Large Format Retail Zone Plan Change, Rolleston

Integrated Transport Assessment

13 February 2024 **Ref: 310205720**

PREPARED FOR:

Foodstuffs (South Island) Properties Limited

Stantec

Revision Schedule

Revision No.	Date	Description	Prepared by	Quality Reviewer	Approved for Issue
A	10/1/2024	Draft	A Metherell	A Leckie	A Metherell
B	30/1/2024	Revised Draft	A Metherell		A Metherell
C	5/2/2024	Final Draft	A Metherell		A Metherell
D	13/2/2024	Final	A Metherell	A Leckie	A Metherell

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Executive Summary

This Integrated Transport Assessment has investigated how the proposed rezoning of 157 Levi Road can be integrated with the surrounding transport network and land use developments from a transport perspective.

The site is located adjacent to two arterial roads which have an important function in the Rolleston transport network. It is also located in walking distance of the town centre.

The intersection of Levi Road and Lincoln Rolleston Road is due to be upgraded from a roundabout to traffic signals, and that is being proposed by Council to occur within the current financial year. That will address existing queuing that occurs in the evening peak on Levi Road, and support safe movement across the arterial intersection by those walking and cycling.

Detailed investigation of traffic effects was carried out for the consented PAK'nSAVE supermarket on the site, and a range of access conditions were included. Those have been transferred onto the proposed Outline Development Plan for the site.

The proposed rezoning also includes provision for a further trade retail supplies store to be developed to the south of the supermarket. Using a detailed traffic model, an investigation has been carried out of the ability of the road network to accommodate the traffic associated with additional high trip generating activities at this location. The assessment identifies that changes in performance are small and will not impact the timing or form of transport infrastructure provision on the arterial road network.

The Site is well serviced by existing public transport. Opportunities exist for enhanced access to public transport services as development occurs, and bus service providers adjust service location and frequency to respond to demand. The precise consideration of integration with bus stops that may be provided adjacent to the Site can be addressed in consenting stages.

A review of the PODP requirements shows that the rezoning will be supportive of the provisions for access and connectivity proposed. The Site development will be subject to consideration against District Plan transport rules that address access position. No particular issues have been identified that could not be considered through the standard consent process.

It is also expected development will be subject to High Trip Generating activity requirements for an Integrated Transport Assessment that further assesses site and access layout, provision for mode choice, and potential traffic effects. In that respect the combined Outline Development Plan and Transport chapter provisions will enable good transport outcomes for the Site and surrounding transport network to be achieved.

A review of District Plan Strategic Directions and Transport Objectives identifies a high level of consistency from a transport perspective. Similarly, it is considered the Site development can contribute to the relevant objectives in the National Policy Statement Urban Development 2020.

For the reasons set out, it is considered that the requested rezoning, with the Plan Change provisions set out in the request application, can be supported from a transport perspective.

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1. Introduction

Foodstuffs (South Island) Properties Limited (Foodstuffs) is seeking to rezone 157 Levi Road, Rolleston (Site) from Medium Density Residential Zone (**MRZ**) to Large Format Retail Zone (**LFRZ**) subject to an Outline Development Plan (ODP) within the Partially Operative Selwyn District Plan (**PODP**).

This report provides an Integrated Transport Assessment assessing the Plan Change request from a transportation perspective. The report describes the existing transport infrastructure and transport environment as well as planned changes in the transport network and land use in the area, and assesses how Large Format Retail development can integrate with the transport network. The proposed ODP includes key elements to guide the form and location of development including where site access is to be located, and provisions for circulation within the Site. In combination with the proposed amendments to the LFRZ rules and matters of discretion, this will enable a supermarket (already consented) and a trade retail and trade supply store on the Site. This report assesses the suitability of the ODP and provides transport-related recommendations. A transport modelling assessment is included which investigates the long-term performance of the road network, recognising that the traffic patterns in Rolleston are subject to ongoing change as a result of new development.

The Plan Change has been considered against a range of transport related planning provisions, including the PODP Strategic Directions and Transport Objectives, and the National Policy Statement Urban Development 2020 (**NPS-UD**).

By way of summary, the Integrated Transport Assessment has concluded that the Site is well located to accommodate the proposed activities, supporting safe, efficient, and effective integration with the transport network, with minimal impact on the functioning of the adjacent arterial road network. The Site is located in a position that can support movement by walking, cycling and public transport.

2. Site Location

As outlined in **Figure 2-1**, which also includes the PODP road hierarchy, the Site is located on the north-eastern side of Lincoln Rolleston Road and south-east of the Rolleston town centre. Both Levi Road and Lincoln Rolleston Road are classified as "Arterial" roads, and form part of the "Strategic Transport Network" referenced by the PODP. Levi Road provides a primary connection between Rolleston and the Christchurch Southern Motorway. Lincoln Rolleston Road connects to Selwyn Road at its southern end providing an alternative route between Rolleston and Christchurch.

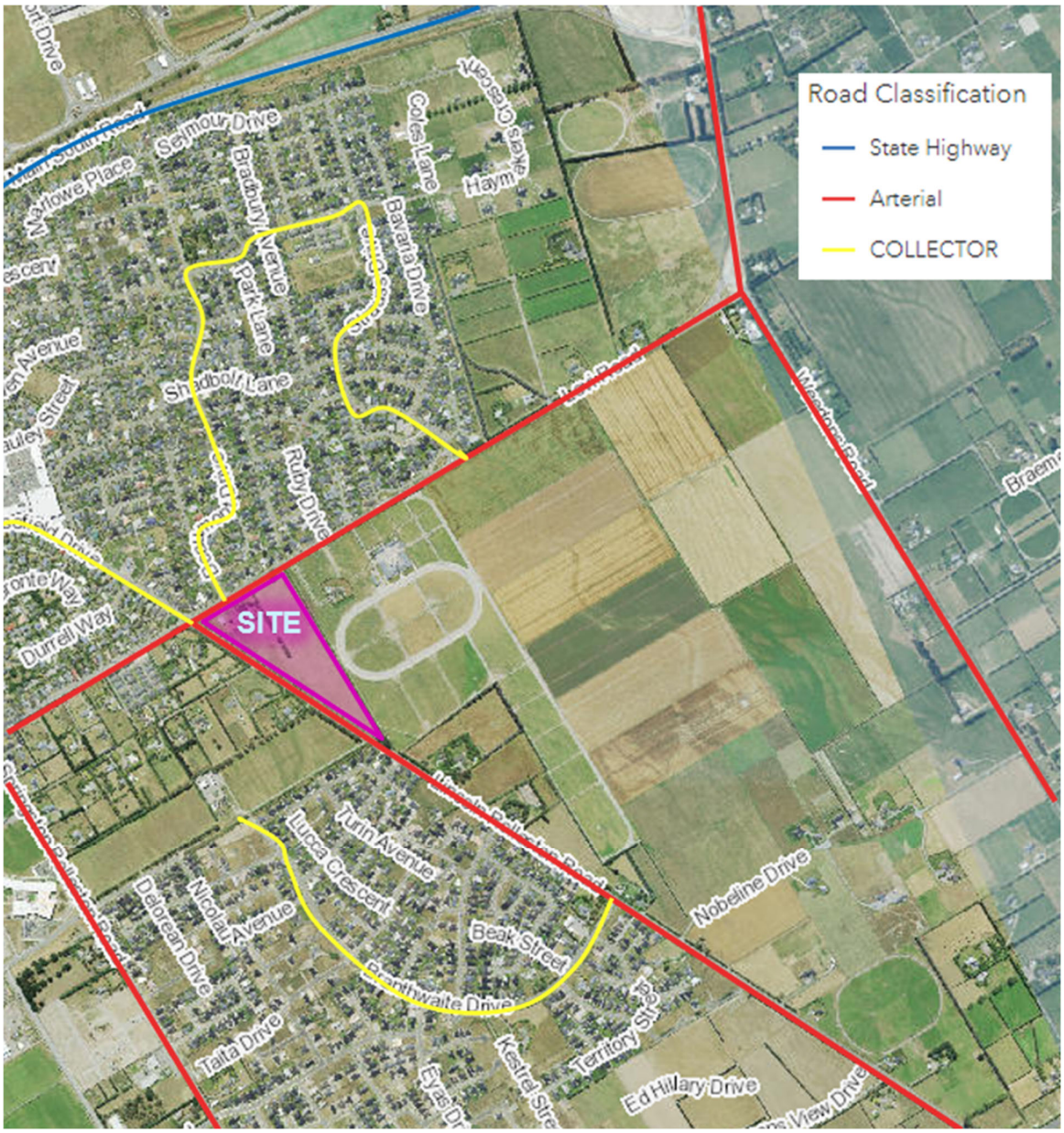

Figure 2-1: Site Location and PODP Road Classification

Figure 2-2 shows that the PODP has the Site zoned as MRZ and subject to Development Area provision DEV-RO1, reproduced in **Figure 2-3**.

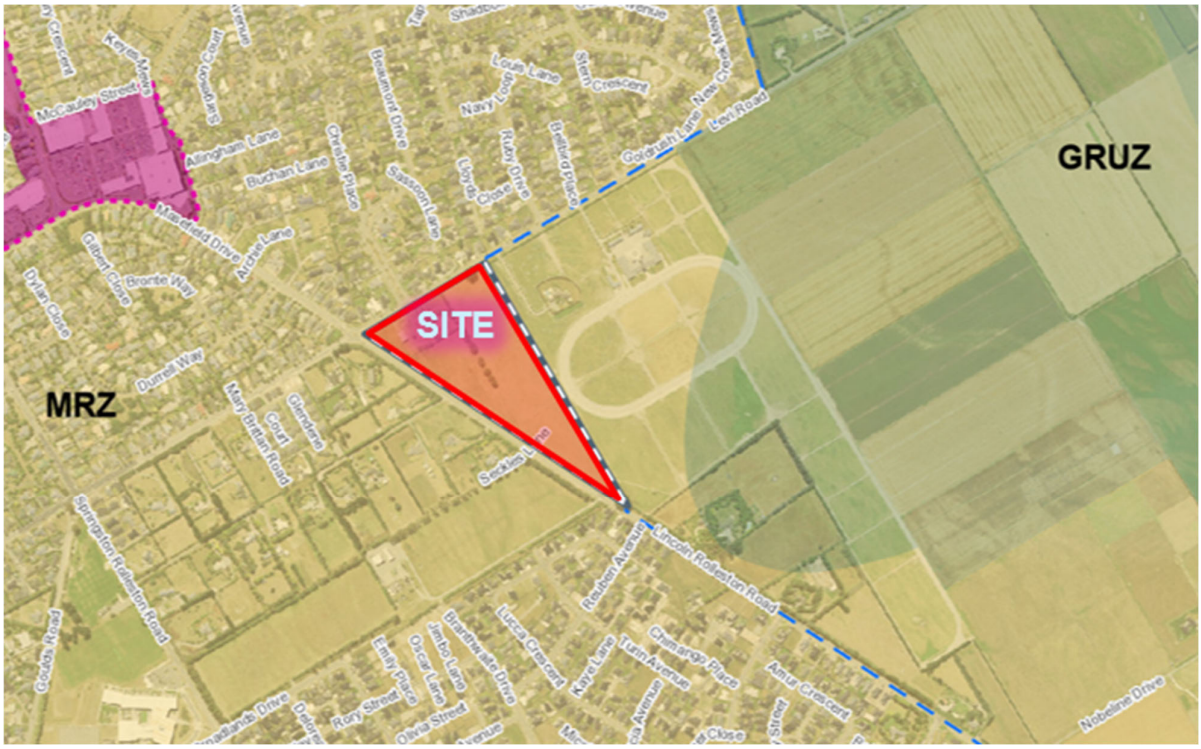

Figure 2-2: PODP Zone Map

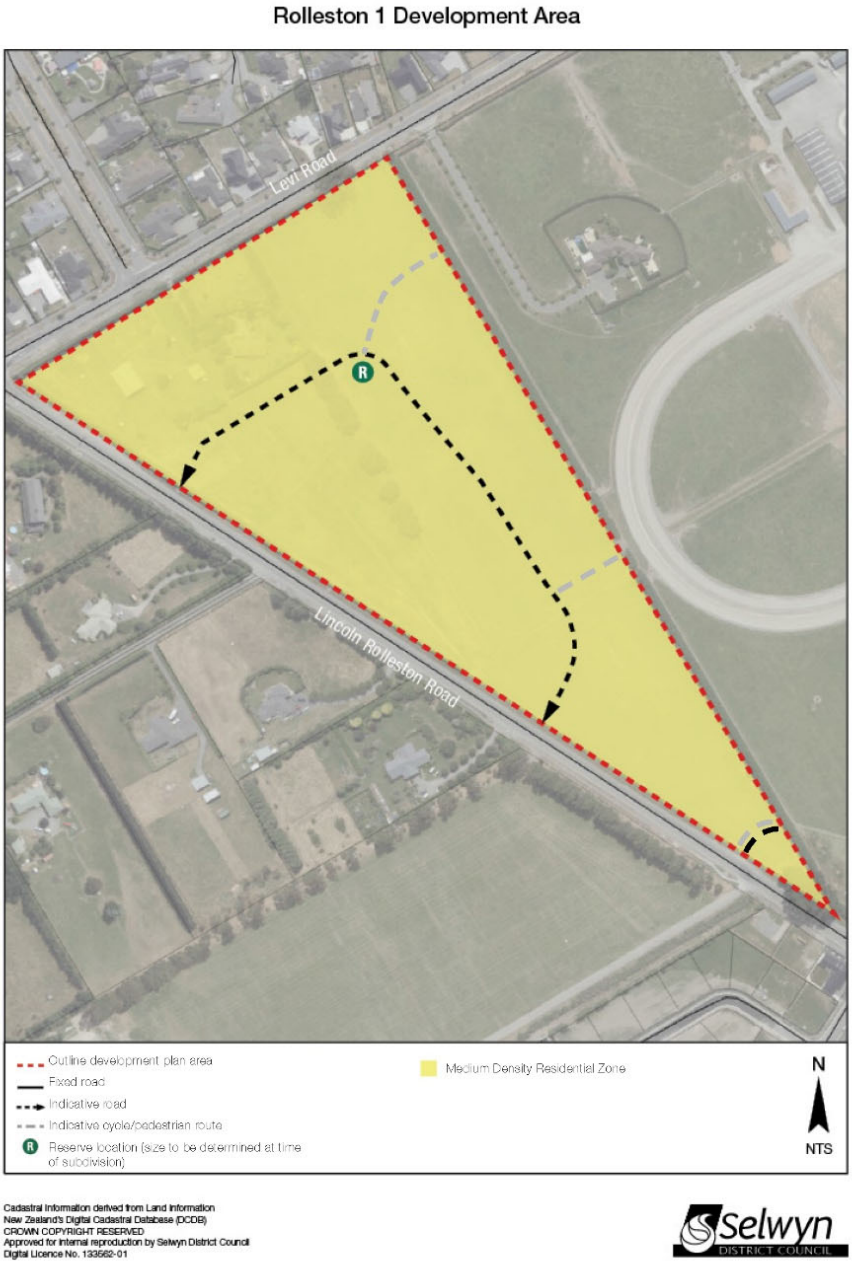

Figure 2-3: PODP DEV-RO1 Outline Development Plan

Land located immediately west is zoned MRZ and is subject to Development Area provision DEV-RO2, as shown in **Figure 2-4**. Land immediately east is zoned MRZ and is subject to DEV-RO12, as shown in **Figure 2-5**.

