April 2012

REPORT

GEOTECHNICAL ASSESSMENT REPORT

Plan Change (Rural Outer Plains to Living 1), High Street, Southbridge

Submitted to:
Roxburgh Property Developers Ltd
P O Box 1
Southbridge 7642

Report Number. 1078107_287

Distribution:

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1.0 INTRODUCTION

Roxburgh Property Developers Ltd has engaged Golder Associates (NZ) Limited (Golder) to undertake a geotechnical assessment at the proposed plan change site in Southbridge, Canterbury. Our scope of work for this assignment comprises a geotechnical engineering review of existing information, together with an investigation using nine test pits to assess the suitability of the ground conditions for a proposed land use change of the site from rural to suburban. The scope of this investigation and report is limited to the geotechnical aspects of the site and does not include any investigation and assessment of potential soil or groundwater contamination, bioenvironmental or archaeological aspects of the property and proposed residential land use. Further, more detailed investigations will be required for subdivision consent application.

2.0 SITE DESCRIPTION AND POTENTIAL DEVELOPMENT

The proposed site is relatively flat lying with a slight slope (approximately < 5 degrees or less) to the south. The site is bounded by High Street, Brook Street and Bellfield/Robinson Street (unformed) and has an area of approximately 6 ha. The proposed development is located approximately 25 km away from the Greendale fault that ruptured on 4 September 2010 and approximately 40 km away from the Port Hills Fault that ruptured on 22 February 2011.

A review of existing information on land damage identified that the site is unmapped by EQC, but residents in the area indicated there was no evidence of liquefaction or lateral spreading (Project Orbit Map CR0119 - 31/10/2011).

At the time of preparation of this report, only draft information was available to Golder on the anticipated layout, site grades, and building or other infrastructure loads and performance criteria.

3.0 GEOLOGICAL SETTING

Canterbury is underlain by a series of inter-bedded terrestrial gravels and fine grained marine and estuarine sediments. The gravels are mainly aggradational alluvial deposits and the finer sediments comprise flood overbank alluvium, estuarine and shallow marine deposits. The gravels are high yielding aquifers, while the finer beds are of low permeability, and act as confining layers to water held in the gravels at high pressure.

The Geological Survey Map of the area (Forsyth et al 2008) indicates the site is underlain by river alluvium, comprising gravel, sand and silt.

3.1 Seismic Hazard

Review of records held on Geonet indicates the peak ground accelerations (PGAs) experienced at the Southbridge School adjacent to the site from the 4 September 2010 and 22 February 2011 events were 0.15g and 0.070g, respectively. These have been the largest events from the sequence of Canterbury earthquakes so are considered to be a reasonable representation of accelerations likely to occur at the site in the future.

The earthquake loadings code NZS1170.5:2004 defines earthquake hazard around New Zealand for building purposes. This document holds additional information for further analysis of the seismic hazards.

4.0 AVAILABLE INFORMATION

A review of publically available Environment Canterbury (ECan) boreholes indicate the geology at the site is likely to consist of a layer of topsoil approximately 0.2-0.3 m below ground level (bgl) with a layer of clay/silt down to approximately 2.4 m bgl. Underlying these layers, sandy gravels are interpreted with some layers of clay bound gravels, to the maximum test hole depth of approximately 20 m. The water table is reported to be approximately 4.0-4.5 m bgl. This information was sourced from Environment Canterbury (ECan) borehole data from wells L37/1208, M36/0698, L36/0422 and L37/1285 that are located on or adjacent to the site.

5.0 GEOTECHNICAL INVESTIGATIONS

A geotechnical test pit investigation was undertaken on 21 February 2012, to assess the near surface soil structure, geology and groundwater levels on site.

To evaluate the near surface ground conditions and suitability of the site for a plan change, a series of nine test pits were dug at various locations around the site on 21 February 2012. The test pits were terminated at target depths varying between 3.4 – 4 m bgl. The approximate locations of the test pits are presented in Appendix B, and the detailed descriptions of the soil and groundwater conditions encountered at each of the test pits are presented in Appendix C.

