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Visual Effects Assessment

prepared for

SOLAR PANEL FARM
80 STRUIE ROAD

Hororata

January 2025

Visual Effects Assessment

Solar Panel Farm, 80 Struie Road, Hororata

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Table of Contents

Introduction	1
Methodology	1
Proposal Details	2
The Receiving Environment	3
Policy Framework	3
Resource Management Act.....	3
Selwyn District Plan.....	4
Landscape Effects	6
Visual Effects.....	7
Summary	10

Attachments

Addendum to Report Post-Lodgement s92 Response

Appendix 1 Graphic Attachment



Introduction

- 1. The purpose of this report is to assess the landscape and visual (LVA) effects resulting from the proposal to establish a commercial solar energy facility at 80 Struie Road, Hororata to inform the AEE.

Methodology

- 2. The following LVA methodology is based on the *Te Tangi a Te Manu Aotearoa New Zealand* Landscape Assessment Guidelines (May 2021) which encourages a tailored methodology specific to the project situation avoiding a prescriptive approach. A preference for character description and effects on landscape is the Guideline’s preferred method for establishing effects. The rating scale utilised in the following LVA is summarised in **Figure One** below.

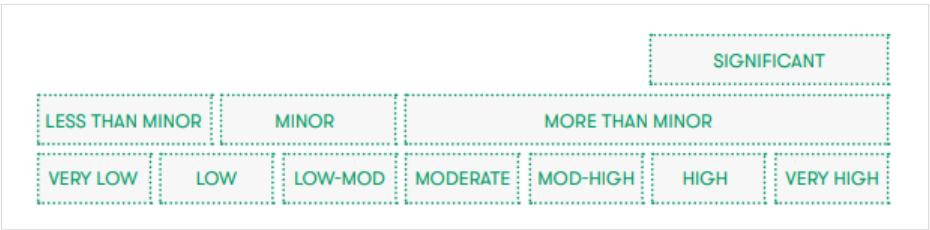


Figure 1: Visual Effects Ratings and Categorisation as per *Te Tangi a te Manu*

- 3. Landscape effects have been considered, in relation to character, amenity, perception and biophysical values of the landscape. Visibility does not pertain to a visual effect. It is a subset of the landscape effects, and relates to suitability, absorption, appropriateness, and an adaptation of character. This has been considered in relation to key viewing audiences particular to the Struie Road environment.
- 4. Several site visits have been undertaken to view the site and surrounds. Photos were taken during the visit at key locations for reference and assessment. Additionally, a desktop analysis of site surrounds including GIS, Google Earth and LINZ Maps has been undertaken.
- 5. A Graphic Attachment (**Appendix 1**) has been organised to outline the site plan, mitigation planting, and viewpoints from the site to assist in the assessment of effects.



Proposal Details

6. The resource consent application is to establish a commercial solar energy facility located at 80 Struie Road, Hororata.
7. The proposal, as outlined in Site Plan **Appendix 1**, pertains to:
 - A solar energy facility with an array of¹ solar panels in rows, with each separate solar panel being approximately 1 x 2 metres in size (see engineering plans).
 - Open space areas for access and maintenance strips around solar panels, which will be a mixture of grassed paddock land, and hardscape areas for access etc.
 - A large area of mitigation planting i.e. boundary planting of approximately 3044m² to be included along north, west and south of site.
8. The site plan and proposal are outlined by **Figure Two** below:

Site Component / Feature	Details
Application	A consent application to establish a commercial solar energy facility
Zone	Outer Plains (ODP) and General Rural (PDP)
Relevant Overlays / Character	Low Altitude Plains landscape character area - Selwyn District Landscape Study (2018).

Figure 2: Proposal Details

Mitigation Measures

9. Mitigation measures have been included in the following assessment of the landscape and visual effects. These measures include:
 - i) A 3m wide landscaping strip as boundary screening for adjacent rural-residential properties to the west / northwest / southeast.
 - ii) The possible retention of areas of grass (or grazing if possible) to retain a relationship to rural character and the surrounding areas.

¹ Potential panel type (Trina) has been used for exemplar imagery / appearance only. Actual product depends on market availability etc.



The Receiving Environment

10. The landscape is a rural environment located in Hororata, Selwyn. The site is currently a rural property situated behind 90 Struie Road approximately 400m off Struie Road. The site is accessed by a long gravel driveway between 66 and 90 Struie Road. The site is largely unproductive i.e., not grazed exotic grassland, having previously been used for forestry.
11. The proposed site is located within the Low Altitude Plains landscape character area (3) as stated in the Selwyn District Landscape Study (2018). The Low Altitude Plains form a portion of the Ka Pakihi Whakatekateka o Waitaha / the wider Canterbury Plains. The Low Altitude Plains are bound by the Rakaia and Waimakariri rivers, which formed the outwash plains.
12. The receiving environment to the east is zoned outer plains with large rural properties situated on the other side of the Selwyn River.
13. The receiving environment immediately north and south to the site is predominantly rural-residential with properties around 10 hectares in size. To the east is a wide strip of exotic vegetation / forestry which immediately borders the Selwyn River. The west is predominantly made up of rural land as well as the electrical substation located on 3.7ha of land approximately 1.5km from site. Rural properties are evident throughout the area and are defined by dwellings of various sizes, agricultural irrigation systems and paddocks, associated fences and shelter belts.

