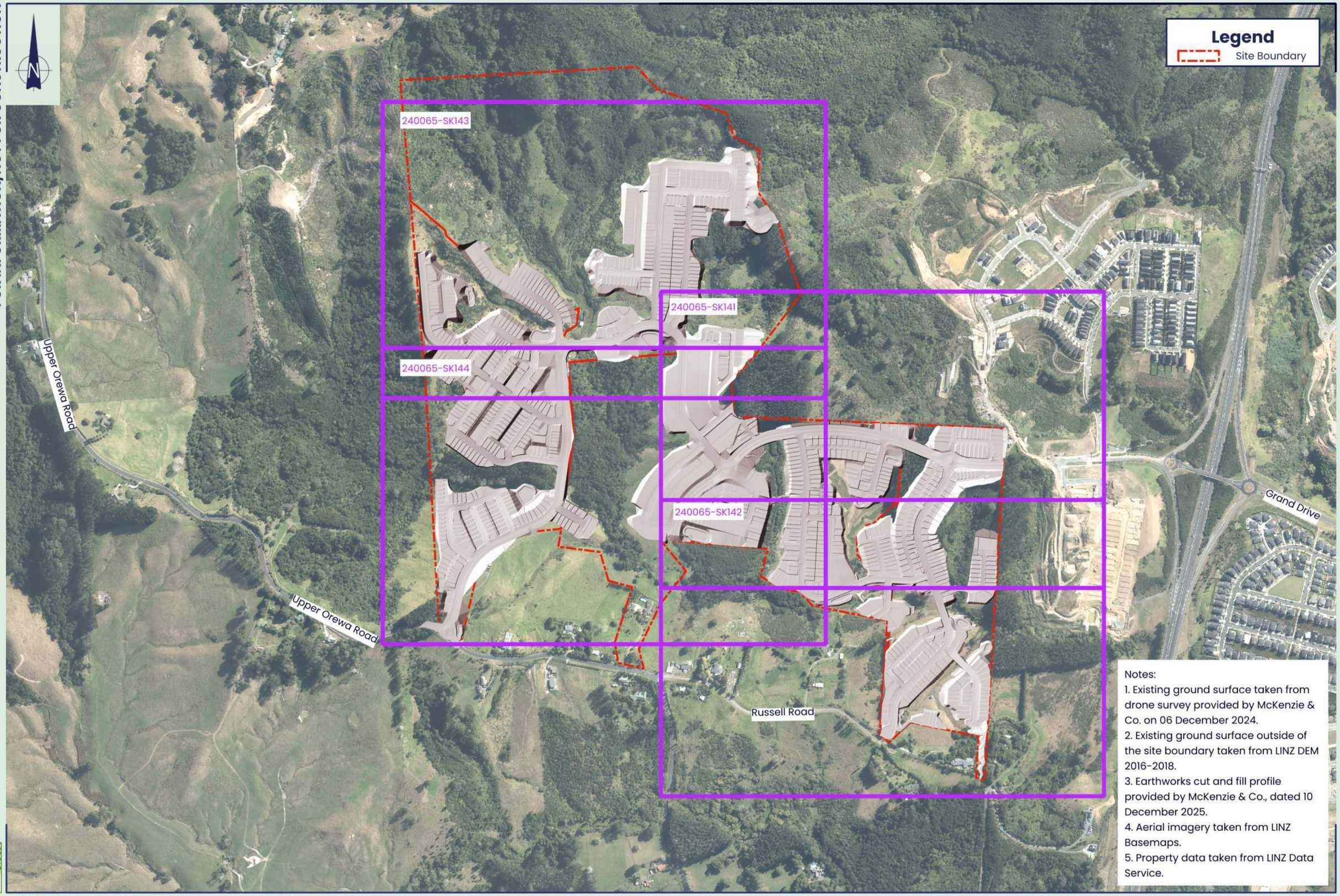
made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geological Map

Sketch: 240065-SK131 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION



Scale: 1:7500 (A3)
0 100 200 300 400 m

Project Number: 240065 | Drawn by aboyd | Date printed: 17/12/2025 | Scale: 1:7500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Remedials Overview Plan

Sketch: 240065-SK140 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Site Boundary
- Proposed Major Contours (5m Interval)
- Proposed Minor Contours (1m Interval)
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Estimated Riparian Margin
- Waterways

Indicative Remedial Measures

- Retaining wall
- Tiered Retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Soil nails
- Shear key
- Counterfort drains

Notes:
1. This sketch shows the indicative extent of proposed stabilisation enhancement measures. Final extent and configuration subject to detailed design and confirmation on site. For further details, refer to Riley report ref. 240065-Q and corresponding appendices.
2. For details on stability enhancement measures required between platforms, refer to 240065-Q.
3. The maximum gradient of the ground upslope of a proposed retaining wall is 18°.
4. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
5. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
6. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
7. Aerial imagery taken from LINZ Basemaps.
8. Property data taken from LINZ Data Service.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Remedials Plan - Sheet 1 of 4

Sketch: 240065-SK141 (Rev F)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

N

Scale: 1:2500 (A3)

0 60 120 180 240 m

Legend

- Site Boundary
- Proposed Major Contours (5m Interval)
- Proposed Minor Contours (1m Interval)
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Estimated Riparian Margin
- Waterways

Indicative Remedial Measures

- Retaining wall
- Tiered Retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Soil nails
- Shear key
- Counterfort drains

Notes:
1. This sketch shows the indicative extent of proposed stabilisation enhancement measures. Final extent and configuration subject to detailed design and confirmation on site. For further details, refer to Riley report ref. 240065-Q and corresponding appendices.
2. For details on stability enhancement measures required between platforms, refer to 240065-Q.
3. The maximum gradient of the ground upslope of a proposed retaining wall is 18°.
4. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
5. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
6. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
7. Aerial imagery taken from LINZ Basemaps.
8. Property data taken from LINZ Data Service.

Russell Road

Upper Orewa Road

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Remedials Plan - Sheet 2 of 4

Sketch: 240065-SK142 (Rev F)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

N

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Site Boundary
- Proposed Major Contours (5m Interval)
- Proposed Minor Contours (1m Interval)
- Existing Major Contours (5m Interval)
- Existing Minor Contours (1m Interval)
- Estimated Riparian Margin
- Waterways

Indicative Remedial Measures

- Retaining wall
- Tiered Retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Soil nails
- Shear key
- Counterfort drains

Notes:
1. This sketch shows the indicative extent of proposed stabilisation enhancement measures. Final extent and configuration subject to detailed design and confirmation on site. For further details, refer to Riley report ref. 240065-Q and corresponding appendices.
2. For details on stability enhancement measures required between platforms, refer to 240065-Q.
3. The maximum gradient of the ground upslope of a proposed retaining wall is 18°.
4. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
5. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
6. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
7. Aerial imagery taken from LINZ Basemaps.
8. Property data taken from LINZ Data Service.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Remedials Plan - Sheet 3 of 4

Sketch: 240065-SK143 (Rev D)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Notes:
1. This sketch shows the indicative extent of proposed stabilisation enhancement measures. Final extent and configuration subject to detailed design and confirmation on site. For further details, refer to Riley report ref. 240065-Q and corresponding appendices.
2. For details on stability enhancement measures required between platforms, refer to 240065-Q.
3. The maximum gradient of the ground upslope of a proposed retaining wall is 18°.
4. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
5. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
6. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
7. Aerial imagery taken from LINZ Basemaps.
8. Property data taken from LINZ Data Service.

Scale: 1:2500 (A3)
0 60 120 180 240 m

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

made with QGIS

RILEY

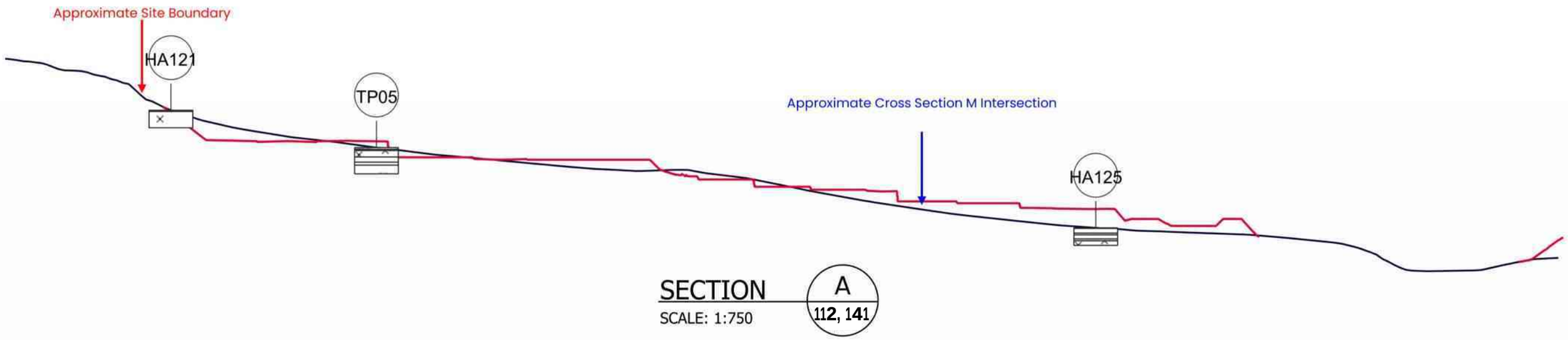
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Remedials Plan - Sheet 4 of 4

