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Project/File: 310205642

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Resource Management Group

Dear Darryl

This report has been prepared for the purposes of documenting the key transportation needs and outcomes associated with the proposed retirement village development at 1506 Springs Road (the "Site"), in Lincoln.

1 Introduction

Lincoln Land Limited is seeking to develop an 11.4ha retirement village at 1506 Springs Road in Lincoln. It is proposing a fast-track consent process via the Covid-19 Recovery (Fast-track Consenting) Act, and a high-level transport assessment is required to support that process.

The site location in the context of the surrounding area is shown in **Figure 1**. The site is currently zoned Business 2B in the Selwyn Operative District Plan, and as such a retirement village will represent a greenfield development of the site as an activity that is not permitted.

Immediately to the north is the Verdeco Park residential subdivision. Northeast of the site on the opposite side of Springs Road is Te Whāriki residential subdivision. The site itself is surrounded by Council reserve land used for stormwater purpose, and includes some pedestrian paths. Lincoln University is positioned approximately 1km to the north on Springs Road.

2 Existing Transport Environment

Springs Road is defined as a Collector Road from Ellesmere Junction Road to the southern extent of the Lincoln urban area. That is located immediately north of the site. Past the site Springs Road is of a rural formation and is within a Limited Speed Zone as shown in **Figure 2**.

Public transport currently services Lincoln with routes 80 (Lincoln / Parklands via Central City), 81 (Lincoln / City direct), and 87 (Leeston / Lincoln). Each of these services has a terminus at Lincoln University accessed from Ellesmere Junction Road. Route 820 (Burnham/Lincoln via Rolleston) also passes through this stop, which is some 1.35km from the site. Recent residential subdivision in Te Whāriki may generate the additional residential demand that would enable consideration of a route servicing the southern part of Lincoln.

There are no formed cycleways connecting to the site. It is understood that development of the road network as part of road upgrades for residential subdivision is being carried out in a way that would enable on-road cycle lanes.

As shown in **Figure 3** a footpath is located on the western side of Springs Road adjacent to Verdeco Park and a footpath is located along the frontage of Te Whāriki subdivision, providing pedestrian access to Lincoln township. There are some gaps in footpath provision further north connecting to Lincoln

University and Ellesmere Junction Road, particularly where development has not recently occurred. Typically, that will be a matter for Council to consider particularly where there is no likelihood of additional development on the road frontage where cost share would be likely.

Springs Road past the site carries approximately 1,550 vehicles per day based on information contained in mobileroad.org, which draws on information from Selwyn District Council asset management databases. The traffic volume increases to approximately 3,100 vehicles per day immediately south of Ellesmere Junction Road, and then 8,100 vehicles per day north of Ellesmere Junction Road. Clearly the section of Springs Road passing the site is currently a lower traffic volume road.

3 Changes in Transport and Landuse

3.1 Operative District Plan – Lincoln ODP 5

Selwyn District Plan ODP 5 which covers the site is shown in **Figure 4**. The ODP anticipates a single point of vehicle access onto Springs Road, approximately halfway along the Business 2B frontage. Cycle/pedestrian connections to adjoining development areas are anticipated to the north and west, and these have been provided within Verdeco Park.

3.2 Proposed District Plan

The Selwyn District Proposed District Plan has proposed General Industrial Zone on the site. This zoning would represent the only GIZ zoning in Lincoln as notified. An ODP as included in **Figure 5** is included for the site that includes a single road connection to Springs Road, and a road and pedestrian/cycle connection on the north boundary into Verdeco Park. As Verdeco Park has been developed with a 10m wide pedestrian reserve at the connection location, a road will not be possible that meets the Proposed District Plan minimum road reserve width of at least 13m in a residential zone. It is likely any development of the site will not provide the road, and instead a pedestrian/cycle link as allowed for in the existing Verdeco Park subdivision will provided.

A submission is to be heard for GIZ to be included at an alternative location on the south eastern side of the Springs Road / Tancred Road intersection. A transport assessment prepared by Stantec has identified the location of the alternative industrial zoning can be supported by suitable access provisions, and that the site is well located to service Lincoln, Prebbleton and Rolleston with good access to key road linkages. By comparison the GIZ zoning at 1506 Springs Road relies on access via Springs Road which will be surrounded by residential development. It is less convenient to service Rolleston and Prebbleton.