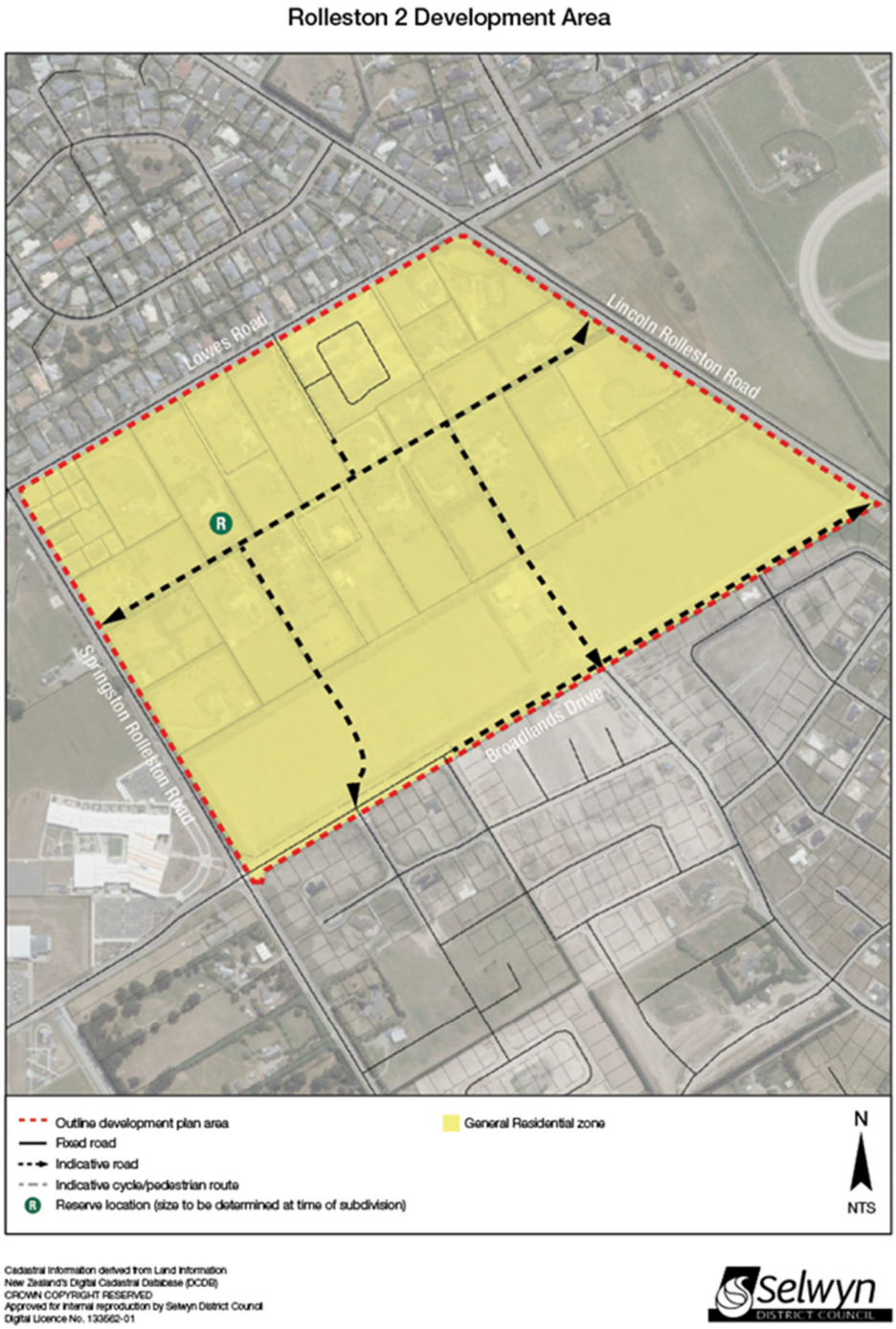

Figure 2-4: PODP DEV-RO2 Outline Development Plan

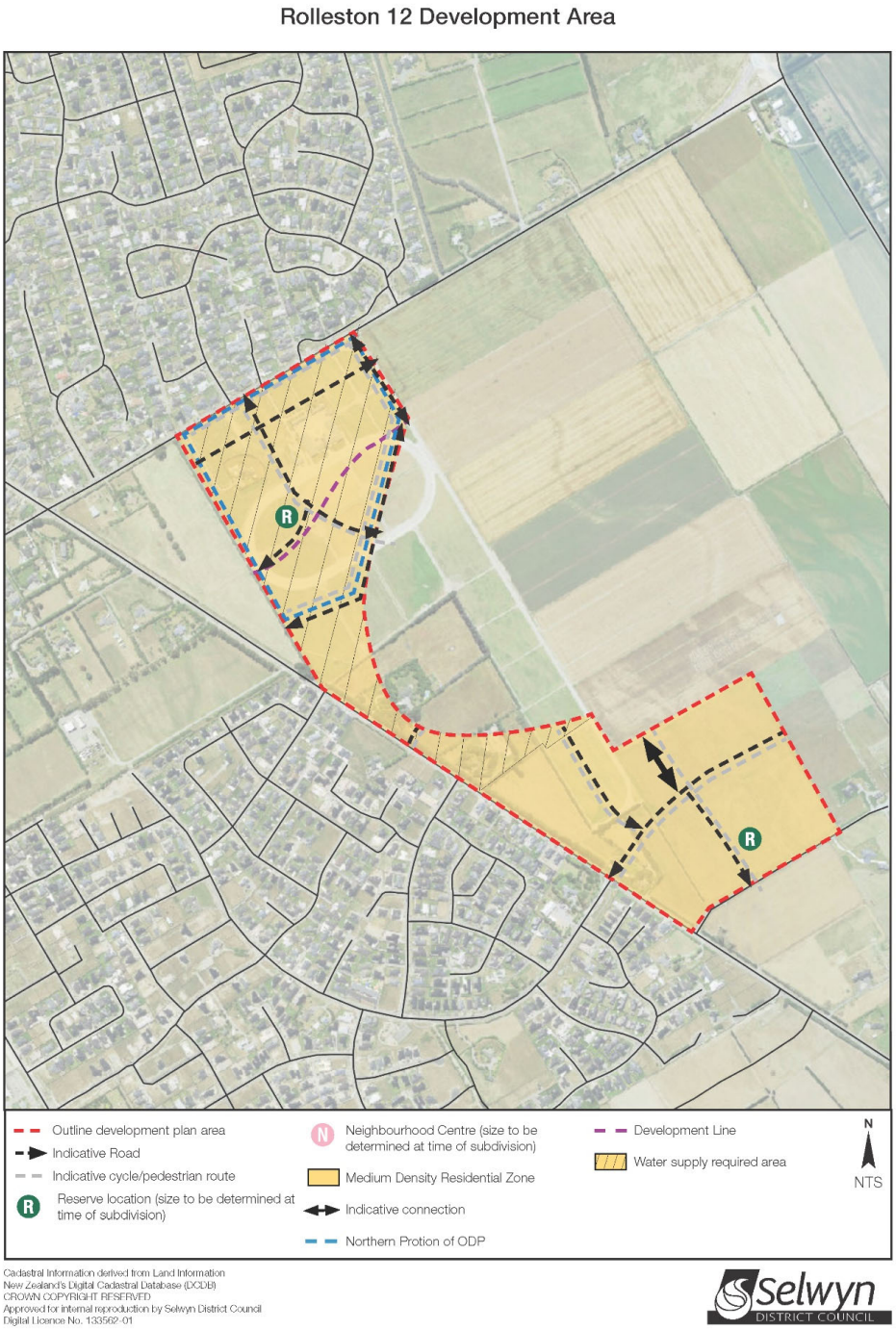

Figure 2-5: PODP DEV-RO12 Outline Development Plan

The Town Centre Zone is located approximately 400m northwest of the Levi Road / Lincoln Rolleston Road / Masefield Drive intersection.

3. Existing Transport Network

3.1 Existing Road Infrastructure

The Site fronts Lincoln Rolleston Road which is an arterial road connecting to Selwyn Road and continuing towards the south-west of Christchurch. Adjacent to the Site the road has a rural formation on the eastern side as shown by **Figure 3-1**, and operates with a 60km/h speed limit. There is a shared cycle/footpath on the western side of the road.

Figure 3-1: Lincoln Rolleston Road Frontage looking North

There are currently subdivisions under construction opposite the Site, at 333 Lincoln Rolleston Road and 341 Lincoln Rolleston Road. The approved subdivisions authorise the creation of 11 and five residential lots, respectively. At the time of the site visit, temporary traffic management was in place to manage the temporary changes in road operations associated with the subdivision construction. This is shown in **Figure 3-2**.

Figure 3-2: Frontage of Subdivision at 333 Lincoln Rolleston Road

Further south where residential development has occurred on the western side of Lincoln Rolleston Road, the road is formed to an urban standard next to residential developments, and includes kerb and channel, a parking lane and a shared pedestrian / cycle path. This is indicated by **Figure 3-3**.

Figure 3-3: Lincoln Rolleston Road adjacent Residential Development (North of Branthwaite Drive)

Levi Road is located on the northern frontage of the Site, and operates with a 50km/h speed limit. It has an important arterial function connecting Rolleston to the Christchurch Southern Motorway (via Weedons Road). The northern side of Levi Road has residential development accessing the road directly, with urban infrastructure including footpath and kerb and channel, and the southern (Site) side has a rural berm. This is shown in **Figure 3-4**.

Figure 3-4: Levi Road Frontage

Levi Road and Lincoln Rolleston Road currently intersect at a single lane roundabout. The roundabout is planned to be upgraded to traffic signals and funding is included in the 2023/24 Selwyn District Annual Plan

Masefield Drive forms a continuation north of Lincoln Rolleston Road, and is an access route to the Rolleston town centre. It includes footpaths on both sides of the road.

Broadlands Drive is a collector road that currently runs from Nicolau Avenue (which is east of Springston Rolleston Road) through to Lowes Road in the west. It is planned that it will continue east to Lincoln Rolleston Road, and then further east to connect with the future District Park and Levi Road, as indicated in Figures 2-3, 2-4 and 2-5 above.

3.2 Public Transport Network

Figure 3-5 shows the bus services and their associated routes that operate within Rolleston. The three services which operate are Route 5 (Rolleston/New Brighton), Route 85 (Rolleston/City Direct) and Route 820 (Burnham/Lincoln via Rolleston).

Figure 3-5: Rolleston Bus Services

The Route 5 bus service operates nearest to the Site with the route passing the Levi Road / Lincoln Rolleston Road roundabout. Bus stops for these services are located near the Masefield Drive intersection with Durrell Way and the Lowes Road intersection with Mary Brittan Road.

Route 5 operates with approximately twice an hour frequency through the day, with more frequent and express services towards Christchurch during the morning commuter peak time and towards Rolleston during the evening commuter peak time. Route 85 operates four times into the city in the morning peak, and four times from the city in the evening peak period on weekdays. Route 820 operates approximately once per hour throughout the day on weekdays and weekends.

3.3 Active Modes Network

The shared cycle and pedestrian path on the western side of Lincoln Rolleston Road forms part of the 9km long Rolleston to Lincoln cycleway. Footpaths are available on roads developed with urban infrastructure, and the network is expanding as development occurs.

4. Existing Traffic Environment

4.1 Traffic Volumes

According to the Selwyn District Council (**SDC**) traffic count data, roads in the vicinity of the Site carry traffic volumes as follows:

Table 4-1: Existing Traffic Volumes

Road	Location	Average Traffic Volumes	Date
Levi Road	East of Beaumont Drive	9,300vpd	August 2022
Lincoln Rolleston Road	South of Levi Road	4,400vpd	September 2022
Masefield Drive	North of Levi Road	6,700vpd	September 2022
Lowes Road	East of Springston Rolleston Road	4,300vpd	August 2020

The recorded traffic volumes are not significantly large for urban arterial roads. However, traffic volumes in Rolleston are changing reasonably rapidly as significant development has occurred since the traffic counts were carried out. For this reason, SDC applies a future traffic model for consideration of how the road network performance will change over time, and road network interventions that will be required.