Sketch: 240065-SK144 (Rev D)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

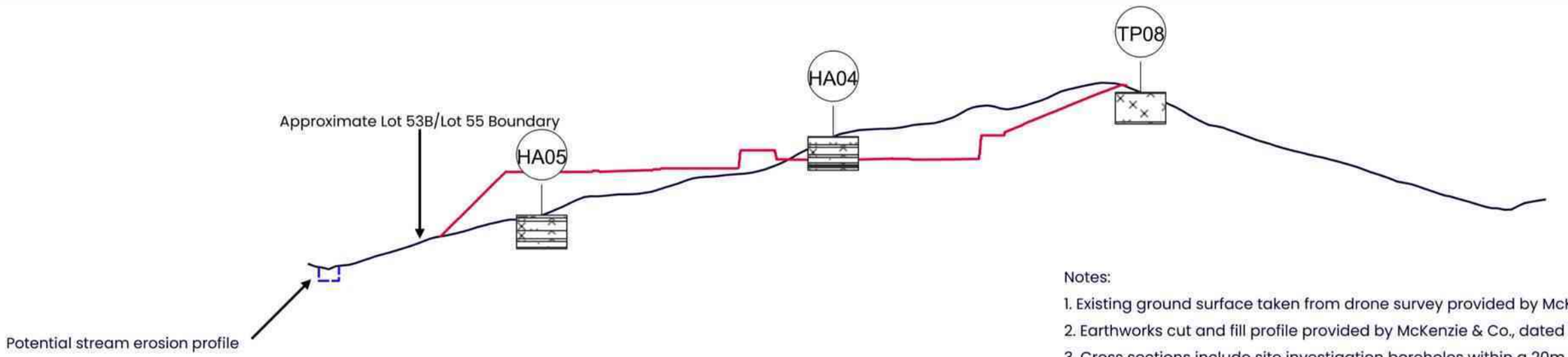
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level



SECTION A
SCALE: 1:750
112, 141



SECTION B
SCALE: 1:750
114, 141

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - A & B

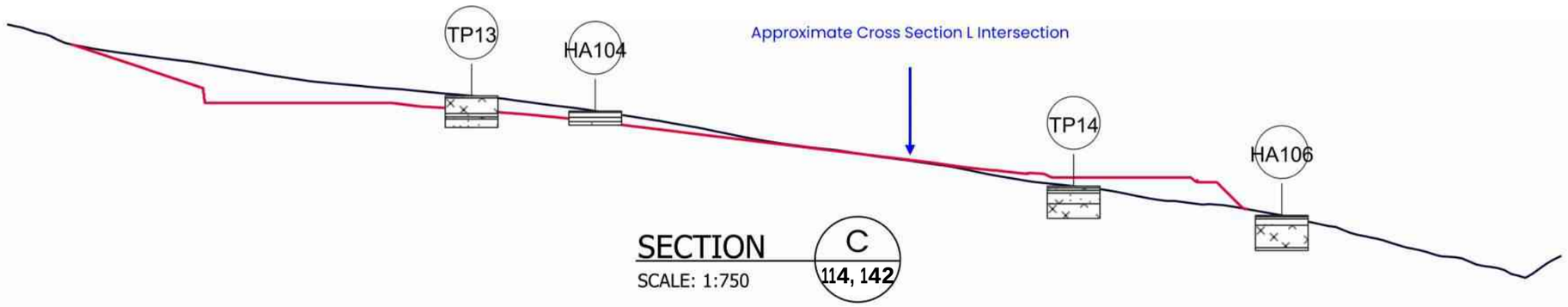
Sketch: 240065-SK160 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

Project Number: 240065 | Drawn by: ituser | Date printed: 16/12/2025 | Scale: 1:1

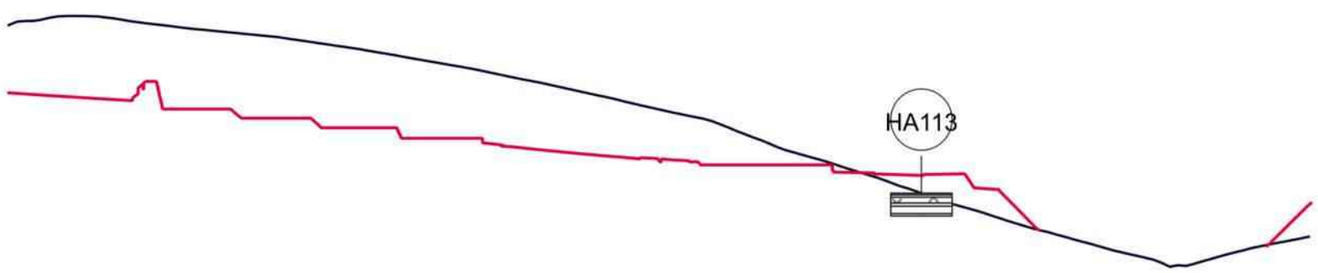
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level



SECTION C
SCALE: 1:750
114, 142



SECTION D
SCALE: 1:750
114, 142

Notes:

1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ltuser | Date printed: 16/12/2025 | Scale: 1:1

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Cross Sections - C & D

Sketch: 240065-SK161 (Rev B)

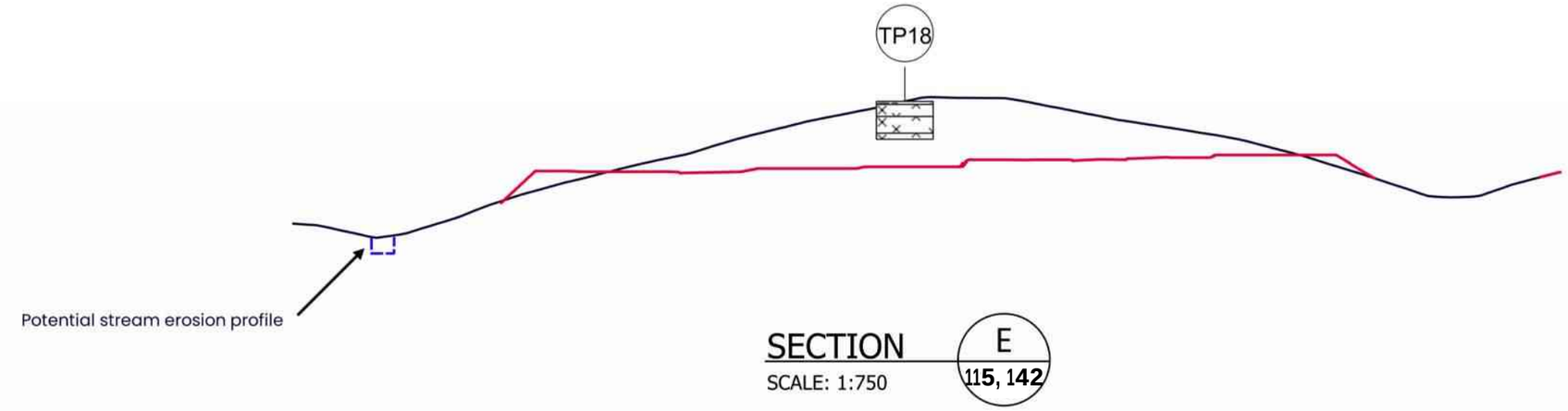
Drawn By JAC | Checked By JLB

Approved By BB | 19/12/2025

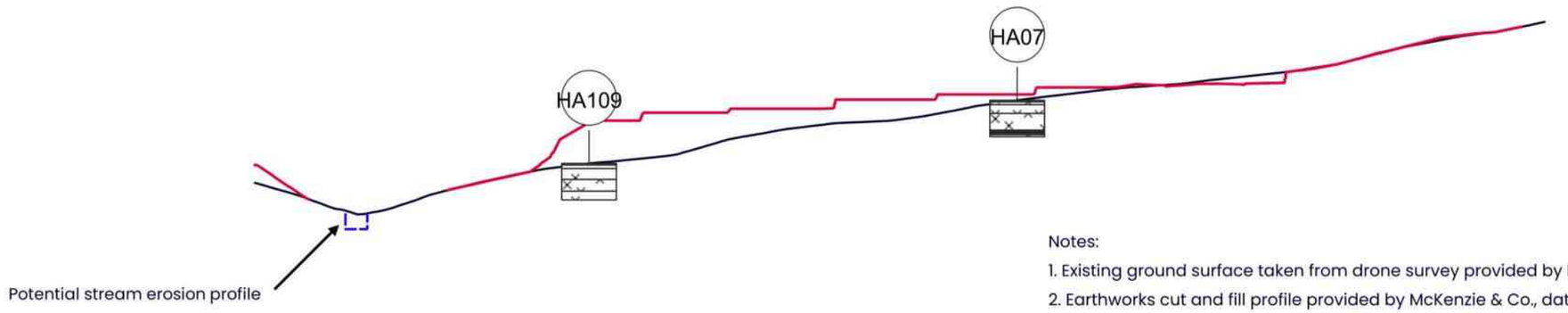
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION E
SCALE: 1:750
115, 142



SECTION F
SCALE: 1:750
116, 142

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

Project Number: 260065 | Drawn by: ituser | Date printed: 16/12/2025 | Scale: 1:1