Policy Framework

Resource Management Act

14. The Resource Management Act 1991 Part II that are relevant to the assessment of landscape and amenity effects of development are found in **Section 5** (purpose), **Section 6** (matters of national importance), and **Section 7** (other matters).
15. The regional and district level statutory documents take full account of the relevant parts of the RMA. The landscape and visual assessment are particularly interested in are; *avoiding or mitigating adverse effects of activities on the environment (s5c), the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands,*



and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development (s6a), and the maintenance of amenity values (s7c)².

Selwyn District Plan

16. The key framework is the Selwyn District Plan. Under the Operative District Plan (ODP), the Site is zoned Outer Plains. Under the Proposed District Plan (PDP), the Site is zoned General Rural Zone. The key policies and objectives seek to maintain and enhance rural character and amenity values in rural areas.
17. The following assessment in **Figure Three** below addresses the matters in the Selwyn District Plan of relevance to landscape matters.

Policy / Matter	Description
B2.2.6 (ODP)	<i>Ensure the effects of utilities are compatible with the amenity values and environmental characteristics of the zone in which they locate, also having regard to operational, functional and economic constraints.</i>
Assessment	The proposed solar panels require flat, open land with good sun exposure to meet functional and operational needs, providing a valuable renewable energy source. The panels are compatible with the rural landscape, which already includes infrastructure such as power poles. Since the panels sit low in the landscape, and are set back from the road, they won't significantly disrupt any views to surrounding areas. Additionally, the site will maintain some rural character by preserving open grass areas that could be grazed. Overall, the project will have positive environmental impacts by introducing a solar renewable energy source and over 3000m ² of native indigenous planting.
B3.4.3 (ODP)	<i>Avoid, remedy or mitigate significant adverse effects of activities on the amenity values of the rural area.</i>
Assessment	Significant planting (up to 3044m ²) is proposed as part of the works to mitigate any potential adverse effects arising from the proposal.
GRUZ-01 (PDP)	<i>Subdivision, use and development in rural areas that:</i> <ol style="list-style-type: none"> <i>1. supports, maintains, or enhances the function and form, character, and amenity value of rural areas;</i> <i>2. prioritises primary production, over other activities to recognise its importance to the economy and wellbeing of the district;</i> <i>3. allows primary production to operate without being compromised by reverse sensitivity; and</i>

² As identified by Sections 5,6, and 7 of the RMA.



Policy / Matter	Description
	<i>4. retains a contrast in character to urban areas.</i>
Assessment	The proposal is located on a site nestled between larger rural properties. It will maintain open spaces for access and maintenance, with grassed areas that preserve the rural character. Whilst not for primary production, it is for positive renewable energy and will retain the possible potential for intermittent grazing. Reverse sensitivity will not be apparent as the site boundaries will be fenced and planted. The site will not adapt any contrast to urban areas.
GRUZ-P1 (PDP)	<p><i>Maintain or enhance rural character and amenity values of rural areas by:</i></p> <ol style="list-style-type: none"> <i>1. retaining a low overall building density, and predominance of vegetation cover;</i> <i>2. enabling primary production while managing adverse effects of intensive primary production, and mineral extractive industries;</i> <i>3. managing the density and location of residential development; and</i> <i>4. retaining a clear delineation and contrast between the district's rural areas and urban areas, including Christchurch City.</i>
Assessment	A large portion of the site will be introduced native landscaping which is proposed to border the site along all boundaries. Some intermittent rural grazing may be possibly retained and will not be intensive. The proposal does not include residential development. The proposal does not affect the delineation of urban and rural areas.
EI-P2 (PDP)	<p><i>Appropriately avoid, remedy or mitigate the adverse effects of important infrastructure, and renewable electricity generation on the physical and natural environment by:</i></p> <ol style="list-style-type: none"> <i>1. encouraging the co-location of structures and facilities where efficient and practicable.</i> <i>2. locating, designing and operating development while: minimising the effects on public access and the health and safety of people: and avoiding, remedying or mitigating adverse effects on the amenity values of the surrounding environment;</i> <i>3. limiting the presence and effects of development within Outstanding Natural Landscapes, Visual Amenity Landscapes, natural character areas, areas of significant indigenous vegetation and habitats of indigenous fauna, sites of historic heritage and sites and areas of significance to Māori to those which: are recognised as important infrastructure; and can demonstrate a functional need, operational need or technical requirement for the location, or there are practical constraints requiring it to locate in a particular area with high natural, visual amenity, cultural value; and can demonstrate through site, route or method selection the minimisation of effects on the environment; and integrate design measures and management methods to mitigate adverse effects.</i> <i>3A. notwithstanding EI-P2.3.c, for the National Grid, considering the extent to which the adverse effects have been avoided, remedied or mitigated by route, site or method selection.</i> <i>4. considering biodiversity off-setting in accordance with ECO-SCHED5 - Framework for Biodiversity Offsetting or compensation where the loss of significant indigenous</i>



Policy / Matter	Description
	<p>vegetation or the effects on significant habitats of indigenous fauna or wetlands cannot be avoided, remedied, or mitigated.</p> <p>5. using the substantial upgrade of important infrastructure and renewable electricity generation as an opportunity to reduce existing adverse effects, including on existing sensitive activities where appropriate, where the efficiency, effectiveness or resilience of the important infrastructure or renewable electricity generation is not compromised.</p> <p>6. providing for the maintenance, operation, upgrade or expansion of important infrastructure on highly productive land where there is a functional need or operational need to locate the infrastructure on that land whilst minimising or mitigating any actual or potential cumulative loss of highly productive land; and avoiding if possible, or otherwise mitigating, any actual or potential reverse sensitivity effects on land-based primary production activities.</p> <p>7. Notwithstanding EI-P2.1-EI-P2.6, the operation, maintenance and minor upgrading of the National Grid is enabled throughout the District.</p>
Assessment	<p>The proposal introduces an important renewable energy source on flat rural land, set back from the main road in an appropriately chosen location. To mitigate any potential impacts, extensive boundary planting will be implemented. Overall, the project will provide both a solar energy source and over 3,000m² of native indigenous planting.</p>