Current observations indicate that some long, slow-moving queueing occurs on the eastern Levi Road approach to the Lincoln Rolleston Road / Levi Road roundabout intersection during the evening peak period.

4.2 Road Crash History

A crash search has been carried out investigating reported crashes on the roads adjacent to the Site using the Waka Kotahi 'Crash Analysis System' database.

The search area includes Masefield Drive down to Archie Lane, Lowes Road down to Mary Brittan Road, Levi Road down to Ruby Drive and Lincoln Rolleston Road down to Falcon Road. Additionally, a 50m search radius has been completed at the Levi Road / Lincoln Rolleston Road roundabout. The search was completed for the most recent 5-year period of September 2018-September 2023.

A total of 10 crashes have been recorded with five minor injury and five non-injury. **Figure 4-1** shows one crash was recorded on Lowes Road, six at the Levi Road / Lincoln Rolleston Road roundabout, one on Levi Road, and two on Lincoln Rolleston Road.

Figure 4-1: Location of Road Crashes 2018-2023

At the roundabout, one minor injury crash involved a driver falling asleep and mounting the roundabout, losing control. One non-injury crash involved an intoxicated driver losing control and striking another vehicle and mounting the roundabout. Another non-injury crash involved the driver accelerating too quickly out of the roundabout in wet conditions. The remaining two minor injury and one non-injury crashes all involved a vehicle on the Levi Road approach failing to give-way to cyclists circulating the roundabout from the right.

The minor injury crash on Lowes Road was due to driver inattention.

On Levi Road, the minor injury crash involved a driver failing to stop short of a stationary vehicle, causing a rear-end crash.

On Lincoln Rolleston Road, both non-injury crashes involved driver inattention and led to collisions with parked vehicles.

To summarise, it is considered that Lowes Road, Masefield Drive, Levi Road, and Lincoln Rolleston Road are operating as would be expected of an urban corridor. Two of the minor injury crashes involving cyclists at the Levi Road / Lincoln Rolleston Road roundabout have occurred within the past 2 years. This raises some concerns over the safety of the roundabout in terms of active mode users, noting that significant changes are proposed at this intersection.

5. Planned Transport Network Improvements

5.1 NZ Transport Agency Waka Kotahi Rolleston Access Improvements

The Rolleston Flyover and Transport Improvements project is being planned by NZ Transport Agency Waka Kotahi (**NZTA**). This $120 million project is being developed as part of the NZ Upgrade Programme. It is currently planned to include an overbridge from Rolleston south of State Highway 1 to the Rolleston industrial area at Jones Road aligned with Rolleston Drive. Construction is anticipated to commence in the period 2024 to 2026, although the overbridge is indicated to only be completed by 2030.

Figure 5-1 shows the latest plan outlined in engagement documents (June 2022). It indicates that Rolleston Drive will have a less direct connection to SH1 compared to the current traffic signals, with right turns into Rolleston from the southwest not possible at the intersection.

Levi Road and Lowes Road become an increasingly important route for access into Rolleston from the Christchurch Southern Motorway and SH1.

Figure 5-1: Rolleston Access Proposed Plan

5.2 SDC Intersection and Road Network Improvements

The upgrade of the Lowes Road / Levi Road / Masefield Drive / Lincoln Rolleston Road roundabout is included in the SDC Long Term Plan as well as referenced in the Activity Management Plan 2021 as part of the CSM2 Access Improvement projects. The Selwyn District Annual Plan has proposed bringing forward the intersection improvement to the 2023/24

financial year, from the previously planned date of 2025/26. There are no further details regarding the potential design of the signalised intersection.

The extension of Broadlands Drive (Stage 3 Extension) is included in the Activity Management Plan 2021 for the complete arterial link connection from Nicolau Avenue to Lincoln Rolleston Road. This project is planned for implementation in 2033/34. The extension would occur within land currently owned by SDC for access to the SDC designated water well, water treatment plant and wastewater pumping station.

5.3 ECAN Public Transport Improvements

The Canterbury Regional Public Transport Plan 2018-2028 anticipates improvements to the core public transport routes, with increased frequency and more direct routing of core services. In the long-term rapid transit is signalled from Rolleston to Christchurch.

As shown in **Figure 5-2**, within Selwyn the improvements will include improved connectivity within and between townships. Policy 1.12 "Services to areas of new development' describes how services to new developments will be considered, with the policy seeking timely and cost-effective public transport provision to new areas of urban development in accordance with a range of criteria.

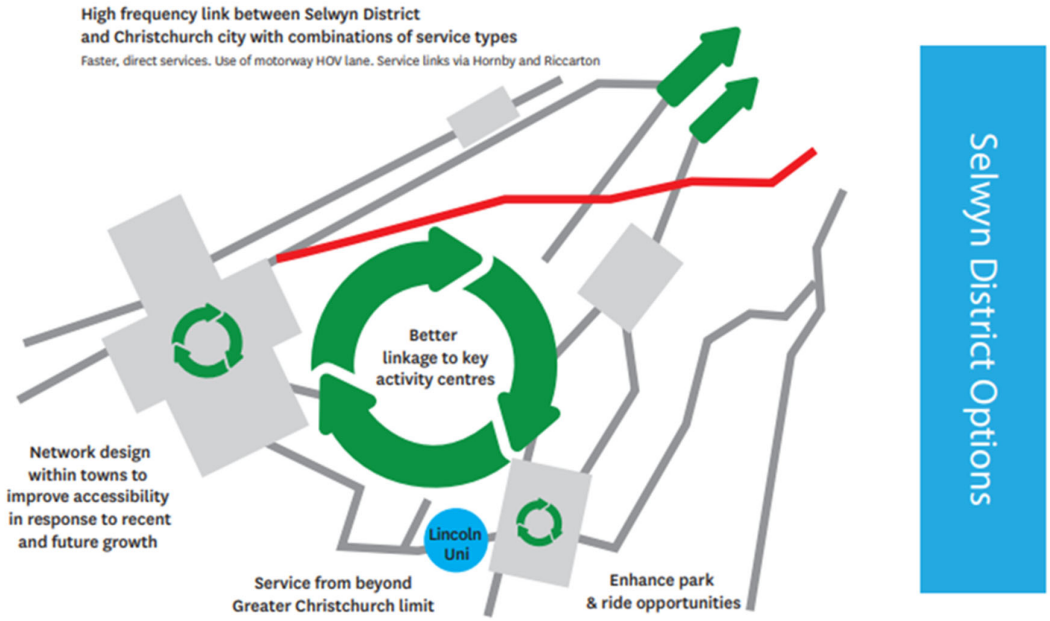

Figure 5-2: Regional Public Transport Plan

The Waka Kotahi Rolleston Access project has also identified the potential for Park n Ride expansion around Kidman Drive near the town centre.

6. Planned Land Use Changes

6.1 PAK'nSAVE Consent

Foodstuffs received resource consent[1] in 2022 to establish an 8,108m^2 gross floor area (GFA) PAK'nSAVE supermarket on the northern part of the Site. It was supported by extensive transportation assessment and traffic modelling. The supermarket layout is shown in **Figure 6-1** within the context of the surrounding area.

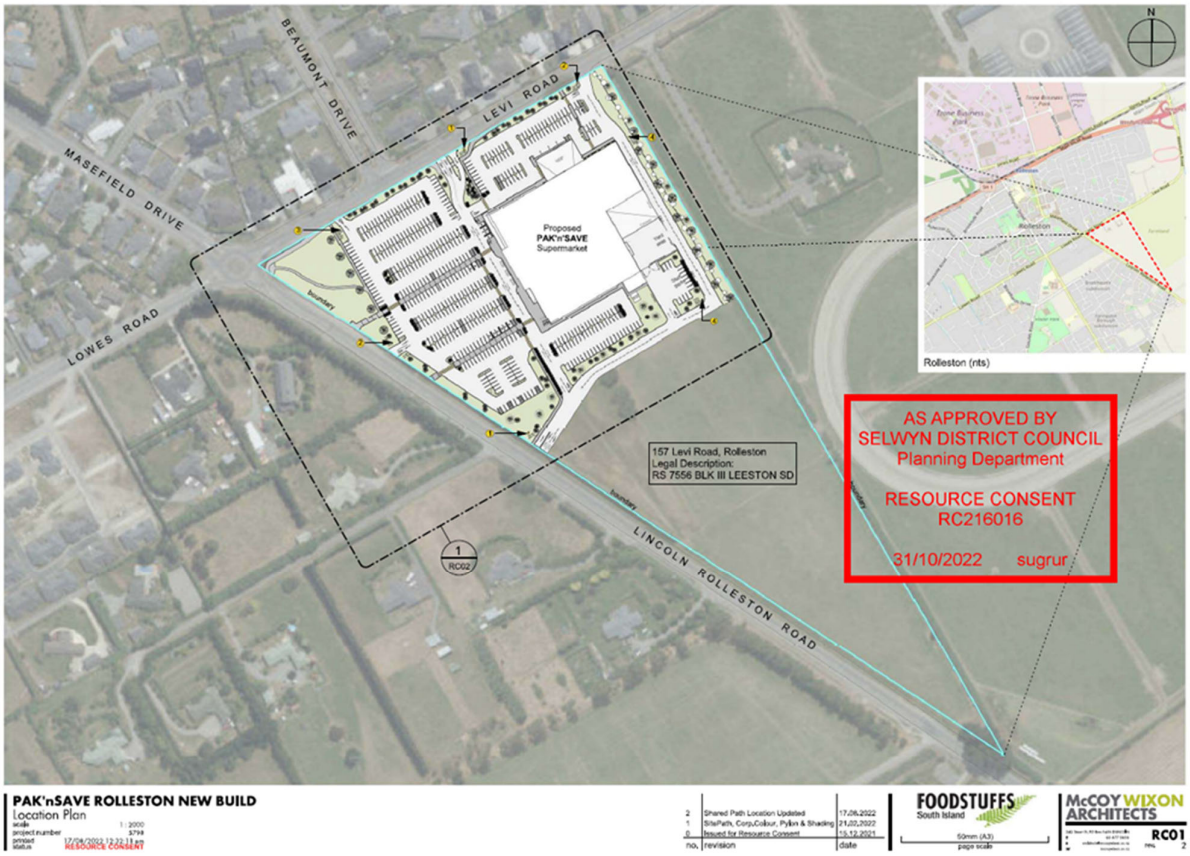

Figure 6-1: Approved PAK'nSAVE Consent Plan

The consent has the following transport related characteristics:

- 513 car parking spaces including mobility parking spaces, cycle parking spaces and loading facilities. Car parking is predominantly to the north and west of the supermarket building.
- Three accesses to Levi Road. The western access is left turn out only, the middle access is full movement, and the eastern access is left turn in only, including provision for service vehicles.
- Two accesses to Lincoln Rolleston Road. The northern access is left-in / left-out only, and the southern access is full movement.

A service route is proposed with entry from Levi Road, accessing a loading dock along the rear (eastern side) of the building, and exiting to Lincoln Rolleston Road via a main access route shared with customer access.

[1] https://www.selwyn.govt.nz/property-And-building/resource-consent/notified-resource-consents

On street improvements include a requirement for new kerb and channel and a shared cycle and pedestrian path along the southern side of Levi Road and a pedestrian path on the eastern side of Lincoln Rolleston Road, together with formed pedestrian and cyclist crossing points on Levi Road and Lincoln Rolleston Road.

The PAK'nSAVE ITA included a forecast that the supermarket Site could have a weekday peak period traffic generation of 1,013vph between 5pm and 6pm. Transaction data included in Figure 7.2 of the PAK'nSAVE ITA indicated that the morning peak hour has substantially lower trip generation at less than 25% of the evening peak hour. Approximately one third of trips were expected to be new to the road network, and the remaining two-thirds would either be passing by the Site or diverted from another trip. For example, a journey from work in the Rolleston industrial area to the Rolleston residential area may divert to the supermarket as part of that trip.

Heavy vehicle generation was set out in Section 5.4 of the PAK'nSAVE ITA, which set out an expected delivery operations based on a typical 7-day week. On average, that included approximately:

- two truck and trailer unit deliveries per day (and at most four truck and trailer deliveries per day), including an early morning 4.45am movement for chilled and frozen goods;
- two large rigid truck deliveries by 7am, and approximately 30-40 deliveries between 8am and 10am by vans and rigid trucks.

A comprehensive traffic modelling assessment was provided for the weekday evening peak period, which was the period expected to be most sensitive to the change in traffic volumes resulting from the supermarket. This report adopts the PAK'nSAVE consent as part of the existing environment for consideration of further large format retail zone development on the southern portion of the Site.

6.2 District Plan Greenfield Development

Land to the east and west of the Site is zoned in the PODP for greenfield residential development, subject to the MRZ provisions.

333 Lincoln Rolleston Road is currently being developed for a residential subdivision, with the development plan shown in **Figure 6-2**. The plan authorises 11 lots, with 7 lots accessed via right of way to Lincoln Rolleston Road at the southern boundary. The existing dwelling and 3 other lots will have direct access via vehicle crossings. No new roads are proposed. The 333 Lincoln Rolleston Road site appears to have almost finished undergoing construction.