RILEY

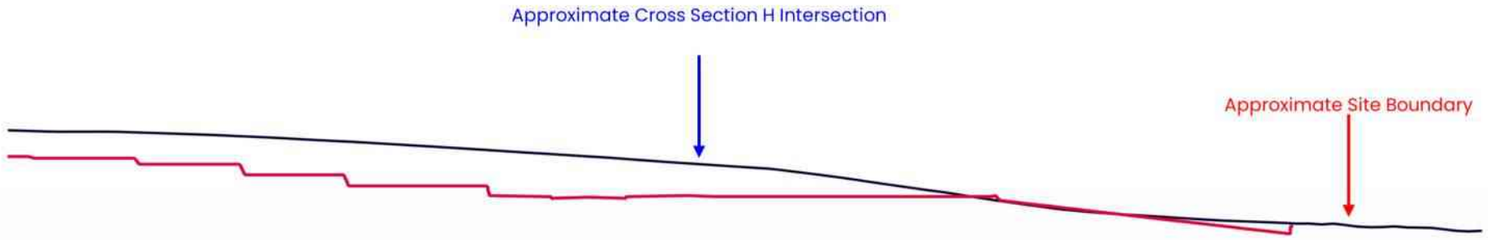
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - E & F

Sketch: 260065-SK162 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

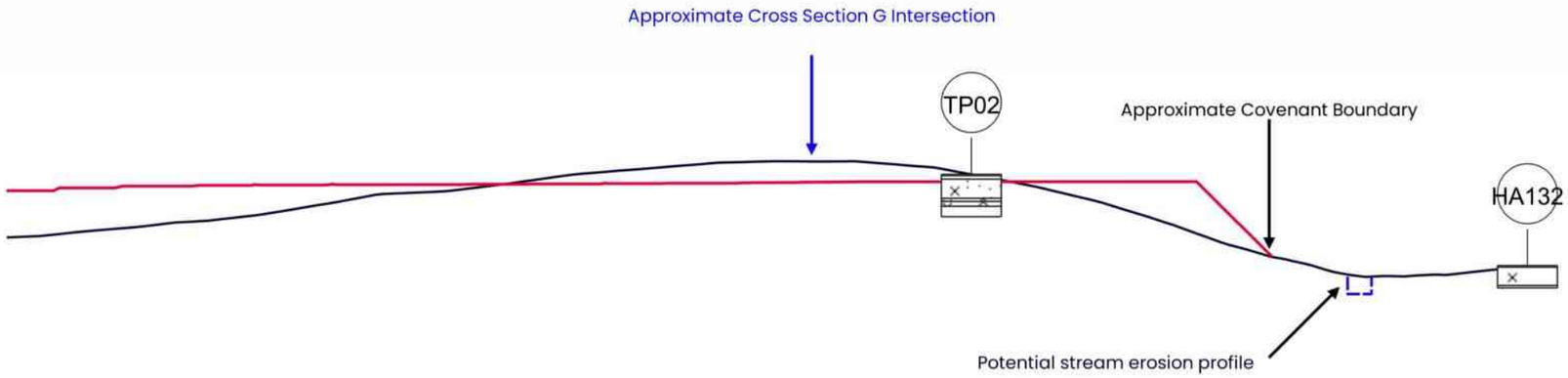
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION H
SCALE: 1:500
113, 141



SECTION G
SCALE: 1:750
113, 141

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

Project Number: 240065 | Drawn by: ituser | Date printed: 16/12/2025 | Scale: 1:1

made with QGIS

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Cross Sections - G & H

Sketch: 240065-SK163 (Rev B)

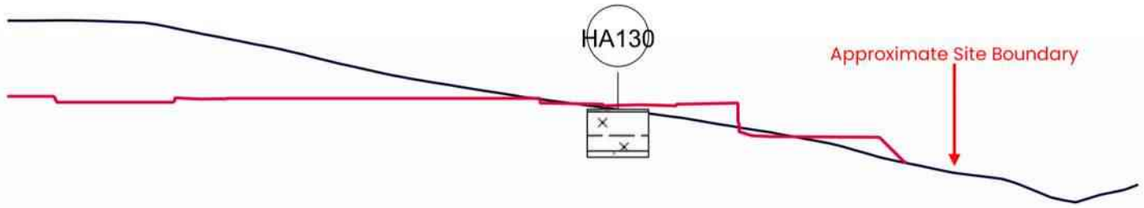
Drawn By JAC | Checked By JLB

Approved By BB | 19/12/2025

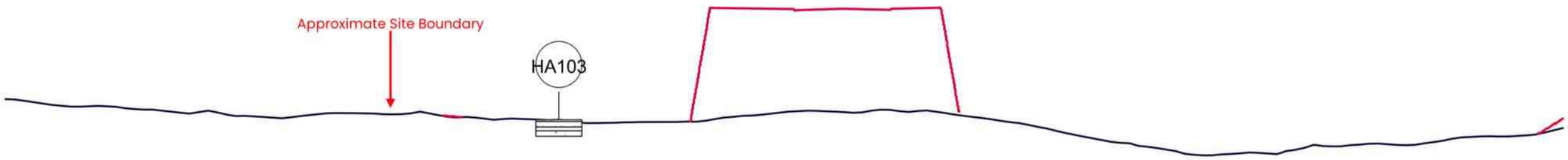
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION I
SCALE: 1:500
113, 142



SECTION J
SCALE: 1:500
112, 141

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ltuser | Date printed: 16/12/2025 | Scale: 1:1

RILEY

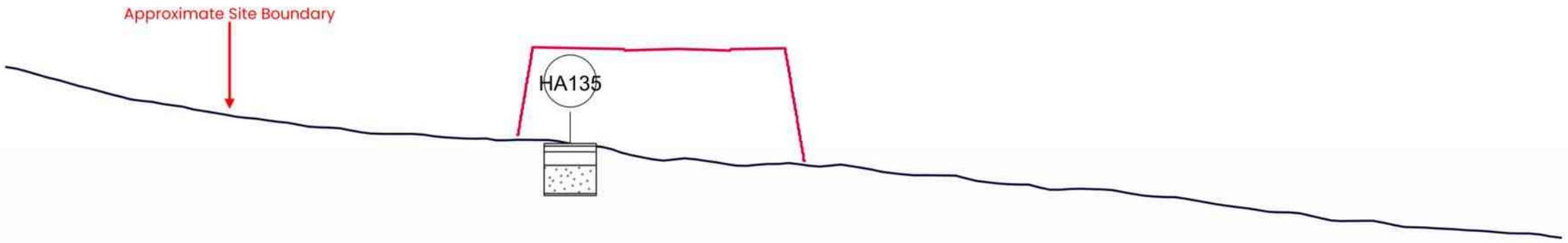
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - I & J

Sketch: 240065-SK164 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

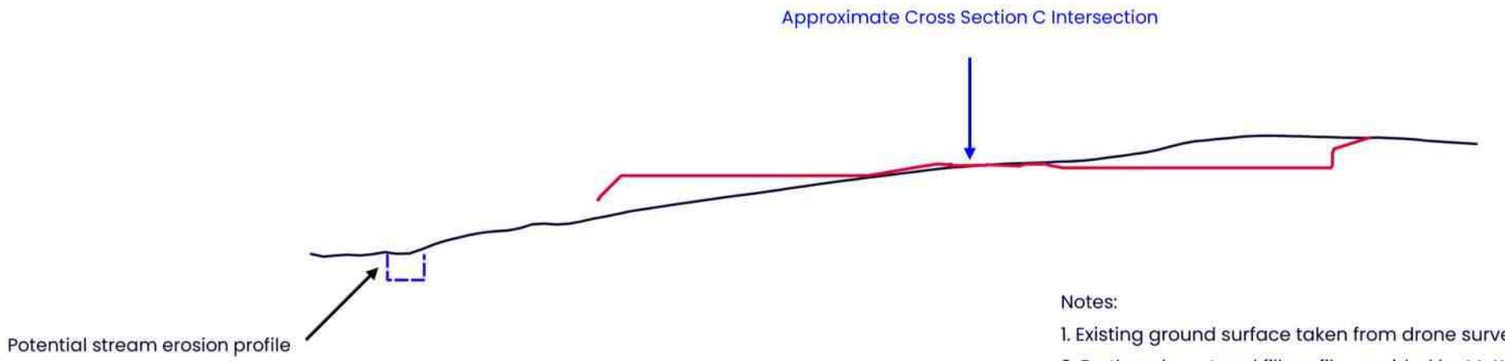
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION K
SCALE: 1:500
111, 141



SECTION L
SCALE: 1:500
114, 142

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ltuser | Date printed: 16/12/2025 | Scale: 1:1

RILEY

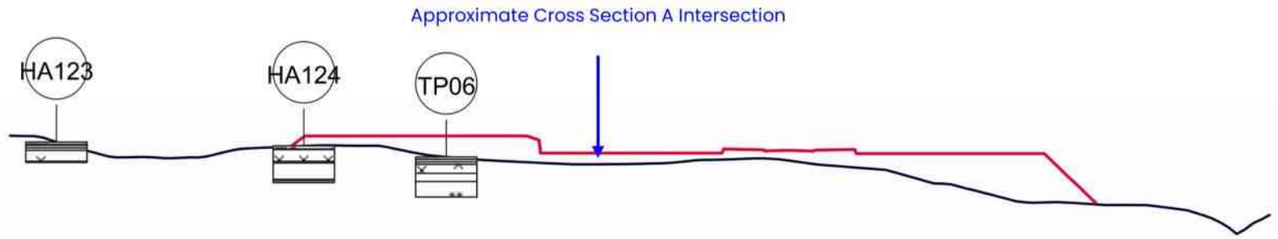
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - K & L

