



Appendix D

Integrated Transport Assessment



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25 July 2025

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Project No: 310203579 / 600

YourSection Ltd
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Attention: Hamish Wheelans

Dear Hamish

Reference: YourSection Weedons Road Plan Change

We have considered the Selwyn District Council Request for Further Information dated 14 May 2025 and respond to the transportation related matters as follows.

1 Site 2 Extension

Site 2 has been extended to the north. The additional site further consolidates development along the edge of Weedons Road. The additional 4.3 ha has been incorporated into a revised Integrated Transport Assessment included as **Attachment 1**, which also incorporates aspects of the RFI response that follows. The total site area across the two blocks is now approximately 17.3ha, supporting an assessed number of households of 260 lots (at an average of 15 households per hectare). No substantive change to the transport assessment outcomes were identified as a result of the increased area.

2 Residential Density

1.1 The ITA has assessed the potential transport efficiency effects of the Plan Change on the surrounding transport network, using the Rolleston 2040 Paramics model. Please provide the transport modelling files for our review. The ITA assesses the effects of 193 households, which is consistent with the minimum required density of 15hh/ha. However, higher density may be permitted by the MRZ. Please comment on the feasibility of greater household yield, and how this may affect the conclusions of the ITA.

Reference: YourSection Weedons Road Plan Change

Likelihood of 15 hh / ha being achieved

Recent MRZ subdivisions in the vicinity that were zoned through Variation 1 to the Selwyn District Plan have been developed with average density of approximately 15 households per hectare.

Relevant applications include:

- 8 Nobeline Drive/202 Lincoln Rolleston Road (in process) RC255546 – 16.4hh/ha
- 39 Branthwaite Drive (within Falcon's Landing, 43 lots) RC235028 (15 hh/ha)
- 148 Lincoln Rolleston Road (RC245401/402) (265 residential allotments) – 15.6 hh/ha
- 153 Lincoln Rolleston Road (RC235357) (PC75 land)– 13.8 hh/ha across all stages

Commentary on Traffic Modelling

The Rolleston Simulation Model provides for land development of greenfield land at densities as has occurred in recent times. It is understood that no specific allocation has been made within model inputs for densities greater than the typical minimum density. The Plan Change modelled density is considered generally consistent with modelling of greenfield development areas elsewhere in Rolleston.

SDC advised that the 2040 model has overall household numbers controlled to the household projections reflected in the Selwyn Long Term Plan for 2040. As the proposed plan change does not make any consequential reduction to household projections beyond the site, the modelling methodology adds slightly more than half a year of development capacity to Rolleston. That is considered to be a conservative methodology in terms of the wider network assessment.

The density of development could influence performance at a local level. In this case the scale of different scenarios is set out below for the 17.3ha (revised after extension of Site 2) combined site area:

Table 2-1: Traffic Generation Influence of Density

Table Heading	Total Lots	Total two way peak traffic generation (vph)
15 hh / ha As modelled	260 lots	234
17.5 hh/ha	303 lots	273
20 hh / ha	346 lots	346

Increasing density to 20 households per ha increases the overall traffic generation by 112 vph across the two sites. This will then be split in each direction, and then across routes. It is considered it will have no material effect on road design in the area. In comparison with overall traffic volumes generated in Rolleston and the southeast area, it is considered the incremental change will be small such that additional sensitivity traffic modelling is not necessary for the Plan Change process.

3 Weedons Road / Levi Road Intersection

1.2 The modelling in the ITA assumes a range of improvements to the transport network (as contained in the 2040 Paramics model). Please provide sensitivity testing to determine whether development within Site 1 and Site 2 needs to be staged with the upgrades of Weedons Road/Levi Road (i.e. please provide a modelling assessment of the existing intersection forms).

The Long Term Plan Capex Programme provides for the project as being planned for 2032/33. It is understood the upgrade will likely be aligned with the changes in the Rolleston Access being carried out by NZTA.

In practice, it is likely that even if development starts within the Plan Change area in the short term, it would be as a consequential result of reduced development by the Plan Change proponent coming to the market from other locations.

However, to test the importance of the intersection, some additional modelling tests have been carried out. The modelling tests are with the existing form at the Levi Road / Weedons Road intersection at 2040 for base and with both Site1 and Site 2 (as per original ITA with Site 2 at 63 houses, rather than the now proposed 130 houses in Site 2). Full results are presented in **Attachment 2**.

The changes in traffic volume on the road network as a result of the changes in Levi Road / Weedons Road intersection form and also as a result of development.

Table 3-1: Traffic Volumes 2040 AM Peak – Levi / Weedons Sensitivity

Intersection	AM			
	Base – existing Levi / Weedons	Base – roundabout Levi / Weedons	Scn 4 existing Levi / Weedons	Scn 4 roundabout Levi / Weedons
Lincoln Rolleston Road north of Selwyn Road	1,058	881	1,062	933
Weedons Road north of Selwyn Road	130	265	135	256
Weedons Road north of Brendean Drive	216	847	215	814
Brendean Drive west of Weedons Road	60	210	63	206
Edmund Hillary Drive Ext west of Weedons Road	69	280	54	150
Lady Isaac Drive Ext west of Weedons Road	75	160	53	115

Reference: YourSection Weedons Road Plan Change

Table 3-2: Traffic Volumes 2040 PM Peak – Levi / Weedons Sensitivity

Intersection	PM			
	Base – existing Levi / Weedons	Base – roundabout Levi / Weedons	Scn 4 Development existing Levi / Weedons	Scn 4 Development roundabout Levi / Weedons
Lincoln Rolleston Road north of Selwyn Road	928	882	946	910
Weedons Road north of Selwyn Road	301	345	325	359
Weedons Road north of Brendean Drive	846	966	869	972
Brendean Drive west of Weedons Road	200	234	216	250
Edmund Hillary Drive Ext west of Weedons Road	301	347	232	248
Lady Isaac Drive Ext west of Weedons Road	194	204	180	192

The comparison of the base case shows that the inclusion of the roundabout intersection form change has a significant change in morning peak traffic patterns across Rolleston, particularly in the morning peak period.

- It opens up increased levels of east-west travel to/from Weedons Road, and consequential reductions in traffic along Levi Road.
- The right turn from Weedons Road south into Weedons Road north is capacity constrained with its existing intersection form with very high delays, so traffic chooses other travel routes.
- With the roundabout, the traffic volumes rebalance and Weedons Road south approach becomes dominant due to the priority afforded traffic approaching from Weedons Road in the morning peak.
- With the roundabout additional traffic also travels via SH1 interchange at Weedons Road.

The second test retaining the existing intersection form and adding the Plan Change shows a modest incremental change in traffic using the intersection, or other intersections in the network.

- Minimal changes in volume using Weedons Road in the AM or PM peak as a result of the Plan Change
- Increase delay to the south approach at Levi Road / Weedons Road, which is already high in the base. That involves a small volume and reflects the likelihood that those turning right from Weedons Road will find it challenging until the intersection is upgraded. In practice it is expected residents will quickly make route choice through intersections where there is suitable reliability.

Broadly, it is considered the analysis indicates the primary purpose of the intersection upgrade is to support strategic rebalancing of traffic volumes in the Rolleston road network, rather than simply supporting development in the area. This opportunity to rebalance traffic patterns will exist as soon as a continuous east-west Collector road is available between Lincoln Rolleston Road and Weedons Road.

Reference: YourSection Weedons Road Plan Change

The incremental change in traffic volume and performance as a result of development of Area 1 and Area 2 is small in context. It is noted that the surrounding zoned areas do not include a requirement to stage development to the Levi Road / Weedons Road intersection upgrade. The likely outcomes associated with travel through the Levi Road / Weedons Road intersection if development proceeds ahead of the upgrade are as follows:

- Travel to the east - There will be a tendency for traffic to instead travel south and turn left from Weedons Road onto Selwyn Road to travel to the east. The proposed ODP already limits development until the Selwyn Road / Weedons Road intersection is upgraded.
- Travel from the east – the existing form of intersection at Levi Road / Weedons Road can accommodate the left turn from the north efficiently.
- Travel to the north – It is likely that traffic will utilise different routes to the Rolleston Industrial Area to avoid the need to turn right from Weedons Road into Weedons Road north. The road network enables that via Rolleston Drive (or in the future the Rolleston Drive over bridge).
- Travel from the north - the existing form of intersection at Levi Road / Weedons Road can accommodate the left turn from the north efficiently.

It is considered that the roundabout proposed at Levi Road / Weedons Road can support route choice for the development, but primarily the wider Rolleston township. In its absence, other routes can be used, and the District Plan controls development timing of influences on Selwyn Road and Lincoln Rolleston Road. It is considered that the addition of the Levi Road / Weedons Road as an assessment trigger in this case whilst affording opportunity to consider performance further over time, is in practical terms out of context with the rules applying to other enabled development and the level of change expected as a result of development.

4 ODPs

- 1.2 Please provide a plan showing the proposed ODPs overlaid with the transport networks of the adjacent development areas (DEV-RO15, DEV-RO16 and DEV-RO17). Where adjacent ODPs show indicative roads and cycle facilities connecting to the boundaries of Site 1 and Site 2. In particular, please confirm that existing ODP connections align with the proposed transport network and ODP in this area.*
- 1.3 Please comment on the extent that the proposed ODPs integrate with the adjacent sites. We have approximated the site with adjacent Development Areas in Figure 2, below and make the following observations:*
- a. Site 1 should include the continuation of the north/south road from DEV-RO15 along the western boundary of Site 1.*
 - b. The cycle/pedestrian path along the western boundary of Site 1 should be shown within the site boundary.*

Reference: YourSection Weedons Road Plan Change

c. The ODP for Site 1 includes a large indicative road in a crescent within the northwest quadrant. Please provide further discussion of the options that have been considered for the roading layout, particularly in reference to SUB-MAT9(b) and (d) which provide direction towards a connected and resilient transport network.

d. The east/west road along the southern boundary of Site 1 (Lady Isaac Drive extensions) should include a roundabout at Weedons Road, as is shown for this road in DEV-RO16 where it intersects with Lincoln Rolleston Road.

e. The north/south road in Site 2 should include a cycle/pedestrian path, to provide accessible mode connectivity and a consistent road typology with the north/south road in Site 1 that will eventually form a full connection (once the intermediate site is rezoned).

f. Site 2 should include the continuation of the north/south road from DEV-RO17.

The proposed ODP has been revised in consideration of consultation with SDC. The revised ODP diagrams are included as **Attachment 3**.

The following comments are made:

- The road network has been simplified and is more consistent with adjoining ODPs.
- The focus of the network is the east-west connectivity, where most of the demand for travel will occur.
- The north-south road on the west side of Site 1 is shown as a pedestrian / cycle corridor, which can be enabled without requiring land take from existing rural residential properties that have ownership of the shared driveway but may not develop at the same time.
- The ITA at Section 9.2 discusses whether a roundabout should be considered at the Weedons Road intersection for the collector road adjoining the southern boundary of Site 1. A roundabout is not considered necessary to support safe access with the Plan Change. However, following discussions with Selwyn District Council, to enable long term flexibility for a suitable intersection form if development occurred to the east of Weedons Road (which is outside the current urban limit) text is included that land is to be made available to facilitate future construction of a possible roundabout at the intersection. To be clear, it is considered the wording should not signal any requirement for a roundabout to be constructed as part of development of the Plan Change site.

5 ODP Site 2

7.2. As noted in Section 7.2 of the ITA, DEV-RO17 includes specific direction about the form of the Primary Road through the site, which is proposed to be extended through Site 2. However, the ODP for Site 2 does not provide specific direction about this road, and as such the ODPs don't "talk to each other". Has consideration been given to mirroring the DEV-RO17 description of this road into the ODP for Site 2?

Reference: YourSection Weedons Road Plan Change

DEV-RO17 includes text to this effect, and the proposed Plan Change does not. As reported in the ITA, traffic modelling does not support the description that “the east-west road is attractive as a through route”. Other matters can be considered through subdivision.

The ITA also noted that the fourth leg to a roundabout at Selwyn Road / Lincoln Rolleston Road is unlikely justified based on the traffic volumes forecast from DEV-RO17 is not necessary, even though it is shown on DEV-RO17. If the route was encouraged as a through route (such as through road design) that would create severance between areas north and south of the road, including to and from Reids Pit. It is considered that is an unnecessary and poor transport outcome.

The inconsistency by having different text in the proposed Plan Change may support Council to seek a better outcome through subdivision in DEV-RO17.

We trust the information contained addresses the queries of Council.

Yours sincerely

Stantec New Zealand

A handwritten signature in blue ink, reading "AA Metherell", is positioned above a thin red horizontal line.

Andrew Metherell CPEng BE(Hons)
Traffic Engineering Team Leader
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Encl

Attachment 1: Revised Integrated Transport Assessment

Attachment 2: Model sensitivity results

Attachment 3: Revised ODP

Reference: YourSection Weedons Road Plan Change

ATTACHMENT 1: Revised Integrated Transport Assessment incorporating extended Area 2 and RFI response

Weedons Road Residential Rezoning Plan Change

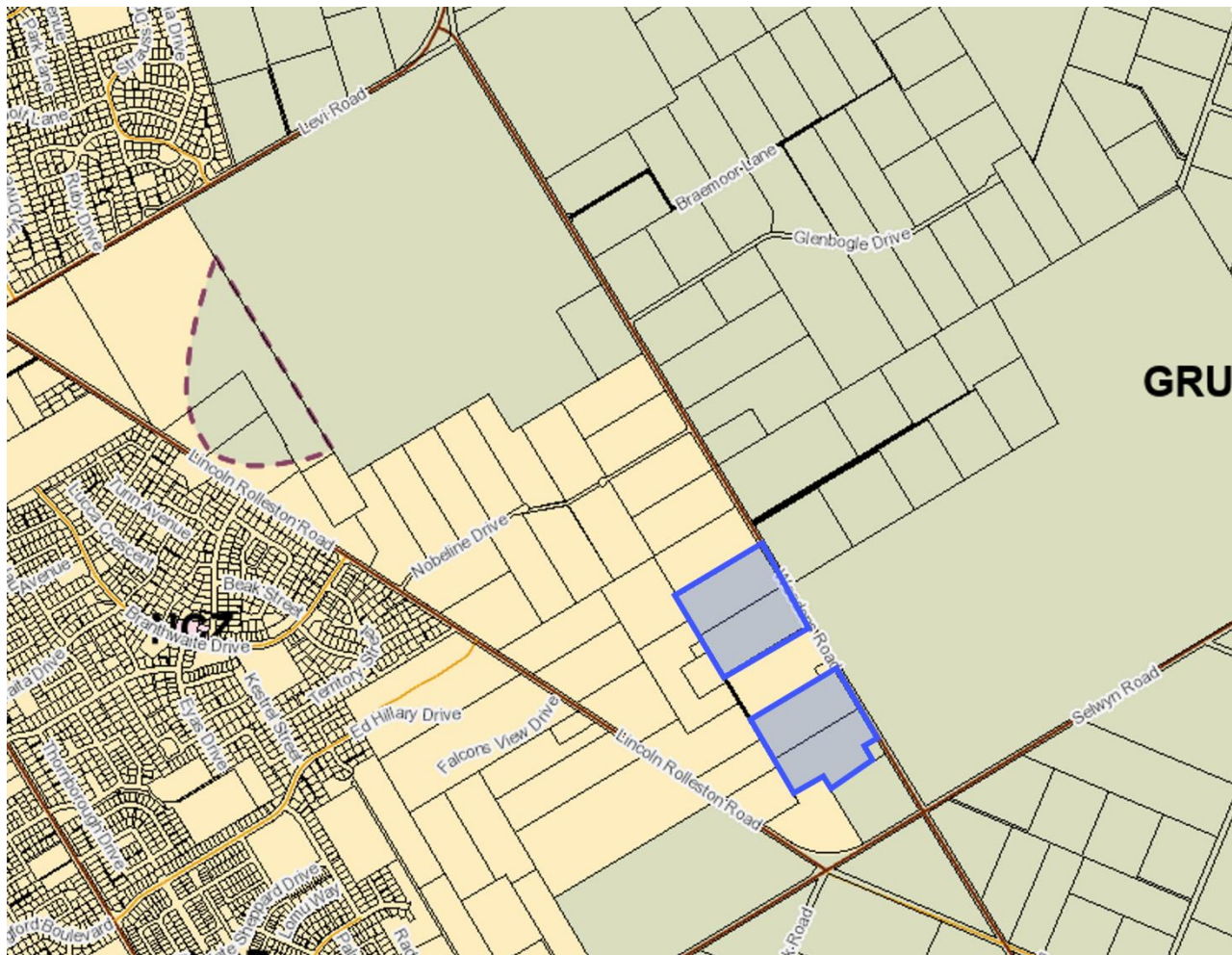
Integrated Transport Assessment

Prepared for:
Yoursection Ltd

July 2025

Prepared by:
Stantec New Zealand

Project/File:
310203579



Revision Schedule

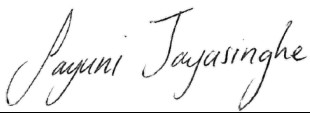
Revision No.	Date	Description	Prepared by	Quality Reviewer	Project Manager Final Approval
1	26/11/2024	Draft for Project Team Review	S Jayasinghe	A Metherell	A Metherell
2	18/12/2024	Include Site 2	A Metherell	A Leckie	A Metherell
3	9/1/2025	Revised ODP	A Metherell		A Metherell
4	24/7/2025	Revised ODP, Extended Site 2, Incorporate RFI Response	S Jayasinghe	A Metherell	A Metherell


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- A.2 Site 1 PM Peak Model Results (Year 2040)
- A.3 Site 2 AM Peak Model Results (Year 2040)
- A.4 Site 2 PM Peak Model Results (Year 2040)



1 Introduction

Yoursection Ltd proposes to re-zone approximately 17 hectares of rural land to the south-east of Rolleston for residential use by way of a private Plan Change to the Selwyn District Partially Operative District Plan (District Plan). The Site includes two separate areas of land:

- Site 1 – 1/487 and 2/487 Weedons Road 8.7ha
- Site 2 – 9/487 and 10/487 Weedons Road 8.6ha

The Sites are on the western side of Weedons Road, surrounded by a combination of land recently rezoned as Medium Density Residential (MDZ) in the Partially Operative District Plan and rural land. If developed at 15 lots per hectare, Site 1 has the capacity to accommodate approximately 130 lots, and Site 2 has capacity for approximately another 130 lots.

This Integrated Transport Assessment has been prepared to assess the proposed Outline Development Plan for the Plan Change and the ability of the surrounding transport network to accommodate the proposed development. The report also includes background on the location of the site, the existing transport network around the site and planned future changes in landuse and transport infrastructure.



2 Site Location

The locations of the sites for the proposed re-zoning can be seen in Figure 2-1.



Figure 2-1: Site Location in Context of Existing Rolleston Urban Area (Aerial Image Source: Canterbury Maps Viewer)

Figure 2-2 below shows the sites in the context of the Partially Operative District Plan road hierarchy classifications in the south-east of Rolleston, alongside the existing zoning.

Key roads within the vicinity of the sites include Weedons Road, Lincoln Rolleston Road, Levi Road and Selwyn Road. It is noted that there are collector road routes planned through the development areas between Weedons Road and Lincoln Rolleston Road, which are not yet reflected in the road hierarchy.

The sites are General Rural Zone under the Partially Operative District Plan. The land to the north, south and west of Site 1 is zoned Medium Density Residential (MDZ), while Site 2 is two of three larger lots in the south-eastern corner of the block remaining rurally zoned.

Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment
2 Site Location

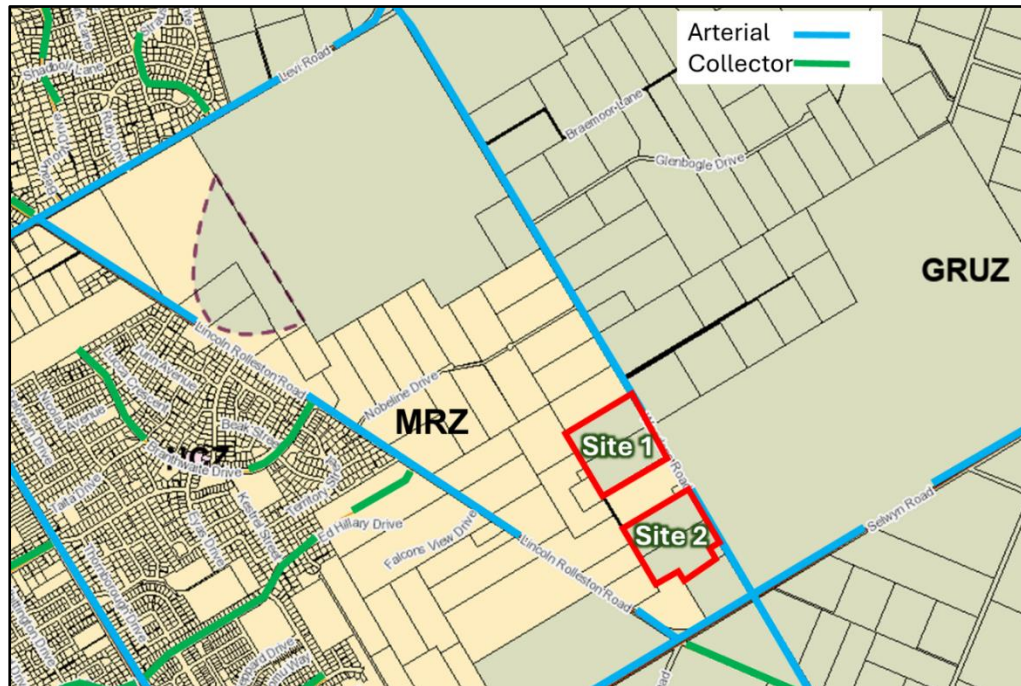


Figure 2-2: Road Hierarchy Classification (SDC Partially Operative District Plan)



3 Existing Transport Network

3.1 Weedons Road

Weedons Road is classified in the Partially Operative District Plan as an Arterial Road. It provides for an indirect movement route between Lincoln and the IZone industrial area west of the SH1/Weedons Road interchange.

Along the site frontages **Figure 3-1** and **Figure 3-2**, the road has a rural formation with a single traffic lane in each direction and a posted speed limited of 80 km/h. Power poles are positioned on the west side of the road. This general layout is consistent along the road.



Figure 3-1: Weedons Road Site 1 Frontage, Looking South-East



Figure 3-2: Weedons Road Site 2 Frontage, Looking South-East

3.2 Levi Road

The Weedons Road arterial route continues to the north-west and past the Levi Road intersection, providing linkage to the Christchurch Southern Motorway interchange. Weedons Road and Levi Road meet at a priority-controlled T-intersection (Figure 3-3 and Figure 3-4) with a right turn bay from Levi Road into Weedons Road (south). Levi Road continues south-west from this intersection as a key connection to Rolleston township.

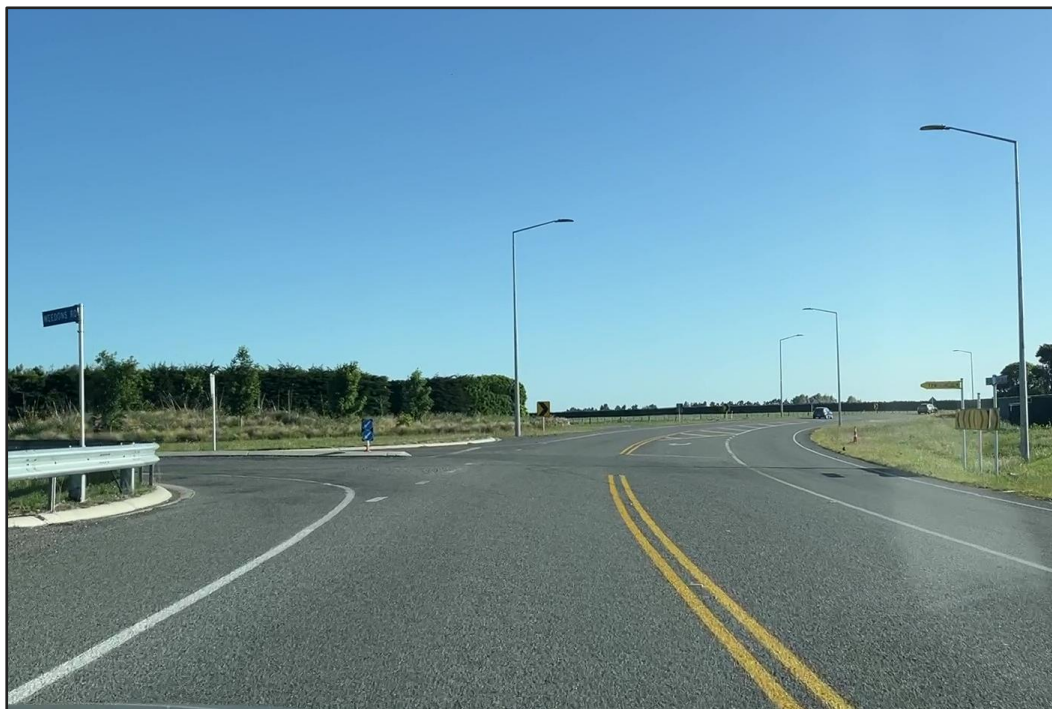


Figure 3-3: Levi Road/Weedons Road intersection (looking west on Levi Road)





Figure 3-4: Levi Road/Weedons Road intersection (Image Canterbury Maps)

3.3 Selwyn Road

The Weedons Road arterial route continues south-east to and across the Selwyn Road arterial route. Selwyn Road and Weedons road meet at a stop-controlled intersection within an 80km/h speed limit area, as shown in **Figure 3-5** and **Figure 3-6**. There are central traffic islands on the Weedons Road approaches.



