

**The Resource Management Act 1991**

**Selwyn District Council**

**Selwyn District Plan Volume 1: Townships**

Proposed Plan Change 11

Rolleston Living 1B Deferred Zone Structure Plan

**A Proposed Plan Change to manage the effect of urban intensification in the Rolleston Living 1B deferred zone**

## **1 Introduction**

This report provides a summary of the evaluation undertaken by Selwyn District Council (the Council) of proposed Plan Change 6 (PC6) in relation to Section 32 of the Resource Management Act (RMA).

It should be read in conjunction with the proposed amendments to the District Plan, attached as Appendix 1.

## **2 Statutory Requirements of Section 32 of the Resource Management Act**

Under Section 32 of the Resource Management Act, before the Council publicly notifies a plan change, it must carry out an evaluation to examine:

- the extent to which each objective is the most appropriate way to achieve the purpose of the Act; and
- whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.

The evaluation must take into account:

- The benefits and costs of policies, rules, or other methods; and
- The risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.

A Section 32 report is part of an on-going process of understanding the costs and benefits associated with a proposed plan change. The Council is required to undertake a further evaluation of costs and benefits prior to making a decision on a Plan Change, taking into account further matters raised in submissions and any hearing.

### Efficiency

An evaluation of 'efficiency' takes into account and balances the benefits and costs of the proposed policies, rules and other methods.

### Effectiveness

'Effectiveness' measures how successful a particular option is in addressing the issues and achieving the desired environmental outcomes described in the District Plan. Effectiveness is also relevant when considering how successful the proposed policies, rules and other methods would be in achieving district plan objectives. Only provisions that are effective in achieving objectives should be adopted.

## **3 Methodology**

This Section 32 Assessment is set out as follows:

### **4 Background**

- 5 Description of the scope of the proposed Plan Change
- 6 Description of Existing Relevant District Plan Objectives and Policies
- 7 Other Strategies and Plans Adopted by Council
- 8 Outline of the issues
- 9 Identification of the options for addressing the issues
- 10 A cost/benefit assessment of options, including a consideration of efficiency and effectiveness in achieving the objectives and anticipated environmental results of the District Plan.

Appendix 1 Plan Change Amendments

Appendix 2 Summary of Consultation

Appendix 3 Rolleston Urban Limit

Appendix 4 Assessment of need for specific connections

## **4 Background**

Rolleston was established in 1878 following the opening of the railway line from Christchurch in 1866. However, there was not significant growth of the township until 1963 when much of the land was bought by a Christchurch based developer. By May 1971, 117 houses had been built.

In 1973, a planned town was promoted by central government and land was acquired for this purpose. The concept was abandoned two years later, but the town continued to grow steadily, to 400 houses by 1990.

At this time, land within the Structure Plan area was developed in two distinct styles. To the North of Lowes Road, the area was mostly held in long narrow parcels, for the purpose of forestry. To the south, land was divided into two large holdings.

In 1994, Council approved Plan Change 10 to allow further residential and commercial development over part of the proposed new town area.

The Plan Change zoned the Structure Plan area for rural residential use with an average of 1ha (and a minimum of 0.5ha). Over the next few years, the majority of area was subdivided at this density.

In 1998 a group of landowners lodged a private plan change to allow further expansion of the town. This resulted in plan change 60 to rezone 542 hectares of land, sufficient for 14,000 residents and, it was thought at the time, 20 years of growth. The plan change became operative in 2003.

As part of Plan Change 60, the Living 1B deferred zone was introduced. This zoned the Structure Plan area for residential use at Living 1B density (1,200m<sup>2</sup> minimum average allotment size), but deferred the implementation of the zoning until 2010. The purpose of the deferral was to allow the landowners, many of whom had bought

newly established rural residential lots, to enjoy low-density surroundings for a limited time.

Also as part of the plan change, land located around the area on all sides was rezoned as Living 1B. As a result of this the area has now become substantially surrounded by urban development.

Recent changes in the statutory framework (such as the adoption of the Rolleston Urban Limit through Change 1 to the Regional Policy Statement) indicate that the structure plan will in the future be positioned quite centrally within the urban area of Rolleston.

A number of concerns have been identified with regard to the way the area is likely to develop. It is divided into many different relatively small and often awkwardly shaped parcels and it is highly unlikely that a good urban form will result unless development is actively managed. There are very few roads (or pathways) and the area is poorly integrated into its urban surroundings. There will also be problems in providing efficient servicing for the Brookside Road area, as sewerage must be drained south to Lowes Road.

