

BEFORE INDEPENDENT HEARINGS COMMISSIONER AT SELWYN

IN THE MATTER OF

Clause 21 of the First Schedule of
the Resource Management Act 1991
(Plan Change 75)

AND

IN THE MATTER OF

YOURSECTION LIMITED
(Applicant)

**STATEMENT OF EVIDENCE OF ANDREW ALAN METHERELL ON
BEHALF OF YOURSECTION LIMITED**

Dated: 18 October 2021

INTRODUCTION

- 1 My full name is Andrew Alan Metherell. I am a Chartered Professional Engineer, a Chartered Member of Engineering New Zealand, and am included on the International Professional Engineers Register. I hold a Bachelor of Engineering (Civil) with Honours degree from the University of Canterbury. I am also an Associate Member of the New Zealand Planning Institute.
- 2 I have more than twenty years' experience, practising as a traffic engineering and transportation planning specialist based in Christchurch. I am currently employed as the Christchurch Traffic Engineering Team Leader at Stantec New Zealand (Stantec), a global multi-disciplinary engineering consultancy. In this role I am responsible for providing transport engineering advice, assessment and design for a wide range of activities.
- 3 I have had extensive experience providing transportation engineering advice and assessment for land development projects in the greater Christchurch area. Relevant to this project I am regularly involved with the planning, assessment and design of the transport networks for residential growth areas.
- 4 Within Rolleston and other Selwyn townships, I have carried out transportation assessment and transport design for numerous developments including:
 - (a) The Falcons Landing subdivision;
 - (b) The Special Housing Area subdivision (now Acland Park) on the eastern side of Springston Rolleston Road;
 - (c) Various other residential subdivisions throughout Rolleston including Levi Park and Devon Park;
 - (d) Several Selwyn District Plan residential plan changes including PC2, PC3, PC8&9, PC59 and PC67;
 - (e) The Foster Park Notice of Requirement, and Selwyn Aquatic Centre; and
 - (f) The Rolleston Christian School resource consent.
- 5 I am familiar with the application by Yoursection Ltd (the Applicant) for a plan change to rezone approximately 24ha of Inner Plains zoned land in the south-east of Rolleston to Living Z (the Application).
- 6 I was part of the Stantec team that prepared the Integrated Transport Assessment (ITA), dated 9 February 2021 and submitted with the Application.

CODE OF CONDUCT

- 7 Whilst this is a Council hearing, I acknowledge that I have read and agree to comply with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2014. My qualifications as an expert are set out above. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

SCOPE OF EVIDENCE

- 8 My evidence contains the following:
- (a) A summary of the existing transport environment description from the ITA with any relevant updates;
 - (b) A summarised description of the future environment surrounding the site, also largely from the ITA;
 - (c) Assessment of the proposed PC75 and Outline Development Plan, including the proposed roading connectivity, public transport and active mode travel provision and traffic effects;
 - (d) A summary of the ITA assessment against relevant planning objectives and policies; and
 - (e) Responses to the section 42A report.
- 9 I note that the ITA submitted with the Plan Change request referenced an ODP that has subsequently been replaced by the Applicant in response to submissions. My evidence addresses the changes made.
- 10 In preparing this evidence, I have read and considered the following documents:
- (a) The Application;
 - (b) Submissions lodged in relation to the Application;
 - (c) Selwyn District Long Term Plan 2021-2031;
 - (d) Canterbury Regional Public Transport Plan 2018;
 - (e) Relevant provisions of the operative Selwyn District Plan;
 - (f) Relevant provisions of the Canterbury Regional Policy Statement;
 - (g) The National Policy Statement Urban Development 2020; and
 - (h) The Officer's s42A Report.

EXECUTIVE SUMMARY

- 11 PC75 will enable residential development in a part of Rolleston where residential development has been anticipated and planned for in terms of transport infrastructure. It is located adjacent to the arterial Lincoln Rolleston Road which provides good connections for movement to the Rolleston town centre, industrial area, and options for connections to the east via either SH1 or Selwyn Road.
- 12 Development of PC75 would enable a new east-west Primary Road which enables completion of a further portion of the CRETS Collector Road that has been an integral part of the road network development in the south of Rolleston. The road provides important east-west connectivity through the township.
- 13 Connections to the Falcons Landing subdivision to the north are available for local connectivity with other residential neighbourhoods, and the adjacent PC78 land can also be integrated with from a transport perspective.
- 14 The Outline Development Plan revised in response to Council Officer recommendations provides further certainty that a connected local road and cycle network will be achieved that integrates with the surrounding transport network. Additional local roads are shown, including a secondary connection to Lincoln Rolleston Road and realignment of a north-south Secondary Road to better connect between the east-west Primary Roads. Pedestrians will be provisioned for on roads in accordance with District Plan rules. The transport network proposed will allow connectivity with public transport routes as they evolve.
- 15 The ITA assessment of road network performance aligns well with the additional modelling assessment set out in the Council Officer report. Essentially, I consider the analysis demonstrates that the additional traffic generated by PC75 can be accommodated efficiently in the planned road network.
- 16 In the short term, completion of the CRETS Collector Road as far east as Lincoln Rolleston Road will reduce pressure on other roads as more efficient routes can be taken by drivers from other parts of Rolleston. This provides a community wide benefit. In the medium term, the Council 2033 model shows that the PC75 will only contribute up to 1.7% of traffic, and generally less, to important intersections in the wider area. I consider the rezoning would not materially affect the timing of any upgrades being planned by Council.
- 17 At a local level, I disagree with the Council Officer recommendation that the intersection of the east- west Primary Road with Lincoln Rolleston Road must be a roundabout. My analysis demonstrates that a standard priority controlled intersection, as is provided at other intersections on Lincoln Rolleston Road, can accommodate future traffic volumes with acceptable delay.
- 18 In the medium term, a case for a roundabout will likely exist given the increasing right turn movements from the Primary Road into Lincoln

Rolleston Road. However, this will be when, or after, all of potentially zoned (i.e. land subject to Plan Changes) development in Rolleston is built out, and is beyond the timeframe of the District Plan.