Figure 3-5: Selwyn Road looking east to Weedons Road Intersection





Figure 3-6: Selwyn Road/Weedons Road Intersection (Image Canterbury Maps)

3.4 Lincoln Rolleston Road

Selwyn Road arterial route continues south-west towards Lincoln Rolleston Road. Selwyn Road and Lincoln Rolleston Road meet at a priority-controlled T-intersection (**Figure 3-7** and **Figure 3-8**), with the minor leg being Selwyn Road to the west. This section of Selwyn Road has an arterial status in the District Plan. The intersection operates within an 80km/h speed limit.



Figure 3-7: Selwyn Road/Lincoln Rolleston Road Intersection



Figure 3-8: Selwyn Road/Lincoln Rolleston Road Intersection (Aerial Image Source: Canterbury Maps)

Along Lincoln Rolleston Road (**Figure 3-9**), the road has a rural formation with a single traffic lane in each direction and a posted speed limit of 80km/h.



Figure 3-9: Lincoln Rolleston Road, Looking South-East

3.5 Existing Cycle/Pedestrian Network

There is no existing cycleway and pedestrian network along Weedons Road. The nearest cycleway to the site is the Rolleston to Lincoln Cycleway (**Figure 3-10**) that runs along the south-western side of Lincoln Rolleston Road. Along the rural section of Lincoln Rolleston Road, the path (**Figure 3-11**) has an



approximately 1.5m width. The shared pedestrian/cycle path along the sections with residential development frontage is widened to 2.5m.

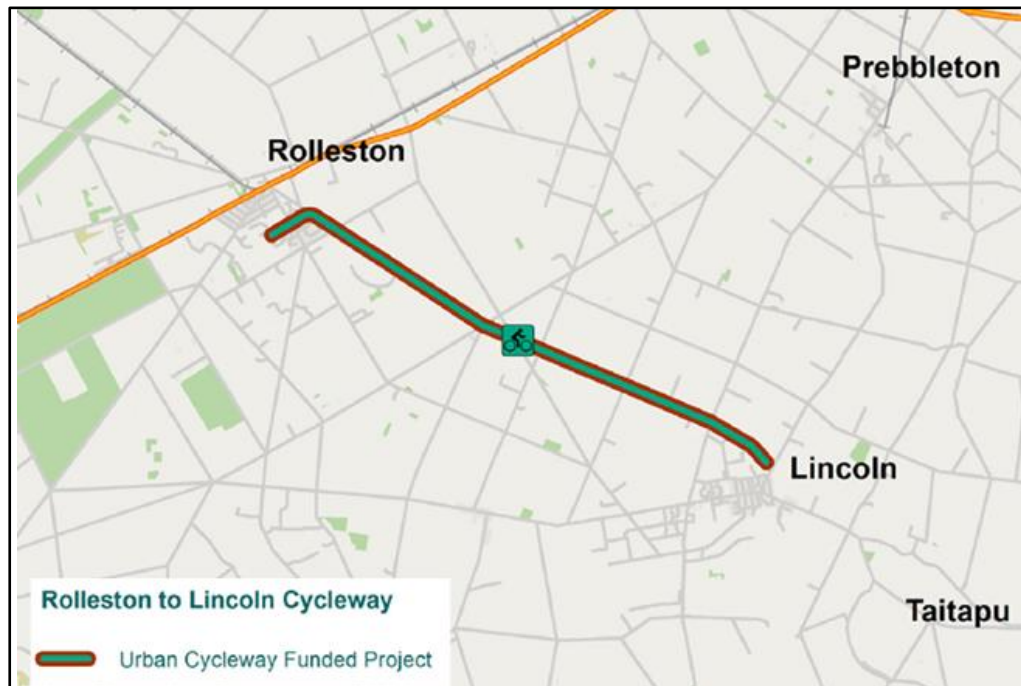


Figure 3-10: Rolleston to Lincoln Cycleway Route

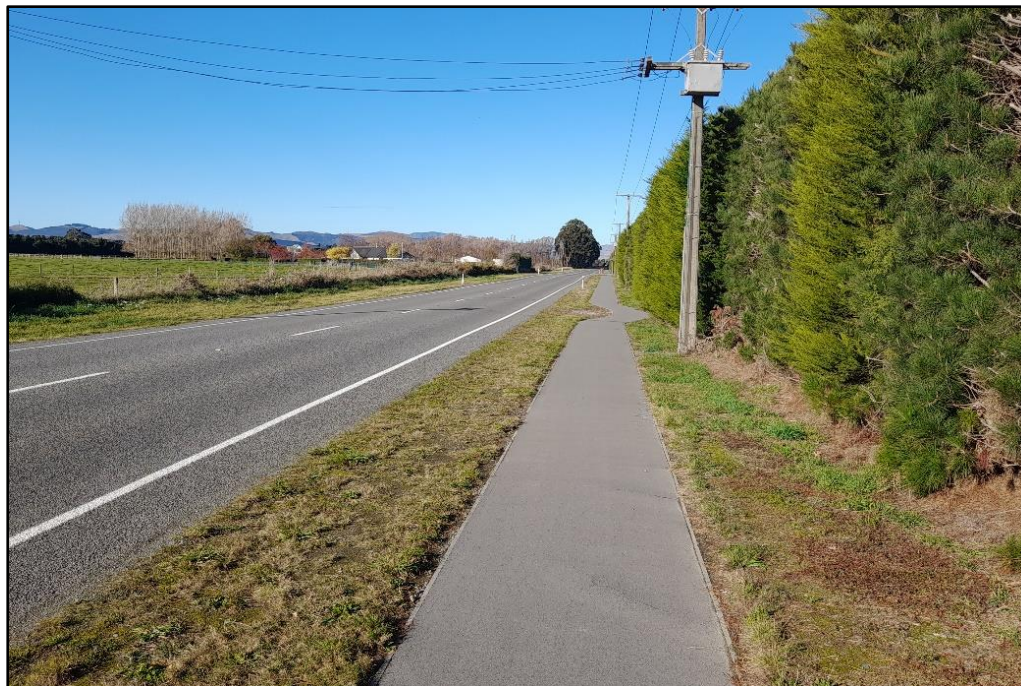


Figure 3-11: Rolleston to Lincoln Cycleway on Lincoln Rolleston Road

Subdivision roads in the surrounding area along Lincoln Rolleston Road are being developed with footpaths or shared paths to Council standards.

3.6 Public Transport

Figure 3-12 below shows the existing bus routes servicing the Rolleston area.



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

3 Existing Transport Network

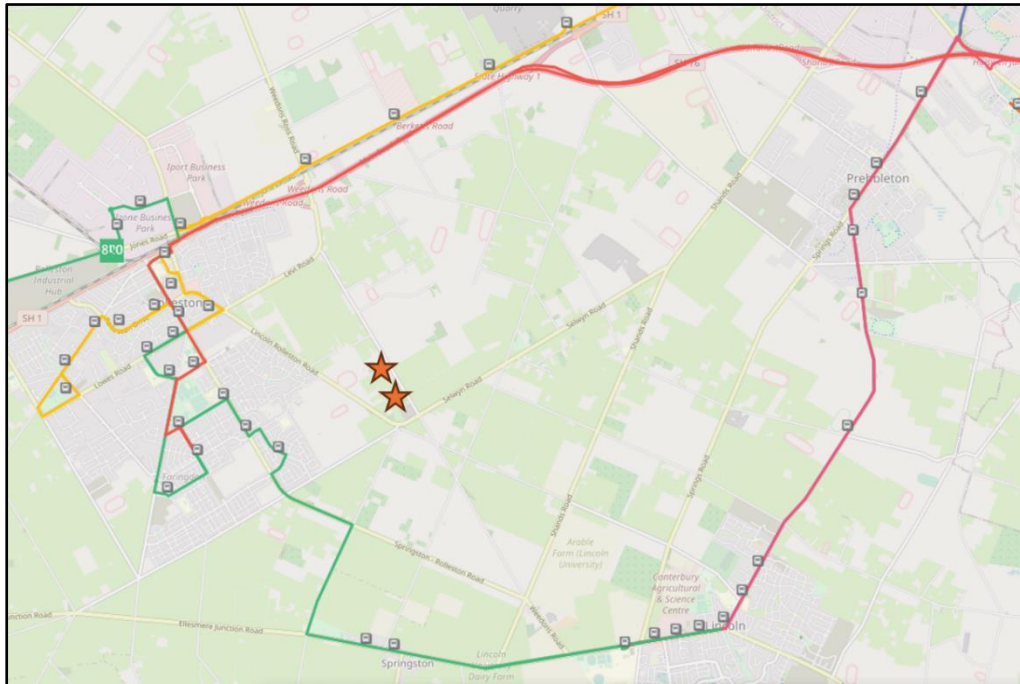


Figure 3-12: Existing Bus Routes (Metro Info), Site Location Orange Stars

The primary route servicing Rolleston is the #5 Rolleston/New Brighton service (the yellow line below) running at a headway of approximately 30mins in each direction, with more frequent services during commuter times.

The #820 Burnham/Lincoln via Rolleston service (the green line below) runs at a headway of approximately 1 hour in each direction. This service currently runs closest to the site through Acland Park off Springston Rolleston Road, where there is a pair of bus stops located on Broadway Parade approximately 1.3km west of the site.

The #85 Rolleston/City direct service is an express commuter service to Christchurch with three buses leaving Rolleston during the morning commuter period and three buses returning in the evening.



4 Existing Traffic Patterns

4.1 Daily Traffic Volumes

Average daily traffic (ADT) volumes on significant roads in the local Rolleston transport network were obtained from MobileRoad.org (a website that provides a summary of Council road asset data) and are summarised in Table 4-1 below.

Table 4-1: Daily Traffic Volumes (SDC)

Locations	ADT (vpd)
Weedons Road, north-west of Selwyn Road	1,835
Weedons Road, south-east of Levi Road	1,835
Levi Road, west of Weedons Road	10,510
Selwyn Road, south-west of Weedons Road	8,730
Lincoln Rolleston Road, west of Selwyn Road	3,600
Lincoln Rolleston Road, south-east of Levi Road	4,500

It can be seen that Weedons Road currently carries relatively low traffic volumes compared with the other arterial roads. Levi Road west of Weedons Road is the busiest road in the area due to its usage by people travelling to and from Christchurch. All the roads outlined in the summary table above are classified as Arterial Roads under the SDC District Plan and the traffic volumes reflect their function of delivering traffic flow to high importance routes and areas.

4.2 Intersection Turn Movements

Intersection traffic counts were carried out on Thursday 27 April 2023 at the Selwyn Road intersections with Lincoln Rolleston Road and Weedons Road. The counts for peak hours are summarised in Table 4-2 and Table 4-3.

Table 4-2: Selwyn Road/Lincoln Rolleston Road

Approach	Movement	AM 2023	PM 2023
Lincoln Rolleston Road (North)	Through	161	167
	Right	4	15
	Approach	165	182
Selwyn Road (West)	Left	5	12
	Right	422	225
	Approach	427	237
Selwyn Road (East)	Left	167	382
	Through	104	266
	Approach	271	648
INTERSECTION		863	1,067

Observations indicate that the Selwyn Road/Lincoln Rolleston Road intersection can accommodate the existing high turning traffic volumes with low delays and queuing occurrence, although the heavy PM peak left turn from Selwyn Road east into Selwyn Road west creates some difficulties with gap selection for those turning right from Selwyn Road west into Selwyn Road east.



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

4 Existing Traffic Patterns

Table 4-3: Selwyn Road/Weedons Road

Approach	Movement	AM 2023	PM 2023
Selwyn Road (East)	Left	1	1
	Thru	216	560
	Right	8	13
	Approach	225	574
Weedons Road (South)	Left	46	67
	Thru	61	66
	Right	1	2
	Approach	108	135
Selwyn Road (West)	Left	18	11
	Thru	524	296
	Right	50	78
	Approach	592	385
Weedons Road (North)	Left	24	28
	Thru	57	93
	Right	6	12
	Approach	87	133
INTERSECTION		1012	1227

Observation of the Selwyn Road/Weedons Road intersection indicates it operates with modest delays. There is some complexity, particularly in the evening peak as vehicles crossing the intersection wait for gaps in traffic in both directions on Selwyn Road, often with vehicles side by side at the stop line.



5 Road Crash Analysis

5.1 Crash Locations

A search of the crash records was undertaken using Waka Kotahi's 'Crash Analysis System' (CAS) database for the purposes of reviewing the existing road safety in the vicinity of the site. The search was conducted for the most recent complete 5-year period of July 2020 to June 2025. The search area is illustrated in **Figure 5-1** (Key: "M" / Yellow = minor-injury, "N" / Green = non-injury) and includes the length of Weedons Road from Levi Road (north) to Selwyn Road (south) with 250m search radii at these intersections.

There have been 18 crashes recorded within the search area during the search period. Of the crashes recorded two were classified as a serious injury crashes, eight were minor injury and eight were non-injury.

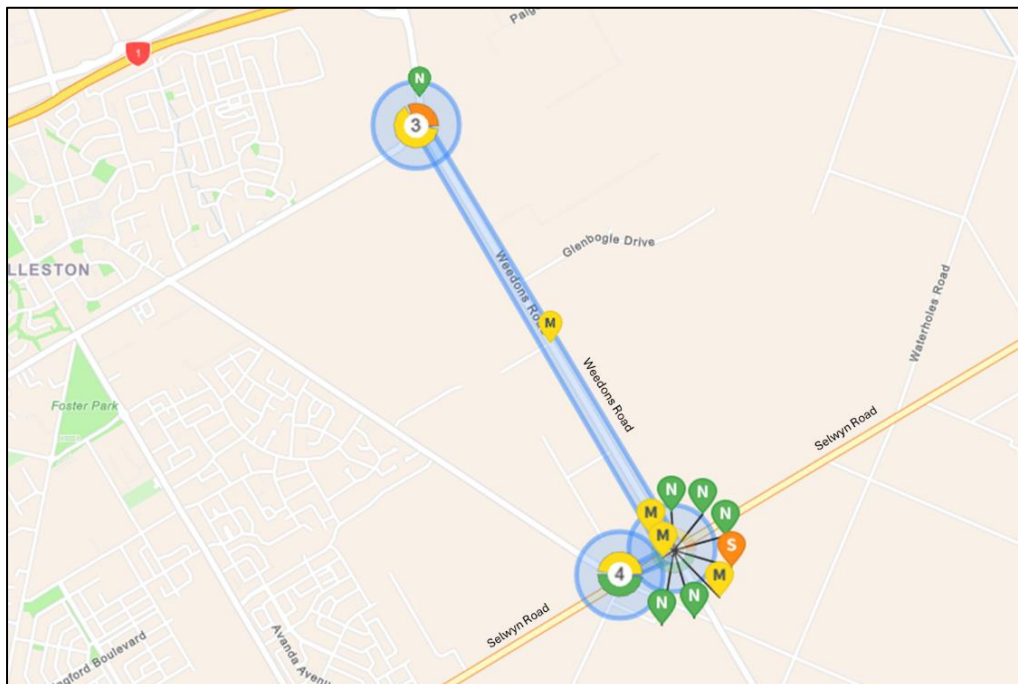


Figure 5-1: Crash Search Area (Waka Kotahi CAS)

5.2 Weedons Road

There has been one crash along Weedons road during the search period. A minor crash occurred along the road when a driver parked his truck and trailer across both lanes of the road to open a gate. A northbound and a southbound driver on Weedons Road failed to notice the parked vehicle in the middle of the road causing them to crash into it.

5.3 Weedons Road/Levi Road

Four crashes were recorded at or near the Weedons Road/Levi Road intersection during the search period, one serious injury crash, two minor injury crashes and one non-injury crash. The serious injury crash occurred when a right turning vehicle from Weedons Road failed to give way to a northbound and southbound vehicle on Levi Road. Both minor injury crashes occurred when a northbound vehicle turning right from Weedons Road failed to give way to a vehicle travelling southbound on Weedons Road. The non-injury crash was caused by a parked vehicle pulling out into the traffic lane on Weedons Road without checking for vehicles behind and ultimately crashing into a north bound vehicle.



5.4 Selwyn Road/Weedons Road

There were nine crashes recorded at the Selwyn Road/Weedons Road intersection during the search period. One was classified as a serious injury crash, three as minor injury crashes and the other five were classified as non-injury. The crash types at the intersection are shown in Figure 5-2. The green “N” notation shows non-injury crashes, yellow “M” is minor injury, and orange “S” is a serious injury.



Figure 5-2: Crashes at Selwyn Road/Weedons Road

There have been eight turning or crossing movement type collisions involving two vehicles at the intersection. There were four crashes (including a serious and minor injury crash) where a vehicle travelling east along Selwyn Road was hit from the side by a vehicle travelling straight through the intersection on Weedons Road.

One of the crashes involved a vehicle turning right from Selwyn Road west into Weedons Road South failing to give way to a westbound vehicle on Selwyn Road. A further turning crash was a motorcycle turning left from Selwyn Road east into Weedons Road south collided with the centre traffic island.

The other two crashes were caused by vehicles turning right from Weedons Road north to Selwyn Road west (including one minor injury crash).

Additionally, there was one minor injury crash with a vehicle that lost control just north of the intersection.

5.5 Selwyn Road/Lincoln Rolleston Road

Four crashes were recorded at the Selwyn Road/Lincoln Rolleston Road intersection during the search period. Two of the crashes were classified as minor injury crashes, while the other two were non-injury crashes.

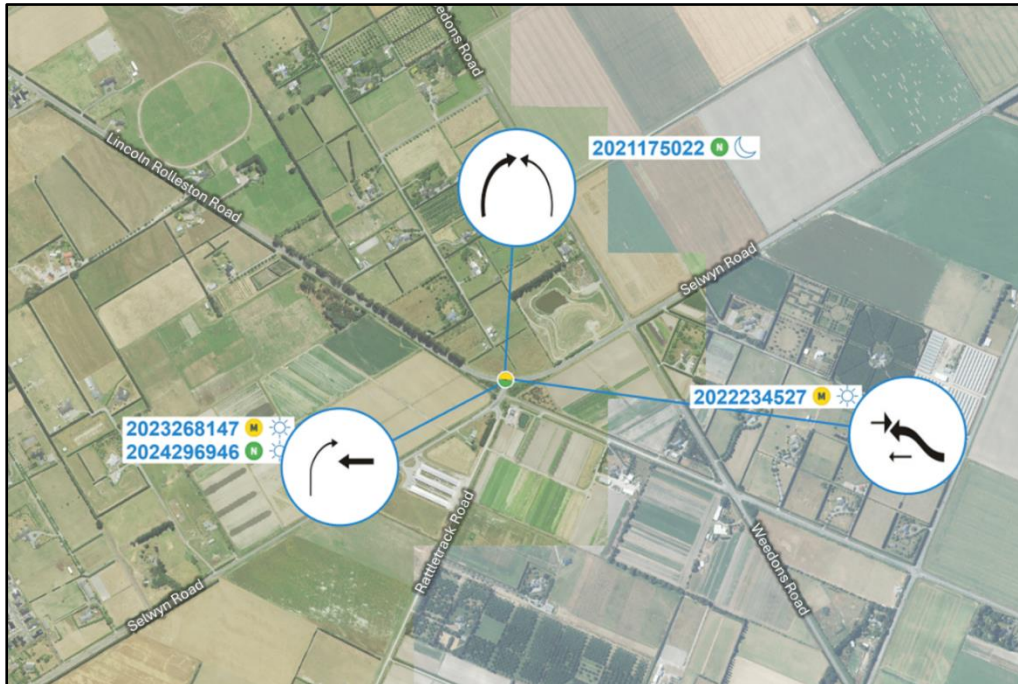


Figure 5-3: Crashes at Lincoln Rolleston Road/Selwyn Road

A minor injury and non-injury crash occurred at the intersection where a vehicle turning right from Selwyn Road west collided with a vehicle travelling straight through on Selwyn Road from the east and continuing on Lincoln Road. A common cause reported is that the drivers approaching the intersection from the west on Selwyn Road and turning right had failed to see a car coming from the right. Historically, the frequency of this type of crash has decreased. There were multiple occurrences before our search period, but now there are fewer of these crashes during the search period. This could be as a result of the general increase in turning movements from Selwyn Road west changing driver behaviour through the intersection and reduced through movements to and from Lincoln Rolleston Road as highlighted earlier.

There was a minor injury crash just north of the intersection when a vehicle travelling west on Selwyn Road was overtaking a vehicle in front by moving to the middle of the road but failed to see another vehicle travelling east causing a collision.

One of the other non-injury injury crashes was listed as a cutting corner type crash. It involved a driver turning right from Selwyn Road west and then failing to keep to the left of the road after turning resulting, resulting in a collision with a westbound vehicle. There is no indication of this crash being related to the operation of the intersection.

6 Planning Context/Future Environment

6.1 Rolleston Structure Plan

The Rolleston Structure Plan (Figure 6-1) has set out a potential plan for the long-term Rolleston area that encapsulates the site, and generally all land in the Future Infrastructure Boundary defined in the Canterbury Regional Policy Statement (CRPS). It provides some high-level insight into the original intention and potential for long term connections for the road network, public transport, and cycling. North of the site on Weedons Road a large District Park is indicated.

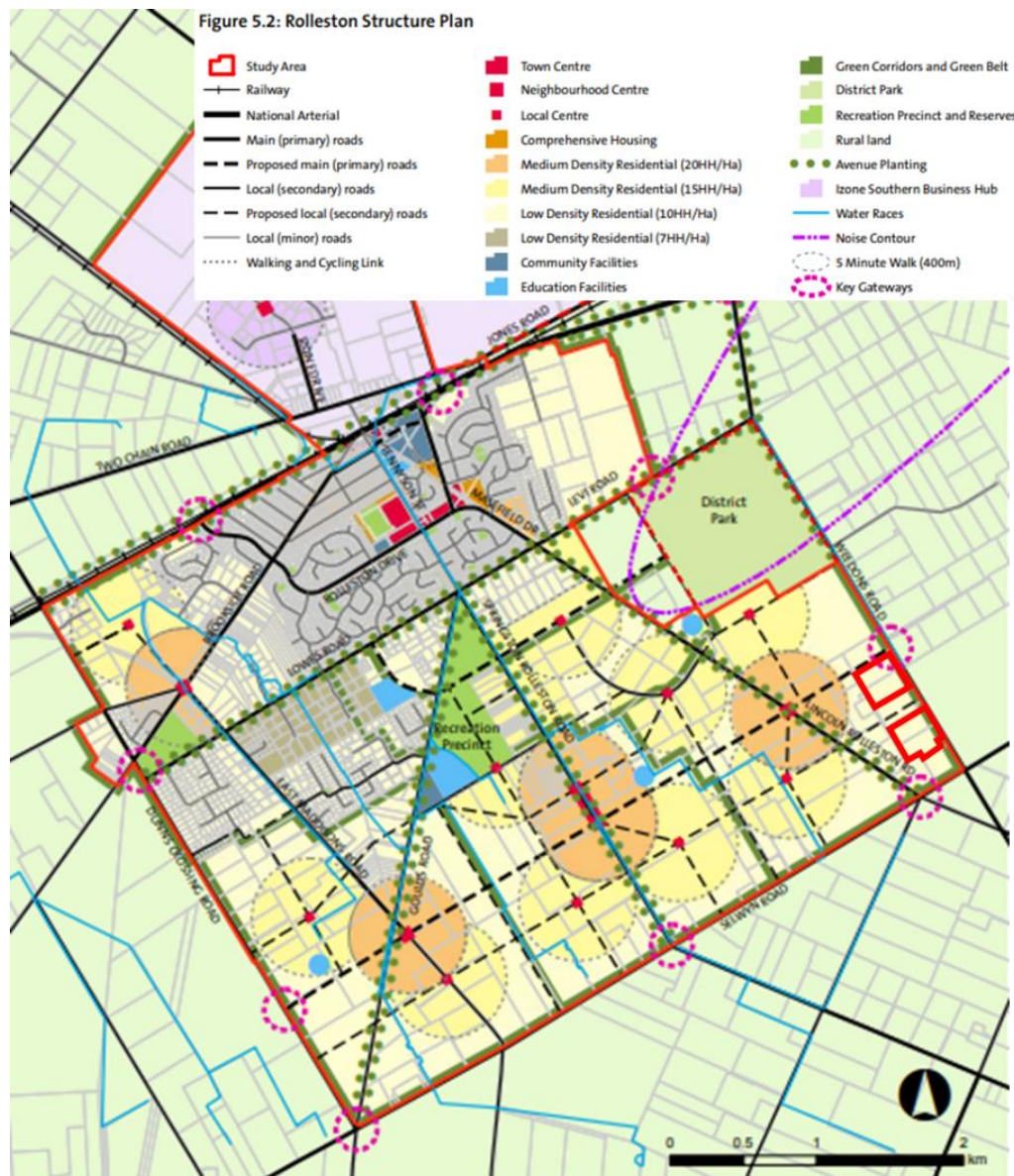


Figure 6-1: Rolleston Structure Plan (Site in Red)

As a reference for considering the long-term development of Rolleston, in the vicinity of the proposed development, the relevant Structure Plan transport diagrams indicate:

- That the site will comprise of one east-west secondary road (the extension of Lady Issac Drive) on the south side which is already provisioned in Dev-RO16.



- Future bus services nearest to the site as indicated are indicated as an orbiter service on Lincoln Rolleston Road and the CRETS Collector Road (Ed Hillary Drive – Talon Drive), as well as south of the site on Selwyn Road .
- Cycleways are anticipated along Weedons Road, Selwyn Road and Lincoln Rolleston Road, as well as through future residential development north of the site.

It is important to note that the high-level transport planning provided for in the Rolleston Structure Plan requires on-going reconsideration as development of Rolleston progresses and has now largely been implemented through rezoning as part of the District Plan review process and subdivisions. For this reason, it is considered a guidance document.

6.2 Regional Policy Statement

The Regional Policy Statement sets out the Projected Infrastructure Boundary and includes future development areas Greenfield Priority Areas for development. These areas were set following the Canterbury Earthquakes and then revised in 2021 to reflect the need for housing capacity. Greenfield development is well advanced or completed in most of the residential priority areas of Rolleston.

