

12 February 2021

Selwyn District Council Attention: Jocelyn Lewes

By email: Jocelyn.Lewes@selwyn.govt.nz

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Dear Jocelyn,

# PRIVATE PLAN CHANGE REQUEST TO THE OPERATIVE SELWYN DISTRICT PLAN- RFI PC200075: LINCOLN ROLLESTON ROAD, ROLLESTON

- 1. Further to your request for further information on 27 January 2021 relating to the application above, we set out a response to each of your specific requests below.
- 2. Our response below is per the numbering of your RFI questions. Additional detail supporting the response is also provided from technical experts in the attachments to this letter.

1. Region policie	This Plan Change is heavily reliant on the NPS-UD to address the conflict with the nal Policy Statement, particularly CRPS Objectives 6.2.1 and 6.2.2.5, and their associated s.
Respo	onse:
Noted	
land fo	The request relies on Policy 8 of the NPS-UD as it asserts that it would add significantly to pment capacity. In this regard, the plan change request notes that "the current supply of or residential growth at Rolleston is understood to be largely developed already. Therefore, the proposal to provide for an additional 280 households is considered to add significantly to notial development capacity for Rolleston township."
Respo	onse:
Noted	

Development Capacity Assessment for the short, medium and long term1. There are a significant number of plan change requests currently lodged with Council, most of which propose to provide significantly more capacity that this plan change request. However, in the absence of criteria at this time in the Canterbury Regional Policy Statement, guidance2 from the Ministry for the Environment suggest that factors that can help to determine significant development capacity



include significance of scale and location; fulfilling identified demand; timing of development and infrastructure provision (development infrastructure and additional infrastructure).

### Response:

Noted.

- 4. To address the provisions of Policy 8, please provide further analysis that:
- a. considers the capacity proposed to be provided against the Council's updated capacity assessments over the short/medium/long term timeframes considered by the NPS-UD. The capacity proposed within the other plan change requests should be considered in regards to the above request; and

b. considers the contribution that the proposed plan changes may make to development capacity against the other factors suggested by Ministry for the Environment.

### Response:

Please see commentary attached in Attachment 1.

5. The assessment of the criteria in Policy 1 of the NPS-UD for 'well-functioning urban environments' provided with the request only considers this in relation to the plan change area. The urban environment is considered to encompass all of Greater Christchurch. Therefore, please provide an assessment of how the request would contribute to the function of the wider urban environments of the Rolleston township, the surrounding district and the Greater Christchurch area.

### Response:

Please see commentary attached in Attachment 1.

### Support for Plan Change

6. Please provide evidence that the owners of the properties subject to the plan change are party to, or supportive of, the request.

### Response:

Please see approvals attached in Attachment 2.

### **Integration with other Plan Changes**

7. There are a significant number of plan change requests currently lodged with Council, with PC78 immediately adjacent to the area of this plan change request. Please advise what, if any, consideration has been given the position of key movement linkages and reserves between this



plan change and PC78. Details of this plan change, along with all other plan changes, can be found on Council's website.

### Response:

The proposed ODP has been tweaked slightly to coordinate with the adjoining PC78 ODP. Please see attached revised ODP in Attachment 3. Note, there has been a change in road alignments, no changes in reserve location were considered necessary.

### Infrastructure

8. Please advise if staging of development is proposed and if so how will this proceed? This will help Council understand timing for delivery and funding of infrastructure.

### Response:

The development is anticipated to accommodate 5 stages of approximately 50 lots per stage, starting at the northern end adjoining Falcons Landing.

### **Transport**

9. The Integrated Transport Assessment provided with the plan change request was reviewed by Council's Asset Manager – Transportation, who has advised that, overall, there are no specific issues of concern and the plan change request is supported from a transport perspective due to it adjoining an existing urban area and that it will essentially complete the CRETS Collector Road.

### Response:

Noted.

10. However, both the plan change request and the accompanying ITA incorrectly state and show in part that Talon Drive is the extension of the CRETS Collector Road to Lincoln Rolleston Road. Ed Hillary Drive is the extension of the CRETS Collector Road to Lincoln Rolleston Road. Talon Drive is further north. Please amend all documentation, including illustrations, appropriately.

### Response:

Please see attached amended transport report (Attachment 4).

11. Please amend the ODP to indicate provision for another future southern roading connection, as indicated below, rather than just a walking and cycling one. Please have regard to PC78, as discussed above.

### Response:

Please see attached amended transport report (Attachment 4).

12. It is noted that the ITA provides an assessment of the Selwyn Road / Weedons Road intersection, which is of primary concern to Council in terms of the extra traffic through it from Lincoln Rolleston Road. The applicant is advised that the upgrade of this intersection to a roundabout is currently in Council's draft Long Term Plan for 2028/29. This aligns well to the ITA assessment where Level of Service start to drop off in some areas at the existing intersection. However, it is requested that further assessment be undertaken of the Lincoln Rolleston Road /



Selwyn Road intersection, due to some expected safety issues related to increasing turning and through traffic along Lincoln Rolleston Road.

### Response:

Please see attached amended transport report (Attachment 4).

### Water

13. The Infrastructure Assessment provided with the application was reviewed by Council's Asset Manager – Water Services.

### Response:

Noted and accepted.

14. The Infrastructure Assessment identifies that there are portions of an irrigation water race that lie on the western and southern boundaries of the plan change area and the Soil Contamination report states that a water race runs along the southern boundary of 153 Lincoln Rolleston Road and a small pond is also located along the southern boundary of the same property. However, at paragraph 145, the plan change request states that there are no water races within the site. Please clarify which report is correct and, if required, identify the location of these water races and advise how it is intended that they be acknowledged within the plan change and any subsequent development of the area.

### Response:

See attached revised servicing report (Attachment 5).

### Wastewater

15. With reference to the wastewater masterplan (attached), please confirm options to reticulate wastewater to the proposed Southeast Pump Station, as opposed to the Southern Rolleston Pump Station, as identified in the plan change request.

### Response:

See attached revised servicing report (Attachment 5).

### Urban Design

16. At paragraph 66 mention is made of mitigation measure that include the location of different zones, however only one zone is sought by the plan change request, being the Living Z zone. Please amend accordingly.

### Response:

We acknowledge the error. At such time as the plan change is ready for notification (i.e. all rfi responses agreed as complete), we'll re-issue the application package inclusive of the amended para 66.



17. In Section 1 of the Urban Design, Landscape and Visual Impact Assessment, please correct the reference to the location of the plan change area from Rolleston South West to Rolleston South

### Response:

See attached revised urban design report (Attachment 6).

18. In Section 3.1 of the above assessment, and in other parts of the plan change request reference is made to "rural residential" dwellings. As rural residential activities are defined by the Canterbury Regional Policy Statement as residential units at an average density of between 1 and 2 households per hectare, it is incorrect to identify activities both within the plan change area and surrounding the area as such. Please amend such references to refer to rural.

#### Response:

See attached revised urban design report (Attachment 6).

19. In Section 3.2, it states that "aspects of rural character will be maintained through the mitigation of fencing and landscape planting" and in Section 3.5 it is states that fencing along Lincoln Rolleston Road will be managed to maintain aspects of openness. Please advise what, if any, measures need to be included within the Operative District Plan to deliver on these outcomes.

### Response:

See attached revised urban design report (Attachment 6).

20. The concluding sentence in paragraph 2 of Section 3.2 states that the "character of existing housing is typically single storey detached dwellings, which the proposal intends to continue". The provisions of the Operative District Plan do allow for two storey residential development in the Living Z zone. Please advise if it is intended that specific measures be included within the Operative District Plan that would prevent this outcome.

### Response:

See attached revised urban design report (Attachment 6).

21. In Section 3.3, on page 14, in responding to Policy B4.3.3, the assessment states that "the proposed plan change adjoins existing Living and Business Zones to the north west". The area of the plan change request does not adjoin any Business zoned land. Please correct the assessment accordingly.

## Response:

See attached revised urban design report (Attachment 6).

22. It is considered that the description of the proposed density associated with the Living Z zone shown on the proposed outline development plan included in Appendix One (page 3) includes reference to terms used in the Proposed District Plan (General Residential and Medium Residential) which may create confusion. Please consider amending this. Further, the District Plan Zoning map included on page 4 incorrectly shows the district plan zoning as GRZ, whereas it should be LZ. Please amend. Please also amend the legends on pages 4 and 5 which reflect the zoning proposed under the PDP, rather than the zoning shown on the adjacent image.

### Response:

See attached revised urban design report (Attachment 6).



### Geotechnical Assessment

23. The Geotechnical Assessment provided with the plan change request was peer reviewed on behalf of Council by Ian McCahon of Geotech Consulting Limited and this is attached for your information. No further information is requested at this time as a result of this peer review.

### Response:

Noted.

# **Preliminary Site Investigation (PSI) Report**

24. The PSI report provided with the plan change request was peer reviewed on behalf of Council by Environment Canterbury. No further information is requested at this time as a result of this peer review.

### Response:

Noted.

# Assessment of Efficiency and Effectiveness of the Plan Change

25. Please review the statement in paragraph 100 that for Options 3 and 4 the benefits are greater compared to the alternative option of obtaining resource consent, as Option 3 is to apply for resource consents.

## Response:

You are correct, paragraph 100 should read: 'These assessments indicate that for Options 2 and 4, the benefits are greater as compared to the alternative option of obtaining resource consents, which had costs or disadvantages outweighing benefits.'

### **Operative District Plan**

26. It is noted, in paragraph 29, that the request is for a Living Z zone, with an average site size of 600m2 and a minimum site size of 500m2. These site sizes are not consistent with the existing Living Z (Rolleston) sizes set out in Table C12.1 in the Operative District Plan. Given this, please either:

a. provide an assessment of this variance in terms of its effect on plan integrity, and spatial effects from different lot sizes; or

b. amend the application to be consistent with the Operative District Plan site sizes.

### Response:

We acknowledge an error in paragraph 29 of the request and confirm that an average allotment size of 650m2 and a minimum individual allotment size of 550m2 is in fact proposed (consistent with that set out in Table C12.1 of the Plan).



27. In Table 1 Assessment of relevant plan provisions, page 23, there is a heading for Objective B2.1.5, but not text or analysis is provided. Please amend as appropriate.

### Response:

Objective B2.1.5 is of limited relevance to the application, in so far as it is far removed from the Christchurch Airport and its noise contours, and thus the proposal will not give rise to any potential reverse sensitivity effects on the Airport. At such time as the plan change is ready for notification (i.e. all rfi responses agreed as complete), we'll re-issue the application package inclusive of the amended objective text (and the correction referenced in point 26).

## **Outline Development Plan (ODP)**

28. The text accompanying the proposed ODPs should incorporate the urban design principles set out at paragraph 35 of the plan change request.

### Response:

The text of the ODP is considered to already adequately reflect the urban design principles in paragraph 35. E.g. 'Density' references low density and medium density housing options, and provision for the higher density (medium density) centrally around the reserve which is itself located centrally, 'Movement' references a variety of transport modes to be provided for within the roading network including provision for walking and cycling, the level of greenspace notated on the ODP is considered appropriate for the site and any revision will be subject to Council reserve provision policy. The final principle, being to encourage the use of low impact design techniques, has been included into the text of the Blue Network of the ODP.

29. Please terminate the possible future connections as shown on the ODP at the boundary of the plan change area rather than extending them into adjacent sites.

### Response:

See attached ODP, amended as requested (Attachment 3).

30. Please update the ODP legend to identify the dashed circle shown at the proposed intersection of the primary road with Lincoln Rolleston Road.

#### Response:

See attached ODP (Attachment 3).

31. The ODP should also be amended to reflect any matters raised in the points in this letter, particularly regarding roading, reserves and reverse sensitivity matters.

### Response:

See attached ODP (Attachment 3).

32. It is noted that through the Proposed District Plan process, Council is seeking to establish a consistent ODP design with an approach to minimise features on an ODP and utilise assessment considerations in supporting text. While this is a request to change the Operative District Plan, please be aware that alignment of the ODP design may be sought as this request progresses.

### Response:

Noted.



# **Proposed District Plan**

33. Council notified its Proposed District Plan on 5th October 2020. While the list of statutory documents to be considered when changing a district plan, as prescribed in s74 and s75 of the RMA, does not include a Proposed District Plan, case law5 suggests that s74 is not an exhaustive list and that scope exists to consider the provisions of the Proposed District Plan. As such, please provide an assessment of the request against the relevant provisions of the Proposed District Plan, and in particular those provisions that have immediate effect.

### Response:

An assessment of the plan change request against the proposed District Plan, to the extent relevant, attached as Attachment 7. However, it is noted that a submission has been lodged on the Proposed Plan seeking that the Plan Change land be zoned for residential activity in a manner that is generally consistent with this plan change request. Accounting for this and the very early stage of the Plan review process, limited weight should be afforded to the proposed District Plan.

34. Where new provisions are proposed to the Operative District Plan to respond to any of the matters raised above, it is recommended that consideration be given to the provisions included in the PDP, given to the need to align this plan change request with the PDP at some point in the future.

### Response:

As above.

#### Consultation

35. It is noted that the plan change request has not been provided to Mahaanui Kurataiao Limited for their comment. However regard has been had to the outcomes of previous consultation with Rūnanga and others for other recent residential zoning proposal elsewhere in the District. Please advise of the specific outcomes to which regard has been had, and advise how these outcomes have been reflected in this plan change request.

### Response:

Recent examples of MKT consultation for residential development in Rolleston include in relation to plan changes 59 and 73. PC59 (West Melton) was similar to the current proposal in so far as the site does not contain any notable features such as natural waterways, indigenous vegetation or sensitive cultural features. Recommendations for that plan change pertained to the use of indigenous vegetation and stormwater soakpits and swales (essentially low impact stormwater design) at the time of subdivision. The proposed ODP wording includes reference to encouraging low impact stormwater design, consistent with this recommendation. The PC59 advice also referenced land use consent holders being subject to an Accidental Discovery Protocol during earthworks. The proposal is subject to the accidental discovery protocols set out in Appendix 6 of the Townships Volume of the operative District Plan. A third recommendation pertaining to locally sourced indigenous vegetation requirements has now been included in the ODP. The PC73 feedback was similar, albeit with additional comment in regard waterways and odour that is not considered relevant to the PC75 proposal. A final recommendation for PC73 pertains to the implementation of sediment and erosion controls, which is a matter that would be implemented at subdivision stage of PC75.

36. The request also identifies that "the provision of locally sourced indigenous vegetation within the plan change site as it develops is a matter that will be addressed at the time of subdivision and development and support cultural values associated with the site. It is expected that any



subdivision consent for development of the zone can and will incorporate conditions of consent addressing these requirements". This statement is not supported by the ODP text. Please identify if the existing framework within the Operative District Plan is sufficient to achieve the statement above.

# Response:

A statement to this effect has been incorporated into the revised ODP.

Yours sincerely,

**Novo Group Limited** 

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# **Attachment 1: Development Capacity Comments**

# **NPS-UD Policy 8:**

Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is:

(a) unanticipated by RMA planning documents; or

(b) out-of-sequence with planned land release.

# Point 3 – SDC Housing and Business Development Capacity Assessment - Significant Development Capacity

Factors that can help determine "significant development capacity" also include location, scale, identified demand, timing of developments and infrastructure.

PC75 provides for the significant completion of CRETS Road - linking the neighbourhoods between Springston Rolleston Road and Lincoln Rolleston Road. Whilst it will not complete the entire length, it unlocks the door to enable the Collector Road to be fully completed in the future.

PC75 also provides a key connection between the proposed PC78 and ODP Area 11. Whilst the two proposed Plan Change applications are independent of each other, they are co-related and will add neighbourhood connectivity to existing and new community infrastructure, such as Rolleston High School, Selwyn Aquatic Centre, Foster Park and the growing commercial facilities in the new Rolleston Town Centre.

The location of PC75 enables the extension south of the Rolleston Township to the southern boundary of Selwyn Road, unlocking significant growth capacity within PC75 and PC78, enabling an additional 1,100 dwellings.

PC75 is also within the sequence of planned growth, it adjoins ODP Area 11 (now predominantly developed), falls within the planned infrastructure growth areas and Future Development Areas recently notified in Proposed Change 1 to Chapter 6 of the Canterbury Regional Policy Statement.

Point 4 – Development Capacity Assessment in terms of other plan changes – Short/Medium/Long Term Timeframes. And other factors suggested by MfE.

Canterbury was the second fastest growing region for both the 2013-2018 and 2018-2020 periods. Over the 2018-2020 period, Canterbury was projected to grow at 8,200 people per annum, however it achieved a much faster rate of growth, of 11,630 people per annum. This is comparable to the rate of growth achieved over the 2013-2018 period of 11,590 people per annum. In broad terms,

Canterbury has recorded the second fastest rate of growth of any region in New Zealand, of around 11,600 per annum for the past 7 years.

Christchurch, Selwyn and Waimakariri all achieved a faster rate of growth than projected over the 2018-2020 period. Christchurch was projected to grow at a rate of 4,320 per annum, however the actual growth rate was 5,450 people per annum. Selwyn was projected to achieve growth of 2,000 per annum, however the actual growth rate was 3,200 people per annum. Waimakariri was projected to achieve growth of 1,180 per annum, achieving a growth rate of 1,700 people per annum.

The Our Space Greater Christchurch Settlement Pattern Update report includes a growth projection over the next decade derived from the Statistics NZ 2013 base projections. These projections are based on 2013 Census data and are considered by Statistics NZ to be out-of-date. This is evident in the regional disparities between the projections and actual rates of growth that have occurred.

Our Space expects 2,690 additional households per annum to reside in greater Christchurch over the next decade. However, actual growth rates show that in the order of 4,500 additional households will be added to the population annually over this period. This means that the Our Space expected growth rate is 70% below the actual growth rate, and likely to be 70% below the revised Statistics NZ growth projection.