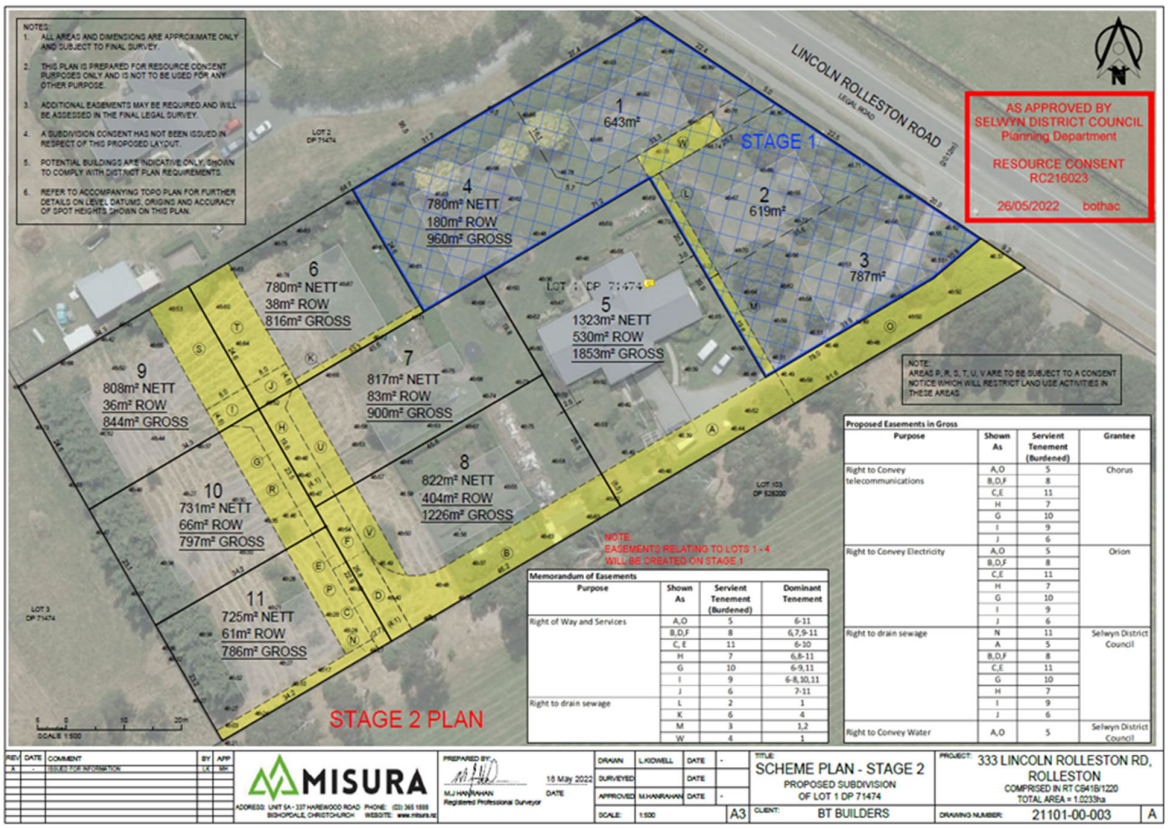

Figure 6-2: 333 Lincoln Rolleston Road Subdivision Plan

A subdivision is also being constructed at 341 Lincoln Rolleston Road. The approved subdivision plan shown in **Figure 6-3** provides for 5 residential lots accessing a right of way on the southern boundary, with a large balance lot to the north. No roads are shown within the subdivision layout.

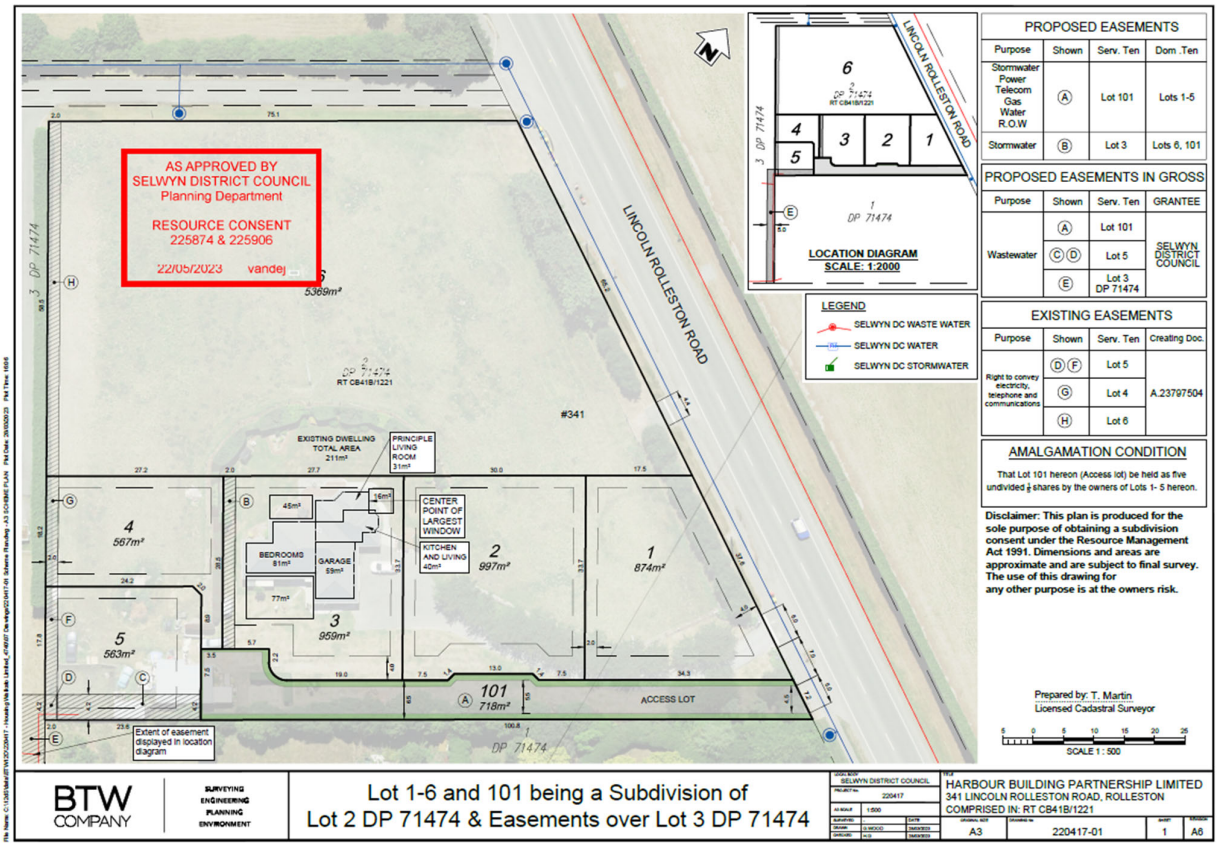

Figure 6-3: 341 Lincoln Rolleston Road Subdivision Plan

DEV-RO1 ODP in the PODP identifies an indicative road and cycle/pedestrian route connection across the southern part of the Site to link to the land to the east (DEV-RO12). DEV-RO1 ODP does not reflect the consented supermarket development on the Site.

7. Proposed Rezoning

7.1 Overview

The Private Plan Change request seeks to rezone the 7.18ha Site from MRZ to LFRZ.

The rezoning of the Site is intended to reflect the consented PAK'nSAVE and facilitate the development of a trade retail and trade supplier on the balance. The proposed ODP, included in **Figure 7-1,** reflects the consented PAK'nSAVE development and access provisions in the northern part of the Site, and the future development and access provisions for a trade retail and trade supplier in the southern part of the Site.

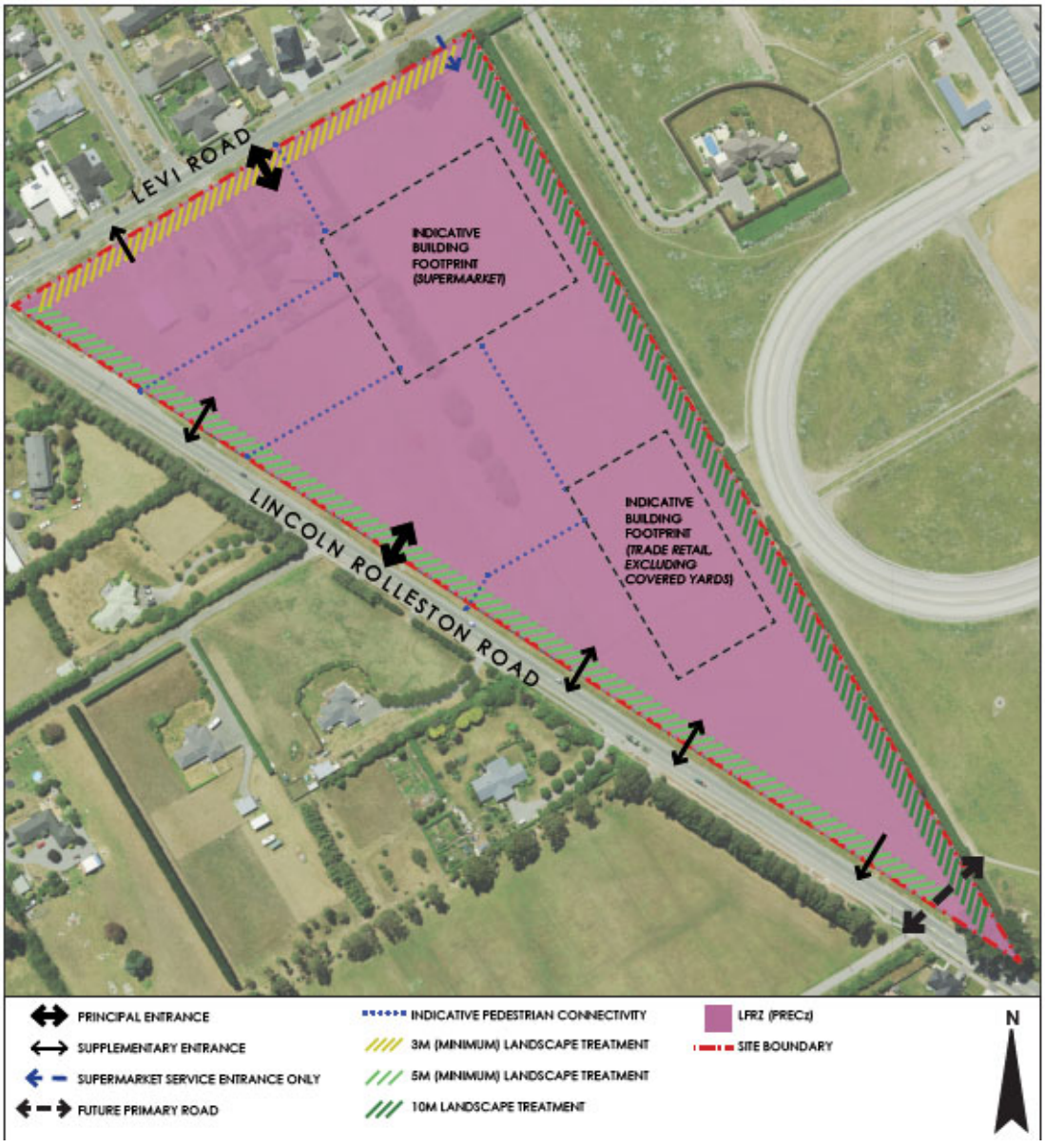

Figure 7-1: 157 Levi Road Proposed ODP

For the purpose of assessment of the transport-related aspects of the proposed rezoning, the consented PAK'nSAVE has been treated as part of the existing environment, and the scale and layout of a typical Mitre 10 trade retail store as illustrated in the Indicative Concept Site Plan has been considered. This is considered a reasonable approach, given this represents the future development outcome anticipated by the proposed ODP and facilitated by the proposed rule amendments.

The Indicative Concept Site Plan shows a typical mix of activities for a Mitre 10 trade retail store. That includes a garden centre, retail hall, drive-thru, covered yard, small café, and external landscaping supplies yard. Excluding the external yard, mezzanine offices, and inward goods, the expected ground floor area associated with the Indicative Concept Site Plan is approximately 11,000m^2.

The position of the indicative building footprint is near the eastern Site boundary, similar to the consented PAK'nSAVE, with car parking modules expected between the building and Lincoln Rolleston Road.

The ODP provides for shared access to the Site car parking via the consented PAK'nSAVE main access on Lincoln Rolleston Road, and two additional new accesses approximately 100m and 160m further south to enable efficient access to anticipated drive-thru, covered yard and car parking facilities.

Access to the trade retail store by service vehicles would involve vehicles entering via the main Lincoln Rolleston Road access, travelling to the east and then behind the building along the eastern boundary, before accessing the inwards goods and yard area, and then exiting directly to Lincoln Rolleston Road. The position of the yard exit would be dictated by the need to maintain separation from the future Broadlands Drive extension (assumed) roundabout.

The primary road connecting from the Broadlands Drive extension through to land to the east (enabling connection to DEV-RO12) is shown on the ODP. Based on discussion with SDC, there is an expectation a roundabout will be located at the Lincoln Rolleston Road intersection.

It is understood that the joint use of the main Site access from Lincoln Rolleston Road will be similar to the model successfully adopted by PAK'nSAVE and Mitre 10 in Frankton, Queenstown. The supermarket and trade retail and supply activity are anticipated to operate independently, with a high level of pedestrian and vehicle integration between the activities. That supports internal movement between stores, without requiring access back to the arterial road network. Future resource consents and resource consent variations would be required to contemplate and assess site integration through the PODP TRAN 8 High Trip Generator rule requirements, which are not proposed to be changed.

8. Traffic Generation

8.1 Overall Traffic Generation

A full weekday traffic generation profile has been considered from a trade supplier development consistent with the type of trade supplier development proposed for the southern part of the Site. The profile represented the busiest weekday (Friday) from a full week traffic count. A weekday evening peak traffic generation rate of 2.2vph per 100m^2 GFA was recorded.

The previous transport assessment for the Foodstuffs Submission on the Proposed Selwyn District Plan Variation 1, which sought the same zoning and development outcomes as the current Private Plan Change request, assumed a ground floor retail area of approximately 11,700m^2 for the purpose of traffic generation calculations. This is slightly more than the expected 11,000m^2 based on the Indicative Concept Site Plan, and the higher 11,700m^2 has been adopted for this transport assessment as a conservative assessment and so that the detailed traffic modelling analysis does not need to be repeated.