The Future Development Areas are identified in Map A of the Policy Statement which includes the proposed site as a Future Development Area within the Projected Infrastructure Boundary.

6.3 Nearby Greenfield Development Land

The Long Term Plan projections¹ of residential growth indicate close to linear growth over time in Rolleston, as shown in Figure 6-2. The red dot represents the household provision in the SDC traffic model, which is representative of households at 2040/41 and is 48% higher than the 2024 household estimate. This represents approximately 310 households per annum growth over the next 16 years.

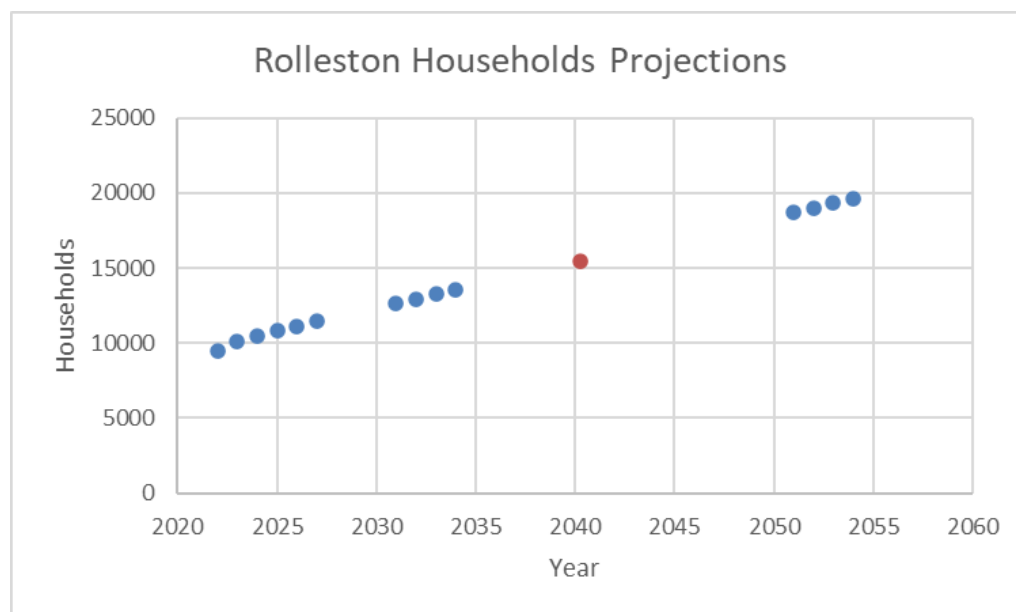


Figure 6-2: Long Term Plan Households Growth Projections

To support this growth, there are several proposed development areas on the south-eastern part of Rolleston included in the Partially Operative District Plan, as shown in Figure 6-3. Additional residential development areas are also included in the western part of Rolleston. The Site is a section of rural zoned land bounded on three sides by residential zoned land.

¹ Selwyn District Long Term Plan 2024-2034 Growth & Demand Report



According to the Outline Development Plan (ODP) provisions, residential development within the DEV-RO15, DEV-RO16, and DEV-RO17 areas is restricted from happening until the following intersection upgrades are operational:

- the Selwyn Road and Lincoln Rolleston Road intersection to form a roundabout.
- the Selwyn Road and Weedons Road intersection to form a roundabout.
- the Lowes Road/Levi Drive/Masefield intersection to traffic signals.

Pedestrian and cycle connections are also shown on DEV-RO15 along the Weedons Road frontage, consistent with the provisions of the Rolleston Structure Plan. The ODP's do not otherwise discuss how the Weedons Road frontage is to be treated, being on the zoned urban/rural boundary. This will be a matter considered during subdivision. However, it is noted comparable road frontages such as Selwyn Road and Dunns Crossing Road have provided full urban upgrades on the development side of the road, with a rural formation remaining on the rural side.

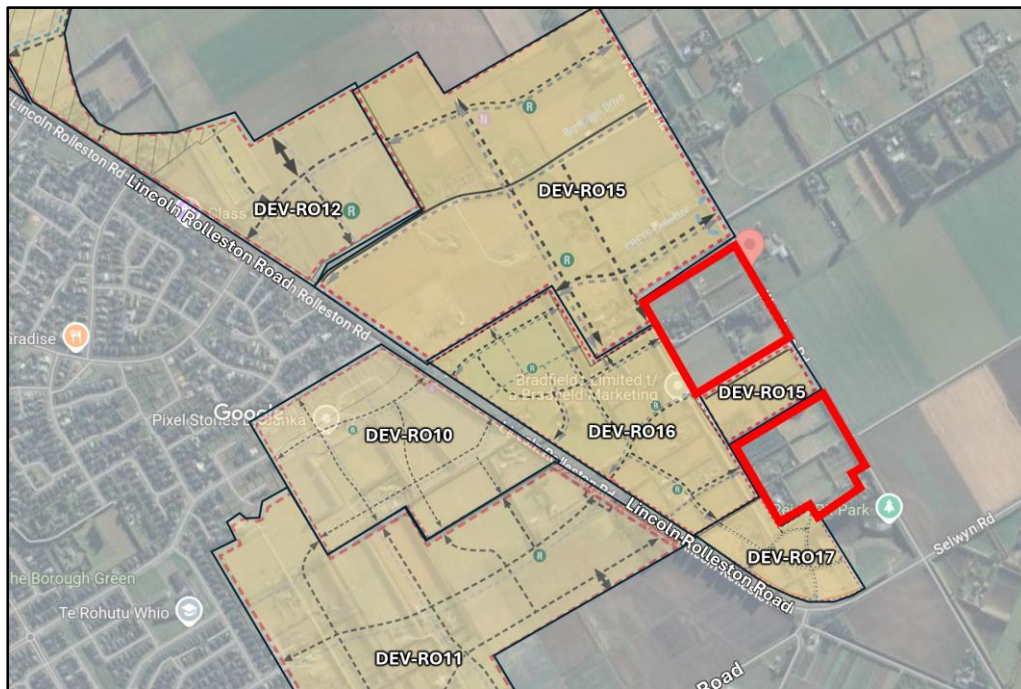


Figure 6-3: Proposed Residential Plan Change in South-east of Rolleston (Site in Red)

Various residential subdivisions are occurring in the south-east of Rolleston, having either approved plans or consent applications submitted to Council including (but not limited to):

- Falcons Landing - west of Lincoln Rolleston Road (part of DEV-RO10).
- Falcons East (part of DEV-RO16).
- Urban Estates - west of Lincoln Rolleston Road (part of DEV-RO11).

Those developments, and others being completed will add road connectivity in the area through implementation of new roads required by ODPs and additional traffic. Of particular note is that the developments will provide for eastern extensions of the Sir Ed Hillary Drive and Lady Isaac Drive Collector Roads.

6.4 Rolleston Access Improvements

NZTA is planning changes to the SH1 connections into Rolleston as part of the Roads of Regional Significance Programme (previously the NZ Upgrade Programme). In particular, a new bridge is proposed across SH1 at Rolleston Drive, with removal of the existing traffic lights and some additional turning movement restrictions at that location. It is expected the changes will be completed by approximately 2030. It is understood a possible outcome of the changes will be increased use of Levi Road as an increasingly important access route in and out of Rolleston.



A new two-lane roundabout is proposed at Dunns Crossing/Walkers Road intersection to create a new way to enter and exit Rolleston and the industrial area from the south.

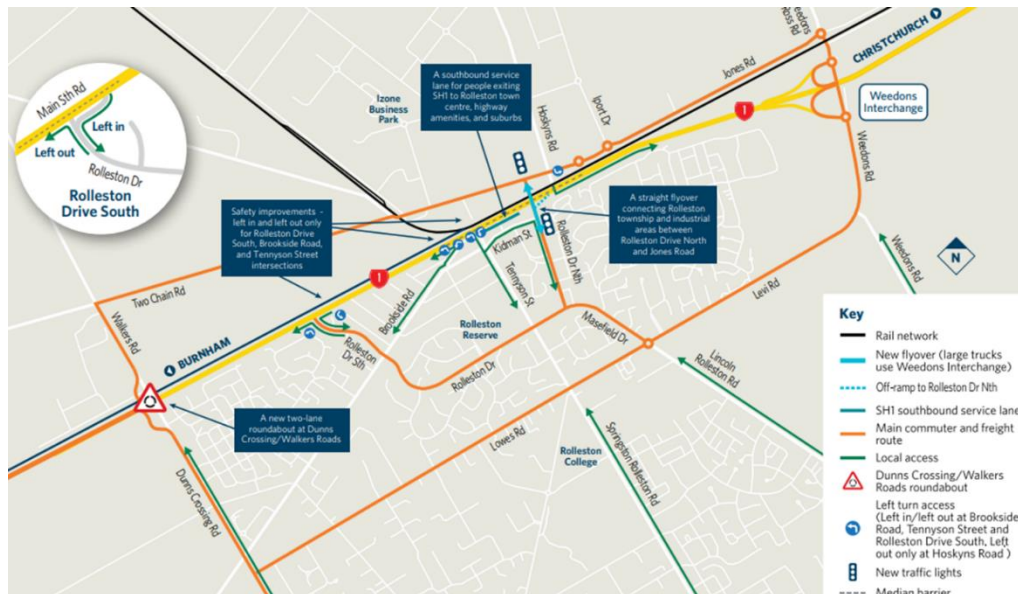


Figure 6-4: Proposed Rolleston Flyover and Transport Improvements (Waka Kotahi June 2022 Feedback Form)

6.5 Selwyn District Transport Projects

The 2024/25 annual plan includes the projects and budgets planned for the year. In this plan, the Levi Road / Lincoln Rolleston Road intersection is set to upgrade to traffic signals. This will address mounting congestion issues at this key arterial intersection.

The 2024-34 Long Term Plan capital programme and Transport Activity Management Plan provides for the following intersection upgrade timings:

- Selwyn Road/Lincoln Rolleston Road roundabout \$8M 2028/29
- Selwyn Road/Weedons Road roundabout \$6.5M 2028/29
- Levi Road/Weedons Road roundabout \$4M 2032/2033

The Long Term Plan also includes provision for a roundabout on Lincoln Rolleston Road at Ed Hillary Drive in 2034/35 (\$3M), and on Branthwaite Drive in 2035/36 (\$3M), to improve road safety and accommodate traffic growth.

The Levi Road/Weedons Road roundabout and the Selwyn Road/Weedons Road roundabout would support the increasing function of Weedons Road as development areas connect across from Lincoln Rolleston Road to Weedons Road, as well as supporting increasing movement between Lincoln and the industrial areas.

The Selwyn Road/Springston Rolleston Road roundabout planned for in the three-year programme of the Long Term Plan for 2025/26 costing \$6M is not National Land Transport Programme (NLTP) funded anymore hence this is being paused. This is due to the significant reduction in funding from NZTA for the 2024-27 infrastructure plan. Other projects around the area are still funded.

6.6 Future Public Transport Environment

As highlighted, the Rolleston Structure Plan indicates that the CRETS collector road and Lincoln Rolleston Road are potential future bus routes.

The draft Canterbury Regional Public Transport Plan plans to revise routes to maximise patronage by running more frequent services along certain corridors quickly. Selwyn services are intended to be extensions to strong routes to and from Christchurch City, with further future improvements to Selwyn services in the future. The Plan references the Greater Christchurch Public Transport Futures business



case work which includes an indicative map showing the southeast of Rolleston being serviced by a route from Rolleston to Lincoln along part of Lincoln Rolleston Road.

Previous discussions with Environment Canterbury (ECan) public transport representatives confirmed that there have been no changes to the bus network in Rolleston for some time and that the services in Rolleston (#5 and #820) are due for service reviews in 2024/25. The timing for these reviews came out of the Future Public Transport Business Case work carried out for ECan. It is understood at this time, the intention will be to take a 'blank canvas' approach to re-considering public transport provision in Rolleston. It is ECan's intention to use extensive consultation with the community in developing its future plans. As such, whilst no firm plans have been included for public transport close to the site, the recently zoned residential land and ongoing development in the area will factor into such a review.

6.7 Future Speed Environment

Selwyn District Council have initiated public consultation on proposed speed limit reductions in response to transformation of previous rural roads now serving expanding residential, school and commercial developments. The proposal includes lowering the speed limit alongside existing urban areas on Lincoln Rolleston Road (from 60m south-east of Lowes Road to approximately 1,780m southeast of Lowes Road) from 60km/h to 50km/h, and further reducing the limit from that point to about 60m north-east of Selwyn Road from 80km/h to 50km/h. Once finalised, the changes will be adopted by the Council and submitted to NZ Transport Agency Waka Kotahi for approval.



7 Proposed Rezoning Overview

7.1 ODP and Development Scale

It is proposed to re-zone two blocks of land totalling approximately 17.3 ha, as follows:

- Site 1 – 1/487 and 2/487 Weedons Road 8.7ha
- Site 2 – 9/487 and 10/487 Weedons Road 8.7ha

The rezoning will be from General Rural to Medium Density Residential, consistent with adjoining residential land. The two ODPs proposed are shown in Figure 7-1 and Figure 7-2:

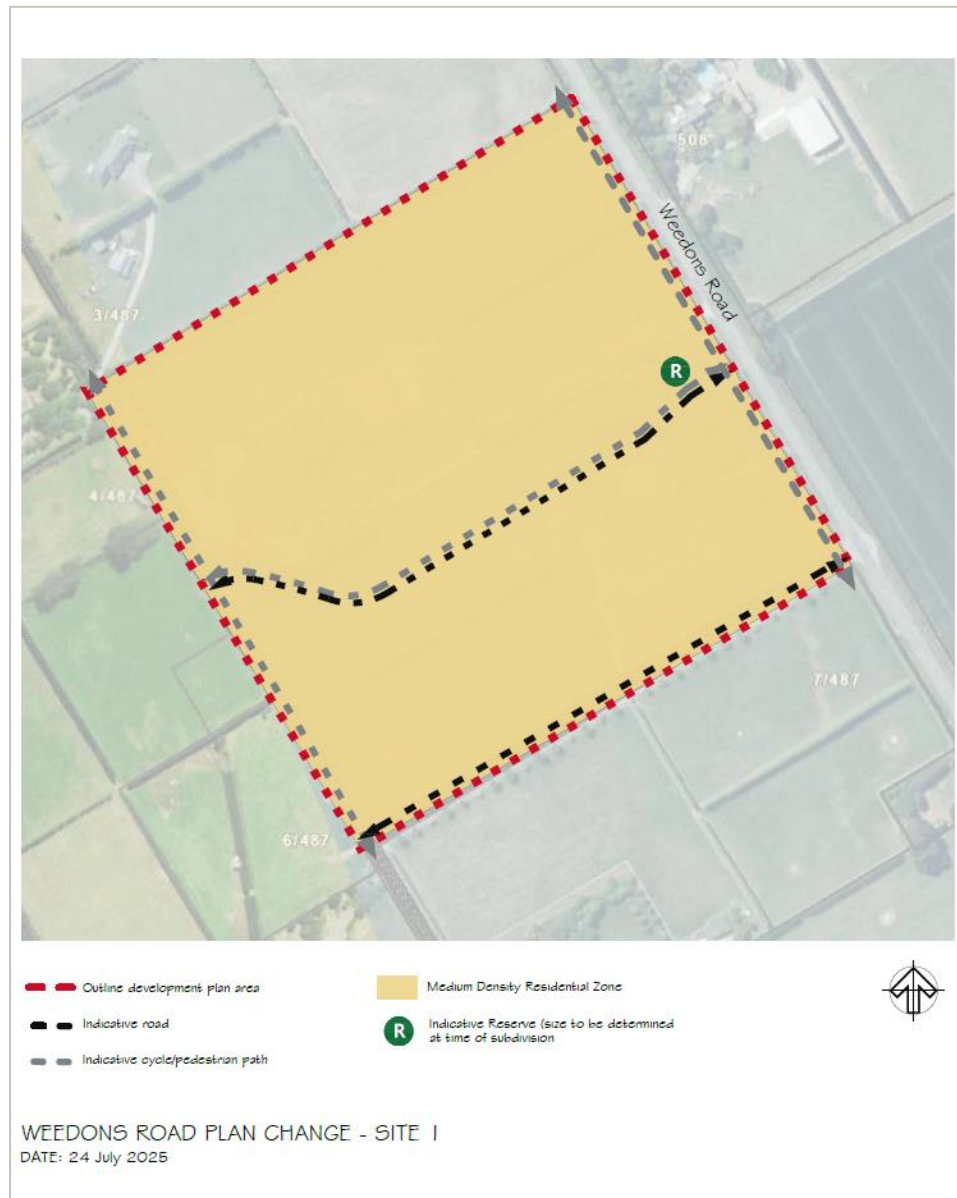


Figure 7-1: Site 1 ODP





Figure 7-2: Site 2 ODP

Based on an average density of 15 lots per hectare, it is estimated that the sites could accommodate approximately 260 residential lots (130 lots within Area 1 and 130 lots within Area 2). The sites will form eastern extensions of DEV-RO16 and DEV-RO17 respectively.

This density is generally consistent with recent subdivision associated with the Plan Change requestor:

- 8 Nobeline Drive/202 Lincoln Rolleston Road (in process) RC255546 – 16.4hh/ha
- 39 Branthwaite Drive (within Falcon's Landing, 43 lots) RC235028 (15 hh/ha)
- 148 Lincoln Rolleston Road (RC245401/402) (265 residential allotments) – 15.6 hh/ha
- 153 Lincoln Rolleston Road (RC235357) (PC75 land)– 13.8 hh/ha across all stages

7.2 Site 1 Layout

The ODP for Site 1 includes:



- a new road connection between DEV-RO16 ODP to the west and Weedons Road, with pedestrian cycle connection on that alignment.
- The primary road connection along the southern boundary which is also already shown on the DEV-RO15 ODP
- A pedestrian / cycle connection along the western boundary within the existing right-of way alignment.
- A pedestrian/cycle connection along the Weedons Road frontage.

For consistency with the existing DEV-RO15 to the north (and south) no internal connection is shown on the plans, and this would be a matter to be addressed through subdivision.

The connections will support a well-connected road network, as well as flexibility to stage development of the site independently of adjoining areas if necessary.

In the vicinity of Site 1, three intersections are proposed along Weedons Road to provide vehicle access to planned residential land. Two of these are already proposed by existing DEV-RO15 ODP for proposed neighbouring residential roads to the north and south of the site.

The DEV-RO15 intersections north and south of the site are intended to be intersections of collector roads with an arterial road. With current zoning, it is expected they will be Tee-intersections, although to enable future-proofing, the proposed ODP includes text reference to potential vesting of land to support a subdivision layout that enables future intersection upgrade of the southern intersection to a roundabout, if land is rezoned in the future.

Weedons Road is currently an arterial with 80km/h speed limit, and intersection separation is important. Based on development at the urban/rural interface on Selwyn Road and Dunns Crossing Road, and the progressive development along Lincoln Rolleston Road, a reduced urban speed limit of 50km/h or 60km/h is anticipated along the site frontage.

For a 60km/h road the minimum separation between roads according to the District Plan is 151m (for 80km/h road it is 214m). The separation between the current ODP roads is approximately 360m between collector roads, and that enables a compliant additional road connection in the middle of these roads with at least 151m (although it will be less than 214m separation required for an 80km/h road). However, as it is currently unclear to what extent the Council will want to protect the arterial function of Weedons Road any additional road connection requires evaluation. Other local road connectivity is indicated to all site boundaries to the west, south, and north.

7.3 Site 2 Layout

Site 2 will support a road and pedestrian/cycle connection from DEV-RO17 to Weedons Road, as well as connectivity to the DEV-RO16 site to the west. For consistency with the existing DEV-RO15 to the north no connection is shown on the plans, and this would be a matter to be addressed through subdivision.

It is noted that DEV-RO17 includes a potential connection to the proposed Selwyn Road / Lincoln Rolleston Road intersection. The description of the road connecting from DEV-RO17 is as follows indicating that the road is potentially going to support higher levels of vehicle traffic, and a bus route:

The primary road traversing the ODP will have a greater road reserve width than other roads with a greater sense of spaciousness and will to allow for larger tree planting and the inclusion of a separate shared cycle and walkway, and also recognise that any development in the wider area may find this an attractive route (meaning that traffic volumes may be greater). This road should also be designed to a standard to facilitate public transport routes (bus).

It is likely this description reflects the potential connection to the Selwyn Road / Lincoln Rolleston Road intersection, and the traffic that may use the road for movement between Weedons Road north of the site and Selwyn Road west of the site.

The new road connection to Weedons Road will be approximately 325m north of the Selwyn Road arterial roundabout, and approximately 350m south of the Lady Isaac Drive collector road extension intersection on Weedons Road. This is sufficiently separated from those intersections such that it will not affect the form of those higher order intersections.



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7 Proposed Rezoning Overview

The proposed ODP does not include a specific connection to the adjacent Reid Pit, although pedestrian connection can be considered as a standard matter for subdivision consent.



8 Transport Network Performance Assessment

8.1 Traffic Generation/Distribution

Stantec traffic modellers have made use of the Selwyn District Council 2040 Rolleston Micro-Simulation Traffic Model which has been developed for assessment of the future transport network once urban zoned land has been developed. It is understood that this model provides for most of the zoned greenfield residential areas to be fully developed.

The model has been applied for assessment of the ability of the surrounding road network to accommodate a 130-lot subdivision in Site 1 and a 130-lot subdivision in Site 2.

The following related to trip generation, distribution and mode shift were adopted for consistency with the model.

- Peak hour trips: 0.9 per household.
- AM directional split: 75% departures, 25% arrivals.
- PM directional split: 40% departures, 60% arrivals.
- Distribution consistent with that of the model zone for the adjoining future residential developments north and west of the site (zone 402).

To determine the potential incremental traffic related effects, the following model scenarios have been developed and assessed:

- **Base** – the 2040 model refined network in the area without the proposed Plan Change developments
- **Site 1, Scenario 1** – 2040 – Base network plus Site 1, no additional connection to Weedons Road
- **Site 1, Scenario 2** – 2040 - Base network plus Site 1, with an additional connection to Weedons Road
- **Site 2, Scenario 3** – 2040 - Site 1, Scenario 2 plus Site 2, with DEV-RO17 connection to Selwyn Road/Lincoln Rolleston Road
- **Site 2, Scenario 4** – 2040 - Site 1, Scenario 2 plus Site 2, no DEV-RO17 connection to Selwyn Road/Lincoln Rolleston Road

8.2 Base Traffic Model

As a basis for assessment, the suitability of the model for an assessment specifically along Weedons Road was reviewed. It is noted that the base traffic model includes the following intersection upgrades representative of a future transport network:

- Lincoln Rolleston Road / Levi Road traffic signals
- Selwyn Road / Weedons Road multi lane roundabout
- Selwyn Road / Lincoln Rolleston Road multi lane roundabout
- Weedons Road / Levi Road roundabout
- Lincoln Rolleston Road / Ed Hillary Drive roundabout
- Lincoln Rolleston Road / Lady Isaac Drive as a priority-controlled intersection, which has been revised for this assessment to a roundabout as required by the ODP.

As described earlier all of these projects are included in the Council Annual Plan or Long Term Plan, or a requirement of development.

It is recognised that these projects are planned for the future, and an assessment of a subdivision related traffic effects will be considered under the District Plan high trip generator and subdivision provisions.

As the surrounding DEV15/16/17 have a requirement that several intersections are upgraded, it is accepted the same restriction will apply as a base case for the rezoning proposal.



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

8 Transport Network Performance Assessment

The additional modelled changes are summarised in the following Figure 8-1 and include a roundabout at Lincoln Rolleston Road / Lady Isaac Drive, and continuation of the Lady Issac Drive connection to Weedons Road (as anticipated by DEV-RO15 and DEV-RO16).

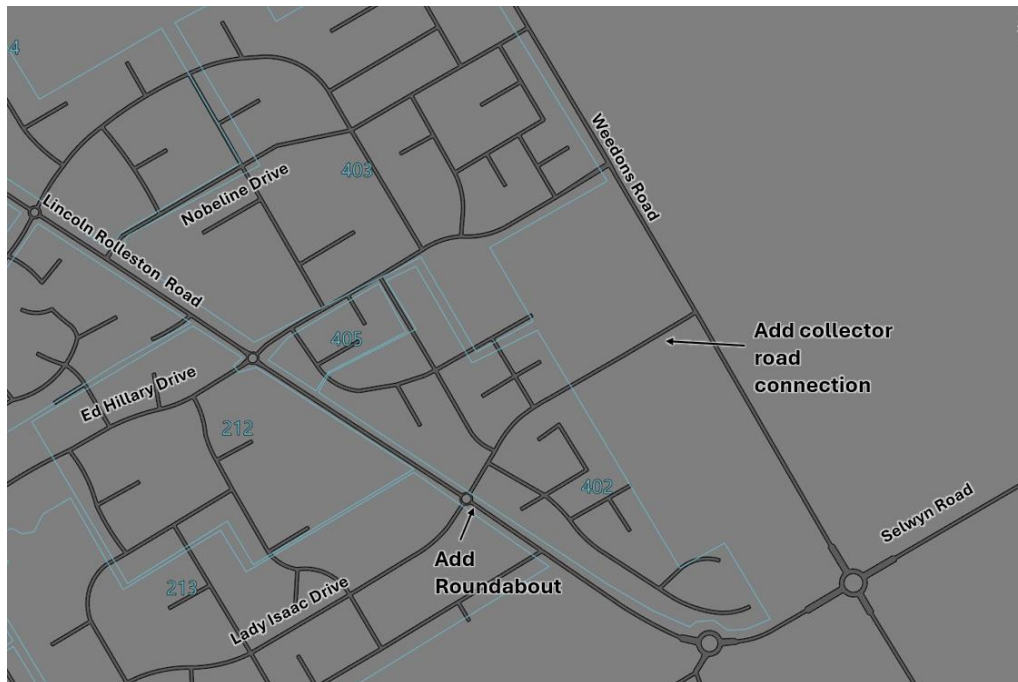


Figure 8-1: Base Traffic Model Modifications

8.3 Site 1 Traffic Model

In order to represent development, the traffic network was also modified to reflect the ODP proposed for Site 1, with two network versions included for assessment:

- Scenario 1: no new Weedons Road connection.
- Scenario 2: with additional Weedons Road connection.

