



Submission on Greater Christchurch Settlement Update – Our Space 2018-2048

Ernst Frei

November 2018

Greater Christchurch Partnership

Submitter Details

Name: Ernst Frei

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Resource Management and Planning
PO Box 1435
Christchurch 8140

Email address: fiona@astonconsultants.co.nz

Phone Number: 03 3322618

Mobile Number: 0275 332213

Contact Person Fiona Aston

Hearings:

I wish to speak at the hearings.

Preferred location: Christchurch City

Contact number: C/- Aston Consultants Ltd. Contact details as above.

Background and Site

The submitter Ernst Frei ('the Submitter') owns 564 Cashmere Road, legally described as Lot 1DP82258 ('the Site'), total 18.5ha. The Site is located on the corner of Cashmere intersecting with Hoon Hay Valley Road. It is currently grazed organically for sheep and cattle and has previously been an organic market garden, certified by BioGro.

The Submitter has owned the Site for approximately 40 years and has developed it as a very high amenity area with substantial areas of native planting and pond area. Areas of exotic trees (Radiata Pine and Eucalyptus) within the Site and which are approaching the end of their lifecycle are in the process of being removed.

Approximately 1.5 ha of the Site with frontage to Cashmere Road is zoned Residential New Neighbourhood Zone (RNNZ) and the balance (approximately 16.5 ha) is zoned Rural/Urban Fringe (as shown below). The RNNZ component is within Area 3b of the Hendersons Outline Development Plan Area (as shown below). The ODP covers proposed development areas around the periphery of the Hendersons Ponding Basin and so the urban/rural boundary here has an irregular shape. It is understood that the development areas largely relate to higher land, but also, in the case of 3b

have taken into account the location of existing buildings. The existing dwellings (two + an existing cottage) on the Site are just to the south, and outside the RNNZ.

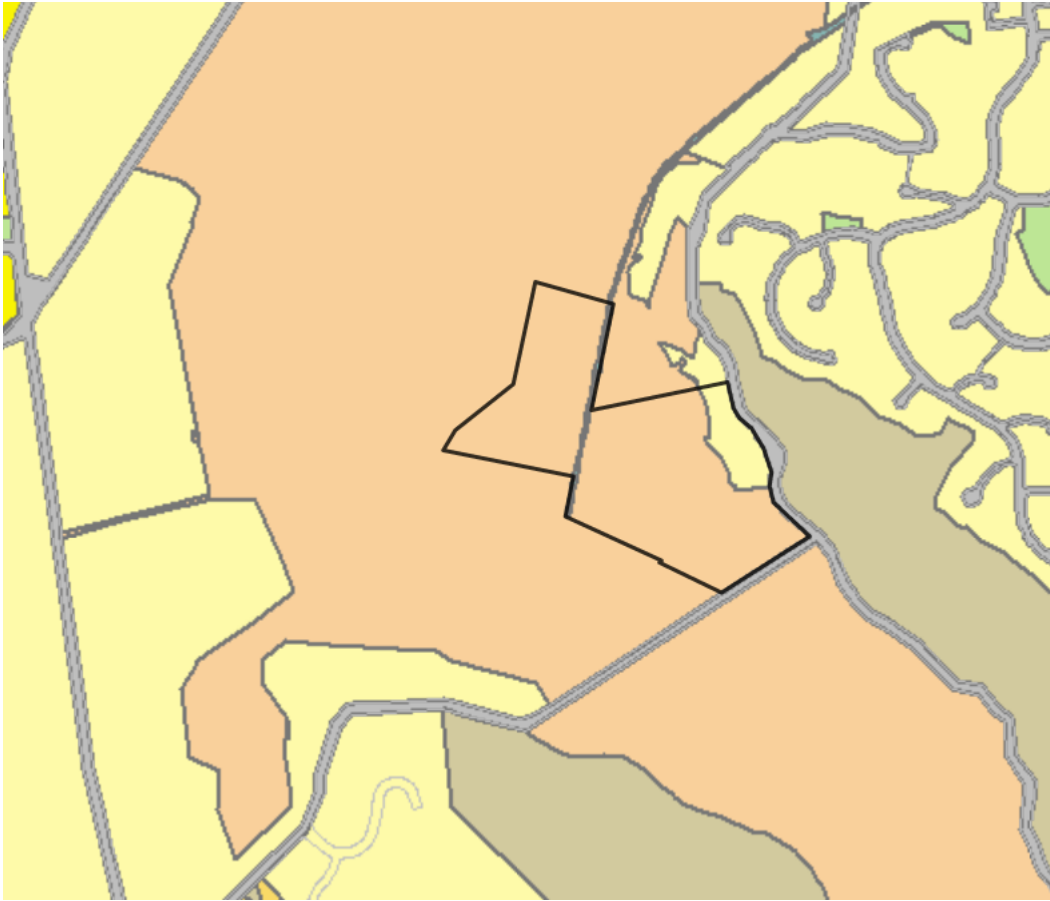


Fig 1: Zoning
Light brown – Rural/Urban Fringe
Yellow – Residential New Neighbourhood (RNN)
564 Cashmere Road (the Site) boundaries marked with black line