Figure 3: Statutory Assessment

Landscape Effects

18. The broader landscape is characterised by the agricultural patterns which create a distinctive pattern on the land, including agricultural shelterbelts, fenced paddocks, and pivot irrigational machinery. The landcover over this character area includes a mosaic of pasture which is predominantly modified by its original form, linear roads, and small plantation of exotic planting species. Small areas of indigenous planting are being re-established throughout the Waikirikiri / Selwyn River catchment area with ongoing work by landowners to identify and protect existing remnant native plant communities.
19. The area has a low sensitivity to change as the receiving environment is exotic grassland with limited amenity value. As the site is already a rural working environment, this increases the sites capacity to absorb any change, given the area is already a highly modified landscape, without any highly aesthetic features or outstanding natural environments.
20. The sites biophysical value is low, given the area is not high in biodiversity, and does not contain any areas of significant vegetation or native planting. There are limited / no plantings onsite currently as the previous forestry area has been removed. The site is



currently being utilised as low productivity rural grazing. Positively, the proposal will include significantly large areas of landscaping resulting in an increase in biodiversity. Overall, the proposal includes significant reinstatement planting to assist in improving the overall physical health of the environment.

21. The introduction of infrastructure is typical in a rural setting. Rural characteristics will be preserved through the use of open space, grassed areas for access and maintenance, and intermittent grazing. Landscaping, including shelter belts, trees, and vegetative plantings along the site's borders, will screen views and, over time, create a natural planted boundary. Additionally, the site's context, being bordered by Struie Road to the west and the Selwyn River to the east, places it away from key public viewpoints.
22. The landscape context's low sensitivity to change, the consideration that the proposed panels will not impact amenity values, are appropriately located within the rural environment, and when considering the biophysical value of the inclusion of the proposed 3044m² of onsite mitigation landscaping, the overall landscape effects will be **low-very low**. A summary of effects is shown in **Figure Four** below.

Effect	LVA Category	Review
Landscape Context	<i>Magnitude of change</i>	<i>Low sensitivity to change.</i>
Landscape Values	<i>Character and amenity</i>	Low-very low when considering the onsite planting mitigation. Without any onsite planting mitigation, the effects would be low-moderate at worst but would not create an adverse effect / result in a more than minor effect (for the reasons as outlined above).

Figure 4: Landscape Effects Scale Summary

Visual Effects

23. Viewing audiences³ (refer to **Appendix 1** viewpoints) can be largely defined to public roads and rural residential properties off Struie Road.

³ Refer to methodology.



24. **Public Roads:** Transient viewers traversing along Struie Road, and potentially indirect views from Bealey Road, and/or the intersection of Derretts Road (partial):
- i) Views from public roads would be primarily limited to those along Struie Road. The site is set back approximately 420 meters from Struie Road at its closest point, near the access road. Rural road users are generally less sensitive to visual changes, as they experience views quickly while traveling at speed through expansive rural landscapes. While fleeting views may occur from the western sections of Bealey Road, these would be over 1 km away, across paddocks, and be primarily of the site's fenced and landscaped boundary. Over time, the boundary landscaping will further screen the site from view as the plants grow. As a result, the overall visual effects with the onsite landscaping considered will be **low**.
25. **Rural residential properties:** Fixed audiences from the rural-residential dwellings to the north, south and west as shown by **Appendix 1**.
- i) Six rural-residential dwellings (44, 66, 90, 106, 132, and 134 Struie Road) may have direct views of the site before the boundary planting matures. These dwellings are located approximately 100 to 300 meters from the site's western boundary. Visibility does not pertain to a visual effect. The solar panels are set back from the boundaries, placed within large open areas, and are considered appropriate infrastructural elements, so will not adversely affect the rural amenity values. Additionally, the panels are low-profile, black in colour, and will blend into the landscape as a recessive feature (see exemplar images in **Appendix 1**). Overall, the proposal does not result in adverse effects on its own. With the planned extensive landscaping, effects are expected to be **low**, as the 3-metre-wide planting strip will effectively screen much of the site's boundary.
 - ii) Regarding landscaping and shading, effects are not likely, as any adjacent dwellings are offset from the boundaries by significant distances and in any case, shading would be no more so than vegetation that could be established for rural activities e.g. shelter belts or otherwise.
26. There are also viewing parties with limited / impartial / no views to the site which can be itemised as:
- i) There are no known recreational tracks, parks, or areas in the vicinity of the proposal. The Ballooning Canterbury site is located approximately 1km to the south of the site off Bealey Road.

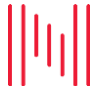


- ii) Large areas to the northeast and east, and some areas to the south, are non-habituated, working rural land, without a permanent viewing audience.
- iii) Fixed views from west of Struie Road are upwards of 1 km away with distance acting as a mitigating factor.

