Rolleston Pak'nSave Resource Consent Application

Transport RFI Response

Prepared for	Foodstuffs South Island Limited
Job Number	FSIL-J085
Revision	FINAL
Issue Date	18 February 2022
Prepared by	Jay Baththana, Principal Transportation Engineer
Reviewed by	Dave Smith, Technical Director

This memo has been prepared by Abley as a response to the RFI (transport matters) in relation to the resource consent application of the Rolleston PAKnSAVE supermarket.

1.1 Traffic Generation / Modelling

Reviewer Comment/ question

The report sets out traffic flows from 2019. However, it is noted in the preceding paragraph that CSM2 opened in 2020, and the assessment of effects is largely based around a future year model of 2033.

3. Please confirm whether the 2019 traffic flows have been used in any analysis. If so, do they reflect the current environment post CSM2, or should they be updated?

Abley response

The 2019 traffic flows have not been used in modelling. Table 3.1 in the ITA was the latest data available on the SDC website and was just used to set the scene.

Reviewer Comment/ question

It is stated that the supermarket is expected to generate 1,013 vehicle movements (two-way) in the peak hour. Of these, one third are pass-by trips, with the remainder being diverted or new trips, which equates to an additional 675 trips on the network adjacent to the site. Section 7.7 notes that the model has allowed for just 274 extra trips. That is, 60% of the expected increase in trips is apparently 'missing'. It is expected that this is because the model has reassigned those vehicles to use routes elsewhere on the network.

4. Please comment on whether this is realistic, given that Levi Road is stated in Section 3.1 as being "the main corridor between Rolleston town centre (and wider urban area) and the Weedons interchange". If indeed more than 400 vehicle movements have been reassigned to other routes, please indicate which roads experience an increase in traffic, what the increase is, and whether it is appropriate for those routes to accommodate longer-distance through traffic currently using an Arterial Road.

Abley response

The 2033 modelling output shows that only 36% of the trips generated by the supermarket will travel through the Levi / Lowes / Masefield / Lincoln Rolleston intersection. The remainder of the trips use routes to the north (19%) or west/ south (44%) without traveling through the signals.

The greatest share of the westbound supermarket trips not using the intersection, travel by way of the Broadlands Drive Extension (assumed to be a collector road in future), which has an increase of 170 trips (two-way) between the 2033 base and with-development models. The model indicates that the total two-way PM peak volume on the Broadlands Drive extension will therefore increase to approximately 700 trips. This is not unreasonably high in the context of future Rolleston. For example, the 2033 base model, without the proposed development, indicates that more than 1000 peak hour trips will use the existing portion of Broadlands Drive between Springston Rolleston Road and Goulds Road. Several other collector roads also show volumes at or exceeding 1000 peak hour trips in the 2033 base model, including Masefield Drive, Tennyson Street, Rolleston Drive, Brookside Road, and Goulds Road.

Other routes that show an increase in volume between the 2033 base and with development models are Lincoln Rolleston Road south of Broadlands Drive (70 trips), the primary access to existing ODP 9/10 (65 trips), Beaumont Drive (40 trips), and Ruby Drive (25 trips). These routes all provide access to residential areas.

The effect of the supermarket in diverting traffic results in peak hour volumes decreasing on some of the routes that are most heavily used to reach residential areas in the west and south of Rolleston from Christchurch. These include SH1 westbound between Weedons interchange and Tennyson Street (-100 trips), Tennyson Street southbound through the town centre (-65 trips), Brookside Road southbound (-40 trips), Rolleston Drive eastbound (-40 trips) and East Maddisons Road southbound (-40 trips). While the model has been conservative in addressing trips from Christchurch, the site will attract trips that previously travelled to other supermarket locations in Rolleston and Christchurch.

Reviewer Comment/ question

In the alternative to the matter above

5. Please provide a sensitivity test which assumes traffic signals at the adjacent intersection but with the supermarket traffic being additional to the expected traffic flows (that is, allowing for pass-by traffic accessing the supermarket, but not making any allowance for unrelated traffic to move onto alternative routes).

Abley response

The network model produced in Paramics is considered to provide a realistic and reliable representation of levels of diversion that occur on routes due to changes in vehicle demand. In light of the explanation provided to question 4 we do not consider a sensitivity test is required.

Reviewer Comment/ question

The report notes that the Lowes Road / Lincoln Rolleston Road intersection is to be upgraded to traffic signals in 2025-26

6. Please advise whether funding for this has been confirmed, and hence the reliance that can placed on this timing. In other words, if the upgrade was to be delayed for several years, what effects would arise at the intersection due to the supermarket?

Abley response

Funding for the Lowes Road / Lincoln Rolleston Road Intersection upgrade has been confirmed in the 2021-31 Long Term Plan. Table 7.3 in the ITA demonstrates the performance of the intersection as a roundabout with the supermarket in place in 2024. The performance is considered appropriate and demonstrates that the supermarket is not reliant on the intersection upgrade.

Reviewer Comment/ question

Figure 7.3 shows an indicative layout for a scheme at the Levi Road / Lowes Road intersection. This layout has no clearance between the proposed kerbline and the northwestern corner of the site and so a footpath could not be provided within the road reserve here. It also shows a wide crossing on the southern approach, likely to be associated with a shared walking/cycling route, but the report states that the shared route should be on the north of Levi Road (not the

south). It also appears that the indicated left-turn lane on Lowes Road means that the existing footpath would need to be removed, as the extent of land remaining between the kerbline and the road boundary is too narrow. While it is appreciated that it is a sketch design, it appears that this layout is at odds with statements made in the report.