- 19 In my opinion, a roundabout intersection is required to be centred on Lincoln Rolleston Road for land efficiency and safety reasons, and in anticipation of long term development on the eastern side of Lincoln Rolleston Road. This requires land that is not owned by the applicant and it would be inappropriate to require construction of the roundabout as part of the PC75 development.
- 20 The medium term contribution of PC75 to the critical turning volumes will only be approximately 14%, with existing and other future developments contributing the remainder. In my opinion, this demonstrates that the upgrade to a roundabout is a matter for planning through the Long Term Plan process. To ensure that can occur with minimal constraint, the expectation is that the subdivision of PC75 land will provide land for a future roundabout, and that is reason to retain the "possible future roundabout" notation on the ODP.
- 21 In my opinion, PC75 will enable logical and planned expansion of the southern Rolleston residential area with a suitable level of integration with existing and future transport networks.

EXISTING TRANSPORT ENVIRONMENT

- 22 The ITA contains a thorough description of the existing transport environment around the site. I provide a brief summary of the key points below.

Site Location

- 23 Figure 1 shows the site is in the south-east of Rolleston, on the south-western side of Lincoln Rolleston Road and immediately south of the Falcons Landing subdivision.
- 24 Acland Park is a recently developed residential development south-west of the site which fronts Springston Rolleston Road.

Existing Road Network

- 25 The site fronts Lincoln Rolleston Road which is an arterial road. It connects Rolleston to Selwyn Road, which continues on towards as a key access route from Rolleston to the south-west of Christchurch. The road has a rural formation and an 80km/h speed limit past the site. It has been upgraded with kerb and channel, a parking lane and a shared pedestrian / cycle path adjacent to Falcon's Landing to the north-west. Lincoln Rolleston Road carries approximately 6,000 vehicles per day (vpd) past the site.
- 26 Ed Hillary Drive is the main road into Acland Park and has a wide formation consistent with an urban collector road. The road has

historically been referred to as the "CRETS Collector Road¹" extending across Rolleston. I have included a diagram as **Attachment A** indicating the current status of the various sections of the road.

- 27 Ed Hillary Drive continues to the north-eastern corner of the Acland Park development, and is currently being extended further through a portion of the southern section of Falcon's Landing. I have been advised by Yoursection Limited that the next section of land between PC75 and Falcons Landing is about to be developed by a neighbouring landowner, and that will bring the road up to the PC75 boundary. At that point the road will not be able to extend much further to the east until such time as land subject to the PC75 zoning request is developed. With current zoning, the eastern end of the CRETS Collector Road would effectively be a cul-de-sac unless PC75 is approved and the land developed.
- 28 Raptor Street is a local road within Falcon's Landing which continues to the boundary between that development and the PC75 site. Adjacent to the northern edge of the PC75 site is Saker Place and Flight Close, short linked cul de sacs connected by a reserve providing for walking and cycling permeability.

Public Transport

- 29 **Figure 2** shows the existing bus services in Rolleston, which remain unchanged since the preparation of the ITA. The 5 Rolleston / New Brighton service runs between Rolleston and New Brighton approximately half hourly through the day with more frequent and express services running during commuter times. The 820 Burnham / Lincoln via Rolleston service runs through southern parts of Rolleston, including Acland Park and Faringdon. This service runs hourly throughout the day.

Provision for Active Travel Modes

- 30 The Rolleston to Lincoln cycleway runs along Lincoln Rolleston Road as an off road path adjacent to the site. Further north in the urbanised section of road, it has been integrated into a wider 2.5m shared footpath/cycleway.
- 31 Subdivision roads in the area are being developed with footpaths to Council standards. The cycleway along Lincoln Rolleston Road also provides for pedestrians.