27. A summary of the visual effects on potential / actual viewing audiences is summarised in **Figure Five** below.

Type	Visual Effects	Sensitivity / Audience	Review Findings (see above)
ROAD	Struie Road / Struie Road intersection	Transient nature. Experienced in passing. Lower magnitude of sensitivity.	Low when considering the onsite planting mitigation (without any onsite planting mitigation the effects would be low-moderate at worst but would not create an adverse effect / result in a more than minor effect as outlined above).
	Struie Road intersection & Bealey Road / Derretts Road		Low-very low.
RECREATIONAL	Ballooning Canterbury 2126 Bealey Road	Semi-transient. Limited values associated with viewshed. Lower magnitude of sensitivity.	Very low.
RESIDENTIAL	90 Struie Road	Fixed nature.	Low when considering the onsite planting mitigation (without any onsite planting mitigation the effects would be low-moderate at worst but would not create an adverse effect / result in a more than minor effect as outlined above).
	66 Struie Road	Permanent views.	
	106 Struie Road	Higher sensitivity.	
	132 and 134 Struie Road	Higher magnitude of sensitivity as change more evident.	
	44 Struie Road		
	Wider rural-residential dwellings outside of the area (1 km or beyond).		Very low.

Figure 5: Visual Effects Scale Summary

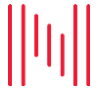


Recommendations

28. Overall, the landscape and visual effects can be evaluated at a low / less than minor rating with the implementation of the following recommendations, which may be established via appropriate consent conditions:
- i. Minimise disturbance of areas within the site not affected by solar panel installation (i.e. the areas surrounding the solar panels where possible) to ensure the overall landscape fabric is visually maintained and retain the row of new pine trees along the boundary to the south, and any other boundary planting where possible.
 - ii. The implementation of the proposed Detailed Landscape Plan, which is to be planted as soon as practicable to screen and integrate the panels into the environment.
 - iii. Allow for potential areas of grass to retain the rural character of the site during the establishment of planting where possible.
 - iv. Ensure the access road to the site, and any maintenance tracks are in shingle or gravel, and not heavily engineered.

Summary

29. The proposal has proactively included landscaping ensuring maximum screening across the site. When considered on balance with the planned planting mitigation and the environmental benefits of increased biodiversity and a renewable energy source, the solar panel proposal can be successfully integrated into the landscape and visual environment without causing adverse effects.



ADDENDUM TO REPORT

TO: Selwyn District Council
FROM: Anne Wilkins | Principal Landscape Architect | Novo Group
PROJECT REF: 1087001
APPLICATION REF: RC246059
STATUS: Post-lodgement \ Addendum to Report \ Updated LVA

S92 RESPONSE: LANDSCAPE AND VISUAL EFFECTS ADDENDUM

1. The following addendum provides a response to the requested information from Council dated 27th January 2025.
2. **s92 Request (1) Offsite Mitigation**
3. Offsite mitigation has not / is not relied upon within the **LVA** to reach a less than minor conclusion. Mitigation measures, of which the determination of effects have been based upon, are listed in **paragraph 9 of the LVA**.
4. **s92 Request (2) Mitigation Planting**
5. The **LVA** has been updated to outline the anticipated overall effects with the inclusion of onsite planting considered. The **LVA** summarises:

Visibility does not pertain to a visual effect. The solar panels are set back from the boundaries, placed within large open areas, and are considered appropriate infrastructural elements, so will not adversely affect the rural amenity values. Additionally, the panels are low-profile, black in colour, and will blend into the landscape as a recessive feature (see exemplar images in Appendix 1). Overall, the proposal does not result in adverse effects on its own. With the planned extensive landscaping of over 3000m² of planting, effects are expected to be low, as the 3-metre-wide planting strip will effectively screen much of the site's boundary.
6. **s92 Request (3) Policies**
7. Refer to PDP response for matters outside of landscape / visual effects. Operative Plan Policy B2.2.6, and Partially Operative Plan Policy E1 – P2.b have been included in the Statutory Review within the updated **LVA**.



8. **S92 Request (4) Landscape Plan**

9. An updated Detailed Landscape Plan has been provided in Appendix 1.

10. **S92 Request (5) Plant Establishment**

11. Refer to PDP response. Conditions have been offered for planting to be established as soon as practicable after the construction of the panels. The planting species provided for in the updated Detailed Landscape Plan are fast-growing native species that will establish quickly with appropriate maintenance (watering etc).

12. **S92 Request (6)**

13. The assessed anticipated landscape and visual effects is less than minor. The NZILA ratings throughout the LVA have been updated to outline the anticipated overall effects with the inclusion of onsite planting considered. Furthermore, in summary the LVA notes:

The proposed solar panels require flat, open land with good sun exposure to meet functional and operational needs, providing a valuable renewable energy source. The panels are compatible with the rural landscape, which already includes infrastructure such as power poles. Since the panels sit low in the landscape, and are set back from the road, they won't significantly disrupt any views to surrounding areas. Additionally, the site will maintain some rural character by preserving open grass areas that could be grazed. Overall, the project will have positive environmental impacts by introducing a renewable energy source and over 3000m² of native indigenous planting.

The proposal has proactively included landscaping ensuring maximum screening across the site. When considered on balance with the planned planting mitigation and the environmental benefits of increased biodiversity and a renewable energy source, the solar panel proposal can be successfully integrated into the landscape and visual environment without causing adverse effects.