Statistics NZ will provide 2018 projections later this year, and these will account for both the 2018 Census data and the recent trends.

Rolleston has maintained steady growth of around 530 households per annum for the past seven-year period. This equates to just under 50% of the district's growth.

The Selwyn District Growth Model projects population and household growth for the 2018-2048 period. This shows expected growth of 290 households per annum over the next decade, around half the rate achieved over the previous seven years (530 per annum). While this accounts for the redistribution of growth from Selwyn to Christchurch, which is a strategic objective, it does not account for the rapid rate of growth seen across Greater Christchurch, which increases the quantity of growth that needs to be enabled in Rolleston and Selwyn more generally.

The Housing and Business Development Capacity Assessment Update (2020) report in the Executive Summary of Appendix 1 identifies Selwyn District sufficiency of housing capacity of +2,543 in the short term (2020-2023), -2,737 in the medium term (2020-2030) and -18,337 in the long term (2020-2050). Plan Change requests currently lodged with the Selwyn District Council are understood to provide for a total of 10,567 additional dwellings. However, there is no certainty that all of the plan changes will be approved. Where they are approved, there is no certainty as to whether or not they will achieve fully developed dwelling yields.

Selwyn District has increased from 20% of all consents issued within the greater Christchurch region in 2010, to 30% in 2020. More notably, Rolleston has increased from 6% of all consents issued within the greater Christchurch region in 2010, to 20% in 2020. The reason for this unprecedented rate of growth is that Rolleston offers affordable 3-4 bedroom family houses for around \$500,000, and affordable family housing is in high demand. No other location in Christchurch can offer a significant quantity of affordable family housing at this price.

A section of \$100,000 - \$200,000 results in a house and land package of \$400,000 - \$500,000, an affordable price point for many young family households looking to get a new house. Selwyn sold 75% of all sections in this price range, Waimakariri sold 18% and Christchurch sold only 7%. It is the

inability of Christchurch and Waimakariri to produce any significant number of sections in this price range that is underpinning the large sale rate being achieved in Selwyn.

Rolleston accounts for 35% of all lots sold in Greater Christchurch. This is entirely due to its ability to produce low priced lots, in the \$100,000 - \$200,000 range. Rolleston produced 62% of Greater Christchurch's low priced lots over the last twelve months (i.e. in the \$100,000 - \$200,000 range). It is therefore reasonable to conclude that Rolleston plays a major role in producing low priced lots and houses in Greater Christchurch.

Rolleston has demand for around 750 dwellings per annum. This is evident in recent building consents, which are expected to be over 1,000 per annum for 2020 and recent historical household growth, which has been within the 500-600 range per annum for seven years.

The demand for houses within Rolleston is almost entirely within the \$400,000 - \$600,000 price range for a new 3-4 bedroom family house. Rolleston has a comparative advantage in producing these dwellings within the wider region, and this is in part supported by the range of social/recreational and commercial amenities available.

Christchurch has had sufficient land available to remain relatively affordable when compared to other cities across New Zealand. With an average price of \$526,000, this compares favourably to other major regions. This has given Christchurch a competitive advantage in attracting and retaining its population, which is the second largest in New Zealand.

The Canterbury region has performed better during the recent national increase in prices that has occurred over the past 6-12 months. Canterbury has seen an increase in price of \$61,000, notably less than the other main regions that have increased between \$78,000 and \$145,000. This is due to the availability of low-priced development land, however with recent rates of construction, there is the risk that the price of development land increases and Christchurch's relative affordability and attractiveness, when compared to other cities, is diminished.

The location of PC75 enables the extension south of the Rolleston Township to the southern boundary of Selwyn Road, unlocking significant growth capacity within PC75 and PC78, enabling an additional 1,100 dwellings.

The Christchurch Southern Motorway Stage 2 with a completion date of 2021 and additional development at Rolleston will generate various development contributions and rates to contribute to the significant public cost of this investment.

There are several specific infrastructure investments in Rolleston. These range from water supply, town square updates and local parks. These have a total cost of \$13.4 million. Given the imminent shortage of land for new lots and dwellings in Rolleston, the proposal would ensure that additional development contributions and rates are available to pay for the cost of this investment.

Selwyn Council is considering multiple Plan Changes for expansion of the residential area of Rolleston in addition to Plan Changes for Lincoln, Prebbleton, West Melton, Darfield and Leeston. The recently notified Proposed Change 1 to Chapter 6 of the Regional Policy Statement will create a significant barrier to the likely success to some of those Plan Change applications. Given this, the potential growth areas of Rolleston are now conceivably limited to only a few Plan Change Applications within the Future Development Areas. If only one or two of these applications were successful this could have influence over the supply of land and sections to the Rolleston market. Leading to a potential detrimental effect on supply and affecting affordability of new dwellings in the Greater Christchurch market for family homes in the mid \$500,000 range.

### Point 5 – Well functioning Urban Environment

The assessment of Policy 1 provided in the Request (pages 16 and 35-36), does consider the functioning of urban environments at more than just the plan change scale, stating that the proposal will contribute to well-functioning urban environments at a *localised*, *township* and *regional scale*.

Policy 1(a) seeks urban environments that 'have or enable a variety of homes that: (i) meet the needs, in terms of type, price, and location, of different households' 1.

The proposal will 'enable' the outcome sought by Policy 1(a)(i) by providing for a variety of homes, needs, types, price-points and locations within the plan change area, within Rolleston and within the Greater Christchurch market generally.

Within the plan change area the proposed Living Z zoning provides for a variety in residential densities. The proposal enables a variety in housing, but other than by way of adopting existing density rules in the Plan, it does not specifically prescribe them.

#### PC75 enables:

- a) The completion of the CRETS Road, connecting Springston Rolleston Road to Lincoln Rolleston Road, reducing trafficable loads on the Selwyn Road Lincoln Rolleston Road intersection whilst improving access for residents to the east of ODP Area 11 to community facilities including the Selwyn Aquatic Centre and Foster Park;
- b) residential development at a density of 12 households/hectare and provides for a variety of residential house typologies, lifestyles and price points;
- c) connectivity within south-eastern Rolleston through direct connections with the extension
  of Lady Isaac Drive and potentially CRETS Collector Ed Hillary Drive and provides for
  connection to adjacent future residential development to the south and east;
- d) active transport modes with shared paths and on-road cycle lanes linking community amenity areas and reserves;
- e) a sensitive response to its interfaces with both existing and future adjacent development;

In summary then, the plan change application provides vital connections to adjoining existing and proposed development areas and both provides for and enables a consolidated urban form, consistent with providing a well-functioning urban environment on a scale wider than simply just the PC75 plan change area.

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<sup>&</sup>lt;sup>1</sup> It is assumed that part (a)(ii) of Policy 1 is not relevant to this specific RFI point.



# **Attachment 2: Land Owner Approvals**



# **Attachment 3: Revised ODP**



#### **OUTLINE DEVELOPMENT PLAN AREA 14**

#### INTRODUCTION

This Outline Development Plan (ODP) is for Development Area 14. Area 14 comprises 24ha and is bound by Lincoln Rolleston Road to the east, and ODP Area 11 to the north.

The ODP embodies a development framework and utilises design concepts that are in accordance with:

- The Land Use Recovery Plan (LURP)
- Policy B4.3.7 and B4.3.77 of the District Plan
- The Rolleston Structure Plan
- The Greater Christchurch Urban Development Strategy (UDS)
- The Ministry for the Environment's Urban Design Protocol
- 2007 Christchurch, Rolleston and Environs Transportation Study (CRETS)
- 2009 Subdivision Design Guide

#### **DENSITY**

The ODP area shall achieve a minimum of 12 household lots per hectare. ODP Area 14 supports a variety of allotment sizes within the Living Z framework to achieve this minimum density requirement. Should this area be developed in stages, confirmation at the time of subdivision of each stage, and an assessment as to how the minimum density of 12hh/ha for the overall ODP can be achieved, will be required.

ODP Area 14 predominantly provides for low density sections, although some medium density housing options have been supported along the Primary Road adjoining a reserve. Minor changes to the boundaries of the medium density area will remain in general accordance with the ODP provided such changes meet the criteria below and the Medium Density lots created have a consent notice registered on the title stating that they are subject to the medium density provisions:

- Ability to access future public transport provisions, such as bus routes;
- Access to community and neighbourhood facilities;
- Proximity to Neighbourhood Parks and/or green spaces;
- North-west orientation, where possible, for outdoor areas and access off southern and southeastern boundaries is preferred;
- Distribution within blocks to achieve a mix of section sizes and housing typologies; and
- To meet the minimum 12hh/ha density requirement and development yield.

Existing dwellings and buildings will have to be taken into account when investigating subdivision layout and design.

### **MOVEMENT NETWORK**

For the purposes of this ODP, it is anticipated that the built standard for a Primary Road will be the equivalent to the District Plan standards for a Collector Road or Local-Major Road standards, and a "Secondary Road" will be the equivalent to the District Plan standards for a Local-Major or Local-Intermediate Road.

The ODP provides for an integrated transport network incorporating:

- A primary road following an east-west alignment to form part of the Collector Road route specified in the 2007 Christchurch, Rolleston and Environs Transportation Study (CRETS);
- An internal secondary network with provision for connections to adjoining land;
- Pedestrian and cycle connections to adjoining land to encourage viable alternative modes of transport to private motor vehicles.

Roading connections have been designed to achieve permeability, whilst minimising the number of new intersections and maintaining appropriate intersection spacing. The proposed roading hierarchy will deliver an accessible and coherent neighbourhood that provides safe and efficient access to the new development.

The completion of the Primary Road/Collector Road, identified as part of the CRETS (2007 Christchurch, Rolleston and Environs Transportation Study) is proposed in the northern portion of the ODP area and further supports the integration of the site with the wider transport network. The Collector Road spans across several neighbourhoods and ODP areas on the southern boundary of the township. It is significant in supporting an east-west network function and it is part of an expanded ring road system for Rolleston.

Although the CRETS Collector Road is envisaged to cater for a large proportion of vehicle movements going through ODP Area 14, it is not a high-speed corridor and is intended foremost to provide direct access to adjoining sites. To this end, it is envisaged that the CRETS Collector Road will interact with the adjacent neighbourhoods, rather than creating severance between them. Its streetscape and speed environment is expected to be similar to that of Lowes Road, which serves an important transport function for the northern portion of Rolleston.

The transport network for ODP Area 14 shall integrate into the pedestrian and cycle network established in adjoining neighbourhoods and the wider township. Secondary Roads will provide footpaths and cycle routes, including designated cycle lanes where appropriate. Adequate space must be provided within the tertiary road network for cyclists and to facilitate safe and convenient pedestrian movements.

The remaining roading layout must be able to respond to the possibility that this area may be developed progressively over time. Road alignments must be arranged in such a way that long term interconnectivity is achieved once the block is fully developed. An integrated network of tertiary roads must facilitate the internal distribution of traffic, and if necessary, provide additional property access. Any tertiary roads are to adopt a narrow carriageway width to encourage slow speeds and to achieve a residential streetscape.

### **GREEN NETWORK**

The ODP reflects and adds to the green network anticipated in the Rolleston Structure Plan. A single central reserve/neighbourhood park is proposed centrally within the ODP area, adjacent the Primary Road. Medium Density Housing is to be located adjacent the reserve to promote a high level of amenity for that housing, and compensate for any reduced private open space available to individual allotments. Where practicable, the use of locally sourced indigenous vegetation for landscaping is encouraged.

### **BLUE NETWORK**

Stormwater - underlying soils are relatively free-draining and infiltration to ground is generally the most appropriate means of stormwater disposal. There are a range of options available for the collection, treatment and disposal of stormwater. Detailed stormwater solutions are to be determined by the developer in collaboration with Council at subdivision stage and in accordance with Environment Canterbury requirements. Systems will be designed to integrate into both the transport and reserve networks where practicable. The use of low impact design techniques is encouraged.

Sewer – A gravity sewer connection will be required which will feed a new pump station situated in the vicinity of the south eastern section of the site. The exact location will be determined as part of the detailed development design. The effluent form this new pump station will then be pumped through to the Southern Rolleston Pump Station so it can be treated.

Water - The water reticulation will be an extension of the existing Rolleston water supply on Lincoln Rolleston Road and Raptor Street.



# **Attachment 4: Revised Transport Report**

# Falcons Residential Urban Growth Submission

# **Integrated Transport Assessment**

PREPARED FOR YOURSECTION LTD | FEBRUARY 2021

We design with community in mind



# **Revision Schedule**

Rev	Data	Donaisti sa	Signature or Typed Name (documentation on file)			ntation on
No.	Date	Description	Prepared by	Checked by	Reviewed by	Approved by
Α	9/12/2020	Final Report	Andrew Metherell	Andrew Leckie	Stacey Lloyd	Selena Tsai
В	9/2/2021	Revised Report to Address Council Comments	Andrew Metherell	Andrew Leckie	Stacey Lloyd	Selena Tsai

# **Quality Statement**

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# YOURSECTION LIMITED FALCONS RESIDENTIAL URBAN GROWTH SUBMISSION INTEGRATED TRANSPORT ASSESSMENT

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# 1.0 INTRODUCTION

YourSection proposes to develop approximately 24 hectares of land in the southeast of Rolleston as a residential zone. A change is sought to the Operative Selwyn District Plan (OSDP) to rezone the land to Living Z. A submission is also being made in respect of the Proposed Selwyn District Plan (PSDP), to rezone the land from General Rural Zone (GRUZ) to General Residential Zone (GRZ).

As shown in Figure 1, the land highlighted in red is located immediately adjacent to land proposed to be zoned GRZ, and which is already being developed for residential purposes. It is bound by Lincoln Rolleston Road to the east and the existing Falcons Landing residential subdivision to the north. The site is east of Acland Park but does not directly adjoin that development. South of Falcons Landing, the immediate surroundings are currently rural in nature and use.

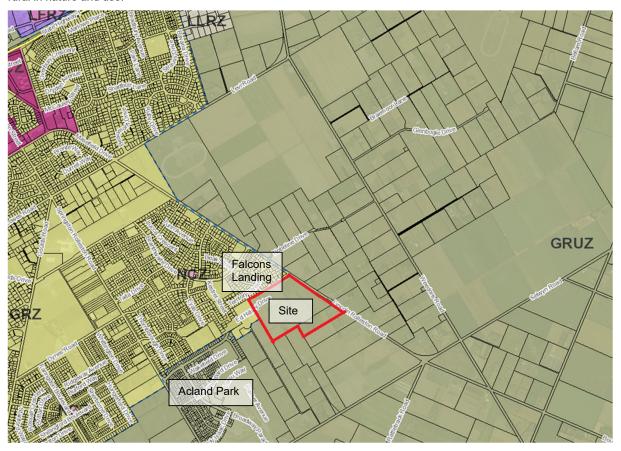


Figure 1: Site Location (Source: Proposed Selwyn District Plan)

The land is located within the "Projected Infrastructure Boundary" in the Canterbury Regional Policy Statement, and is also within the urban area planned in the Rolleston Structure Plan.

The zoning request is supported by an Outline Development Plan (ODP) and this report considers the integration of the proposed development with the surrounding transport network.

The rezoning will facilitate development of approximately 280 residential dwellings, and is supported by residential zoning of all the land required for completion of the eastern end of the CRETS Collector Road between Lincoln Rolleston Road and Springston Rolleston Road through the site. Additional road and pedestrian/cycle connections are also proposed to provide integration with surrounding development.



Included in the report is a description of the existing transportation environment in the area surrounding the proposed subdivision. The report then describes the key transportation aspects of the zoning request, includes a summary of transportation modelling carried out by Stantec in assessing the appropriateness of the network to accommodate additional traffic, and addresses the various provisions included in the zoning request to ensure integration with the transport network.

# 2.0 EXISTING TRANSPORT ENVIRONMENT

# 2.1 SITE LOCATION

Figure 2 shows the general location of the site in the southeast part of Rolleston.



Figure 2: Location of Site subject to Submission

# 2.2 ROAD INFRASTRUCTURE

### 2.2.1 Lincoln Rolleston Road

Lincoln Rolleston Road is classified in the District Plan as an Arterial Road. The road is a single traffic lane in each direction. The posted speed limit for the road varies along its length. From the roundabout intersection with Levi Road to approximately 250m south, along Lincoln Rolleston Road, the road speed is signed 50km/h. From this point to adjacent to the site Lincoln Rolleston Road is signed 60km/h. It then becomes 80km/h.





Figure 3: Lincoln Rolleston Road adjacent to Site, looking North

There are currently three intersections with residential subdivisions along Lincoln Rolleston Road. The formation of these intersections includes short right turn bays, with kerb and channel on the developed side of the road.

Alongside the Falcons Landing subdivision Lincoln Rolleston Road has an on-street parking lane with kerb and channel. There is a 2.5m wide foot/cycleway which runs along the west side of Lincoln Rolleston Road. Where the road becomes a rural formation (adjacent to the site) this path reduces to approximately 1.8m wide.



Figure 4: Channelised right-turn on approach to Falcon Road

### 2.2.2 Selwyn Road

Selwyn Road in the vicinity of the site is classified in the District Plan as a Local road. East of Lincoln Rolleston Road, Selwyn Road forms a continuation of Lincoln Rolleston Road and is an Arterial Road, forming a convenient link to Christchurch. It operates with an 80km/h speed limit. Selwyn Road meets Lincoln Rolleston Road at a priority T-intersection, with the western approach of Selwyn Road giving way. There are currently no formal turn lane facilities.