A new zone was added to the model that specifically represents the Plan Change request area, as shown in Figure 8-2 and Figure 8-3.





Figure 8-2: 'Site 1 – Development Scenario 1' - Traffic Model Changes from “Base”



Figure 8-3: 'Site 1 – Development Scenario 2' - Traffic Model Changes from Scenario 1

No changes to the surrounding 'base' road network were made in the 'with development' scenarios.

8.4 Site 1 Traffic Modelling Results

Appendix A contains peak hour modelling outputs for Site 1 with levels of service reported for key nearby intersections along the Weedons Road, Selwyn Road, Lincoln Rolleston Road, and Levi Road routes for both the base and with-development model.

Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

8 Transport Network Performance Assessment

To indicate the general level of traffic on the future road network in the area, the traffic volume forecasts in peak hours of the road network are shown in the **Figure 8-4** and **Figure 8-5** below for the morning peak hour. As can be seen, the general pattern of traffic volumes in the area is relatively unchanged.



Figure 8-4: Base 2040 AM Peak without Rezoning Development



Figure 8-5: Scenario 1: 2040 AM Peak with Rezoning Development

Generally, development of the site resulting in 130 houses would be a relatively small increase in the level of activity in the area, particularly when considering the widespread constructed and planned residential development throughout the south of Rolleston. The growth forecasts for Rolleston outlined earlier indicate forecast growth of almost 5,000 new residential households throughout Rolleston,



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

8 Transport Network Performance Assessment

indicating the development of the site will represent growth of less than 1/2 year of growth demand and 0.8% of the total Rolleston households at 2040.

A summary of the level of service modelled is included below. The Level of Service is a measure of efficiency of the intersection, with a range LOS A (low delay) through to LOS F (congested).

Table 8-1: Intersection Level of Service Summary 2040 with Site 1

Intersection	AM			PM		
	Base	Scn 1	Scn 2	Base	Scn 1	Scn 2
Lincoln Rolleston and Selwyn Road	A	A	A	A	A	A
Weedons and Selwyn Road	A	A	A	A	A	A
Lincoln Rolleston and Levi and Lowes Road and Masefield Drive	D	C	D	C	C	C
Levi and Weedons Road	E	E	E	A	A	A
Lincoln Rolleston Road and Brendean Drive	B	B	B	C	B	B
Lincoln Rolleston Road and Edmund Hillary Drive	B	B	A	A	A	A
Lincoln Rolleston Road and Lady Issac Drive	A	A	A	A	A	A
Weedons Road and Brendean Drive	D	C	D	B	B	A
Weedons Road and Edmund Hillary Drive	A	A	A	A	A	A
Weedons Road and Lady Issac Drive	A	A	A	A	A	A
Weedons Road and Site 1 New Road			A			A

The morning peak is the more critical of the two peak periods for local access from residential areas to the arterial road network, since that is when these areas generate their highest outgoing traffic volumes. Locally, the intersections providing access to and from the site to Weedons Road are forecast to operate efficiently in the morning peak with development, and there is no material change in performance. In the wider area, there are no notable changes in performance.

The worst operating part of the road network is the Levi Road / Weedons Road intersection in the morning peak. The intersection itself is able to operate effectively in its planned roundabout format, although there is some queuing back from the SH1 interchange that reaches the intersection and affects the performance. The Rolleston Access study has optimised access performance, and no additional projects have been anticipated within the timeframe of the development.

The planned timing of the key projects supporting development of the site and the surrounding area were determined through the District Plan review rule provisions that have been included in DEV-RO15, DEV-RO16 and DEV-RO17. The additional scale of development is sufficiently small in comparison to those areas and no additional incremental effects are identified so no further changes in the ODP rules are considered necessary.

The Discretionary activity status provides Council opportunity to consider the timing of development compared to the timing of the road infrastructure upgrades in a way that is consistent with previous outcomes determined through the District Plan review. The small change in volume and performance will have no material effect on the timing of projects, although incremental traffic effects would be expected to be considered as part of a Discretionary consent application.

The assessment of the two road connection options with or without the additional connection to Weedons Road show no material change in performance of the surrounding road network. In that respect, the inclusion of the road connection is related to connectivity and ability to deliver residential development that is not reliant on one or both of the adjoining collector roads being fully connected to Weedons Road. As there is a potential outcome that the multiple right of ways on the south side of the site affect staging of development, or the development to the north has not occurred, then it is considered suitable to show a "potential local road connection" from the site to Weedons Road (at least 151m from the collector roads). That road will also provide a further east west connection via the land to the west that has recently



received subdivision consent by the same developer promoting this rezoning. These matters can be considered further during the resource consent process.

8.5 Site 2 Traffic Model Description

The Site 2 update consists of copying the model from Site 1, Scenario 2 and applying additional modifications to reflect the Site 2 development. Two networks were created for the assessment.

- Scenario 3: Site 2 including Weedons Rd connection and with Selwyn Road / Lincoln Rolleston Road roundabout connection.
- Scenario 4: Additional Weedons Rd connection and without Selwyn Road / Lincoln Rolleston Road roundabout connection.

A new zone was added to the model that specifically represents the Site 2 ODP development area proposed in the Plan Change. **Figure 8-6** and **Figure 8-7** shows the network modifications.

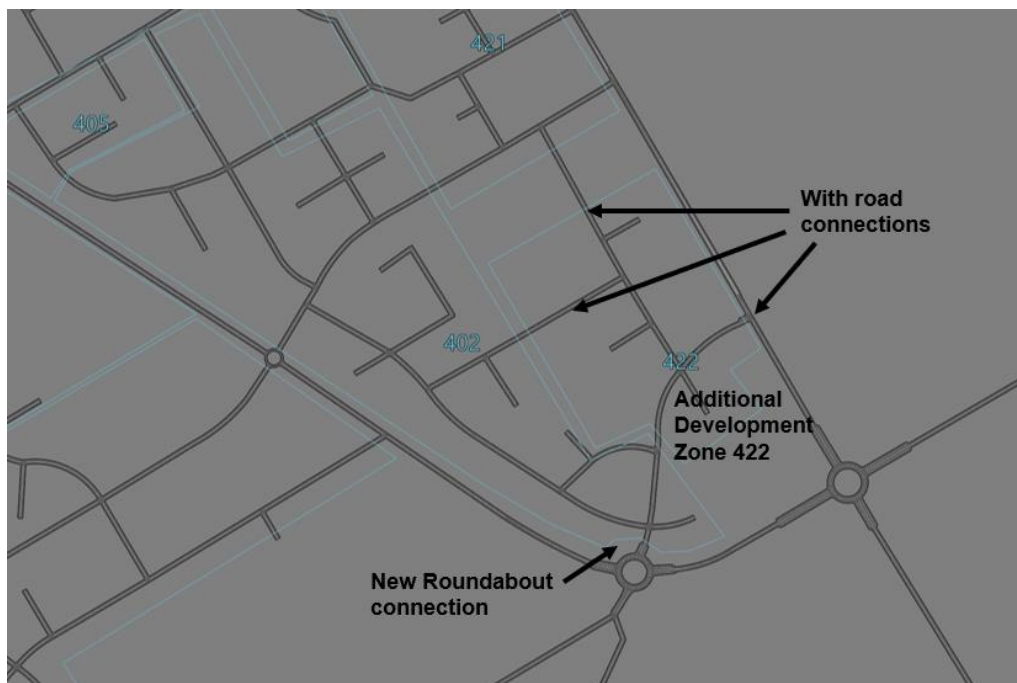


Figure 8-6: Site 2 Scenario 3 Model Changes from Site 1 Scenario 2

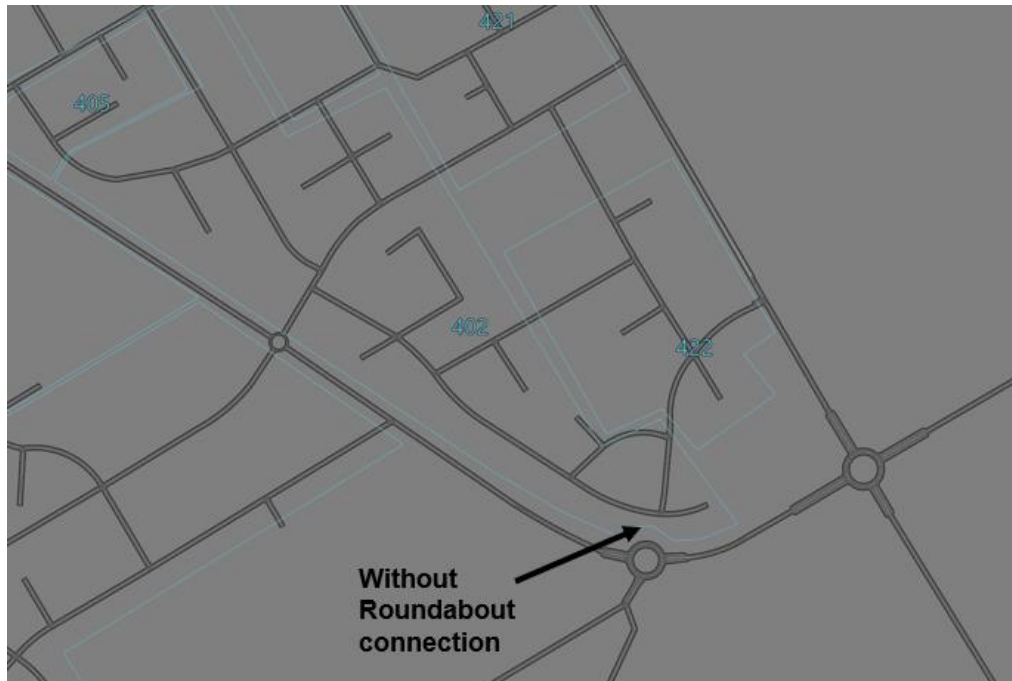


Figure 8-7: Site 2 Scenario 4 Model Changes from Site 1 Scenario 2 (no roundabout connection)

8.6 Traffic Model Results Site 2

Appendix A also contains peak hour modelling outputs with levels of service reported for key nearby intersections.

To indicate the general level of traffic on the future road network in the area, the traffic volume forecasts in peak hours of the road network are shown in the **Figure 8-8** and **Figure 8-9** below for the morning peak hour. There are minimal changes in flow difference between the two scenarios or compared to the base.



Figure 8-8: Scenario 3 2040 AM Peak with Rezoning Development



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Figure 8-9: Scenario 4 2040 AM Peak with Rezoning Development

A summary of traffic volumes on key road links is provided in Table 8-2 and Table 8-3 below, under the various scenarios assessed, together with the Site 1 scenarios. This shows small changes in peak hour traffic volumes as a result of the Site 1 and 2 developments.

Table 8-2: Traffic Volumes 2040 AM Peak

Intersection	AM				
	Base	Scn 1 Site 1 only	Scn 2 Site 1 only, extra Weedons connection	Scn 3 Site 1 & 2, with Selwyn Rd connection	Scn 4 Site 1 & 2, no Selwyn Rd connection
Lincoln Rolleston Road north of Selwyn Road	881	949	905	935	938
Weedons Road north of Selwyn Road	265	273	273	346	412
Weedons Road north of Brendean Drive	847	830	838	973	997
Ed Hillary Drive Extension west of Weedons Road	281	153	140	248	259
Lady Isaac Drive Extension west of Weedons Road	159	158	128	172	178
Site 1 new road west of Weedons Road	-	-	94	103	94
Site 2 new road west of Weedons Road	-	-	-	159	127



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Table 8-3: Traffic Volumes 2040 PM Peak

Intersection	PM				
	Base	Scn 1 Site 1 only	Scn 2 Site 1 only, extra Weedons connection	Scn 3 Site 1 & 2, with Selwyn Rd connection	Scn 4 Site 1 & 2, no Selwyn Rd connection
Lincoln Rolleston Road north of Selwyn Road	881	911	924	927	910
Weedons Road north of Selwyn Road	345	338	333	333	406
Weedons Road north of Brendean Drive	966	955	956	1030	1027
Ed Hillary Drive Extension west of Weedons Road	347	251	247	275	281
Lady Isaac Drive Extension west of Weedons Road	204	229	204	210	213
Site 1 new road west of Weedons Road	0	0	49	47	46
Site 2 new road west of Weedons Road	0	0	0	136	106

A summary of the level of service modelled for scenarios 3 and 4 is included below.

Table 8-4: Intersection Level of Service Summary 2040

Intersection	AM			PM		
	Base	Scn 3	Scn 4	Base	Scn 3	Scn 4
Lincoln Rolleston and Selwyn Road	A	A	A	A	A	A
Weedons and Selwyn Road	A	A	A	A	A	A
Lincoln Rolleston and Levi and Lowes Road and Masefield Drive	D	D	C	C	C	C
Levi and Weedons Road	E	E	E	A	A	A
Lincoln Rolleston Road and Brendean Drive	B	B	B	C	C	C
Lincoln Rolleston Road and Ed Hillary Drive	B	B	B	A	A	A
Lincoln Rolleston Road and Lady Issac Drive	A	A	A	A	A	A
Weedons Road and Brendean Drive	D	D	D	B	B	A
Weedons Road and Ed Hillary Drive	A	B	A	A	A	A
Weedons Road and Lady Issac Drive	A	A	A	A	A	A
Weedons Road and Site 1 New Road	-	A	A	-	A	A
Weedons & DEV-RO17 Collector	-	A	A	-	A	A

The LOS across the network for scenarios 3 and 4 remain mostly unchanged compared to scenarios 1 and 2.

In the morning peak, there is an increase of approximately 75 vehicles per hour at the Lincoln Rolleston Road and Selwyn Road intersection overall for scenario 3 with the roundabout connection compared with scenario 4 without the roundabout. A similar pattern is seen in the PM peak, an increase of approximately 113 vehicles per hour overall for the same intersection for scenario 3 when compared to scenario 4.

The new site connection on to Weedons Road from the DEV-RO17 Collector Road, modelled as a sign controlled Tee-intersection, performs at LOS A for both scenarios and both peak periods without any



significant delays. Traffic volumes on the road are only between approximately 140 vph and 160vph with the Selwyn Road / Lincoln Rolleston Road roundabout connection (Scenario 3).

There are no significant delays in the surrounding road network for either scenario 3 or scenario 4. The inclusion or exclusion of a roundabout connection onto Lincoln Rolleston and Selwyn Road from the new site is modelled to have very minor impact on traffic volumes. If the roundabout arm is not included in the development, the new road is forecast to have a lower volume of approximately 100 vph to 130 vph.. These traffic volumes in an urban context represent local road traffic volumes under each scenario. In that respect, the connection of a fourth arm of the future roundabout is not seen as important from a transport network functionality perspective, with sufficient capacity provided by the roundabouts on Selwyn Road to accommodate the through traffic movements between Selwyn Road west and Weedons Road north. Preferably, through traffic would be discouraged, to support a safer and slow speed residential environment.

The need for and likelihood of the roundabout connection will be a matter for consideration at the time of subdivision as part of DEV-RO17. If the proposed Site 2 is staged ahead of that land, then a decision will likely need to assume the roundabout connection would be made, with the road design suitably sized to accommodate the traffic volumes.

8.7 Sensitivity of Levi Road / Weedons Road Intersection Form

The Selwyn District Long Term Plan Capex Programme provides for the upgrade of Levi Road / Weedons Road in 2032/33. It is understood the upgrade will likely be aligned with the changes in the Rolleston Access being carried out by NZTA.

In practice, it is likely that even if development starts within the Plan Change area in the short term, it would be as a consequential result of reduced development by the Plan Change proponent coming to the market from other locations.

However, to test the importance of the intersection, some additional modelling tests have been carried out. The modelling tests are with the existing form at the Levi Road / Weedons Road intersection at 2040 for base and with both Area 1 and Area 2. *It is noted that the timing of the modelling sensitivity test carried out was ahead of Site 2 being expanded from 4.3ha to 8.6ha (a change of approximately 65 households).* As such, outputs are not directly comparable to the Scenario 3 and Scenario 4 outputs in the preceding section of this report.

The changes in traffic volume on the road network are shown in Table 8-5 and Figure 8-10 for the AM peak, and Table 8-6 and Figure 8-11 for the PM Peak.

Table 8-5: Traffic Volumes 2040 AM Peak - Levi / Weedons Sensitivity

Intersection	AM			
	Base – existing Levi / Weedons	Base – roundabout Levi / Weedons	Scn 4 existing Levi / Weedons	Scn 4 roundabout Levi / Weedons
Lincoln Rolleston Road north of Selwyn Road	1058	881	1062	933
Weedons Road north of Selwyn Road	130	265	135	256
Weedons Road north of Brendean Drive	216	847	215	814
Brendean Drive west of Weedons Road	60	210	63	206
Ed Hillary Drive Ext west of Weedons Road	69	280	54	150
Lady Isaac Drive Ext west of Weedons Road	75	160	53	115



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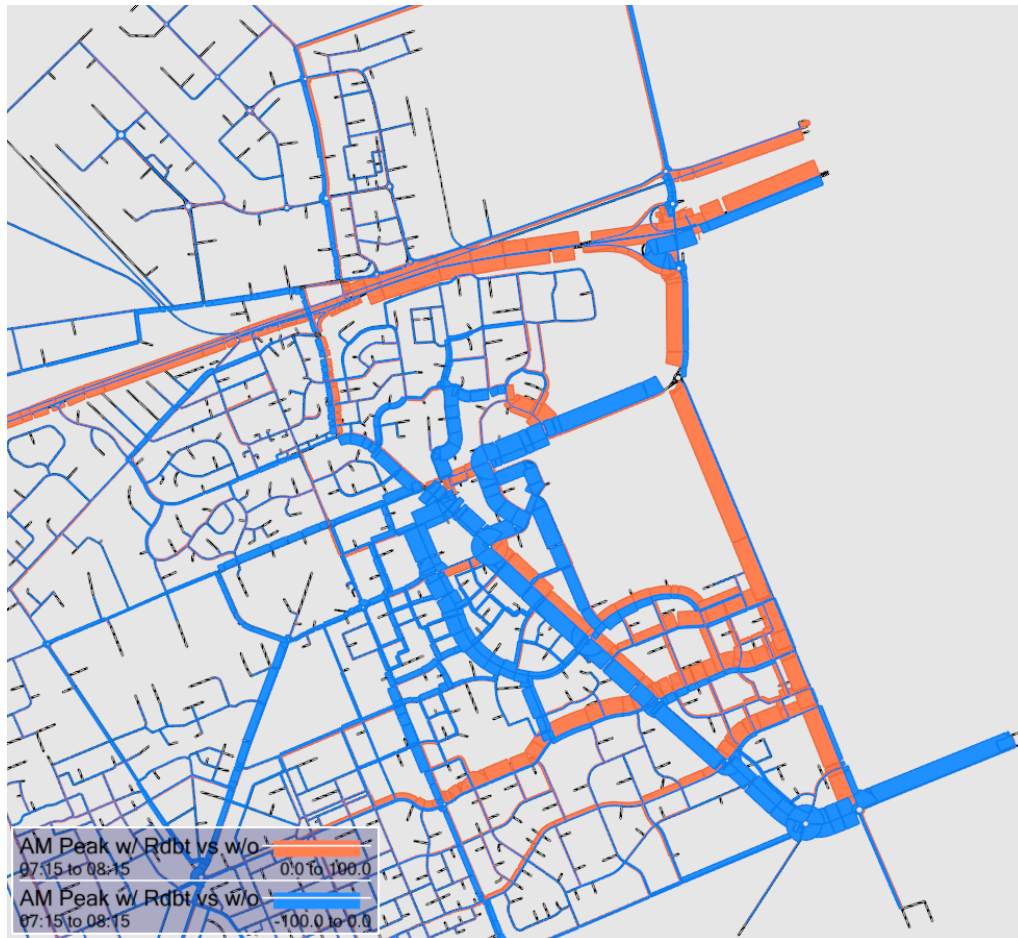


Figure 8-10: AM Peak Change in Volume Due to Levi Road / Weedons Road Upgrade to Roundabout

Table 8-6: Traffic Volumes 2040 PM Peak – Levi / Weedons Sensitivity

Intersection	PM			
	Base – existing Levi / Weedons	Base – roundabout Levi / Weedons	Scn 4 Development existing Levi / Weedons	Scn 4 Development roundabout Levi / Weedons
Lincoln Rolleston Road north of Selwyn Road	928	882	946	910
Weedons Road north of Selwyn Road	301	345	325	359
Weedons Road north of Brendean Drive	846	966	869	972
Brendean Drive west of Weedons Road	200	234	216	250
Ed Hillary Drive Ext west of Weedons Road	301	347	232	248
Lady Isaac Drive Ext west of Weedons Road	194	204	180	192



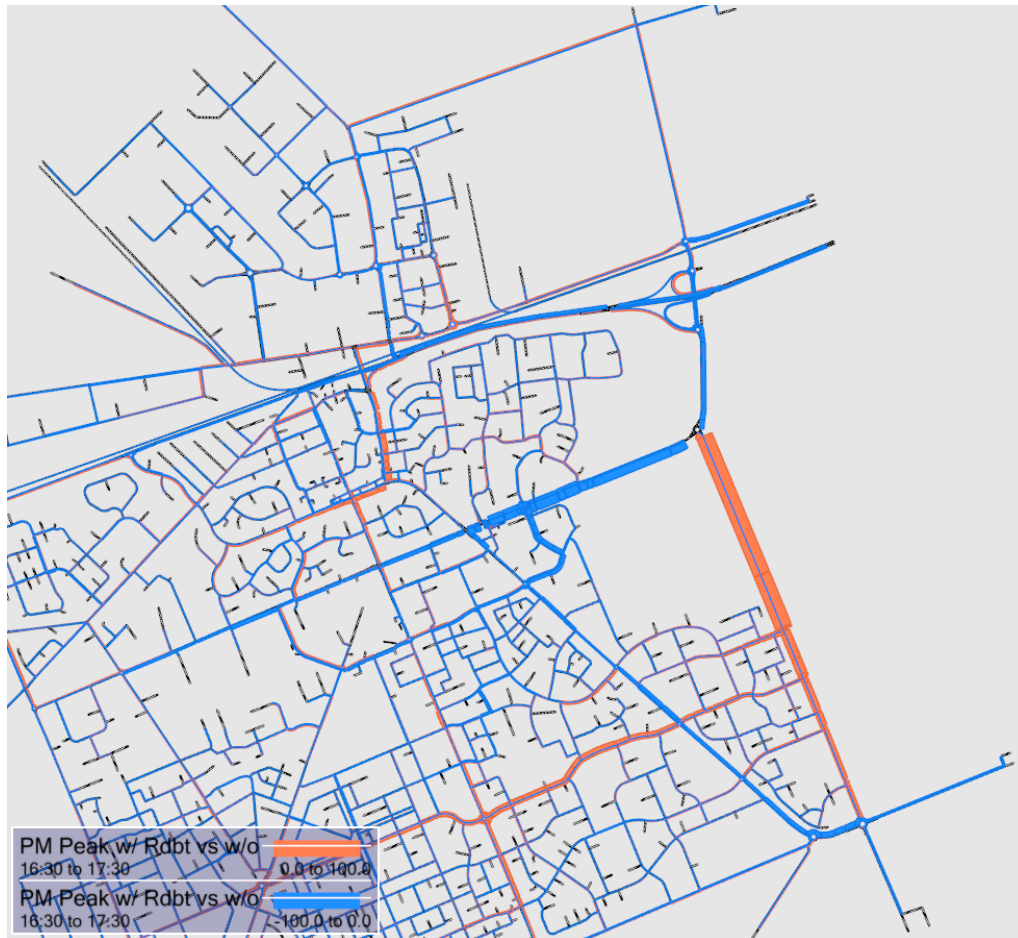


Figure 8-11: PM Peak Change in Volume Due to Levi Road / Weedons Road Upgrade to Roundabout

The comparison of the base case shows that the inclusion of the roundabout intersection form change has a significant change in morning peak traffic patterns across Rolleston, particularly in the morning peak period.

- It opens up increased levels of east-west travel to/from Weedons Road, and consequential reductions in traffic along Levi Road.
- The right turn from Weedons Road south into Weedons Road north is capacity constrained with its existing intersection form with very high delays, so traffic chooses other travel routes.
- With the roundabout, the traffic volumes rebalance and Weedons Road south approach becomes dominant due to the priority afforded traffic approaching from Weedons Road in the morning peak.
- With the roundabout additional traffic also travels via SH1 interchange at Weedons Road.

The second test retaining the existing intersection form and adding the Plan Change shows a modest incremental change in traffic using the intersection, or other intersections in the network.

- Minimal changes in volume using Weedons Road in the AM or PM peak as a result of the Plan Change
- Increase delay to the south approach at Levi Road / Weedons Road, which is already high in the base. That involves a small volume and reflects the likelihood that those turning right from Weedons Road will find it challenging until the intersection is upgraded. In practice it is expected residents will quickly make route choice through intersections where there is suitable reliability.

Broadly, it is considered the analysis indicates the primary purpose of the intersection upgrade is to support strategic rebalancing of traffic volumes in the Rolleston road network, rather than simply supporting development in the area. This opportunity to rebalance traffic patterns will exist as soon as a continuous east-west Collector road is available between Lincoln Rolleston Road and Weedons Road.