Based on the assessed 11,700m^2 GFA building on the Site, it is forecast that approximately 260vph could be generated during the weekday evening peak period. It is noted that the busiest period for a trade retail will occur on a Saturday late morning/early afternoon. The data indicates a Saturday traffic generation rate of approximately 4.1vph per 100m^2 GFA, meaning a development of the Site could generate approximately 480vph during this time.

The traffic generation profile for the PAK'nSAVE store has then been considered based on the transaction profile and peak traffic generation reported in the PAK'nSAVE ITA. This is indicative only applying transactions as a proxy for traffic generation at times other than the peak hour, which was assessed as 1,013vph.

The weekday traffic generation profiles for each of the activities, and the combined activities are indicated in **Figure 8-1**, which clearly shows the dominance of the traffic generation in the evening peak period. It also shows that the trade retail activity has a relatively small level of weekday evening peak hour traffic generation when compared with the consented supermarket. The assessment is conservative in the following respects:

- No allowance has been made for a reduced trip generation for the Site associated with linked trips between the activities on the Site;
- The trade retail assessment represents the busiest day surveyed, and the peak hour of 4-5pm does not coincide with the expected peak hour of the supermarket (5-6pm) or the road network (4.45-5.45pm);
- No reduction in trips currently made out of Rolleston to comparable stores at Hornby has been allowed for. Such trips may well pass the Site due to the strategic position in the road network.

As previously described, the weekend traffic generation peak of a trade retail store is higher than the weekday peak periods. Currently there are no traffic models available for Rolleston that relate to a weekend period, as there are no issues with traffic congestion on the network compared with a weekday peak. It is understood that there are less differences between weekday and weekend peak traffic generation of a supermarket.

Whilst a weekend peak assessment of a trade retail development can have some slightly different performance outcomes compared with the weekday peak, that primarily relates to on-site circulation. Intersections and accesses operate more efficiently overall because traffic is more evenly distributed by direction, and peak hours of the road network on a weekend typically do not reach the levels experienced on a weekday. For the purpose of assessing transport network performance associated with the rezoning request, the Saturday peak periods have not been investigated further. That is consistent with development assessments in Rolleston, where the focus of assessment of network traffic effects is the weekday evening peak period.

Any high trip generating development of the Site will be subject to further network effects assessment through the High Trip Generator rule requirements of the PODP. That will also enable, if required, more rigorous consideration of day-to-day traffic generation patterns associated with the specific activity seeking consent, and potential effects on the transport network and access performance.

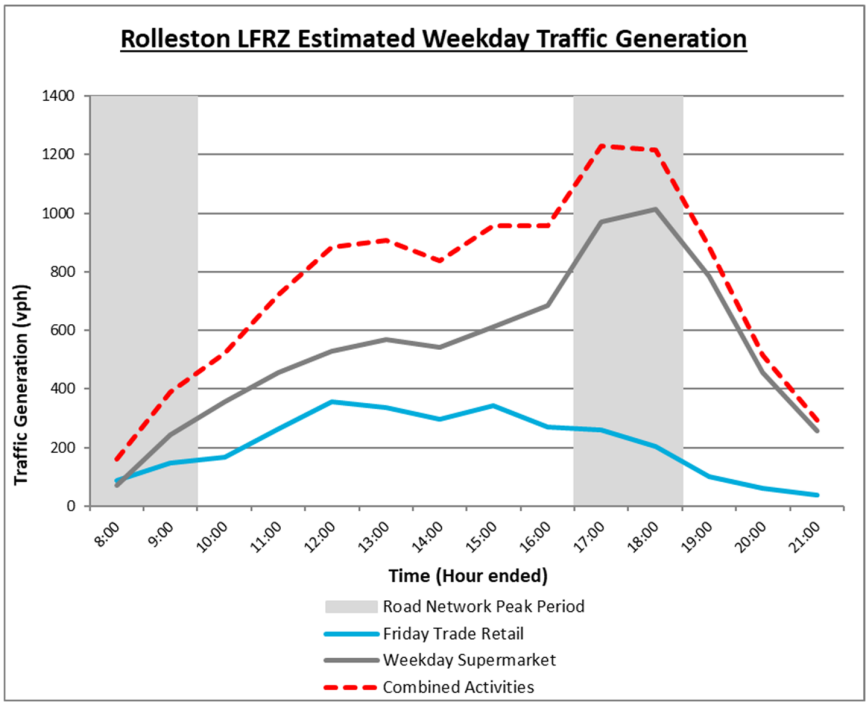

Figure 8-1: Friday Traffic Generation Profile

8.2 Service Vehicle Traffic Generation

Data supplied by Mitre 10 for their Beckenham store indicates the following levels of heavy vehicle traffic generation associated with servicing a trade supplier site (which is of smaller scale).

On an average weekday there were approximately:

- 7 vans entering the site;
- 10 single unit trucks entering the site; and
- Less than 1 truck and trailer entering the site.

These typically occur before 4pm, and there are typically no weekend deliveries.

As referenced earlier, the PAK'nSAVE consent application set out the expected service vehicle movements for the supermarket. The additional Mitre10 movements (approximately 20 deliveries per day) would represent an approximate 50% increase on consented heavy vehicle movements, albeit with a different access route through the site.

Even allowing for seasonal peaking, and potentially scaling for a larger trade supplier operation, the quantum of heavy vehicle movements associated with LFRZ-enabled development will not affect the transport network. Access can be suitably designed with detailed consideration through resource consent processes.

9. Transport Network Performance

9.1 Traffic Modelling Overview

Stantec transportation modellers carried out a traffic modelling assessment of the ability of the future road network to accommodate the additional traffic that could be generated by the anticipated development of the Site with the consented PAK'nSAVE and a trade retail store. The assessment was completed for the Foodstuffs Submission on the Proposed Selwyn District Plan Variation 1, which sought the same zoning and development outcomes as the current Private Plan Change request.

The evening peak transportation model adopted was the same as that applied in the PAK'nSAVE consent, as explained in detail in the consent documentation. It represented a fully developed Rolleston including greenfield residential Plan Changes being processed at the time the model was developed. External traffic such as on SH1 passing Rolleston represented a year 2033, although it is understood the model would represent a longer 30-year development timeframe[2] for Rolleston traffic network performance due to the high level of household development assumed.

Various road network improvements anticipated over the next ten-year period are included in the model, with most of those either already provisioned in the Long Term Plan, or expected to be required as development occurs (such as for access to new developments). It is understood that development sites are subject to development contributions which assist SDC in delivering the major projects of a wide community benefit.

The "Base" model then represents the future consented scenario with PAK'nSAVE on the Site and a residual number of dwellings on the southern portion of the Site. This is equivalent to the development scenario assessed for PAK'nSAVE.

The "with rezoning" model scenario then modifies the traffic model by removing the residual residential development[3] on the Site, adding in the trade supplier store access and traffic generation, and restricting movements between the trade retail site and Levi Road through the PAK'nSAVE site.

It is noted that since the release of the PODP decisions, a further update to the Rolleston micro-simulation model has been undertaken by SDC (and provided to Stantec in December 2023). It is understood the model update includes additional recently zoned land development areas. A review of the future base traffic forecasts on the surrounding road network indicates that the updated model has forecast (compared to the future year PAK'nSAVE model):

- an 11% increase in traffic volumes at the Lincoln Rolleston Road/ Levi Road intersection,
- a 2% decrease in traffic volumes at the Broadlands Road/ Lincoln Rolleston Road intersection,
- a 10% increase in traffic volumes on the northern frontage of the site along Levi Road,
- a 1% increase in vehicle movements on Lincoln Rolleston Road along the western frontage.

When considering the long-term nature of the traffic forecasts, and the high growth included in the original traffic model, no additional traffic modelling has been carried out. The relative change in traffic patterns as a result of LFRZ-enabled development will still be suitably represented by the modelling that has been carried out, and development will be subject to the ODP and more detailed assessment through High Trip Generator assessment already required by the PODP.

9.2 Traffic Distribution

The modelling approach for determining trip distribution is the same as that used in the PAK'nSAVE ITA process. Trip characteristics for the supermarket and trade retail activity are expected to be similar. This splits the total traffic generation for the trade retail into three trip types:

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[2] PAK'nSAVE Hearing Summary Statement David Smith, Paragraph 108 *"I reiterate that the model includes 30 years of growth so is essentially a 2048 high-growth forecast."*

[3] 34 residential dwellings were included in the southern part of the site within the Rolleston simulation model

- Primary trips - trips that are new to the road network, with the specific purpose of visiting the site.
- Pass-by Trips – trips being made on roads passing the site, where the driver then chooses to access the site. This adds trips to the site accesses, but results in minimal changes to nearby roads and intersections.
- Diverted Trips – trips being made on roads further from the site, where the driver diverts to the site. This adds trips to the site accesses, and potentially nearby roads and intersections, but removes movements elsewhere in the road network.

Research from Auckland has been referenced where visitors to a trade retail site were interviewed about their trip type. It established that 67% of trips in the weekday evening peak are either diverted or pass by. Only 33% were reported as primary trips[4]. This happens to be the same outcome as applied by Abley for the PAK'nSAVE supermarket ITA modelling.

9.3 Transport Model Outputs

The traffic model has been utilised to compare two development scenarios for the Site:

1. Base Zoning and Residential Development: PAK'nSAVE and residual residential development.
2. Proposed LFRZ: PAK'nSAVE and Trade Retail store.

Transport network performance statistics have been extracted for accesses and intersections on Lincoln Rolleston Road. The relative performance statistics are included in **Appendix A** and summarised in **Table 9-1** below.

Table 9-1: Intersection and Access Performance Summary

Intersection / Access	Intersection Type	Level of Service[5]		Comment
		Base Zoning and Residential Development	Proposed LFRZ	
Levi Rd / Lincoln Rolleston Rd / Masefield Dr	Traffic signals	LOS C	LOS C	Negligible change in performance, potential to adjust signal timings.
Lincoln Rolleston Rd P'nS / Trade Supplier Access	Sign controlled	LOS D	LOS D	Similar driveway performance
Lincoln Rolleston Rd / Western Residential Rd	Sign controlled	LOS B	LOS B	Negligible change in performance
Lincoln Rolleston Road Secondary Trade Supplier Access	Sign controlled	N/A	LOS A	Minimal delay
Lincoln Rolleston Rd / Broadlands Dr Ext	Roundabout	LOS A	LOS B	Change in LOS although only a 1 s/veh change in average intersection delay

The results show that the performance of the road network will be relatively unchanged under the LFRZ scenario when compared to the base zoning and residential development scenario, and good levels of service are achieved. The signalised intersection of Levi Road / Lincoln Rolleston Road will have practically the same level of traffic using it, and performance will remain similar with the trade retail. The right turn from Lincoln Rolleston Road into Levi Road is modelled with a filter turn only, and a higher delay is recorded, although the volume of traffic represents only a few vehicles waiting

[4] Harries, et al. (2012), *Trip Generation Characteristics of Large Format Retail Development Sites in Auckland*
[5] Level of Service (LOS) is a measure of performance based on average delay to vehicles. The LOS ranges from LOS A (essentially free flow/ minimal delay) to LOS F (higher delay / congested).

to turn right each signal cycle. This may be addressed through the subsequent resource consent process and detailed design with a dedicated right turn phase if it is deemed necessary.

The modelling indicates that the accesses to Lincoln Rolleston Road will operate efficiently, with the highest delay being the right turn from the combined supermarket and trade retail access experiencing delays of approximately 31 seconds per vehicle. That is practically the same compared to the base zoning and residential development scenario.

The proposed Broadlands Drive / Lincoln Rolleston Road roundabout will operate efficiently, and changes due to the trade supplier development are small.

10. Site Access Assessment

The modelling indicates that the accesses to the Site can function efficiently. Provision for right turns into the new accesses is achievable with a continuation of a flush median treatment (as proposed by the PAK'nSAVE consent) from the main access through to the future Broadlands Drive intersection. Alternatively, localised widening could be contemplated. Design and positioning of access are matters covered by existing rules in the PODP's Transport chapter. A development of the nature and scale anticipated by the proposed LFRZ and ODP will also be subject to various access assessment matters in an ITA required by the High Trip Generator rule provisions. As such, access matters are a standard matter for assessment during resource consent.

The combined access to Lincoln Rolleston Road will require some modification to the consented PAK'nSAVE main access provision to accommodate entering trade retail service vehicles. That will involve some widening of the vehicle crossing and entry lane at the road and immediately within the site. The heavy vehicle entry paths shown in **Figure 10-1** indicate that the consented 4m entry lane width will need to be widened to approximately 7m-7.5m at the boundary.