Figure 5: Lincoln Rolleston Road / Selwyn Road Intersection from North-Eastern Selwyn Road Approach

# 2.3 SUBDIVISION ROADS

### 2.3.1 Ed Hillary Drive

Ed Hillary Drive forms the primary access road into Acland Park, and is the western end of a section of Collector Road that continues up to the site boundary. At its western end, it has 5.5m wide lanes and indented parking bays, separated by a 2m wide median. It then transitions to an 11m wide road east of Clement Avenue. It includes a 2.5m wide path on the southern side of the road, and a 1.5m wide footpath on the northern side.





Figure 6: Ed Hillary Drive

### 2.3.2 Raptor Street

Raptor Street connects to the northern edge of the site, and has a 9m wide road carriageway, representing its local road function.





Figure 7: Raptor Street

# 2.3.3 Flight Close and Saker Place

Saker Place and Flight Close are cul-de-sacs adjacent to the northern site boundary, and they are connected by a reserve. As can be seen, in the photo, the southern side has a fence against the site boundary.



Figure 8: Saker Place

# 2.4 PUBLIC TRANSPORT

Figure 5 shows the existing bus routes servicing the Rolleston area. The primary route servicing Rolleston is the Yellow route, on a frequency of approximately half hourly through to central Christchurch.

The 820 bus route which runs between Burnham and Lincoln via Rolleston, approximately hourly in each direction, runs closest to the site, currently along Springston Rolleston Road. It provides options to interchange



to the Yellow buses into Christchurch City. There is currently a pair of bus stops on Dynes Road just west of Springston Rolleston Road, more than 1km from the site.



Figure 9: Existing bus routes

# 2.5 CYCLE NETWORK

Figure 10 shows the route of the Rolleston to Lincoln cycleway which runs along Lincoln Rolleston Road adjacent to the site.

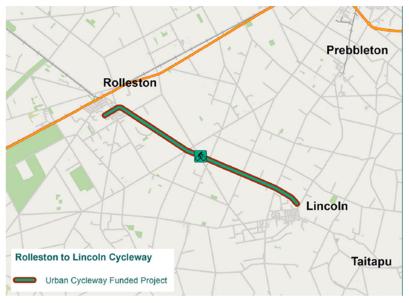


Figure 10: Rolleston to Lincoln Cycleway



### 2.6 PEDESTRIAN NETWORK

Subdivision roads in the area are being developed with footpaths to Council standards. The cycleway along Lincoln Rolleston Road also provides for pedestrians.

# 3.0 EXISTING TRAFFIC PATTERNS

## 3.1 DAILY TRAFFIC VOLUMES

Table 1 shows average daily traffic volumes on Lincoln Rolleston Road and Selwyn Road which were recorded by Selwyn District Council in recent years.

**Table 1: Daily Traffic Volumes** 

Location	Daily Traffic Volume	
Selwyn Road east of Lincoln Rolleston Road	10,000vpd	
Lincoln Rolleston Road north of Selwyn Road	6,000vpd	

### 3.2 HOURLY TRAFFIC PATTERNS

Figure 11 shows the hourly variations in traffic volumes along Lincoln Rolleston Road between Selwyn Road and Nobeline Drive, for a week in September 2019. On weekdays the peak traffic volumes occur between 8am-9am and 5pm-6pm, with inter-peak volumes roughly half that of the morning and evening peaks. On weekends the traffic volumes build up and are reasonably consistent between 10am-5pm, which is equivalent to the weekday inter peak period.



Figure 11: Hourly Variations in Traffic Volumes



### 3.3 INTERSECTION TURNING COUNTS

Intersection turning counts are not available for the nearby area from Selwyn District Council.

As part of previous studies (Dryden Trust Rolleston Special Housing Area Integrated Transport Assessment, August 2016) in the area traffic volumes at the Lincoln Rolleston Road / Selwyn Road intersection were counted. These counts were completed on 31 May 2016, and as such will not directly relate to the current traffic patterns but give an indication of turning patterns.

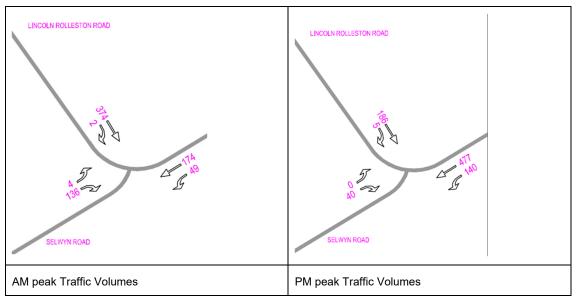


Figure 12: 2016 Intersection Turning Counts

Two-way volumes on Lincoln Rolleston Road north-west of the intersection of 554vph in the AM peak and 668vph in the PM peak were recorded. At these traffic volumes the intersection was able to operate efficiently. By way of comparison, the 2019 traffic count on Lincoln Rolleston Road indicated a traffic volume of approximately 600vph in the AM peak and 700vph in the PM peak.

The Selwyn Road traffic volume east of Lincoln Rolleston Road was approximately 733vph in the AM peak, and 843vph in the PM peak.

The turning volumes indicate a tidal movement towards Christchurch in the morning peak, and from Christchurch in the PM peak. The predominant movement is between Lincoln Rolleston Road and Selwyn Road (east), with a secondary movement between the two Selwyn Road approaches.



# 4.0 ROAD CRASH ANALYSIS

A review of crash records in the area has been carried out using Waka Kotahi NZTA's Crash Analysis System (CAS), covering Lincoln Rolleston Road from Levi Road to Selwyn Road inclusive.

Between June 2015 and June 2020, there have been 17 recorded crashes, of which one resulted in serious injuries and two resulted in minor injuries. Figure 13 shows the locations of the injury crashes, all of which involved two vehicles. The only injury crash between intersections involved a u-turning vehicle, and the intersection crashes involved turning vehicles failing to give way.

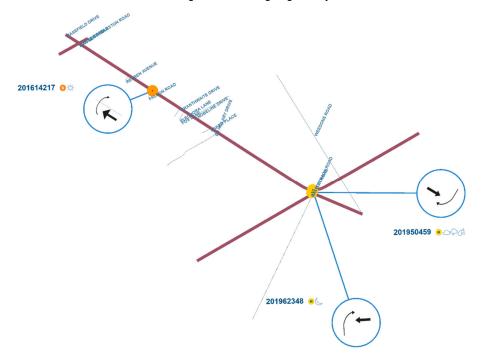


Figure 13: Injury Crash Locations and Movement Type

Figures 14 to 16 show all of the crashes, including non-injury. The prominent locations are around the Lincoln Rolleston Road / Selwyn Road, and slightly outside the core area Weedons Road / Selwyn Road intersections. The crashes were generally at the time that the speed limit was 100km/h, and this has since been reduced. Factors included weather and light conditions, intersection controls, tiredness and alcohol. Mid-block crashes involved a range of crash types including loss of control, hitting an animal, load hitting another vehicle, and hitting the rear end of a turning vehicle.

It is expected that as the road network develops and lower speed limits are put in place, the type of crashes is likely to change (less loss of control as urban infrastructure develops, and more intersection related crashes).





Figure 14: Crash Locations (North end of Lincoln Rolleston Road)

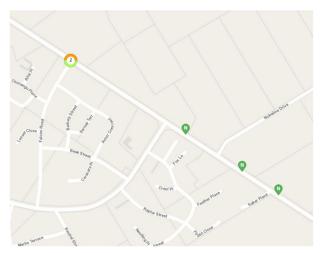


Figure 15: Crash Locations (Mid-section of Lincoln Rolleston Road)

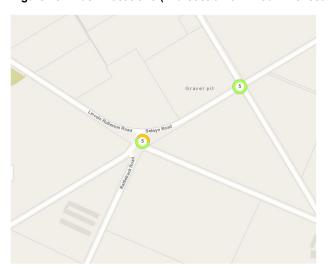


Figure 16: Crash Locations (South end of Lincoln Rolleston Road)



#### **5.0 PLANNING CONTEXT**

## 5.1 CHRISTCHURCH ROLLESTON AND ENVIRONS TRANSPORTATION STUDY (CRETS)

The Christchurch Rolleston and Environs Transportation Study (CRETS) was completed in 2007 and developed a transport strategy for the next 20 years. It has formed the basis of the transport network development in Rolleston since that time. An extract of the transport strategy road hierarchy and staging plan for Rolleston is provided below.

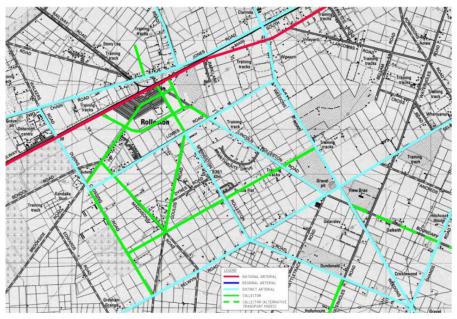


Figure 17: CRETS Transport Strategy Road Hierarchy for Rolleston



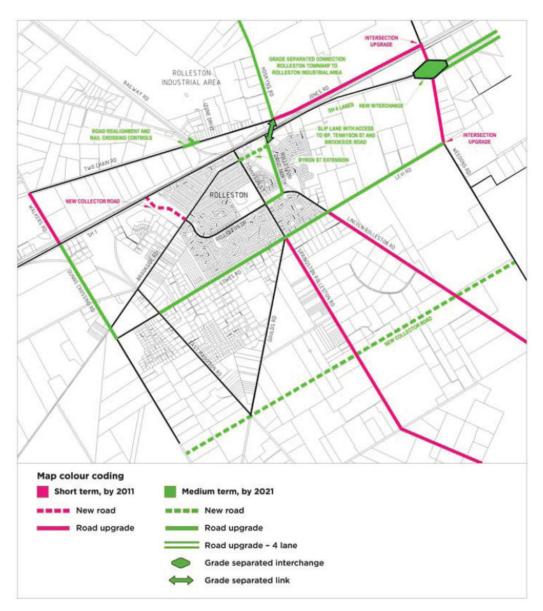


Figure 18: CRETS Staging Proposal for Rolleston

Part of the strategy included a new east-west Collector Road, which bisects the Falcons site subject to the zoning request. The Final CRETS report noted the following in relation to the Collector Road as part of the strategy:

"Construction of a new collector road on the Lincoln side of Rolleston between Dunns Crossing Road and Weedons Road as part of future subdivisional development. (Note this area is not currently zoned for residential development. Should this ever occur in the future then the new road could come about to serve such development on an alignment to provide the connections to the existing road network in general accordance with that shown)."

As described earlier, the road has largely been developed to the west, and Plan Change 64 to the District Plan proposes development that would facilitate further extension at its western end. Essentially, the Falcons site with its current zoning would be a "missing link" in terms of its progression to Lincoln Rolleston Road.



#### 5.2 ROLLESTON STRUCTURE PLAN

The Rolleston Structure Plan has set out a potential plan for the long-term Rolleston area that encapsulates the Falcon land, and generally all land in the Future Infrastructure Boundary defined in the Canterbury Regional Policy Statement (CRPS). It provides some high-level insight into the potential for long term connections for the road network, public transport and cycling.

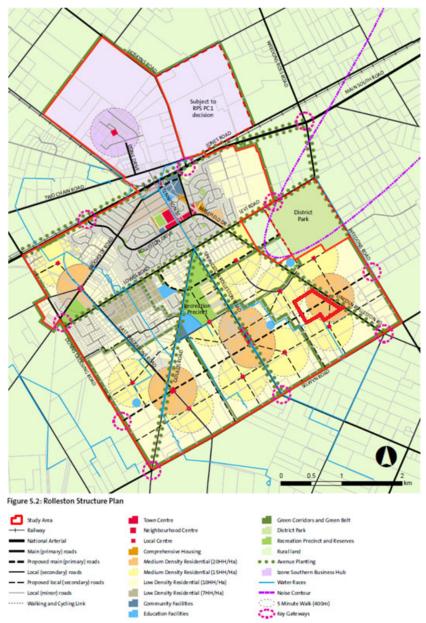


Figure 19: Rolleston Structure Plan (Site in Red)

As a reference for considering the long-term development of Rolleston, in the vicinity of the proposed development, the relevant transport diagrams included in Appendix A of this report indicate:

 That the site will not comprise Main (primary) movement network roads, but includes an east-west and generally north-south secondary road.



- Future bus services are indicated on Springston Rolleston Road, Selwyn Road and the CRETS Collector Road. A potential service could be located within the internal network of the site using an east-west road.
- Additional cycleways had been anticipated along Springston Rolleston Road and Selwyn Road.

It is important to note that the high-level transport planning provided for in the Rolleston Structure Plan requires on-going reconsideration as development of Rolleston progresses, also taking account of localised constraints. For this reason, it is considered a guidance document of a potential outcome upon full development of Rolleston.

#### 5.3 REGIONAL POLICY STATEMENT

The Regional Policy Statement sets out the Projected Infrastructure Boundary and Greenfield Priority Areas for development. These areas were set following the Canterbury Earthquakes, and greenfield development is well advanced in most of the residential priority areas.

As shown in Figure 20, the site is located immediately adjacent to the Greenfield Priority Area-Residential, and well within the Projected Infrastructure Boundary.



Figure 20: CRPS Urban Development Map for Rolleston (Site in red)

#### 5.4 OUR SPACE 2018-2048

The Greater Christchurch Partnership prepared "Our Space 2018-2048: Greater Christchurch Settlement Pattern Update" in July 2019. The site is located in a Future Development Area, immediately adjacent to a Greenfield Priority Area.



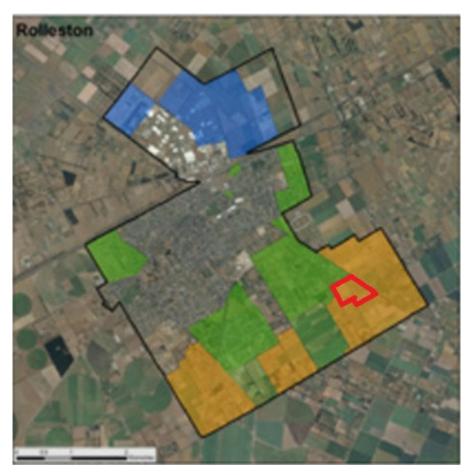


Figure 21: Extract from Our Space (Figure 15) (Site in Red)

#### 5.5 ADJACENT SUBDIVISIONS

Immediately north of the site is the Falcons Landing Subdivision, and to the west (separated by other landholdings) is Acland Park. Both are well into development, and as such the opportunity for connections between the site and those developments can be considered.

Figure 22 broadly shows the site boundary in the context of the adjacent subdivisions and future connections allowed for at Falcons Landing and Acland Park. Road connections are shown in orange, and reserve connections in green.





Figure 22: Subdivisions and Connection

To the north, Raptor Street extends to the site boundary, providing a 9m wide road carriageway which connects through to Branthwaite Drive. Two cul-de-sacs adjoin the northern boundary, which are connected with a reserve link.

To the west, Ed Hillary Drive is a collector road that is planned for implementation up to the eastern boundary of the Falcons Landing subdivision. Ed Hillary Drive generally forms the "CRETS" collector road which connects from Dunns Crossing Road and is intended to extend through to Lincoln Rolleston Road.

A new primary school is planned in the northern corner of Acland Park on Ed Hillary Drive. It is due to open in 2022.

#### 5.6 OPERATIVE DISTRICT PLAN

Figure 23 shows the site location within the current zoning of the Selwyn Operative District Plan. It is zoned as Inner Plains, and the adjacent land is Living Z. The Acland Park residential subdivision to the west was established through the Special Housing Accord, and retains an Inner Plains zoning. Development areas are subject to Outline Development Plans, which have made allowance for the CRETS Collector Road where it is within the site. The existing zoning and subdivision that occurs facilitates construction of the CRETS Collector Road up to the western boundary of the Falcons site. However, completion of the section between Springston Rolleston Road and Lincoln Rolleston Road would require residential rezoning of the Falcons site.



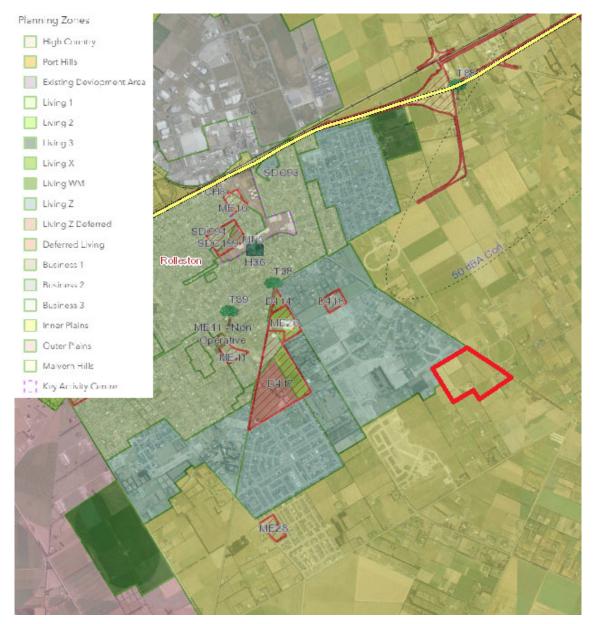


Figure 23: Selwyn Operative District Plan Map

It is noted that several Plan Changes have recently been received by Council, which if approved would extend the residential developments in the southern part of the town further to the south. Plan Changes 64 and 70 are well to the west of the proposed plan change site. Plan Change 71 is located off the eastern side of Lincoln Rolleston Road just north of Nobeline Drive, and Plan Change 78 is a large development area south of and directly adjoining the site.

#### 5.7 PROPOSED DISTRICT PLAN

As shown in Figure 24, the Proposed District Plan sets a proposed township boundary for Rolleston (as indicated by the dashed blue line) immediately north of the land subject to this submission. Unusually, areas that were subject to the Special Housing Area developments have not been included in the township boundary even though development is well progressed. A Neighbourhood Centre Zone (NCZ) is shown in the Falcons Landing



subdivision to the north of the site. If implemented, that would provide small-scale commercial and community activities that support the immediate residential neighbourhood.