The incremental change in traffic volume and performance as a result of development of Area 1 and Area 2 is small in context. It is noted that the surrounding zoned areas do not include a requirement to stage development to the Levi Road / Weedons Road intersection upgrade. The likely outcomes associated with travel through the Levi Road / Weedons Road intersection if development proceeds ahead of the upgrade are as follows:

- Travel to the east - There will be a tendency for traffic to instead travel south and turn left from Weedons Road onto Selwyn Road to travel to the east. The proposed ODP already limits development until the Selwyn Road / Weedons Road intersection is upgraded.
- Travel from the east – the existing form of intersection at Levi Road / Weedons Road can accommodate the left turn from the north efficiently.
- Travel to the north – It is likely that traffic will utilise different routes to the Rolleston Industrial Area to avoid the need to turn right from Weedons Road into Weedons Road north. The road network enables that via Rolleston Drive (or in the future the Rolleston Drive over bridge).
- Travel from the north - the existing form of intersection at Levi Road / Weedons Road can accommodate the left turn from the north efficiently.

It is considered that the roundabout proposed at Levi Road / Weedons Road can support route choice for the development, but primarily the wider Rolleston township. In its absence, other routes can be used, and the District Plan controls development timing of influences on Selwyn Road and Lincoln Rolleston Road. It is considered that the addition of the Levi Road / Weedons Road as an assessment trigger in this case whilst affording opportunity to consider performance further over time, is in practical terms out of context with the rules applying to other enabled development and the level of change expected as a result of development.



9 Assessment of Proposed ODPs

9.1 Staging of Network Connections

9.1.1 Site 1

Staging of development is a matter that is addressed at subdivision, and no specific staging provisions are included for the surrounding ODP areas.

The currently proposed extension of Lady Isaac Drive, which is being treated as a 'Primary Road' in the DEV-RO15 has some challenges in delivery as a result of the complex right of way arrangements at the boundary of the proposed site subject to the rezoning. The rezoning will afford further options for development of this road link and provide greater certainty for all of the affected property owners on the right of way. As such, the rezoning is expected to increase the likelihood that the collector road link to Weedons Road can be delivered.

As described in the traffic modelling assessment, the proposed development can be supported by the already planned collector road network. To support flexibility for development staging noting adjacent parcels of land are in different ownership, the ODP provides connections to development land to the west and connections to the south and north can be addressed through subdivision. In addition is the local road connection to Weedons Road. This will support a well-connected local transport network and provides flexibility for staging of development which can be considered through the subdivision process.

The proposed connection along the western boundary is a cycle-pedestrian connection, which is inconsistent with the proposed road connection shown on DEV-RO15 to the north. This reflects the practical issues of delivering a road along that existing right of way corridor with land under various ownership. It is considered a crossing of the right of way by a new ODP road is achievable, as per the ODP, although a new road along the alignment is challenging as it requires additional land take on either side of the right of way and will not be able to be achieved if lots remain under different ownership.

The Plan Change requestor has experience of similar situations and positive transport outcomes can still be achieved by retaining a pedestrian / cycle corridor (which does not require widening of the right of way) such as the connection in the Halswell subdivisions between Riverstone and Kennedys Green, shown in **Figure 9-1**. As the internal road network is developed other landowners will have the option of access to the road network enabling removal of any shared use by private vehicles.



Figure 9-1: Pedestrian Link on Right of Way Halswell Subdivision



A connection from Lincoln Rolleston Road to Weedons Road through the overall development areas (including DEV-RO15) is expected to relieve some of the pressure on the Lincoln Rolleston Road / Selwyn Road and Lincoln Rolleston Road / Levi Road intersections. If the rezoning site occurs ahead of other development fronting Weedons Road and is able to complete an interim connection between Weedons Road and Lincoln Rolleston Road, it will support resilience of the transport network, including supporting options for traffic management / detour (if necessary) during construction of the Selwyn Road roundabouts. The need for the connection from one of the developments fronting Weedons Road will be a matter that is considered through subdivision.

If development is required to connect to Weedons Road ahead of connection to other development areas to the west which enable connection to Lincoln Rolleston Road, the effect of the generated traffic is expected to be manageable in the short term, noting the restriction on development until the Selwyn Road / Weedons Road roundabout is upgraded.

As the proposed ODP includes road connections and the comparable provision restricting development until the three intersections are upgraded is included, no additional description of staging is considered necessary from a transport perspective.

9.1.2 Site 2

As with Stage 1, staging of development is a matter that is addressed at subdivision. There are two likely outcomes for development staging:

- Development follows DEV-RO17 and connectivity to the Rolleston urban area is achieved through that development area, with arterial access supported by the new road connection to Weedons Road. This will provide the most connectivity, and there is unlikely to be a need for any further external infrastructure.
- Development is ahead of DEV-RO17, which will result in a more isolated development area onto Weedons Road. This is comparable to other lots fronting Weedons Road that were rezoned through the District Plan review process. To ensure connectivity to the other urban area for active modes users, and assuming that development is likely to follow 1/487 and 2/487 Weedons Road or other development to the northwest, it is considered appropriate that a footpath connection from the site would be provided along the right of way connection currently providing access from Weedons Road to 9/487 and 10/487 Weedons Road at its northwest corner. It is noted this requires agreement of several landowners, and as such will be a matter to cover in the subdivision application at the time. This pedestrian / cycle connection is shown on the proposed ODP.

If development is required to connect to Weedons Road ahead of connection to other development areas to the west which enable connection to Lincoln Rolleston Road, the effect of the generated traffic is expected to be manageable in the short term, noting the restriction on development until the Selwyn Road / Weedons Road roundabout is upgraded, and the low traffic volumes that will be generated by the site.

9.2 Weedons Road Intersections

The traffic modelling has confirmed that priority tee intersections will operate efficiently.

The collector road intersection at the south of Site 1 would be considered during subdivision consent as to whether a right turn bay would be beneficial, similar to the turn provisions previously provided on Lincoln Rolleston Road at some subdivision intersections. It is noted that on Selwyn Road no right turn bay provisions have been included. The straight road alignment and infrequent access on the eastern side enables either outcome to be achieved.

The greater Christchurch Spatial Plan does not anticipate further land development to the east of Weedons Road. However, if future rezoning is a potential consideration in the long term, then there may be a need to consider provision within land boundaries for a future roundabout at the Weedons Road / Lady Isaac Drive intersection. This is included in the ODP text, and would be a matter for consideration during subdivision.



As described earlier, the potential for an additional local road intersection as part of Site 1 on Weedons Road is included in the ODP. The key matter for that intersection will relate to separation from the higher order collector road intersections, with a minimum of 151m required by District Plan rules based on a 60km/h speed limit.

The Site 2 intersection is well separated from the nearby collector and arterial road intersections. Given the low traffic volumes forecast to use the road link, arterial status of Weedons Road and proximity to Selwyn Road / Weedons Road intersection, it is considered a roundabout would not be preferred even if development progressed to the east in the long term. Instead, such development to the east could have a separate intersection and access to Weedons Road. No additional text is considered necessary requiring consideration of future road intersection upgrades.

Based on traffic volumes modelled, it is considered that new Weedons Road intersections can be developed as standard urban tee intersections.

9.3 Frontage Road Upgrades

The Weedons Road frontage will need to be upgraded to an urban standard. Based on comparable upgrades on Selwyn Road and Dunns Crossing Road, it is anticipated to be focused on the new development side of the road and include road widening, kerb and channel and drainage, a footpath (or shared path) and lighting. This is a standard requirement when rural land is developed for residential purposes. The details of the road widening and frontage upgrade would be confirmed at the subdivision detailed design stage as appropriate and would be considered in the context of any other upgrades that have occurred to the north or south as part of DEV-RO15. No specific changes to the ODP text are considered necessary.

9.4 Internal Roding

It is expected that all of the new additional roads within Site 1 will be local residential roads, the design of which can be considered through the subdivision process in accordance with District Plan provisions. No specific road cross-sections are considered necessary.

The Site 2 road connecting Weedons Road to the Selwyn Road / Lincoln Rolleston Road intersection already includes text within DEV-RO17 text. Whilst comparable text could be considered within the proposed ODP to ensure a consistent level of road design, it has been noted through the traffic modelling that the connection to Selwyn Road / Lincoln Rolleston Road is not important for efficient functioning of the road network in the area. It does add connectivity for buses and cycling and the need will be a matter considered through subdivision design. Ultimately the design of the internal roads will not be materially different if the connection is made or not.

Good connectivity to the surrounding areas will be achieved through development in accordance with the ODP, with local road connections achievable to undeveloped land adjacent to the Sites through the subdivision process.

9.5 Pedestrian and Cyclist Provision

The ODP for Site 1 includes extension of the pedestrian cycle link along Weedons Road connecting what will otherwise be a gap in infrastructure between the two sections of DEV-RO15. This is considered a positive outcome for the proposed transport network. The ODP also includes an internal east-west connection, and a north-south connection along the western boundary.

The ODP for Site 2 also includes a notation for the pedestrian cycle connection along the site frontage, which can support movement to Reid Pit and beyond to the south, or to other zoned areas to the north. With 9/487 and 10/487 Weedons Road now being proposed for rezoning, planning and implementation of this connection can progress, enabling integrated access across the wider area. The main road within Site 2 will also include a cycle provision, consistent with the adjacent DEV-RO17, and a cycle and pedestrian connection along the western boundary.

All roads in the future subdivisions will be low volume local residential streets, with the potential exception of the road through Site 2 which will still have volumes at a level typical of a residential area. Footpaths will be required as per District Plan standards. No additional notations for pedestrians and cyclist movement beyond those proposed are considered necessary.



9.6 Public Transport Provision

The site is currently not connected to the public transport network, and in the short term residents may need to rely on accessing park n ride services such as at Foster Park, or by connecting to existing routes by use of cycle or micro-mobility modes such as scooter.

Over time it is expected there will be modifications to the bus network and services. As with other urban areas in Rolleston, the bus service provision will be a matter reviewed by Environment Canterbury as growth occurs and demand for services is generated. The draft Canterbury Public Transport Plan 2025-2035 anticipates maximising patronage on routes, with Rolleston services focussed on extensions of strong routes to and from Christchurch City, and park and ride services. Longer term branch extensions are planned within the next ten years within Selwyn District.

No specific public transport provision is proposed through the ODP. However, it is anticipated that the Ed Hilary Drive and Lady Isaac Drive extensions would be considered “collector roads” and will be able to be used by buses and one (or both) of these routes may become an attractive bus route once connected to Weedons Road as the surrounding area is developed.

If or when a bus service was to run along one of these roads, it would be possible to have much of the Site 1 development within a 400m walking distance of it. The good level of connectivity for pedestrians and cyclists proposed through the ODP and future subdivision processes would ensure that convenient routes would be available to the bus route. As these roads are already included in the DEV-RO15 ODP, no additional notation for public transport is considered necessary.

Site 2 is an eastward extension of DEV-RO17, which in its ODP references the likely need to accommodate a bus route. The rezoning will support extension of the potential bus route to Weedons Road, which increases the flexibility of delivering a well-connected bus route network in the future.



10 Planning Assessment

10.1 Partially Operative District Plan Provisions

The Partially Operative District Plan (PODP) includes a range of matters relevant to consideration of the rezoning of the land.

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

An analysis of the PODP Urban Form and Development objectives and policies has been carried out.

The District Wide – Strategic Directions included:

SD-UFD-O1 Compact and Sustainable Township Network

Urban growth is located:

2. Inside Greater Christchurch only within existing urban areas, Greenfield Priority Areas, or Future Development Areas identified in the Canterbury Regional Policy Statement;

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; and ...*

The sites are located within a Future Development Area identified in the Regional Policy Statement.

The sites are located adjacent to areas where development has been proposed through DEV-RO15, DEV-RO16 and DEV-RO17, and fills a gap resulting from the nature of the District Plan submission process (no rezoning submissions were put forward for the sites). In that respect, it contributes to a compact and sustainable form for the transport network. The site has good access to the arterial road network, with intersection upgrades being planned along the Weedons Road / Selwyn Road arterial route.

The development will allow connection to the proposed collector road network and existing arterial road network, affording efficient distribution of traffic across multiple routes. The change in traffic volumes and performance is of a sufficiently low scale that it is not expected to alter the timing of wider area transport network improvements that are either included in the Long Term Plan or anticipated through development as represented by long term transport modelling investigations.

The sites are unlikely to be directly serviced by public transport in the short term as there is no future bus route indicated to be implemented on Weedons Road by the Regional Public Transport Plan or Rolleston Structure Plan. However, ECan will be reviewing Rolleston bus routes in the short term. The extension of collector and local roads to Weedons Road affords the opportunity for bus routes to service this area via already planned roads within the planned urban infrastructure boundary. The proposed Site 1 development will fill a gap between development in DEV-RO15 and support connectivity for residents in those areas to have a more walkable connection to a future bus service. Similarly, for Site 2, it provides extension of a road identified in DEV-RO17 as being designed to be compatible with bus services and will provide additional north-south connectivity for pedestrians accessing bus routes.

The Transportation section 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, the site development is able to integrate with planned and future development through road connections to the north, east and south, as well as appropriately located and formed connections to Weedons Road. Connections to adjacent undeveloped land identified on the ODP, and otherwise expected to be addressed through subdivision will support integration of the local transport network between Weedons Road and Lincoln Rolleston Road. The use of an ODP, combined with Transport rules will protect the arterial Weedons Road from inappropriate access. The higher order roads in the adjacent ODP areas can support cycle routes, with the rezoning proposed supporting connectivity via lower order roads.

10.2 Canterbury Regional Policy Statement

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

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

Generally, the policies relating to transport are similar to those in the PODP which have been discussed previously. The proposed zoning request area is adjacent to residential zoned areas where development is proposed, and the ODP is integrated with those future development areas.

Bus services in Rolleston are evolving and routes change as new subdivisions and road links provide connection. The physical requirements of a bus route for a future service can be considered through road design in accordance with the District Plan. For Site 1, only the adjacent collector road on the southern boundary, as already represented on DEV-RO15, could be developed as part of the site and accommodate a bus route. For Site 2, the ODP text for the adjacent DEV-RO17 anticipates a bus route through the site.

10.3 National Policy Statement – Urban Development

The National Policy Statement Urban Development 2020 sets policy around urban development. It aims to ensure that towns and cities are well-functioning urban environments. New development capacity is considered against whether that development capacity is “infrastructure-ready”, with good access to existing services, public transport networks and infrastructure. Based on the assessment provided, it is considered that there is adequate existing and planned infrastructure to support the wider transport needs of the proposed development.

The ODP requires development to be assessed as a Discretionary Activity ahead of road infrastructure improvements being implemented in the surrounding area. The ODP also further requires connections to the existing transport network in locations that support safe and efficient integration of the site.

It is also considered that the development is generally well connected along the transport corridors, being adjacent to arterial and collector roads already planned to accommodate residential development.

Public transport services are evolving for Rolleston in response to the significant increase in demand and can be contemplated on routes within a walkable distance to reduce reliance on private vehicle travel.



11 Conclusion

Development of the two sites with approximately 8.9ha (Site 1) and 4.3ha (Site 2) could result in approximately 130 residential lots on each site. This will contribute further growth in an area that has been anticipated as a future development area in the south-east of Rolleston.

It has been assessed that the additional traffic that could be generated by development of the sites would be able to be accommodated with minimal change in performance of the wider road network including planned intersection upgrades.

The provisions of DEV-RO15, DEV-RO16 and DEV-RO17 adjacent to the Sites restrict development until future intersection upgrades are carried out. That enables the timing of development in relation to future intersection upgrades to be assessed as part of a subdivision application. This is in addition to standard high trip generator rule requirements for subdivision of residential land.

On a local level, both of the ODPs only need to provide for residential local road streets, with connections to adjacent Collector Roads proposed. The existing road notations on adjacent ODPs can be carried over to the new ODPs. The additional local roads will support connectivity of land in DEV-RO15 and DEV-RO17. The intersections on Weedons Road proposed by the ODPs are appropriately spaced to protect the function of the arterial road. The proposal to include an additional local road connection to Weedons Road in Site 1 to support staged development flexibility as a result of complex right of way arrangements adjacent to the site.

The Site 1 ODP will support the continuation of the Lady Isaac Drive primary road connecting to Weedons Road, with the additional connectivity of the collector road network supporting safety and efficiency of the road network. This is important for the overall connectivity of Rolleston, having been identified since 2009 as part of a future road network included in the Rolleston Structure Plan.

The Site 2 ODP also connects Lincoln Rolleston Road to Weedons Road, although traffic modelling has determined that the performance of the road network will not be affected if the DEV-RO17 connection to the Selwyn Road / Lincoln Rolleston Road intersection was not made.

A good level of connectivity is proposed to the surrounding undeveloped areas to ensure a well-connected local road network in the future between Weedons Road and Lincoln Rolleston Road.

The ODP includes good connectivity for pedestrians throughout the site, both next to roads, including Weedons Road, and off-road. Development of the site will support a more coherent cycle connection along Weedons Road that is shown on the northern development areas of DEV-RO15.

It is anticipated that extensions of Ed Hilary Drive and Lady Isaac Drive would both be able to accommodate a bus route in the future as demand increases for a route through to Weedons Road. Those roads are within walkable distance of Site 1. Site 2 will support extension of a potential bus route to Weedons Road, as indicated by the text on DEV-RO17.

Based on the above, it is concluded that the re-zoning of the site as proposed can be supported from a transport perspective.





Appendices



Appendix A Traffic Modelling Results

A.1 Site 1 AM Peak Model Results (Year 2040)



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	219	1	A	Selwyn Rd East	L	231	1	A	Selwyn Rd East	L	242	1	A
		T	253	2	A		T	275	2	A		T	256	2	A
	East Appr Total		472	1	A	East Appr Total		506	1	A	East Appr Total		498	1	A
	Selwyn Rd South	L	16	4	A	Selwyn Rd South	L	13	4	A	Selwyn Rd South	L	13	4	A
		R	575	7	A		R	595	8	A		R	593	8	A
	South Appr Total		591	7	A	South Appr Total		609	8	A	South Appr Total		606	8	A
	Lincoln Rolleston Rd West	T	597	6	A	Lincoln Rolleston Rd West	T	643	7	A	Lincoln Rolleston Rd West	T	621	7	A
		R	15	4	A		R	18	6	A		R	14	5	A
	West Appr Total		612	6	A	West Appr Total		661	7	A	West Appr Total		635	7	A
	Intersection Total		1675	5	A	Intersection Total		1775	6	A	Intersection Total		1739	5	A
Weedons & Selwyn Rd	Weedons Rd North	L	4	7	A	Weedons Rd North	L	3	15	B	Weedons Rd North	L	3	7	A
		T	62	17	B		T	62	17	B		T	64	16	B
		R	7	11	B		R	7	18	B		R	7	9	A
	North Appr Total		72	16	B	North Appr Total		72	17	B	North Appr Total		74	15	B
	Selwyn Rd East	L	0	-	-	Selwyn Rd East	L	0	-	-	Selwyn Rd East	L	0	-	-
		T	303	4	A		T	321	4	A		T	316	4	A
		R	20	3	A		R	21	3	A		R	21	3	A
	East Appr Total		323	4	A	East Appr Total		342	4	A	East Appr Total		337	4	A
	Weedons Rd South	L	159	3	A	Weedons Rd South	L	170	3	A	Weedons Rd South	L	162	4	A
		T	120	4	A		T	117	4	A		T	118	4	A
		R	0	0	A		R	0	-	-		R	0	1	A
	South Appr Total		280	3	A	South Appr Total		287	3	A	South Appr Total		280	4	A
	Selwyn Rd West	L	53	2	A	Selwyn Rd West	L	64	2	A	Selwyn Rd West	L	60	2	A
		T	973	6	A		T	1011	5	A		T	1003	6	A
		R	145	6	A		R	160	5	A		R	152	6	A
	West Appr Total		1171	6	A	West Appr Total		1235	5	A	West Appr Total		1215	6	A
	Intersection Total		1846	5	A	Intersection Total		1936	5	A	Intersection Total		1906	6	A
Lincoln Rolleston & Levi & Lowes Rd & Masefield Dr	Masefield Dr North	L	71	29	C	Masefield Dr North	L	77	29	C	Masefield Dr North	L	79	28	C
		T	191	32	C		T	188	31	C		T	188	34	C
		R	17	30	C		R	16	27	C		R	13	33	C
	North Appr Total		279	31	C	North Appr Total		280	31	C	North Appr Total		280	32	C
	Levi Rd East	L	21	3	A	Levi Rd East	L	24	6	A	Levi Rd East	L	23	5	A
		T	63	30	C		T	61	30	C		T	66	31	C
		R	68	47	D		R	69	45	D		R	69	46	D
	East Appr Total		152	34	C	East Appr Total		154	33	C	East Appr Total		159	34	C
	Lincoln Rolleston Rd South	L	64	34	C	Lincoln Rolleston Rd South	L	69	40	D	Lincoln Rolleston Rd South	L	58	39	D
		T	438	40	D		T	455	38	D		T	427	40	D
		R	216	40	D		R	216	39	D		R	213	44	D
	South Appr Total		718	39	D	South Appr Total		740	39	D	South Appr Total		699	41	D
	Lowes Rd West	L	45	40	D	Lowes Rd West	L	50	30	C	Lowes Rd West	L	48	24	C
		T	274	38	D		T	293	36	D		T	278	32	C
		R	77	32	C		R	83	29	C		R	84	25	C
	West Appr Total		395	37	D	West Appr Total		426	34	C	West Appr Total		410	29	C
	Intersection Total		1545	37	D	Intersection Total		1600	35	C	Intersection Total		1547	36	D



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	129	2	A	Weedons Rd North	L	130	2	A	Weedons Rd North	L	138	2	A
		T	169	2	A		T	171	2	A		T	175	3	A
	North Appr Total		298	2	A	North Appr Total		301	2	A	North Appr Total		313	2	A
	Weedons Rd South	L	35	4	A	Weedons Rd South	L	43	4	A	Weedons Rd South	L	40	4	A
		R	787	15	B		R	773	16	B		R	771	16	B
	South Appr Total		823	14	B	South Appr Total		816	16	B	South Appr Total		811	15	B
	Levi Rd West	T	747	127	F	Levi Rd West	T	774	130	F	Levi Rd West	T	763	124	F
		R	9	101	F		R	9	85	F		R	8	117	F
	West Appr Total		755	127	F	West Appr Total		782	129	F	West Appr Total		771	123	F
	Intersection Total		1876	58	E	Intersection Total		1898	60	E	Intersection Total		1895	57	E
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	42	0	A	Lincoln Rolleston Rd North	L	29	0	A	Lincoln Rolleston Rd North	L	25	0	A
		T	438	3	A		T	460	2	A		T	450	2	A
	North Appr Total		481	3	A	North Appr Total		488	2	A	North Appr Total		475	2	A
	Brendean Dr East	L	2	5	A	Brendean Dr East	L	2	5	A	Brendean Dr East	L	2	7	A
		R	31	12	B		R	30	14	B		R	26	14	B
	East Appr Total		33	12	B	East Appr Total		32	14	B	East Appr Total		28	14	B
	Lincoln Rolleston Rd South	T	415	2	A	Lincoln Rolleston Rd South	T	453	2	A	Lincoln Rolleston Rd South	T	422	2	A
		R	44	8	A		R	41	6	A		R	43	7	A
	South Appr Total		459	8	A	South Appr Total		494	6	A	South Appr Total		464	7	A
	Intersection Total		973	12	B	Intersection Total		1014	14	B	Intersection Total		968	14	B
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	52	17	B	Lincoln Rolleston Rd North	L	34	11	B	Lincoln Rolleston Rd North	L	37	13	B
		T	353	16	B		T	387	12	B		T	376	12	B
		R	35	16	B		R	42	12	B		R	38	13	B
	North Appr Total		440	16	B	North Appr Total		462	12	B	North Appr Total		450	13	B
	Edmund Hillary Dr East	L	1	2	A	Edmund Hillary Dr East	L	0	14	B	Edmund Hillary Dr East	L	1	3	A
		T	48	7	A		T	50	7	A		T	57	6	A
		R	48	7	A		R	50	7	A		R	57	6	A
	East Appr Total		97	7	A	East Appr Total		99	7	A	East Appr Total		114	6	A
	Lincoln Rolleston Rd South	L	79	3	A	Lincoln Rolleston Rd South	L	81	3	A	Lincoln Rolleston Rd South	L	90	3	A
		T	279	3	A		T	373	3	A		T	259	4	A
		R	21	2	A		R	18	3	A		R	17	2	A
	South Appr Total		380	3	A	South Appr Total		472	3	A	South Appr Total		366	3	A
	Edmund Hillary Dr West	L	136	17	B	Edmund Hillary Dr West	L	137	19	B	Edmund Hillary Dr West	L	143	14	B
		T	271	17	B		T	215	18	B		T	224	13	B
		R	173	16	B		R	183	16	B		R	180	13	B
	West Appr Total		580	17	B	West Appr Total		535	17	B	West Appr Total		547	13	B
	Intersection Total		1497	12	B	Intersection Total		1568	11	B	Intersection Total		1477	10	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	47	5	A	Lincoln Rolleston Rd North	L	52	5	A	Lincoln Rolleston Rd North	L	51	5	A
		T	479	6	A		T	521	6	A		T	505	6	A
		R	9	4	A		R	7	4	A		R	8	3	A
	North Appr Total		535	6	A	North Appr Total		579	6	A	North Appr Total		565	6	A
	Lady Issac Dr East	L	37	7	A	Lady Issac Dr East	L	43	9	A	Lady Issac Dr East	L	35	10	A
		T	33	7	A		T	41	9	A		T	39	9	A
		R	64	8	A		R	67	10	A		R	64	10	A
	East Appr Total		135	8	A	East Appr Total		151	9	A	East Appr Total		137	10	A
	Lincoln Rolleston Rd South	L	12	1	A	Lincoln Rolleston Rd South	L	13	2	A	Lincoln Rolleston Rd South	L	10	1	A
		T	260	2	A		T	13	2	A		T	260	2	A
		R	26	2	A		R	13	2	A		R	25	3	A
	South Appr Total		298	2	A	South Appr Total		38	2	A	South Appr Total		295	2	A
	Lady Issac Dr West	L	56	5	A	Lady Issac Dr West	L	54	8	A	Lady Issac Dr West	L	233	1	A
		T	56	5	A		T	118	8	A		T	233	1	A
		R	56	5	A		R	77	8	A		R	233	1	A
	West Appr Total		168	5	A	West Appr Total		249	8	A	West Appr Total		698	1	A
	Intersection Total		1136	8	A	Intersection Total		1017	7	A	Intersection Total		1694	4	A
Weedons Rd & Brendean Dr	Weedons Rd North	T	120	4	A	Weedons Rd North	T	121	4	A	Weedons Rd North	T	126	4	A
		R	17	11	B		R	18	7	A		R	20	8	A
	North Appr Total		137	11	B	North Appr Total		139	7	A	North Appr Total		146	8	A
	Weedons Rd South	L	8	2	A	Weedons Rd South	L	7	1	A	Weedons Rd South	L	9	1	A
		T	531	3	A		T	509	3	A		T	505	3	A
	South Appr Total		538	3	A	South Appr Total		516	3	A	South Appr Total		513	3	A
	Brendean Dr West	L	179	31	D	Brendean Dr West	L	182	24	C	Brendean Dr West	L	188	26	D
		R	6	16	C		R	8	13	B		R	7	13	B
	West Appr Total		185	31	D	West Appr Total		190	24	C	West Appr Total		195	26	D
	Intersection Total		860	31	D	Intersection Total		845	24	C	Intersection Total		853	26	D
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	108	1	A	Weedons Rd North	T	115	1	A	Weedons Rd North	T	117	2	A
		R	28	1	A		R	26	1	A		R	26	1	A
	North Appr Total		137	1	A	North Appr Total		141	1	A	North Appr Total		144	2	A
	Weedons Rd South	L	13	1	A	Weedons Rd South	L	12	1	A	Weedons Rd South	L	8	1	A
		T	319	3	A		T	322	3	A		T	274	3	A
	South Appr Total		332	3	A	South Appr Total		333	3	A	South Appr Total		282	3	A
	Ed Hillary Dr West	L	184	3	A	Ed Hillary Dr West	L	101	9	A	Ed Hillary Dr West	L	95	9	A
		R	55	3	A		R	14	5	A		R	12	6	A
	West Appr Total		239	3	A	West Appr Total		115	9	A	West Appr Total		106	9	A
	Intersection Total		708	3	A	Intersection Total		590	9	A	Intersection Total		531	9	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	153	4	A	Weedons Rd North	T	120	4	A	Weedons Rd North	T	114	3	A
		R	21	2	A		R	25	2	A		R	24	2	A
	North Appr Total		173	4	A	North Appr Total		145	4	A	North Appr Total		138	3	A
	Weedons Rd South	L	6	1	A	Weedons Rd South	L	9	0	A	Weedons Rd South	L	10	0	A
		T	187	2	A		T	192	2	A		T	187	2	A
	South Appr Total		192	2	A	South Appr Total		200	2	A	South Appr Total		197	2	A
	Lady Isaac Drive West	L	117	4	A	Lady Isaac Drive West	L	112	4	A	Lady Isaac Drive West	L	81	4	A
		R	16	5	A		R	12	6	A		R	13	3	A
	West Appr Total		133	5	A	West Appr Total		124	6	A	West Appr Total		94	4	A
	Intersection Total		498	5	A	Intersection Total		469	6	A	Intersection Total		429	4	A
Weedons Rd & Site 1 New Road	Weedons Rd North	T				Weedons Rd North	L				Weedons Rd North	T	138	2	A
		R					T					R	2	1	A
	North Appr Total					North Appr Total					North Appr Total		140	2	A
	Weedons Rd South	L				Weedons Rd South	L				Weedons Rd South	L	14	1	A
		T					T					T	282	2	A
	South Appr Total					South Appr Total					South Appr Total		296	2	A
	Site 1 New Road West	L				Site 1 New Road West	L				Site 1 New Road West	L	60	2	A
		R					R					R	17	3	A
	West Appr Total					West Appr Total					West Appr Total		78	3	A
	Intersection Total					Intersection Total					Intersection Total		513	3	A