The area also provides some opportunities for high quality development. These include use of the water-race that runs through the area from north to south and the presence of mature trees and established amenity.

In 2006 the Council began a consultation exercise on how the development of the area should proceed, so that a coordinated response was in place by the time the L1B deferral was lifted in 2010. As part of this process a draft structure plan was produced and the views of residents sought.

In 2009, a revised structure plan was circulated for public comment. This document forms the basis of this plan change, which is aimed at managing the transition of the area from rural residential to urban use.

A summary of the consultation is attached as Appendix 2

## **5 Scope of the Proposed Plan Change**

Proposed Plan Change 11 is concerned with the part of Rolleston currently zoned as Living 1B deferred and two adjacent parcels of land.

The plan change will add a new Policy to the Subdivision of Land section. The policy is specific to the intensification of the Rolleston Living 1B deferred area and provides for the use of the structure plan to control subdivision.

It will amend the rules to add new matters for discretion to ensure that subdivision in the area would progress according to the structure plan, providing the land required for the formation of transport connections and reserves to be vested in Council at the time of subdivision.

It will rezone the part of the area which is north of Lowes Road for Living 1 residential use, except for an area around Waterbridge Way which will be zoned as Living 1C, with an average allotment size of 2,000m<sup>2</sup> and area specific rules. An area around Fairhurst Place would also be zoned as Living 1C.

It will add a copy of the structure plan as an appendix to the plan and amend the relevant zone map.

The map will add indicative walkway/cycleway connections to two adjacent parcels of land.

## **6 Existing Objectives and Policies in the Selwyn District Plan**

The following is a list of the District Plan Objectives and Policies relevant to the Plan Change.

### ***B2.1 Transport Networks***

#### ***Issue 4 – Effects on Energy Use and the Environment***

##### ***Policy B.2.1.10***

*Assess the effects of allowing or disallowing residential growth in townships in Selwyn District on transport demand and promote land use patterns that will reduce the demand for transport*

##### ***Policy B.2.1.11***

*Encourage people to walk or cycle within and between townships*

The above policies encourage the provision of linkages through residential areas to allow for walking and cycling to be undertaken. Higher density land-use patterns will reduce the demand for transport as they are more walkable.

### ***B3.4 Quality of the Environment***

#### ***Objective B3.4.1***

*The Districts townships are pleasant places to live and work in*

##### ***Policy B3.4.1***

*To provide zones in townships based on the existing quality of the environment, character and amenity values*

##### ***Policy B3.4.3***

*To provide Living zones which:*

- *are pleasant places to live in and provide for the health and safety of people and their communities*
- *are less busy and more spacious than residential areas in metropolitan centres; and*
- *have safe and easy access for residents to associated services and facilities*

These policies are aimed at ensuring that residential areas in townships are pleasant places with a spacious ambience as is the case in existing townships in the District. New urban areas should have a similar quality of environment as existing residential areas.

### ***B4.1 Residential Density***

***The need for a range of section sizes and living environments in Selwyn District, while maintaining the spacious character and amenity values of townships.***

***Objective B4.1.1***

*A range of living environments is provided for in townships, while maintaining the overall 'spacious' character of Living zones.*

***Objective B4.1.2***

*New residential areas are pleasant places to live and add to the character and amenity values of townships.*

***Policy B4.1.1***

*Provide for a variety of allotment sizes for erecting dwellings in Living 1 Zones, while maintaining average section size similar to that for existing residential areas in townships.*

These policies are essentially concerned with the rezoning of rural land for residential use. They re-inforce the emphasis on pleasant and spacious residential zones which are compatible with existing urban zoning. Objective B4.1.2 supports the preservation of character for improved public amenity in townships.

***B4.2 Residential and Business Development***

***Objective B4.3.2***

*New residential or business development adjoins existing townships at compatible urban densities or at a low density around townships to achieve a compact township shape which is consistent with the preferred growth direction for townships and other provisions in the Plan.*

***Policy B4.3.5***

*Encourage townships to expand in a compact shape where practical.*

These policies are also aimed at managing urban growth and support the original decision under Plan Change 60 to zone the area for residential use, which would be compatible with the urban surroundings and consistent with the need for compact urban shape.