¹ The road was outlined in the Christchurch Rolleston and Environs Study, 2007



Figure 1: Site Location in Context of Rolleston

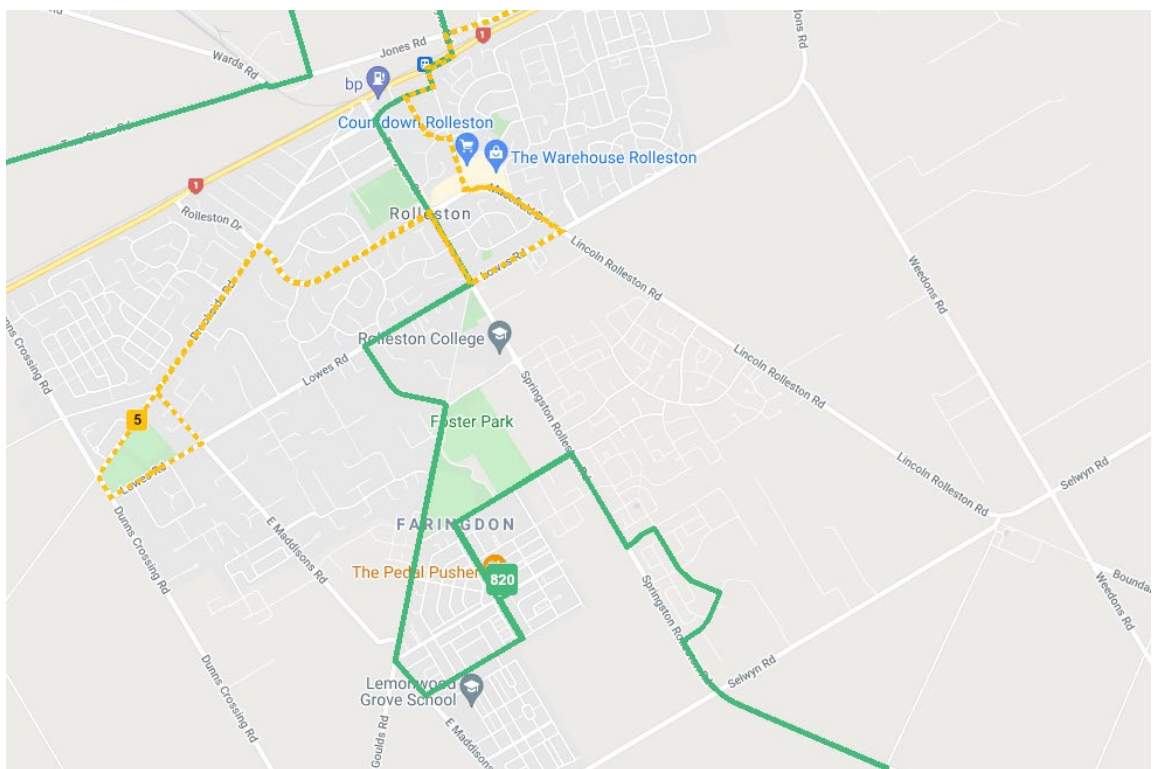


Figure 2: Public Transport Routes in Rolleston

Road Safety

- 32 The ITA includes a thorough review of reported crashes in the vicinity of the site for the full five-year period of June 2015 to June 2020.
- 33 I carried out an updated crash search on 5 October 2021. Three further crashes have been recorded on Lincoln Rolleston Road between Selwyn Road and Levi Road since June 2020.
- 34 One was a minor-injury crash at 5am in the morning which involved a driver crashing through the Lincoln Rolleston Road / Levi Road roundabout. The cause of the crash is unknown although alcohol was suspected.
- 35 The other two crashes were non-injury crashes. In one, a driver distracted by their phone crashed into the rear of a stationary vehicle. In the other, an inexperienced driver turned right out of Selwyn Road and then crossed onto the wrong side of the centreline and had a head-on crash. Both occurred late at night.
- 36 Having considered the previous injury crash patterns, I consider that the three most recent crashes are largely isolated incidents although the non-injury crash at Lincoln Rolleston Road / Selwyn Road continues a trend of occasional crashes.
- 37 Overall, the type of crash appears to be changing from the previously prevalent loss of control crash type as traffic increases and speeds reduce.

FUTURE TRANSPORT NETWORK

- 38 The ITA provides background on the Christchurch Rolleston and Environs Transportation Study (CRETS) east-west collector road between Dunns Crossing Road and Weedons Road. The road was planned as a key component of the road network in the southern part of Rolleston enabling efficient and legible distribution of traffic to the arterials that it bisects. Each of the land areas rezoned in the vicinity of the route outlined by CRETS have made allowance for the road in their road network.
- 39 This has seen the CRETS road largely completed to the west as far as Goulds Road through Shillingford Boulevard in Faringdon and Ed Hillary Drive in Acland Park. With further recent extensions underway or planned immediately west of the PC75 area, the completion of the CRETS Road to Lincoln Rolleston Road is reliant on PC75 approval. Extending Ed Hillary Drive through the site would provide the urban zoning that would allow the road to be completed eastwards to Lincoln Rolleston Road as subdivision occurs. At the western side of Rolleston, proposed residential rezoning as part of PC70 has also proposed an ODP that would complete the road link at its western end through to Dunns Crossing Road.

- 40 The ITA highlights that the site sits within the Rolleston Structure Plan area for future growth, it sits just outside the Regional Policy Statement Greenfield Priority Area but within a Map A Future Development Area, and it is within the Our Space 2018-2048 Future Development Area.
- 41 The land to the south of the site is subject to Plan Change 78 (PC78), which seeks to have it re-zoned for residential use.
- 42 The Selwyn District Long Term Plan 2021-2031 includes a table (Appendix 1) of projects where development projects will make some development contributions to improvements. Projects in the vicinity or of direct relevance in the next 10 year period include improvements to:
- (a) Lincoln Rolleston Road / Levi Road / Masefield Drive intersection
 - (b) Selwyn Road / Weedons Road roundabout
 - (c) Lincoln Rolleston Road / Selwyn Road Intersection upgrade
 - (d) Relocation of the Rolleston Park n Ride
 - (e) Park n Ride formalisation at Foster Park
 - (f) Rolleston bus stop improvements.
- 43 The Canterbury Regional Public Transport Plan (RPTP) includes the following figure titled 'Selwyn district public transport interventions'. It suggests that there could be public transport services within Rolleston in the future to improve accessibility throughout the town.

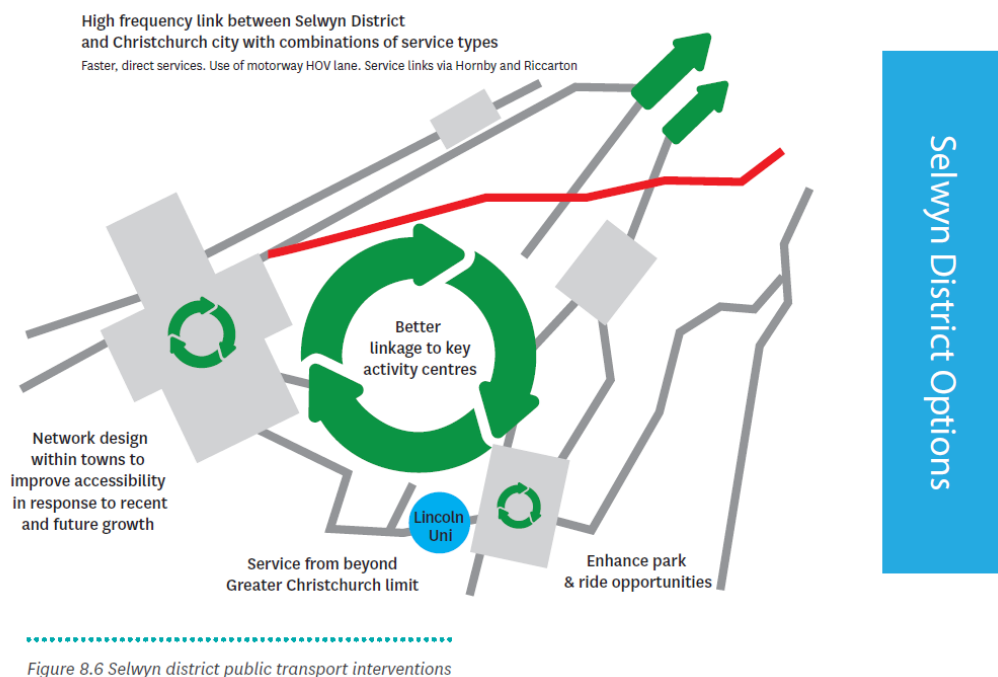


Figure 3: Selwyn District Public Transport Interventions (RPTP)

- 44 RPTP Policy 1.12 'Services to areas of new development' is to:

Enable timely and cost effective public transport service provision to new areas of urban development, in accordance with the following criteria:

- a) The planned eventual size of the development will support the provision of public transport services;*
 - b) Provision of service is supported by the residents;*
 - c) Cost, patronage and revenue projections indicate that the service will be financially viable in the long term; and*
 - d) The infrastructure is in place to support the service provision.*
- 45 This indicates that services are reviewed on a regular basis to respond to changes in land use. As described in the evidence of Mr Collins, I understand the Selwyn District Council transport team work closely with Environment Canterbury around the demand for services.