Sketch: 240065-SK165 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

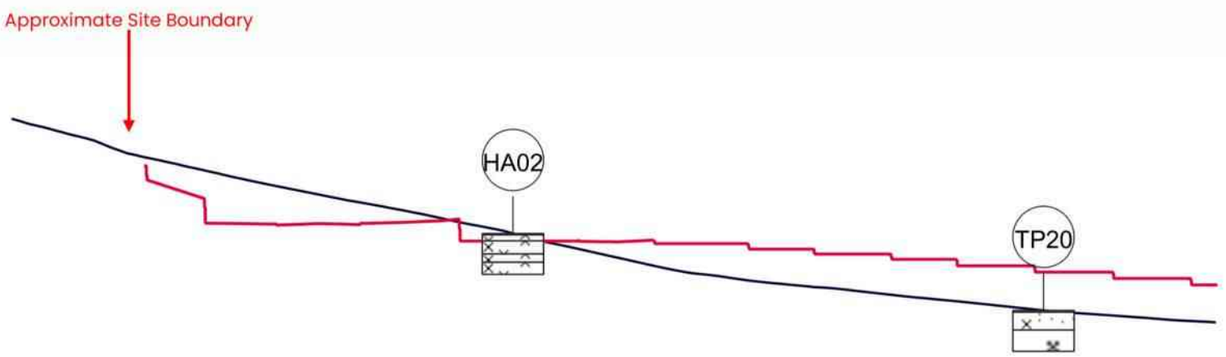
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION M
SCALE: 1:750
112, 141



SECTION N
SCALE: 1:750
111, 141

Notes:

1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ituser | Date printed: 16/12/2025 | Scale: 1:1

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Cross Sections - M & N

Sketch: 240065-SK166 (Rev B)

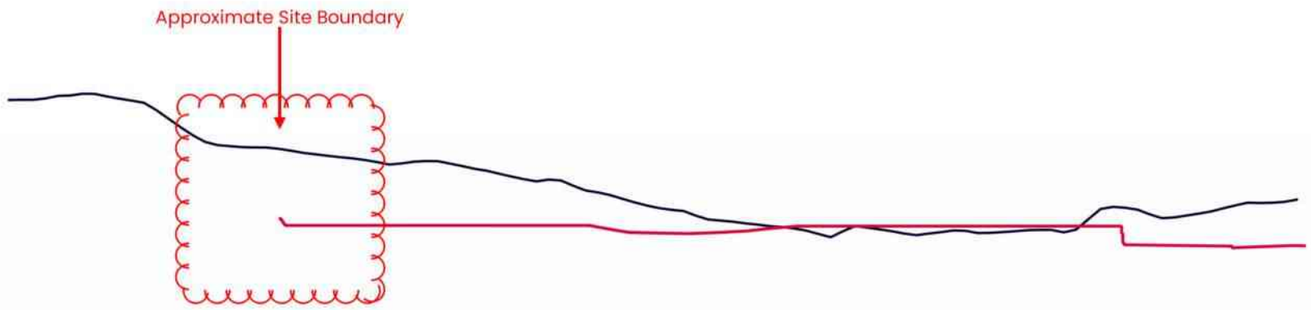
Drawn By JAC | Checked By JLB

Approved By BB | 19/12/2025

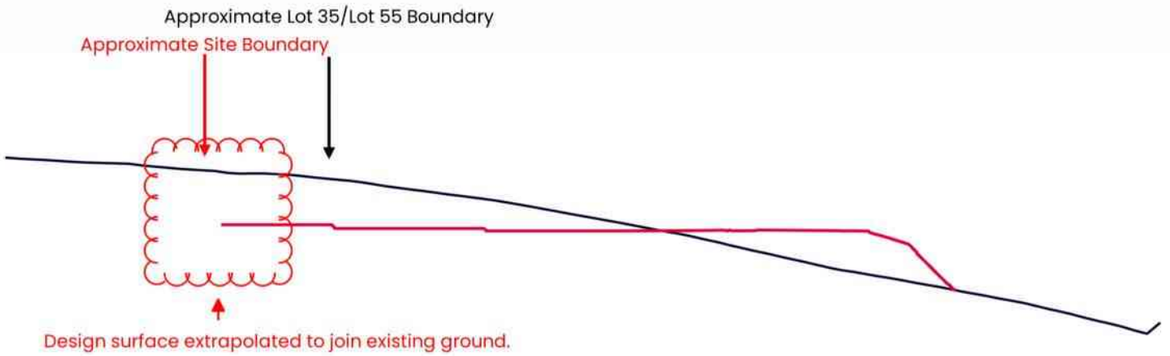
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

Topsoil	Silty CLAY	Organic SILT	
SAND	Sandy CLAY	SILTSTONE	
Silty SAND	SILT	MUDSTONE	
SANDSTONE	Clayey SILT	Existing Ground Level	
CLAY	Sandy SILT	Design Ground Level	



SECTION O
SCALE: 1:500
112, 141



SECTION P
SCALE: 1:500
115, 142

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

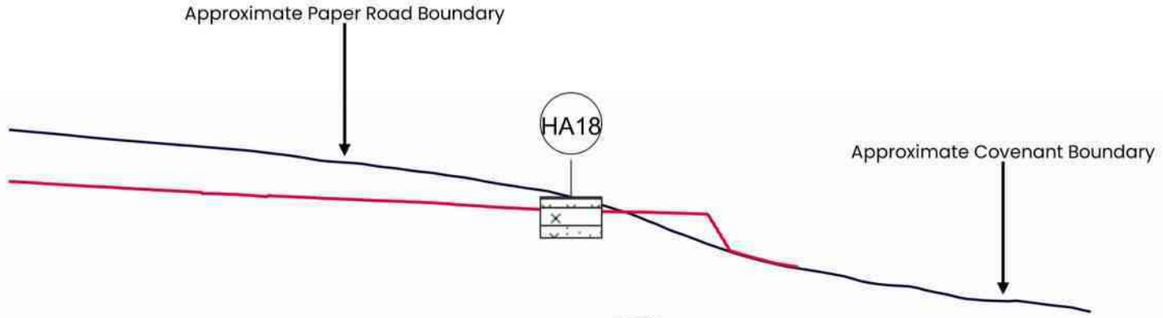
Vineway Ltd
Russel Road, Wainui - Delmore
Geotechnical Cross Sections - O & P

Sketch: 240065-SK167 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION Q
SCALE: 1:750
110, 144

SECTION R
SCALE: 1:750
112, 144

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

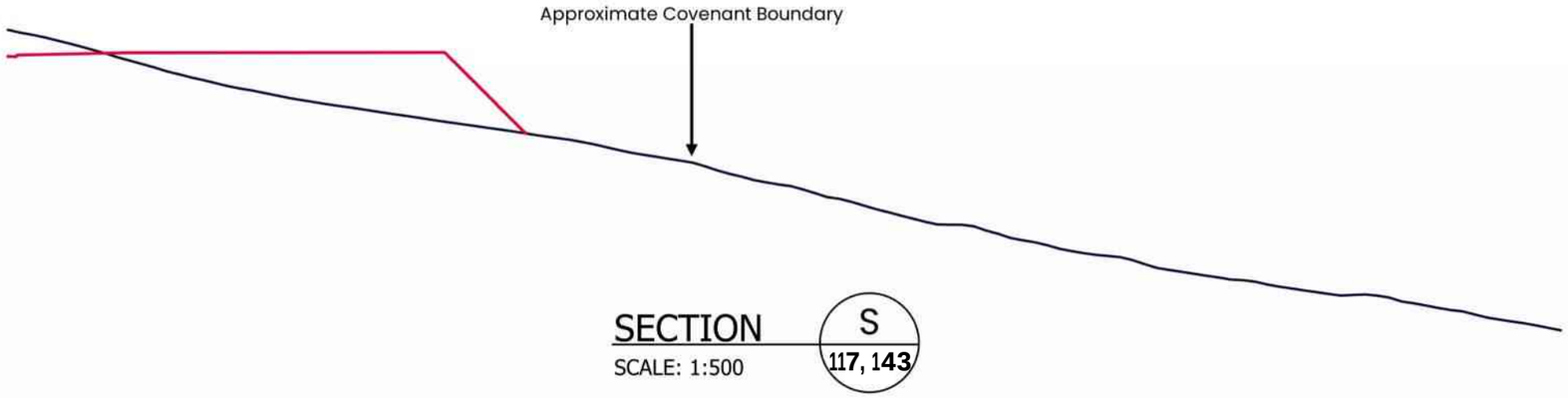
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - Q & R