5.1 Investigation Results

The ground conditions encountered at the nine test pits put down across the site are generally similar, with relatively limited variations in thickness and composition of the individual soil strata or layers. These soils include, topsoil, silts with clay, fine to medium sands and medium sandy gravels. The near surface soil structure on site can be summarised as follows, in order of increasing depth:

- SILT with traces of fine sand (TOPSOIL) to 0.25 m bgl.
- SILT with minor fine sand and traces of clay to depths between 0.25 – 1.3 m bgl, with the exception of TP7 where the material was present to 2.9 m bgl.
- Fine to medium SAND with minor silt, extending to depths between 0.50 – 3.0 m bgl, except in TP7 where this material was not encountered.
- Gravelly medium SAND with traces of silt was commonly encountered in TP1, TP2 and TP6, extending to depths varying between 1.1 – 3.0 m bgl. Underlying this gravelly SAND layer in these test pits, with the exception of TP6, SILT with minor fine sand and clay was encountered between 1.8 – 2.8 m bgl and then the sandy gravel is encountered again to the termination depth of the test pit. In TP6, SILT with some clay and traces of organics is present between 3.0 – 3.2 m bgl and is underlain by gravelly SAND to the termination depth of the test pit.
- Underlying the sand in the remaining test pits (TP3, TP4, TP5, TP8 and TP9) is SILT with minor fine sand and clay between the depths of 2.0 – 3.4 m bgl. This material was not encountered in TP7.
- Underlying the silt in the remaining test pits (TP3, TP4, TP5, TP7, TP8 and TP9) is gravelly medium SAND with traces of silt that extended below the maximum depth of the test pits.
- Groundwater in the open test pits at the site was observed between 2.7 – 3.45 m bgl. There appeared to be no seepage from the side walls of the test pits above the groundwater level, which indicates that the observed depth to the water in the test pits represents the groundwater levels.

The test pit investigation did not provide specific information on the consistency of the materials at the site. Based on visual observations of the difficulty in excavating the materials, the upper materials at the site appear to be firm to stiff, or loose to medium dense. The gravelly sand underlying these shallow materials appears to be relatively dense and consolidated. Similarly, the available well logs do not provide specific test data to determine the consistency or compactness of the subsoils.

6.0 PRELIMINARY GEOTECHNICAL ASSESSMENT

The soil stratigraphy encountered at the test pits put down across the site during the investigation is similar to that identified by the ECan borehole logs. In addition, the results of the test pit investigation indicate that there are no significant variations in the soil or groundwater conditions across the site.

Based on the relatively low groundwater level, approximately 3 to 4 m below existing ground surface, and the presence of an extensive, thick deposit of gravel or gravelly sand at and extending up to 20 m below the groundwater level, that is interpreted to be medium dense or dense, the risk of significant damage to residential structures and associated facilities such as roads and buried utilities is considered to be low. Even if some liquefaction does occur within the soils below the groundwater level, it is anticipated that the 3 to 4 m layer of unsaturated soils above the groundwater level will provide continuing support for lightly loaded foundations and limit the impact of liquefaction induced settlements. Due to the generally level ground surface within and adjacent to the site, the risk of lateral spreading is assessed as being low.

The upper soil strata are considered to be suitable for shallow foundation support of lightly loaded residential structures. Where fine grained silty or clayey soils are present at or close to foundation or slab on grade level, it may be desirable or necessary to over excavate these materials and place a layer of well compacted granular fill to provide a free draining, relatively high strength and disturbance resistant layer beneath structures.

As a result of the relatively low groundwater level, it is anticipated that buried utilities can be installed and maintained at depths up to about 4 m depth using conventional open cut temporary excavations, without need for dewatering or other seepage control measures.

In summary, based on the generally favourable and consistent ground conditions, the site is considered suitable for a plan change from rural to residential from a geotechnical perspective.

As described above, this assessment is based on information from a near surface test pit investigation and review of available well records. More detailed geotechnical investigation, including testing to determine the engineering properties (including liquefaction susceptibility) of the subsoils and confirm the groundwater level across the site, should be carried out as part of subdivision and development of the residential development.

7.0 REFERENCES

Forsythe, P. J., Barrell, D. J. A., Jongens, R. (compilers), 2008: Geology of the Christchurch area. 1:250 000 scale. GNS Science.

Department of Building and Housing *Te Tari Kaupapa Whare.* November 2011. Revised guidance on repairing and rebuilding houses affected by the Canterbury earthquake sequence.