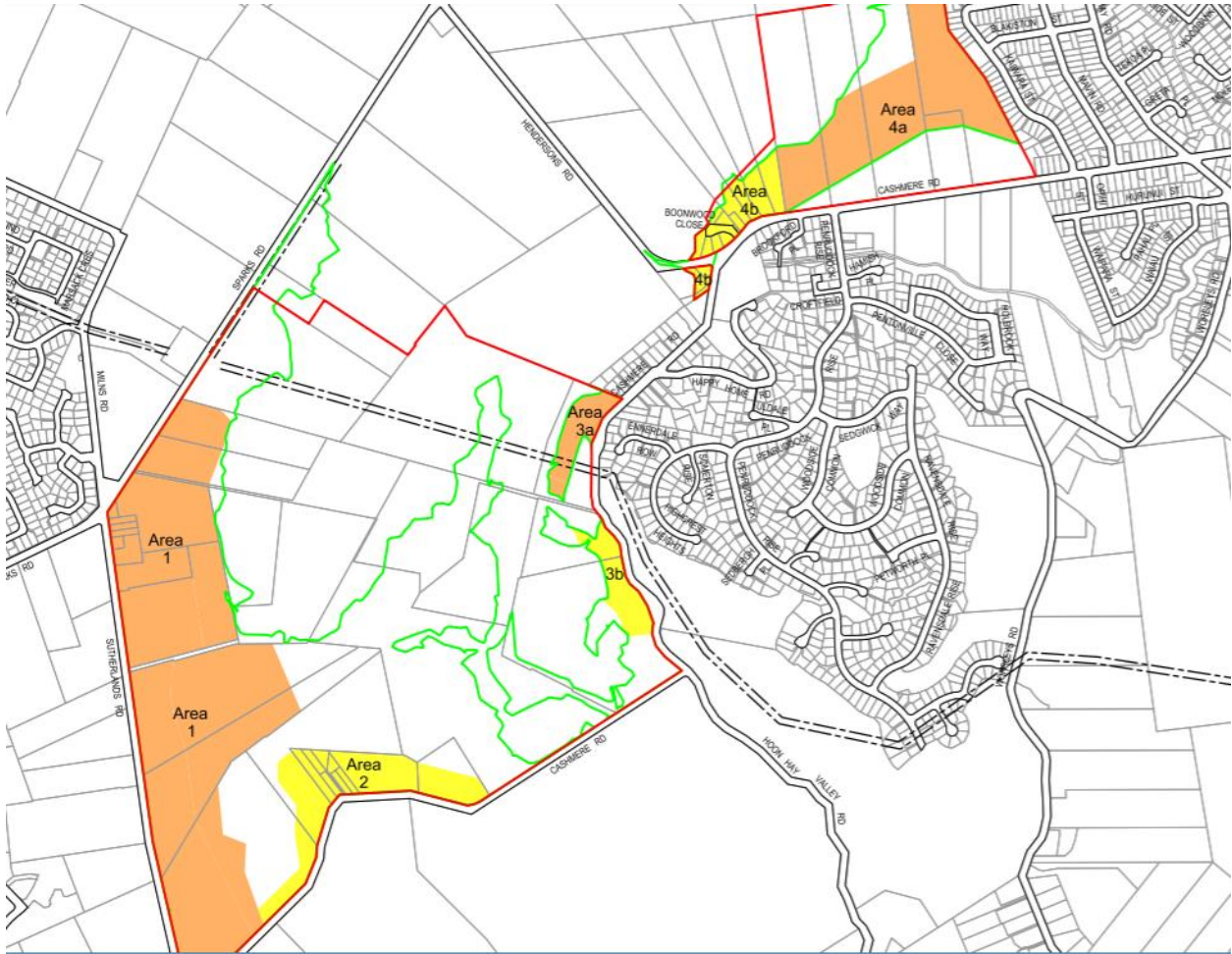


Fig 2: Hendersons Outline Development Plan
 Land Use Recovery Plan (LURP) Greenfield area boundary marked green, Residential area boundary marked red.

The Hendersons ODP shows that the LURP Greenfield Priority Areas (on Map A of the Canterbury Regional Policy Statement) are more extensive than the ODP areas and New Neighbourhood. The reasons for the differences are not apparent or explained. The Greenfield Priority Area includes most of the proposed development area shown on the subdivision concept plan in **Appendix A**, whereas the RNNZ only covers the northeast portion. It is presumed that Fig 16 of **Our Space** locates the Greenfield Priority Area – Residential in the same position as on Map A. Approximately 3.9ha of the development area (which includes covenanted amenity areas) is located within Map A - Greenfield Priority Area with the balance (2 ha) located outside (refer to **Appendix A**). A total of 8.1 ha of the Submitter’s property is within the Map A – Greenfield Priority. The development area, including the amenity area is less than this – 6ha i.e. the area of urban development is less than that provided for on Map A.

The current shape and size allocated as RNN on the Submitter's has very little to do with good urban design (including high level of amenities) but is merely the result of an overriding objective to reserve large areas of rural land for possible flood management purposes. . Any storm water implications with the development proposal however are very minor and the Submitter is very well positioned to address this with compensatory storage on their own land (see discussion under 'Suitability for Development' below).

Development Proposal

The Submitter wishes to develop a high amenity mixed density subdivision which retains and builds on the existing site features, and the attractive outlook onto adjoining proposed stormwater management areas. The proposed development area is approximately 5 ha (excluding the amenity area – 1 ha). It has been defined largely by the natural topography of the land. The natural ridge that can be clearly seen on the LIDAR (**Appendix D**) forms the curved boundary of the development.

A subdivision concept plan is attached as **Appendix A**. Two single entry points are proposed, thus avoiding the high amenity native planting around the Cashmere Road site frontages from being 'punctuated' by individual driveways onto Cashmere Road. This existing planting and other amenity features will be included in an 'amenity covenant' which prohibits its removal. Minimising the number of access points onto Cashmere Road is also beneficial from a traffic efficiency and safety perspective. The proposed development yield is 40-50 mixed density household units. This number of lots is necessary for the subdivision development to be feasible to develop. The proposed number of lots is necessary in order to spread the cost of infrastructure into the Site (ie principally sewage, stormwater).

Suitability of Land for Development

Possible Subdivision Concept:

An overall preliminary concept plan for the Site is attached as **Appendix A**. This shows an indicative roading pattern and amenity covenant area.