Sketch: 240065-SK168 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

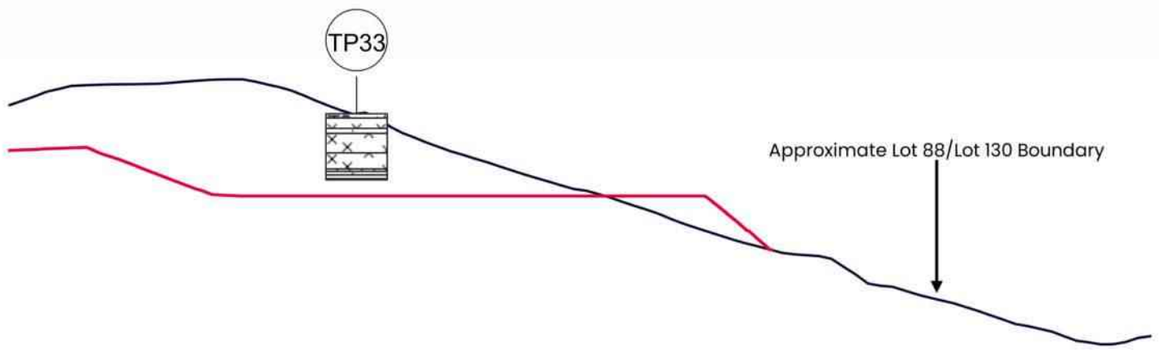
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION S
SCALE: 1:500
117, 143



SECTION T
SCALE: 1:500
118, 144

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

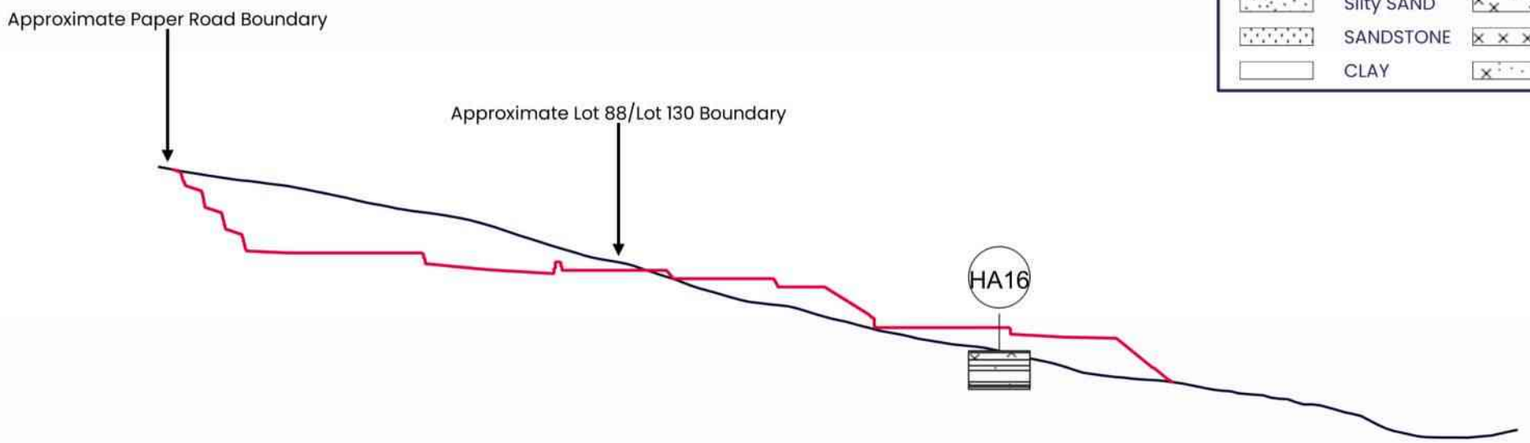
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - S & T

Sketch: 240065-SK169 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

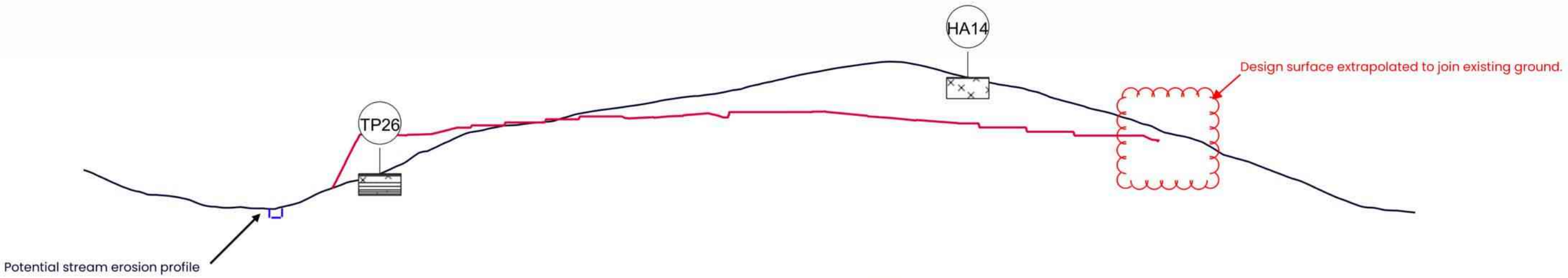
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION U
SCALE: 1:750
119, 143



SECTION V
SCALE: 1:1000
120, 143

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0.08 m
0.06
0.04
0.02
0

Project Number: 240065 | Drawn by ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

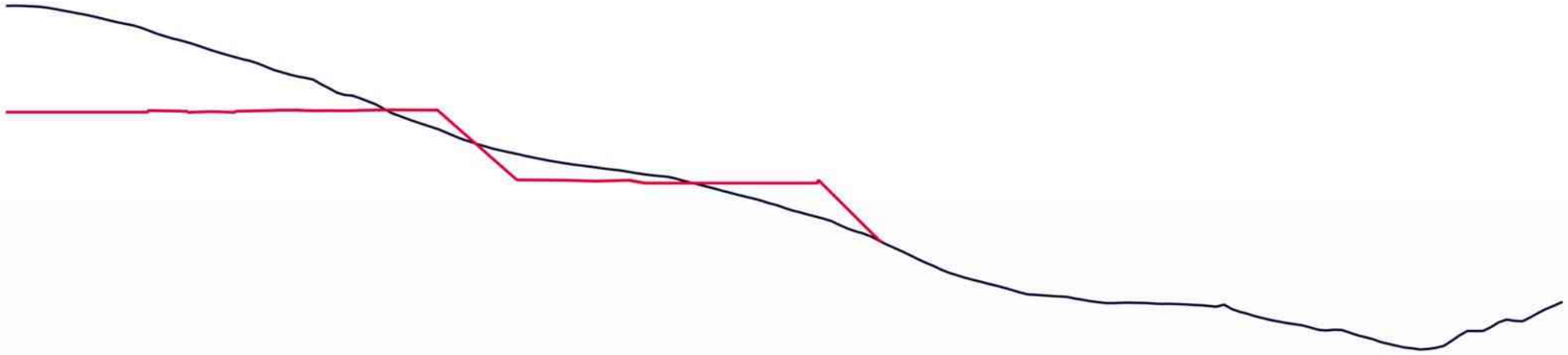
Vineway Ltd
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - U & V

Sketch: 240065-SK170 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level



SECTION W
SCALE: 1:750
120, 143

SECTION X
SCALE: 1:750
118, 143

Notes:

1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Cross Sections - W & X

Sketch: 240065-SK171 (Rev B)

Drawn By JAC | Checked By JLB

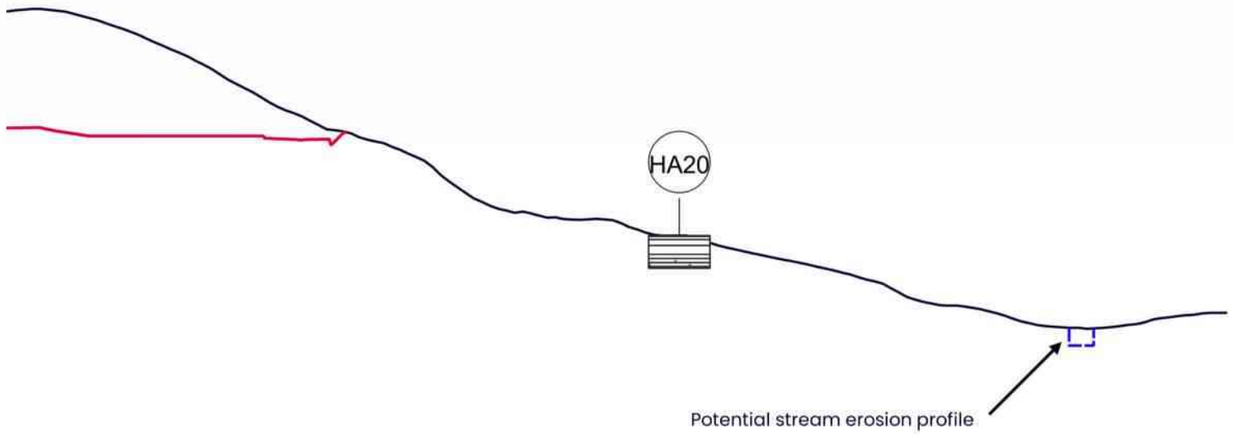
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level

SECTION Y
SCALE: 1:750
123, 143



SECTION Z
SCALE: 1:750
122, 144

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

Vineway Ltd

Russell Road, Wainui - Delmore

Geotechnical Cross Sections - Y & Z

Sketch: 240065-SK172 (Rev B)