Standards New Zealand *Paerewa Aotearoa*. February 2011. NZS3604:2011 New Zealand Standard, Timber-framed buildings, superseding NZS 3604:1999.

APPENDIX A

Report Limitations

REPORT LIMITATIONS

This Document has been provided by Golder Associates (NZ) Ltd ("Golder") subject to the following limitations:

(i). This Document has been prepared for the particular purpose outlined in Golder's proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

(ii). The scope and the period of Golder's Services are as described in Golder's proposal, and are subject to restrictions and limitations. Golder did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Golder in regards to it.

(iii). Conditions may exist which were undetectable given the limited nature of the enquiry Golder was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required.

(iv). In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Golder's opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Golder to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

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(vi). Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Golder for incomplete or inaccurate data supplied by others.

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APPENDIX B

Site Plan

Figure not to scale. Drawn by SG, Reviewed by VG
1. AERIAL IMAGE: Google Earth, 12-03-2011 2. MAP IMAGE: Land Information New Zealand NZMS Series. Copyright Reserved

Golder Associates

DRAFT

TITLE | EXPLORATORY HOLE LOCATIO
ROXBURGH PROPERTY DEVELOP

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APPENDIX C

Test Pit Logs

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP1
North (m): 5148534
East (m): 1539953
Elevation (m): 23
Hole Depth (m): 3.60

Depth	Graphic Log	Description	Water Observations
	TS	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5		Gravelly medium SAND with traces of silt, brownish grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
2			
2.5		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
3		Gravelly medium SAND with traces of silt, grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	▼ Static Water Level, 3.25m
3.5			

EOH: 3.6m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 45

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP2
North (m): 5148431
East (m): 1539845
Elevation (m): 23
Hole Depth (m): 3.30

Depth	Graphic Log	Description	Water Observations
	TS T TS	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5		Gravelly medium SAND with traces of silt, brownish grey. Moist, well graded. Gravel, fine to cobble sized and sud-rounded.	
2		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
2.5		Gravelly medium SAND with traces of silt, grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
3			▼ Static Water Level, 2.95m

EOH: 3.3m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 90

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP3
North (m): 5148415
East (m): 1539941
Elevation (m): 23
Hole Depth (m): 3.80

Depth	Graphic Log	Description	Water Observations
	TS / T	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1			
1.5		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
2		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
2.5		Gravelly medium SAND with traces of silt, grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
3			
3.5			▼ Static Water Level, 3.4m

EOH: 3.8m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 95

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP4
North (m): 5148428
East (m): 1540018
Elevation (m): 23
Hole Depth (m): 4.00

Depth	Graphic Log	Description	Water Observations
0	TS T	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5			
2			
2.5		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
3		Gravelly medium SAND with traces of silt, grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
3.5			Static Water Level, 3.4m
4			

EOH: 4m

Contractor Ellesmere Excavation and Aggregate	**Inspector** DG	**Remarks** Termination at target depth of 4.0 m bgl with collapse of material below water table.
Machine Excavator	**Checked By** JF	
Length (m): 2.5 **Width (m):** 1 **Orientation (°):** 45	**Date** 21/02/2012	**Notes:** Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP5
North (m): 5148346
East (m): 1539886
Elevation (m): 23
Hole Depth (m): 3.40

Depth	Graphic Log	Description	Water Observations
	TS	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5			
2		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
		Gravelly medium SAND with traces of silt, brownish grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
2.5			▼ Static Water Level, 2.7m
		Gravelly medium SAND with traces of silt, grey. Saturated, well graded. Gravel, fine to cobble sized and sud -rounded.	
3			

EOH: 3.4m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 110

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP6
North (m): 5148273
East (m): 1539928
Elevation (m): 23
Hole Depth (m): 4.00

Depth	Graphic Log	Description	Water Observations
	TS T	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5			
2			
2.5			
		Gravelly medium SAND with traces of silt, brownish grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	
3		SILT with some clay and traces of organics, bluish grey. Saturated, high plasticity.	▼ Static Water Level, 3m
		Gravelly medium SAND with traces of silt, grey. Saturated, well graded. Gravel, fine to cobble sized and sud -rounded.	
3.5			
4			
			EOH: 4m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 130