ASSESSMENT OF PROPOSED PLAN CHANGE

Overview of Proposed Plan Change

- 46 Proposed Plan Change 75 will allow for an additional approximately 280 residential lots to be developed in the south-east of Rolleston. An Outline Development Plan (ODP) has been prepared for the site, and this has been updated by the Applicant in response to issues raised in the Section 42a Report.

Primary Road

- 47 The ODP provides an east-west Primary Road, which is on the alignment of the CRETS Collector road I described earlier. This extends from Lincoln Rolleston Road to the western boundary of the site. It is planned that this would connect to an extension of Ed Hillary Drive. If other Plan Changes on the western side of Rolleston are also approved, this will facilitate completion of the collector road between Lincoln Rolleston Road and Dunns Crossing Road. As outlined in the ITA and touched on later, this will provide a range of benefits for the southern part of Rolleston. Submitter Loeffler has highlighted the benefit of completing this connection in his submission.
- 48 The cross-section of the new section of collector road would be agreed at the subdivision design stage, subject to assessment against District Plan rules which set requirements for new roads.
- 49 As outlined in the ITA, the location of the new intersection on Lincoln Rolleston Road has been selected to balance separation from Saker Place as well as existing residential accesses on the opposite side of the road. The traffic modelling carried out and reported on in the ITA indicates that the collector road intersection on Lincoln Rolleston Road will initially be able to operate safely and efficiently as a priority-control T-intersection.

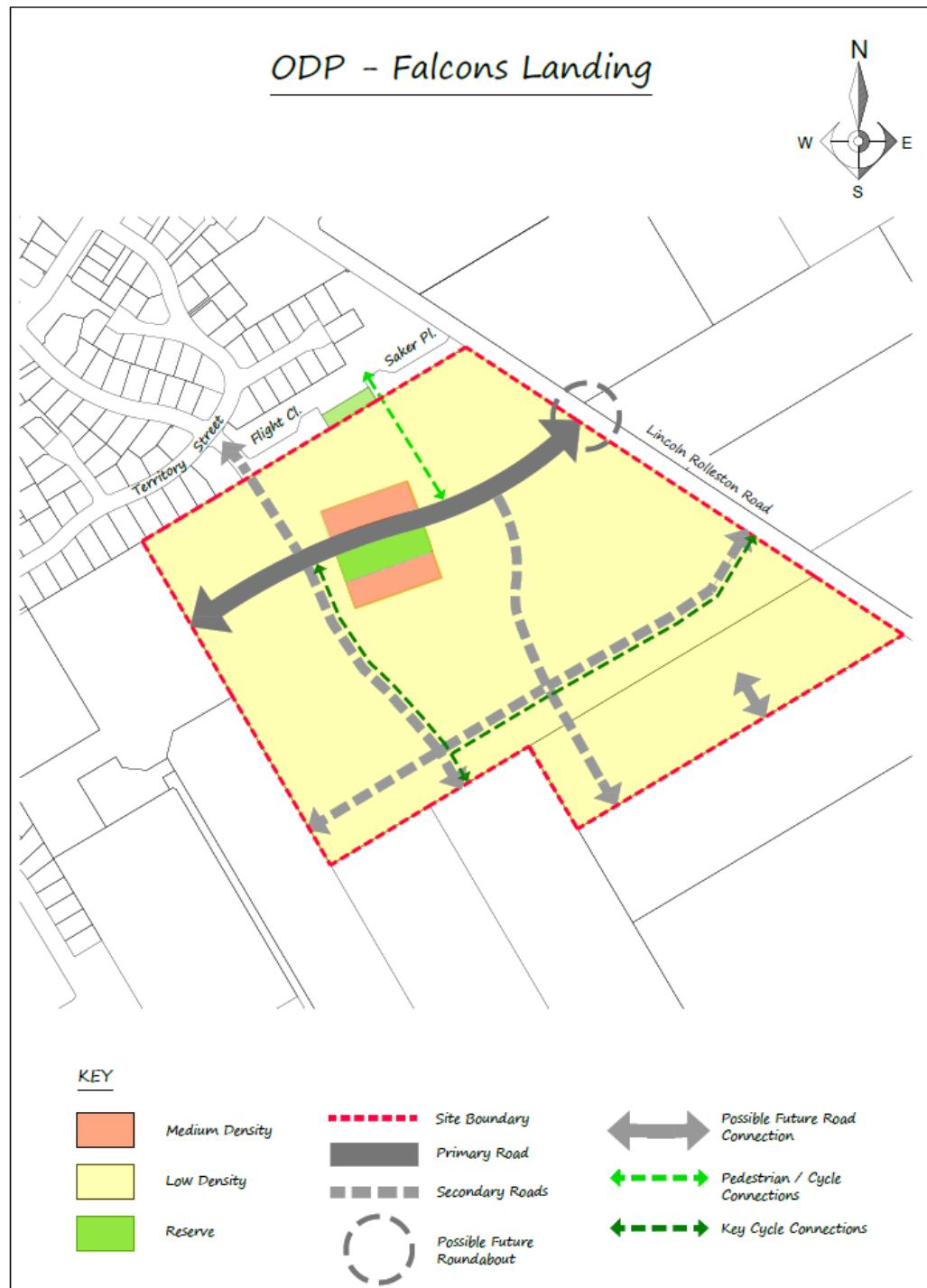


Figure 4: Revised ODP

- 50 The notation for the intersection has been modified to "Possible Future Roundabout" to ensure land provision is made for a future roundabout to be developed by Council as part of a future capital programme, or to support land development east of Lincoln Rolleston Road.

Local Road Connectivity

- 51 The ODP indicates a local road connection to Raptor Street which already extends to the site boundary. A second road link has been provided to

Lincoln Rolleston Road in response to the Council report, which adds some dispersal of traffic on the road network, and supports a cycle link through the site. Four other local road connections are indicated to the PC78 area generally to the south of the site.

- 52 I consider that these local road connections will ensure a good level of connectivity and integration for local trip making throughout this part of Rolleston.