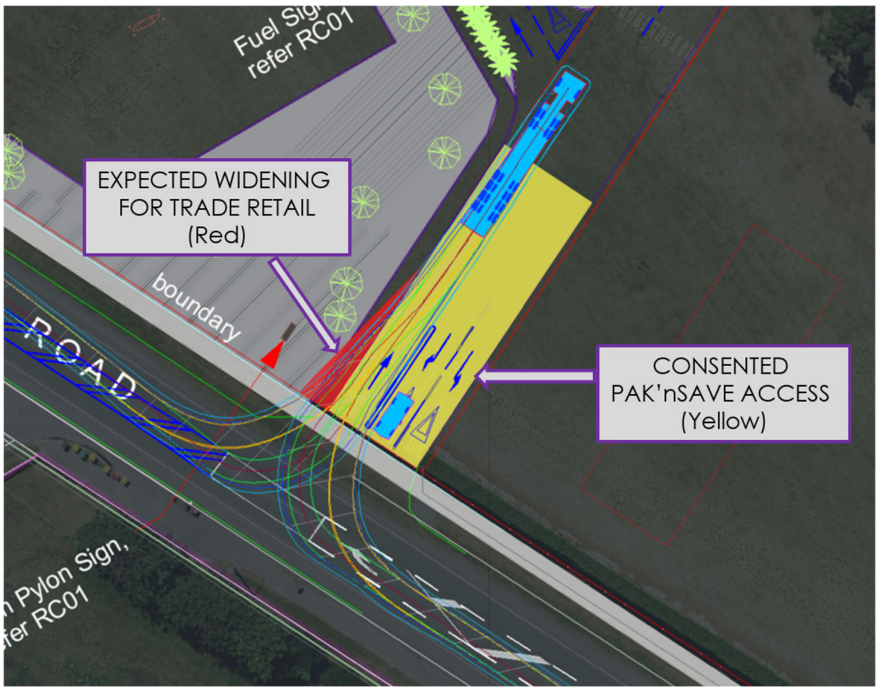

Figure 10-1: Adjustments to PAK'nSAVE Lincoln Rolleston Road Access

Some consideration of pedestrian treatment past a widened vehicle crossing will be necessary. As with the Levi Road main access to PAK'nSAVE, some modification could be considered to shift the pedestrian routes slightly into the Site to reduce pedestrian crossing distances. This is considered a standard matter for assessment through the resource consent process, and typical for sites and development of this type and scale.

The dedicated trade supplier accesses onto Lincoln Rolleston Road will be considered against standard PODP provisions, and through the development-specific ITA required to accompany a resource consent application. DEV-RO2 ODP (Figure 2-4) on the western side of Lincoln Rolleston Road does not show any roads, and the approved subdivision of 333 Lincoln Rolleston Road opposite does not include a road. Position of the right of way to 333 Lincoln Rolleston Road may be a relevant (although minor) consideration for the access positions through the resource consent process, and any design changes can be made as needed. In summary, it is considered that access to and from the Site can be feasibly and effectively integrated with the road network and surrounding development, and the ODP and resource consent process provides appropriate flexibility to respond to the access requirements of a specific development proposal.

The yard exit from the trade supplier onto Lincoln Rolleston Road needs to be sufficiently separated from the future Broadlands Drive roundabout to enable design sized heavy vehicles servicing the site to turn either left or right clear of traffic islands. The potential positioning of the roundabout has been investigated and it is considered the proposed position shown on the ODP (over 100m from the southern boundary point) will enable a District Plan compliant vehicle crossing location at least 30m from the roundabout intersection. That is demonstrated in **Figure 10-2**. The positioning will be assessed further through a subsequent resource consent process.

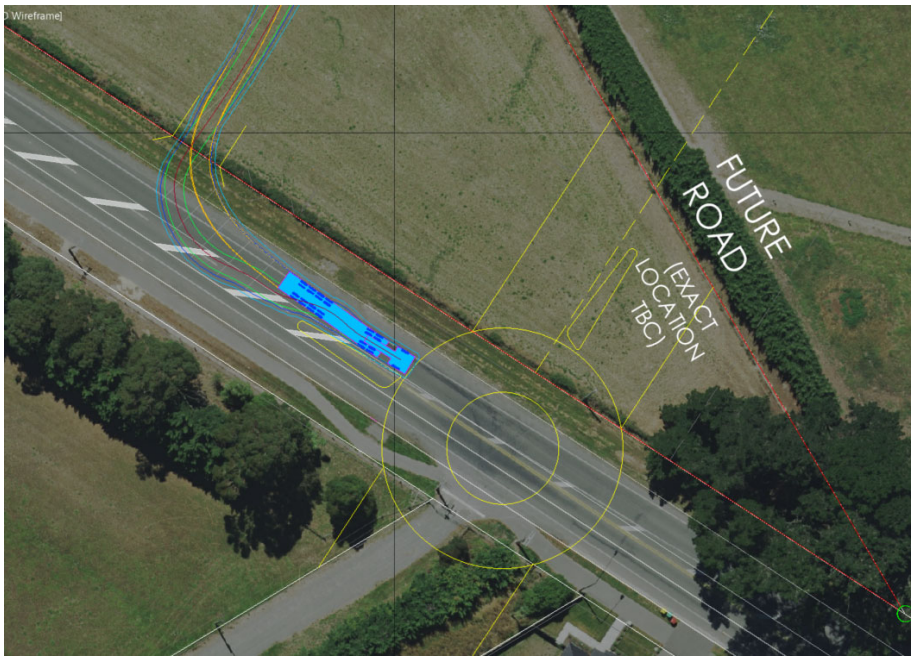

Figure 10-2: Indicative Vehicle Path from Southern Yard Access

The proposed rezoning does not necessitate any changes to the other PAK'nSAVE accesses on Levi Road and Lincoln Rolleston Road, which will all operate as authorised by that consent.

In summary, it is considered that suitable vehicle access is achievable, the ODP identifies suitable locations, and the design and precise location can be controlled by the existing Transport chapter provisions of the PODP and assessed at the resource consent stage.

11. Transport Network Integration

11.1 Assessment of Active Modes Network

11.1.1 Internal Connections

The PAK'nSAVE consent developed a pedestrian network servicing the Site that was focused on access between the Site frontage and building, and between the building and car parking areas. It is considered an LFRZ-enabled trade supplier to the south would likely require some minor modification to support a dedicated pedestrian route between the two activities which can readily be addressed as part of the resource consent process. To ensure this is considered at the time of resource consent, a connection between the buildings is shown on the ODP.

The trade supplier building will otherwise need connection to Lincoln Rolleston Road, and an indicative connection is shown on the ODP.

11.1.2 Catchments

Maps are shown in **Figure 11-1** and **Figure 11-2** showing the current walking and cycling isochrones for the Site, within 5-minute bands.

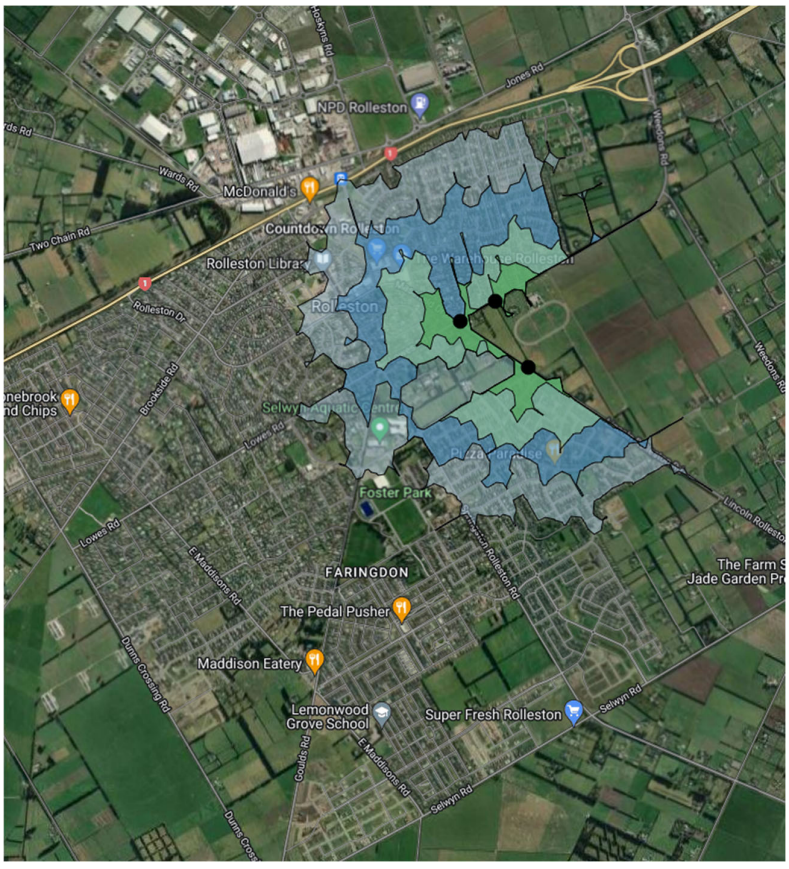

Figure 11-1: Site Walking Catchments (5 minute isochrones, 5km/h)

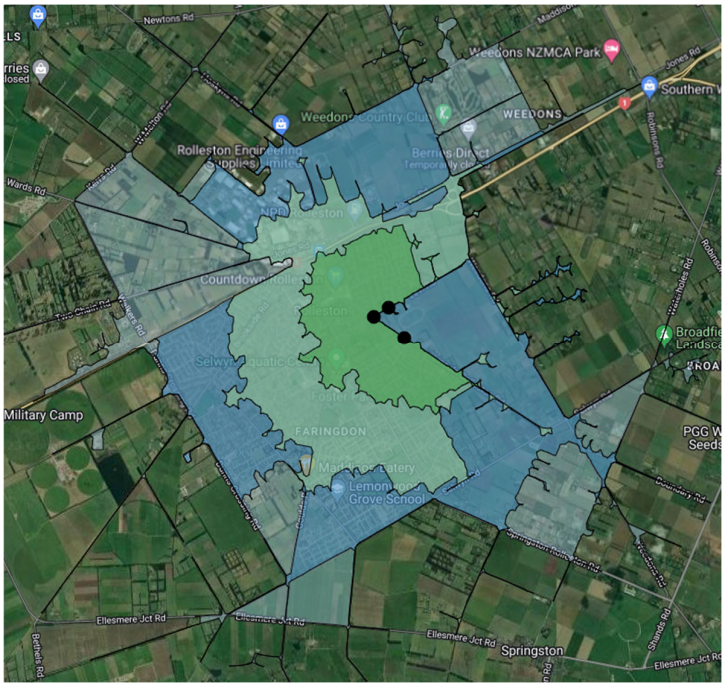

Figure 11-2: Site Cycling Catchments (5 minute isochrones, 15km/h)

The walking isochrones show that even with the existing walking network the Site is accessible by walking to the town centre (including bus interchange), and locations such as Foster Park and a wide residential catchment. The nature of a trade retail store is that most trips will be made by vehicle, although clearly the Site is well located for walking trips. As residential development occurs and the pedestrian network expands, there will be reductions in walk times and a greater walkable catchment.

Cycling is achievable within 20 minutes from throughout Rolleston. A range of quality cycle facilities currently exist throughout Rolleston, although the isochrones indicate that cycling as a mode of transport can be supported.

11.1.3 External Connections

Currently the Site frontage is formed with a rural road formation. The PAK'nSAVE consent requires changes to urbanise the frontage road of Lincoln Rolleston Road in front of that development. One of the specific requirements of that consent is to introduce a pedestrian path on the eastern side of the road.

It is considered appropriate to continue that path treatment along the balance frontage of the Site to the proposed Broadlands Drive roundabout intersection. The roundabout can be designed to accommodate a pedestrian crossing point(s). Similarly, it is expected SDC's proposed traffic signals at Lincoln Rolleston Road / Levi Road will be designed to accommodate a pedestrian crossing point(s). In the event the supermarket opens prior to SDC's planned signalisation of the intersection, the PAK'nSAVE consent provides for a temporary pedestrian / cycle crossing point on Lincoln Rolleston Road approximately 135m south of Levi Road. The future road layout will be able to accommodate an additional pedestrian crossing point south of the proposed second access into the trade supplier car park. It is considered this is a matter of detail that would be addressed through a resource consent process.

The ODP provision for an additional full movement vehicle crossing and a yard exit vehicle crossing to Lincoln Rolleston Road will be subject to specific consideration of vehicle crossing design at the resource consent phase. The comparable MRZ development scenario would potentially generate a vehicle crossing every 10 to 15m to service residential lots, indicatively being approximately 20 to 30 vehicle crossings over 300m frontage compared to the two proposed by the ODP. It is considered that the rezoning will not adversely affect pedestrian movement along the path.

With the frontage road path provisions, a typical matter of consideration during the resource consent process with consideration of urbanisation of rural road frontages, a logical extension to the active modes network can be provided. In

addition, the small number of vehicle crossings associated with LFRZ-enabled development will support a good active modes link along the Site frontage.

No direct connection is proposed for active mode users between the Site and future residential development land to the east. The PAK'nSAVE consent precludes such a connection, requiring the implementation of uninterrupted acoustic fencing and a 10m-wide landscaping strip along the common boundary. It is understood that the remainder of this boundary will be subject to the same landscape and acoustic treatment to ensure an appropriate interface between LFRZ- and MRZ-enabled development on the respective properties. The approximately 450m boundary without walking connection would generate a "walkable block" slightly larger than the desirable residential subdivision 800m walkable block.

Land development to the east can still achieve minimum walk distances to most destinations without the active mode connection across the Site boundary. That includes to the high school which can be accessed via the Broadlands Drive extension or Levi Road / Lowes Road, and the town centre that can be accessed via Levi Road / Masefield Drive.

11.2 Assessment Of Public Transport Network

The Site is located within 5-10 minutes of existing bus stops. The southern part of the Site is likely to be slightly further than 400m walking distance, and to improve accessibility it would be desirable if a bus stop was located closer. Options include establishing a bus stop closer to the proposed signalised intersection to provide better connection to existing services.

Future bus services past the Site will become more feasible as the supermarket is established and east-west connections between Springston Rolleston Road and Lincoln Rolleston Road are completed – for example the Broadlands Drive extension and the extension of Ed Hillary Drive.

Anticipating a future service past the Site may be provided, it is expected that consideration of how the site layout integrates with future bus services will be a matter that is considered by the ITA through the resource consent stage. As road upgrades will be necessary, no issues with accommodating a bus stop are envisaged.

11.3 Integration With Adjoining Sites

DEV-RO2 ODP to the west indicates a proposed road connecting to Lincoln Rolleston Road approximately 100m north of the main PAK'nSAVE access, which will also be shared with the trade retail development. It is considered that the change in use on the southern part of the Site will not impact that future road location as the stagger of the intersection and main access will enable opposing right turns from Lincoln Rolleston Road to be made without conflict. The access also meets PODP separation from intersection requirements.