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP7
North (m): 5148214
East (m): 1539958
Elevation (m): 23
Hole Depth (m): 3.80

Depth	Graphic Log	Description	Water Observations
	TS T	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1			
1.5			
2			
2.5			
3		Gravelly medium SAND with traces of silt, brownish grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	▼ Static Water Level, 3m
3.5			

EOH: 3.8m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 130

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP8
North (m): 5148331
East (m): 1539996
Elevation (m): 23
Hole Depth (m): 3.60

Depth	Graphic Log	Description	Water Observations
	TS	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1			
1.5		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
2			
2.5		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
3		Gravelly medium SAND with traces of silt, brownish grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	▼ Static Water Level, 3.4m
3.5			

EOH: 3.6m

Contractor Ellesmere Excavation and Aggregate	**Inspector** DG	**Remarks** Termination at target depth of 4.0 m bgl with collapse of material below water table.
Machine Excavator	**Checked By** JF	
Length (m): 2.5 **Width (m):** 1 **Orientation (°):** 45	**Date** 21/02/2012	**Notes:** Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

Test Pit Log

Client: Roxburgh Property Developers Ltd
Project: Roxburgh Subdivision, Southbridge

Location: 134 High Street, Southbridge, Canterbury

Grid: NZTM | **Datum:** MSL

Project: 1078107287
Hole: TP9
North (m): 5148304
East (m): 1540091
Elevation (m): 23
Hole Depth (m): 3.90

Depth	Graphic Log	Description	Water Observations
	TS T	SILT with traces of fine sand, dark brown. Dry, low plasticity, rootlets down to 0.1 m bgl. (TOPSOIL).	
0.5		SILT with minor fine sand and traces of clay, yellowish brown. Dry to moist, low plasticity.	
1		Fine to medium SAND with minor silt, yellowish brown mottled orange. Moist, poorly graded.	
1.5			
2			
2.5			
3		SILT with minor fine sand and clay, yellowish brown mottled orange. Moist to wet, low plasticity.	
3.5		Gravelly medium SAND with traces of silt, grey. Wet to saturated, well graded. Gravel, fine to cobble sized and sud-rounded.	▼ Static Water Level, 3.45m

EOH: 3.9m

Contractor
Ellesmere Excavation and Aggregate

Machine
Excavator

Length (m): 2.5
Width (m): 1
Orientation (°): 45

Inspector
DG

Checked By
JF

Date
21/02/2012

Remarks
Termination at target depth of 4.0 m bgl with collapse of material below water table.

Notes:
Test Pit logged in accordance with NZGS guideline "Field description of soil and rock" 2005

At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

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Golder Associates

APPENDIX I

Consultation Letter 20 June 2012

20 June 2012

10781 07 287

ROXBURGH PRPOERTY DEVELOPERS LIMITED
PLAN CHANGE TO REZONE FROM RURAL – OUTER PLAINS TO LIVING 1, HIGH STREET, SOUTHBRIDGE

Dear,

You are being sent this letter as a potentially interested party in relation to an application for a proposed Plan Change to the Selwyn District Plan to rezone land at High Street, Southbridge from Rural – Outer Plains to Living 1.

Initial consultation for this project was undertaken in 2008 and a series of consultation meetings was held. However, as a result of the economic downturn, the project was put on hold until recently.

It is now intended to proceed with the application, and as such we have enclosed the proposed Outline Development Plan for the site so that you may have the opportunity to consider the proposal ahead of the formal notification process of the Selwyn District Council under the Resource Management Act 1991.

We would be happy to receive any feedback from you, and this can be addressed to the undersigned.

Thank you for your time in considering this proposal.