7. Please can the layout (or the report) be updated so that they are consistent with one another. This issue is particularly relevant for the number of approach lanes, as if the three lanes currently assumed have to be decreased to two lanes, then the capacity of the intersection will change.

Abley response

The sketch in the ITA (shown below) was prepared assuming the shared path along Levi Road would be on the south side of the road. However, the shared path location is not finalised. The sketch shows that if a shared path or a footpath is to be located on the south side of Levi Road, a slither of land from the supermarket site would be required at the northwest corner of the site to accommodate this. The client is aware of this issue and would be willing to work with Council to address the matter.

At the Northwest corner of the intersection, it is assumed that the reserve (triangular section of land) owned by Council could provide a footpath/ pedestrian path within it which would allow the sketched number of lanes to be provided. It is further noted that the modelling results show that the supermarket is not reliant on the intersection upgrade.

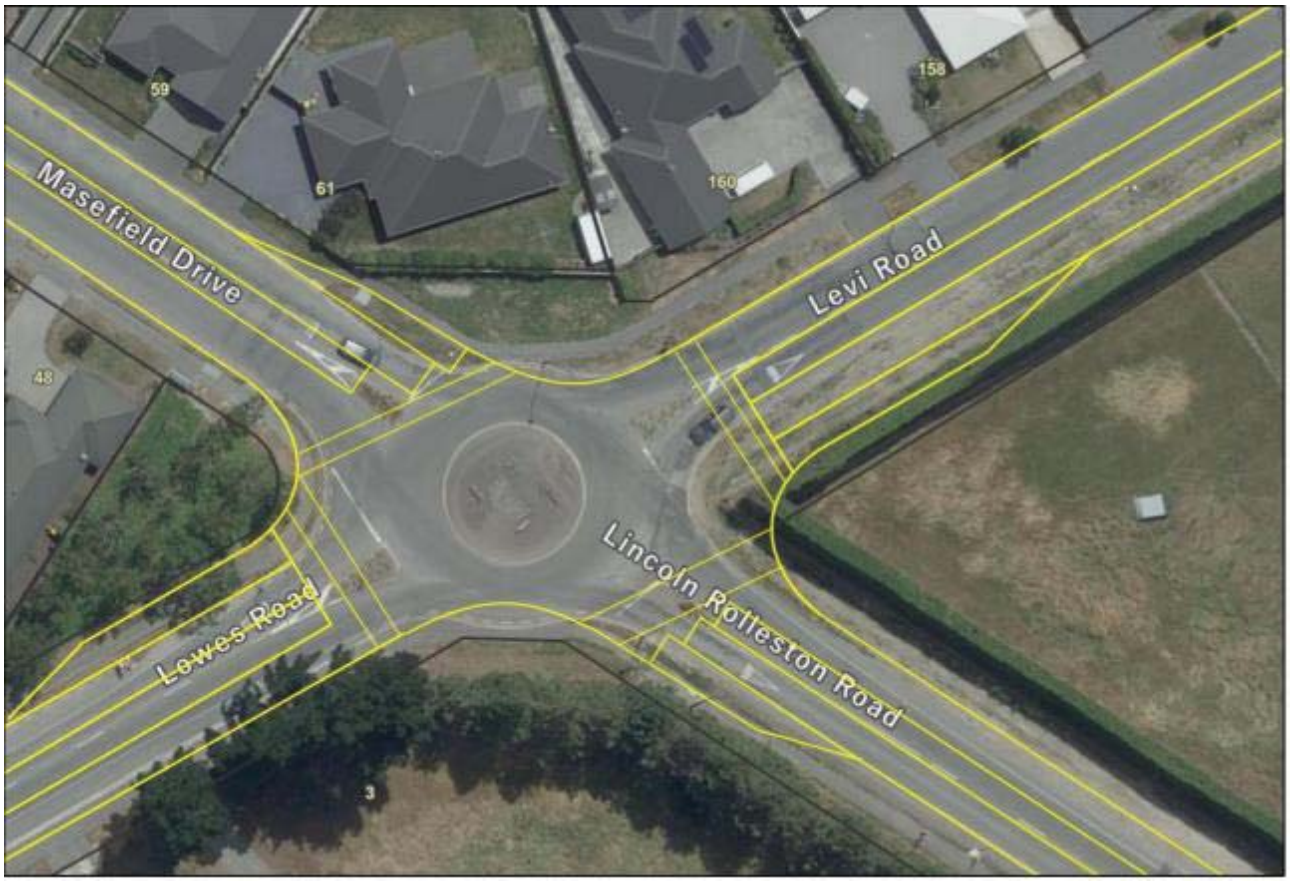

Figure 1 Sketch of Levi Road/ Lincoln Rolleston Road upgrade

Reviewer Comment/ question

8. Please provide queue lengths from all modelling reported, and comment on whether queues at the Lowes Road / Lincoln Rolleston Road intersection will extend as far as the site accesses (and if so, what effects on road safety and efficiency may arise).

Abley response

Queues for the Levi Road / Lowes Road / Masefield Drive / Lincoln Rolleston Road intersection across the four reported models are summarised in the table below. Both the peak hour average and maximum queues are provided. Note that due to limitations of the software, queues are only recorded if they include at least two vehicles. The average queue length is measured across the time slices in which there is a queue and does not include times when no queue is measured.

Table 1 Queue lengths at signals

	2024 Base (Rbt)		2024 With Development (Rbt)		2033 Base (Signals)		2033 With Development (Signals)	
Approach	Average (m)	Max (m)	Average (m)	Max (m)	Average (m)	Max (m)	Average (m)	Max (m)
Levi Road	58	123	69	127	43	121	45	129
Lowes Road	24	53	31	78	41	79	42	81
Lincoln Rolleston Road	27	103	33	83	36	81	41	81
Masefield Drive	23	47	24	68	42	106	41	114

The results suggest that with the signals, the average queues will not impact the proposed supermarket accesses on Levi Road and Lincoln Rolleston Road. The maximum queue lengths do extend beyond the proposed accesses, but queues of such lengths will be infrequent and short-lived.