**7 Other relevant strategies and plans**

The relevant policy which has been adopted by Council is summarised below:

**7.1 The Greater Christchurch Urban Development Strategy (the UDS)**

The UDS has been produced by a partnership of District Councils (Selwyn, Waimakariri and Christchurch City), Environment Canterbury and the New Zealand Transport Agency. Its purpose is to manage future urban development in the Greater Christchurch area until 2041.

The UDS sets the framework for managing urban growth in Greater

Christchurch through a combination of staged urban expansion and more intensive use of the existing urban areas.

It aims to achieve compact, sustainable urban form and high quality development. Specific policies in the UDS are:

## **2 Guiding Principles and Strategic Directions**

*Promoting good urban design to make our communities more livable and attractive with good connectivity*

*Developing an open-space network*

*Maintaining and protecting the heritage values of established suburbs, rural towns and settlements*

### **5.5 Broad Aims of the Settlement Pattern**

*Provide opportunities to minimise journey to work trip lengths and maximise public passenger transport, walking and cycling potential*

*Ensure that sustainable, safe and integrated transport networks all support growth areas*

*Maintain the character of settled areas, in particular rural qualities*

## **6.9 Urban Design**

### **6.9.3 Key Approaches**

*Urban Design considerations are incorporated into district plan variations and changes to help prevent poor quality developments.*

*Promote and encourage comprehensive development and redevelopment to achieve good urban design outcomes*

### **6.9.4 Actions**

*(3) Outline development plans for intensification are in place and provision is made for a variety of uses based on the principles of good urban design.*

The UDS also contains seven principles and elements for urban design (page 68). These include:

- Consolidation and Dispersal: *To promote higher density development around new nodes and lower density around the perimeter.*
- Integration and Connectivity: *To promote development that is integrated and connected with its surrounding environment and other existing or future communities.*
- Legibility and Identity: *To promote environments that are easily understood by their users, display a strong local identity and create*

*appropriate visual character.*

## **7.2 Canterbury Regional Policy Statement Plan Change 1**

The UDS is intended to be implemented by a range of measures. The first key regulatory measure is Plan Change 1 to the RPS. The plan change sets out the objective and policy framework for how urban growth is to be accommodated over the next 35 years in the Greater Christchurch area.

Plan Change 1 is in the process of being heard at the time this plan change is being prepared, with decisions on submissions to Change 1 not anticipated until early 2010. These decisions will then be subject to the normal rights of appeal to the Environment Court. As such, it is subject to modification and amendment, but it is still relevant for consideration in this plan change. Under the RMA, the District Plan is required to give effect to the RPS.

Relevant Issues identified within the Change 1 include:

### ***Issue 1: Growth Trends***

*Current Growth Trends within Greater Christchurch are resulting in a low density urban form that will not meet the future needs of people and communities.*

The explanatory text identifies the heavy reliance on road transport of low-density development as inappropriate for a number of reasons including: changing demographic structure (aging population); uncertainty about the availability of fossil fuels; the need to reduce carbon emissions; the costs of developing and maintaining the transport system.

### ***Issue 4: Growth Impacts***

*Sporadic or unplanned development can:*

- ...
- b) *Undermine the physical resource investment in urban centres, including the central business district of Christchurch and suburban and rural town centres by undermining the economic and social viability of these centres.*
- c) *create urban forms that consume more energy and are less sustainable than more integrated land-use patterns.*
- d) *Result in untimely or inefficient provision of supporting infrastructure and create barriers to funding or provision of necessary infrastructure.*
- e) *Limit the extent to which land use patterns can be integrated with transport infrastructure and services that provide for a wide range of choice among transport options.*

The explanatory text identifies the importance of the efficient location of town centres with regard to transport systems and proximity to residential housing, and the problems of dispersed development.