A.2 Site 1 PM Peak Model Results (Year 2040)



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	591	2	A	Selwyn Rd East	L	590	2	A	Selwyn Rd East	L	587	2	A
		T	527	2	A		T	556	2	A		T	567	2	A
	East Appr Total		1118	2	A	East Appr Total		1146	2	A	East Appr Total		1154	2	A
	Selwyn Rd South	L	9	4	A	Selwyn Rd South	L	10	5	A	Selwyn Rd South	L	9	5	A
		R	247	8	A		R	248	8	A		R	251	8	A
	South Appr Total		255	8	A	South Appr Total		257	8	A	South Appr Total		261	8	A
	Lincoln Rolleston Rd West	T	336	3	A	Lincoln Rolleston Rd West	T	335	3	A	Lincoln Rolleston Rd West	T	338	3	A
		R	10	2	A		R	10	3	A		R	10	2	A
Weedons & Selwyn Rd	West Appr Total		346	3	A	West Appr Total		345	3	A	West Appr Total		348	3	A
	Intersection Total		1718	3	A	Intersection Total		1749	3	A	Intersection Total		1762	3	A
	Weedons Rd North	L	10	5	A	Weedons Rd North	L	10	5	A	Weedons Rd North	L	9	4	A
		T	100	9	A		T	98	10	A		T	91	9	A
		R	35	8	A		R	36	8	A		R	36	9	A
	North Appr Total		145	9	A	North Appr Total		143	9	A	North Appr Total		137	9	A
	Selwyn Rd East	L	0	1	A	Selwyn Rd East	L	0	-	-	Selwyn Rd East	L	1	2	A
		T	933	6	A		T	956	6	A		T	947	5	A
		R	81	5	A		R	70	5	A		R	71	5	A
Lincoln Rolleston & Levi & Lowes Rd & Masefield Dr	East Appr Total		1015	6	A	East Appr Total		1025	6	A	East Appr Total		1018	5	A
	Weedons Rd South	L	150	6	A	Weedons Rd South	L	154	6	A	Weedons Rd South	L	164	6	A
		T	97	13	B		T	100	13	B		T	100	12	B
		R	0	-	-		R	0	-	-		R	0	-	-
	South Appr Total		247	9	A	South Appr Total		254	9	A	South Appr Total		264	8	A
	Selwyn Rd West	L	22	1	A	Selwyn Rd West	L	25	1	A	Selwyn Rd West	L	26	1	A
		T	401	3	A		T	406	3	A		T	413	3	A
		R	158	3	A		R	152	3	A		R	150	3	A
	West Appr Total		581	3	A	West Appr Total		582	3	A	West Appr Total		589	3	A
	Intersection Total		1988	5	A	Intersection Total		2005	5	A	Intersection Total		2007	5	A
	Masefield Dr North	L	115	31	C	Masefield Dr North	L	114	32	C	Masefield Dr North	L	116	31	C
		T	434	34	C		T	438	34	C		T	442	32	C
		R	42	36	D		R	50	48	D		R	43	41	D
	North Appr Total		591	33	C	North Appr Total		602	35	C	North Appr Total		600	33	C
	Levi Rd East	L	136	7	A	Levi Rd East	L	135	8	A	Levi Rd East	L	141	8	A
		T	224	22	C		T	232	23	C		T	224	23	C
		R	74	16	B		R	72	16	B		R	73	16	B
	East Appr Total		434	17	B	East Appr Total		440	17	B	East Appr Total		437	17	B
	Lincoln Rolleston Rd South	L	50	22	C	Lincoln Rolleston Rd South	L	58	22	C	Lincoln Rolleston Rd South	L	52	21	C
		T	356	27	C		T	375	26	C		T	376	25	C
		R	92	68	E		R	87	72	E		R	82	55	D
	South Appr Total		497	34	C	South Appr Total		519	33	C	South Appr Total		510	29	C
	Lowes Rd West	L	54	26	C	Lowes Rd West	L	52	28	C	Lowes Rd West	L	52	25	C
		T	297	37	D		T	293	37	D		T	282	37	D
		R	110	23	C		R	101	23	C		R	109	23	C
	West Appr Total		461	32	C	West Appr Total		446	33	C	West Appr Total		443	32	C
	Intersection Total		1983	30	C	Intersection Total		2006	30	C	Intersection Total		1991	28	C



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	665	4	A	Weedons Rd North	L	647	5	A	Weedons Rd North	L	641	4	A
		T	881	5	A		T	901	5	A		T	903	5	A
	North Appr Total		1546	4	A	North Appr Total		1548	5	A	North Appr Total		1544	5	A
	Weedons Rd South	L	61	7	A	Weedons Rd South	L	60	9	A	Weedons Rd South	L	60	8	A
		R	237	10	A		R	247	10	A		R	259	10	A
	South Appr Total		298	9	A	South Appr Total		307	10	A	South Appr Total		319	10	A
	Levi Rd West	T	455	6	A	Levi Rd West	T	471	6	A	Levi Rd West	T	454	6	A
		R	41	5	A		R	43	5	A		R	40	5	A
Lincoln Rolleston Rd & Brendean Dr	West Appr Total		496	6	A	West Appr Total		514	6	A	West Appr Total		494	6	A
	Intersection Total		2339	5	A	Intersection Total		2369	6	A	Intersection Total		2356	6	A
	Lincoln Rolleston Rd North	L	28	0	A	Lincoln Rolleston Rd North	L	20	0	A	Lincoln Rolleston Rd North	L	23	0	A
		T	430	2	A		T	427	2	A		T	421	2	A
	North Appr Total		458	2	A	North Appr Total		447	2	A	North Appr Total		444	2	A
	Brendean Dr East	L	3	4	A	Brendean Dr East	L	4	5	A	Brendean Dr East	L	3	5	A
		R	50	18	C		R	39	14	B		R	38	13	B
	East Appr Total		54	18	C	East Appr Total		43	14	B	East Appr Total		40	13	B
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd South	T	505	2	A	Lincoln Rolleston Rd South	T	516	2	A	Lincoln Rolleston Rd South	T	526	2	A
		R	19	5	A		R	19	4	A		R	20	5	A
	South Appr Total		524	5	A	South Appr Total		535	4	A	South Appr Total		546	5	A
	Intersection Total		1035	18	C	Intersection Total		1025	14	B	Intersection Total		1030	13	B
	Lincoln Rolleston Rd North	L	38	4	A	Lincoln Rolleston Rd North	L	46	4	A	Lincoln Rolleston Rd North	L	45	4	A
		T	295	4	A		T	289	5	A		T	286	5	A
		R	97	5	A		R	90	5	A		R	89	5	A
	North Appr Total		429	4	A	North Appr Total		425	5	A	North Appr Total		421	5	A
Lincoln Rolleston Rd & Edmund Hillary Dr	Edmund Hillary Dr East	L	1	8	A	Edmund Hillary Dr East	L	1	4	A	Edmund Hillary Dr East	L	0	0	A
		T	277	9	A		T	247	8	A		T	244	8	A
		R	277	9	A		R	247	8	A		R	244	8	A
	East Appr Total		555	9	A	East Appr Total		495	8	A	East Appr Total		488	8	A
	Lincoln Rolleston Rd South	L	150	14	B	Lincoln Rolleston Rd South	L	162	13	B	Lincoln Rolleston Rd South	L	163	13	B
		T	388	15	B		T	358	3	A		T	408	13	B
		R	7	13	B		R	5	10	A		R	7	9	A
	South Appr Total		544	15	B	South Appr Total		526	6	A	South Appr Total		578	13	B
Lincoln Rolleston Rd & Edmund Hillary Dr	Edmund Hillary Dr West	L	96	8	A	Edmund Hillary Dr West	L	92	8	A	Edmund Hillary Dr West	L	96	9	A
		T	118	7	A		T	119	8	A		T	113	9	A
		R	114	7	A		R	117	7	A		R	121	8	A
	West Appr Total		327	7	A	West Appr Total		328	8	A	West Appr Total		329	9	A
	Intersection Total		1855	9	A	Intersection Total		1773	7	A	Intersection Total		1816	9	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	76	3	A	Lincoln Rolleston Rd North	L	79	3	A	Lincoln Rolleston Rd North	L	78	3	A
		T	315	3	A		T	314	3	A		T	315	3	A
		R	20	2	A		R	19	2	A		R	17	2	A
	North Appr Total		410	3	A	North Appr Total		413	3	A	North Appr Total		411	3	A
	Lady Issac Dr East	L	24	3	A	Lady Issac Dr East	L	24	4	A	Lady Issac Dr East	L	23	4	A
		T	114	4	A		T	127	4	A		T	119	5	A
		R	47	4	A		R	44	5	A		R	47	5	A
	East Appr Total		185	4	A	East Appr Total		195	4	A	East Appr Total		189	5	A
	Lincoln Rolleston Rd South	L	41	3	A	Lincoln Rolleston Rd South	L	43	3	A	Lincoln Rolleston Rd South	L	41	4	A
		T	476	5	A		T	43	3	A		T	510	4	A
		R	23	4	A		R	43	3	A		R	24	4	A
	South Appr Total		539	5	A	South Appr Total		129	3	A	South Appr Total		575	4	A
	Lady Issac Dr West	L	22	7	A	Lady Issac Dr West	L	22	8	A	Lady Issac Dr West	L	119	1	A
		T	22	7	A		T	71	8	A		T	119	1	A
		R	22	7	A		R	25	6	A		R	119	1	A
	West Appr Total		67	7	A	West Appr Total		118	7	A	West Appr Total		356	1	A
	Intersection Total		1201	7	A	Intersection Total		854	4	A	Intersection Total		1531	3	A
Weedons Rd & Brendean Dr	Weedons Rd North	T	554	5	A	Weedons Rd North	T	515	5	A	Weedons Rd North	T	507	5	A
		R	150	6	A		R	174	6	A		R	171	6	A
	North Appr Total		704	6	A	North Appr Total		689	6	A	North Appr Total		678	6	A
	Weedons Rd South	L	25	1	A	Weedons Rd South	L	25	1	A	Weedons Rd South	L	22	1	A
		T	205	2	A		T	211	2	A		T	221	2	A
	South Appr Total		230	2	A	South Appr Total		236	2	A	South Appr Total		243	2	A
	Brendean Dr West	L	57	2	A	Brendean Dr West	L	55	3	A	Brendean Dr West	L	58	3	A
		R	2	11	B		R	2	13	B		R	2	9	A
	West Appr Total		59	11	B	West Appr Total		57	13	B	West Appr Total		60	9	A
	Intersection Total		992	11	B	Intersection Total		982	13	B	Intersection Total		980	9	A
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	301	1	A	Weedons Rd North	T	315	1	A	Weedons Rd North	T	309	1	A
		R	259	2	A		R	207	2	A		R	207	1	A
	North Appr Total		560	2	A	North Appr Total		522	2	A	North Appr Total		516	1	A
	Weedons Rd South	L	44	1	A	Weedons Rd South	L	21	1	A	Weedons Rd South	L	20	1	A
		T	191	2	A		T	192	2	A		T	184	2	A
	South Appr Total		234	2	A	South Appr Total		214	2	A	South Appr Total		203	2	A
	Ed Hillary Dr Ext	L	33	2	A	Ed Hillary Dr Ext	L	20	3	A	Ed Hillary Dr Ext	L	19	3	A
		R	11	8	A		R	3	8	A		R	2	7	A
	West Appr Total		44	8	A	West Appr Total		23	8	A	West Appr Total		21	7	A
	Intersection Total		839	8	A	Intersection Total		759	8	A	Intersection Total		740	7	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection															
	Base (No Development)					Option 1 (With Development)					Option 2 (With Development + Weedons Connection)				
	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS	Approach	Movement	Vol	Delay	LOS
Weedons Rd & Lady Isaac Dr	Weedons Rd North	T	165	3	A	Weedons Rd North	T	157	3	A	Weedons Rd North	T	149	3	A
		R	149	3	A		R	165	3	A		R	153	3	A
	North Appr Total		314	3	A	North Appr Total		323	3	A	North Appr Total		302	3	A
	Weedons Rd South	L	16	1	A	Weedons Rd South	L	26	1	A	Weedons Rd South	L	18	1	A
		T	187	2	A		T	168	2	A		T	177	2	A
	South Appr Total		203	2	A	South Appr Total		195	2	A	South Appr Total		195	2	A
	Lady Isaac Dr	L	36	3	A	Lady Isaac Dr	L	35	2	A	Lady Isaac Dr	L	30	3	A
		R	2	7	A		R	3	5	A		R	3	7	A
Weedons Rd & Site 1 New Road	West Appr Total		39	7	A	West Appr Total		38	5	A	West Appr Total		32	7	A
	Intersection Total		555	7	A	Intersection Total		555	5	A	Intersection Total		530	7	A
	Weedons Rd North	T				Weedons Rd North	T				Weedons Rd North	T	302	2	A
		R					R					R	12	1	A
	North Appr Total					North Appr Total					North Appr Total		314	2	A
	Weedons Rd South	L				Weedons Rd South	L				Weedons Rd South	L	13	0	A
		T					T					T	203	1	A
	South Appr Total					South Appr Total					South Appr Total		216	1	A
Weedons Rd & Site 1 New Road	Site 1 New Road West	L				Site 1 New Road West	L				Site 1 New Road West	L	19	1	A
		R					R					R	6	3	A
	West Appr Total					West Appr Total					West Appr Total		25	3	A
	Intersection Total					Intersection Total					Intersection Total		555	3	A



A.3 Site 2 AM Peak Model Results (Year 2040)

Intersection	Option (With Development + Weedons Connection + Area2)					Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm)					
	Approach	Movement	Vol	Delay	LOS		Approach	Movement	Vol	Delay	LOS	
Lincoln Rolleston & Selwyn Rd	DEV-RO17 Collector North	L	34	4	A	Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	265	1	A	
		T	55	15	B			East Appr Total	T	264	2	A
		R	16	11	B				Selwyn Rd South	L	13	4
	North Appr Total	105	12	B	South Appr Total		R			590	9	A
	Selwyn Rd East	L	223	1			A	Lincoln Rolleston Rd West		T	603	3
		T	258	2			A		West Appr Total	R	648	2
		R	4	1	A		Intersection Total				14	4
	East Appr Total	485	1	A				662		2	A	
	Selwyn Rd South	L	10	4	A				1793	4	A	
		T	99	5	A		Weedons Rd North	L	96	17	B	
		R	518	9	A			T	75	18	B	
	South Appr Total	627	8	A	R				39	15	B	
	Lincoln Rolleston Rd West	L	26	2			A		North Appr Total	210	18	B
		T	616	3			A	Selwyn Rd East	L	0	-	-
		R	8	3	A		T		319	4	A	
West Appr Total	650	3	A	R	24				3	A		
Intersection Total	1868	5	A		East Appr Total			342	4	A		
Weedons & Selwyn Rd	Weedons Rd North	L	108		14	B	Weedons & Selwyn Rd	Weedons Rd South	L	0	3	A
		T	69	15	B	T			113	4	A	
		R	5	3	A				R	0	2	A
	North Appr Total	182	15	B	South Appr Total			113		4	A	
	Selwyn Rd East	L	0	-	-	Selwyn Rd West		L		65	3	A
		T	315	4	A			T	1008	8	A	
		R	23	3	A				R	162	7	A
	East Appr Total	338	4	A	West Appr Total	1235				7	A	
	Weedons Rd South	L	0	3	A	Intersection Total		1900		7	A	
		T	110	4	A	Masfield Dr North		L	102	27	C	
		R	0	0	A			T	206	33	C	
	South Appr Total	110	3	A	R				18	32	C	
	Selwyn Rd West	L	31	2		A			North Appr Total	327	31	C
		T	981	6		A		Levi Rd East	L	94	7	A
		R	151	6	A	T			160	30	C	
	West Appr Total	1163	6	A	R				159	42	D	
	Intersection Total	1793	5	A				East Appr Total	413	32	C	
	Lincoln Rolleston & Levi & Lowes Rd & Masfield Dr	Masfield Dr North	L	105		28	C	Lincoln Rolleston & Levi & Lowes Rd & Masfield Dr	Lincoln Rolleston Rd South	L	66	39
			T	212	32	C	T			459	34	C
R			20	24	C	R				201	40	D
North Appr Total		337	31	C	South Appr Total				726	36	D	
Levi Rd East		L	90	6	A		Lowes Rd West		L	121	34	C
		T	157	29	C	T			345	39	D	
		R	157	51	D				R	86	33	C
East Appr Total		403	35	C	West Appr Total		553			37	D	
Lincoln Rolleston Rd South		L	62	41	D	Intersection Total	2018			35	C	
		T	432	44	D							
		R	200	46	D							
South Appr Total		693	44	D								
Lowes Rd West		L	109	37	D							
		T	359	39	D							
		R	84	31	C							
West Appr Total		551	37	D								
Intersection Total		1984	39	D								



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection	Option (With Development + Weedons Connection + Area2)				
	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	133	2	A
		T	172	2	A
	North Appr Total		304	2	A
	Weedons Rd South	L	47	4	A
		R	784	15	B
	South Appr Total		831	15	B
	Levi Rd West	T	764	127	F
		R	8	74	E
	West Appr Total		771	126	F
	Intersection Total		1906	58	E
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	29	0	A
		T	455	2	A
	North Appr Total		484	2	A
	Brendean Dr East	L	6	4	A
		R	31	13	B
	East Appr Total		37	13	B
	Lincoln Rolleston Rd South	T	448	2	A
		R	41	6	A
	South Appr Total		489	6	A
	Intersection Total		1010	13	B
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	31	12	B
		T	390	12	B
		R	44	13	B
	North Appr Total		465	12	B
	Edmund Hillary Dr East	L	6	6	A
		T	79	8	A
		R	64	7	A
	East Appr Total		149	7	A
	Lincoln Rolleston Rd South	L	84	3	A
		T	289	4	A
		R	16	3	A
	South Appr Total		389	3	A
	Edmund Hillary Dr West	L	132	18	B
		T	217	16	B
		R	184	16	B
	West Appr Total		534	17	B
	Intersection Total		1537	11	B

Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm)				
	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	134	2	A
		T	175	2	A
	North Appr Total		308	2	A
	Weedons Rd South	L	48	4	A
		R	806	15	B
	South Appr Total		853	14	B
	Levi Rd West	T	748	128	F
		R	7	89	F
	West Appr Total		755	127	F
	Intersection Total		1917	57	E
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	29	0	A
		T	460	2	A
	North Appr Total		490	2	A
	Brendean Dr East	L	7	7	A
		R	32	14	B
	East Appr Total		39	14	B
	Lincoln Rolleston Rd South	T	451	2	A
		R	44	7	A
	South Appr Total		495	7	A
	Intersection Total		1024	14	B
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	34	14	B
		T	396	17	B
		R	40	14	B
	North Appr Total		469	16	B
	Edmund Hillary Dr East	L	5	2	A
		T	78	8	A
		R	67	8	A
	East Appr Total		149	8	A
	Lincoln Rolleston Rd South	L	85	3	A
		T	291	4	A
		R	17	2	A
	South Appr Total		393	3	A
	Edmund Hillary Dr West	L	134	18	B
		T	234	17	B
		R	203	17	B
	West Appr Total		570	17	B
	Intersection Total		1581	13	B



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection						Intersection					
	Option (With Development + Weedons Connection + Area2)						Option (With Development + Weedons Connection + Area2 Without RDBT Arm)				
	Approach	Movement	Vol	Delay	LOS		Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	48	4	A	Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	64	6	A
		T	522	6	A			T	534	6	A
		R	8	4	A			R	6	4	A
	North Appr Total		578	6	A		North Appr Total		603	6	A
	Lady Issac Dr East	L	19	8	A		Lady Issac Dr East	L	23	10	A
		T	30	9	A			T	37	11	B
		R	61	10	A			R	75	10	A
	East Appr Total		110	9	A		East Appr Total		134	10	A
	Lincoln Rolleston Rd South	L	12	1	A		Lincoln Rolleston Rd South	L	13	1	A
		T	277	2	A			T	266	2	A
		R	20	3	A			R	25	3	A
	South Appr Total		309	2	A		South Appr Total		303	2	A
	Lady Issac Dr West	L	53	6	A		Lady Issac Dr West	L	54	5	A
		T	93	5	A			T	114	5	A
		R	80	5	A			R	80	5	A
	West Appr Total		226	5	A		West Appr Total		247	5	A
	Intersection Total		1223	5	A		Intersection Total		1288	5	A
Weedons Rd & Brendean Dr	Weedons Rd North	T	121	4	A	Weedons Rd & Brendean Dr	Weedons Rd North	T	120	4	A
		R	19	7	A			R	21	7	A
	North Appr Total		140	7	A		North Appr Total		141	7	A
	Weedons Rd South	L	8	1	A		Weedons Rd South	L	8	1	A
		T	545	3	A			T	557	3	A
	South Appr Total		554	3	A		South Appr Total		565	3	A
	Brendean Dr West	L	288	35	D		Brendean Dr West	L	299	30	D
		R	18	12	B			R	18	19	C
	West Appr Total		306	35	D		West Appr Total		317	30	D
Intersection Total		999	35	D	Intersection Total		1022	30	D		
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	116	2	A	Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	115	2	A
		R	23	1	A			R	23	1	A
	North Appr Total		139	2	A		North Appr Total		138	2	A
	Weedons Rd South	L	15	2	A		Weedons Rd South	L	14	1	A
		T	369	3	A			T	370	3	A
	South Appr Total		384	3	A		South Appr Total		384	3	A
	Ed Hillary Dr West	L	185	13	B		Ed Hillary Dr West	L	194	8	A
		R	25	6	A			R	28	4	A
	West Appr Total		210	13	B		West Appr Total		222	8	A
Intersection Total		732	13	B	Intersection Total		744	8	A		