With the current roundabout, the model indicates that the average queues on Lincoln Rolleston Road will be shorter than in the signalised scenario. On Levi Road, the average queue will extend beyond the first (exit-only) access from the supermarket. However, this will be rectified once the signals are in operation. As noted, the average queue length measurement excludes periods where there are less than two vehicles queued at the intersection, and as such it is likely that there would still be opportunities for vehicles to exit the supermarket access. In its current roundabout configuration, Levi Road has a single lane right up to the intersection, meaning there is no possibility of weaving manoeuvres.

1.2 Walking / Cycling

Reviewer Comment/ question

It is set out that "Levi Road is proposed to be upgraded at some stage in the future" and this will include a shared path. However in Section 5.2 it is noted that "pedestrians and cyclists can access the site via the shared path planned by Council". In other words, mitigation is relied upon (in Section 5.2) where there is no confirmed scheme (as described in Section 4.2). The report also sets out that a footpath at the site frontage is "proposed" by the applicant.

9. Please confirm the location and extent of the footpath that is proposed by the applicant.

Abley response

A continuous footpath will be provided on the Levi Road frontage within the road reserve until the Levi Road/ Rolleston Lincoln Road intersection is upgraded to signals. At this point if required, a similar width footpath will be provided within the supermarket site between Access C and the intersection due to the lack of road reserve to accommodate the footpath and turning lanes.

Reviewer Comment/ question

10. Please provide further details regarding the pedestrian phases at the proposed traffic signals. Are they called on each cycle? Is 'walk with traffic' assumed, or are the phases exclusive?

Abley response

Pedestrian phases have not been explicitly considered in the microsimulation models. It has been assumed that pedestrians will 'walk with traffic' with pedestrian protection to temporarily hold back turning vehicles. All left-turning movements operate at LOS C or better in future scenario 2033 and have much lower volumes than the through movements. This suggests there will be sufficient time for pedestrian protection to be active at the beginning of left/through signal stages without significantly impacting the performance of the left-turning movements.

Reviewer Comment/ question

11. Please advise whether any additional formal pedestrian crossing facilities are justified on either of the frontage roads.

Abley response

A pedestrian crossing with a pedestrian refuge island is proposed at Access D and painted pedestrian crossings are proposed at Access C and Access E as indicated in Figure 5.1 of the ITA. With the Lowes Road/Levi Drive/Masefield Drive intersection upgrade, pedestrians will be able to safely cross Levi Road and Rolleston Road. No further pedestrian crossing facilities are currently proposed. However, it is acknowledged that pedestrian crossing facilities in the form of pedestrian refuges may be appropriate on Rolleston Lincoln Road and Levi Road to cater for customers residing within walking distance to the site.

Reviewer Comment/ question

The footpath on Levi Road at Access D is shown as diverting southwards and across a refuge. This means that any pedestrians walking east-west (and not going to the supermarket) will walk outside the road reserve and through part of the site.

12. Please confirm that this is intended (from previous commissions it is understood that this is typically not an acceptable arrangement to developers).

Abley response

Access D is wide therefore a pedestrian refuge is proposed to enable pedestrians to cross it two stages. To ensure a suitable refuge width is provided, the crossing has been indented towards the site. The client has no concerns with pedestrians on Levi Road walking through the site.

1.3 Site Accesses

Reviewer Comment/ question

13. Please comment on the road safety effects of the weaving movement between the left-turn exit onto Levi Road and the right-turn lane into Masefield Drive, taking into account the limited distance available (the plans are not to scale, but it appears to be about 40m) and the expected queue lengths.

Abley response

Access C is located approximately 50m from the Levi Road/ Rolleston Lincoln Road intersection. As shown in Table 1, during peak periods, the average queue will be approximately 45m, therefore the queues may just reach the access. However, Access C is a secondary left out only egress that is anticipated to have low usage. It is distant from the main building and main accesses therefore is unlikely to be desirable. While queues across the access may occur occasionally it is not expected to create adverse effects to the operation of Levi Road or the operation of the car park as alternative exists (Access A, B and Access D).

Reviewer Comment/ question

14. Please confirm the layout of the site accesses that have been tested.

Abley response

Table 7.5 and Table 7.6 of the ITA tests the performance of the primary accesses (Access A and Access D). All supermarket traffic is assumed to use the primary accesses. The secondary accesses have not been tested given the restricted turning movements and low expected usage. It was important to understand and test the upper bound the primary accesses could handle.

Both Access A and Access D have been modelled with right turnauxiliary lanes for vehicles entering the site. However, both have been modelled with two approach lanes exiting the site (consisting of a left- and a right-turn lane) as shown in Figure 5.1 of the ITA.

Reviewer Comment/ question

15. Please undertake an assessment to identify whether auxiliary turning lanes are required for vehicles turning left or right into the site at each access.

Abley response

The modelling has been undertaken under the assumption that there will be auxiliary right turn lanes at the main accesses, Access A and Access D.

The modelling also demonstrated that left turning traffic into the site was relatively free flowing with little impediment to through movement of vehicles. This is shown with average two second delays to westbound through traffic (refer Table 7.5 in ITA) on Levi Road, and no delay for southbound through traffic on Lincoln Rolleston Road (refer Table 7.6 in ITA).

Nonetheless a short left turn auxiliary lane of approximately 20m is provided at Access D on Levi Road to mitigate any delay to the westbound traffic.