Servicing:

Attached as **Appendix B** is a letter from Fox Surveyors which confirms that there are no servicing constraints to development of the proposed zoning extension at the RNN Zone densities. (approximate yield 40-50 sections).

Potential Constraints:

Site level

Appendix B states that the proposed development area is similar to the area of land already zoned RNN. It reports that while some of the proposed development area is at a lower level, filling could be used to raise the site to meet minimum required floor levels. Compensatory storage may be required as a result of increased fill levels. It is possible that this storage could be provided on the land to the west of the proposed development area, also owned by Ernst Frei.

Contamination

Appendix C is a letter from Environment Canterbury stating that the Site is verified as a non Hail.

Meritorious developments outside and changes to Rural/Urban Boundary

An unfortunate consequence of a fixed rural/urban boundary line in the CRPS and on **Our Space** Fig 16 and an associated objective and policy framework which requires 'avoidance' of urban activities outside that line (CRPS Objective 6.2.1 and Policy 6.3.1), is there is in effect, no flexibility to respond to minor anomalies, or meritorious boundary changes which do affect or compromise the **Our Space** overall urban management approach - such as the development proposal outlined in this submission for 564 Cashmere Road. Suggested policy wording is included in the Relief Sought below to address this issue.

The **Our Space** urban growth management approach is intended to provide certainty as to where development will take place to enable planning for and development of infrastructure required for projected urban growth; to protect key strategic infrastructure such as strategic transport networks; and to ensure development is appropriately located in terms of potential environmental effects.

Relief Sought:

Additions are shown in bold and underlined and deletions as strike through.

1. Amend **Our Space** Fig 16: Proposed locations of future development areas in Greater Christchurch by as follows:-

Change status of the proposed development area and amenity covenant areas shown on the Subdivision Concept Plan attached as **Appendix A** to Greenfield Priority Area – Residential.

2. 6.2 Schedule of future work

Amend 8 (page 34) as follows:-

Prepare a proposed change to Chapter 6 (Recovery and Rebuilding of Greater Christchurch) of the Canterbury Regional Policy Statement to:-

- amend Map A to be consistent with the relief sought in this submission (including 1. above and 3. below); and
- provide flexibility to accommodate meritorious proposals for urban development and zoning and to facilitate a responsive planning approach to urban growth management by amending and adding to the objectives and policies as follows (insertions in bold and underlined):-

Add new Policy 6.3.1A as below:-

Policy 6.3.1 A

(a) Enable urban development or urban zoning outside the Greenfield Priority, Special Housing Areas and Existing Urban Areas shown on Map A provided the following conditions are met:-

- (i) Any additional land is contiguous with a Greenfield Priority Area, Special Housing area, or Existing Urban Area; and**
- (ii) Any additional land will integrate with the provision of infrastructure; and**
- (iii) Any additional land is a logical addition to the urban area and will contribute to a consolidated urban form; and**
- (iv) The urban development or extension will have beneficial planning outcomes; and**
- (v) All of the criteria in Policy 6.3.11 (5)(a) to (g) inclusive are met.**

Explanation:

This policy confirms the requirement for urban development to be contained within Greenfield Priority, Special Housing and Existing Urban Areas but provides some flexibility to accommodate meritorious proposals and to facilitate a responsive planning approach given the uncertainties associated with the housing and business land

capacity assessments which have informed Map A, and with the primary drivers and influencers of urban development in Greater Christchurch.

6.2.1 Recovery framework

Recovery, rebuilding and development are enabled within Greater Christchurch through a land use and infrastructure framework that:....

3. avoids urban development outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the CRPS **or which has only minor or less than minor adverse effects that will not compromise the overall CRPS urban growth management approach;**

6.3.1 Development within the Greater Christchurch area

In relation to recovery and rebuilding for Greater Christchurch:

4. ensure new urban activities only occur within existing urban areas or identified greenfield priority areas as shown on Map A, unless they are otherwise expressly provided for in the CRPS **or which have minor or less than minor adverse effects that will not compromise the overall CRPS urban growth management approach;**

6.3.7 Residential location, yield and intensification

In relation to residential development opportunities in Greater Christchurch:...

7. Subject to Policy 5.3.4, residential greenfield priority area development shall occur **generally** in accordance with Map A. These areas are sufficient for both growth and residential relocation through to 2028.

3. Remove the rural/urban boundary line shown on CRPS Map A and **Our Space** Fig 16 (defined as the outer edge of Greenfield Priority Areas, Existing Urban Areas and Special Housing Areas) and insert in the relevant District Plans, with appropriate criteria for assessments of proposals to amend 'the line' included in the CRPS and District Plans.
4. Consider streamlined RMA or other streamlined processes to facilitate the amendments sought which are specific to the Submitter's land and potentially other meritorious minor rural/urban boundary changes, and associated policy wording. Do not use streamlined processes for implementation of the overall **Our Space** strategy and approach which has very significant implications and needs to be subject to rigorous RMA based evidential

testing.

5. Consider other amendments to the CRPS and other documents and actions as appropriate which facilitate a responsive planning approach to urban growth management of Greater Christchurch.
6. Consider streamlined RMA or other streamlined processes to facilitate the amendments sought which are specific to the Submitters' land and potentially other meritorious rural/urban boundary changes, and associated policy wording. Do not use streamlined processes for implementation of the overall Our Space strategy and approach which has very significant implications and needs to be subject to rigorous RMA based evidential testing.
7. Such other consequential, additional or other amendments to Chapter 6 of the RPS and other documents, and any other actions, to be consistent with and give effect to the intent of this submission, including directing consequential amendment to the Christchurch City Plan to zone the proposed development area shown in **Appendix A** as Residential New Neighbourhood Zone.