Drawn By JAC | Checked By JLB

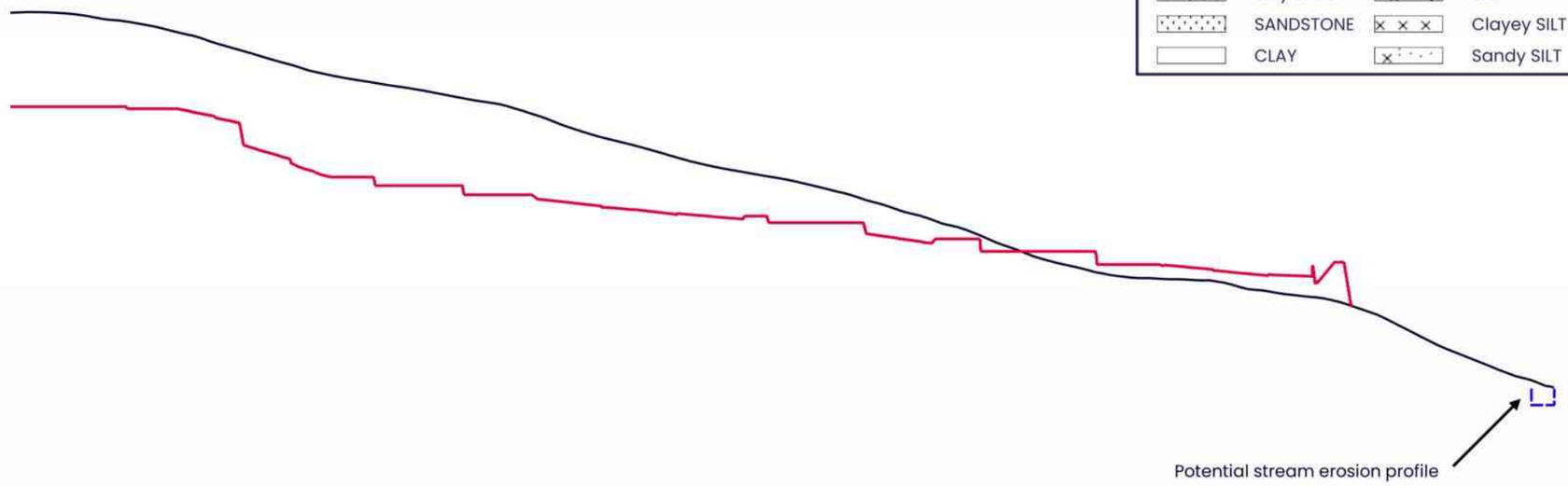
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

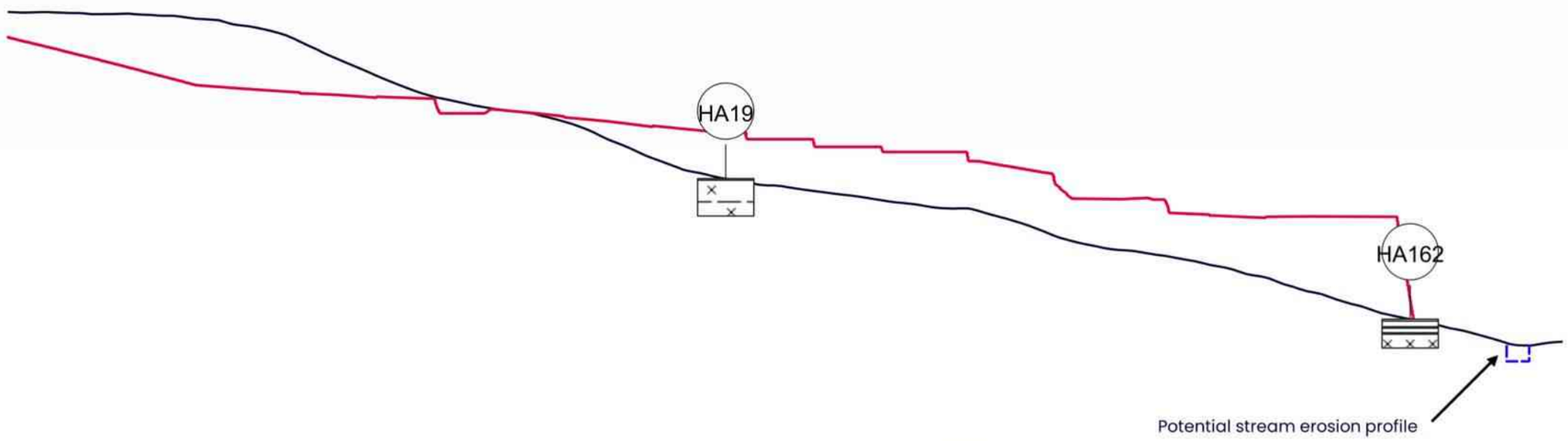
Scale: 1:1 (A3)
0.08 m
0.06
0.04
0.02
0

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION AA
SCALE: 1:750
122, 144



SECTION AB
SCALE: 1:750
121, 144

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

made with QGIS

Project Number: 240065 | Drawn by ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

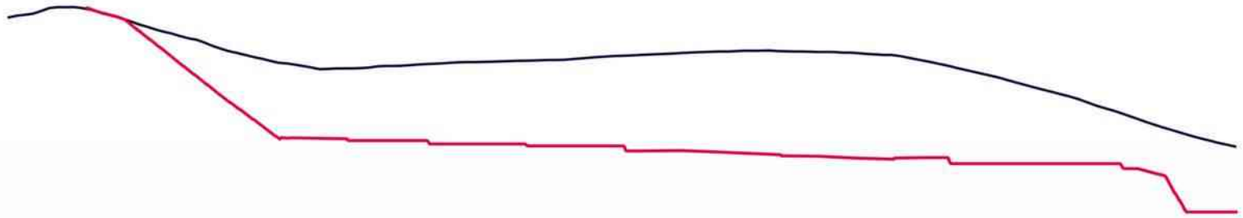
Vineway
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - AA & AB

Sketch: 240065-SK173 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

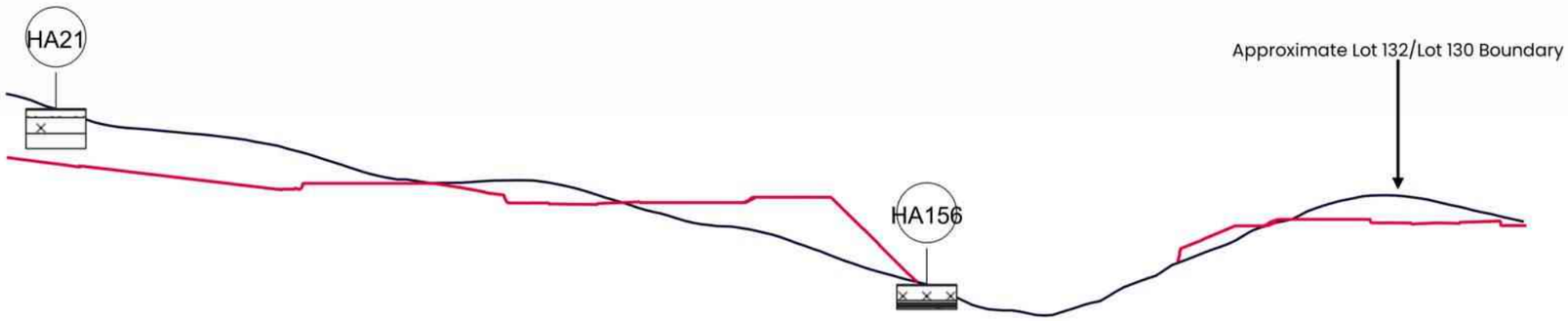
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level



SECTION AC
SCALE: 1:750
123, 144



SECTION AD
SCALE: 1:750
123, 143

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

RILEY

Vineway
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - AC & AD

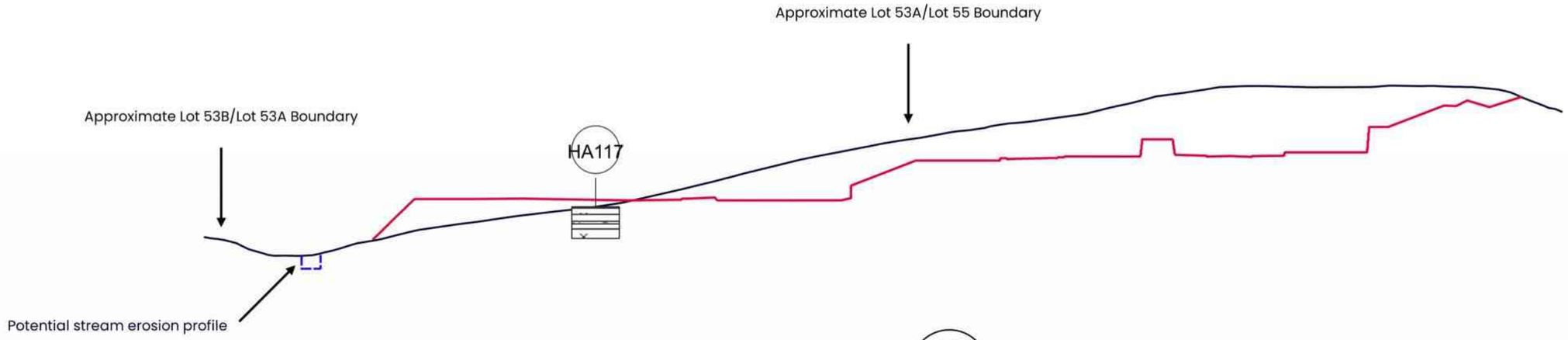
Sketch: 240065-SK174 (Rev B)
Drawn By JAC | Checked By JLB
Approved By BB | 19/12/2025