Reviewer Comment/ question

16. Please advise how the left-in/left-out arrangement at Access B be enforced? Raised median or driver goodwill? Similarly, please advise how drivers will be prevented from turning right into Access C.

Abley response

No raised medians are currently proposed to allow right or left turn in at Access B. A no right turn out sign and markings are proposed to alert drivers that it is left out only exit. Similar restrictions are common at other supermarkets. The majority of supermarket customers are repeat customers and would be aware of restrictions and are expected to use alternative accesses catered for desired movements. A raised median could be installed if customers appear to turn right ignoring the signage. Post-opening monitoring may be appropriate in this instance.

In terms of Access C, no entry signs and marking will be installed to prevent inbound movements.

Reviewer Comment/ question

Access E is noted as being for vehicle turning left into the site only.

17. Please advise how this is to be achieved, and the right-turn movement into the site, or exit movements prevented. This access is noted as being 7.4m wide, which is ample for two-way flow (and for drivers to perceive that two-way flow is anticipated).

Abley response

The main function of Access E is to provide left in entry for goods and delivery vehicles whilst minimising conflict with customers. The access is required to be 7.4m wide to accommodate heavy vehicle tracking. The access is tapered to the right to make it clear to drivers that it is entry only. This will also be supplemented with no right turn entry/ no exit or good access only signage as indicated in the site layout. All delivery drivers will be informed of the restrictions at induction.

Reviewer Comment/ question

18. Given that Access A leads to the service yard, please provide details of how the public will be directed to avoid them inadvertently entering the service yard.

Abley response

Appropriate wayfinding signage will be installed to direct both staff/ deliveries and customers to the respective parking areas. The public cannot enter the service yard as it is fenced off as indicated in Figure 5.1.

Reviewer Comment/ question

19. Please provide further details regarding the need for three vehicle accesses onto Levi Road, and comment on the benefits for a reduced potential for pedestrian/vehicle conflict by having only two accesses.

Abley response

Access C and Access E serve different areas of the carpark, with Access D serving as the main access "spine" of the car park. Based on the size of this car park, it is considered important to provide multiple accesses and to separate heavy vehicle traffic from customer traffic as far as practical.

Access C provides a left turn exit for the 167 parks in the northeast corner to improve the efficiency of Access D and serves the purpose of mitigating internal conflict within the site with both vehicles and pedestrians. Without the access there would likely to be more conflict in the vicinity of Access D.

Access D is considered necessary for the operation of the site. It is the only exit for right turners onto Levi Road and will be used the most by vehicles as it provides access to the closest parking spaces to the site entrance.

Access E is an entry point open to both customers and service/goods vehicles. It is required for a 19m semi-trailers to access the Yard Area without conflicting with customer vehicles and pedestrians within the car park.

Having two vehicle accesses will result in one less conflict point for pedestrians using the footpath on the Levi Road frontage. This however will be at the expense of more vehicle conflicts and potential conflicts with pedestrians within the site. For example, if Access C was removed vehicles would use access D to exit the site resulting in greater potential conflict with pedestrians crossing Access D as there is a greater number of vehicles. Additionally, vehicles will be required to exit an area which has greater pedestrian activity.

1.4 Tracking Curves

Reviewer Comment/ question

20. Please provide tracking diagrams that are to scale.

21. Given that truck+trailer units are expected, please provide tracking curves for these vehicles.

It is stated that the car park accommodates a 99th percentile vehicle but no swept paths are provided to demonstrate this.

Abley response

See attached vehicle tracking plans. The swept paths of a semi-trailer truck performance are expected to be worse than a truck and trailer therefore these are shown in the attached vehicle tracking sheets.

Reviewer Comment/ question

22. Please provide tracking curves for trucks exiting and exiting the site from both frontage roads. Please comment as to whether exiting turning trucks will result in them over-running the centreline of the frontage road, or whether entering turning trucks will over-run areas where cars might be waiting to exit. If so, please comment as to whether this leads to any adverse road safety effects.

Abley response

See attached vehicle tracking plans. All delivery trucks will exit the site using Access A only. The semi-trailer or truck and trailer will enter via Access E only. Trucks will not overrun the centre line upon entry or exit at Access A or E.

Reviewer Comment/ question

23. Please provide a swept path for a 99th percentile vehicle entering the site via Access D, and also for a vehicle entering/exiting several typical parking spaces.

Abley response

See attached vehicle tracking plans.

Reviewer Comment/ question

The swept path for a semitrailer (at the south-eastern corner) shows it over-running outside the proposed service lane (on the inside radius) and crossing well over the centreline of the service lane.

24. Please advise whether any design changes are proposed in this location, and comment on whether overrunning in this manner will lead to adverse road safety effects.

Abley response

The semi-trailer trucks are anticipated to track across the width of the service lane (southeast corner) when turning however give the frequency of visits, provided visibility, travel speeds and restricted access at this location no adverse safety effects are anticipated. The figure below shows the anticipated truck movements within the site. No conflict is anticipated at the south-eastern corner as all vehicles will be travelling in the same direction.

Furthermore, the south-eastern corner is proposed to be kept clear of vegetation and the 2m fence will be permeable to allow for sufficient visibility.

All delivery and service vehicles arriving from the west are expected to use the staff car park entrance to enter the Yard Area as shown below. The staff car park has very limited parking turnover during the day when most of the 12m truck deliveries are anticipated. Even then not all deliveries are expected to arrive from Access A. Deliveries coming from Christchurch are more likely to use Access E to enter the site. Based on these reasons the slight overrun at the staff car park entry is not anticipated to compromise safety at the site. Appropriate signage and line marking will be used to ensure safe operation.