DEV-RO2 ODP also shows a road connection on the southern boundary as an extension of Broadlands Drive (which is to the west). As indicated in Figure 10-2, the potential positioning of a roundabout intersection with Lincoln Rolleston Road and the ODP indicative road alignment has been investigated and should include a slight bend (similar to the other DEV-RO2 road connecting to Lincoln Rolleston Road) to indicate a squaring up of the intersection. That then influences the positioning of the link through the Site, and the positioning within land subject to DEV-RO12.

DEV RO12 ODP indicates the Broadlands Drive extension further north than either DEV-RO1 or DEV-RO2. The position should desirably be adjusted to enable connection further south, and it is understood the inherent flexibility of ODP's would allow a coordinated connection through subdivision and resource consents. The connection through the Site is not necessary for servicing LFRZ-enabled development. It is expected that as part of development of the LFRZ, the land required for the Broadlands Drive extension through the Site will be either sold or vested with SDC for other developers who rely on the link for connectivity to then develop.

DEV-RO12 ODP shows indicative pedestrian and cycle connections across the western boundary into the Site. As discussed previously, these connections are unlikely to be achievable given the consented and LFRZ-enabled development on the Site, which have specific boundary interface, functional and operational requirements. Whilst this reduces local walkability slightly, it has minimal effect on walking to and from key destinations for future households in DEV-RO12.

12. Outline Development Plan Assessment

Within this report, the provisions of the ODP have been considered against good transport practice for ensuring integrated LFRZ-enabled development through the resource consent process. It is considered the key transport related matters included on the ODP, supported by standard District Plan rules including the High Trip Generator requirements will achieve a suitably designed, safe and efficient development outcome that provides for a range of transport modes that is well integrated with the local road network and surrounding development. Those ODP provisions include:

- Representation of the consented PAK'nSAVE access and pedestrian circulation provisions
- Representation of the assessed trade retail access, and pedestrian connectivity to PAK'nSAVE and Lincoln Rolleston Road
- Showing the Future Primary Road which will form part of the Broadlands Drive extension connecting across the southern part of the Site to PODP DEV-RO2 and DEV-RO12.

External infrastructure provision would be addressed through any subsequent resource consent process as part of the ITA process.

13. Transport Policy

13.1 Partially Operative District Plan Provisions

The PODP includes a range of matters relevant to consideration of the proposed rezoning of the Site.

It is understood that a key matter at this planning stage is to ensure that there is consistency between the zoning proposal, including the ODP, and the PODP Objectives and Policies, and higher-level planning documents. The transport rules in the PODP are considered sufficient to manage the transport-related aspects of LFRZ-enabled development on the Site, and as such the rezoning request does not propose any changes to these. Compliance or otherwise with the existing transport rules will be considered and assessed at the time of a specific development proposal.

An analysis of the transport-related objectives of the PODP is set out below.

The District Wide – Strategic Directions included:

> *SD-UFD-O2 Urban Growth is located inside Greater Christchurch only within: existing urban areas; Greenfield Priority Areas; or Future Development Areas identified in the Canterbury Regional Policy Statement; unless adding significantly to development capacity and contributing to well-functioning urban environments.*
>
> *SD-UFD-O4 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.*

The site is located adjacent to areas where urban development has been allowed for and is anticipated in the PODP. LFRZ for the Site consolidates a compatible large format retail activity in a location already identified suitable for a major supermarket.

Currently the nearest comparable trade supplier activity is located in Hornby, and the PODP only provides for trade retail and trade supply activities in the LFRZ and General Industrial Zone on the north side of SH1. By comparison, the Site supports shorter trips for residents of Rolleston, and supports transport mode choice as demonstrated earlier in this report. It is also near a primary access route to Rolleston, enabling efficient trip linking and supporting "pass-by" and "diverted" trips. That minimises effects of new trips from a high trip generating activity.

SDC has already planned for the signalisation of the Levi Road / Lincoln Rolleston Road intersection to be carried out in the current financial year. It is considered that given the imminent timing of the upgrade and arterial v arterial nature of the intersection, it is not necessary to include a zone-specific requirement for the upgrade to be provided ahead of development, noting the PAK'nSAVE consent addressed integration with the infrastructure timing through the resource consent and ITA process.

The design, location and provision of other transport infrastructure next to the Site can be addressed through future consent processes. Public transport services are available near the Site, and ECAN has a policy of refining routes in response to demand. Bus stops can be provided along the road frontage and the reduced number of vehicle crossings that will be achieved with LFRZ (compared to MRZ) supports flexibility in positioning of future bus stops.

This assessment shows that the change in traffic volumes and performance associated with LFRZ-enabled development is of a scale that can be accommodated by the transport network with minimal change in performance. It is considered unlikely to significantly 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.

The Transportation chapter includes objectives as follows:

> *TRAN-O1*
>
> *People and places are connected through safe, efficient, and effective land transport corridors and land transport infrastructure for all transport modes, which are well integrated with land use activities and subdivision development and reduce dependency on private motor vehicles.*

TRAN-O2

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

TRAN-O3

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, LFRZ-enabled development of the Site is able to integrate with planned and future development through suitable access locations defined on an ODP, and integration with the consented supermarket. The ODP makes provision for the Broadlands Drive extension. These will support wider connectivity within this part of Rolleston.

The use of an ODP, combined with the PODP's existing transport rules, will protect the arterial Lincoln Rolleston Road and Levi Road from inappropriate access or incompatible traffic generation. This assessment has demonstrated that the Site can be conveniently accessed by those walking, cycling and using public transport.

13.2 National Policy Statement – Urban Development (2020)

The NPS-UD sets national policy around the development of NZ's urban environments. In the broadest of terms, and as relevant to this Plan Change Request, the NPS-UD aims to ensure that towns and cities are well-functioning urban environments that provide for the wellbeing, health and safety of people and communities; more businesses are located near a centre zone, existing or planned transport infrastructure, or where there is high demand for business land, and urban environments develop and change over time in response to the diverse and changing needs of people, communities, and future generations.

Objective 3 states:

Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:

(a) the area is in or near a centre zone or other area with many employment opportunities

(b) the area is well-serviced by existing or planned public transport

(c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.

Objective 6 states:

Local authority decisions on urban development that affect urban environments are:

(a) integrated with infrastructure planning and funding decisions; and

(b) strategic over the medium term and long term; and

(c) responsive, particularly in relation to proposals that would supply significant development capacity.

The Site is well located near the town centre of Rolleston and in a location with a consented supermarket to provide consolidation of business activities that Rolleston residents will otherwise have to travel greater distances to.

This integrated transport assessment shows that the Site is well located in the transport network to support transport mode choice, including travel by existing and likely public transport services. Based on the above, it is considered that development of the Site in accordance with LFRZ will reduce reliance on, and travel distances associated with, private vehicle travel.

It is considered that there is adequate existing and planned infrastructure to support the wider transport needs of development of the Site. The ODP further requires connections to the existing transport network in locations that support safe and efficient integration of the Site with the adjoining arterial roads.

14. Conclusion

This Integrated Transport Assessment has investigated from a transportation perspective how the proposed Large Format Retail Zone could be integrated with the transport network and adjacent land use.

It is considered the Site is well located to accommodate limited LFRZ-enabled activity, supporting safe, efficient, and effective integration with the transport network, with minimal impact on the functioning of the adjacent arterial road network.

Necessary supporting transport infrastructure either exists, is planned in the short term, or in the case of the immediate frontage can be addressed through resource consent processes.

The site is located in a position that can support movement by walking, cycling and public transport conducive to the anticipated development of the Site.

The proposed ODP will ensure that key on-site transport considerations, supported by the PODP transport rules framework will result in safe and efficient integration between the LFRZ-enabled activity and the frontage roads and active modes transport network.

For these reasons the requested rezoning can be supported from a transportation perspective.

Appendices

Appendix A Transport Model Outputs

A.1 Intersection Performance

	Evening Peak (04:45pm-5:45pm)		Base with PaknSave			PaknSave & Hardware Retail		
	Approach	Mvmt	Volume	Delay (s)	LOS	Volume	Delay (s)	LOS
Masefield Dr / Levi Rd / Lincoln Rolleston Rd / Lowes Rd	Masefield Drive	Left	114	34	C	105	33	C
		Through	449	34	C	459	33	C
		Right	24	36	D	24	39	D
	Approach		**587**	**34**	**C**	**588**	**34**	**C**
	Levi Road	Left	210	23	C	216	23	C
		Through	364	25	C	367	26	C
		Right	113	17	B	108	18	B
	Approach		**686**	**23**	**C**	**691**	**24**	**C**
	Lincoln Rolleston Road	Left	49	22	C	63	25	C
		Through	335	24	C	336	28	C
		Right	83	79	E	81	99	F
	Approach		**467**	**2**	**C**	**480**	**4**	**D**
	Lowes Road	Left	34	23	C	35	21	C
		Through	249	31	C	248	30	C
		Right	109	23	C	124	22	C
	Approach		**392**	**28**	**C**	**406**	**27**	**C**
	Overall Intersection		**2132**	**29**	**C**	**2165**	**31**	**C**
Private Access / Lincoln Rolleston Rd	(North) Lincoln Rolleston	Through	542	4	A	576	4	A
		Right	187	8	A	183	9	A
	Approach		**729**	**8**	**A**	**759**	**9**	**A**
	(South) Lincoln Rolleston	Left	28	2	A	32	2	A
		Through	398	2	A	370	4	A
	Approach		**426**	**2**	**A**	**402**	**4**	**A**
	Private Access	Left	40	7	A	36	8	A
		Right	18	10	A	35	12	B
	Approach		**58**	**10**	**A**	**70**	**12**	**B**
	Overall Intersection		**1213**	**10**	**A**	**1231**	**12**	**B**
Retail Combined Access / Lincoln Rolleston Rd	(North) Lincoln Rolleston	Left	0	-		54	5	A
		Through	542	4	A	522	4	A
	Approach		**542**	**4**	**A**	**576**	**5**	**A**
	Commercial Access	Left	107	15	B	109	17	C
		Right	41	34	D	42	31	D
	Approach		**148**	**34**	**D**	**151**	**31**	**D**
	(South) Lincoln Rolleston	Through	426	1	A	402	1	A
		Right	179	6	A	159	10	A
	Approach		**605**	**6**	**A**	**560**	**10**	**A**
	Overall Intersection		**1294**	**34**	**D**	**1288**	**31**	**D**

	Evening Peak (04:45pm-5:45pm)		Base with PaknSave			PaknSave & Hardware Retail		
	Approach	Mvmt	Volume	Delay (s)	LOS	Volume	Delay (s)	LOS
Stub Rd or Secondary Retail Access / Lincoln Rolleston Rd	(North) Lincoln Rolleston	Left	23	0		11	4	A
		Through	663	1	A	661	1	A
	Approach		**686**	**1**	**A**	**672**	**4**	**A**
	Stub Access	Left	6	14	B	57	10	A
		Right	9	8	A	44	9	A
	Approach		**15**	**14**	**B**	**102**	**10**	**A**
	(South) Lincoln Rolleston	Through	605	0		560	1	A
		Right	10	4	A	65	7	A
	Approach		**614**	**4**	**A**	**625**	**7**	**A**
	Overall Intersection		**1315**	**14**	**B**	**1399**	**10**	**A**
Broadlands Rd / Lincoln Rolleston Rd	(North) Lincoln Rolleston Road	Left	36	5	A	34	5	A
		Through	471	6	A	472	7	A
		Right	156	7	A	154	8	A
	Approach		**663**	**6**	**A**	**661**	**7**	**A**
	(East) Broadlands Road	Left	69	17	B	72	19	B
		Through	156	20	B	145	19	B
		Right	3	21	C	5	20	B
	Approach		**229**	**19**	**B**	**222**	**19**	**B**
	(South) Lincoln Rolleston Road	Left	48	10	A	50	9	A
		Through	382	10	A	389	11	B
		Right	40	10	A	40	11	B
	Approach		**470**	**10**	**A**	**479**	**11**	**B**
	(West) Broadlands Road	Left	166	12	B	178	13	B
		Through	85	11	B	75	14	B
		Right	31	14	B	34	15	B
	Approach		**281**	**12**	**A**	**287**	**14**	**A**
	Overall Intersection		**1643**	**10**	**A**	**1648**	**11**	**B**

A.2 Traffic Distribution

Figure A14-1: Select Link Analysis Showing Traffic Distribution of Trade Retail Trips in the PM Peak

A.3 Traffic Volumes Forecast

Figure A14-2: Future PM Peak Hour Traffic Volumes "Base scenario – PAK'nSAVE and residential development

Figure A14-3: Future PM Peak Traffic Volumes with PAK'nSAVE and Trade Supplier Retail

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Addendum in Response to RFI Queries

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15 August 2024

Project No: 310206033

Rebecca Parish
Foodstuffs (South Island) Properties Limited

Reference: PC240002 Private Plan Change Request to the Partially Operative Selwyn District Plan (V2) at 157 Levi Road, Rolleston

Dear Rebecca

Request for Further Information (RFI) – Transportation Response

This technical note has been prepared in response to the RFI issued by Selwyn District Council on 21 June 2024 for the private plan change request to the Partially Operative Selwyn District Plan (POSDP) (V2) at 157 Levi Road, Rolleston in relation to transport queries 3.1-3.11 raised by Mr Carr following peer review.

Question 3.1 Internal ODP Vehicle Link

"Section 7 notes that there will be joint use of the main site access from Lincoln Rolleston Road to enable vehicles to remain within the site when travelling from one part to another. However no vehicular link is shown on the ODP to provide certainty on this. Should such a link be shown?