Reasons for Relief Sought:-

1. For the reasons set out above under and under the responses to the Submission Form questions below.
2. The housing and business development capacity targets, urban form outcomes, and Schedule of Future Work measures (including change to the CRPS) contained in **Our Space** will have a profound and defining effect on the Greater Christchurch settlement pattern for the next 30 years. There will be very significant flow on effects for the local, regional and potentially national economies. There is an acknowledged high level of uncertainty with the housing and business development capacity targets; and the adopted approach is aspirational and untested with its focus being redevelopment and intensification of existing urban areas, underpinned by an as yet unfunded "*vision for transformation of the transport network that fosters much greater public and active transport usage, and reduced reliance on the private vehicle*". There is no s32 assessment accompanying **Our Space** despite its defining role in 'dictating' the urban growth approach for Greater Christchurch for the next 30 years.

3. The amendments sought will enable the owners of 564 Cashmere Road to use the Site in the most appropriate, effective and efficient way which will achieve the purpose of the Resource Management Act 1991 (the Act).
4. **Our Space** as notified proposes an urban growth management approach, in particular as it affects 564 Cashmere Road, which is inconsistent with and does not give effect to the Act, including Part 2 and Section 32, and other relevant statutory and non statutory matters.
5. The development proposal for 564 Cashmere Road has considerable planning merit and will not offend or comprise the overall **Our Space** approach to management of urban growth within Greater Christchurch.
6. **The Our Space** development capacity targets are uncertain and likely to be inaccurate and are based on a flawed methodology.
7. **Our Space** considers a responsive planning approach to future the management of the Greater Christchurch urban growth but does not facilitate or enable this, whereas the relief sought is this submission does.
8. **Our Space** as notified is contrary to and does not give effect to the National Policy Statement – Urban Development Capacity (NPS – UDC) in particular Policy PB1 which requires housing capacity supply to meet demand for different types, locations and price points.
9. A fixed uncontestable urban/rural boundary line for Greater Christchurch as proposed by **Our Space** is unlikely to facilitate the urban form sought by **Our Space** including for the following reasons:-
 - Overly strict limitations on peripheral growth causes excessive land price inflation that in turn has a very negative effect on housing affordability;
 - A planning regulatory regime which provides for a contestable urban/rural boundary sends an important signal to the property market that it is best to get on with development rather than “land bank” (because there is excessive capital gain due to scarcity of land supply);
 - Containment and higher land values does not facilitate intensification;
 - If the Central City and the Key Activity Centres are attractive the market will locate there by people’s choice. Generally carrots are better than sticks to achieve desired planning outcomes.
 - A contestable urban/rural boundary is not ‘laissez-faire’ and ad hoc and will not result in uncontained urban sprawl. The proposed amendments to **Our Space** and other

planning documents require strategic planning including with respect to infrastructure, and an evidence base in support of any amendments to the boundary;

- A policy of both “up and out” that ensures there are a range of development opportunities and housing choices is appropriate.

Housing Growth:

Question 1:

Our Space highlights there is significant capacity for new housing through redevelopment in Christchurch City but to accommodate housing growth in Selwyn and Waimakariri it identifies additional greenfield land around Rolleston, Rangiora and Kaiapoi.

Do you agree with this approach and why?

Response:

There needs to flexibility to respond to meritorious changes to the urban/rural boundary in locations other than at Rolleston, Rangiora and Kaiapoi – such as to accommodate the development proposal outlined in this submission.

Question 2:

Our Space adopts the current planning framework that encourages a range of new housing types, especially in the central city, close to suburban centres within the City and around existing towns in Selwyn and Waimakariri.

Do you agree with this approach and why?

Response:

There needs to be an ability to provide mixed density neighbourhoods in Greenfield Priority Areas – to respond to local site and amenity characteristics and to ensure a mixed demographic which has positive social and economic benefits. The proposed development will be ‘mixed density’.

Question 3:

Our Space proposes to develop an action plan to increase the supply of social and affordable housing across Greater Christchurch and investigate with housing providers the different models to make it easier for people to buy their own home.

What elements should be included in this action plan?

Response:

No comment.

Business Growth

Question 4:

Our Space adopts the current planning framework that directs new commercial development (office and retail) to existing centres to retain their flexibility and vitality, especially the central city, suburban centres and town centres in Selwyn and Waimakariri.

Do you agree with this approach and why? What further measures would support such development?

Response:

No comment.

Question 5:

The Canterbury Regional Policy Statement and the District Plans for Christchurch City and Selwyn and Waimakariri Districts have already identified suitable capacity for new industrial businesses.

Do you agree or disagree this is sufficient and in the right location and why?

Response:

No comment.

Growth needs

Question 6:

The proposals in **Our Space** are informed by a Capacity Assessment that considers future demands for housing and business land, based on demographic changes and projections from Statistics New Zealand, and likely changes in our economy, including through business sector trends and impacts from technological change.

Do you agree or disagree with this evidence base and why?

Response:

No comment other than to note that a responsive planning approach is important given the acknowledged uncertainties associated with the housing and business capacity assessments

used to inform the **Open Space** urban growth strategy, and with the primary drivers and influencers on urban growth within Greater Christchurch.

Transport and other infrastructure

Question 7:

Our Space promotes greater densities around key centres to increase accessibility to employment and services by walking, cycling and public transport. This aligns with recent transport proposals that signal more high frequency bus routes and in intention to deliver rapid transit along the northern and south-west transport corridors.

Do you agree or disagree with this approach and why?

Response:

No comment other than to note that the development site is within a mere 150m of the current edge of Christchurch (Westmorland) and within 600m of the new 400 section development of "Redmund Spur.

Question 8:

Our Space aligns with broader infrastructure planning (including wastewater, water supply, stormwater, energy, telecommunications, community facilities, schools and healthcare) to help create sustainable, cohesive and connected communities.