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

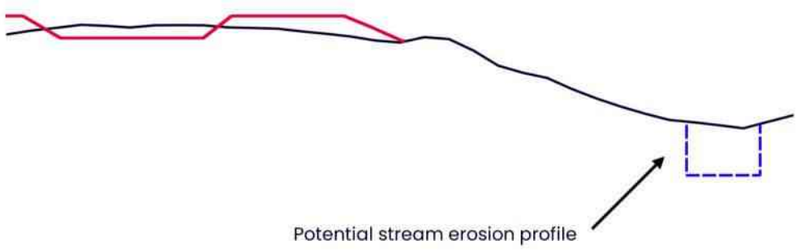
FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS	Topsoil		Silty CLAY		Organic SILT
	SAND		Sandy CLAY		SILTSTONE
	Silty SAND		SILT		MUDSTONE
	SANDSTONE		Clayey SILT		Existing Ground Level
	CLAY		Sandy SILT		Design Ground Level



SECTION AE
SCALE: 1:750
114, 142



SECTION AF
SCALE: 1:250
120, 143

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

Vineway
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - AE & AF

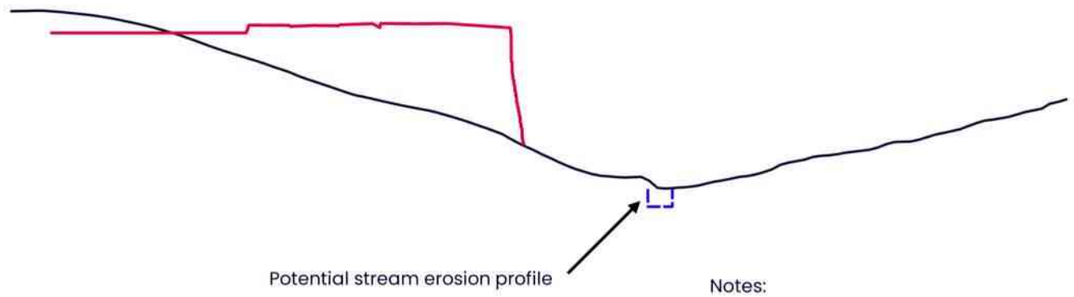
Sketch: 240065-SK175 (Rev A)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level

SECTION AG
SCALE: 1:750
112, 141



SECTION AH
SCALE: 1:750
121, 144

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

made with QGIS

Project Number: 240065 | Drawn by ituser | Date printed: 17/12/2025 | Scale: 1:1

RILEY

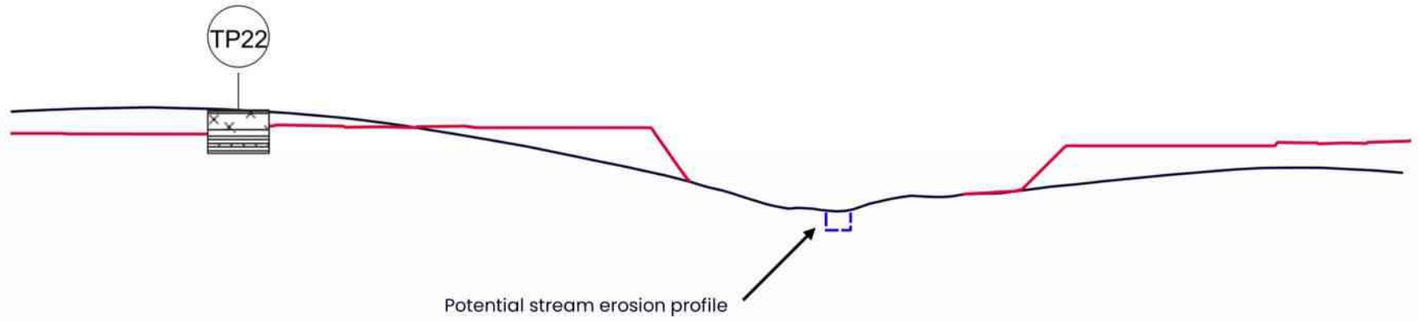
Vineway
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - AG & AH

Sketch: 240065-SK176 (Rev A)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Legend

TS Topsoil	Silty CLAY	Organic SILT
SAND	Sandy CLAY	SILTSTONE
Silty SAND	SILT	MUDSTONE
SANDSTONE	Clayey SILT	Existing Ground Level
CLAY	Sandy SILT	Design Ground Level



SECTION AI
SCALE: 1:750
111, 141

Scale: 1:1 (A3)
0 0.02 0.04 0.06 0.08 m

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Earthworks cut and fill profile provided by McKenzie & Co., dated 10 December 2025.
3. Cross sections include site investigation boreholes within a 20m corridor of the section line. Boreholes are projected perpendicularly onto the existing ground level.
4. Quantitative stability analyses of design ground level cross sections are detailed in Riley report ref. 240065-Q. Refer to the appendices for ground model and slope stability outputs and a summary of the results and required remedial measures.
5. All batters steeper than 1v in 4h will require further geotechnical input during detailed design.

made with QGIS

RILEY

Vineway
Russell Road, Wainui - Delmore
Geotechnical Cross Sections - AI

Sketch: 240065-SK177 (Rev A)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

Project Number: 240065 | Drawn by: ituser | Date printed: 17/12/2025 | Scale: 1:1

FOR INFORMATION/NOT FOR CONSTRUCTION

240065-SK183

240065-SK184

240065-SK181

240065-SK182

Upper Orewa Road

Russell Road

Scale: 1:7500 (A3)
0 100 200 300 400 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Gully
- Lineation
- Geology Contact
- Allochthon
- ECBF

Preliminary Proposed Stabilisation Enhancement Measures

- Undercut
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Counterfort drains
- Soil nails
- Shear key

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Geomorphology mapped by Riley Consultants' Geologists during site walkovers on 08 April 2024 and 08 November 2024.
6. Site investigation completed by Riley Consultants across November and December 2024.
7. Geological contact inferred from geomorphological mapping and available intrusive site investigation.
8. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.

made with QGIS

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:7500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Geological Features Plan - Overview

Sketch: 240065-SK180 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Gully
- Lineation
- Geology Contact
- Allochthon
- ECBF

Preliminary Proposed Stabilisation Enhancement Measures

- Undercut
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Counterfort drains
- Soil nails
- Shear key

Notes:
Refer to 240065-SK180.

Kikorangi Drive
Aquamarine A
Tamaota Ter

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Geological Features Plan - Sheet 1 of 4

Sketch: 240065-SK181 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

TP23
HA137
TP02
HA138
TP01
HA139
HA132
MH05
HA127
HA118
HA05
HA04
TP09
MH03
TP08
HA117
TP07
HA128
TP10
TP24
HA105
TP13
HA104
HA131
MH04
HA129
HA11
HA116
HA115
HA113
TP14
HA130
TP12
HA107
HA106
HA114
HA112
TP15
TP18
HA08
HA06
HA108
TP16
HA111
HA109
TP17
HA07
HA110
Russell Road
Upper Orewa Road

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Gully
- Lineation
- Geology Contact
- Allochthon
- ECBF

Preliminary Proposed Stabilisation Enhancement Measures

- Undercut
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Counterfort drains
- Soil nails
- Shear key

Notes:
Refer to 240065-SK180.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Geological Features Plan - Sheet 2 of 4

Sketch: 240065-SK182 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Gully
- Lineation
- Geology Contact
- Allochthon
- ECBF

Preliminary Proposed Stabilisation Enhancement Measures

- Undercut
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Counterfort drains
- Soil nails
- Shear key

Notes:
Refer to 240065-SK180.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Geological Features Plan - Sheet 3 of 4

Sketch: 240065-SK183 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2022

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Reeds
- Depression
- Mound
- Hummocky
- Soil Creep
- Scarp
- Scarp (Inferred)
- Scarp (Assumed)
- Top of Slope
- Bottom of Slope
- Benching
- Water Course
- Ridge Line
- Gully
- Lineation
- Geology Contact
- Allochthon
- ECBF

Preliminary Proposed Stabilisation Enhancement Measures

- Undercut
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- Back-to-back REB
- REB slope + shear pile
- Counterfort drains
- Soil nails
- Shear key

Notes:
Refer to 240065-SK180.