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection	Option (With Development + Weedons Connection + Area2)				
	Approach	Movement	Vol	Delay	LOS
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	133	3	A
		R	23	3	A
	North Appr Total		157	3	A
	Weedons Rd South	L	8	0	A
		T	221	2	A
	South Appr Total		229	2	A
	Lady Isaac Drive West	L	119	4	A
		R	21	3	A
	West Appr Total		140	4	A
	Intersection Total		526	4	A
Weedons Rd & Site 1 New Road	Weedons Rd North	T	138	2	A
		R	2	3	A
	North Appr Total		140	3	A
	Weedons Rd South	L	19	1	A
		T	321	2	A
	South Appr Total		340	2	A
	Site 1 New Road West	L	63	2	A
		R	19	3	A
	West Appr Total		82	3	A
	Intersection Total		562	3	A
Weedons Rd & South Interchange RDBT	Weedons Rd North	T	181	2	A
		R	102	2	A
	North Appr Total		283	2	A
	Weedons Rd South	L	45	63	E
		T	1500	68	E
	South Appr Total		1545	68	E
	Main S Rd West	L	306	138	F
		R	123	101	F
	West Appr Total		429	127	F
	Intersection Total		2256	71	E
Weedons & Site 2 DEV-R017 Collector	Weedons Rd North	T	132	1	A
		R	22	1	A
	North Appr Total		155	1	A
	Weedons Rd South	L	10	0	A
		T	155	1	A
	South Appr Total		165	1	A
	DEV-R017 Collector West	L	74	2	A
		R	52	3	A
	West Appr Total		127	3	A
	Intersection Total		446	3	A
Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm				
	Approach	Movement	Vol	Delay	LOS
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	135	3	A
		R	22	2	A
	North Appr Total		157	3	A
	Weedons Rd South	L	10	1	A
		T	211	2	A
	South Appr Total		220	2	A
	Lady Isaac Dr	L	124	4	A
		R	22	4	A
	West Appr Total		146	4	A
	Intersection Total		523	4	A
Weedons Rd & Site 1 New Road	Weedons Rd North	T	141	2	A
		R	2	3	A
	North Appr Total		143	3	A
	Weedons Rd South	L	13	1	A
		T	322	2	A
	South Appr Total		335	2	A
	Site 1 New Road West	L	63	2	A
		R	16	2	A
	West Appr Total		79	2	A
	Intersection Total		557	3	A
Weedons Rd & South Interchange RDBT	Weedons Rd North	T	184	2	A
		R	102	1	A
	North Appr Total		286	2	A
	Weedons Rd South	L	49	69	E
		T	1492	72	E
	South Appr Total		1541	71	E
	Main S Rd West	L	323	133	F
		R	125	97	F
	West Appr Total		448	123	F
	Intersection Total		2274	73	E
Weedons & Site 2 DEV-R017 Collector	Weedons Rd North	T	148	1	A
		R	8	0	A
	North Appr Total		156	1	A
	Weedons Rd South	L	19	0	A
		T	183	1	A
	South Appr Total		203	1	A
	DEV-R017 Collector West	L	37	1	A
		R	64	3	A
	West Appr Total		100	3	A
	Intersection Total		459	3	A



A.4 Site 2 PM Peak Model Results (Year 2040)

Intersection	Option (With Development + Weedons Connection + Area2)				
	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston & Selwyn Rd	DEV-RD17 Collector North	L	5	2	A
		T	73	5	A
		R	12	4	A
	North Appr Total		89	4	A
	Selwyn Rd East	L	566	2	A
		T	541	2	A
		R	10	1	A
	East Appr Total		1117	2	A
	Selwyn Rd South	L	6	4	A
		T	60	6	A
		R	228	10	A
	South Appr Total		293	9	A
	Lincoln Rolleston Rd West	L	19	2	A
		T	345	2	A
		R	4	4	A
Weedons & Selwyn Rd	West Appr Total		363	2	A
	Intersection Total		1868	3	A
	Weedons Rd North	L	27	5	A
		T	100	9	A
		R	12	6	A
	North Appr Total		138	9	A
	Selwyn Rd East	L	0	2	A
		T	957	5	A
		R	85	5	A
	East Appr Total		1042	5	A
	Weedons Rd South	L	0	6	A
		T	102	13	B
		R	0	-	-
	South Appr Total		102	9	A
Lincoln Rolleston & Levi & Lowes Rd & Masfield Dr	Selwyn Rd West	L	9	0	A
		T	416	3	A
		R	153	3	A
	West Appr Total		577	3	A
	Intersection Total		1859	5	A
	Masfield Dr North	L	136	29	C
		T	454	32	C
		R	47	36	D
	North Appr Total		637	32	C
	Levi Rd East	L	200	7	A
		T	330	23	C
		R	153	16	B
	East Appr Total		683	16	B
	Lincoln Rolleston Rd South	L	58	20	B
		T	375	25	C
		R	33	61	E
Lincoln Rolleston & Selwyn Rd	South Appr Total		526	31	C
	Lowes Rd West	L	79	27	C
		T	341	37	D
		R	112	23	C
	West Appr Total		532	32	C
	Intersection Total		2383	28	C

Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm)				
	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	594	2	A
		T	545	2	A
	East Appr Total		1138	2	A
	Selwyn Rd South	L	7	3	A
		R	252	9	A
	South Appr Total		259	9	A
	Lincoln Rolleston Rd West	T	351	2	A
		R	8	2	A
	West Appr Total		358	2	A
	Intersection Total		1755	3	A
Weedons & Selwyn Rd	Weedons Rd North	L	27	7	A
		T	97	10	A
		R	52	9	A
	North Appr Total		175	9	A
	Selwyn Rd East	L	1	4	A
		T	931	6	A
		R	84	6	A
	East Appr Total		1016	6	A
	Weedons Rd South	L	0	6	A
		T	104	14	B
		R	0	-	-
	South Appr Total		104	9	A
	Selwyn Rd West	L	43	1	A
		T	407	3	A
		R	152	3	A
Lincoln Rolleston & Levi & Lowes Rd & Masfield Dr	West Appr Total		602	3	A
	Intersection Total		1897	6	A
	Masfield Dr North	L	146	32	C
		T	451	36	D
		R	53	42	D
	North Appr Total		650	35	C
	Levi Rd East	L	203	8	A
		T	328	23	C
		R	160	17	B
	East Appr Total		690	17	B
	Lincoln Rolleston Rd South	L	54	20	B
		T	375	24	C
		R	86	57	E
	South Appr Total		515	29	C
Lincoln Rolleston & Selwyn Rd	Lowes Rd West	L	73	27	C
		T	340	37	D
		R	108	23	C
	West Appr Total		521	32	C
	Intersection Total		2376	29	C



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection	Option (With Development + Weedons Connection + Area2)				
	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	659	5	A
		T	893	5	A
	North Appr Total		1552	5	A
	Weedons Rd South	L	67	8	A
		R	262	10	A
	South Appr Total		329	9	A
	Levi Rd West	T	466	6	A
		R	42	5	A
	West Appr Total		508	5	A
	Intersection Total		2388	6	A
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	22	0	A
		T	442	2	A
	North Appr Total		464	2	A
	Brendean Dr East	L	6	9	A
		R	37	17	C
	East Appr Total		43	17	C
	Lincoln Rolleston Rd South	T	529	2	A
		R	18	5	A
	South Appr Total		547	5	A
	Intersection Total		1054	17	C
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	44	4	A
		T	308	5	A
		R	93	5	A
	North Appr Total		445	5	A
	Edmund Hillary Dr East	L	2	2	A
		T	273	9	A
		R	50	8	A
	East Appr Total		325	9	A
	Lincoln Rolleston Rd South	L	160	14	B
		T	403	14	B
		R	6	15	B
	South Appr Total		569	14	B
	Edmund Hillary Dr West	L	96	9	A
		T	118	9	A
		R	121	8	A
	West Appr Total		335	9	A
	Intersection Total		1674	10	A
Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm				
	Approach	Movement	Vol	Delay	LOS
Levi & Weedons Rd	Weedons Rd North	L	663	4	A
		T	892	5	A
	North Appr Total		1555	5	A
	Weedons Rd South	L	66	8	A
		R	256	10	A
	South Appr Total		322	10	A
	Levi Rd West	T	465	6	A
		R	45	5	A
	West Appr Total		510	6	A
	Intersection Total		2387	6	A
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	21	0	A
		T	450	2	A
	North Appr Total		471	2	A
	Brendean Dr East	L	8	7	A
		R	39	16	C
	East Appr Total		47	16	C
	Lincoln Rolleston Rd South	T	530	2	A
		R	19	6	A
	South Appr Total		549	6	A
	Intersection Total		1067	16	C
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	43	4	A
		T	312	5	A
		R	93	5	A
	North Appr Total		454	5	A
	Edmund Hillary Dr East	L	2	3	A
		T	276	10	A
		R	48	8	A
	East Appr Total		327	10	A
	Lincoln Rolleston Rd South	L	161	12	B
		T	408	13	B
		R	6	9	A
	South Appr Total		575	12	B
	Edmund Hillary Dr West	L	97	9	A
		T	117	9	A
		R	128	9	A
	West Appr Total		342	9	A
	Intersection Total		1697	9	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection	Option (With Development + Weedons Connection + Area2)				
	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	76	2	A
		T	338	3	A
		R	18	2	A
	North Appr Total		432	3	A
	Lady Issac Dr East	L	16	3	A
		T	111	4	A
		R	45	5	A
	East Appr Total		172	4	A
	Lincoln Rolleston Rd South	L	40	4	A
		T	506	4	A
		R	14	5	A
	South Appr Total		561	4	A
	Lady Issac Dr West	L	22	7	A
		T	60	7	A
		R	27	6	A
	West Appr Total		110	7	A
	Intersection Total		1274	4	A
Weedons Rd & Brendean Dr	Weedons Rd North	T	539	5	A
		R	162	6	A
	North Appr Total		701	6	A
	Weedons Rd South	L	28	1	A
		T	235	2	A
	South Appr Total		263	2	A
	Brendean Dr West	L	34	3	A
		R	10	13	B
	West Appr Total		104	13	B
	Intersection Total		1067	13	B
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	342	1	A
		R	207	1	A
	North Appr Total		549	1	A
	Weedons Rd South	L	24	1	A
		T	224	2	A
	South Appr Total		249	2	A
	Ed Hillary Dr West	L	38	4	A
		R	6	8	A
	West Appr Total		44	8	A
	Intersection Total		841	8	A
Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm				
	Approach	Movement	Vol	Delay	LOS
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	95	3	A
		T	330	3	A
		R	17	2	A
	North Appr Total		443	3	A
	Lady Issac Dr East	L	17	5	A
		T	128	5	A
		R	53	5	A
	East Appr Total		198	5	A
	Lincoln Rolleston Rd South	L	41	4	A
		T	438	5	A
		R	16	4	A
	South Appr Total		555	5	A
	Lady Issac Dr West	L	24	7	A
		T	72	7	A
		R	25	7	A
	West Appr Total		121	7	A
	Intersection Total		1317	4	A
Weedons Rd & Brendean Dr	Weedons Rd North	T	538	5	A
		R	163	7	A
	North Appr Total		706	7	A
	Weedons Rd South	L	22	1	A
		T	229	2	A
	South Appr Total		251	2	A
	Brendean Dr West	L	31	3	A
		R	10	10	A
	West Appr Total		101	10	A
	Intersection Total		1059	10	A
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	335	1	A
		R	212	1	A
	North Appr Total		547	1	A
	Weedons Rd South	L	23	1	A
		T	212	2	A
	South Appr Total		236	2	A
	Ed Hillary Dr Ext	L	39	3	A
		R	7	7	A
	West Appr Total		46	7	A
	Intersection Total		828	7	A



Weedons Road Residential Rezoning Plan Change Integrated Transport Assessment

Intersection	Option (With Development + Weedons Connection + Area2)					Intersection	Option (With Development + Weedons Connection + Area2 Without RDBT Arm)				
	Approach	Movement	Vol	Delay	LOS		Approach	Movement	Vol	Delay	LOS
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	195	2	A	Weedons Rd & Lady Issac Dr	Weedons Rd North	T	181	3	A
		R	149	3	A			R	153	3	A
	North Appr Total		344	3	A		North Appr Total		334	3	A
	Weedons Rd South	L	13	0	A		Weedons Rd South	L	15	1	A
		T	202	2	A			T	193	1	A
	South Appr Total		214	2	A		South Appr Total		208	1	A
	Lady Isaac Drive West	L	44	3	A		Lady Isaac Dr	L	41	2	A
		R	5	7	A			R	5	7	A
	West Appr Total		48	7	A		West Appr Total		45	7	A
	Intersection Total		606	7	A		Intersection Total		588	7	A
Weedons Rd & Site 1 New Road	Weedons Rd North	T	339	2	A	Weedons Rd & Site 1 New Road	Weedons Rd North	T	331	2	A
		R	9	2	A			R	12	2	A
	North Appr Total		348	2	A		North Appr Total		343	2	A
	Weedons Rd South	L	14	0	A		Weedons Rd South	L	14	0	A
		T	231	1	A			T	220	1	A
	South Appr Total		245	1	A		South Appr Total		234	1	A
	Site 1 New Road West	L	18	1	A		Site 1 New Road West	L	16	1	A
		R	6	4	A			R	4	2	A
	West Appr Total		23	4	A		West Appr Total		20	2	A
	Intersection Total		616	4	A		Intersection Total		596	2	A
Weedons Rd & South Interchange RDBT	Weedons Rd North	T	605	25	C	Weedons Rd & South Interchange RDBT	Weedons Rd North	T	614	27	C
		R	68	26	C			R	72	26	C
	North Appr Total		673	25	C		North Appr Total		687	27	C
	Weedons Rd South	L	31	32	C		Weedons Rd South	L	30	30	C
		T	635	34	C			T	686	32	C
	South Appr Total		726	34	C		South Appr Total		716	32	C
	Main S Rd West	L	291	70	E		Main S Rd West	L	306	65	E
		R	943	86	F			R	945	80	E
	West Appr Total		1240	82	F		West Appr Total		1251	76	E
	Intersection Total		2640	55	D		Intersection Total		2654	52	D
Weedons & Site 2 DEV-R017 Collector	Weedons Rd North	T	131	1	A	Weedons & Site 2 DEV-R017 Collector	Weedons Rd North	T	157	1	A
		R	69	1	A			R	23	1	A
	North Appr Total		200	1	A		North Appr Total		186	1	A
	Weedons Rd South	L	20	0	A		Weedons Rd South	L	40	0	A
		T	176	1	A			T	190	1	A
	South Appr Total		196	1	A		South Appr Total		230	1	A
	DEV-R017 Collector West	L	39	2	A		DEV-R017 Collector West	L	18	1	A
		R	8	3	A			R	19	3	A
	West Appr Total		47	3	A		West Appr Total		37	3	A
	Intersection Total		442	3	A		Intersection Total		453	3	A





Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

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Reference: YourSection Weedons Road Plan Change

ATTACHMENT 2: Levi Road / Weedons Road Intersection Form Sensitivity Results – Performance
Tables

2040 AM Peak

Intersection			Base (No Development)								With Development												
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control			Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout		
	Approach	Movement	Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff	
Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	237	1	A	219	1	A	-18	0	253	1	A	16	0	251	1	A	32	0	-2	0	
		T	343	2	A	253	2	A	-90	0	342	2	A	0	0	264	2	A	12	0	-78	0	
	East Appr Total			580	2	A	472	1	A	-108	0	595	1	A	15	0	515	1	A	44	0	-80	0
	Selwyn Rd South	L	4	5	A	16	4	A	12	-2	2	6	A	-2	1	13	4	A	-4	1	11	-2	
		R	636	9	A	575	7	A	-61	-1	612	13	B	-24	5	576	10	A	2	2	-36	-4	
	South Appr Total			640	9	A	591	7	A	-49	-2	614	13	B	-25	5	589	10	A	-2	2	-26	-4
	Lincoln Rolleston Rd West	T	695	8	A	597	6	A	-97	-1	700	3	A	6	-5	642	3	A	45	-4	-58	0	
		R	17	6	A	15	4	A	-2	-1	18	4	A	1	-1	13	4	A	-2	-1	-4	-1	
	West Appr Total			711	7	A	612	6	A	-99	-1	718	3	A	7	-5	656	3	A	44	-4	-62	0
	Intersection Total			1,931	6	A	1,675	5	A	-256	-1	1,928	6	A	-3	0	1,760	5	A	85	-1	-168	-1
Weedons & Selwyn Rd	Weedons Rd North	L	4	41	D	4	7	A	-1	-35	3	55	D	-1	14	3	13	B	-1	6	0	-43	
		T	60	42	D	62	17	B	2	-26	60	44	D	0	1	62	18	B	1	1	3	-26	
		R	6	21	C	7	11	B	1	-10	6	35	C	0	14	8	12	B	1	1	2	-23	
	North Appr Total			70	40	D	72	16	B	2	-25	69	43	D	-1	3	73	17	B	1	1	4	-26
	Selwyn Rd East	L	-	-	-	-	-	-	0	#VALUE!	-	-	-	0	#VALUE!	-	-	-	0	#VALUE!	0	#VALUE!	
		T	326	4	A	303	4	A	-23	0	323	4	A	-2	0	310	4	A	7	0	-13	0	
		R	12	3	A	20	3	A	8	0	14	2	A	2	0	19	3	A	-1	0	6	0	
	East Appr Total			338	4	A	323	4	A	-15	0	337	4	A	-1	0	330	4	A	7	0	-7	0
	Weedons Rd South	L	247	3	A	159	3	A	-88	0	247	4	A	0	0	171	3	A	12	0	-77	0	
		T	42	3	A	120	4	A	78	0	39	4	A	-3	0	102	4	A	-18	0	63	0	
		R	-	-	-	0	0	A	0	#VALUE!	0	0	A	0	#VALUE!	0	2	A	0	2	0	2	
	South Appr Total			289	3	A	280	3	A	-9	0	287	4	A	-2	0	273	3	A	-7	0	-13	0
	Selwyn Rd West	L	6	1	A	53	2	A	46	1	13	3	A	7	2	62	3	A	10	1	50	0	
		T	1,160	5	A	973	6	A	-187	1	1,145	5	A	-16	0	1,000	7	A	27	1	-145	1	
		R	161	5	A	145	6	A	-16	1	152	5	A	-9	0	154	6	A	9	0	2	1	
	West Appr Total			1,327	5	A	1,171	6	A	-157	0	1,309	5	A	-18	0	1,216	6	A	46	1	-93	1
Intersection Total			2,024	6	A	1,846	5	A	-179	-1	2,002	6	A	-23	0	1,892	6	A	46	1	-110	0	
Lincoln Rolleston & Levi & Lowes Rd & Masefield Dr	Masefield Dr North	L	55	43	D	71	29	C	16	-14	61	36	D	6	-7	75	27	C	4	-2	14	-9	
		T	199	37	D	191	32	C	-9	-5	197	33	C	-2	-3	189	32	C	-2	0	-8	-1	
		R	21	29	C	17	30	C	-4	2	17	32	C	-4	3	17	25	C	0	-6	0	-7	
	North Appr Total			275	37	D	279	31	C	4	-6	275	34	C	0	-3	282	30	C	3	-1	7	-4
	Levi Rd East	L	15	3	A	21	3	A	7	0	18	3	A	4	0	25	5	A	4	2	6	1	
		T	52	28	C	63	30	C	12	2	55	30	C	3	1	67	28	C	3	-2	12	-1	
		R	46	38	D	68	47	D	22	9	49	35	C	3	-3	68	43	D	1	-4	20	8	
	East Appr Total			112	29	C	152	34	C	40	5	122	28	C	10	-1	160	31	C	8	-3	38	3
	Lincoln Rolleston Rd South	L	67	22	C	64	34	C	-3	12	75	20	B	8	-2	72	35	C	8	2	-3	15	
		T	510	31	C	438	40	D	-71	9	519	24	C	9	-6	462	34	C	24	-5	-57	10	
		R	210	39	D	216	40	D	7	1	220	35	C	11	-4	212	36	D	-4	-4	-8	1	
	South Appr Total			786	32	C	718	39	D	-67	7	814	27	C	28	-5	746	35	C	28	-4	-67	8
	Lowes Rd West	L	55	29	C	45	40	D	-10	10	55	22	C	1	-8	48	24	C	3	-15	-8	2	
		T	262	49	D	274	38	D	12	-11	267	45	D	5	-4	278	32	C	4	-6	11	-13	
		R	102	36	D	77	32	C	-25	-4	101	30	C	0	-5	79	25	C	3	-6	-22	-5	
	West Appr Total			419	43	D	395	37	D	-23	-6	424	38	D	6	-5	405	30	C	9	-7	-19	-9
Intersection Total			1,592	36	D	1,545	37	D	-47	1	1,634	31	C	43	-5	1,592	32	C	48	-4	-42	1	

2040 AM peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control			Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout	
			Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Levi & Weedons Rd	Approach	Movement	138	1	A	129	2	A	-9	1	142	1	A	5	0	135	2	A	6	0	-8	1
			Weedons Rd North	T	187	2	A	169	2	A	-18	0	201	2	A	13	0	180	2	A	11	0
	North Appr Total		325	2	A	298	2	A	-27	0	343	2	A	18	0	314	2	A	16	0	-29	0
	Weedons Rd South	L	7	546	F	35	4	A	28	-542	-	-	-	-7	#VALUE!	43	4	A	8	0	43	#VALUE!
		R	76	692	F	787	15	B	711	-678	72	726	F	-5	33	747	16	B	-41	1	675	-710
	South Appr Total		83	692	F	823	14	B	739	-678	72	726	F	-12	33	789	15	B	-33	1	718	-710
	Levi Rd West	T	1,224	3	A	747	127	F	-478	124	1,237	3	A	13	0	772	122	F	25	-5	-466	119
		R	9	5	A	9	101	F	0	96	7	4	A	-2	-1	7	91	F	-2	-10	-1	87
	West Appr Total		1,233	5	A	755	127	F	-478	122	1,244	4	A	11	-1	778	122	F	23	-5	-466	118
	Intersection Total		1,642	692	F	1,876	58	E	234	-635	1,659	726	F	18	33	1,882	57	E	6	-1	223	-669
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	13	0	A	42	0	A	29	0	13	0	A	-1	0	25	0	A	-17	0	13	0
		T	404	1	A	438	3	A	35	1	408	2	A	5	0	462	2	A	24	-1	54	0
	North Appr Total		417	1	A	481	3	A	63	1	421	2	A	4	0	488	2	A	7	-1	67	0
	Brendean Dr East	L	2	5	A	2	5	A	0	0	3	6	A	0	1	3	5	A	1	0	0	-1
		R	38	22	C	31	12	B	-7	-10	32	31	D	-6	9	27	14	B	-5	2	-6	-18
	East Appr Total		40	22	C	33	12	B	-7	-10	35	31	D	-5	9	29	14	B	-4	2	-6	-18
	Lincoln Rolleston Rd South	T	600	3	A	415	2	A	-185	-1	632	3	A	31	0	451	2	A	36	0	-180	-1
		R	14	5	A	44	8	A	30	3	15	6	A	1	1	43	6	A	-1	-2	28	0
	South Appr Total		614	5	A	459	8	A	-155	3	647	6	A	33	1	494	6	A	35	-2	-153	0
	Intersection Total		1,072	22	C	973	12	B	-99	-10	1,103	31	D	32	9	1,011	14	B	38	2	-92	-18
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	21	5	A	52	17	B	32	13	26	5	A	6	1	37	10	A	-16	-7	11	4
		T	353	5	A	353	16	B	0	11	351	7	A	-2	1	391	11	B	37	-5	39	5
		R	34	5	A	35	16	B	1	12	34	7	A	0	2	37	11	B	3	-5	4	4
	North Appr Total		407	5	A	440	16	B	33	11	411	7	A	4	1	465	11	B	24	-5	54	4
	Edmund Hillary Dr East	L	1	12	B	1	2	A	-1	-11	1	8	A	0	-4	1	2	A	0	0	-1	-6
		T	50	9	A	48	7	A	-2	-3	62	11	B	12	2	53	7	A	5	1	-9	-4
		R	50	9	A	48	7	A	-2	-3	55	12	B	4	3	30	7	A	-18	1	-24	-5
	East Appr Total		102	9	A	97	7	A	-5	-3	118	12	B	16	2	84	7	A	-13	1	-34	-4
	Lincoln Rolleston Rd South	L	86	4	A	79	3	A	-7	-1	86	4	A	0	0	82	3	A	3	0	-3	-1
		T	381	4	A	279	3	A	-101	-1	390	5	A	9	0	287	4	A	8	0	-102	-1
		R	4	3	A	21	2	A	17	0	3	4	A	-1	1	16	2	A	-5	0	14	-1
	South Appr Total		470	4	A	380	3	A	-91	-1	478	4	A	8	0	386	3	A	6	0	-92	-1
	Edmund Hillary Dr West	L	161	15	B	136	17	B	-25	2	162	20	B	1	5	145	16	B	9	0	-17	-4
		T	52	14	B	271	17	B	219	3	56	16	B	4	2	222	15	B	-49	-2	166	-1
		R	204	13	B	173	16	B	-31	3	216	17	B	11	4	181	14	B	8	-2	-34	-2
	West Appr Total		417	14	B	580	17	B	163	3	433	18	B	16	4	548	15	B	-32	-1	115	-3
	Intersection Total		1,396	8	A	1,497	12	B	101	5	1,440	10	A	44	2	1,483	10	A	-14	-2	43	1