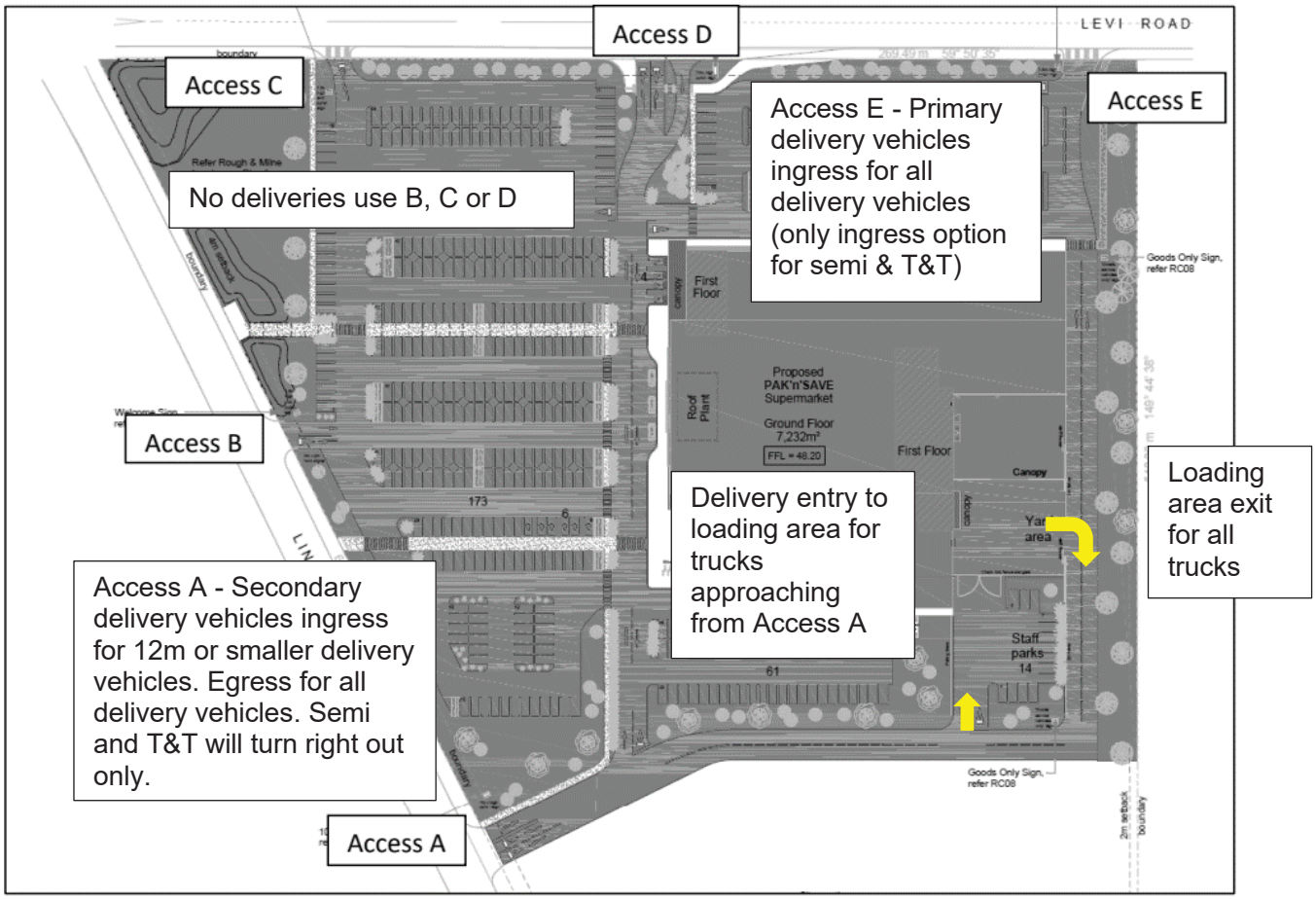

Figure 2 Delivery vehicle access restrictions

Reviewer Comment/ question

Rule E13.1.10.1 (Queuing Space) allows queuing space to be apportioned "in accordance with their potential usage". The calculation shown in the ITA simply divides the queuing space by the number of accesses and therefore has been incorrectly.

25. Please revise the assessment of queuing space to take account of the usage of the accesses, as the wording of the Rule requires and comment on any non-compliance that arises.

Abley response

The anticipated use of the major accesses was estimated using the model results. Considering the secondary accesses C and E were not part of the model a small allowance has been made to these accesses in line with the expected level of usage. Overall, the provided queuing distance at each access is more than the minimum requirement as summarised in the table below.

Table 2 Queue length assessment

Access	Access usage	Queuing distance requirement	Available queuing distance
Access A	35%	9m	>30m
Access B	17%	4m	>13m
Access C	5%	1m	NA (exit only)
Access D	38%	10m	>30m
Access E	5%	1m	5m

Reviewer Comment/ question

There appears to be signage to the immediate east of Access D.

26. Please confirm that this does not adversely affect sight distances.

Abley response

The pylon sign is located 12m from the exit lane well outside the typical 5mx 2m visibility splay. For incoming vehicles a visibility splay of 8.5m by 6.4m is available which is adequate to provide sufficient intervisibility between left turning traffic and pedestrians crossing the access. Based on the available intervisibility no adverse effects on pedestrian safety is anticipated.