### ***Issue 6: Amenities***

*Poorly designed development within Intensification or Greenfield Areas*



*can adversely affect urban amenity values, rural amenity values, heritage, health and safety, access to community, social and commercial facilities and overall liveability.*

Relevant Objectives include:

**Objective 1: Urban Consolidation**

*Urban Development in Greater Christchurch shall be managed to achieve consolidation of existing urban areas and to avoid unsustainable expansion outside existing urban areas...*

**Objective 2: Character and Sustainability**

*To achieve built environments within Greater Christchurch that:*

- *have a sense of character and identity*
- *retain heritage values*
- *protect areas of special amenity*
- *provide a range of densities and uses*
- *are healthy, environmentally sustainable, functionally efficient and economically vibrant*

**Objective 4: Integration of Land Use, Infrastructure and Funding**

*Long-term planning for land use change which ensures that the rate and location of development is integrated with the provision of strategic infrastructure and associated funding mechanisms.*

**Objective 7: Integration of Transport Infrastructure and Land Use**

*Transport infrastructure is integrated with development and settlement patterns to reduce network congestion, reduce dependency on private motor vehicles, reduce emission of contaminants to air and energy use, promote the use of active transport modes and facilitate the movement of goods and provision of services in Greater Christchurch.*

All the above objectives encourage consolidation of urban form for a number of reasons, including to support physical resources (such as the town centre and road and water infrastructure) and to enable transport by means other than private motor vehicles.

Objective 2 is concerned with amenity and ensuring that special character is retained in development.

Also relevant is Policy 7 (development form and design) which requires that urban development should give effect to the urban design protocol:

**Policy 7: Development Form and Design**

*Development of Activities in Greenfields, Intensification Areas, and key Activity Centres should give effect to urban design best practice. The principles of the Urban Design Protocol (Ministry for the Environment, 2005) shall be observed when preparing or assessing any urban development and the following matters shall be provided for:*

- *good safe connectivity within the area, and to surrounding areas, by a variety of transport modes, including motor vehicles, cycling, pedestrian and public transport, and provision for easy and safe transfer between modes of transport*

- *location within walkable distance to, community, social and commercial facilities*
- *provision for effective, efficient and attractive walk and cycleways, preferably integrated with open space and stormwater detention areas, within, across and linking beyond the area*
- *provision for a range of areas of residential densities and lot sizes, with higher residential densities located within walking distance of Key Activity Centres and commercial centres*
- *provision for the protection of surface and groundwater quality, including appropriate stormwater management facilities to avoid down stream flooding and to preserve or enhance water quality*
- *provision for sufficient and integrated open spaces and parks to enable people to meet their recreation needs, with higher levels of public open space for areas of higher residential densities,*
- *protection and enhancement of significant natural, ecological, landscape and historic heritage features,*
- *show how other adverse effects on the environment are to be avoided, remedied or mitigated,*
- *a high standard of visual interest and amenity,*
- *people's health and well-being through good building design, including energy efficiency and the provision of natural light,*
- *effective and efficient use of existing and new infrastructure networks.*

These principles include safe connectivity that enables a range of different transport modes (eg public transport, cycling and walking) that links within and beyond the development. Also significant to this Plan Change are the need for sufficient and integrated areas of open space, a high standard of visual interest and amenity and the protection of heritage and special character.

### **7.3 Rolleston Urban Limit and Draft Rolleston Structure Plan**

The Rolleston Urban Limit was adopted on 11 June 2008 and expresses the Council's intentions for the location of future greenfield land development in and around Rolleston (the future shape of the town). The Urban Limit forms part of Variation 1 to Plan Change 1 to the RPS and it is anticipated that it will be implemented through that Plan Change process. The Urban Limit is shown in Appendix 3.

The L1B deferred zone is located well within the limits, with urban zoned land already on all sides.

The Draft Rolleston Structure Plan was released for public comment in May 2009. It sets out a vision for the development of Rolleston over the next 65 years. It contains a number of guiding principles including:

- *Integrate land use and movement*

*...Provide a range of convenient and pleasant walking and cycling options for linking residents to key destinations...*

- *Regenerate existing residential areas through shared amenities*

*...Utilise new investment as an opportunity to improve or develop new amenities where deficiencies are recognised and allow new residents to tap into and help sustain existing community facilities.*

- *Utilise existing rural roads and landscape features to develop distinctive urban areas*

*Use rural and open space features to define neighbourhood edges and inform the development of a diverse range of living environments across the urban limit;*

*Use these landscape qualities as generators for distinctive neighbourhood identities.*

- *Protect and enhance existing landscape features and incorporate into urban form*

*Encourage the retention of existing native and exotic vegetation (e.g rural shelter belts) that will help structure and characterise the layout of new developments and lend an established landscape character to the growth areas...*

*...Revegetate water races to provide habitat for native species and minimise adverse effects on the water quality*

The structure plan identifies the walking / cycling route from Lowes Road to Goulds Road Via Oak Tree Lane as a green corridor and cycle route.