2040 PM Peak

2040 AM Peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control		Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout		
			Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	39	4	A	47	5	A	8	1	42	4	A	3	0	51	5	A	4	0	8	1
		T	521	5	A	479	6	A	-42	1	533	5	A	12	0	525	6	A	46	1	-8	1
		R	7	4	A	9	4	A	1	1	7	3	A	0	-1	8	5	A	-1	0	0	1
	North Appr Total		567	5	A	535	6	A	-33	1	582	5	A	15	0	583	6	A	48	1	1	1
	Lady Issac Dr East	L	69	12	B	37	7	A	-32	-5	51	20	B	-18	8	25	10	A	-12	3	-26	-11
		T	38	12	B	33	7	A	-5	-5	38	17	B	0	5	36	10	A	3	3	-2	-7
		R	81	11	B	64	8	A	-17	-4	85	15	B	4	4	66	11	B	2	3	-19	-4
	East Appr Total		188	12	B	135	8	A	-54	-5	174	17	B	-14	5	127	10	A	-7	3	-47	-7
	Lincoln Rolleston Rd South	L	11	2	A	12	1	A	2	0	12	2	A	1	0	10	2	A	-2	0	-1	0
		T	346	3	A	260	2	A	-86	0	342	2	A	-3	0	272	2	A	12	0	-71	0
		R	10	2	A	26	2	A	16	0	8	3	A	-3	1	23	3	A	-3	1	15	0
	South Appr Total		367	3	A	298	2	A	-68	0	362	2	A	-5	0	305	2	A	6	0	-57	0
	Lady Issac Dr West	L	44	6	A	56	5	A	12	-1	51	7	A	7	1	51	6	A	-5	1	-1	-1
		T	44	6	A	56	5	A	12	-1	39	5	A	-5	-1	110	6	A	54	1	71	0
		R	44	6	A	56	5	A	12	-1	98	7	A	54	0	81	6	A	25	0	-17	-1
	West Appr Total		132	6	A	168	5	A	36	-1	189	7	A	57	0	242	6	A	75	1	54	-1
	Intersection Total		1,254	12	B	1,136	8	A	-118	-5	1,306	6	A	53	-6	1,258	6	A	122	-2	-49	0
Weedons Rd & Brendean Dr	Weedons Rd North	T	126	4	A	120	4	A	-6	0	125	4	A	-1	0	123	4	A	3	0	-2	0
		R	21	2	A	17	11	B	-4	9	24	3	A	3	0	18	6	A	1	-4	-6	4
	North Appr Total		147	4	A	137	11	B	-10	6	149	4	A	2	0	141	6	A	4	-4	-8	2
	Weedons Rd South	L	11	1	A	8	2	A	-4	1	13	0	A	1	0	8	1	A	0	0	-5	1
		T	49	2	A	531	3	A	481	2	49	2	A	0	0	499	3	A	-32	0	449	1
	South Appr Total		61	2	A	538	3	A	478	2	62	2	A	1	0	506	3	A	-32	0	444	1
	Brendean Dr West	L	20	2	A	179	31	D	160	29	17	1	A	-2	-1	174	25	C	-5	-6	157	23
		R	9	2	A	6	16	C	-3	14	9	3	A	0	1	6	11	B	0	-6	-3	8
	West Appr Total		28	2	A	185	31	D	157	29	26	3	A	-2	1	180	25	C	-5	-6	154	22
Intersection Total		235	4	A	860	31	D	625	26	237	4	A	1	0	827	25	C	-33	-6	591	20	
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	125	2	A	108	1	A	-17	0	124	2	A	-2	0	119	1	A	11	0	-5	0
		R	30	1	A	28	1	A	-2	0	30	1	A	0	0	24	1	A	-4	0	-6	0
	North Appr Total		156	2	A	137	1	A	-19	0	154	2	A	-2	0	143	1	A	6	0	-11	0
	Weedons Rd South	L	13	1	A	13	1	A	0	1	13	1	A	0	0	11	1	A	-2	0	-2	0
		T	51	2	A	319	3	A	268	1	47	1	A	-4	-1	275	3	A	-44	0	228	2
	South Appr Total		64	2	A	332	3	A	268	1	60	1	A	-4	-1	286	3	A	-46	0	226	2
	Ed Hillary Dr West	L	7	2	A	184	3	A	178	2	3	3	A	-4	1	99	8	A	-85	5	96	5
		R	19	2	A	55	3	A	36	1	8	2	A	-11	0	16	6	A	-39	3	8	4
	West Appr Total		26	2	A	239	3	A	213	1	11	3	A	-15	0	115	8	A	-124	5	104	5
Intersection Total		246	2	A	708	3	A	462	1	225	3	A	-20	0	544	8	A	-164	5	319	5	
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	136	6	A	153	4	A	16	-2	126	3	A	-11	-4	124	3	A	-28	-1	-1	0
		R	27	1	A	21	2	A	-7	1	24	1	A	-3	0	21	2	A	1	0	-3	1
	North Appr Total		163	6	A	173	4	A	10	-2	149	3	A	-14	-4	146	3	A	-28	-1	-4	0
	Weedons Rd South	L	10	0	A	6	1	A	-4	0	12	1	A	2	0	13	1	A	7	0	2	0
		T	50	1	A	187	2	A	137	0	58	1	A	7	0	198	2	A	11	0	140	0
	South Appr Total		60	1	A	192	2	A	132	0	69	1	A	9	0	211	2	A	18	0	142	0
	Lady Isaac Drive West	L	10	2	A	117	4	A	107	2	6	2	A	-4	0	73	4	A	-44	-1	67	1
		R	28	6	A	16	5	A	-12	-1	12	3	A	-16	-3	8	3	A	-8	-2	-4	0
	West Appr Total		38	6	A	133	5	A	95	-1	17	3	A	-21	-3	81	4	A	-52	-2	64	0
Intersection Total		261	6	A	498	5	A	237	-1	236	3	A	-26	-3	437	4	A	-61	-2	202	0	

2040 AM Peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control			Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout	
			Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Weedons Rd & Site 1 New Road	Weedons Rd North	T							0	0	149	2	A			146	2	A			-4	0
		R							0	0	3	1	A			2	3	A			-1	2
	North Appr Total								0	0	152	2	A		147	3	A	-5		1		
	Weedons Rd South	L							0	0	7	0	A		14	1	A	7		1		
		T							0	0	60	1	A		286	2	A	226		1		
	South Appr Total								0	0	67	1	A		300	2	A	233		1		
	Site 1 New Road West	L							0	0	4	2	A		57	2	A	53		0		
		R							0	0	28	2	A		18	3	A	-10		0		
	West Appr Total								0	0	32	2	A		75	3	A	43		0		
Intersection Total								0	0	251	2	A	522	3	A	271	1					
Weedons & Site 2 DEV-RO17 Collector	Weedons Rd North	T							0	0	183	2	A			156	1	A			-27	-1
		R							0	0	6	1	A			8	1	A			2	0
	North Appr Total								0	0	189	2	A		164	1	A	-25		-1		
	Weedons Rd South	L							0	0	12	0	A		11	0	A	-1		0		
		T							0	0	54	0	A		173	1	A	119		0		
	South Appr Total								0	0	65	0	A		184	1	A	119		0		
	DEV-RO17 Collector West	L							0	0	2	1	A		10	1	A	8		0		
		R							0	0	18	2	A		13	2	A	-5		0		
	West Appr Total								0	0	20	2	A		23	2	A	3		0		
Intersection Total								0	0	274	2	A	371	2	A	97	0					

2040 PM Peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control			Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout	
	Approach	Movement	Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Lincoln Rolleston & Selwyn Rd	Selwyn Rd East	L	582	2	A	591	2	A	9	0	602	2	A	20	0	611	2	A	20	0	9	0
		T	555	2	A	527	2	A	-28	0	565	2	A	10	0	555	2	A	28	0	-10	0
	East Appr Total		1,137	2	A	1,118	2	A	-19	0	1,167	2	A	30	0	1,166	2	A	48	0	-1	0
	Selwyn Rd South	L	7	7	A	9	4	A	2	-3	8	4	A	1	-3	6	4	A	-2	-1	-1	0
		R	240	8	A	247	8	A	7	0	258	11	B	19	2	253	10	A	6	2	-5	0
	South Appr Total		247	8	A	255	8	A	9	-1	266	10	A	19	2	259	10	A	4	2	-7	0
	Lincoln Rolleston Rd West	T	360	3	A	336	3	A	-24	0	365	2	A	5	-1	339	2	A	4	-1	-26	0
		R	7	2	A	10	2	A	3	0	8	2	A	1	0	10	2	A	0	0	2	0
	West Appr Total		366	3	A	346	3	A	-21	0	373	2	A	6	-1	349	2	A	4	-1	-24	0
	Intersection Total		1,750	3	A	1,718	3	A	-31	0	1,805	3	A	56	0	1,774	3	A	56	0	-31	0
Weedons & Selwyn Rd	Weedons Rd North	L	4	4	A	10	5	A	6	1	4	4	A	0	0	12	6	A	2	1	8	2
		T	81	9	A	100	9	A	19	1	79	9	A	-2	0	90	9	A	-10	0	11	0
		R	31	8	A	35	8	A	4	1	34	8	A	3	0	39	8	A	5	0	5	1
	North Appr Total		116	8	A	145	9	A	28	0	117	8	A	1	0	141	9	A	-3	0	25	0
	Selwyn Rd East	L	0	2	A	0	1	A	0	-1	0	3	A	0	2	1	0	A	0	0	0	-3
		T	945	6	A	933	6	A	-12	0	962	5	A	17	0	951	6	A	18	0	-11	0
		R	69	5	A	81	5	A	12	0	77	5	A	7	0	83	6	A	2	1	7	1
	East Appr Total		1,015	6	A	1,015	6	A	0	0	1,039	5	A	24	0	1,035	6	A	20	0	-4	0
	Weedons Rd South	L	161	6	A	150	6	A	-11	-1	157	7	A	-4	0	160	6	A	10	0	2	0
		T	96	12	B	97	13	B	1	0	96	15	B	0	3	94	14	B	-3	1	-2	-1
		R	-	-	-	-	-	-	0	#VALUE!	-	-	-	0	#VALUE!	-	-	-	0	#VALUE!	0	#VALUE!
	South Appr Total		257	9	A	247	9	A	-10	0	253	10	A	-4	1	254	9	A	7	1	0	-1
	Selwyn Rd West	L	20	1	A	22	1	A	2	0	35	1	A	15	0	41	1	A	19	1	6	0
		T	404	3	A	401	3	A	-3	0	421	3	A	17	0	403	3	A	1	0	-19	0
		R	177	3	A	158	3	A	-19	0	170	3	A	-6	0	149	3	A	-8	0	-21	0
	West Appr Total		601	3	A	581	3	A	-20	0	626	3	A	26	0	593	3	A	11	0	-34	0
Intersection Total		1,989	5	A	1,988	5	A	-1	0	2,035	5	A	46	0	2,022	5	A	35	0	-13	0	
Lincoln Rolleston & Levi & Lowes Rd & Masefield Dr	Masefield Dr North	L	114	32	C	115	31	C	1	0	117	33	C	3	2	116	32	C	1	0	-1	-2
		T	450	33	C	434	34	C	-16	1	440	36	D	-10	2	444	34	C	10	0	4	-2
		R	46	37	D	42	36	D	-4	-1	43	43	D	-3	6	43	43	D	1	7	0	-1
	North Appr Total		610	33	C	591	33	C	-19	0	600	36	D	-10	3	603	34	C	12	0	3	-2
	Levi Rd East	L	144	8	A	136	7	A	-8	0	155	8	A	12	0	135	7	A	-1	0	-21	-1
		T	244	23	C	224	22	C	-20	-1	243	24	C	-1	0	223	23	C	-1	0	-20	-1
		R	80	16	B	74	16	B	-6	0	78	16	B	-2	-1	79	17	B	5	2	1	2
	East Appr Total		468	17	B	434	17	B	-34	-1	476	17	B	8	0	437	17	B	3	1	-40	0
	Lincoln Rolleston Rd South	L	55	21	C	50	22	C	-5	1	60	21	C	5	0	62	20	B	11	-3	1	-2
		T	368	24	C	356	27	C	-13	3	386	24	C	18	0	375	25	C	20	-2	-11	1
		R	86	70	E	92	68	E	6	-1	87	75	E	1	5	90	58	E	-1	-11	4	-17
	South Appr Total		509	32	C	497	34	C	-12	3	533	32	C	24	0	527	30	C	30	-4	-6	-2
	Lowes Rd West	L	51	27	C	54	26	C	3	-1	48	26	C	-3	0	54	27	C	1	1	7	1
		T	301	37	D	297	37	D	-3	1	311	37	D	11	0	305	37	D	7	0	-7	0
		R	105	23	C	110	23	C	5	0	119	23	C	14	1	115	23	C	5	0	-4	-1
	West Appr Total		457	32	C	461	32	C	4	0	478	32	C	21	0	474	32	C	13	0	-4	0
Intersection Total		2,044	29	C	1,983	30	C	-61	1	2,087	30	C	43	1	2,041	29	C	58	-1	-46	-1	

2040 PM Peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control		Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout		
			Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Levi & Weedons Rd	Weedons Rd North	L	610	2	A	665	4	A	55	2	617	1	A	8	0	649	4	A	-16	0	32	3
		T	948	3	A	881	5	A	-66	1	956	3	A	8	0	898	5	A	16	0	-58	2
	North Appr Total		1,557	3	A	1,546	4	A	-11	1	1,573	3	A	16	0	1,547	5	A	1	0	-26	2
	Weedons Rd South	L	50	15	B	61	7	A	11	-7	-	-	-	-50	#VALUE!	64	7	A	3	0	64	#VALUE!
		R	209	40	E	237	10	A	28	-30	216	44	E	7	5	253	10	A	17	1	38	-34
	South Appr Total		259	40	E	298	9	A	39	-30	216	44	E	-43	5	317	10	A	19	1	102	-34
	Levi Rd West	T	491	4	A	455	6	A	-36	2	509	4	A	18	0	469	6	A	14	1	-40	2
		R	13	180	F	41	5	A	28	-175	15	245	F	3	65	45	6	A	4	1	29	-239
	West Appr Total		504	180	F	496	6	A	-8	-174	524	245	F	21	65	514	6	A	18	1	-11	-239
	Intersection Total		2,320	692	F	2,339	5	A	20	-687	2,313	245	F	-7	-448	2,378	6	A	38	0	65	-239
Lincoln Rolleston Rd & Brendean Dr	Lincoln Rolleston Rd North	L	25	0	A	28	0	A	3	0	19	0	A	-5	0	21	0	A	-6	0	2	0
		T	447	2	A	430	2	A	-17	0	453	2	A	6	0	436	2	A	5	0	-17	0
	North Appr Total		471	2	A	458	2	A	-14	0	472	2	A	1	0	457	2	A	-1	0	-15	0
	Brendean Dr East	L	5	5	A	3	4	A	-2	-1	4	8	A	-1	3	3	7	A	0	2	-1	-1
		R	41	16	C	50	18	C	9	2	30	15	B	-11	-1	36	15	B	-14	-3	7	0
	East Appr Total		46	16	C	54	18	C	8	2	34	15	B	-13	-1	39	15	B	-15	-3	6	0
	Lincoln Rolleston Rd South	T	509	2	A	505	2	A	-4	0	539	2	A	30	0	527	2	A	22	0	-12	0
		R	17	6	A	19	5	A	2	-1	18	4	A	1	-2	18	6	A	-1	1	1	2
	South Appr Total		526	6	A	524	5	A	-2	-1	556	4	A	30	-2	545	6	A	21	1	-12	2
	Intersection Total		1,044	16	C	1,035	18	C	-8	2	1,062	15	B	18	-1	1,041	15	B	5	-3	-21	0
Lincoln Rolleston Rd & Edmund Hillary Dr	Lincoln Rolleston Rd North	L	37	4	A	38	4	A	2	0	48	4	A	11	0	47	4	A	9	0	-1	1
		T	316	5	A	295	4	A	-21	0	316	5	A	1	0	297	5	A	2	0	-20	0
		R	94	4	A	97	5	A	2	0	90	5	A	-4	0	90	5	A	-7	1	0	0
	North Appr Total		447	4	A	429	4	A	-17	0	454	5	A	7	0	433	5	A	4	0	-21	0
	Edmund Hillary Dr East	L	1	4	A	1	8	A	0	3	1	3	A	0	-2	1	1	A	0	-6	0	-1
		T	255	9	A	277	9	A	22	0	224	9	A	-31	-1	236	8	A	-41	-1	12	0
		R	255	9	A	277	9	A	22	0	27	7	A	-228	-2	27	7	A	-250	-2	0	0
	East Appr Total		511	9	A	555	9	A	44	0	252	9	A	-259	-1	264	8	A	-291	-1	12	0
	Lincoln Rolleston Rd South	L	159	12	B	150	14	B	-9	2	163	11	B	4	-1	163	12	B	14	-2	0	1
		T	400	13	B	388	15	B	-12	3	414	11	B	14	-1	408	12	B	21	-3	-5	1
		R	5	7	A	7	13	B	2	6	5	5	A	0	-2	5	8	A	-2	-5	0	2
	South Appr Total		563	12	B	544	15	B	-19	3	582	11	B	18	-1	577	12	B	33	-3	-5	1
	Edmund Hillary Dr West	L	95	7	A	96	8	A	1	0	99	9	A	5	2	96	8	A	0	0	-3	-1
		T	114	7	A	118	7	A	4	0	103	9	A	-11	1	124	8	A	7	1	22	0
		R	106	7	A	114	7	A	7	0	118	8	A	12	1	122	8	A	8	1	3	0
	West Appr Total		315	7	A	327	7	A	12	0	320	9	A	5	1	342	8	A	15	1	22	0
	Intersection Total		1,835	9	A	1,855	9	A	19	1	1,607	8	A	-228	0	1,616	9	A	-239	-1	8	0

2040 PM Peak

Intersection			Base (No Development)								With Development												
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control		Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout			
			Approach	Movement	Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff
Lincoln Rolleston Rd & Lady Issac Dr	Lincoln Rolleston Rd North	L	69	3	A	76	3	A	7	0	78	3	A	9	0	80	2	A	4	0	2	0	
		T	335	3	A	315	3	A	-20	0	341	3	A	7	0	323	3	A	9	0	-18	0	
		R	23	2	A	20	2	A	-4	0	21	2	A	-2	0	19	2	A	-1	0	-2	0	
	North Appr Total			427	3	A	410	3	A	-17	0	440	3	A	13	0	423	3	A	12	0	-18	0
	Lady Issac Dr East	L	21	4	A	24	3	A	3	-1	18	5	A	-3	0	20	4	A	-4	1	2	0	
		T	107	4	A	114	4	A	8	0	121	6	A	15	1	125	4	A	10	1	3	-1	
		R	44	5	A	47	4	A	3	0	47	5	A	3	0	49	5	A	2	1	1	0	
	East Appr Total			172	5	A	185	4	A	13	0	187	5	A	15	1	193	5	A	8	0	6	-1
	Lincoln Rolleston Rd South	L	41	4	A	41	3	A	0	0	39	4	A	-2	0	42	4	A	1	0	3	0	
		T	498	5	A	476	5	A	-22	0	514	4	A	16	0	508	5	A	32	0	-6	0	
		R	22	4	A	23	4	A	1	-1	16	4	A	-6	0	18	5	A	-5	1	2	1	
	South Appr Total			560	5	A	539	5	A	-22	0	568	4	A	8	0	567	5	A	28	0	-1	0
	Lady Issac Dr West	L	21	9	A	22	7	A	1	-2	21	6	A	0	-3	22	7	A	-1	0	1	1	
		T	21	9	A	22	7	A	1	-2	66	7	A	45	-1	74	7	A	51	0	8	0	
		R	21	9	A	22	7	A	1	-2	24	7	A	3	-2	21	7	A	-1	1	-3	1	
	West Appr Total			63	9	A	67	7	A	4	-2	110	7	A	47	-2	116	7	A	50	0	6	0
	Intersection Total			1,222	9	A	1,201	7	A	-21	-2	1,306	4	A	84	-4	1,299	4	A	98	-2	-7	0
Weedons Rd & Brendean Dr	Weedons Rd North	T	491	5	A	554	5	A	63	0	487	5	A	-4	0	526	5	A	-28	0	39	0	
		R	130	6	A	150	6	A	20	0	144	5	A	13	0	167	7	A	18	1	24	1	
	North Appr Total			621	6	A	704	6	A	83	0	631	5	A	9	0	693	7	A	-11	1	62	1
	Weedons Rd South	L	24	1	A	25	1	A	1	0	25	1	A	1	0	25	1	A	0	0	0	0	
		T	183	2	A	205	2	A	22	0	194	2	A	11	0	223	2	A	18	0	29	0	
	South Appr Total			207	2	A	230	2	A	23	0	220	2	A	13	0	248	2	A	18	0	29	0
	Brendean Dr West	L	42	2	A	57	2	A	14	0	44	3	A	1	0	56	3	A	-1	0	12	0	
		R	3	9	A	2	11	B	-1	2	4	6	A	0	-3	3	7	A	1	-5	-1	1	
	West Appr Total			46	9	A	59	11	B	13	2	47	6	A	2	-3	58	7	A	0	-5	11	1
Intersection Total			874	9	A	992	11	B	119	2	897	6	A	23	-3	1,000	7	A	7	-5	102	1	
Weedons Rd & Edmund Hillary Dr	Weedons Rd North	T	268	1	A	301	1	A	32	0	302	1	A	33	0	333	1	A	32	0	31	0	
		R	232	2	A	259	2	A	28	0	193	1	A	-38	0	202	2	A	-57	0	9	0	
	North Appr Total			500	2	A	560	2	A	60	0	495	1	A	-5	0	536	2	A	-25	0	40	0
	Weedons Rd South	L	32	1	A	44	1	A	11	0	20	1	A	-12	1	21	1	A	-22	0	1	0	
		T	175	2	A	191	2	A	16	0	174	2	A	-1	0	191	2	A	0	0	17	0	
	South Appr Total			207	2	A	234	2	A	27	0	194	2	A	-13	0	212	2	A	-22	0	18	0
	Ed Hillary Dr West	L	28	2	A	33	2	A	6	0	16	3	A	-12	1	22	3	A	-12	1	6	0	
		R	10	8	A	11	8	A	1	0	3	10	A	-6	3	4	6	A	-7	-2	1	-4	
	West Appr Total			37	8	A	44	8	A	7	0	19	10	A	-18	3	25	6	A	-19	-2	6	-4
Intersection Total			745	8	A	839	8	A	94	0	708	10	A	-36	3	773	6	A	-65	-2	65	-4	
Weedons Rd & Lady Issac Dr	Weedons Rd North	T	138	3	A	165	3	A	27	0	155	3	A	17	-1	181	3	A	17	-1	26	0	
		R	144	2	A	149	3	A	6	1	141	3	A	-3	0	146	3	A	-3	0	5	0	
	North Appr Total			282	3	A	314	3	A	32	0	296	3	A	14	-1	328	3	A	14	0	32	0
	Weedons Rd South	L	17	1	A	16	1	A	-1	0	16	1	A	-1	0	16	1	A	0	0	0	0	
		T	167	2	A	187	2	A	19	0	180	1	A	13	0	189	1	A	3	0	9	0	
	South Appr Total			185	2	A	203	2	A	18	0	196	1	A	12	0	205	1	A	3	0	9	0
	Lady Isaac Drive West	L	30	3	A	36	3	A	6	0	20	2	A	-10	0	27	3	A	-9	0	7	0	
		R	2	6	A	2	7	A	0	1	3	6	A	0	0	3	5	A	1	-2	0	-1	
	West Appr Total			33	6	A	39	7	A	6	1	23	6	A	-10	0	30	5	A	-9	-2	7	-1
Intersection Total			499	6	A	555	7	A	56	1	515	6	A	17	0	563	5	A	8	-2	48	-1	

2040 PM Peak

Intersection			Base (No Development)								With Development											
			Levi / Weedons - Existing Sign Control			Levi / Weedons - Roundabout			Change due to installing roundabout		Levi / Weedons - Existing Sign Control			Change due to Development		Levi / Weedons - Roundabout			Change due to Development		Change due to installing roundabout	
	Approach	Movement	Vol	Delay	LOS	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol	Delay	LOS	Vol Diff	Delay Diff	Vol Diff	Delay Diff
Weedons Rd & Site 1 New Road	Weedons Rd North	T							0	0	296	2	A			328	2	A				
		R							0	0	13	2	A			13	2	A				
	North Appr Total								0	0	309	2	A			340	2	A				
	Weedons Rd South	L							0	0	13	0	A			13	0	A				
		T							0	0	194	1	A			212	1	A				
	South Appr Total								0	0	208	1	A			226	1	A				
	Site 1 New Road West	L							0	0	14	1	A			17	1	A				
		R							0	0	7	3	A			6	3	A				
	West Appr Total								0	0	21	3	A			22	3	A				
Intersection Total									0	0	537	3	A	588	3	A						
Weedons & Site 2 DEV-RO17 Collector	Weedons Rd North	T							0	0	143	1	A			165	1	A			21	0
		R							0	0	26	1	A			29	1	A			3	0
	North Appr Total								0	0	169	1	A			194	1	A			25	0
	Weedons Rd South	L							0	0	30	0	A			34	0	A			4	0
		T							0	0	178	1	A			184	1	A			6	0
	South Appr Total								0	0	208	1	A			218	1	A			10	0
	DEV-RO17 Collector West	L							0	0	4	0	A			5	1	A			1	0
		R							0	0	5	2	A			5	3	A			0	1
	West Appr Total									0	0	9	2			A	10	3			A	1
Intersection Total									0	0	385	2	A	421	3	A	36	1				

Reference: YourSection Weedons Road Plan Change

ATTACHMENT 3: Revised ODP Diagrams



— Outline development plan area

— Indicative road

— Indicative cycle/pedestrian path

Medium Density Residential Zone



Indicative Reserve (size to be determined at time of subdivision)



WEEDONS ROAD PLAN CHANGE - SITE 1

DATE: 24 July 2025



- Outline development plan area
- Indicative road
- Indicative cycle/pedestrian path

- Medium Density Residential Zone
- Indicative Reserve (size to be determined at time of subdivision)



WEEDONS ROAD PLAN CHANGE - SITE 2
DATE: 24 July 2025