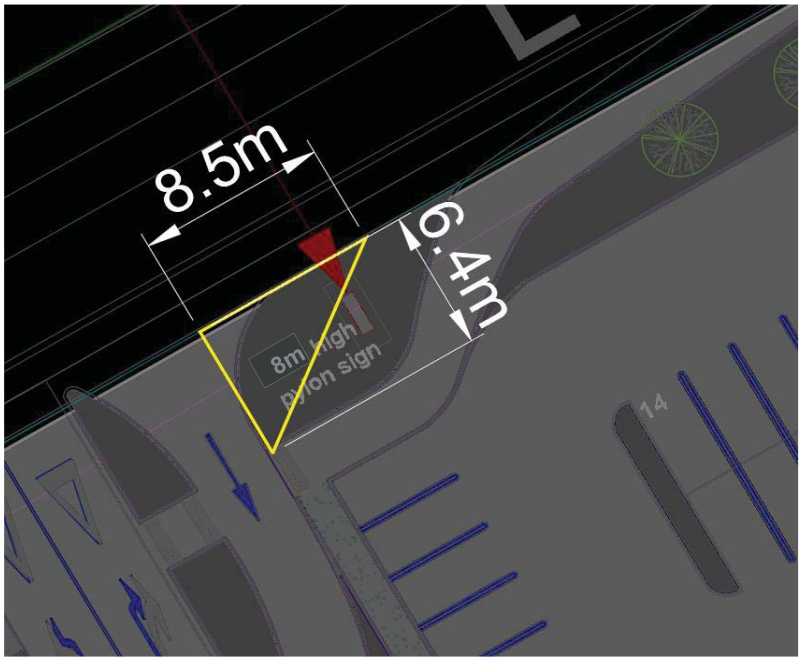

Figure 3 Available visibility at Access D

1.5 Pedestrian Connectivity

Reviewer Comment/ question

Please advise whether pedestrian routes have been aligned with desire lines.

It is noted that the pedestrian entry close to the north-east boundary has not been identified as a pedestrian route (figure 11, page 21). Please provide further information

Please confirm hierarchy of pedestrian routes within car park (as mentioned on page 24). Please confirm how safety in public spaces is addressed?

Abley response

As shown in the figure below, the internal pedestrian paths link well with existing/ future frontage road footpaths. More importantly, they will align with pedestrian desire lines approaching the supermarket from all directions. Customers walking from nearby residential areas will have multiple pedestrian access points to access the supermarket which follow dedicated internal pedestrian paths to the main entrance. Most pedestrians will not need to cross the main vehicle accesses (Access A and Access D) to access the supermarket, which is a highlight of the proposed layout.

However, it is noted that these pedestrian connections can be further strengthened by the provision of at least one mid-block crossing facility on the frontage roads and/ or by constructing a footpath along the east side of Lincoln Rolleston Road to connect to nearby crossing facilities.

The reviewer mentioned pedestrian connection has been relocated from the eastern boundary by removing four car parking spaces as shown below. This removes potential pedestrian & delivery vehicle conflict at the corner of the building whilst also connecting the northeast car park to the supermarket better. The removal of four parking spaces is inconsequential given the ample capacity of the car park.

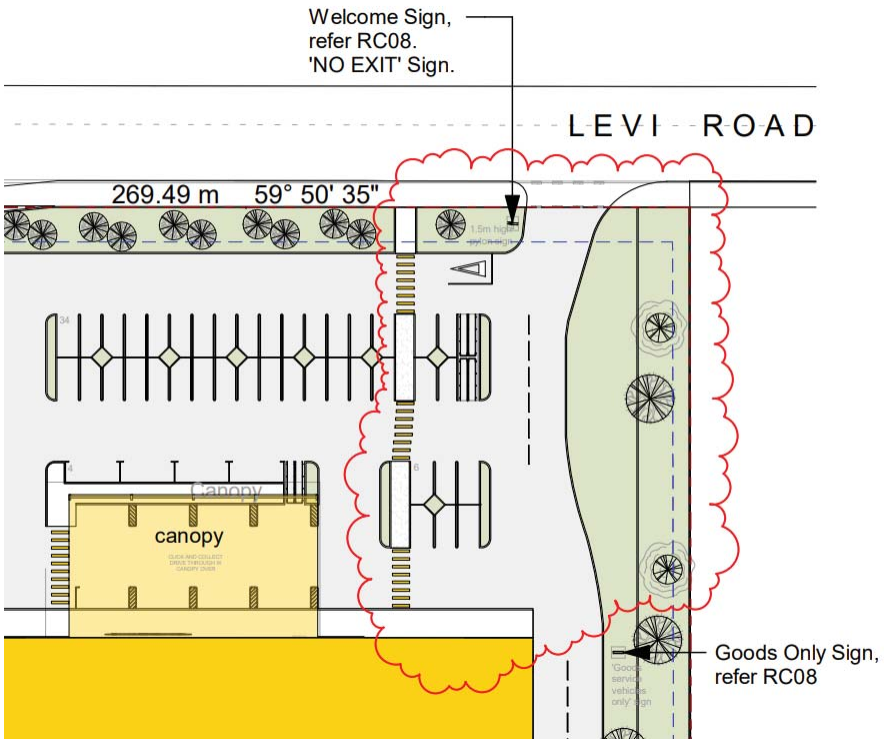

Figure 4 Site layout changes

The internal pedestrian paths shown in the figure below will be at a similar hierarchy. The network of paths provides good connectivity from all parking spaces to the main building.

The supermarket car park will be sign posted with a 15km/h speed limit to ensure customers are aware of the change in speed environment. The placement of mobility parking, two pedestrian crossings and the taxi stand along the main aisle naturally creates side friction (traffic calming) along the longest aisle of the site. The car park will be well lit, sign posted, and line marking will be used to clearly define priority at pedestrian crossings and at aisle intersections. Further details will be provided at detailed design stage.