Do you agree or disagree with this approach and why? What more could be done to integrate infrastructure planning?

Response:

No comment, other than it is noted that there are no infrastructure constraints affecting the development proposal.

Other

What other points do you wish to make to inform the final **Our Space 2018-2048 Greater Christchurch Settlement Update**?

Response:

No further comments other than as noted above.

Appendices

Appendix A: Proposed subdivision concept plan

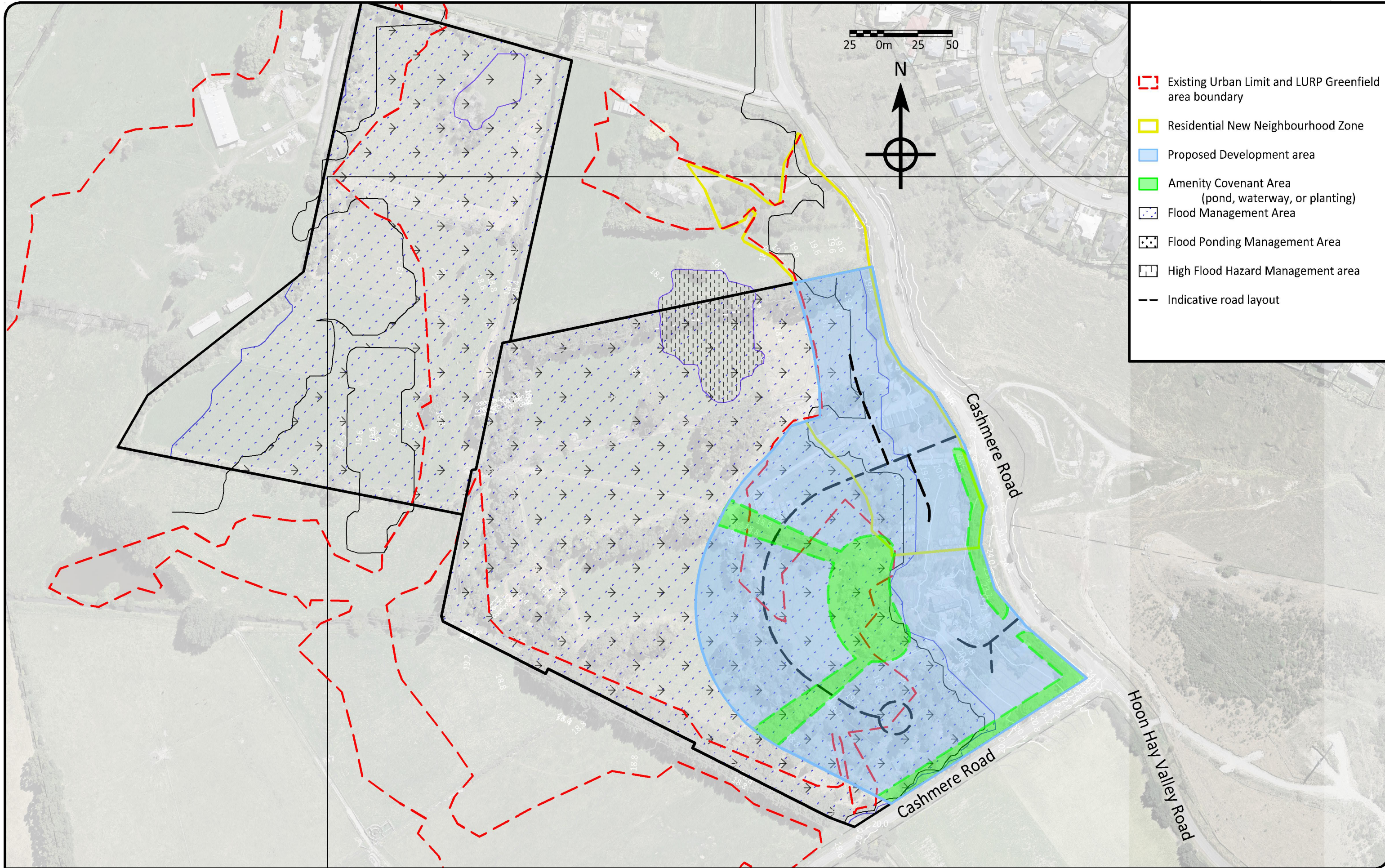
Appendix B: Preliminary infrastructure report

Appendix C: Letter from Environment Canterbury - verifying 564 Cashmere Road as non Hail

Appendix D: LIDAR map

Appendix A

Proposed subdivision concept plan



Proposed Development

564 Cashmere Road - Lot 1 DP 82258

D	Dev Area amended	MJM	30/11/18	Scale 1:2500	Job No. 4386F
C	Key Updated	MJM	29/11/18		
B	Viewshaft excluded	MJM	28/11/18	Designed	Rev. D
A	Urban Limit Updated	MJM	28/11/18	Drawn MJM	
No.	Revision	Appr.	Date	Date 28/11/2018	

Appendix B
Preliminary infrastructure report

Date
28 November 2018

Job Number
4386F.01



195 Peterborough St, Christchurch 8013
PO Box 895, Christchurch 8140

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**SUBMISSION ON
GREATER CHRISTCHURCH SETTLEMENT UPDATE
– OUR SPACE 2018-2048**

**CONCEPTUAL DESIGN AND SERVICING
OF RESIDENTIAL DEVELOPMENT AREA**

At: 564 Cashmere Rd

For: Ernst & Renate Frei

Date: 28th Nov 2018

Prepared by: Michael Martin - Surveyor and Land Development Consultant

Introduction

Our clients have owned the property at 564 Cashmere Rd for some decades, operating an organic farm from the site in the early years. Over the years they have planted significant areas of the proposed development area with native planting, and the proposed development is sympathetic to these existing plantings.