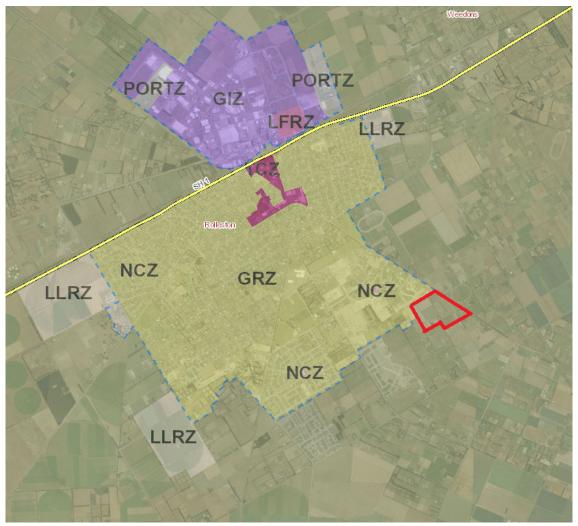


Figure 24: Proposed District Plan Zoning for Rolleston (Site in Red)

Greenfield "Development Areas" that have not yet been developed are subject to Outline Development Plans (ODP) to set the general pattern of development over an area. The Development Area ODP are supported by discussion (where relevant) of Context, Land Use, Access and Transport, Open Space, Recreation and Community Facilities, and Servicing. There are eight Development Areas subject to an ODP in Rolleston, none of which are in the immediate vicinity of the site.

#### 5.8 LONG TERM PLAN

The Selwyn District Council Long Term Plan 2018-2028 includes plans for transport infrastructure improvements in Rolleston. Major projects are focused on access changes on SH1 following the completion of the Christchurch Southern Motorway. In the vicinity of the site there are no notable projects that would influence the site development characteristics. It is noted that as greenfield developments occur, most existing roads are brought up to an urban standard as part of the development, rather than through Council funding. Park n Ride development is provisioned beyond 2028.



#### 6.0 PROPOSED DEVELOPMENT

#### 6.1 OVERVIEW AND ODP

YourSection Limited seek the rezoning of approximately 24.7ha of land to GRZ. It is anticipated that the site will yield approximately 280 residential lots.

An ODP has been prepared for the site to align with the requirements of the CRPS and PSDP. The ODP includes key road and pedestrian/cycle linkages through the site, and at the boundaries. These have been carefully developed taking account of the planning context for the area described earlier. The ODP provides for a connected network of roads that will spread generated traffic efficiently through the site and beyond, and is shown in Figure 25.



Figure 25: Proposed Outline Development Plan



#### 6.2 MOVEMENT NETWORK

#### **6.2.1 Primary Connection**

The ODP provides for a primary road generally east-west through the site, connecting Ed Hillary Drive to Lincoln Rolleston Road. It is expected that this would be of a Collector Road standard, as it forms the continuation of the collector road through Acland Park, and picks up on the alignment generally anticipated by the Rolleston Structure Plan. The zoning of land enables provision of this link through to Lincoln Rolleston Road which supports a major improvement to network connectivity in the area.

The connection at the western end is aligned for connection to the existing section of the road further west. The eastern connection with Lincoln Rolleston Road is at a position that bisects existing residential dwellings on the eastern side of Lincoln Rolleston Road. The Rolleston Structure Plan (and the CRETS network before that) anticipate future connectivity through to Weedons Road. As there will be an arterial (Lincoln Rolleston Road) intersection with a Collector Road, allowance for the land requirement of a future roundabout (which would be subject to assessment at the time of subdivision) has been made at that location. With the rezoning, all of the land required for the east-west collector road link between Springston Rolleston Road and Lincoln Rolleston Road would be residentially developed or zoned. That would in turn enable the road to be completed which would otherwise not be possible. This supports an integrated transport network in the area where collector road traffic can avoid the need to use local roads. That in turn improves efficiency in movement for all transport modes.

The Primary network is shown in the Rolleston Structure Plan as including an orbital bus route servicing Rolleston. It is considered that there is no reason why such a service could not be accommodated given the Collector Road nature of the road. No specific notation is considered necessary, although discussion could be included in supporting text. Again, the rezoning to facilitate completion of the Collector Road allows the potential bus service to be provided, which would otherwise not be practicable if reliance was made on existing local subdivision roads.

Overall, the primary connection provides an important transport link which will be of benefit to the wider transport network and community.

#### **6.2.2 Secondary Connections**

A secondary local road connection is provided between the primary road and Raptor Street, providing linkages to Falcons Landing. This will provide additional connectivity between the southern part of the existing Falcons Landing subdivision and Lincoln Rolleston Road.

A secondary local road connection is shown extending from the eastern part of the Collector Road through to the southern site boundary. As indicated by the Rolleston Structure Plan, this will provide linkage through to an additional east-west collector road further south.

Any additional connection to Lincoln Rolleston Road would be assessed through subdivision, although it is noted there is opportunity for a connection at the southern end. As this will be dependent on wider zoning and network considerations, it is not included in the ODP.

#### 6.2.3 Future Connections

The other road connections and future connections indicated support development of a connected local road network with walkable blocks. The specific pedestrian / cycle connections shown align with the existing opportunities to connect to Acland Park and Falcons Landing. The road connections in the southwest of the site recognise that there is likely to be a need for a north-south link on adjacent property between the collector road and the future-east-west collector road further south (an extension of Lady Isaac Drive). Connections can be reviewed based on adjacent zoning and land development expectations at the time of subdivision.

Overall, it is considered the ODP provides a well-connected network for vehicles, cyclists and pedestrians, that supports improved connection of the wider arterial network with existing subdivisions in the short term, and opportunities for future connectivity with Future Development areas.



#### 6.3 SUBDIVISION ACCESS

The ODP illustrates the location of a connection to Lincoln Rolleston Road. The site access is located approximately 150m from Saker Place (measured centre-line to centre-line). Saker Place is in the vicinity of the existing transition of the Lincoln Rolleston Road speed limit from 60kmh north of the proposed access.

It is noted in the PSDP that where new roads are proposed on a site subject to an ODP the intersection spacing is to be designed for the proposed future speed limit within the ODP and on immediately adjoining roads. As the Lincoln Rolleston Road character will change from rural to an urban context due to the residential development it is anticipated that the future road operating speed for the road will change to 60km/h along the site boundary.



Figure 26: ODP in Context of Existing Development

The minimum distance between intersections as listed in Tran–Table 8 of the PSDP is 151m, based on the Lincoln Rolleston Road future speed limit of 60km/h. The proposed location of the principal site access onto Lincoln Rolleston Road as shown in the ODP can satisfy intersection separation criteria, although it is almost exactly the minimum separation from Saker Place. Given the very low use of Saker Place, it is considered the separation will be suitable for future development.

Existing vehicle access to 178 and 202 Lincoln Rolleston Road is separated by approximately 60m, and the intersection will need to be located between those accesses. In the longer term, as that land is rezoned for residential, it is anticipated that future access to those properties will be achievable via the collector road network. In the interim, the vehicle crossings are likely to be placed in a position where any further development on those properties would require resource consent due to limited separation from the new intersection.



If the vehicle accesses were the driver of the intersection location, then the intersection would most likely need to be opposite or just north of the 202 Lincoln Rolleston Road access to avoid any conflict with a potential right turn bay. This in turn increases conflict with the Saker Place intersection. Given the very low use of the accesses, it is considered the proposed access location can be supported, noting the likelihood of long-term extension of the Collector Road to the east.

#### 6.4 ROAD CROSS-SECTIONS

The internal road formation will be considered in accordance with District Plan road cross-section rules. The east west link will be a continuation of an existing Collector Road, and as such should be considered in that context, as well against the tabulated dimensional requirements to be included for general subdivision requirements in the PSDP.

#### 6.5 LINCOLN ROLLESTON ROAD FRONTAGE

Allowing for a reduced speed limit on Lincoln Rolleston Road of 60km/h past the site as part of future development, subdivision within the Plan Change would require a road frontage upgrade to provide a comparable road cross section and frontage environment as further north on Lincoln Rolleston Road (Figure 4 earlier in this report). This is a standard matter for assessment and consideration through subdivision planning. In this case, specific consideration would need to be made for the Lincoln Rolleston cycleway which already exists along the site frontage (Figure 3 earlier in this report).



#### 7.0 TRANSPORT MODELLING

#### 7.1 OVERVIEW

The Selwyn District Council has developed a micro-simulation model of Rolleston, to plan a transport network that can accommodate the traffic expected from development in the long term.

The Selwyn District Council provided their latest transport model on 27 November 2020. It included 2018, 2028, and 2048 models. The 2048 model was intended to represent full development of Rolleston as intended by the spatial planning documents. Modelled periods are the AM peak, and PM peak periods, being the busiest time in the transport network.

The models have been broadly reviewed prior to use in this assessment. It is noted that full model development and validation reports were not provided, although it is understood the model has been utilised for transport planning in Rolleston for some time. It currently represents the most comprehensive modelling tool available for Rolleston.

It is noted that the future year models include representations of landuse intensification outside the planned township limit included in the District Plan. In that respect, any network performance measures are likely to be worse than will occur. Nevertheless, in a broad manner it will allow for cumulative effects associated with other zoning requests and Plan Changes that could occur.

A number of model modifications have been made in the 2028 model to better reflect the proposed development to be facilitated by the District Plan in the vicinity of the site. These include:

- Removing trips in the area between Acland Park, Selwyn Road, Lincoln Rolleston Road, and Falcons Landing in the 2028 scenario without the development. The existing level of development is a nominal generator of traffic.
- For the with development scenario, the pattern of trips has been factored to represent the forecast traffic generation of the fully developed site.
- Breaking the Collector Road link between Ed Hillary Drive and Lincoln Rolleston Road in 2028 without the development. This link would not be completed if the land is not zoned for urban development.
- The Collector Road link is then reinstated for the with development scenario.
- Allowing traffic turning left from Lincoln Rolleston Road into Selwyn Road to pass the right turning vehicles
  into Selwyn Road. The model coding created unrealistic behaviour and extensive queuing associated with a
  very small number of right turns, which could influence wider traffic patterns.

In the 2048 model, the primary change was to connect the Ed Hillary Drive and Lady Isaac Drive extension roads by a north south road, which passes through the site.

Overall, the changes are minor in the wider context of the model network and performance, but enable the change in traffic patterns as a result of the zoning to be better understood.

#### 7.2 TRAFFIC GENERATION

In the outer suburban area of Rolleston, it is typical to anticipate a traffic generation per household of approximately 8 vehicle movements per day. Previous assessments in the area have applied a peak hour trip generation rate of 0.9 vehicle movements per household for the purpose of network performance assessment. For the 280 households, this would generate approximately 2,240vpd and 252vph.

#### 7.3 TRAFFIC FORECASTS

#### 7.3.1 2028 Traffic Forecasts

Each of the 2028 year models has been run, and statistics have been collected for a peak hour within each peak period. The 2028 PM peak forecasts are shown diagrammatically below, without, and with development.





Figure 27: 2028 PM Peak Traffic Volume Bandwidth Diagrams

The 2028 bandwidth plots show that the zoning request does not have a notable change to overall traffic patterns, with the nearby road corridors all operating at a moderate level of busyness compared to the roads at the northern end of Rolleston. A similar pattern is observed in the AM peak (diagrams not shown).

The more detailed 2028 model forecasts in the vicinity of the site are shown below.



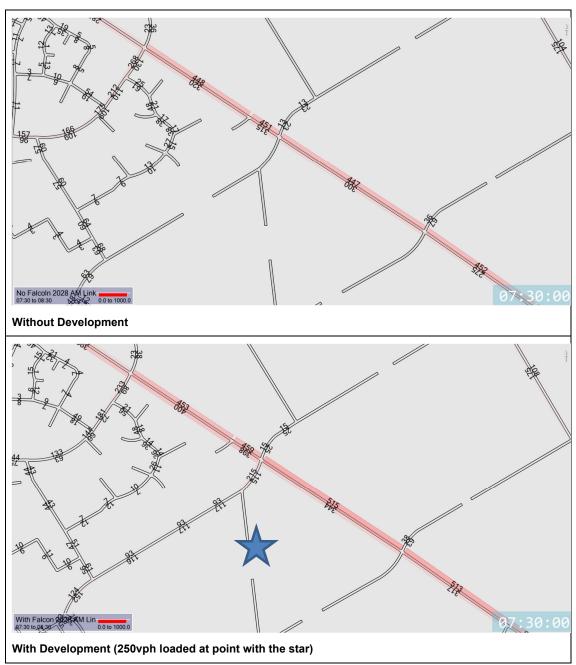


Figure 28: 2028 AM Peak Traffic Volumes (vph)





Figure 29: 2028 PM Peak Traffic Volumes (vph)

At 2028 with the development, the Ed Hillary Drive extension is indicated to carry approximately 200 to 400 vpd, equivalent to a daily traffic volume of approximately 2,400vpd at the western boundary, and up to approximately 3,300vpd at the eastern end. This is comparable to Branthwaite Drive traffic volumes.

Lincoln Rolleston Road near the site is forecast to be carrying up to 932vph south of the site, and with development this would increase slightly to approximately 1,043vph. On a daily basis, traffic volumes would be in the order of 8,600vpd.

Some of the changes are associated with the additional connectivity allowing drivers to take the most efficient route via suitable roads in the hierarchy. Some reductions in traffic through the existing Falcons Landing subdivision can be observed as traffic moves to the more direct Ed Hillary Drive extension. Investigation of the



wider area shows the network also has slightly less traffic on Selwyn Road west of Lincoln Rolleston Road with development, due to the introduction of the through route.

A select link analysis on the section of the Ed Hillary Drive extension immediately west of Lincoln Rolleston Road indicates that in 2028 approximately 143vph in the AM peak and 219vph in the PM peak (approximately 1,600vpd) use the new road link, and are not generated by the development. In that respect, those movements will result in reduced movement on other less efficient routes. This indicates that there will be network efficiency improvements with the new Collector Road link that will result from the development, and use of lesser roads would be minimised.

#### 7.3.2 2048 Traffic Volumes

To understand the future traffic demands on this part of the transport network if Rolleston grows out to its urban boundary as intended by the spatial planning provisions, the 2048 models have been run to generate traffic forecasts. The PM peak wide area bandwidth volume plot indicates that the northern section of Lincoln Rolleston Road takes on a higher level of importance, and traffic is distributed across the supporting network in the southeast part of Rolleston.



Figure 30: 2048 PM Peak Traffic Forecast Bandwidth

The more detailed traffic forecast plots indicate that the north south link has the potential to carry higher traffic volumes as traffic from the developments further west find their way through the network. The volumes will depend on the positioning and wayfinding generated by the supporting road network. For example, a higher volume of traffic could use the east-west collector roads instead of making the strong movement between the east west collector roads.

It is also noted that the actual volume will also be spread over several road links at this point, whereas a coarse representation of the traffic network has been applied for this future sensitivity test. Nevertheless, it suggests that at least one north south road should be provided at a higher standard than a local road. It also indicates that there will be sufficiently high traffic movement across Lincoln Rolleston Road, largely associated with wide area



traffic movements, that a future roundabout layout would need to be allowed for in the subdivision boundaries ( i.e. through larger corner splays than would be required for the standard tee-intersection). A roundabout would service a much wider network purpose, and would only be warranted if long term development of Rolleston proceeds as broadly indicated by the long term spatial plans.

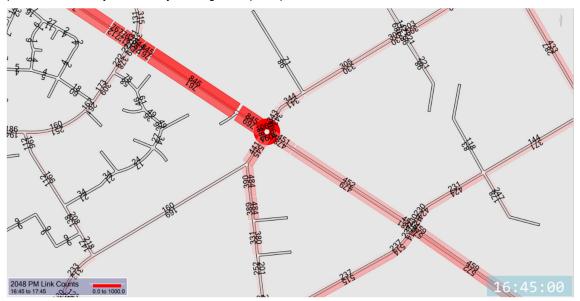


Figure 31: 2048 PM peak Traffic Forecasts in vicinity of site

#### 7.4 INTERSECTION PERFORMANCE

The intersection performance has been assessed from the simulation model outputs. The movement by movement outputs are provided below. These indicate that the network will operate with good levels of service in 2028, and the development will ease delays at Branthwaite Drive by redistributing traffic.

The model includes a roundabout at the Weedons Road / Selwyn Road intersection (planned for approximately 2028) and this is shown to generate some delay on the eastern approach in the PM peak both without, and with development. The traffic volumes are very similar and generate different levels of delay indicating some variability in results. It is expected the form of intersection will be suitably designed to accommodate the desired level of performance. It is considered the change in traffic as a result of the site development would not notably change that design level.

The Lincoln Rolleston Road / Selwyn Road intersection is shown to operate efficiently in the 2028 assessment, and the long term 2048 model supplied by Council provided for a revised intersection form. The existing road safety assessment shows that the intersection had two minor injury turning crashes, and three non-injury crashes. The traffic model forecasts show a large increase in the traffic movement between the two Selwyn Road approaches as a result of general growth to the southwest of Rolleston. The with Plan Change scenario shows a reduction in the turning movements because of the additional connectivity provided. There will be an increase in through movement on the arterial Lincoln Rolleston Road, although the net change in volume through the intersection is only 34vph in the AM peak hour, and 10vph in the PM peak hour. As the safety of the intersection is expected to be mostly related to the high right turn from Selwyn Road west, and that will be reduced substantially, it is considered that the Plan Change may have a small positive safety benefit for the intersection. In the long term, the intersection is included with an upgrade to manage the conflicts between through and turning traffic. It is considered the proposed Plan Change would have a negligible effect on the timing or form of upgrade.