The Proposed District Plan includes a rule that requires High Trip Generating activities to be assessed through an Integrated Transport Assessment. The scale of the retirement village proposed is expected to trigger the need for such assessment. That assessment is required to address matters relating to safety, efficiency and accessibility of the site layout and access, and network traffic effects.

3.3 Plan Change 69

The primary change possible in the immediate vicinity of the site relates to Plan Change 69 (PC69) to the Operative District Plan which has been accepted by Council and is currently subject to Environment

Court appeal. The Outline Development Plan is shown in **Figure 6** and a more detailed view with the site annotated is shown in **Figure 7**.

PC69 would see residential development zoned southwest and east of the site, enabling approximately 1,700 households and some small local commercial areas, including one immediately east of the site on Springs Road, and one within the development area to the southwest. These will be serviced by an internal network of new roads, and pedestrian/cycle facilities. A range of external transport network improvements were anticipated with funding mechanisms including developer funding, developer contributions, and via private developer agreements.

The ODP indicates changes to Springs Road including a roundabout/traffic signal to the PC69 land at a location adjacent to the northern end of the site, a roundabout south of the site, establishing a pedestrian/cycle route along Springs Road, and road frontage upgrades. A possible road connection into the site is shown on the southern boundary, and a pedestrian cycle connection is indicated into the reserve area to the west of the site.

Within the improvements to the external road network identified, is the traffic signalisation of Springs Road / Ellesmere Junction Road / Gerald Street and a range of pedestrian and cycle connections.

Traffic modelling reported in evidence by Dave Smith for the Plan Change 69 requestor indicated all intersections in the area can operate with satisfactory levels of service in peak periods with the various changes proposed to the road network. In the immediate vicinity of the site the performance of intersections indicates a good level of service that will enable efficient and safe access to and along Springs Road.

The Selwyn District Council has notified Variation 1 to the Proposed District Plan which includes a slightly revised version of the PC69 ODP, with the main change being provision for medium density development.

If the Plan Change and/or Variation 1 is not approved, the traffic modelling indicated very good levels of service in the area.

4 The Proposal

A retirement village is proposed to be developed at 1506 Springs Road comprising approximately 190 independent living villas, 60 care beds, and associated retirement village amenities.

A master plan for the village is shown in **Figure 8**.

The village will be developed as a private development with an internal network of lanes. The lanes are typical of retirement village development with provision for them to be shared by pedestrians within the village. They will be supported by internal pedestrian paths where necessary, or to connect to external pedestrian networks. As such the site will not include publicly vested roads, and access is primarily designed for residents, visitors, and servicing vehicles.

It is anticipated that the boundaries to the site will be fenced to provide a secure village environment, and access will likely be controlled via gates, particularly at night time. Where the site adjoins reserves, compatible fencing will be provided, and appropriately located pedestrian connections provided. This form of private and secure access to a comprehensive internal network of lanes is consistent with large retirement villages throughout New Zealand.

Vehicle access to the village is proposed from Springs Road, with the masterplan indicating two vehicle accesses separated by approximately 100m. One of these accesses will be a main access connecting with an internal car parking area. Springs Road is also the primary point of access for pedestrians and cyclists.

Secondary access for pedestrians will be available at controlled locations to reserve areas on the northern and western boundaries. Some extension of pedestrian facilities is likely necessary to accommodate these pedestrian connections.

If Plan Change 69 is approved, then the site will be adjoined by residential development to the south, and on the eastern side of Springs Road. The PC69 ODP has been developed with the existing B2B zoning in place on the development site, and the connections shown reflect that. With a lower traffic generating retirement village development the need and type of connections to PC69 south will likely be different, and the connections proposed to Springs Road and the reserves will support integration of the site with the ODP land. Further consideration of the connections can be made through the substantive consenting process.