The majority of the land is flat and rises to the edge of Cashmere Rd on the northeast boundary.

A portion of the land in the northeast corner is zoned RNN (Residential New Neighbourhood). The Urban Limit / LURP line passes through the site in a very irregular path. The Proposed Development is more sympathetic to site topography and vegetation than these existing zone lines.

Our client proposes to protect existing vegetation, waterways and a pond with covenants and/or consent notices to restrict development in these areas thus providing amenity to neighbouring dwellings.

We estimate that 40-50 mixed residential dwellings could be developed on this site, and we consider that this number of dwellings is required to fund the necessary infrastructure (sewer, roading and stormwater). Without a greater number of allotments than what is currently zoned for development, this development would likely become unviable.

Services

A Low Pressure Sewer main could be extended along Cashmere Rd to the gravity outfall.

Stormwater: On-site stormwater treatment and retention could be achieved on the lower parts of the site. The adjacent property to the west is being developed by Council for large scale stormwater treatment and retention.

Water Supply: An existing water supply main is laid along Cashmere Rd and could be used to supply this site.

Power reticulation can be extended from the existing overhead HV along Cashmere Rd. Phone and fibre broadband reticulation could be extended from the existing network along Cashmere Rd.

Constraints

The proposed development area is similar to the area that is already zoned RNN. A detailed geotechnical assessment is not available, but the landform and levels are similar to the currently RNN zoned area. Neighbouring properties typically border on Technical Classification 2 and 3. Development of this type of land is achievable with appropriate engineering solutions.

Detailed requirements regarding floor levels were not available at short notice. While some of the proposed development area is at a lower level than the existing RNN area, filling could be used to raise the site to meet required minimum floor levels. This filling might reduce flood storage volumes and require compensatory storage. It is possible that this storage might be provided on the land that our client owns to the west. These requirements and appropriate engineering solutions could be worked out as the proposed development progresses through the planning phase.

Yours faithfully



Michael Martin | Registered Professional Surveyor

Fox & Associates Ltd

\\FOXDC01\Projects\4386F Frei - Cashmere Road\Correspondence\4386F.01 20181130 Urban Limit.docx

Appendix C

Letter from Environment Canterbury - verifying 564 Cashmere Road as non Hail

25 September 2018

Frei Ernst & Frei Renate Kathrine
564 CASHMERE ROAD
CHRISTCHURCH 8025

Dear Mr. and Mrs. Frei

REGISTRATION OF PROPERTY ON LISTED LAND USE REGISTER

SITE REFERENCE:

Site address: 564 Cashmere Road, Cashmere-Halswell

Register number: 26982

LAND REFERENCE:

Legal Description(s): Lot 1 DP 82258

I am writing to advise you Environment Canterbury have changed the category under which the property detailed above is registered on our Listed Land Use Register (LLUR). I understand that you are the owner of this property. You are invited to examine the information held by Environment Canterbury and to comment on it.

Your site was registered under category Partially Investigated. The site's classification is changed to category **Verified non-HAIL**. The change is based on information provided to Environment Canterbury which indicates that the previous classification was no longer appropriate. This information is provided by you is that the farm has operated from 1983 organically (registered with BioGrow 064) from that time and ceased market gardening in the early 2000's. No copper-based products or BioGrow restricted pesticides have been used by the operator of the property.

The Verified non-HAIL category is defined as:

... the site has been entered on the register based on information that subsequently was found to be incorrect. Information held at the time of this listing showed that this site had never been associated with any of the specific activities or industries on the Hazardous Activities and Industries List.

While the site category has changed, it will remain on the LLUR in order to provide an audit trail of information that led to the decision to classify the site as Verified non-HAIL. The information on the LLUR regarding this property is made available to outside parties.

Our Ref: IN7C/3739 - CN 216966

Contact: Conor Parker (Conor.Parker@ecan.govt.nz)

If you have any questions or concerns about the site classification, or if you wish to view the information held about your site, please do not hesitate to contact me.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Conor', with a stylized flourish at the end.

Conor Parker
CONTAMINATED LAND OFFICER II

Property Statement from the Listed Land Use Register

Visit www.ecan.govt.nz/HAIL for more information about land uses.