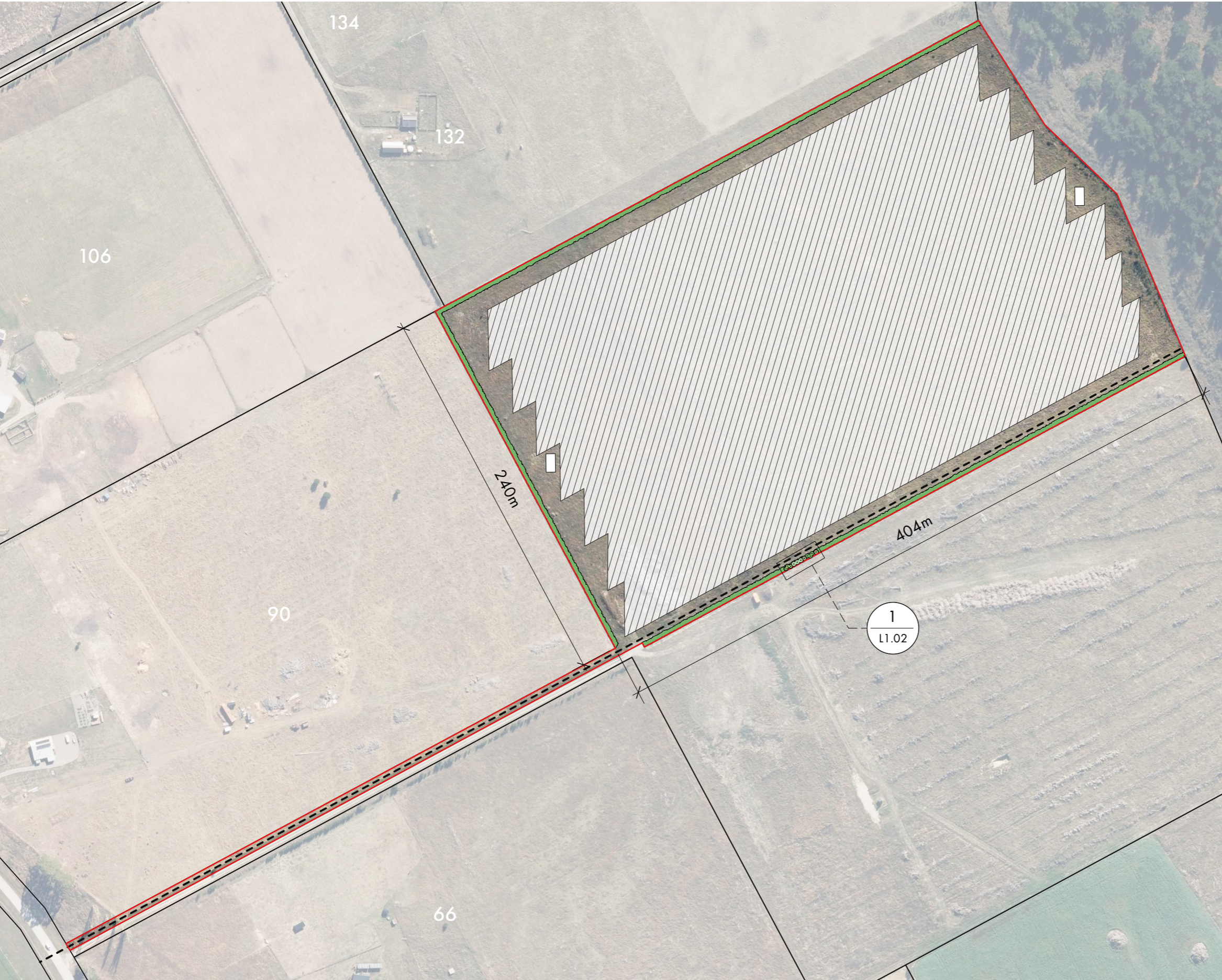
Appendix 1

Graphic Attachment

CONTENTS

- 01. SITE PLAN
- 02. PLANTING PLAN
- 03. SITE ANALYSIS
- 04. EXEMPLAR IMAGES OF SOLAR PANELS
- 05. SITE CHARACTER VIEWPOINT PLAN
- 06. CONTEXT CHARACTER IMAGERY
- 07. VIEWPOINT PLAN
- 08. VIEWPOINT A
- 09. VIEWPOINT B
- 10. VIEWPOINT C
- 11. VIEWPOINT D

01. SITE PLAN



KEY

SITE BOUNDARY - 10.22 ha
Based of LINZ property boundaries

SOLAR PANELS APPROXIMATE LOCATION

PLANTING STRIP (3M WIDE) - 3044m²

MV TRENCH

MV STATION

NOTES

Total site area in landscaping = 3044m² (3% of site)

- GENERAL NOTES:
- A. THE CONCEPT PLAN IS BASED ON INFORMATION PROVIDED ON BEHALF OF/ BY THE CLIENT.
 - B. THE PLANS HAVE BEEN PREPARED TO ACCOMPANY THE RESOURCE CONSENT. THE PLANS ARE TO BE READ IN CONJUNCTION WITH ALL ASSOCIATED DOCUMENTS.
 - C. INTENDED SOLELY FOR THE USE OF THE CLIENT IN ACCORDANCE WITH THE AGREED SCOPE OF WORKS.
 - D. INFORMATION CONTAINED WITHIN THIS DRAWING IS THE SOLE COPYRIGHT OF NOVO GROUP AND IS NOT TO BE REPRODUCED WITHOUT THEIR PERMISSION.
 - E. CONSTRUCTION DRAWINGS AND SPECIFICATION ARE NOT INCLUDED AS PART OF THIS STAGE OF WORK.