It proposes an average net density of ten dwellings per hectare across the majority of the L1B deferred area, with a higher density near the junction of East Maddisons and Brookside Roads where a local neighbourhood centre is proposed.

## **7.4 Selwyn District Council Walking and Cycling Strategy**

The Walking and Cycling Strategy was adopted in December 2008. It aims to enable opportunities for walking and cycling (including the provision of improved facilities and environments). It also aims to reduce the use of cars for short trips.

The strategy identifies that land-use planning tools (such as structure plans) can implement these goals. The principles it identifies include:

- Designing for walking and cycling is not to be secondary to designing for motor vehicles. The environment should be designed for all modes of transport.
- Land use planning should facilitate ease of travelling by bicycle or on foot.
- Appropriate planning for walking and cycling including provision of improved connectivity.
- Council provision of safe and efficient road, footpath and cycle networks.
- The roading infrastructure around and near schools is to be designed to encourage walking and cycling.

## **7.5 The Christchurch, Rolleston and Environs Transportation Study (CRETS)**

CRETS identifies Lowes Road as a District arterial and East Maddisons and Brookside Roads as collector roads. It also proposes a new road to the east of the area, linking Lowes Road with Goulds Road. The proposed school would be located on this road.

## **7.6 Selwyn Community Outcomes**

The following Community Outcomes are relevant to the Plan Change:

*A living environment where the rural theme of Selwyn is maintained*

*Provide a District Plan which recognises and protects the core values that maintain a working rural environment*

The Plan Change supports this by preserving elements of existing semi-rural character as the area is intensified

*Access to community and public health services*

*Facilitate initiatives that keep Selwyn people healthy and active*

*Support community halls and reserves to allow for physical and passive recreational opportunities*

The Plan Change supports this by providing high amenity walking routes for passive recreation and by safeguarding land for reserves.

*A safe living environment*

*Identify and where appropriate provide or advocate for solutions to community safety problems (e.g. roading improvements, public space and reserve design, walking and cycleway designs)*

The Plan Change supports this by ensuring that walkways will be provided at sufficient widths and by improving the safety of streets by reducing the amount of accessways and increasing the likely amount of street surveillance.

*Effective and accessible transport system*

*Provide a well maintained, integrated, sustainable and safe  
District transportation network*

The Plan Change supports this by providing connections for a variety of transport modes.

## **7.7 New Zealand Urban Design Protocol**

The Council signed the Urban Design Protocol in September 2008. The Protocol has been produced by the Ministry for the Environment and aims to make New Zealand's towns and cities more successful through quality urban design.

The protocol identifies seven essential design elements for quality urban design (the "7Cs"). These are:

- *Context: seeing buildings, places and spaces as part of whole towns and cities*
- *Character: reflecting and enhancing the distinctive character, heritage and identity of our urban environment*
- *Choice: ensuring diversity and choice for people*
- *Connections: enhancing how different networks link together for people*
- *Creativity: encouraging innovative and imaginative solutions*
- *Custodianship: ensuring design is environmentally sustainable, safe and healthy*
- *Collaboration: communicating and sharing knowledge across sectors, professions and with communities.*

## **8 Outline of the Issues**

The area has been zoned for residential use since 2003, but the zoning was deferred to allow the landowners at that time the opportunity to enjoy low density semi-rural surroundings for a limited time. This Plan Change is aimed at managing the transition to an urban environment.

Through the processes of consultation and strategic planning, the following issues have been identified:

### **Connections**

- Provision of Connections (Roads and Walkway/Cycleways)
- The need for more roading for access
- Impact of Roads and Walkway/Cycleways on landowners

### **Character**

- Preservation of character

- Managing Shelterbelts and trees
- Managing Accessways
- Effects of Fencing

#### Density

- Preservation of Character
- Expectations of Landowners
- Good urban form

#### Open Space

#### Infrastructure

#### Reverse Sensitivity

These issues are discussed below:

### **8.1 Connections, Open Space and Infrastructure**

#### **8.1.1 Provision of connections**

The L1B deferred zone is quite central within the Rolleston Urban Limit. New roads are required to provide for through journeys as well as journeys originating within the study area.

Without new connections the area will be a barrier to movement to and from the existing commercial centre and also the geographic centre of the new urban limit.

Roads and walkways should provide connectivity so that the transport network is efficient and convenient for a number of transport modes. They should also be legible so that it is easy to find the way through the network.