Providing a safe pedestrian environment within and around the site is a key incentive to promote active travel modes to the supermarket as such FSIPL will actively monitor the operations of the car park and action mitigation measures if necessary.

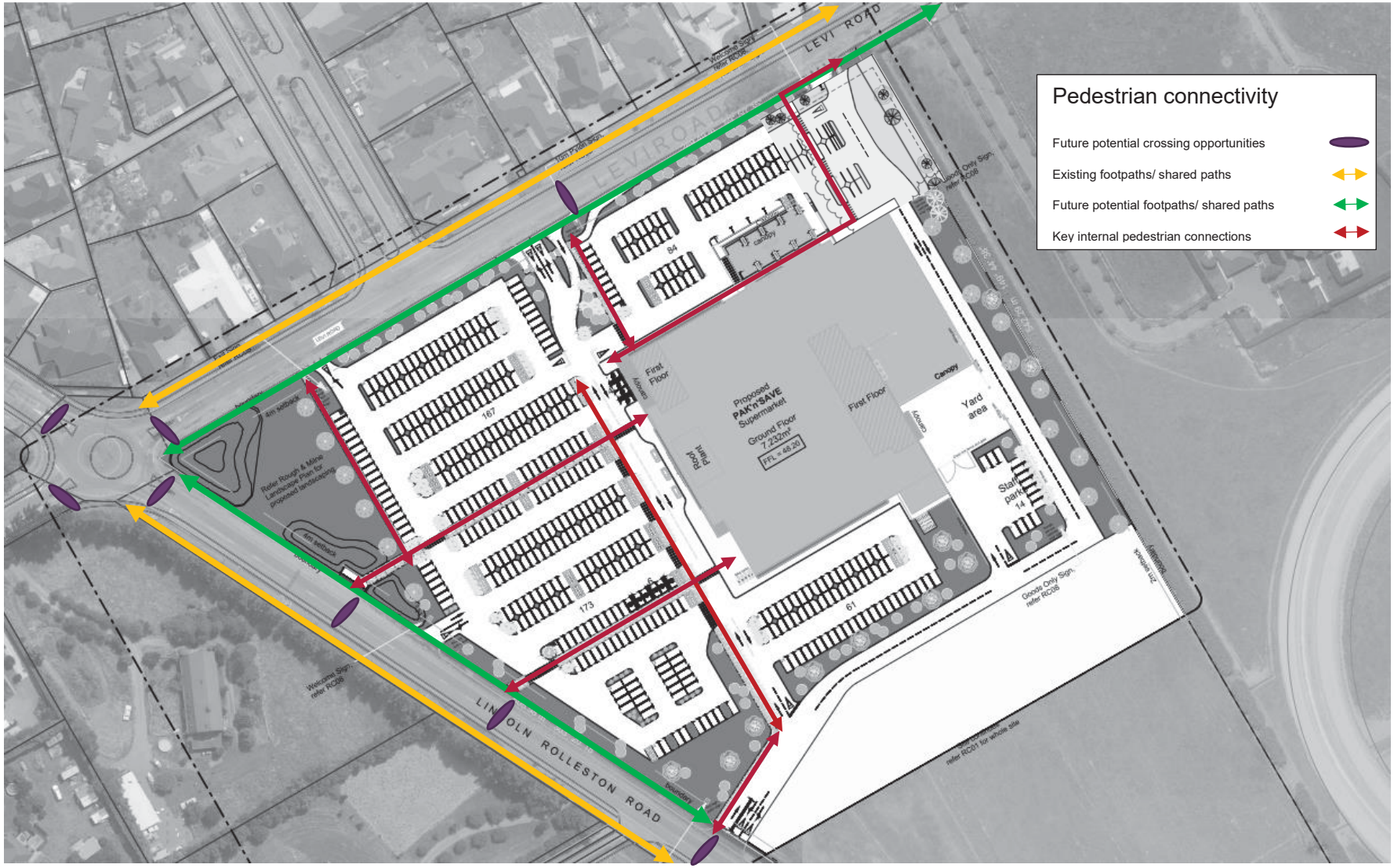

Figure 5 Pedestrian connections

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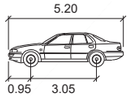
TRACKING LEGEND

- VEHICLE BODY OUTLINE
- BODY CLEARANCE (0.3m)
- CENTRELINE PATH



ASNZS 2890 B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 4.0
Steering Angle	: 33.6

8m Pylon Sign,
refer RC08

Welc
refer
'NO E

LEVI ROAD

269.49 m 59° 50' 3

80

10

67

4

Canopy

canopy

CLICK AND COLLECT
DRIVE THROUGH W
CANOPY OVER

First
Floor

50mm @ A3

Rev	Date	By	Chk	Description
A	08/02/2022	RT	JB	Updated site plan (25/11/2021)
B	21/02/2022	RT	JB	Updated vehicle clearances
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abley

Design	JY
Drawn	JY
Checked	RK
Issued	17/11/2021
Scale	1:400 @ A3

Rolleston Pak'n Save

Paknsave Main Customer Entrance
Levi Road
99th Percentile Car

Project No.	FSIL-J085
Dwg #	XC_VT
Sheet	3
Revision	B

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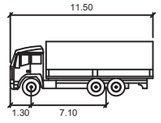
TRACKING LEGEND

- VEHICLE BODY OUTLINE
- BODY CLEARANCE (0.5m)
- CENTRELINE PATH



LARGE RIGID TRUCK

meters

Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.6

Roof Plant

Proposed
PAK'n'SAVE
Supermarket

Ground Floor
7,232m²

FFL = 48.20

First Floor

Canopy

canopy

Yard

542.29 m 149° 44' 38"