In 2048, the Ed Hillary Drive extension / Lincoln Rolleston Road intersection has the potential to operate with slightly higher delays. A single lane roundabout has been modelled, and as noted the volumes could be more



balanced between Ed Hillary Drive and the other east-west roads depending on overall lower order road network form.

			No Falcons 2028			With Falcons 2028			Full Development 2048		
Intersection	Approach	Mvmt	Volume	Delay	LOS	Volume	Delay	LOS	Volume	Delay	LOS
	прргосси	L	3	25	С	5	25	С	8	2	Α
	East*	Т	11	20	C	10	17	С	62	7	Α
		R	23	25	C	24	27	D	61	4	Α
		L	97	11	В	58	11	В	80	2	Α
	South	T	214	21	С	332	21	С	839	2	Α
Branthwaite Dr / Lincoln Rolleston		R	3	11	В	4	12	В	27	5	Α
Rd		L	20	25	С	17	29	D	53	3	A
	West	T	7	18	C	5	22	С	50	8	A
		R	182	30	D	158	34	D	170	6	A
		L	13	7	A	14	6	A	25	1	A
	North	T	227	18	C	259	18	C	448	2	A
		R	20	12	В	21	10	A	17	8	A
		L	10	2	A	8	2	A	93	12	В
	North	T	435	12	В	410	13	В	454	15	В
	1101111	R	0	-		33	3	A	123	15	В
		L	6	19	В	3	20	В	20	25	С
	East*	T	0	-	U	6	7	A	139	23	C
Ed Hillary Dr (Ext) / Lincoln	Lust	R	17	2	Α	16	7	A	155	25	C
Rolleston Rd	South	L	0	-		75	0		62	25	C
Noneston Na		T	297	0		266	0		519	32	C
		R	2	0		200	0		13	27	C
	West	L	0	-		115	0		10	33	C
		T	0			4	0		48	37	D
	vvest			-							D
		R	0			97	0	Δ.	11	41	
	North	L	22	0	Δ.	25	1	A	39	1	A
		T	425	8	Α	490	8	Α	441	2	A
		R	0			0			17	2	A
	East*	L	28	8	Α	24	11	В	16	3	A
Ladiciana Da (acet) (Lianala		T	0	-	-	0	-	-	132	5	A
Lady Isaac Dr (ext) / Lincoln		R	38	17	В	40	20	В	167	4	Α
Rolleston Rd	6. 11	L	0	-		0	-		70	2	Α
	South	T	261	17	В	305	19	В	376	2	A
		R	14	4	Α	12	5	Α	8	4	Α
	West*	L	0	-		0	-		50	3	Α
		T	0	-		0	-		130	6	Α
		R	0	-		0	-		130	4	A
	North East	T	438	4	Α	505	5	Α	584	1	А
		R	14	5	Α	8	4	Α	2	26	D
Selwyn Rd / Lincoln Rolleston Rd		L	240	4	Α	214	4	Α	335	2	Α
		T	268	3	Α	310	3	Α	449	1	Α
	South	L	6	1	Α	6	0		3	33	D
	Journ	R	382	3	Α	340	3	Α	386	31	D
Selwyn Rd / Weedons Rd		L	8	13	В	9	14	В	57	35	С
	North	Т	54	11	В	54	12	В	69	36	D
		R	56	9	Α	58	11	В	0	6	Α
		L	0	-		0	-		0	-	
	East	T	280	3	Α	284	3	Α	507	6	Α
		R	10	2	Α	8	3	Α	48	6	Α
		L	171	3	Α	181	3	Α	276	9	Α
	South	T	77	3	Α	75	3	Α	76	9	Α
		R	0	-		0	-		0	-	
		L	72	8	Α	78	8	Α	11	12	В
	West	Т	630	8	Α	647	8	Α	783	13	В
		R	121	8	Α	123	8	Α	183	12	В

**Table 2: AM Peak Intersection Performance** 



Ed Hillary Dr (Ext.) / Lincoln Rolleston Rd  Ed Hillary Dr (Ext.)				No Falcons 2028			With Falcons 2028			Full Development 2048		
Ed Hillary Dr (Ext.) / Lincoln Rolleston Rd  Ed Hillary Dr (Ext.)	Intersection	Approach	Mvmt	Volume	Delay	LOS	Volume	Delay	LOS	Volume	Delay	LOS
R 23 31 0 188 9 A 56 5 5 10 140 120 120 120 120 130 A 140 2 2 140 140 140 140 140 140 140 140 140 140									Α			Α
Continuation   Cont		East*	Т	9	37	Е	8	22	С	220	13	В
South T 309 23 C 349 5 A 620 2 R 7 15 B 8 4 A 15 7 R 7 15 C 349 5 A 600 2 R 7 15 B 8 8 4 A 15 7 R 7 10 20 C 8 11 3 A 17 2 R 117 31 D 77 9 A 103 6 R 14 B 30 7 A 46 2 R 117 31 D 77 9 A 103 6 R 14 27 D 49 21 C 31 6 R 14 27 D 49 21 C 31 6 R 14 20 2 A 22 19 B 8 12 C 240 27 R 10 0 - 84 32 C 240 27 R 10 0 - 84 32 C 240 27 R 10 0 - 14 10 A 2 2 3 A 15 5 33 R 14 B 8 30 7 A A 46 2 R 14 10 A 2 2 3 A 15 5 33 R 14 B 8 30 7 A A 46 2 R 14 10 A 2 2 3 A 15 5 33 R 14 B 8 30 7 A A 46 2 R 14 27 D 49 21 C 31 6 6 R 14 10 A 2 2 3 A 15 5 33 R 14 B 20 6 A 14 16 B 10 2 47 R 10 - 84 4 27 D 49 21 C 31 6 B 20 6 A 14 16 B 10 2 47 R 10 - 8 84 32 C 240 27 R 10 - 8 84 32 C 24 44 R 18 8 50 C 240 27 R 10 - 8 8 8 8 A 32 C 2 A 78 8 50 R 10 - 9 90 7 3 A 8 8 50 R 10 - 9 90 7 3 A 8 8 50 R 10 - 9 90 7 3 A 8 8 50 R 10 - 9 90 7 3 A 8 8 50 R 10 - 9 90 A 26 14 R 10 - 9 90			R	23	31	D	18	9	Α	56	5	Α
Rd			L	297	12	В	207	3	Α	140	2	Α
Rd  West T 10 20 C 8 12 B 60 9 C 8 103 B 60 9 R 117 31 D 77 9 A 103 6 L 33 14 B 30 7 A 4 66 2 R 14 27 D 49 21 C 31 6 C 8 12 B 100 3 R 44 27 D 49 21 C 31 6 R 10 -		South	Т	309	23	С	349	5	Α	620	2	Α
West	Branthwaite Dr / Lincoln Rolleston		R		15	В	8	4	Α		7	Α
West	Rd		L	16	25	С	11	3	Α	17	2	Α
R		West										Α
North   T   218   26   D   291   12   B   700   3   3   4   6   C   2   5   6   D   291   12   B   700   3   6   6   5   6   5   6   5   6   6   6												Α
North   T   218   26   D   291   12   B   700   3												Α
R		North										Α
North   T   320   12   B   264   23   C   432   27												Α
North												C
Ed Hillary Dr (Ext) / Lincoln Rolleston Rd  East* T 0 0 - 4 2 3 A 15 33  R 20 6 A 14 16 B 102 47  R 20 6 A 14 16 B 102 47  South T 6000 0 507 4 A 472 59  R 7 0 0 - 7 3 A 8 50  R 7 0 0 - 7 3 A 8 50  R 8 0 - 92 9 A 26 14  R 8 0 - 92 9 A 26 14  R 8 0 - 92 9 A 26 14  R 8 0 - 92 9 A 26 14  R 8 0 - 92 9 A 26 14  R 7 0 0 - 6 4 3 10  R 8 10 0 - 6 4 4 18  R 8 0 0 - 7 18  Lady Isaac Dr (ext) / Lincoln Rolleston Rd  East* T 0 0 - 0 0 - 64 4 1  East* T 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 166 2  South T 575 18 B 6 647 6 A 397 2  R 0 0 - 0 0 - 116 7  R 0 0 - 0 0 - 113 5  R 0 0 - 0 0 - 0 0 - 0 0  R 0 0 - 0 0 0 0 0 0 0 0 0 0  R 0 0 0 0 0 0 0 0		North										C
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Ed Hillary Dr (Ext) / Lincoln Rolleston Rd  Rolleston Rd    County   County						Λ						C
Ed Hillary Dr (Ext) / Lincoln Rolleston Rd  R 20 6 A 14 16 B 102 47  L 0 - 173 3 A 45 56  South T 600 0 507 4 A 472 59  R 7 0 7 3 A 8 50  L 0 - 533 8 A 4 18  West T 0 - 533 8 A 4 18  North T 288 8 A 323 4 A 343 2  R 0 - 92 9 A 26 14  R 7 0 - 64 4  R 0 - 0 - 64 4  R 0 - 0 - 64 4  R 0 - 0 - 64 4  R 17 0 - 64 4  R 17 0 - 64 4  R 18 8 A 13 4 A 9 55  East* T 0 - 0 - 310 7  South T 575 18 B 647 6 A 397 2  West* T 0 - 0 - 166 2  South T 575 18 B 647 6 A 397 2  West* T 0 - 0 - 145 7  R 0 - 0 - 125 8  Selwyn Rd / Lincoln Rolleston Rd  Selwyn Rd / Weedons Rd  L 11		Fact*				A						D
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South R 7 600 0 507 4 A 8 50   R 7 0 0 7 3 A A 8 50   L 0 0 - 53 8 A 4 18   R 0 - 53 8 A 4 18   R 0 - 92 9 A 26 14   L 37 1 A 36 2 A 78 2   R 0 - 92 9 A 26 14   R 0 0 - 64 4 A 333 2   R 0 0 - 64 4 A 343 2   R 0 0 - 64 4 A 343 2   R 0 0 - 64 4 A 323 A A A 343 2   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 64 4 A   R 0 0 - 7 0 0 - 7 110 5   R 0 0 - 7 111 5   R 0 0 - 7 111 5   R 0 0 - 7 111 5   R 1 1 296   R 1 2 2 3 3 4 4   R 1 3 3 4   R 1 3		South				A						E
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R 40 5 A 39 4 A 13 3  West* T 0 - 0 - 145 7  R 0 - 0 - 113 5  North R 6 80 F 2 73 F 1 296  East T 603 4 A 6677 2 A 571 1  South R 235 4 A 203 4 A 257 37  R 235 4 A 203 4 A 257 37  North T 79 5 A 83 6 A 93 11  R 80 5 A 111 7 A 1 12  East T 856 65 E 855 117 F 775 145  R 22 61 E 20 116 F 101 144  South R 225 4 153 41 D 158 50 D 254 153  South R 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	Rolleston Rd											Α
North   T   79   5   A   83   6   A   93   11		South										Α
West*		West*				Α		4	Α			Α
North   T   299   4   A   334   2   A   464   1   296					-		0	-		18		Α
Selwyn Rd / Lincoln Rolleston Rd    R				0	-			-		145		Α
Selwyn Rd / Lincoln Rolleston Rd  East  L 486 5 A 424 0 454 2  T 603 4 A 677 2 A 571 1  South R 235 4 A 203 4 A 257 37  North T 79 5 A 83 6 A 93 11  R 80 5 A 111 7 A 1 12  East L 0 - 0 - 2 133  Selwyn Rd / Weedons Rd  East L 153 41 D 158 50 D 254 153  South T 51 39 D 50 46 D 99 153  R 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0												Α
Selwyn Rd / Lincoln Rolleston Rd  East  L	Selwyn Rd / Lincoln Rolleston Rd	North										Α
Selwyn Rd / Lincoln Rolleston Rd    L   10   2   A   10   3   A   4   25		1401111	R	6	80	F	2	73	F	1	296	F
Selwyn Rd / Weedons Rd    Total Routh   Country   Countr		Fast	L	486	5	Α	424	0		454	2	Α
South R 235 4 A 203 4 A 257 37    North T 79 5 A 83 6 A 93 11			Т	603		Α	677		Α			Α
R   235   4   A   203   4   A   257   37		South	L	10	2	Α	10	3	Α	4	25	С
North         T         79         5         A         83         6         A         93         11           R         80         5         A         111         7         A         1         12           L         0         -         0         -         2         133           East         T         856         65         E         855         117         F         775         145           R         22         61         E         20         116         F         101         144           South         T         51         39         D         50         46         D         99         153           R         0         -         0         -         0         -         0         -           L         61         5         A         61         2         A         16         5           West         T         325         6         A         326         3         A         490         7		Journ	R	235	4	Α	203	4	Α	257	37	Е
Selwyn Rd / Weedons Rd       R       80       5       A       111       7       A       1       12         L       0       -       0       -       2       133         East       T       856       65       E       855       117       F       775       145         R       22       61       E       20       116       F       101       144         South       T       51       39       D       50       46       D       99       153         R       0       -       0       -       0       -       0       -         L       61       5       A       61       2       A       16       5         West       T       325       6       A       326       3       A       490       7	Selwyn Rd / Weedons Rd		L	11	5	Α	12	4	Α	48	10	Α
Selwyn Rd / Weedons Rd  East  T  856  65  E  855  117  F  775  145  R  22  61  E  20  116  F  101  144  L  153  41  D  158  50  D  254  153  South  T  51  39  D  50  46  D  99  153  R  0  -  0  -  0  -  0  -  West  T  325  6  A  61  2  A  16  5  West		North	Т	79	5	Α	83	6	Α	93	11	В
Selwyn Rd / Weedons Rd         East         T         856         65         E         855         117         F         775         145           Selwyn Rd / Weedons Rd         R         22         61         E         20         116         F         101         144           South         T         51         39         D         158         50         D         254         153           R         0         -         0         -         0         -         0         -           L         61         5         A         61         2         A         16         5           West         T         325         6         A         326         3         A         490         7			R	80	5	Α	111	7	Α	1	12	В
Selwyn Rd / Weedons Rd       R     22     61     E     20     116     F     101     144       L     153     41     D     158     50     D     254     153       South     T     51     39     D     50     46     D     99     153       R     0     -     0     -     0     -     0     -       L     61     5     A     61     2     A     16     5       West     T     325     6     A     326     3     A     490     7			L	0	-		0	-		2	133	F
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South         T         51         39         D         50         46         D         99         153           R         0         -         0         -         0         -         0         -           L         61         5         A         61         2         A         16         5           West         T         325         6         A         326         3         A         490         7		South										F
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West T 325 6 A 326 3 A 490 7		West				Α			Α			Α
												A
R 150 6 A 151 3 A 215 7												A

**Table 3: PM Peak Intersection Performance** 

In summary, it is considered that the proposed development will be accommodated efficiently on the road network. Some changes in traffic distribution onto the network occur as a result of completion of the east-west collector road, and this is considered a positive outcome for the transport network as it will minimise use of less efficient routes.



The east-west Collector Road will operate with modest traffic volumes, but if Rolleston grows to its fullest extent indicated by spatial plans it could potentially carry up to 1,000vph at its eastern extent if a significant north south link is added through the site. If additional land is zoned in Rolleston, refined assessment may be necessary in the area as the volume will be sensitive to network configuration and the modelled volumes will be a worst case.

#### 8.0 PLANNING REQUIREMENTS

#### 8.1 OPERATIVE DISTRICT PLAN PROVISIONS

#### 8.1.1 Transport Network Objectives and Policies

Section B2.1 of the District Plan contains objectives and policies related to transport network issues. Relevant policies are listed below in italics and each policy is followed by discussion on the degree to which the proposed Plan Change achieves the policies.

Policy B2.1.2- Manage effects of activities on the safe and efficient operation of the District's existing and planned road network, considering the classification and function of each road in the hierarchy.

Policy B2.1.3- Recognise and protect the primary function of roads classified as State Highways and Arterial Roads to ensure the safe and efficient flow of 'through' traffic en route to its destination.

Policy B2.1.12- Address the impact of new residential or business activities on both the local roads around the site and the District's road network, particularly Arterial Road links with Christchurch City.

These three policies are closely related.

As discussed previously, additional traffic that could be generated by the proposed site would be accommodated on the wider road network, and is being planned for through the longer term transport planning forecasting and infrastructure plans of the Council. The ODP makes provision for a higher standard primary road east-west through the site that will contribute to completion of a further section of the CRETS road, a key strategy relied on for development of the Rolleston Transport network. This will improve outcomes for local roads in the network that would otherwise be required to accommodate the through traffic from subdivisions west of the site wanting to connect to Lincoln Rolleston Road. The ODP also makes provision for potential future extension of that road further east, which will include provision of a fully controlled intersection (indicated as a roundabout) to assist safe and efficient movement of traffic and to manage effects on the arterial Lincoln Rolleston Road. Subdivision development will be subject to consideration of the road hierarchy in application of the transport rules, which will provide the usual additional protections of the arterial function of Lincoln Rolleston Road.

Policy B2.1.10- Ensure vehicle crossings, intersections, pathways, roadside signs and noticeboards are designed and positioned to ensure good visibility for all road users, and to allow safe passage, access and egress

Lincoln Rolleston Road in the location of the proposed intersection for the Falcons area is straight, and as such there are no expected impediments to sightlines. The intersection will be located between two residential accesses located on the opposite side of Lincoln Rolleston Road. In the short term, it is considered those accesses will continue to operate safely and efficiently. In the longer term, if or when the land east of Lincoln Rolleston Road develops, it would be expected the full extent of Lincoln Rolleston Road would be urbanised, and there would be opportunities to access a Collector Road extension.

Other details of subdivision design will also be considered at a later stage. It is considered safe pedestrian and road networks will be able to be provided in the proposed residential area.

Policy B2.1.11- Ensure roads are designed, constructed, maintained and



upgraded to an appropriate standard to carry the volume and types of traffic safely and efficiently

Traffic modelling indicates that the completion of the Collector Road link will remove the reliance of other parts of the road network. This will support this policy, as the existing local road network will support local traffic, rather than through traffic.