A23/01/2025For resource consent

REVDATESTATUS

DRAWING

LANDSCAPE PLAN

PROJECT

HORORATA SOLAR PANEL FARM

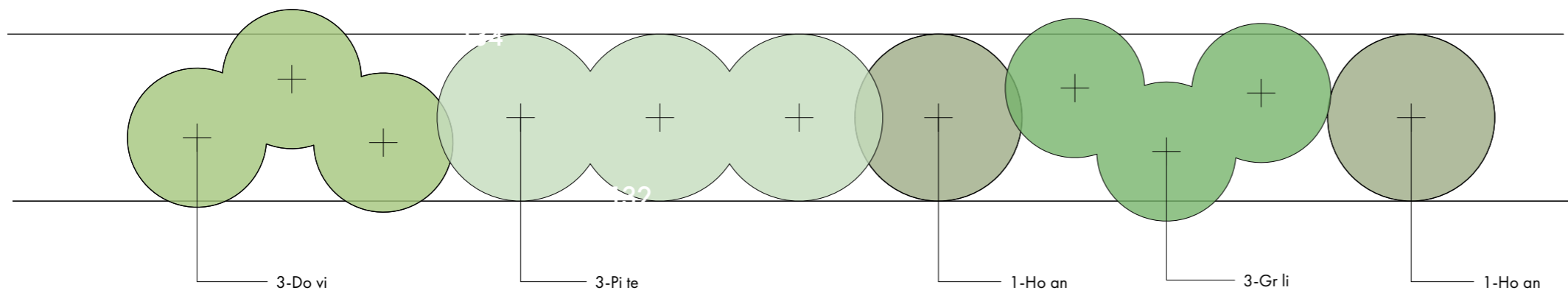
CLIENT

Rā Tuatahi

PROJECT NO.	1087001	DRAWN	ECF
SCALE	1:2500	SIZE	A3
SHEET NO.	L1.01	DATE	27/01/2025
		REVISION NO.	A
STATUS			
For resource consent			





02. PLANTING PLAN





1 Plant arrangement example
Scale: 1:100

MIXED BORDER SPECIES





Pittosporum tenuifolium
black matipo/kohuhu

3m wide x 6m high
Med-rapid growth rate (4m high after 5 years)





Hoheria angustifolia
hungere/narrow-leaved lacebark

3m wide x 6m high
Medium growth rate (3m high after 5 years)



Dodonaea viscosa
akeake

2.5m wide x 7m high
Med-rapid growth rate (4m high after 5 years)



Griselinia littoralis
kapuka

2.5m wide x 6m high
Medium growth rate (3m high after 5 years)

- GENERAL NOTES:
- A. THE CONCEPT PLAN IS BASED ON INFORMATION PROVIDED ON BEHALF OF/ BY THE CLIENT.
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Plant List						
ID	Common Name	Botanical Name	Scheduled Size	Mature Height	Mature Spread	Proportion, Spacing and Approx. number of plants
Trees						
Do vi	Akeake	Dodonaea viscosa	T28 Cell	7m	2.5m	Proportion: 30%, Spacing: 2m, Approx number of plants: 262
Gr li	Broadleaf	Griselinia littoralis	T28 Cell	7m	2.5m	Proportion: 20%, Spacing: 2m, Approx number of plants: 174
Ho an	narrow-leaved lacebark	Hoheria angustifolia	T28 Cell	6m	3m	Proportion: 20%, Spacing: 2.5m, Approx number of plants: 112
Pi te	kohuhu; black matipo; tawhi	Pittosporum tenuifolium	T28 Cell	6m	3m	Proportion: 30%, Spacing: 2.5m, Approx number of plants: 167
Total						3044m2 (100%, 715 plants)