Stantec Response

The ODP needs to provide flexibility to respond to precise site layouts that may evolve through site design processes. The Integrated Transport Assessment (ITA) at Section 12 sets out that development within the site will almost certainly be subject to High Trip Generator assessment which would address internal vehicle and pedestrian linkages as part of a resource consent process to establish a trade retail and trade supply activity. In this case it is proposed that the main access will support development both north and south of the main access from Lincoln Rolleston Road. As such, it is recommended that the access arrow on the ODP shows a split arrow generally as indicated below in **Figure 1**.

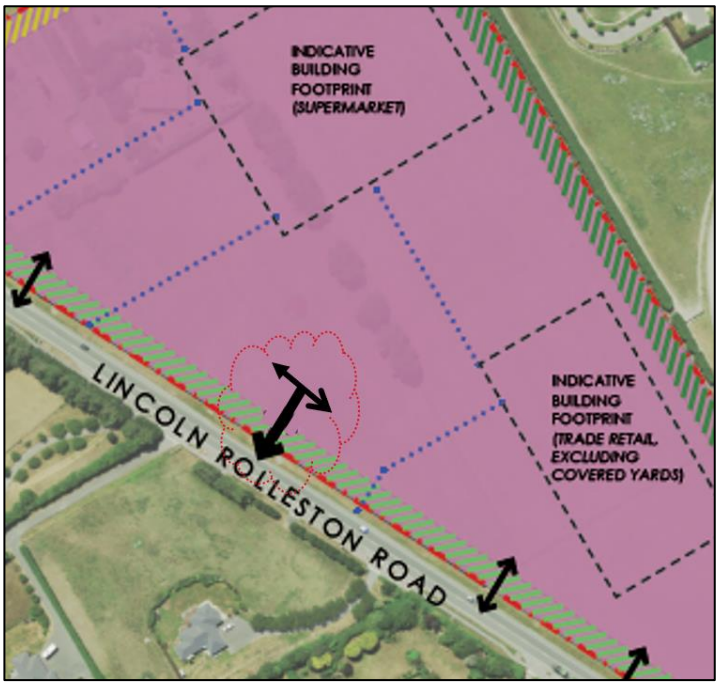

Figure 1: Suggested Amendment to ODP Main Access Notation

Question 3.2 PAK'nSAVE Accesses

Section 10 notes that the proposed rezoning does not necessitate any changes to the other PAK'nSAVE accesses on Levi Road and Lincoln Rolleston Road, which will all operate as authorised by that consent. However, is there a likelihood that vehicles travelling to/from the south of the site from the north/east would use those accesses to avoid delays at the traffic signals? If so, what would the effects be of this extra traffic on the efficiency (queues and delays) of those accesses?

Stantec Response

It is considered development at the south of the site will have minimal change at the consented accesses, and is a matter that can be considered through the High Trip Generator rule assessment which will be required for any development of scale.

There may be some internal trip linking where a customer of the future development accesses PAK'nSAVE first (or vice versa), that would support a slight reduction in overall access movements.

The Levi Road / Lincoln Rolleston Road intersection is forecast to operate efficiently after the traffic signals are installed, as reported in Section 9 of the ITA.

The use of the PAK'nSAVE as a through route to the southern part of the site would be via a constrained route, which will be slow speed. Even if some choose to make that movement, the

additional movement would be added to a straightforward left turn from Levi Road which would reduce movements at Levi Road / Lincoln Rolleston Road.

A review of the PM peak hour "select link" analysis which shows the arrival and departure routes[1] for the additional development, there are only approximately 20 vehicles per hour modelled entering the site after passing the PAK'nSAVE access on Levi Road (**Figure 2**). This confirms the potential for a highly used 'rat run' is low, and no further adjustments to the Plan Change are considered necessary.

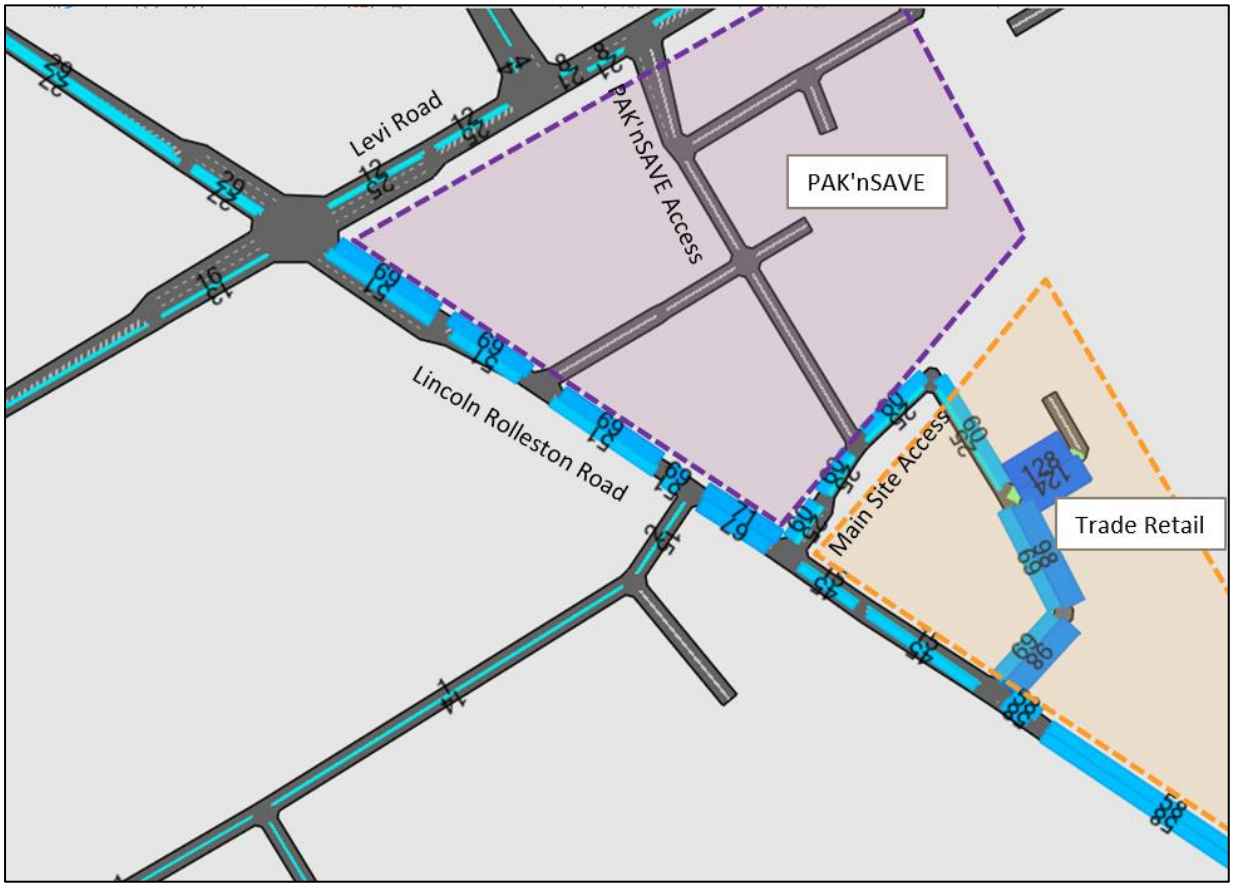

Figure 2: PM Peak Select Link Analysis

[1] The routes to the site were constrained within the modelling to access the additional trade retail development area via Lincoln Rolleston Road, as described in the ITA

Question 3.3 Effects on PAK'nSAVE Access

On the same topic, if increased volumes of traffic were to use the PAK'nSAVE accesses, would there be any effects on queuing space (or that might mean that the PAK'nSAVE consent had to be varied to mitigate the non-compliance)?

Stantec Response

As described in the response to Question 3.2 above, the potential changes at accesses in PAK'nSAVE are considered to be sufficiently low that they will not impact the PAK'nSAVE access. There is also a likelihood of some combined trip making reducing trip generation across the two sites. On this basis, no changes are considered necessary to the assessments or provisions, and this is a matter that can be addressed through High Trip Generator requirements for future development where assessments of site traffic distribution would be considered as part of a consent process.

Question 3.4 Access Safety

Section 10 shows that heavy vehicles are proposed to enter via the main site access on Lincoln Rolleston Road. Please comment on whether service vehicles sharing the same vehicle crossing and accessway in the site as the majority of customers will present any safety-related issues (noting that the Pak n Save consent only allowed for exit from this location, as noted on page 15).

Stantec Response

Expected design changes are addressed at Section 10 of the ITA noting a localised modification to access is expected to be required to ensure heavy vehicles can enter without being in conflict with the opposing exit lanes.

As set out in Section 8.2 of the ITA, the trip generation associated with a trade retail servicing is expected to be only approximately additional 20 heavy vehicles a day using the combined access.

Again, this will be a matter for consideration through access design and High Trip Generator assessments for future consenting of new development. It is considered that safe use of the access will be achievable for all modes of traffic.

Question 3.5 ODP Active Modes Provision

Section 11 sets out that the walking route is to be continued along the eastern side of Lincoln Rolleston Road. Please comment on whether this should be indicated on the ODP (or in the narrative)? Similarly, given the accessibility of the site for cyclists and pedestrians, please comment on whether the ODP should show indicative crossing locations on Lincoln Rolleston Road.

Stantec Response

The provision of urbanisation of road frontages, footpaths, and crossing points are all matters addressed in detail during resource consent processes for developments of the scale that will be enabled. It is considered unnecessary to add the additional level of detail to the ODP, noting that the intention of the ODP is to provide an overarching guide to the development of the Site.

Question 3.6 ODP Access Provision

Section 7 notes that there are to be two new vehicle crossings to the south of the main site access on Lincoln Rolleston Road. However, the ODP appears to show three accesses. Please confirm (or otherwise) that this third vehicle crossing is to be the exit from the service yard that is described.

Stantec Response

The access is proposed to be the exit from the service yard. All vehicle crossings are also required to be assessed against the POSDP access and vehicle crossing standards.

Question 3.7 Need for Access Points

Please provide further details as to why three customer points of access are proposed from Lincoln Rolleston Road (the main site access and the two accesses at 100m and 160m further south). In particular, is the central access necessary, given that drivers approaching from the north would use the main access and drivers approaching from the south would use the southern access?"

Stantec Response

The ODP has been developed from the indicative Mitre 10 concept plan. Due to the expected scale of building, each access has a purpose and includes lower volume access to a drive thru. It is typical that signage is installed where multiple accesses are available with different purposes, to assist with driver guidance. Access will be a matter to consider through future resource consent processes as a result of the various transport related rules under the POSDP.

Question 3.8 Shared Path Provisions

Further to 3.5 above, while condition 30 of RC216016 requires that pathways for the shared use by pedestrians and cyclists across the full length of the Levi Road, it only requires a pathway along the Lincoln Rolleston Road frontage for pedestrians. However, since the granting of RC216016, land to the south of the site has been rezoned to MRZ. The ODPs in DEV-RO15-17, which cover this area, all show an indicative cycle/pedestrian route along the eastern side of Lincoln Rolleston Road. Please comment on whether it is appropriate that the pathway along the eastern frontage of the site be widened to accommodate both pedestrians and cyclists, as is proposed along the balance of the Lincoln Rolleston Road frontage.

Stantec Response

This will be a matter for the resource consenting stage through the ITA process. As the existing infrastructure on the northern part of the site will be a footpath rather than shared path (in accordance with RC216016), continuity at a local level is also important. The future Broadlands Drive intersection will enable a suitable transition of cycle facility from the south to be considered if future resource consent processes deem a shared path for cycles is unnecessary.

Question 3.9 Internal Connectivity

Further to 3.1 above, please comment on the mechanism, if any, to be provided to ensure that any future subdivision of the site does not impede pedestrian and vehicle movement across the site in its entirety, without requiring access back onto the adjoining road network. It is noted that at Section 9.1 of the ITA, the 'with rezoning' model scenario is based on 'restricting movements between the trade retail site and Levi Road through the PAK'nSAVE site. Please comment on what is meant by this, how this is be achieved, and if it should be shown on the ODP, or included in an accompanying narrative.

Stantec Response

The ODP proposes these requirements, which development will be required to consider in future consent applications.

The modelling inputs were related to the way the model was set up and most efficiently reflected the changes in traffic volume. The select link analysis traffic distribution indicates the low-level likelihood of significant rat run traffic (Figure 2Question 3.2). It is understood that the parties with development interests in the site will work together to ensure an integrated outcome is achieved, recognising this is shown within the ODP. Future consent processes can address these matters.

Question 3.10 ODP Consistency

As sections 11.1.3 and 11.3 of the ITA indicate that no direct connection is proposed for active mode users between the site and future residential development land to the east in DEV-RO12, please provide comment on whether it is necessary to amend the indicative road layout in DEVRO12.

Stantec Response

The site connections proposed are clearly described in Section 11 of the ITA, noting these differ from the DEV-RO12 provisions on the eastern boundary.

Active mode provision is made on the ODP for the Broadlands Drive Extension, this being key to opening up DEVR012 and land beyond to the east (e.g. proposed regional park).

Question 3.11 Active Modes Provision on the ODP

Please amend the ODP to show all relevant cycle/pedestrian routes across the frontage of the site; any indicative crossing locations on Levi Road and Lincoln Rolleston Road (if considered appropriate in response to 3.5 above); and any connection to land within DEV-RO12 (if considered necessary in response to 3.10 above).

Stantec Response

As per the earlier responses, no change to the pedestrian and cycle provisions are considered necessary for this ODP. This response recognises these are matters to be addressed through resource consent processes associated with a specific development proposal.

By comparison, residential developments do not always trigger the same High Trip Generator rule requirements, and may cover multiple small sites where inclusion on the ODP (usually at a much larger scale of area) are shown for clarity.

Yours sincerely,

STANTEC NEW ZEALAND

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