A new school is to be built on vacant land to the east of Fairhurst Place. Convenient walking and cycling connections to this school are especially important.

There is a very strong policy requirement for connections to facilities such as this. The need is identified in all of: the District Plan; the Walking and Cycling Strategy; the UDS; Plan Change 1 to the RPS; and the New Zealand Urban Design Protocol.

The Council's Draft Plan Change 7 aims to manage the form of urban growth in Selwyn. It identifies the concept of a "residential block" as a way to assess connectivity in urban residential areas. It identifies that a block with a walkable perimeter of 800m will ensure good connectivity and permeability. A walkable perimeter is simply the shortest distance that it is possible to walk around the block on publically accessible land (roads, reserves and footpaths). Without the structure plan the Living 1B area would consist of three or four very large blocks, each with perimeters of around 2km. These would be a real barrier to movement.

#### **8.1.2 The need for more roading for access**

The structure plan roads are also required to organise the pattern of development. Subdivisions are likely to be developed independently of each other and without new roading they will rely on separate access via many rights of way.

This has implications for road safety and also for achieving a high standard of development. Rights of way can be a poor design outcome. They often result in tall continuous fencing, lack of positive connection between houses and the street, lack of opportunities to establish street planting and other amenity.

This is likely to be especially problematic on Brookside Road where a large number of accessways are potentially required due to the long, narrow shape of the lots. Fairhurst and Jozecom Places are also likely to be problematic due to the large number of lots that will use the turning heads for access.

Other areas (to the north of Lowes Road) would only be accessible by very long rights of way, which is an inefficient (and expensive) use of land.

### **8.1.3 Impact of Roads and Walkway/Cycleways on landowners**

Concerns about the proposed roads and walkway/cycleways are as follows:

- The impact of roads and walkway/cycleways on the existing landowners. This includes increased traffic nuisance and the potential for antisocial behaviour associated with walkways.
- The specific impact of the proposed connection from the end of Fairhurst Place to the new school situated to the east. Residents are concerned about the traffic and parking effects of parents using Fairhurst Place for dropping-off and picking-up children before and after school.

### **8.1.4 Open Space**

The area is large enough to require some open space to be provided. There is the opportunity to take advantage of the unique characteristics of the area to preserve its character and create a high quality public realm. Water-races and trees might be preserved on public land to contribute to public amenity.

### **8.1.4 Infrastructure**

There is a need for sewage in the north of the area to be drained from north to south (to the main on Lowes Road). There is at present no infrastructure to achieve this and access for sewer mains may be problematic.

## **8.2 Character and Amenity**

### **8.2.1 Preservation of Character**

This issue concerns the elements of character which can be maintained as the area transitions from semi-rural to urban. Clearly the transition to higher densities will result in a change in character from a rural-residential character

to a more intensive suburban character. The preservation of certain key character elements can however help to moderate the visual effects of the change in character and to assist in providing the area with a 'sense of place' and an established identity. Identified character elements are:

- Special character of Waterbridge Way due to spacious development (placement of houses), landscaping, humpback bridges and water-races.
- Special character of Fairhurst Place due to spacious development (in particular the view along the road south east from Lowes Road), cherry trees, shelterbelts and other plantings.
- Shelterbelts and trees providing unique ambience in public areas, as well as shelter from the wind.
- Low-key appearance, due to low built density and absence of suburban-style fencing.
- Rural style road formation (no kerbing and channelling or footpaths).

### **8.2.2 Managing Shelter-belts and trees**

At urban densities, shelter-belts and trees can cause shading of gardens and houses, detracting from residential amenity. The coordinated development of more than one adjoining lot may also result in the loss of some shelterbelts that would avoid issues of shading but would also result in a change to the visual character provided by these features.

### **8.2.3 Managing Accessways**

The placement of private accessways (driveways) on Fairhurst Place and Waterbridge Way may result in loss of character (loss of trees and the need to bridge the water-race).

The establishment of new shared accessways throughout the area would undermine its amenity. Used excessively, these:

- Reduce the space for the establishment of street amenities such as tree planting
- Discourage a good interface between houses and the street
- Create often unattractive "alleyways" and increase the amount of closed-boarded fencing which disrupts views through the area and diminishes visual interest.
- Can be less safe, or be perceived as less safe (due to restricted visibility and a greater hazard created by more crossing points).
- Increase the amount of street clutter such as mailboxes and dustbins



#### **8.2.4 Effects of fencing**

Closed boarded fencing is usually installed at residential densities to provide privacy but may undermine the existing low-key character.