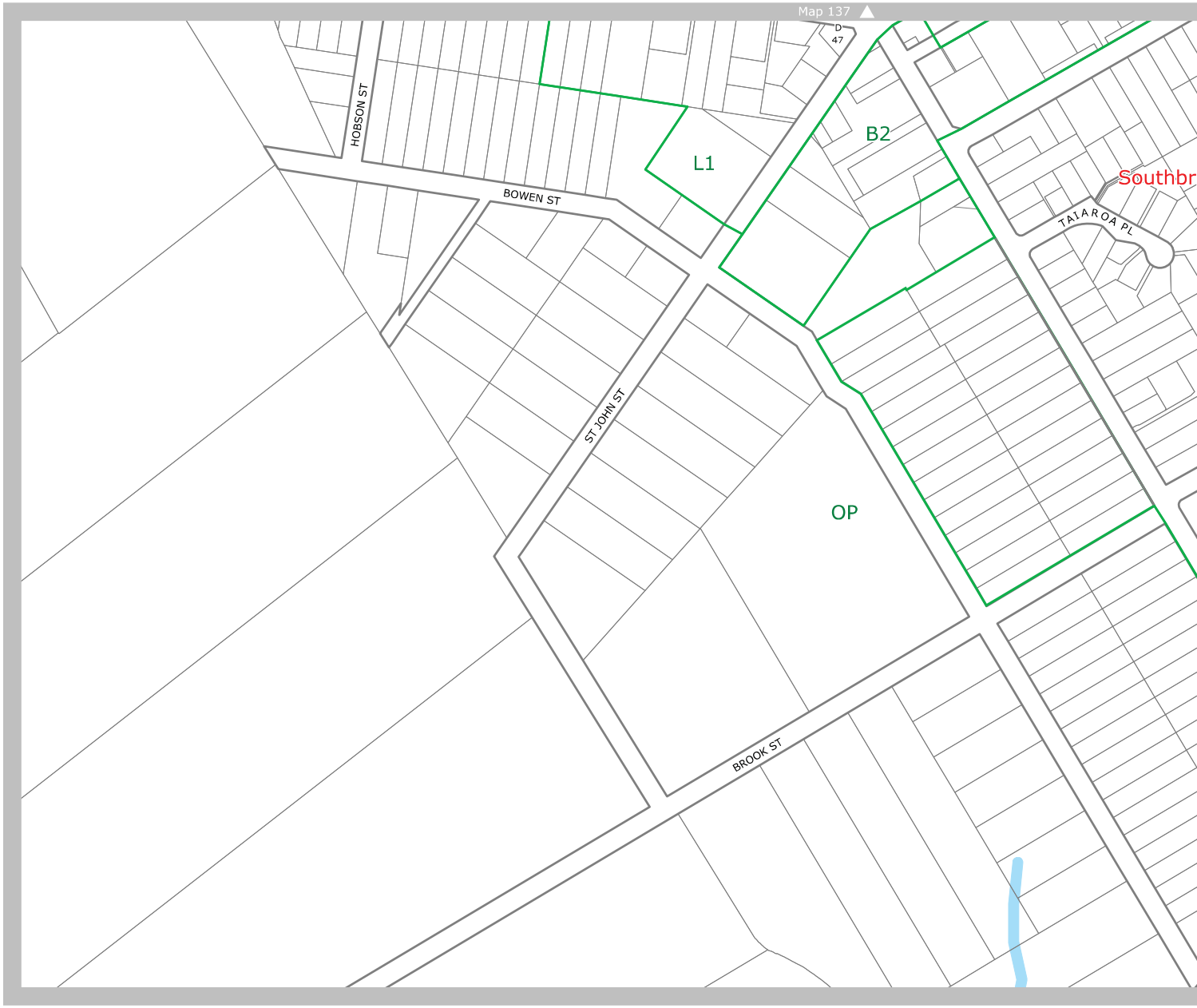
GOLDER ASSOCIATES (NZ) LIMITED

Jane West
Senior Planner
Mobile: 021 323 040

JW/kc

APPENDIX J

Amended Planning Maps 138 and 004



MAP
138
SHEET 1

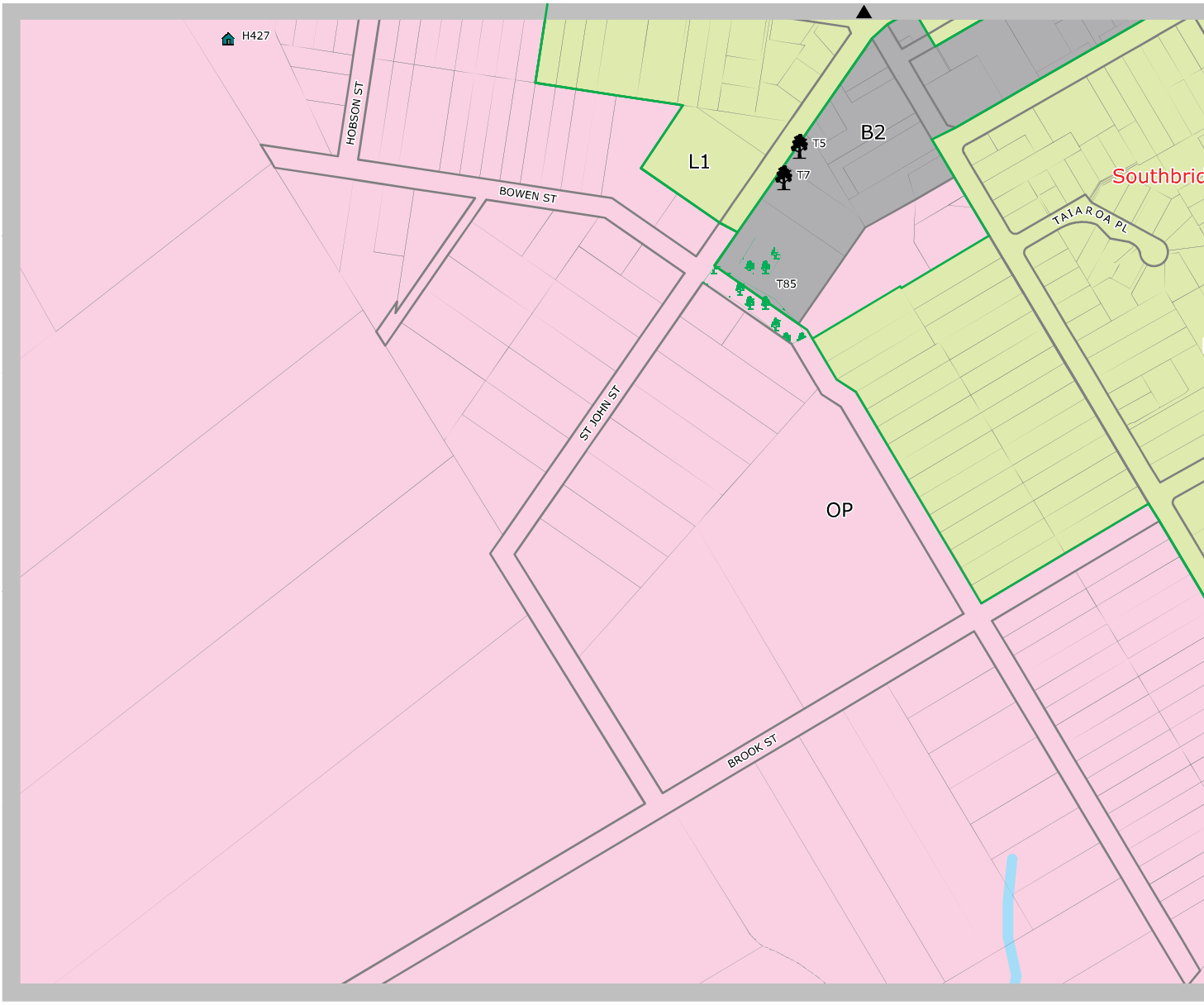
SELWYN DISTRICT PLAN
Scale: 1:4,000 at A3

100 0 m

▲ NORTH

KEY

- SDC Designated Sites
- Chch International Airport Noise Contour
- Fault Lines
- Transpower Main Lines
- Forestry Exclusions
- Wes Obs
- Other Designations
- NZTA Widening Designation
- Coastal Hazard
- Zones
- Outstanding Landscape
- Outstanding Natural Feature