Policy B2.1.5- Ensure the development of new roads is:
-integrated with existing and future transport networks and landuses; and
-is designed and located to maximise permeability and accessibility; through
achieving a high level of connectivity within and through new developments to
encourage use of public and active transport; whilst having regard to the road
hierarchy.

Policy B2.1.13- Minimise the effects of increasing transport demand associated with areas identified for urban growth by promoting efficient and consolidated land use patterns that will reduce the demand for transport

Policy B2.1.14- Encourage people to walk or cycle within and between townships by providing a choice of routes for active transport modes and ensuring there is supporting infrastructure such as parking for cycles, at destinations.

Policy B2.1.15- Require pedestrian and cycle links in new and redeveloped residential or business areas, where such links are likely to provide a safe, attractive and accessible alternative route for pedestrians and cyclists, to surrounding residential areas, business or community facilities.

These four policies are primarily related to pedestrian and cyclist connectivity, and minimising the need for additional roading infrastructure.

The site land proposed to be developed for residential use has been identified for future development in all of the strategies for Rolleston, and as such the transport networks have been planned on that basis. The site is located adjacent the Lincoln Rolleston Road cycle route. Connections to existing pedestrian networks are ensured through the provision of the ODP connections. A school will be located in Acland Park within walking distance.

The completion of the Collector Road through to Lincoln Rolleston Road allows opportunity to establish the potential orbiter bus service indicated in the Rolleston Structure Plan. It also improves efficiency of cycle connections.

#### 8.1.2 Growth of Townships Objectives and Policies

Section B4 of the District Plan contains objectives and policies related to the growth of townships. Of particular relevance to this application is the following objective:

Objective B4.3.4

New areas for residential or business development support the timely, efficient and integrated provision of infrastructure, including appropriate transport and movement networks through a coordinated and phased development approach.

It is clear from the transport modelling that the proposed development will support an efficient extension of the transport network, which includes zoning of remaining land that contributes to completion of the CRETS Collector Road link through to Lincoln Rolleston Road. That in turn will support more efficient travel in the area, and provide opportunities for improved public transport (if an orbital route as intended by the Rolleston Structure Plan



is provided), cycling and walking connections. The modelling indicates that the planned infrastructure upgrades will remain appropriate for accommodating the land development.

#### 8.2 PROPOSED DISTRICT PLAN PROVISIONS

The Proposed District Plan (as notified) includes a range of matters relevant to consideration of the rezoning of the land.

The key matter at this planning stage is to ensure that there is consistency between the zoning proposal, including the ODP, and the PSDP Objectives and Policies, and higher-level planning documents. The rules are matters to be considered through future subdivision and land development, and will likely be subject to some change through the PSDP process.

An analysis of the PSDP objectives and policies has been carried out.

The District Wide - Strategic Directions included:

SD-UFD-O1 Urban growth is located only in or around existing townships and in a compact and sustainable form....

SD-UFD-O3 Urban growth and development:

- is well-integrated with the efficient provision, including the timing and funding, of infrastructure; and
- 2. has the ability to manage or respond to the effects of climate change.

The site is located within an area where development has been anticipated, being adjacent to current subdivision and near to facilities such as a new primary school, the high school and recreational facilities.

The development will allow completion of important road network linkages which minimise overall network travel in the area. The change in traffic volumes and performance is of a sufficiently low scale that it would be unlikely to alter the timing of wider area transport network improvements that are either included in the Long Term Plan, or anticipated through long term transport modelling investigations.

As the site is located adjacent to an arterial road, and an indicative orbital bus route, there is good opportunity for the site to ultimately be serviced by public transport. In the meantime, opportunities for Park n Ride exist within Rolleston for travel to Christchurch.

The Transportation section includes objectives as follows:

#### TRAN-01

People and places are connected through safe, efficient, and convenient land transport corridors and land transport infrastructure which is well integrated with land use activities and subdivision development.

#### TRAN-02

Land transport corridors and land transport infrastructure are protected from incompatible land use activities and subdivision development.

#### TRAN-03

Land transport corridors and land transport infrastructure support the needs of people and freight, while ensuring adverse effects on the surrounding environment from their establishment and operation are managed.

As discussed earlier, the site development is able to integrate with existing development where future connections to the site have already been anticipated at the time of subdivision. The additional links improve



connectivity and integration of the local transport network. The use of an ODP, combined with Transport rules will protect the arterial Lincoln Rolleston Road from inappropriate access. The higher order roads in the ODP can support cycle and pedestrian access, as well as a potential orbiter bus route as indicated by the Rolleston Structure Plan.

The PSDP includes a road hierarchy, and the existing Ed Hillary Drive does not have a classified road status. It is considered that the east-west Collector Road could be formalised through the District Plan given subdivision is well advanced, and residential development can occur over a short period of time when the relevant rules apply.

#### 8.3 CANTERBURY REGIONAL POLICY STATEMENT

The Canterbury Regional Policy Statement objectives and policies in Chapter 5 Land-Use and Infrastructure and Chapter 6 Recovery and Rebuilding of Greater Christchurch have been reviewed.

The relevant Chapter 5 policies relate to urban growth being attached to existing urban areas, the safety and efficiency of the strategic and arterial road network being maintained, and connectivity for pedestrians and cyclists being provided. Chapter 6 focusses on new residential development occurring in the planned locations, transport effectiveness and integration of land use and infrastructure. The site is located within the projected infrastructure boundary for Rolleston as shown on Chapter 6 Map A.

Generally, the policies relating to transport are similar to those in the PSDP which have been discussed previously. The proposed zoning request area is adjacent to the existing Falcons Landing subdivision and there is good connectivity from the area through the existing subdivisions and to the remainder of Rolleston.

Whilst the additional development may generate additional demand for public transport which is currently not well provided for in this part of Rolleston, the additional demand could assist the viability of an orbital route in Rolleston, and increasing frequency of the other services. The physical requirements of a bus route can be considered through road design in accordance with the District Plan.

#### 8.4 NATIONAL POLICY STATEMENT – URBAN DEVELOPMENT

The National Policy Statement Urban Development 2020 sets policy around urban development. New development capacity is considered against whether that development capacity is "infrastructure-ready". Based on the assessment provided, it is considered that there is adequate existing and planned infrastructure to support the wider transport needs of the proposed development. The ODP further requires connections to the existing transport network in locations that support safe and efficient integration of the site. It is also considered that the development is generally well connected along the transport corridors. Public transport services are currently limited, although opportunities exist to access future service improvements either locally, or at nearby park and ride locations.

#### 9.0 CONCLUSION

With the level of development planned and provisions assessed, the submission to rezone the land to Living Z/Residential can be supported from a transportation perspective. The submission proposes an extension of the Rolleston urban area to the southwest of Lincoln Rolleston Road, providing for residential housing. This would result in the area being able to potentially accommodate approximately 280 more residential lots.

The additional residential lots could generate extra traffic volumes of approximately 250 vehicle movements per hour. Across the wider traffic network, including on Lincoln Rolleston Road, traffic modelling demonstrates that the additional traffic volumes would be accommodated without altering the form of already planned and anticipated network improvements.

An ODP is proposed that will enable integration with the Falcons Landing subdivision and existing urban area. Importantly, the extension of Ed Hillary Drive to Lincoln Rolleston Road has been included to support improved connectivity in the area. This road should be considered to be a Collector Road for the purpose of design and assessment against District Plan Rules.



Long term traffic modelling indicates the potential for higher north south traffic volumes through the site, although this is partly due to a coarse representation of the road network. The ODP allows for secondary roads, which based on the planned urban growth boundary will be adequate for the life of the District Plan.

The new intersection on Lincoln Rolleston Road is proposed in a location to enable safe connection to the transport network, and future extension to the east (if land is rezoned in the future). To allow for the long-term expansion of residential areas to the east of Lincoln Rolleston Road, it is considered appropriate to provision for the land requirements of a future single lane roundabout.

There is good access to the existing cycle network on Lincoln Rolleston Road, and via the developing local road network. Pedestrian and cycle connectivity are provisioned for within the ODP where dedicated links to surrounding land need to be considered.

Whilst the site is currently not well serviced by public transport, there is no reason that the site could not form part of an orbital route as anticipated by the Rolleston Structure Plan. The site is also well located if future routes follow the arterial Lincoln Rolleston Road. In the interim, access is available to nearby Park n Ride locations in Rolleston for travel to Christchurch.

With the level of development planned and provisions assessed, the submission to rezone the land to Living Z (OSDP) / Residential General (PSDP) can be supported from a transportation perspective.



# **Appendices**

We design with community in mind

Appendix A Rolleston Structure Plan Diagrams

### Appendix A ROLLESTON STRUCTURE PLAN DIAGRAMS



Appendix A Rolleston Structure Plan Diagrams

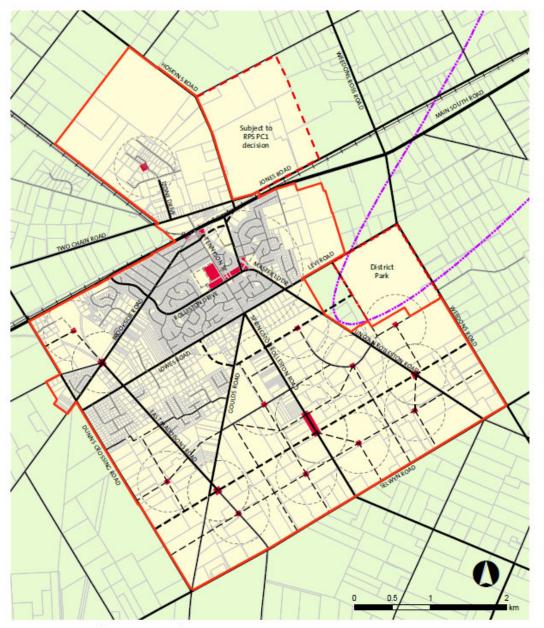
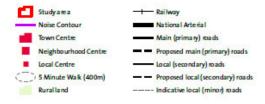


Figure 8.2: Main Roads - Primary Network





A.2

Appendix A Rolleston Structure Plan Diagrams



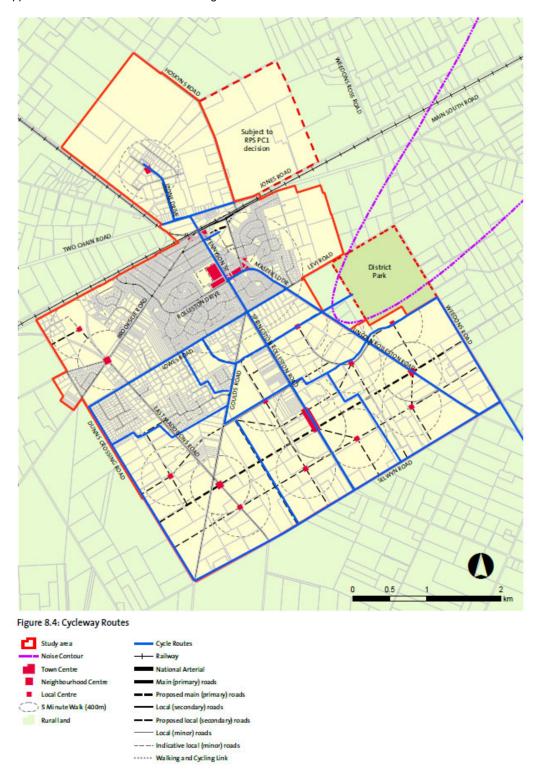
Figure 8.5: Public Transport Route Patterns





A.3

Appendix A Rolleston Structure Plan Diagrams





A.4

Appendix B Outline Development Plan

### **Appendix B OUTLINE DEVELOPMENT PLAN**





# C R E A T I N G C O M M U N I T I E S

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always design with community in mind.

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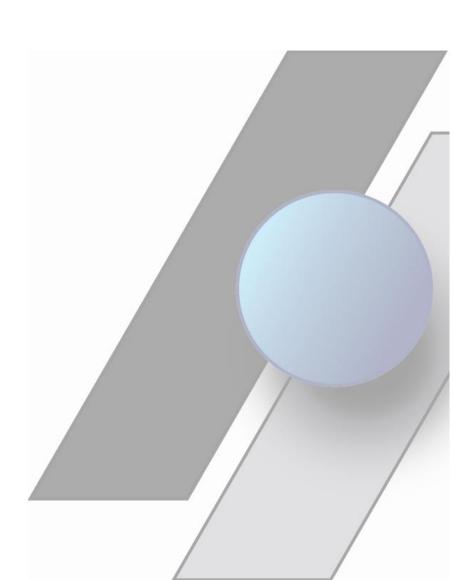
### **Attachment 5: Revised Servicing Report**

# Lot 1 DP 50631 and Lot 1 DP 357634 Plan Change Servicing Report

### 153 Lincoln - Rolleston Road

for

**Yoursection Ltd** 





#### **Contents**

(Principal designer)

Scope	3
Land Description	3
Engineering Design Considerations	5
Summary	
Comment	13
nis report has been: Prepared by:	A
Designer)	John Bannock, 2 December 2020
Approved by:	
nis Pre	Land Description



## 1. Scope

As part of a wider submission for the rezoning a portion of land at 153 Lincoln Rolleston Road which is a portion of the Urban Limit for Rolleston, this report reviews the matters associated with the servicing of the area identified below and referred to as 'report area'.

This report covers the availability of existing infrastructure elements and the probable extension of the infrastructure to allow for residential development for the 'report area'. It is intended to accompany the zone change application.

This report describes the infrastructure elements for the development proposal, namely

- Earthworks
- Roading
- Stormwater
- Overland Flows
- Wastewater
- Water Supply
- Power and Telecommunication

## 2. Land Description

### 2.1. Contextual Location

The 'report area' is within the areas identified as being within the Metropolitan Urban Limit for Rolleston within the Rolleston Structure Plan. The report area comprises of two titles which are identified as Lot 1, DP 50631 and Lot 1, DP 357634.

The report site is adjacent or within the near vacinity of a number of recently completed or under construction residential developments. There are still areas of the identified Metropolitan Urban Limit that remain to be developed.

## 2.2. Location and Description of Site

The site is located at 153 Lincoln Rolleston Road and is south of the Falcons Landing residential development and to the east of the Farringdon and Acland residential developments. The site is a logical extension of the Falcons Landing residential development to the north and will allow the completion of the west – east connections that have been commenced within the Farringdon and Acland developments.

The report site is currently held in two titles, the larger (Lot 1 DP 50631) has an area of 20.675 Ha and the smaller (Lot 1 DP 357634) having an area of 4 Ha. Aside from the two residential houses the land is used for grazing, pasture crops and associated rural sheds and use. There are a number of hedge rows and shelter belt trees along the paddock fencelines.

The land coverage is generally pasture of good quality for grazing. There are portions of a irrigation waterrace that lie on western and southern boundaries of the overall report area. The irrigation race supplies agricultural water to a number of properties within the area north of Selwyn Road, however, only a few properties actually make use of the water for irrigation.





Figure 1: Contextual Location of Site

#### 2.3. **Underlying Ground Conditions**

A geotechnical investigation of the site has been carried out by Miyamoto (dated 25 November 2020) and covered the report area site.

A summary subsurface profile is

0 - 400 mmTopsoil 400mm - 1100mm Sandy SILT

1100mm - depth Gravels (sandy fine – course)

The general underlying ground conditions wihtin the report area land is considered to be similar to that experienced within the Falcons Landing development to the north. Borelog records of wells to the north, south, west and east of the site indicates that the wider area has a similar profile.

Experience within the development of the Falcons Landing development suggests that there are isolated pockets of weak silts. However these are easily mitigated within the normal construction of roads.

The borelogs indicated that the ground water level is approximately 10m – 13m below the ground



## 3. Engineering Design Considerations

Engineering design and construction will be carried out in accordance with the Selwyn District Council's development standards and in terms of any consents issued by the Selwyn District Council or Environment Canterbury.

Details of any design will be provided to the Council for approval prior to any construction works. The details will be particular to the development layout and will generally follow the following format (based on the development of neighbouring sites).

### 3.1. Earthworks

The design of the site will be such that the need to import additional material will be minimised as far as possible (cuts will balance fills). The cuts will be primarily out of roads and high points of the site with the filling being the low areas and for site contouring.

The underlying ground conditions means that suitable fill material is readily available on site.

It is not considered that there are any significant impediments within the site relating to earthworks that would impact on the ability to form a residential subdivision.

## 3.2. Roading

Road formation will be to general intention of the overall development plan for the area. This will entail the creation of a Primary Road that runs south-west to north-east through a number of developments. Liaison between the Council and other landowners will be required to ensure that the formation of the road linkage is of a reasonably consistent format.

Roads will be formed to Selwyn District Council construction requirements to meet the required traffic loading and planning requirements. The layout of internal roads will incorporate the need for secondary flow paths along with connectivity links.

It is not considered that there are any significant impediments within the site that will impact on the ability to meet the overall intentions of the Rolleston Structure Plan.

## 3.3. Stormwater

## 3.3.1. Principal Disposal

Stormwater runoff within the greater Rolleston area is to ground via the free draining gravels. The underlying ground conditions under the report area are similar to developments within the surrounding area, meaning that the stormwater disposal will be similar to the adjacent developments.

Individual residential houses' rooves will discharge to ground within the site. Hardstand areas and roads will be collected within kerb and channel and sumps to soak-pits located within the road reserve.



It is anticipated that a consent for disposal to ground will have to be gained from Environmental Canterbury for the purpose of discharging to ground.

It is not considered that there are any significant impediments within the site that will impact on the ability to meet the Council's intention to dispose to ground.