Public Transport Provision

- 53 As I highlighted earlier, the RPTP indicates a desire to improve public transport accessibility within Rolleston in response to recent and future growth. I consider that the size of the planned wider residential area, including Falcon's Landing to the north, the PC78 area to the south and Acland Park to the west, will support the provision of public transport services under Policy 1.12.
- 54 As well as a suitably large catchment and expected patronage, the policy outlines that infrastructure needs to be in place to support the service provision.
- 55 The ODP does not include any specific public-transport related provision however the collector road will be suitable for a future bus route. Lincoln Rolleston Road, as an arterial road, could accommodate a future bus service.
- 56 The Christchurch City Council submission on PC75 requested that a funded and implemented public transport system be in place prior to any residential development in the site. This is not how Environment Canterbury provide their bus services and I consider this request to be unrealistic.
- 57 Bus services are provided in response to demand. As outlined in Policy 1.12 of the RPTP, they will aim to provide a timely service but it needs to be in response to demand. I note that the 820 service has been provided through Acland Park at quite an early stage of the development of that area. Provided there is an appropriate route through the site, there would be no reason a bus service could not be provided through the PC75 site at a similarly early stage of development. This could possibly be in the form of a new route connecting the southern part of Rolleston to the town centre. The completion of the collector road from Lincoln Rolleston Road to Goulds Road (or further west) could help to facilitate such a service.
- 58 The Environment Canterbury submission mentions integrated transport options that would encourage uptake of existing services. The existing 820 service runs through Acland Park approximately 800m+ from the site. Development of the site will provide consolidated and connected development and provide options for improved future public transport to service the southern part of Rolleston to enable shorter "accessible" walk distances to be achieved at this location. I consider that these are positive outcomes. In the interim, with a connected road network and with paths set out in the ODP, with increasing use of micro-mobility such

as e-scooters there is still opportunity to make use of existing bus services beyond the standard “accessibility” walk distance of 400m – 500m.

- 59 To summarise, I consider that residential development of the site, including the collector road connection to Lincoln Rolleston Road, will afford Environment Canterbury an opportunity to better provide for public transport accessibility through the southern part of Rolleston. The subdivision roads, particularly the collector road, will be able to accommodate bus services.

Active Travel Mode Provision

- 60 The ODP shows the road and pedestrian / cycle connections within and at the boundaries of the site into adjacent land. These will support connections to local facilities and destinations such as the Lincoln Rolleston Road cycleway and the new Rolleston East Primary School (in combination with PC78). A connection to Saker Place is also proposed. Pedestrians and cyclists will otherwise be well catered to within all roading corridors as required by SDC roading standards.
- 61 The site is conveniently located relative to the Rolleston to Lincoln cycleway along Lincoln Rolleston Road. As with other subdivision development that has occurred adjacent to the cycleway, I would expect that the cycleway will be urbanised as part of the subdivision development to integrate with a modified road layout.
- 62 I have included as **Attachment B** a plan showing the built network of shared paths in the surrounding area, the revised connections for the PC75 cycle network, and integration with PC78 based on Council Officer recommendations.
- 63 I consider that the proposed pedestrian / cycle connections indicated on the revised ODP are appropriate and good connectivity and accessibility will be provided for pedestrians and cyclists through these as well as provisions within road corridors and connection to the Rolleston to Lincoln cycleway.

Wider Traffic Effects

- 64 I had Stantec traffic modellers carry out a traffic modelling exercise which is described in depth in the ITA.
- 65 The modelling indicates that the connection of the CRETS collector road will provide a more efficient route for some people beyond the PC75 site which will have the benefit of removing traffic from local roads, e.g. those in Falcons Landing. It will also relieve some pressure on the parallel route of Selwyn Road and its intersection with Lincoln Rolleston Road which could have safety benefits.
- 66 2028 and 2048 scenarios were modelled as reported in the ITA. The new intersection on Lincoln Rolleston Road and the nearby Lincoln Rolleston Road / Selwyn Road intersections are forecast to operate with good levels of service in 2028. In 2048, long-term traffic growth could

see increased delays for some movements at these intersections. However, I conclude that the surrounding arterial road network can accommodate the additional traffic that could be generated by a residential development on the site and the timing of any required upgrades as anticipated by the Long Term Plan would not be noticeably impacted by the development.

- 66.1 The Council Officer report presents an analysis of the transport network at 2033 if all of the Operative District Plan Change areas requested at the time of report preparation were approved and fully developed. Whilst I comment on that assessment later in my response to the Officer Report, I note that the assessment confirms that the road network surrounding the site can accommodate those fully developed land areas with projects that can reasonably be included in the Long Term Plan process, if they have not already.
- 67 The Christchurch City Council raised concerns with increased traffic volumes on Christchurch roads and greenhouse gas emissions resulting from PC75. The site is part of a future development area agreed by the Greater Christchurch Partnership and so I consider these concerns are not especially relevant. From a transport perspective I consider the site to be a logical extension of the Rolleston residential area. When considered alongside other current Plan Change requests and existing development, I consider it will provide a consolidated and connected residential area with the benefit of also supporting connectivity in a higher order road network.
- 68 The design of the subdivision will be able to ensure public transport can be accommodated as Environment Canterbury's services adapt to growth in Rolleston. Also, pedestrian and cycle connections to the surrounding areas will provide alternative options to private car travel, particularly for closer destinations such as the new primary school in Acland Park and neighbourhood facilities. The Rolleston to Lincoln cycleway will provide options for travel further afield.

PLANNING CONTEXT

- 69 The ITA includes assessment of the Application against relevant transport-related operative District Plan and Regional Policy Statement objectives and policies.
- 70 This assessment showed that the Plan Change will be consistent with the District Plan 'Transport Network' and 'Growth of Township' objectives and policies as well as the similarly themed Regional Policy Statement policies of Chapters 5 and 6.
- 71 The additional traffic that could be generated by the site will be able to be accommodated on the wider road network and is being planned for through longer-term traffic forecasting and infrastructure plans of the Council. The function of the arterial road network will be protected with the new intersection on Lincoln Rolleston Road able to operate safely and efficiently.

- 72 As I have outlined, the rezoning will allow for the CRETS Collector Road to be completed between Lincoln Rolleston Road and immediately east of Goulds Road, and by the time of subdivision most likely also much further west. This road has been identified and incorporated into planning of the Rolleston road network for almost 15 years. In my opinion, completion through to Lincoln Rolleston Road will add a lot to the legibility and efficiency of the road network in the southeastern part of Rolleston. This will in my opinion open further opportunities for public transport routing to a larger residential catchment area than would otherwise be feasible. As such the road will benefit the wider area in a number of ways.
- 73 Good connectivity to the surrounding areas and land uses will be achieved providing options for non-car travel, particularly to nearby activities such as the primary school and neighbourhood centres.
- 74 The consolidation of residential development in southern Rolleston could assist the viability of a public transport route through Rolleston and the subdivision roading design will be able to ensure buses can be accommodated as appropriate.