Customer Services
P. 03 353 9007 or 0800 324

636

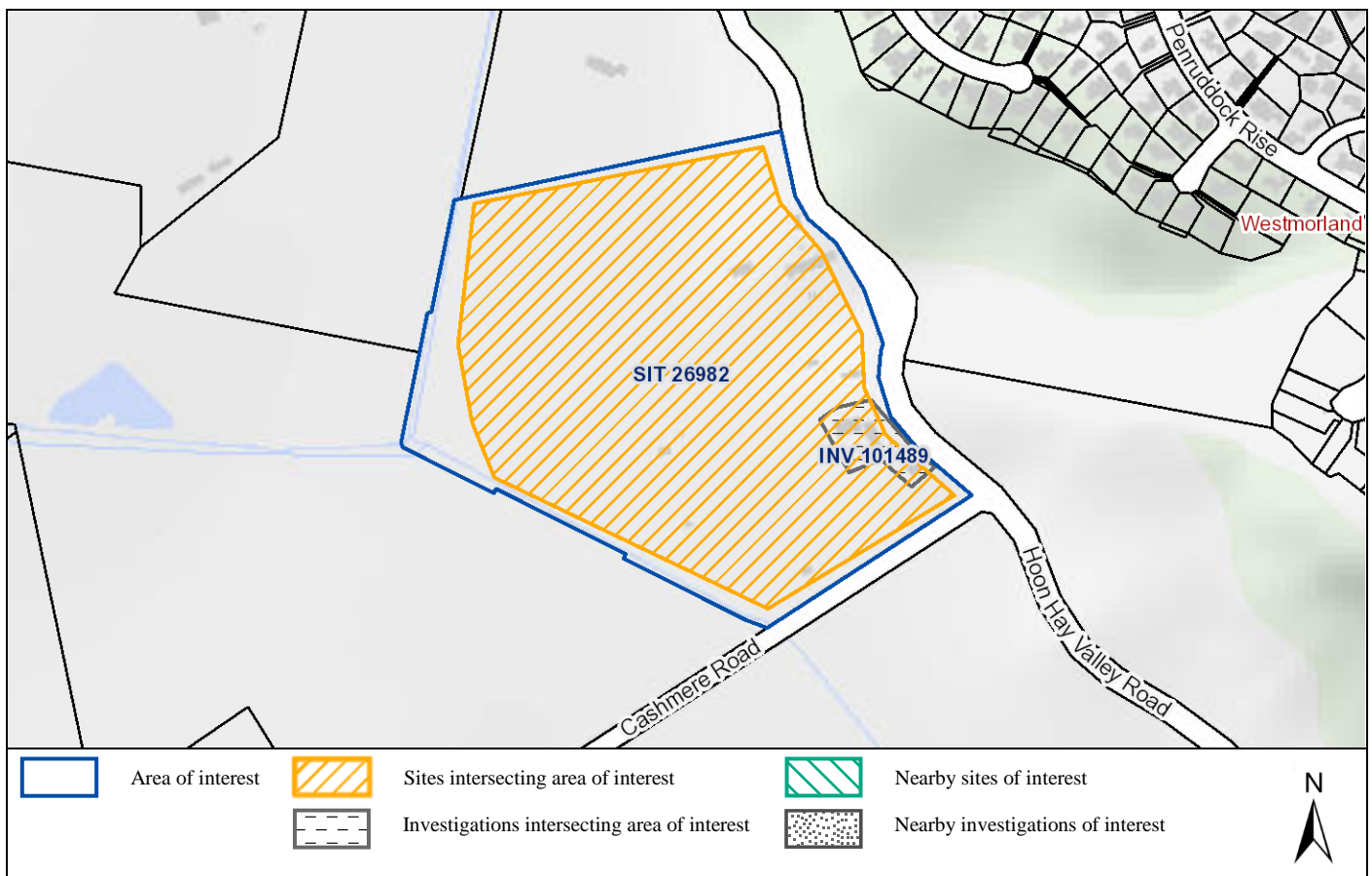
PO Box 345
Christchurch 8140

P. 03 365 3828
F. 03 365 3194

E. ecinfo@ecan.govt.nz

www.ecan.govt.nz

Date:	25 September 2018	
Land Parcels:	Lot 1 DP 82258	Valuation No(s): 2356245700



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Summary of sites:

Site ID	Site Name	Location	HAIL Activity(s)	Category
26982	Hoon Hay Valley Organic Farm	564 Cashmere Road, Cashmere-Halswell		Verified Non-HAIL

Please note that the above table represents a summary of sites and HAILs intersecting the area of interest only.

Information held about the sites on the Listed Land Use Register

Site 26982: Hoon Hay Valley Organic Farm (Intersects interest area.)

Site Address:	564 Cashmere Road, Cashmere-Halswell
Legal Description(s):	Lot 1 DP 82258

Site Category:	Verified Non-HAIL
Definition:	Site entered on register based on information found to be incorrect.

Land Uses (from	Period From	Period To	HAIL land use
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HAIL):

Notes:

- 9 Oct 2013** Area defined from: 1984-2004 ECan Aerial Photographs
Note: Market garden plots were noted in aerial photographs reviewed.
- 25 Sep 2018** Hoon Hay Valley Organic Farms at 564 Cashmere Road, Christchurch have was identified using aerial photographs as a horticultural area from the early 1980's to early 2000's. The landowner has stated that the farm has operated from 1983 organically (registered with BioGrow) from that time and ceased market gardening in the early 2000's. No copper based products or BioGrow restricted pesticides have been used by the operator of the property. The activity of 'persistent pesticide storage or use' has not occurred and this record is kept to prevent re-registration in the future.
-

Investigations:

- 13 Aug 2015** **INV 101489: Detailed Site Investigation, 564 Cashmere Road, Westmorland, Christchurch** (Detailed Site Investigation)
Coffey Environments

Summary of investigation(s):

A basic soil sampling investigation was undertaken to assess soil at the site, prior to works being undertaken to repair the existing residential dwellings at the site. The site is on Environment Canterbury's Listed Land-Use Register because historical aerial photographs indicate that horticulture was carried out at the site from the late 1980s until the early 2000s. The site investigation report states that the geotechnical investigation found "fill" material near the existing dwellings. Aside from traces of charcoal and bricks in a small number of boreholes the fill appeared to consist of gravels and silts.

10 soil samples were collected from around the existing buildings at varying depths from 0.1-0.2m to 1.0-1.2m. Three samples were collected from natural soils and the remainder were from the material described as "fill". The soil samples were analysed for a suite of eight metals and organochlorine pesticides. Some samples exceeded recorded background concentrations for the area, however none exceeded the relevant guidelines for residential land-use.

Information held about other investigations on the Listed Land Use Register

There are no other investigations associated with the area of interest.

For further information from Environment Canterbury, contact Customer Services and refer to communication number COM216966.