#### **8.2.5 Reverse Sensitivity**

The Pineglades Naturist Club is located within the area and does not intend to relocate. Its borders are planted with shelter-belts to maintain privacy. There may be conflicts in future if the shelter-belts were to cause shading of residential sections.

### **8.3 Density of Development**

The area is currently zoned for low-density residential development (L1B), with a deferred status due to be lifted in 2010.

Issues relating to density are:

#### **8.3.1 Preservation of character**

The existing character is in part due to the low density of development. More built density will inevitably change the character.

#### **8.3.2 Expectations of land-owners**

The area has been zoned for residential use since 2003 and landowners have a legitimate right to expect to be allowed to subdivide their land.

#### **8.3.3 Good urban form**

The area is located close to the central area of the adopted urban limit. Higher densities than L1B might be appropriate for a number of reasons:

- They make better use of community facilities and resources such as the town centre (providing more people within closer distances). This enhances viability and vitality.
- They support public transport by providing critical mass.
- They enable sustainable transport choices.
- They can be serviced efficiently with infrastructure.
- Land is used more efficiently and urban sprawl is avoided.

## **9 Identification of the options for addressing the issues**

### **9.1 Introduction**

The Council has considered whether the District Plan as it currently stands represents the most efficient and effective means of achieving appropriate residential development in the Rolleston Living 1B deferred zone when the deferral is lifted in January 2010.

Overall, it was found that the existing provisions are likely to result in significant environmental costs as identified in Section 8.

A number of responses were considered to these issues and it was determined that a structure plan, along with associated rule changes and a non-statutory design guide would be the best way to ensure the high standard of development sought by the Plan and the community.

This section 32 evaluation has considered alternatives to the proposed option. These alternatives are:

- maintaining the status quo;
- Introducing revised provisions and a non-statutory design guide to advise land-owners how to develop their land (without a structure plan);

The cost-benefit analysis (section 9.2) assesses the impact of these options with regard to the topic areas identified in Section 8.

As it is not practical to compare all feasible options in this format, the costs and benefits of designation and zoning are discussed separately below, along with the methods by which the structure plan could be paid for.

The cost-benefit analysis also excludes discussion on the specific routes of the proposed roads and walkway/cycleways. This analysis can be found in Appendix 4.

## **9.2 Assessment of Specific Issues**

### **9.2.1 Designation of Infrastructure**

Designation is a mechanism which can be used to allow for the provision of strategic infrastructure across multiple landholdings, under of the Resource Management Act. A separate process is involved to obtain a designation and this process is also subject to submission and appeal

In the case of the Living 1B deferred area, a designation could be used to safeguard the route of roads, in particular the spine road which runs in an arc from Lowes Road to East Maddisons Road. The Spine Road connects the area together and goes through a number of different parcels (meaning it may be difficult to achieve its entire length).

Designation would protect this route from development and could allow the Council to require its sale in order that it could be completed. It is unlikely that any other route would be subject to designation. The reasons for this are:

- These roads require the co-operation of fewer land-owners.
- The roads are “minor” in the sense that they are at the bottom of the roading hierarchy and have no wider through traffic function. Their main purpose is access land under development to ensure a good quality built environment.

- The need for these routes to organise development is less urgent (although it is important that they are safeguarded in the long term). Development without the roads being finalised is less likely to lead to widespread poor urban form in the long term, although there may be short term effects.

Designation remains an option, but is not considered necessary at present because Council does not wish to force the pace of development. There is every possibility that it may never be required, if there is some logic to the way land is developed (some lots adjacent to existing roading are developed to provide access to adjoining lots). The Spine Road has a number of different points of access onto the road network and development may spread out from these accesses.

Designation also exposes Council to some financial risk as landowners can require that land is bought from them by the Council. It may then be many years before the development that requires the use of the land for roads actually occurs and allows Council to recover the cost. Council's aim is for orderly development, not to force the pace of development.

The preferred option is for designation to be retained as an option as and when it is required, for instance to "unlock" parcels of land that could not be developed in accordance with the structure plan.

The designation of walkway/cycleways is not favoured in the short or medium term. The route of some of these is contentious and landowners have been given assurances that Council does not intend to try and obtain these connections in the absence of subdivision.