RESPONSE TO ISSUES RAISED BY SUBMITTERS

- 75 I have reviewed the submissions on PC75 and endeavoured to respond to these throughout my evidence to avoid repetition here. The most comprehensive submissions related to transportation were those from CCC and ECan and I have responded to these where relevant.
- 76 Submitter Greenfield raised general concerns with traffic pressures and cited the car parking provision at the aquatic centre being under pressure at times. The transport environment has been seeing rapid change due to growth, and the forward planning by Council through the use of traffic modelling and provisions in the Long Term Plan, combined with Waka Kotahi projects associated with Rolleston access will enable the road network to operate at an acceptable level of service into the future, as described in more detail in the ITA. The concerns with car park provision at the Aquatic Centre are beyond the scope of this Plan Change request.

MON Group - Neighbourhood Centre

- 77 Novo Group provided a transport assessment for the MON Group submission to include a neighbourhood centre within the PC75 site. This assessment concluded that any extra traffic that could be generated by the neighbourhood centre could be accommodated on the road network.
- 77.1 I note that the assessed level of traffic generation appears to be low for a small scale shopping centre with NZTA research report 453 (Trips and parking relating to land use) indicating a high degree of variability in peak period trip rates generally between approximately 12 and 25 vehicles per hour (vph) per 100m² GFA. In comparison, the Novo Group assessment adopted a forecast of approximately 9vph per 100m² GFA.

- 77.2 The actual traffic generation will depend on the services available, and local competition. As a convenient neighbourhood centre for arterial movements from Christchurch into Rolleston via the Selwyn Road – Lincoln Rolleston Road route, I would expect there is the potential for a high level of pass-by traffic if there is convenience shopping. That traffic would already be on the road network and simply adds to access and local intersection movements. Other traffic generation is likely to be from a local catchment predominantly via the collector and local road network. These movements would generally reduce the need for longer distance trips elsewhere in the road network, and provide for increased opportunity to access local services by walking and cycling. As such a centre should only lead to a localised need for assessment of traffic effects.
- 78 Whilst the general location near the Lincoln Rolleston Road / Collector Road intersection appears reasonable from a transport perspective, and can produce some positive transport outcomes for the local community, the detailed position also warrants a more site specific transport assessment at the time of consenting (as would be required by the District Plan rules). I would expect that to cover the following range of matters:
- (a) Integration of site access and building position with the adjacent Lincoln Rolleston Road / Collector Road intersection both in the interim (which may include a flush median or right turn requirement on Lincoln Rolleston Road) and the future which may include a roundabout and require additional land requirements;
 - (b) Consideration of access movements to ensure efficient and safe access and operation of the Lincoln Rolleston Road intersection;
 - (c) Integration with the Lincoln Rolleston cycleway;
 - (d) Integration with possible future bus services;
 - (e) Ability to safely service the site with heavy vehicles.
- 79 Whilst some of these matters are canvassed in the Novo Group assessment, I anticipate further assessment of transport matters may lead to recommendations for a slightly different layout for the site, particularly to achieve safe access and integration with the transport network.

RESPONSE TO SECTION 42A REPORT

- 80 I have reviewed the section 42a report by Craig Friedel and the accompanying transportation peer review by Matt Collins.
- 81 Broadly, I understand that the Council officers have come to a similar conclusion as myself with regards to:
- (a) the location of development being suitable from a transport perspective in relation to planned urban growth;

- (b) Development facilitating completion of a further planned section of the CRETS link, supporting a more integrated transport network;
 - (c) Development contributing a level of traffic that can be supported by the transport network with negligible change to the timing of intersection changes anticipated by the Long Term Plan.
- 82 The reports include recommendations for inclusion of further detail in the Outline Development Plan which I have considered along with Mr Compton-Moen, Ms Seaton, and Ms Watson.

Outline Development Plan Recommendations

- 83 Yoursection Ltd have proposed a revised ODP that is presented by Ms Seaton and included as Figure 4 above, which I consider addresses most matters in a practical manner. Key features which generally reflect the Council Officer Report recommendations are:
- (a) A realignment of the north-south secondary road to continue the road from PC78 through to the Collector Road. Given the alignment of the road through the PC78 land is as far south as Selwyn Road, it is logical to continue the route to the CRETS Collector Road. Locating the connection south of the Raptor Street connection creates a cross-road intersection and will require some additional traffic engineering consideration and detailing at subdivision stage. I am comfortable a safe layout will be achievable.
 - (b) An extension of the east-west secondary road to Lincoln Rolleston Road. Whilst this would not have been precluded from the notified ODP, it provides additional certainty of the connectivity, and I am comfortable sufficient intersection separation will be available on Lincoln Rolleston Road. The specific position it joins with Lincoln Rolleston Road is to ensure adequate separation from the existing dwelling access on the opposite side of Lincoln Rolleston Road just to the south.
 - (c) Inclusion of a cycle connection alongside parts of the secondary road network to support integration with the Lincoln Rolleston Road cycleway, CRETS Collector Road and PC78. These do not reference pedestrian provision as that is a standard District Plan requirement for a local road.
 - (d) An extension of the pedestrian cycle accessway connection at the Saker Place boundary to ensure connectivity between Saker Place/Flight Close and the CRETS Collector Road. Whilst detailed alignments and form of connection can be addressed at the time of subdivision, the principle of the level of connectivity is provided.
- 84 Changes requested that have not been adopted are described as follows:
- (a) A cycle connection on the CRETS Collector Road alignment is not included. The sections of the road that have been constructed to the west do not have a specific provision for cyclists and it would

be inconsistent to provide a partial cycle network at this location. The cycle route to the west is instead through the parallel route via the PC78 land and the east-west Secondary Road.