B3/02/2025Change plant grades

A23/01/2025For resource consent

REVDATESTATUS

DRAWING

PLANTING PLAN

PROJECT

HORORATA SOLAR PANEL FARM

CLIENT

Rā Tuatahi

PROJECT NO.1087001

DRAWN ECF

SCALE1:100


SIZEA3

DATE27/01/2025

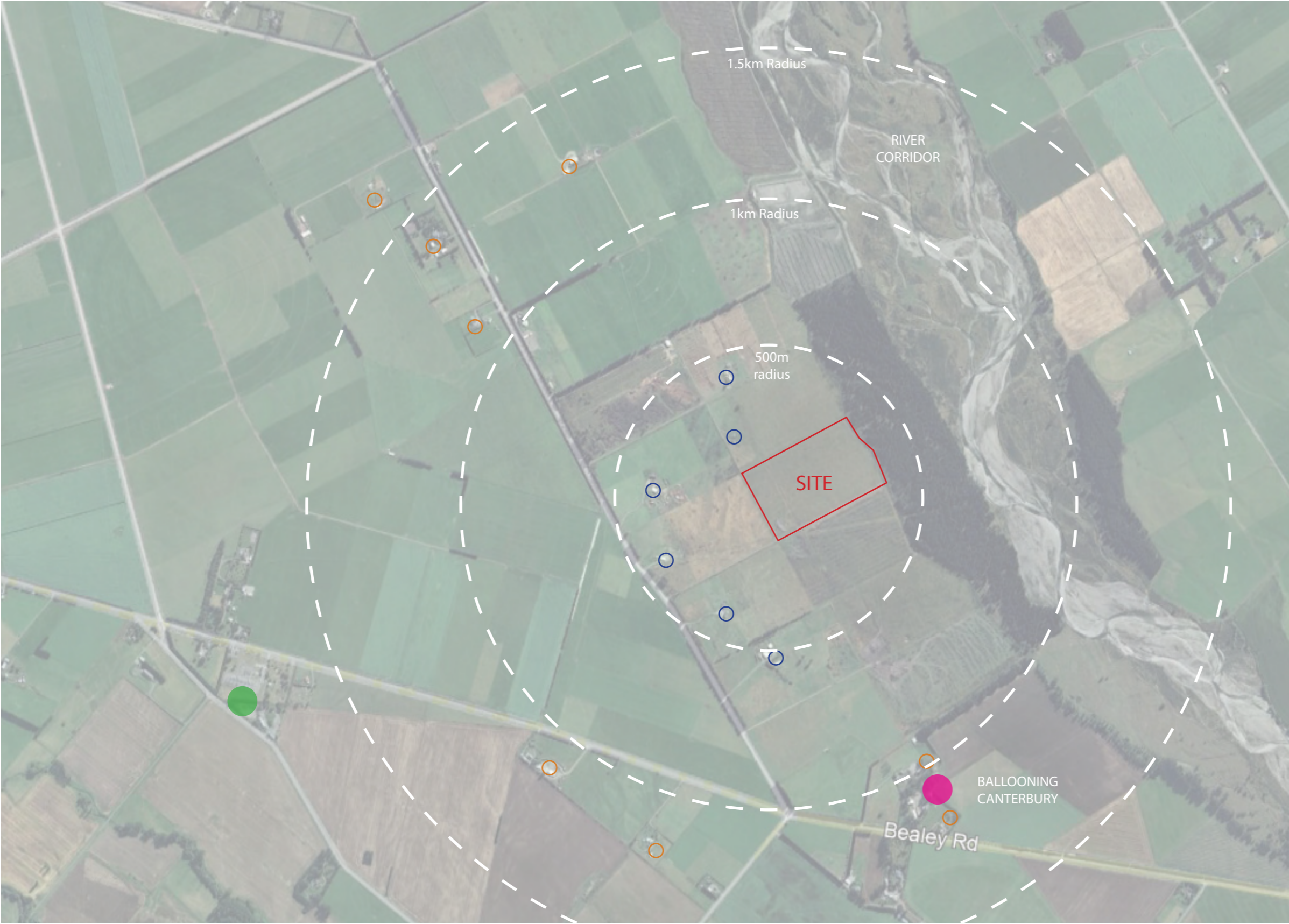
SHEET NO.L1.02

REVISION NO.B

STATUSFor resource consent



03. SITE ANALYSIS



- Key
- Site
 - Adjacent properties (indirect view to site)
 - Nearby properties (in proximity)
 - Ballooning Canterbury
 - Hororata Zone Electrical Substation

Aerial data is retrieved from Google Earth

04. EXEMPLAR IMAGES OF SOLAR PANELS

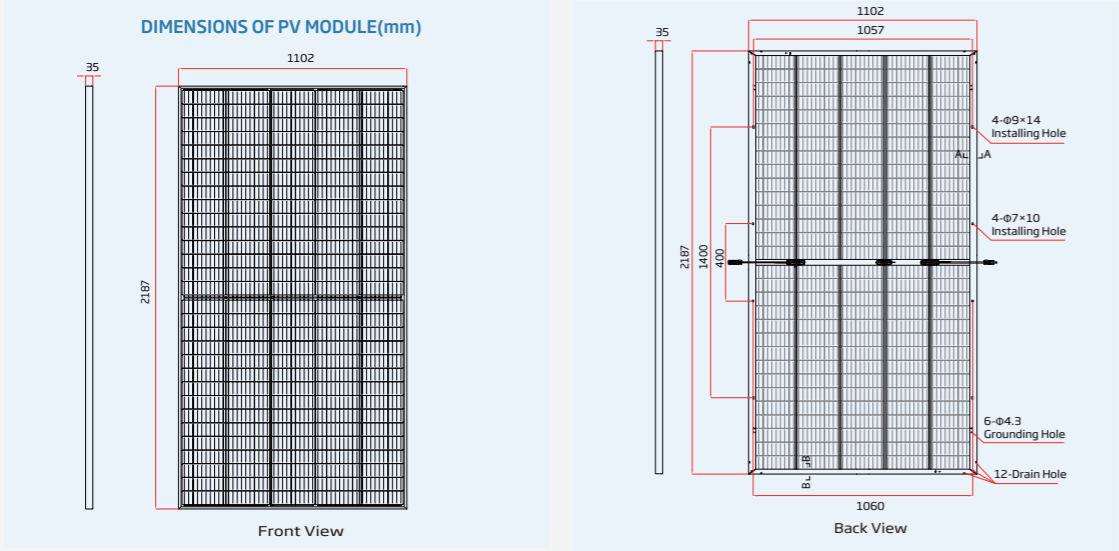
The proposed solar array will be comprised of approximately 12,012 single axis tracking solar modules capable of generating a Megawatt peak (MWp) of approximately 8.53 Megawatt (MW).

Solar Array Specifications

The approximate dimensions of each solar module are 2.384 m (length) x 1.303 m (width) and 30 – 35 mm (depth). Therefore, the approximate surface area of each module is <3.11 m². The total number of modules, subject to final design (which depends on availability and suitability of the product prior to construction) is estimated to be 12,012.

The estimated generation of DC from the proposed solar array measured as MWp is 8.53 MWp. The expected yield per annum will be approximately 14,700,000 kWh/Yr.