6

61

Staff covered bike parks

Staff parks
14

LARGE RIGID TRUCK RTS 18 2007 (NZ)

LARGE RIGID TRUCK RTS 18 2007 (NZ)

Goods Only Sign, refer RC08

50mm @ A3

Rev	Date	By	Chk	Description
A	08/02/2022	RT	JB	Updated site plan (25/11/2021)
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abley

Design	JY
Drawn	JY
Checked	RK
Issued	17/11/2021
Scale	1:500 @ A3

Rolleston Pak'n Save

11.5m Truck Movement

Project No.	FSIL-J085
Dwg #	XC_VT
Sheet	1
Revision	A

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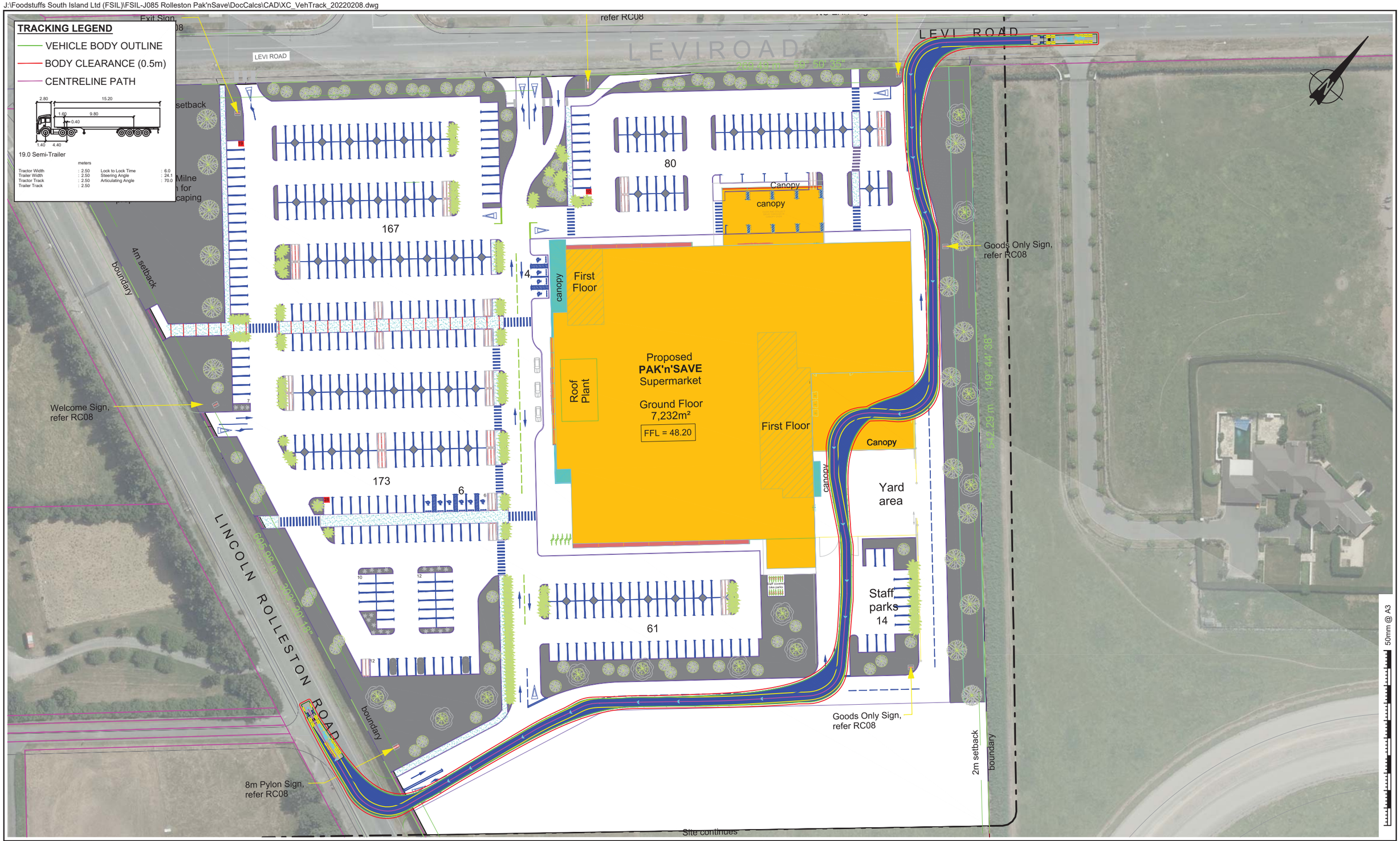

Rev	Date	By	Chk	Description
A	08/02/2022	RT	JB	Updated site plan (25/11/2021)
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Design	JY
Drawn	JY
Checked	RK
Issued	17/11/2021
Scale	1:1000 @ A3

Rolleston Pak'n Save

19.0m Semi Trailer Movement

Option 1

Project No.	FSIL-J085
Dwg #	XC_VT
Sheet	2
Revision	A

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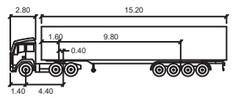
TRACKING LEGEND

- VEHICLE BODY OUTLINE
- BODY CLEARANCE (0.5m)
- CENTRELINE PATH



19.0 Semi-Trailer

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 24.1
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

Rev	Date	By	Chk	Description
A	08/02/2022	RT	JB	Updated site plan (25/11/2021)
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abley

Design	JY
Drawn	RT
Checked	JB
Issued	04/02/2022
Scale	1:1000 @ A3

Rolleston Pak'n Save

19.0m Semi Trailer Movement

Option 2

Project No.	FSIL-J085
Dwg #	XC_VT
Sheet	7
Revision	A