- (b) The cycle connection on the western section of the east-west secondary road is not provided. The officer recommendation for PC78 includes a link through to the Acland Park pedestrian / cycle accessway immediately south of the proposed school. The form of connections proposed by the revised PC75 ODP will support local cycle movement to the school. The western end of the secondary road will still include a pedestrian connection as a standard road provision.
- (c) The road frontage upgrade annotation of the ODP is not included, as this is to be described in the accompanying ODP text and I understand is a standard matter for subdivision in any case.
- (d) The Lincoln Rolleston Road / CRETS Collector Road intersection will retain the words "Possible Future Roundabout", but remove reference to land development to the east for reasons I discuss below.

Modelling Assessment

- 85 Mr Collins' assessment has been informed by additional traffic modelling outputs of a revised microsimulation transport model produced by the Selwyn District Council. The model representing year 2033 considers cumulative contributions of the various plan change requests currently being considered under the operative district plan.
- 86 In the model there are 5,700 dwellings associated with possible (i.e. currently not zoned for standard residential) greenfield development assumed to be generating traffic onto the Rolleston Road network, of which PC75 contributes 280 households (or 5% of additional newly zoned residential development potential). I understand it also assumes full development of all other currently zoned or consented residential land. In my opinion, such a scenario, which presupposes all Plan Changes are approved and fully developed within 12 years must be considered a sensitivity scenario for modelling purposes of this individual Plan Change.
- 87 Nevertheless, within the ITA I also included a long term, fully developed sensitivity scenario within areas previously identified within the Rolleston Structure Plan area. Both analyses are useful for checking integration with long terms transport networks.
- 88 Section 4.1 of Mr Collins' report includes Table 3 which sets out the proportional contribution the various plan changes make to traffic volumes of intersections of interest in his 2033 scenario. The analysis clearly shows that the proportional changes associated with PC75 are small and generally less than 1% of total traffic volumes forecast at each intersection, and at most 1.7%. Clearly the contribution from PC75 at key intersections is at a low level which is unlikely to influence timing of

infrastructure changes. This is consistent with my performance assessment of intersections set out in the ITA.

Lincoln Rolleston Road / CRETS Collector Road

- 88.1 Whilst Mr Collins agrees with the ITA assessment that a priority controlled intersection of the CRETS collector road and Lincoln Rolleston Road can operate acceptably as modelled in the ITA with full development of PC75 but without significant development of other plan change areas, he has recommended a roundabout be required as part of the ODP.
- 89 He has referenced the 2033 transport model with the cumulative assessment of all the Rolleston Plan Changes. That model includes a 3-arm roundabout, and he confirms a roundabout will operate acceptably at 2033 with all Plan Change areas.
- 90 In my opinion, installation of fully controlled arterial / collector road intersection in the form of a roundabout is by its nature a significant undertaking, and most appropriately a cost shared by a wider community. Whilst he references the Faringdon roundabout being an ODP requirement for development, that will be creating a four arm intersection between two parts of development from a single developer involving significant land development. In this case, there is a three arm roundabout proposed by Mr Collins, and which PC75 makes a modest contribution to traffic volumes.
- 91 In this case, a roundabout should also be centred on Lincoln Rolleston Road to ensure efficient land use and a safe layout, and that can only occur with land being made available on the eastern side of Lincoln Rolleston Road. As that is owned by third parties, it could only realistically be contemplated as part of future development of land on that eastern side of the road, or through a Council-led land acquisition process.
- 92 As I described in the ITA, even at the 2028 scenario, approximately 50% of traffic on the CRETS Collector Road at its eastern end is not directly associated with PC75. PC75 provides the connection to facilitate completion of the road link and need for the intersection, but a large community benefit is achieved from its provision.
- 93 It appears to me that Mr Collins has misunderstood the intention of the notation "*possible future roundabout (pending development east of Lincoln Rolleston Road)*". The "future" notation reflects my consideration that based on both practicalities of land ownership and the ITA analysis the intersection would not need to be in the form of a roundabout within the life of the District Plan. It could be required in the longer term once wider area developments occur and most particularly when a fourth leg to the intersection occurs which is the time that is practical to provide such an intersection.
- 94 Land should be allocated at the time of subdivision of PC75, but a standard intersection can be included until such time as land is developed on the eastern side of Lincoln Rolleston Road. As there are

no submissions to the Proposed District Plan seeking rezoning as indicated by the 2048 model in the ITA, this now appears to be a long term consideration.

- 95 In the absence of analysis by Mr Collins of a scenario without a roundabout, I have interrogated the 2033 model further.

AM PEAK - 2033

Approach	Mvt	Movement			Approach		
		Vol	Delay	LoS	Vol	Delay	LoS
Lincoln Rolleston (North)	T	531	3	A	569	3.3	A
	R	38	3	A			
CRETS Collector	L	122	15	B	670	34.1	D
	R	277	34	D			
Lincoln Rolleston (South)	L	84	2	A	360	3.1	A
	T	272	3	A			

PM PEAK - 2033

Approach	Mvt	Movement			Approach		
		Vol	Delay	LoS	Vol	Delay	LoS
Lincoln Rolleston (North)	T	307	3	A	409	7.3	A
	L	102	7	A			
CRETS Collector	L	77	5	A	730	13.1	B
	R	125	13	B			
Lincoln Rolleston (South)	L	230	2	A	764	3.2	A
	T	528	3	A			

Table 1: Intersection Analysis – CRETS Collector Road / Lincoln Rolleston Road Performance with Priority Intersection

- 96 My analysis shows that priority intersection delays remain within acceptable levels in this conservatively high traffic volume assessment at 2033. There is however a high volume of traffic turning right in the morning peak, which combined with the moderate but acceptable delay will start to warrant further consideration and planning for an upgraded intersection form in the long term.
- 97 To further understand the contribution that PC75 makes to the CRETS Collector Road in the future I have carried out select link analysis which identifies the origin and destination of trips on a section of road network. This shows 20-25% of traffic using the CRETS Collector Road at the eastern end are generated by PC75. Of the busy AM peak right turn from the CRETS Road into Lincoln Rolleston Road which would be the critical determinant for the need for a roundabout, this drops to 14% being generated by PC75. These proportions are lower than calculated in the ITA as the other Plan Change areas will also be contributing additional traffic to the intersection.
- 98 There is a likelihood that some of that traffic from the PC75 subdivision would utilise the new secondary road connection to Lincoln Rolleston Road now proposed in response to the Council recommendations, further reducing the critical right turn from the CRETS collector road.