The proposed positioning of retirement village vehicle access to Springs Road supports the development of a legible site access arrangement. Approximately 85m separation (centre of intersection to centre of access) will be available between the primary retirement village access and the indicative location of the northern PC69 access road (which will be staggered and on the other side of the road). It is expected that the separation of the access and intersection will be sufficient to enable a traffic engineered solution for separation of back-to-back right turns on Springs Road to be developed (if necessary) that is consistent with the low turning volumes expected on those movements. The integration of site access with the indicative PC69 roads and possible commercial area on the eastern side of Springs Road would need to be considered as the masterplan is further developed as part of the substantive consenting process.

5 Traffic Generation

5.1 Proposed Village

Retirement villages have a higher density of dwelling units than standard residential development. However, traffic generation per dwelling is less. The traffic generation of the site will be primarily driven by the number of independent living villas, and care beds. Ancillary facilities such as an on-site café that may be available to the public will generate comparatively negligible traffic by vehicle.

An initial estimate of traffic generation has been developed based on a conservatively high assessment of rates from traffic generation sources. More specific assessment through the full Integrated Transport Assessment process is likely to enable reduced rates to be considered.

The following **Table 5-1** and **Table 5-2** provide an initial estimate of the traffic generation for the PM peak hour of the road network and the daily traffic generation:

Table 5-1: Forecast Peak Hour Traffic Generation

Activity	Peak Hour Traffic Generation Rate	Peak Hour Traffic Generation
60 care beds	0.3vph / care bed	18vph
190 independent living villas	0.3vph / residential unit	57vph
Total		**75vph**

Table 5-2: Forecast Daily Traffic Generation

Activity	Daily Traffic Generation Rate	Daily Traffic Generation
60 care beds	2.5vpd / care bed	150vpd
190 independent living villas	3.5vpd / residential unit	665vpd
Total		**815vpd**

Approximately 5 to 15 heavy vehicle movements per day could be expected, significantly less than could be expected with an industrial zoning.

5.2 Alternative Use of Land Traffic Generation

The alternative landuse for the site includes options for residential or industrial development.

Residential development could be anticipated at approximately 15 lots per hectare. A residential development would accommodate approximately 171 households generating approximately 1,370vpd and 140vph. This will mostly be light vehicles.

Industrial traffic generation could be anticipated to generate traffic at approximately 20vph / ha developable site area. Assuming 20% of the site area is not developable (e.g., for roads) then the 9.12ha of developable site area would generate approximately 1,824vpd and 182vph, of which approximately 15-20% could be heavy vehicles.

5.3 Traffic Generation Summary

In summary, as shown in **Table 5-3**, a retirement village will have a comparably small level of traffic generation.

Table 5-3: Traffic Generation Summary for Landuse Alternatives

Activity	Daily Traffic Generation (vpd)	Peak Hour Traffic Generation (vph)
Retirement Village	815	75
Residential	1,370	140
Industrial	1,824	182

Clearly the traffic generation related effects of a retirement village will be no greater, or less on the wider transport network than those from other possible landuse activities.

The details of the change on transport network performance will be a matter considered further in the Integrated Transport Assessment that would be necessary for a resource consent process. It is unlikely that the change in traffic volumes will materially influence the required infrastructure if PC69 is approved.

6 Access and Connectivity

The site will need to achieve access for vehicles at least to Springs Road. Based on the level of traffic generation we consider that can be achievable via a single access, although more than one access could be contemplated through more detailed assessment with up to three accesses permitted by the District Plan for an urban site with 100m or more frontage length (there is approximately 265m of road frontage). These accesses are likely to be in the form of a standard urban vehicle access or intersection, where those on the side road will give way to traffic on Springs Road.

As discussed in Section 4, the design and location will need to consider the potential approval of PC69 which indicates a future signalised intersection/roundabout at the northern extent of the site, and commercial development opposite. The District Plan rules will require separation of vehicle crossings from intersections, and in this case, access is likely to be separated from the major subdivision access to PC69. As the site frontage is currently 100km/h, consideration of the likelihood of a future speed reduction will be necessary to confirm urban speed limits apply. Minimum separation from intersections is required to be at least 30m for a permitted vehicle crossing, although that will be subject to assessment under high trip generating activity provisions. The masterplan indicates separation of approximately 70m (when measured in accordance with District Plan requirements). The precise design and location are a matter that can be achieved through the resource consent process and given the existing ODP for the site, and the ODP's for PC69, it is considered suitable vehicle access can be achieved.