Indicative solar panel dimensions




Indicative solar panel appearance




05. CONTEXT- CHARACTER VIEWPOINT PLAN



Key

 Site

 Site and Character Viewpoint Locations

Aerial data is retrieved from Google Earth

06. CONTEXT - CHARACTER IMAGERY + VIEWPOINTS



Approximate site location



A. View from driveway entrance of 2152 Bealey Road

Approximate site location



B. View from Struie Road

Approximate site location



C. View from entrance of 134 Struie Road

Approximate site location



D. View from intersection of Bealey and Derretts Road

Approximate site location



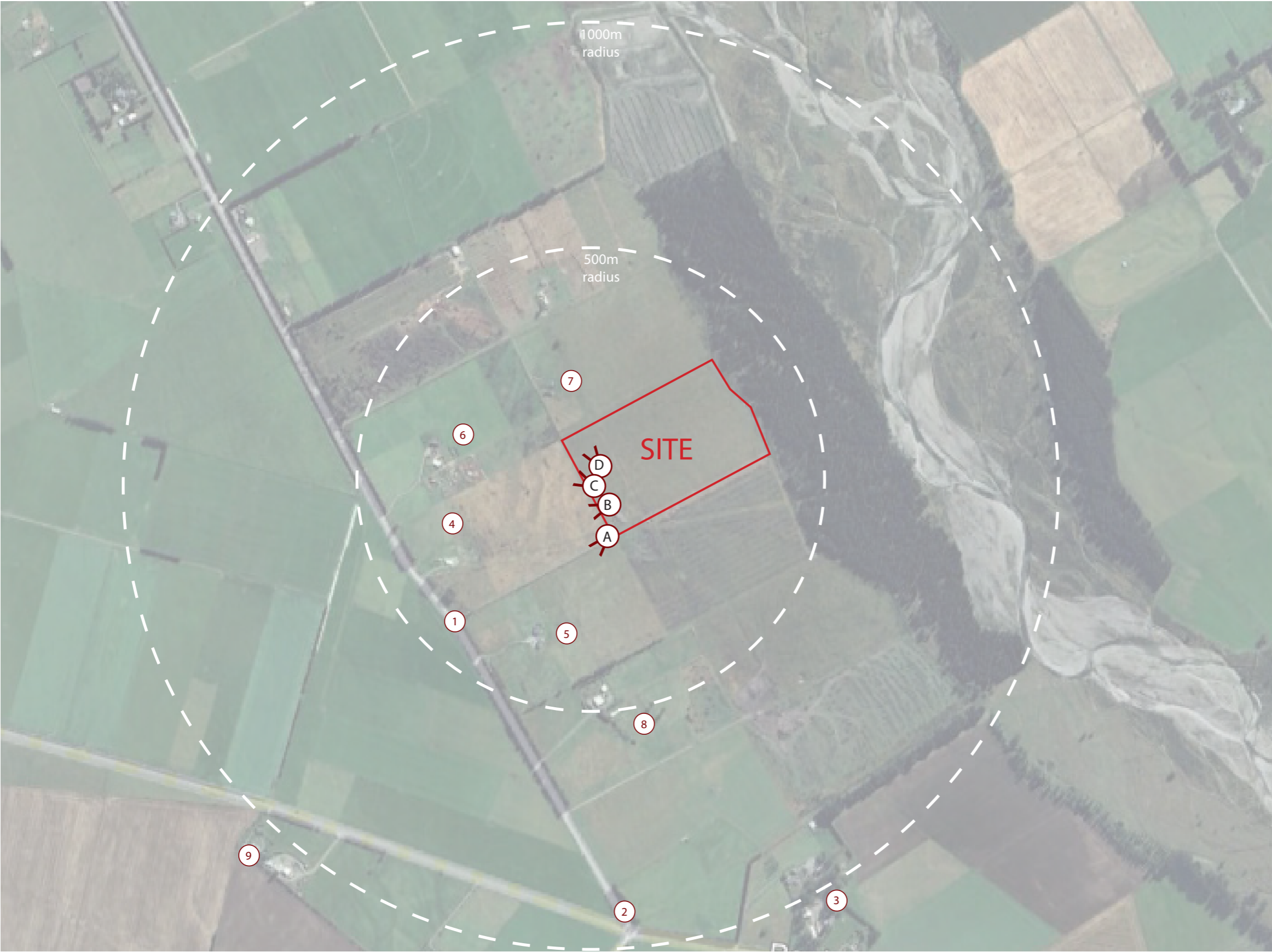
E. View along Struie Road

Approximate site location



F. View from Bealey Road

07. VIEWPOINT PLAN



Key

- Site Boundary - 80 Struie Road
- Viewpoint Locations (See Viewpoint A/B/C/D for further details)

See table reference below for viewing audiences and sensitivity / type. Refer to the LVA document for full assessment details.

			Type	Visual Effects	Sensitivity / Audience
①	ROAD	1		Struie Road / Struie Road intersection	Transient nature. Experienced in passing. Lower magnitude of sensitivity.
②				Struie Road intersection & Bealey Road / Derretts Road	
③	RECREATIONAL	3		Ballooning Canterbury 2126 Bealey Road	Semi-transient. Limited values associated with viewshed. Lower magnitude of sensitivity.
④	RESIDENTIAL	4		90 Struie Road	Fixed nature.
⑤		5		66 Struie Road	Permanent views. Higher sensitivity.
⑥		6		106 Struie Road	Higher magnitude of sensitivity as change more evident.
⑦		7		134 Struie Road	
⑧		8		44 Struie Road	
⑨		9		Wider rural-residential dwellings outside of the area (1 km or beyond).	

Aerial data is retrieved from Google Earth



Location map.





Location map.



10. VIEWPOINT C



Location map.



11. VIEWPOINT D



Location map.