## 3.3.2. Secondary Flow Paths

Secondary flows paths within the developed residential areas are via developed road corridors. The general 'fall' of the land is from the north-west to the south-east. The development will likely incorporate a number of road and reserve corridors between the Falcons Landing development and the undeveloped land to the south. This will maintain the secondary flow paths from the Falcons Landing development.

## 3.3.3. Flood Levels

The site has areas that have been identified as being affected by the Plains Flood Management Overlay of the proposed District Plan where there are flow paths that have been identified as potentially being impacted by flood waters under a 1:200 ARI event.

The development of the site and, in particular the road corridors, will formalise the flow paths as shown in the Plains Flood Management overlay that cross the site. This will effectively divert flows to within road corridors and around housing areas. The probable north-south road links as indicated in Figure 8.2 of the Rolleston Structure Plan will provide continuity of the overland flows from the Falcons Landing development to the north, through to the undeveloped land to the south. As the land generally falls to the south, the formation of secondary flow paths is not considered to be difficult.

Reserves also provide a means of ensuring that secondary flow paths are continuous across a number of development sites. The location of the roads and reserves will be partially determined by the need to ensure continuity of the flow paths.

As part of the urbanisation of the wider area, the secondary flow paths (and potential locations of flooding) are more defined and constrained. The urbanisation of Lincoln-Rolleston Road will provide an additional flow break with the use of kerb and channel and berms forming a shallow barrier to the north-south flow pattern.

It is not considered that the Plains Flood Management overlay indicates any impediment to the development of the land that is unable to mitigated with a road and reserve layout to ensure the continuity of flow paths, and limit areas of flooding to placed outside of residential development.



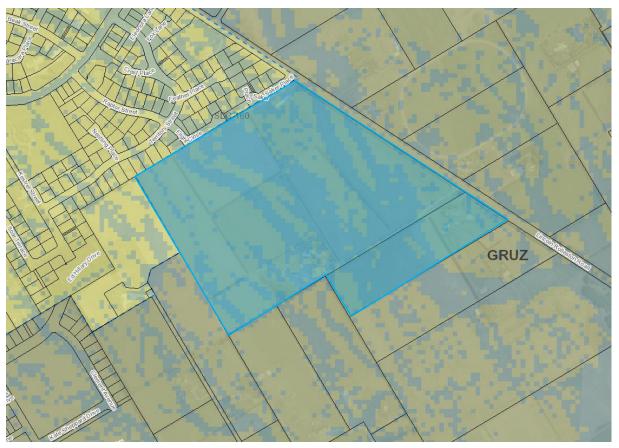


Figure 2: Plains Flood Management overlay with location of site indicated

#### 3.4. Sewer

## 3.4.1. Existing Sewer Reticulation

Effluent for most of the Rolleston township is currently collected through the reticulated sewer pipework and ends up at the Southern Rolleston Pumping Station located at the intersection of Springston Rolleston Road and Selwyn Road. From there, it is pumped to the Pines activated sludge plant on Burnham School Road where it is treated.

Future sewage will need to be reticulated to the same terminus. The recent residential developments within the neighbouring area use a combination of gravity and pump stations to achieve this.

Two pump stations were constructed as part of the Falcons Landing development. No. 1 Pump Station was constructed for the Falcons Landing development and is located north of the proposed development. That pump station was designed to cater for 1294 lots and pump the effluent from those lots to the sewer trunk main on Springston Rolleston Road which discharges to the Southern Rolleston pump station. The sizing of the Falcons Landing No 1 Pump Station was based on the known contributing allotments with an allowance of 10 households / hectare for the undeveloped land.

At least 219 of those 1294 lots that the pump station was designed to service have not yet been developed. This is, in part, due to the lack of intensification of individual titles within the sewer catchment area.

A smaller pump station was constructed to cater for the Branthwaite development that is located next to 56 Branthwaite Drive. This pump station was designed to cater for the equivalent of a further 384 lots at standard usage. The plan was that the Brathwaite pump station would be decommissioned, and sewage would gravity feed to Falcons Landing No. 1 pump station. We understand that the Branthwaite pump station is still in use.

Based on the above, the Falcons Landing No. 1 Pump Station has sufficient capacity for an additional 603 lots (using the original yield of 10 households / hectare.

Using the revised sewer servicing rate of 12 households / hectare we note that Falcons Landing No 1 Pump Station has sufficient capacity for an additional **567 lots**, as calculated below

Branthwaite Development	384	Actual Lot Number
Undeveloped land	183	Revised assessment based on 12 hh/ha
	567	

## 3.4.2. Proposed Sewage Servicing

It is considered that the new development will be serviced by gravity sewer reticulation which will feed a new pump station situated in the vicinity of the south eastern section of the site (the lowest area). The exact location will be determined as a part of the overall development design. The effluent from this new pump station will then be pumped through to either the Southern Rolleston Pumping Station or the South Eastern Rolleston Pumping Station so it can be treated. There are several options that are available to achieve this.

## 3.4.2.1. Southern Rolleston Pumping Station Option

Effluent could be pumped from the new pump station to the Falcons Landing No. 1 pump station located between Flight Close and Saker Close until such time as the land to the south and west are developed. The development potential for the report area is likely to be less than the current spare capacity of the Falcons Landing No 1 pump station.

If it is not possible to utilise spare capacity within Falcons Landing No 1 pump station, then sufficient storage can be provided within the proposed pump station to cater for the report area.

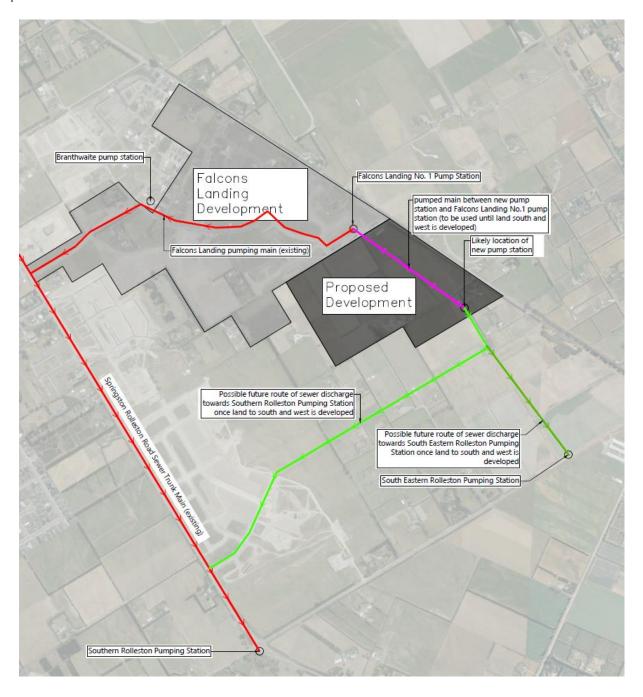
When the land to the south and east are developed, effluent discharge from the site can be rerouted to the Southern Rolleston pump station either solely by gravity or it can be pumped from the new pump station to a more appropriate discharge location where it can be gravity fed to its intended destination.

## 3.4.2.2. South Eastern Rolleston Pumping Station Option

Effluent could be pumped from the new pump station to the Falcons Landing No. 1 pump station located between Flight Close and Saker Close until such time as the land to the south and east are developed. The development potential for the report area is likely to be less than the current spare capacity of the Falcons Landing No 1 pump station.

If it is not possible to utilise spare capacity within Falcons Landing No 1 pump station, then sufficient storage can be provided within the proposed pump station to cater for the report area.

When the land to the south and east are developed, effluent discharge from the site can be rerouted to the South Eastern Rolleston pump station either solely by gravity or it can be pumped from the new pump station to a more appropriate discharge location where it can be gravity fed to its intended destination. Depending on the sewer design from the South Eastern Rolleston pump station, the pumps from the Falcons Landing Pump No. 1 Pump Station may be able to be removed.



It is not considered that there are any long-term impediments to the sewerage for the report area. For the short to medium term there are options associated with the wider development



timeframes and Council preferences. Options for the short and medium term are multiple and are able to be designed to ensure effective servicing of the report area.

### 3.5. Water

## 3.5.1. Existing Water Reticulation

Water supply for Rolleston is sourced from deep groundwater wells. A series of trunk water mains feeds smaller water mains which connect households to the on-demand supply. Council have been upgrading water supply and reticulation to meet the ongoing development of Rolleston including the recently completed Helpet upgrade.

Within the near vicinity there is;

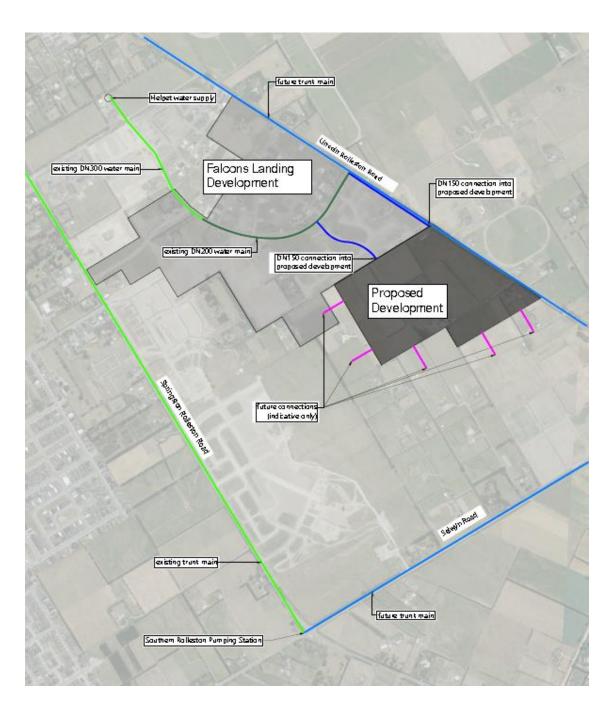
- A 450mm diameter truck main in Springston Rolleston Road.
- A 300mm diameter main in Branthwaite Drive connecting the Helpet water supply to residential lots to the south.
- A 150mm diameter water main was installed along Lincoln Rolleston Road as part of the Falcons Landing Development. This water main extends to the northern boundary of the report area.
- A 150mm diameter water main was also installed along Raptor Street to the boundary of the new development.

We understand that Council have a long-term plan to install a 400-diameter trunk main along Lincoln Rolleston Road down to the Branthwaite Drive intersection and continue that trunk main down to Selwyn Road with a 375-diameter pipe. We also understand that a 250-diameter main will be installed along Selwyn Road to link the existing trunk main on Springston Rolleston Road to the proposed trunk main on Lincoln Rolleston Road.

## 3.5.2. Proposed Water Network

The report area can be serviced water from the existing water reticulation on Lincoln Rolleston Road and Raptor Street. The exact details of water reticulation will come out in detailed design of the new development. Additional connections can be made to the water main that is extended along Lincoln-Rolleston Road. Additional connections will be made to land to the east and south when this is developed.

It is not considered that there are any restrictions to the development of the water supply that would impede the development of the report area for residential development. The development of the surrounding area will provide ample opportunities to provide ring mains and alternative connections.



## 3.5.3. Existing Irrigation Water Network

There is an existing irrigation scheme within the wider area. The irrigation water is conveyed to a number of properties via a network of open and piped waterways. The number of active users of this water is becoming less as the wider area is being developed for residential purposes.

A portion of the irrigation network lies along the southern boundary of the proposed development with a ponded area approximately 180m from the western boundary. The irrigation network leaves the property towards the south via a pipe.

It is understood that there is a high probability that this irrigation water will be abandoned in the near future due to drop in the users.



Until such time as the irrigation waterways are abandoned it is proposed to divert the irrigation network that lies within the proposed development to the internal roading network.

A piped system will be installed in the roading network to convey the irrigation flows through the site and to connect into the existing exit point from the site of the proposed development or other location as negotiated with the neighbouring landowner.

## 3.6. Services (Power and Telecommunications)

The power and telecommunication services will be extensions to the existing network. There are main trunk services within Lincoln Rolleston and Springston Rolleston Roads. The servicing of each development will likely occur off these trunk supplies.

The report land is immediately adjacent to Lincoln Rolleston Road and it is not dependant upon the development of other properties to gain access to this main supply.

It is not considered that there are any impediments to the provision of power or telecommunication servicing that would impact on the ability to develop a residential development.

## 4. Summary

We consider the ability to provide sufficient infrastructure to the report area we note

- The site lies within the Metropolitan Urban Limit as detailed in the Rolleston Structure Plan
- The site is a natural progression of the residential development of Falcons Landing to the north
- The ground conditions are similar to the surrounding developed area, namely topsoil covering gravels
- The site has several good connections to the north into the Falcons Landing development, along Lincoln Rolleston Road and developments expanding from the west
- The site includes principal roading and infrastructure connections, including those that have already been installed within other developments. The completion of these infrastructural elements will complete the intention of the Rolleston Structural Plan
- The quantum of earthworks is intended to be balanced within the development area
- Roading and other infrastructure can be constructed to the Selwyn District Council's standards
- Roading and reserve layout can take into account the need to convey secondary flow paths
- Stormwater will be to ground
- Sewerage has options for both short term and long-term conveyance of sewage to the Southern Rolleston Pump Station
- Water reticulation has good connections to the existing reticulation network
- Irrigation water will be conveyed within a piped network located in the road corridors and leave the site at the exiting location or other such location as agreed with the neighbour.
- Power and telecommunication connections are available to the existing network.



## 5. Comment

There are no constraints to the need to supply infrastructure to the report area that would impede the development of residential allotments to the density of the residential zone.



# Attachment 6: Revised Urban Design Report



# **Attachment 7: Proposed District Plan Assessment**

## Proposed Selwyn District Plan

- 1. The proposed Selwyn District Plan ('proposed plan') was notified on 5 October 2020 and submissions closed in December 2020. Submissions are yet to be notified, meaning that procedurally, the proposed plan is still subject to further submissions, hearings, decisions, and appeals.
- 2. It is further noted that the applicant for this plan change has filed submissions on the proposed plan seeking rezoning of the land to General Residential, in a manner consistent with the outcomes sought by this proposed change to the operative plan.
- 3. Accounting for the above, limited weight should be afforded to the provisions of the proposed plan at this time. Notwithstanding, an assessment of those provisions in the proposed plan of particular relevance is provided below in Table 1.

Table 1: Assessment of the proposal against the provisions of the pSDP

PSDP Provision	Comment / Assessment	
Sensational Selwyn SD-DI-O1 Selwyn is an attractive and pleasant place to live, work, and visit, where development:	Through its layout, edge treatment and connectivity the proposal provides for development that accounts for the characteristics of the local community and its position at the urban/rural interface.	
<ol> <li>takes into account the character of individual communities;</li> <li>is well-connected, safe, accessible, and resilient; and enhances environmental, economic, cultural and social</li> </ol>	Similarly the ODP provides for well-connected, safe and accessible development, and the technical assessments have demonstrated that the development will be resilient to natural hazards.	
outcomes for the benefit of the entire District.	Finally, the assessments have demonstrated the positive environmental, economic, cultural and social outcomes of the proposal, and the avoidance of adverse effects.	
SD-DI-O2  Selwyn's prosperous economy is supported through the efficient use of land, resources, and infrastructure, while ensuring existing activities are protected from incompatible activities.	The proposal provides for an efficient use of land and infrastructure (particularly accounting for the provision of key transport corridor connection through the site) and avoids conflict with any existing incompatible activities.	
Integration and Land Use, Ecosystems, and Water - Ki Uta Ki Tai SD-DI-O3	The technical assessments have demonstrated that development can occur in a manner consistent with this objective.	
Land and water resources are managed through an integrated approach, which recognises both the importance of ki uta ki tai to Ngāi Tahu and the inter-relationship between ecosystems and natural processes.		
Our Environment	The subject land is not subject to any significant values and noting its existing zoning and the visual/urban design assessment, the proposal is consistent with this objective.	
SD-DI-O4		
Places, landscapes, and features which are significant to Selwyn's character, cultural heritage, or are of spiritual importance to Ngāi Tahu, are identified, recognised for their values, and protected for future generations.		
Vibrant and Viable Centres SD-DI-O5	The proposal will further support the Rolleston town centre, and the small commercial centres	

Selwyn's hierarchy of activity centres are the preferred location for shopping, leisure, cultural, entertainment, and social interaction experiences in accordance with their anticipated role within the Activity Centre Network. proposed will operate in accordance with their anticipated role within the Activity Centre Network.

### Community Needs

SD-IR-O1

The important infrastructure needs of the community are fulfilled, and their operation is protected.

Per the Servicing report, the proposal is able to be supported by existing or planned community infrastructure and will not otherwise compromise the continued operation of community infrastructure.

## Effects of Important Infrastructure

SD-IR-O2

The development, upgrade, maintenance, and operation of all important infrastructure is enabled in a way that minimises adverse effects, while having regard to the practical constraints and the logistical and technical practicalities associated with important infrastructure.

The proposal will not adversely affect any important infrastructure.

### Natural Hazards

SD-IR-O3

The risk from natural hazards, including the effects of climate change, to people, property, and important infrastructure is not increased, other than where necessary to provide for important infrastructure that has no reasonable alternative.

The hazards assessment confirms that the proposal will not be subject to unacceptable hazard risks

Partnership with Ngāi Tahu

SD-MWV-01

Strengthen the partnership between the Council and Ngāi Tahu by recognising the cultural significance of Selwyn to Ngāi Tahu and Te Taumutu and Ngāi Tūāhuriri Rūnanga by:

- Promoting active and meaningful participation by those who hold mana whenua in the resource management decision-making process;
- Recognising that only those who hold mana whenua can identify their relationship with their culture, traditions, ancestral lands, waterbodies, wāhi tapu and other taonga;
- Enabling the exercise of kaitiakitanga by those who hold mana whenua over Selwyn;
- Providing for the contemporary connections, cultural and spiritual values held by tāngata whenua; and
- Continuing to enable tāngata whenua to protect, develop and use Māori Land in a way which is consistent with their culture, traditions and aspirations.