If PC69 is approved, there will be a need to consider whether the indicative road connection across the southern boundary of the site is necessary. As noted earlier the PC69 ODP anticipated the zoned business development instead of a retirement village on the site. The key benefit of a connection for the site as a retirement village would be for residents to walk into that development area, and that function is already achieved via the reserve pedestrian connections in addition to Springs Road. Secondary vehicle access to the site is being proposed via Springs Road.

Pedestrian and cycle connections to the adjacent reserves will need to be planned for to support local walking and cycling opportunities for residents. This was also a requirement of the underlying Operative District Plan ODP. Some pedestrian infrastructure within the reserve will need to be considered as part of development to connect to existing formed paths.

Some frontage road upgrade on the site side is expected to be necessary, like that which has been provided along the site frontage to Verdeco Park and Te Whāriki opposite. That includes road widening, kerb and channel, and a footpath.

In all cases, access is achievable and the need for each of these access provisions and any connecting infrastructure requirements can be considered through the integrated transport assessment that will form part of a resource consent process.

7 Construction

Construction of the primary retirement village infrastructure will be like the construction processes associated with residential or industrial subdivision. It is expected that a construction traffic management plan would be implemented to establish safe points of access to the road network, and to inform traffic management that may be required where the normal operating conditions of the road are impacted, such as during road frontage upgrades. During construction of dwellings and buildings a retirement village will use a single builder, and there will be a single client. That allows for efficiency of construction traffic management compared to development of multiple residential or industrial units being developed by numerous builders and clients in traditional subdivision development. As the site adjoins Springs Road, the effect of construction traffic is expected to be negligible, also recognising Springs Road has previously been a primary access route for construction of subdivisions in the area.

8 Conclusion

Lincoln Land Ltd proposes a retirement village at the south end of Lincoln. This preliminary review of transportation planning matters shows that urban development has already been contemplated and planned for on the site, and to the south and east of the site.

Future design of the retirement village will require consideration of connections to each of the site frontages (east to Springs Road, north and west to reserve, and south to future PC69 land if approved). This will require an Integrated Transportation Assessment to assess the suitability of connections, and the positioning and form of access.

PC69 introduces some potential constraints to access location that will require consideration through the consent process, including demonstrating that the separation available enables access to both site to be achieved safely. Based on the masterplan provisions and current understanding of future traffic patterns, access is considered achievable in a safe and connected way for vehicles, cyclists, and pedestrians.

The site frontage along Springs Road will need to be upgraded to an urban standard, with provisions set through the District Plan process.

Traffic generation of the site will be lower than residential or industrial landuse, and therefore network traffic related effects will be less than would have already been contemplated with the notified Proposed District Plan zoning as General Industrial Zone.

Currently bus services in Lincoln are beyond typical walking distances for retirement village residents. Completion of surrounding residential subdivision could result in changes to routes being considered which may offer the opportunity to improve access to bus services within typical walking distances.

Reference: **Lincoln Retirement Village Retirement Village Review**

It is considered that a retirement village at the site will be able to be developed to provide a transportation outcome consistent with the expectations of the District Plan.