Upper Orewa Road

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Geological Features Plan - Sheet 4 of 4

Sketch: 240065-SK184 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR INFORMATION/NOT FOR CONSTRUCTION

Notes:

1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations are subject to detailed design and confirmation on site.
7. Earthwork cut and fill profiles for Stages 1 and 2 are generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Proposed Cut/Fill Plan - Overview

Sketch: 240065-SK185 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Kikorangi Drive
Aquamarine
Grand Drive

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Proposed Cut/Fill Plan - Sheet 1 of 4

Sketch: 240065-SK186 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

N

Scale: 1:2500 (A3)
240 m
180
120
60
0

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Russell Road
Upper Orewa Road

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Proposed Cut/Fill Plan - Sheet 2 of 4

Sketch: 240065-SK187 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Proposed Cut/Fill Plan - Sheet 3 of 4

Sketch: 240065-SK188 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

N

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours
- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures
- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Upper Orewa Road

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Investigation and Proposed Cut/Fill Plan - Sheet 4 of 4

Sketch: 240065-SK189 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut
- **Future investigation areas**

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Cut/Fill Plan Showing Areas for Future Investigation - Sheet 1 of 4

Sketch: 240065-SK190 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut
- **Future investigation areas**

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Russell Road
Upper Orewa Road

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Cut/Fill Plan Showing Areas for Future Investigation - Sheet 2 of 4

Sketch: 240065-SK191 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut
- **Future investigation areas**

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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Vineway Ltd
Russell Road, Wainui - Delmore
Cut/Fill Plan Showing Areas for Future Investigation - Sheet 3 of 4

Sketch: 240065-SK192 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0
60
120
180
240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries
- Lot Boundaries

Cut/Fill contours

- Cut (0.5m Interval)
- Fill (0.5m Interval)
- 0m contour

Preliminary Proposed Stabilisation Enhancement Measures

- Retaining wall
- Tiered retaining wall
- Palisade wall
- REB
- REB slope + shear pile
- Back-to-back REB
- Soil nails
- Shear key
- Counterfort drains
- Undercut
- **Future investigation areas**

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 06 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed lot development provided by Myland Partners, dated 10 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. This sketch shows the indicative extent of the proposed stabilisation enhancement measures. Final extent and configurations is subject to detailed design and confirmation on site.
7. Earthwork cut and fill profile generated from design ground surface provided by McKenzie & Co., dated 10 December 2025.

Upper Orewa Road

Project Number: 240065 | Drawn by aboyd | Date printed: 19/12/2025 | Scale: 1:2500

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Vineway Ltd
Russell Road, Wainui - Delmore
Cut/Fill Plan Showing Areas for Future Investigation - Sheet 4 of 4

Sketch: 240065-SK193 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

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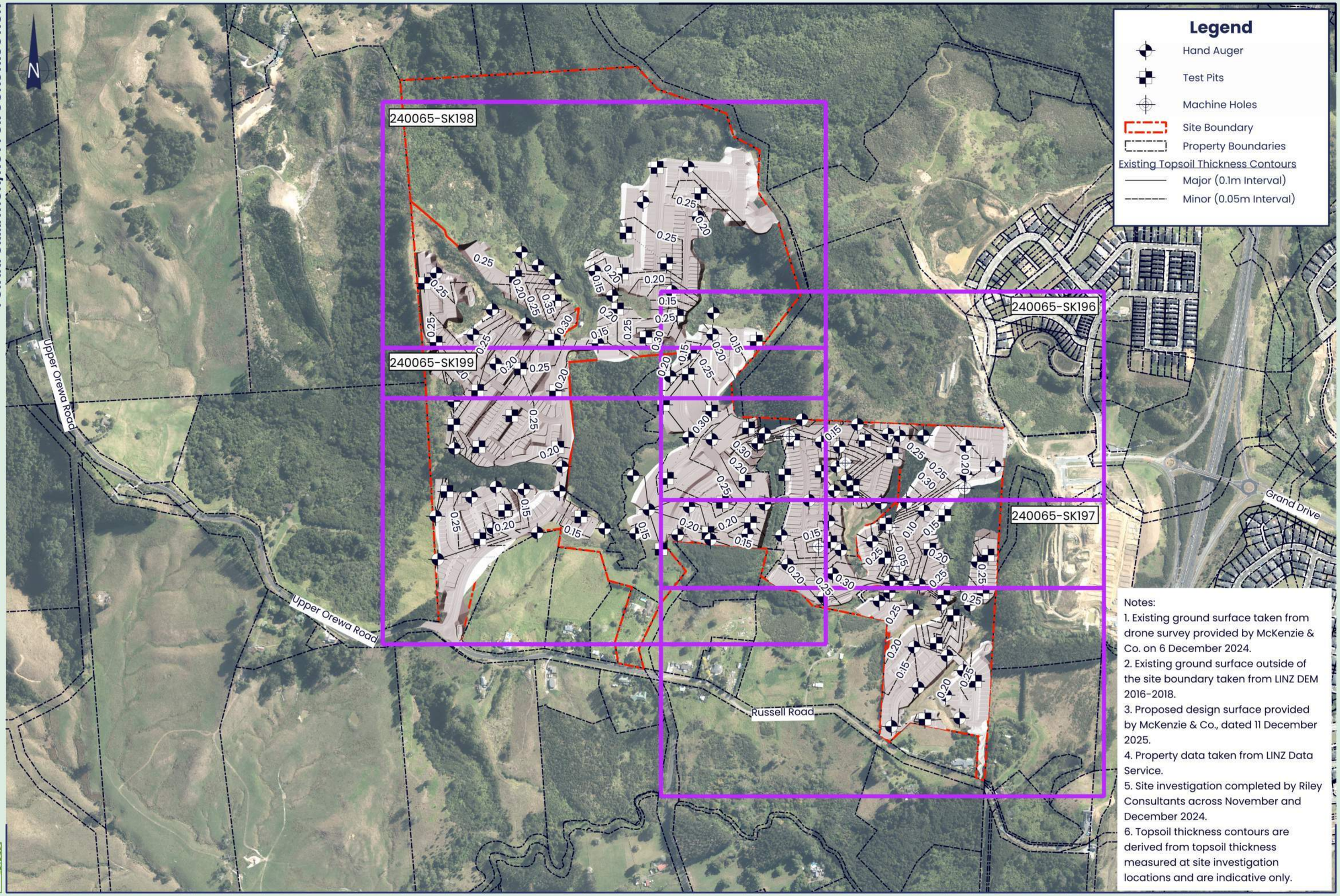

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Existing Topsoil Contours - Overview

Sketch: 240065-SK195 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries

Existing Topsoil Thickness Contours

- Major (0.1m Interval)
- Minor (0.05m Interval)

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed design surface provided by McKenzie & Co., dated 11 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. Topsoil thickness contours are derived from topsoil thickness measured at site investigation locations and are indicative only.

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RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Existing Topsoil Contours - Sheet 1 of 4

Sketch: 240065-SK196 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries

Existing Topsoil Thickness Contours

- Major (0.1m Interval)
- Minor (0.05m Interval)

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed design surface provided by McKenzie & Co., dated 11 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. Topsoil thickness contours are derived from topsoil thickness measured at site investigation locations and are indicative only.

Project Number: 240065 | Drawn by aboyd | Date printed: 12/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Existing Topsoil Contours - Sheet 2 of 4

Sketch: 240065-SK197 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

Scale: 1:2500 (A3)

0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries

Existing Topsoil Thickness Contours

- Major (0.1m Interval)
- Minor (0.05m Interval)

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed design surface provided by McKenzie & Co., dated 11 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. Topsoil thickness contours are derived from topsoil thickness measured at site investigation locations and are indicative only.

Project Number: 240065 | Drawn by aboyd | Date printed: 12/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Existing Topsoil Contours - Sheet 3 of 4

Sketch: 240065-SK198 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

FOR PRELIMINARY QUANTITIES ONLY/
NOT FOR CONSENTING OR CONSTRUCTION

N

Scale: 1:2500 (A3)
0 60 120 180 240 m

Legend

- Hand Auger
- Test Pits
- Machine Holes
- Site Boundary
- Property Boundaries

Existing Topsoil Thickness Contours

- Major (0.1m Interval)
- Minor (0.05m Interval)

HA21 TP52 TP50 HA20 TP49 TP46 TP48 TP47 HA157 TP45 HA158 HA162 HA161 HA159 TP42 HA163 HA164 TP43 TP44 HA19 TP41 HA160 HA165 HA146 TP36 HA145 TP37 TP38 HA144 HA17 HA135 TP21 TP03 MH02 HA136 HA02 HA143 TP39 TP04 TP22 TP20 HA18 HA01 TP23 HA137 HA133 HA142 HA141 TP02 HA140 TP01 HA139 HA138 HA132 TP40

No.132 No.118 No.100 No.53B Upper Orewa Road

Notes:
1. Existing ground surface taken from drone survey provided by McKenzie & Co. on 6 December 2024.
2. Existing ground surface outside of the site boundary taken from LINZ DEM 2016-2018.
3. Proposed design surface provided by McKenzie & Co., dated 11 December 2025.
4. Property data taken from LINZ Data Service.
5. Site investigation completed by Riley Consultants across November and December 2024.
6. Topsoil thickness contours are derived from topsoil thickness measured at site investigation locations and are indicative only.

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Project Number: 240065 | Drawn by aboyd | Date printed: 12/12/2025 | Scale: 1:2500

RILEY

Vineway Ltd
Russell Road, Wainui - Delmore
Existing Topsoil Contours - Sheet 4 of 4

Sketch: 240065-SK199 (Rev B)
Drawn By AB | Checked By JLB
Approved By BB | 19/12/2025

AUCKLAND
4 Fred Thomas Drive, Takapuna
riley@riley.co.nz
CHRISTCHURCH
22 Moorhouse Avenue, Addington
rileychch@riley.co.nz

riley.co.nz