- 99 In my opinion, the proportion of traffic generated by the development through the intersection together with the acceptable levels of delay, and long timeframe for reaching such traffic volumes, warrants a similar approach to intersection upgrading that the Council is undertaking for other intersections subject to general growth. In that respect, and further reinforced by the land requirements from third parties, the intersection must form part of long-term development contribution considerations addressed through the Long Term Plan.
- 100 Recognising that the updated analysis indicates high traffic volumes and moderate (but acceptable) delays could be a warrant for Council to undertake the intersection upgrade ahead of land development to the east, the annotation has been modified on the revised ODP to remove reference to land development to the east.

CONCLUSIONS

- 101 The key points of my evidence are as follows:
- (a) The site is planned for residential development, being included as a future development area in Our Space 2018-2048.
 - (b) Public transport services are provided in response to demand and it would be unrealistic to provide a service before residential development can occur on the site. The development layout is in a form and that can be responsive to enable residents to access future bus routes through or near the site.
 - (c) The rezoning of the site will allow the CRETS collector road to be connected through to Lincoln Rolleston Road which will have multiple benefits to the southern part of Rolleston, including reduced traffic volumes on local roads, more efficient travel, less reliance on Selwyn Road, opportunities for bus routes, and overall legibility of the road network.
 - (d) The site will provide consolidated residential development and be well connected to the surrounding residential areas by local roads and off-road pedestrian / cycle connections. This will ensure there are non-car travel options to particularly nearby destinations such as the primary school in Acland Park and neighbourhood centres.
 - (e) The Rolleston to Lincoln cycleway passes the site on Lincoln Rolleston Road and will provide options for travel further afield to the Rolleston town centre and Lincoln. Cycle connections will be made from the site to provide an integrated network.
 - (f) A CRETS collector road intersection on Lincoln Rolleston Road in the form of a priority intersection will be able to operate safely and efficiently, and additional traffic that could be generated by the site will be able to be accommodated on the wider road network.
 - (g) The modifications made to the ODP in response to Council recommendations further strengthen the integration with adjacent development.

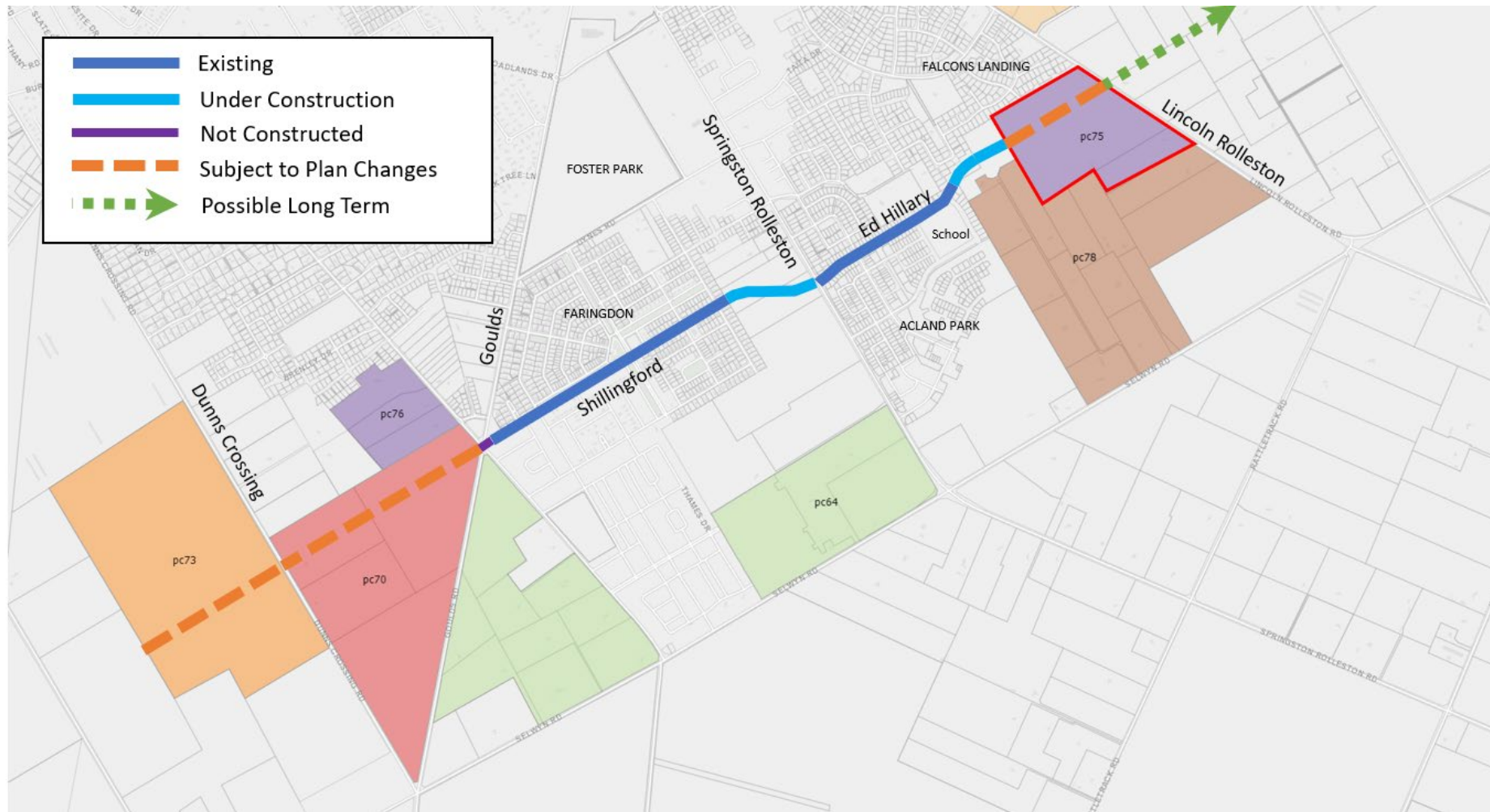
- (h) The addition of a neighbourhood centre can be integrated with the transport network, subject to further detailed assessment as part of subdivision and land use consent.

102 Based on the above, I consider that residential development of the site would be a logical expansion of the southern Rolleston residential area and it can be supported from a transport perspective.

Andrew Metherell

18 October 2021

Attachment A: Status of CRETS Collector Road



Attachment B: Built Cycle Path Connections (Solid Green), Proposed Cycle Connections (Dashed Green)