KEY

Waahi Taonga Area

Heritage Building

Protected Tree

Scheduled Site

Statutory Acknowledgement Site

State Highways

Railway

Road Parcel

Land Parcel

Water Body

Archaeological Site

Historic Heritage Site

Silent File Area

Contours Above Sea Level

160m

60m

2.74m

Zones

High Country

Port Hills

Existing Development Area

Living 1

Living 2

Living X

Living 3

Living WM

Living Z

Living Z Deferred

Business 1

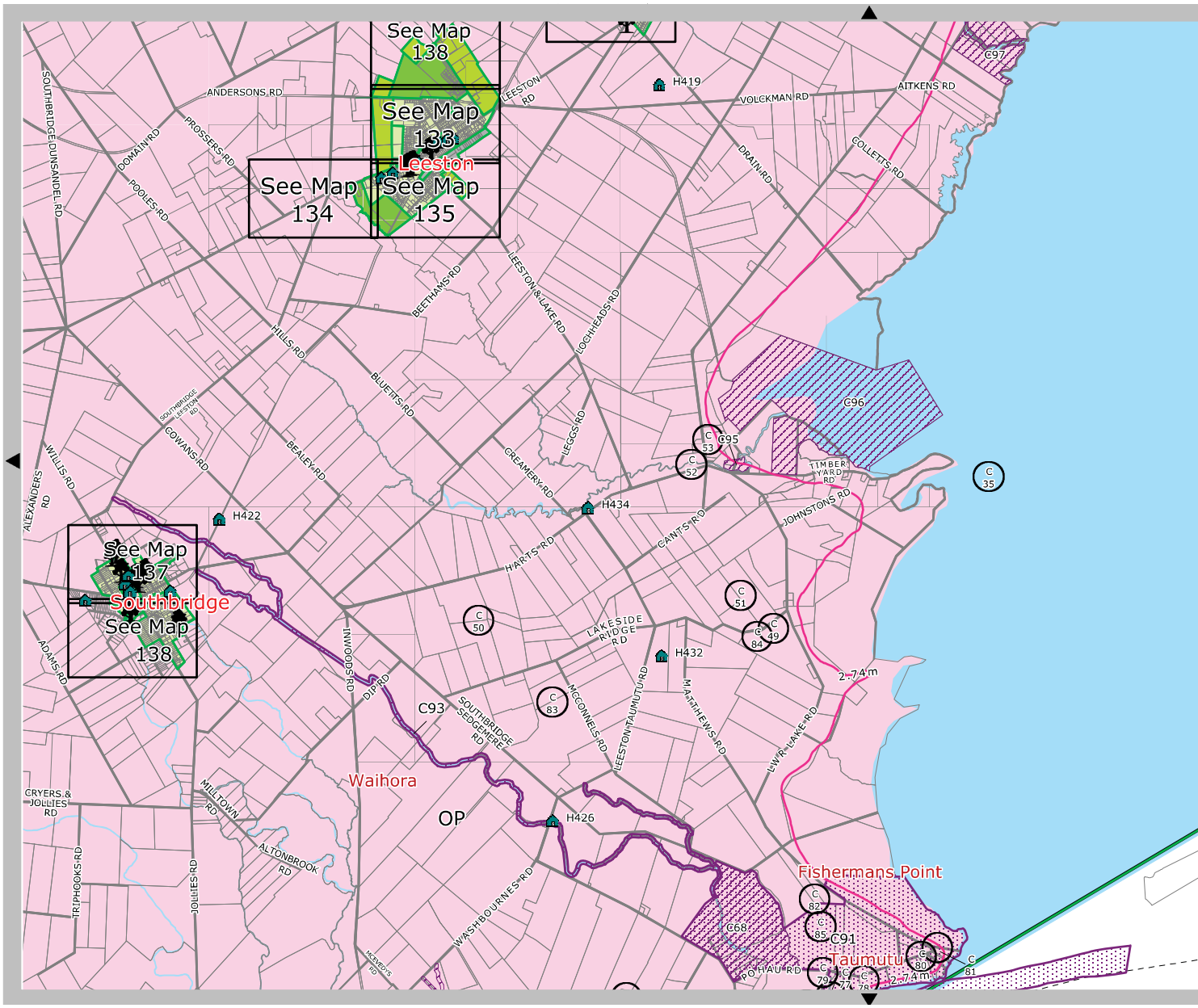
Business 2

Business 3

Inner Plains

Outer Plains

Malvern Hills



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Contours Above Sea Level
- 160m
- 60m
- 2.74m

Zones
- High Country
- Port Hills
- Existing Development Area
- Living 1
- Living 2
- Living X
- Living 3
- Living WM
- Living Z
- Living Z Deferred
- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- Malvern Hill

At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

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