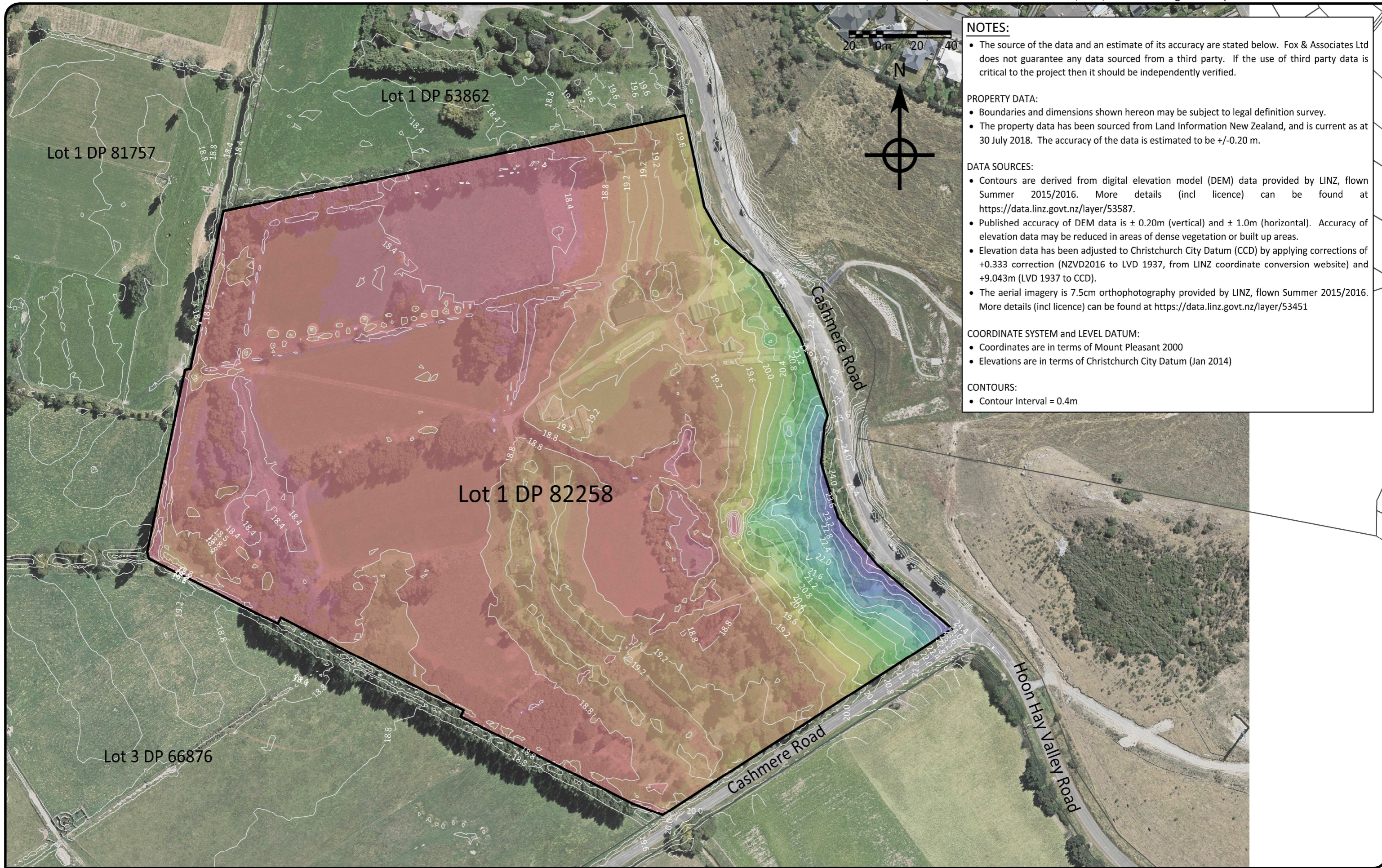
Disclaimer: *The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987 and Environment Canterbury's Contaminated Land Information Management Strategy (ECan 2009).*

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the accuracy or completeness of this information. It is released only as a copy of Environment Canterbury's records and is not intended to provide a full, complete or totally accurate assessment of the site. It is provided on the basis that Environment Canterbury makes no warranty or representation regarding the reliability, accuracy or completeness of the information provided or the level of contamination (if any) at the relevant site or that the site is suitable or otherwise for any particular purpose. Environment Canterbury accepts no responsibility for any loss, cost, damage or expense any person may incur as a result of the use, reference to or reliance on the information contained in this report.

Any person receiving and using this information is bound by the provisions of the Privacy Act 1993.

Appendix D

LIDAR map



NOTES:

- The source of the data and an estimate of its accuracy are stated below. Fox & Associates Ltd does not guarantee any data sourced from a third party. If the use of third party data is critical to the project then it should be independently verified.

PROPERTY DATA:

- Boundaries and dimensions shown hereon may be subject to legal definition survey.
- The property data has been sourced from Land Information New Zealand, and is current as at 30 July 2018. The accuracy of the data is estimated to be +/-0.20 m.

DATA SOURCES:

- Contours are derived from digital elevation model (DEM) data provided by LINZ, flown Summer 2015/2016. More details (incl licence) can be found at <https://data.linz.govt.nz/layer/53587>.
- Published accuracy of DEM data is ± 0.20m (vertical) and ± 1.0m (horizontal). Accuracy of elevation data may be reduced in areas of dense vegetation or built up areas.
- Elevation data has been adjusted to Christchurch City Datum (CCD) by applying corrections of +0.333 correction (NZVD2016 to LVD 1937, from LINZ coordinate conversion website) and +9.043m (LVD 1937 to CCD).
- The aerial imagery is 7.5cm orthophotography provided by LINZ, flown Summer 2015/2016. More details (incl licence) can be found at <https://data.linz.govt.nz/layer/53451>

COORDINATE SYSTEM and LEVEL DATUM:

- Coordinates are in terms of Mount Pleasant 2000
- Elevations are in terms of Christchurch City Datum (Jan 2014)

CONTOURS:

- Contour Interval = 0.4m

D				Scale	1:2000	Job No.	4386F
C				Designed		Rev.	
B				Drawn	PRD		
A				Date	14/09/2018		
No.	Revision	Appr.	Date				