Sincerely,

STANTEC NEW ZEALAND

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Attachment: Report Figures

Reference: **Lincoln Retirement Village Retirement Village Review**

Figure 1: Site Location

Figure 2: Springs Road Frontage Adjacent to Site

Figure 3: Springs Road Urban Frontage South of Verdeco Boulevard

Reference: **Lincoln Retirement Village Retirement Village Review**

Figure 4: Operative District Plan ODP 5

Reference: **Lincoln Retirement Village Retirement Village Review**

GIZ-PREC 7: Lincoln Industrial Precinct

Selwyn DISTRICT COUNCIL

Figure 5: Proposed District Plan GIZ-PREC 7 ODP

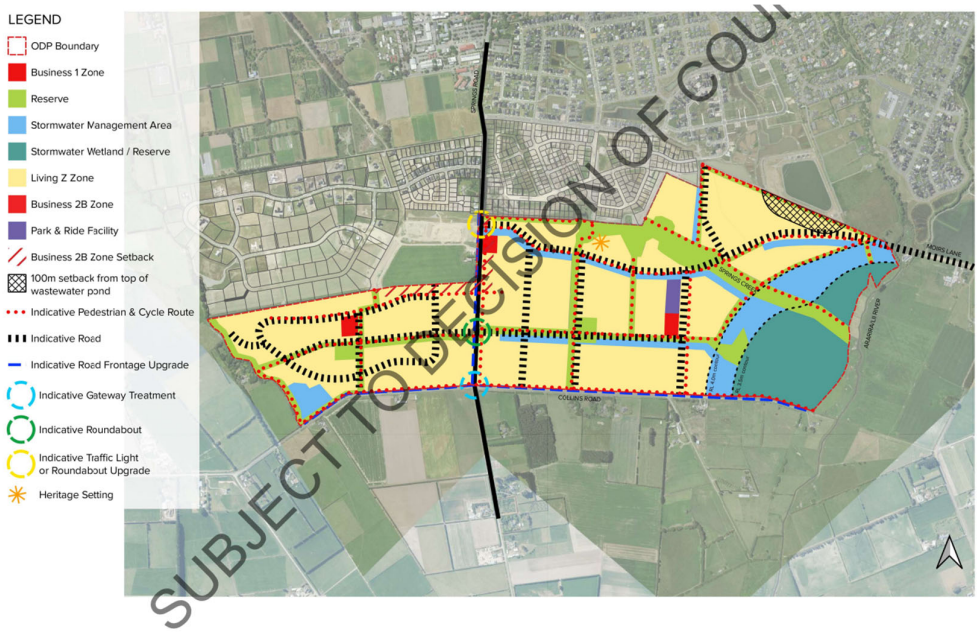

Figure 6: Plan Change 69 Outline Development Plan (Subject to Appeal)

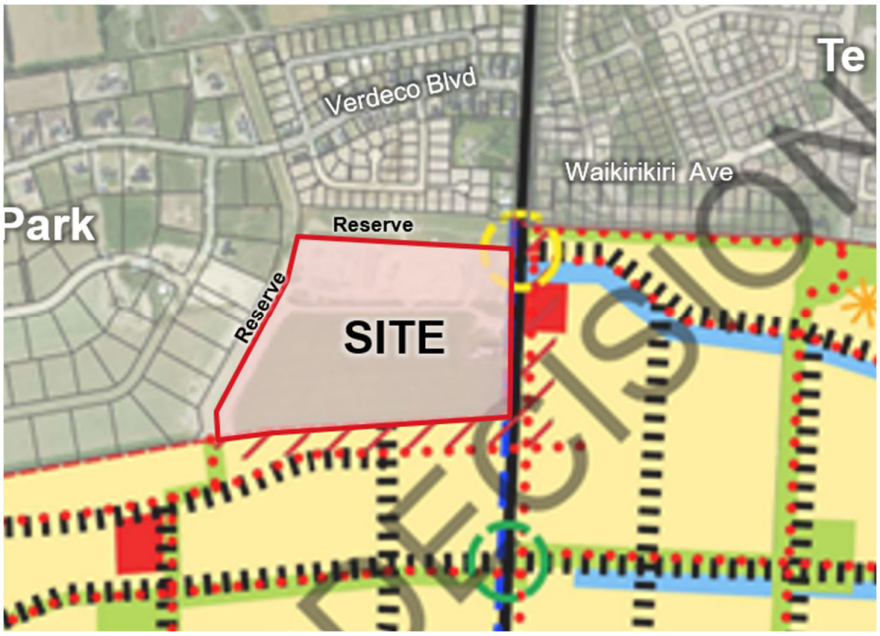

Figure 7: Plan Change 69 Outline Development Plan (Sub Area View)

Reference: **Lincoln Retirement Village Retirement Village Review**

Figure 8: Preliminary Concept Plan