The proposal has been prepared to reflect consultation with mana whenua undertaken for comparable residential greenfield proposal in Selwyn District, with relevant recommendations such as encouragement of low impact stormwater design and the use of locally sourced indigenous vegetation incorporated into the proposed ODP.

Compact and Sustainable Township Network

SD-UFD-01

Urban growth is located only in or around existing townships and in a compact and sustainable form that aligns with its anticipated role in the Township Network, while responding to the community's needs, natural landforms, cultural values, and physical features.

The proposal is located 'around existing townships' and is in a 'compact and sustainable form'.

Urban Growth and Development

SD-UFD-02

There is sufficient feasible development capacity to meet anticipated demands for housing and business activities. Consistent with the directions in policy 2 of the NPS-UD, the NPS seeks to provide 'at least sufficient development capacity to meet expected demand'. The proposal supports the provision of 'sufficient feasible development capacity to meet anticipated demands for housing'.

Integration of Land Use and Infrastructure

The Servicing report demonstrates consistency with this objective insofar as it relates to infrastructure; and the hazards assessment has

### SD-UFD-O3

Urban growth and development:

- 1. is well-integrated with the efficient provision, including the timing and funding, of infrastructure; and
- 2. has the ability to manage or respond to the effects of climate change.

otherwise confirmed that the effects of climate change can be readily managed by the proposal.

### TRAN-01

People and places are connected through safe, efficient, and convenient land transport corridors and land transport infrastructure which is well integrated with land use activities and subdivision development.

The transport assessment and further information has demonstrated consistency with these provisions.

### TRAN-02

Land transport corridors and land transport infrastructure are protected from incompatible land use activities and subdivision development.

### TRAN-03

Land transport corridors and land transport infrastructure support the needs of people and freight, while ensuring adverse effects on the surrounding environment from their establishment and operation are managed.

HH - Historic Heritage

TREE - Notable Trees

SASM - Sites and Areas of Significance to Māori

For completeness, it is noted that contaminated land and natural hazards matters have been assessed and there are no associated implications or effects for the proposed Plan Change.

The plan change site is not subject to any risks associated with hazardous substances.

HH - Historic Heritage

TREE - Notable Trees

SASM - Sites and Areas of Significance to Māori

For completeness, it is noted that none of these attributes are applicable to the Plan Change site.

EIB - Ecosystems and Indigenous Biodiversity

NATC - Natural Character

NFL - Natural Features and Landscapes

PA - Public Access

For completeness, it is noted that none of these attributes are applicable to the Plan Change site.

### SUB-O1

Subdivision design and layout maintains or enhances the amenity values of the zone.

These provisions and associated policies and rules would readily apply to the land following rezoning, and the proposed Plan Change does not present any inconsistency.

### SUB-O2

Every site created by subdivision has the characteristics, infrastructure, and facilities appropriate for the intended use of the land.

## SUB-O3

Site sizes reflect the anticipated development outcomes of the zone.

ASW - Activities on the Surface of Water

CE - Coastal Environment

EW - Earthworks

LIGHT - Light

For completeness, it is noted that none of these attributes are applicable to the Plan Change (albeit they may apply to future activities on the land).

NOISE - Noise

SIGN - Signs

TEMP - Temporary Activities

### UG-Overview

The Selwyn District is a desirable place to live, work, and play, which is generating a demand for housing and business opportunities to support the needs of the growing community now and into the future. The Urban Growth chapter assists in meeting these demands by encouraging a consolidated and compact settlement pattern that optimises the use and development of resources. This chapter also assists in ensuring there is enough urban development capacity available to meet the District's housing and business needs while assuring that high quality living and business environments continue to be developed to implement the adopted Development Plans.

Ongoing urban development capacity is provided through the identification of new urban areas that are subject to the Urban Growth Overlay and by enabling existing sites to be intensified or redeveloped. The need for zoning processes to demonstrate consistency with all of the urban growth policies and to consider relevant Development Plans will ensure that new urban growth areas do not conflict with legitimately established land use activities, compromise the quality of the environments that people value, and result in adverse environmental effects.

The intensification of activities and redevelopment of existing land within urban zones is encouraged to support the District's urban growth needs. This includes through increased housing densities and the development and implementation of Urban Intensification Plans and Development Plans to achieve integrated settlement patterns and to complement the ongoing provision of new urban areas.

The Urban Growth Overlay maps the spatial locations identified in Development Plans that have been adopted by SDC. These assist in determining where new urban areas can locate around townships and delivering the outcomes that are anticipated to be achieved within these environments. Any urban development or subdivision of land outside of the existing township boundaries is precluded unless the urban growth policies have been fulfilled through the zoning process under Schedule 1 of the RMA.

The General Rural Zone activity-based rules apply to the land that is subject to the Urban Growth Overlay to enable the majority of rural land uses to continue. Additional rules apply to ensure that land use and subdivision development does not undermine the future zoning or development of the land that will assist in meeting the growth needs of the district. All other site-specific rules to achieve the urban growth outcomes will be determined through the zoning process.

The Urban Growth overview recognises the 'demand for housing and business opportunities to support the needs of the growing community now and into the future' and the need to ensure 'there is enough urban development capacity available to meet the District's housing and business needs'. The Plan Change proposal responds to these demands and supports the provision of sufficient development capacity for housing.

The plan change proposal otherwise 'demonstrates consistency with all of the urban growth policies' and 'does not conflict with legitimately established land use activities, compromise the quality of the environments that people value, and result in adverse environmental effects'.

## UG-01

Urban growth is provided for in a strategic manner that:

- Achieves attractive, pleasant, high quality, and resilient urban environments;
- Maintains and enhances the amenity values and character anticipated within each residential, kainga nohoanga, or business area;
- Recognises and protect identified Heritage Sites, Heritage Settings, and Notable Trees;
- 4. Protects the health and well-being of water bodies, freshwater ecosystems, and receiving environments;
- Provides for the intensification and redevelopment of existing urban sites;

The proposed plan change and supporting assessments have demonstrated that the proposal will:

- Deliver an attractive, pleasant, high quality, and resilient urban environment;
- Maintain and enhance the amenity values and character anticipated within the residential area;
- Integrate with existing residential neighbourhoods and commercial centres;
- Be well coordinated with available infrastructure and utilities, including land transport infrastructure; and

- Integrates with existing residential neighbourhoods, commercial centres, industrial hubs, inland ports, or knowledge areas;
- 7. Is coordinated with available infrastructure and utilities, including land transport infrastructure; and
- 8. Enables people and communities, now and future, to provide for their wellbeing, and their health and safety.

 Enable people and communities, now and future, to provide for their wellbeing, and their health and safety.

### UG-02

Townships maintain a consolidated and compact urban form to support:

- Accessible, sustainable and resilient residential neighbourhoods, commercial centres, industrial hubs, inland ports, or knowledge areas;
- 2. The role and function of each urban area within the District's Township Network and the economic and social prosperity of the District's commercial centres; and
- The efficient servicing of townships and integration with existing and planned infrastructure.

As demonstrated in the urban design, servicing and transport assessments, the urban form (and ODP) proposed for the Plan Change supports:

- 1. Accessible, sustainable and resilient residential neighbourhoods;
- 2. The role and function of the Rolleston urban area and the District's commercial centres; and
- 3. Efficient servicing of townships and integration with existing and planned infrastructure.

### UG-03

There is sufficient feasible housing and sufficient business development capacity within Greater Christchurch to ensure:

- 1. The housing bottom lines are met;
- A wide range of housing types, sizes, and densities are available to satisfy social and affordability needs and respond to demographic change; and
- Commercial and industrial growth is supported by a range of working environments and places to locate and operate businesses consistent with the District's Activity Centre Network.

As noted above, this provision (and the NPS-UD) seeks sufficiency (i.e. a minimum rather than maximum) supply of housing development capacity which the proposal will support.

The plan change otherwise provides for 'A wide range of housing types, sizes, and densities are available to satisfy social and affordability needs and respond to demographic change'.

## Urban Growth

UG-P1 Spatially identify new urban growth areas supported by a Development Plan.

UG-P2 Provide for the rezoning of land to establish new urban areas within the Urban Growth Overlay.

UG-P3 Avoid the zoning of land to establish any new urban areas or extensions to any township boundary in the Greater Christchurch area of the District outside the Urban Growth Overlay.

UG-P6 Enable rural production to continue on land that is subject to an Urban Growth Overlay, while avoiding the establishment of those activities that may unreasonably hinder any future urban zoning required to assist in meeting the District's urban growth needs.

The proposal is within an Urban Growth Overlay. Its development is therefore consistent with these provisions.

### Urban Form

UG-P7 Any new urban areas shall deliver the following urban form and scale outcomes:

- Township boundaries maintain a consolidated and compact urban form;
- The form and scale of new urban areas support the settlements role and function within the District's Township Network;
- The natural features, physical forms, opportunities, and constraints that characterise the context of individual locations are identified and addressed to achieve appropriate land use and subdivision outcomes, including where these considerations are identified in any relevant Development Plans; and
- The extension of township boundaries along any strategic transport network is discouraged where there are more appropriate alternative locations available.

In terms of UG-P7, the proposal has been assessed as:

- Maintaining a consolidated and compact urban form, as described in the assessment by DCM Lithan:
- 2. Providing a form and scale of urban activity that support Rolleston's role and function within the District's Township Network, noting its proximity, and connectivity to Rolleston especially;
- 3. Having no particular natural features, physical forms, or constraints that suggest urbanisation of the land is inappropriate; and
- 4. Providing for an appropriate form of expansion.

UG-P8 Avoid the following locations and areas when zoning land to extend township boundaries to establish new urban areas:

- 1. Sites and Areas of Significance to Māori;
- 2. Significant Natural Areas:
- 3. Outstanding Natural Landscapes and Visual Amenity Landscapes; and
- 4. High Hazard Areas.

In terms of UG-P8, the proposal does not relate to:

- 1. Sites and Areas of Significance to Māori;
- 2. Significant Natural Areas;
- 3. Outstanding Natural Landscapes and Visual Amenity Landscapes; and
- 4. High Hazard Areas.

UG-P9 Recognise and provide for the finite nature of the versatile soil resource when zoning land to extend township boundaries to establish new urban areas.

Effects on versatile soils have been assessed as acceptable.

UG-P10 Ensure the establishment of high-quality urban environments by requiring that new urban areas:

- Maintain the amenity values and character anticipated within each township and the outcomes identified in any relevant Development Plan;
- Recognise and protect identified Heritage Sites, Heritage Settings, and Notable Trees; and
- Preserving the rural outlook that characterises the General Rural Zone through appropriate landscape mitigation, densities, or development controls at the interface between rural and urban environments.

The proposed ODP provides for a high-quality urban environment by:

- 1. Adopting controls on built development consistent with those in the adjacent residential areas and otherwise ensuring a high quality and well-connected development through the use of an ODP.
- 2. Not affecting any identified Heritage Sites, Heritage Settings, or Notable Trees; and
- 3. Properties to the south and southwest are anticipated to be developed in due course for residential purposes, therefore no rural interface measures are necessary or appropriate on these boundaries. No interface measures are proposed on the Lincoln-Rolleston Road boundary, consistent with residential development on properties similarly situated to the north.

UG-P11 When zoning land to establish any new urban area or to extend any township boundary, avoid reverse sensitivity effects on:

- any adjoining rural, industrial, inland port, or knowledge zone; and
- on the safe, efficient and cost-effective operation of important infrastructure, land transport infrastructure, and the strategic transport network.

The site is not situated proximate to any sensitive uses such as State highways, airport noise contours, important infrastructure or industrial or inland port developments. No sensitive rural activities such as intensive farming are located in proximity to the site, such that overall the proposal is consistent with his policy.

UG-P12 Ensure the zoning of land to extend township boundaries to establish new urban areas demonstrates how it will integrate with existing urban environments, optimise the efficient and cost-effective provision of infrastructure, and protect natural and physical resources, by:

- Aligning the zoning, subdivision and development with network capacity and availability of existing or new infrastructure, including through the staging of development;
- Avoiding adverse effects on the ground and surface water resource by requiring connections to reticulated water, wastewater, and stormwater networks where they are available, or by demonstrating that the necessary discharge approvals can be obtained for all on-site wastewater and stormwater treatment and disposal facilities;
- Ensuring the land is located where solid waste collection and disposal services are available;
- Prioritising accessibility and connectivity between the land and adjoining neighbourhoods, commercial centres, open space reserves, and community facilities, including education providers, public reserves, and health services;
- Requiring safe, attractive and convenient land transport infrastructure that promotes walking, cycling, and access to public transport and public transport facilities to

The transport, servicing and urban design assessments have addressed these matters, confirming that the plan change area can be effectively integrated with the existing Rolleston urban environment and community infrastructure.

encourage energy efficiency and improve peoples' health and wellbeing.

Development Capacity

UG-P13 Residential growth - Greater Christchurch area

Any new residential growth area within the Greater Christchurch area shall only occur where:

- Extensions assist in meeting the housing bottom lines (minimum housing targets) of 8,600 households over the medium-term period through to 2028.
- A HDCA and FDS identify a need for additional feasible development capacity for the township and the additional residential land supports the rebuild and recovery of Greater Christchurch;
- The land is subject to an Urban Growth Overlay and the area is either:
  - a 'greenfield priority area', or any subsequent urban growth areas or urban containment boundaries, in the CRPS where it is a residential activity; or
  - identified in an adopted Rural Residential Strategy and in accordance with CRPS Policy 6.3.9 where it is a rural residential activity.
- The minimum net densities of 12hh/ha for residential activities or 1 to 2hh/ha for rural residential activities are met;
- A diversity in housing types, sizes and densities is demonstrated to respond to the demographic changes and social and affordability needs identified in a HDCA, FDS or outcomes identified in any relevant Development Plan; and
- An ODP is prepared that addresses the matters listed in UG-ODP Criteria and incorporated into this Plan before any subdivision proceeds.

The proposal is consistent with this policy insofar that:

- 1. It will assist in meeting the housing bottom lines (minimum housing targets) of 8,600 households over the medium-term period through to 2028.
- 2. A diversity in housing types, sizes and densities is demonstrated to respond to the demographic changes and social and affordability needs (albeit not as identified in a HDCA, FDS or outcomes identified in any relevant Development Plan);
- 3. The land is subject to an Urban Growth Overlay,
- 4. The minimum net densities of 12hh/ha for residential activities are met;
- 5. An ODP is prepared that addresses the matters listed in UG-ODP Criteria (that would be incorporated into the Plan before any subdivision proceeds).

The proposal is not consistent with the balance of the policy, albeit such tension is resolved by the policy direction in the NPS-UD.

UG-SCHED1 - Residential Growth Area ODP Criteria

- 1. A single ODP shall be prepared for each new residential growth area and incorporated into the Planning Maps and the relevant Development Area chapter of this Plan;
- 2. Each ODP shall illustrate how the site characteristics and topography have been addressed through the identification of:
  - Principal through roads and connections both within and adjoining the ODP area, including principal walking and cycling networks and public transport and freight routes;
  - Methods for the integrated management of water, stormwater, and wastewater and associated infrastructure consistent with {Link,11991,UG-P15};
  - c. How each ODP area will:
    - Achieve the minimum net density requirements and outcomes listed in UG-P5 or UG-P6 are to be achieved;
    - Be staged to allow the subdivision development to align with the timing, funding, and availability of network infrastructure capacity; and
    - iii. Integrate into any adjoining land that is subject to the Urban Growth Overlay:
- 3. The following features and outcomes are to be illustrated on an indicative subdivision concept plan containing lot configurations and sizes that is to accompany the ODP;
  - Any land to be set aside to protect or enhance environmental, conservation, landscape, heritage or cultural (including to provide for the interests of nga rūnanga) values;

The proposed ODP has been prepared in accordance with the requirements of UG-SCHED1 and its format (appearance) and content (text) is based on the ODPs set out in Part 3 of the proposed Plan.

- Any land to be set aside for community facilities, schools, open space reserve or commercial activities and how accessibility and connectivity between these locations is supported in the land transport network;
- Any land to be set aside to effectively manage hazard risk or contaminated land;
- d. Any methods or boundary treatments required to mitigate reverse sensitivity effects and promote compatible land use activities, including protecting important infrastructure, or a designated site; and
- Any other information which is relevant to the understanding of the development and its proposed zoning.

### RESZ-Objectives

RESZ-O1 Safe, convenient, pleasant, and healthy living environments that meet the needs and preferences of the community.

RESZ-O2 Residential activities are the principal use in residential zones.

RESZ-O3 A wide range of housing typologies and densities are provided for to ensure choice for the community and to cater for population growth and changing demographics.

RESZ-O4 Increased residential densities occur in close proximity to activity centres, public transport routes, and public open spaces.

RESZ-O5 Built form is of a high design standard and appearance that responds to and reinforces positive aspects of the local environment.

RESZ-06 The role, function, and predominant character of the residential zones is not compromised by non-residential activities.

RESZ-O7 Residents have access to a range of community, recreation, education, health, and corrections activities and facilities that support, maintain, and enhance the surrounding residential amenity.

These provisions will guide eventual development of the subject land, however it is noted that the proposed Plan Change provides for residential development in a manner consistent with these objectives.

- 14. Overall, it is acknowledged that the proposal is not consistent with those urban-growth related provisions which seek to limit growth to locations where a HDCA and FDS identify a need for additional feasible development capacity for Rolleston and the land is a 'greenfield priority area', or any subsequent urban growth areas or urban containment boundaries, in the CRPS where it is a residential activity, though the site is located within the Urban Growth Overlay. However, such tension is resolved by the more enabling provisions in the NPS-UD.
- 15. In all other respects, the proposal achieves consistency (or avoids inconsistency) with the relevant provisions of the proposed plan.