## **9.2.2 Zoning**

Zoning options are covered in the Cost-benefit assessment, but a more comprehensive discussion follows.

Living 1B (large lot residential) is a relatively low density zoning that does not sit well in the Council's policy framework which is aimed at achieving good urban form and recognises the benefits of density (in supporting the provision of facilities and making efficient use of land as outlined in 8.3.3).

For this reason, the retention of Living 1B zoning across the area would not be a good outcome, given its location within the Rolleston Urban Limits.

However, Living 1B zoning has advantages for re-subdivision in some circumstances. It allows for a large existing house to be retained on a large lot and for the remainder of the lot to be subdivided. This can help to avoid the appearance of cramped development and to some extent avoid the adverse effect of subdivision.

This is important south of Lowes Road where newer, larger and more visually dominant houses have been built. For this reason, the plan change proposes that the area south of Lowes Road remains zoned as Living 1B.

The area north of Lowes Road has a different pattern of development. In some parts, notably the Pineglades site and the area adjacent to East Maddisons Road, large parcels of land would be easily developed to Living 1 densities. For the remainder of the area, parcels are mostly elongated and houses usually older and smaller. The issue of visually dominant houses appearing to sit uncomfortably with newer higher density development is not widespread. More restrictive Living 1B zoning is less beneficial in this area.

A change to a new Living 1C zoning is proposed for the Waterbridge Way and Fairhurst Place as a way to preserve the identified unique character of these areas. This would have a large average lot size of 2000m<sup>2</sup>.

More intensive zoning than Living 1 was suggested as part of the consultation undertaken prior to this plan change. It was suggested that this development could be located around the reserve next to Brookside Road. However, it was not supported by adjacent landowners. Given the issues involved in the development of this land (long, narrow parcel shape and fragmented ownership), such development has the potential to lead to poor outcomes. It may have a cramped appearance when viewed from the street, and there is a higher risk that it would adversely affect neighbours privacy. For this reason, it is not proposed to proceed with higher density zoning. It is appropriate that any proposals for higher density should be subject to individual scrutiny through a resource consent process.

### **9.2.3 Meeting the Costs of Infrastructure**

The question of paying for infrastructure is not directly addressed by this plan change as it will be addressed by other processes under the Local Government Act. However, it is relevant in understanding how the structure plan will be implemented.

The costs of the structure plan infrastructure will for the most part be met by developers. This is consistent with the way infrastructure is funded elsewhere. In other areas, the developer is required to build roads and water and sewer pipes on their land and then vest these in Council as a condition of subdivision.

For the Living 1B deferred area, because the land is in many different ownerships, this is unlikely to be practical. Instead, it is likely that Council will build the infrastructure. However, the principle that developers should pay still applies. In effect, the Council will act as a banker for the development, building infrastructure at the time land is first developed and then recovering the cost from developers on a fair basis as land is subdivided, most likely through development contributions.

Whilst this will result in higher contributions than elsewhere in the District, there will be savings for developers because they will not have to provide as much completed infrastructure. The building of the public roads will also mean that fewer rights-of-way will be required. The cost of developing the area if the structure plan is implemented is likely to be similar to the cost if it was not implemented.

Council is investigating the fairest way of allocating the costs amongst developers. It is the intention that those who benefit most (such as those sites

where access is provided by structure plan roads) will pay more than those who benefit less.

The exact regime for allocating costs will be subject to a Special Consultation Procedure under the Local Government Act and is not part of the plan change.

## **9.3 Description of Options**

### **9.3.1 Option 1: Maintaining the status quo**

This option would allow the removal of the deferral on 1 January 2010 without any further development control being put in place. Individual landowners would be able to develop their land to L1B provisions.

Existing indicative routes in the district plan would remain in place. These are footpaths from Jozecom Place to Frame Crescent and Fairhurst Place to Manor Drive, and roads from the end of Waterbridge Way to Brookside Road and Renoir Drive.

No measures would be put in place to manage the impact of development on identified special character.

An average lot size of 1,200m<sup>2</sup> would apply, with a minimum of 750m<sup>2</sup>.

No additional open space would be identified. Council may be able to obtain land at the time of subdivision.

There would be no designated route for transporting sewage from the north of the area to Lowes Road.

### **Option 2: Introducing revised provisions to manage development (rule changes and a non-statutory design guide) and rezoning the area north of Lowes Road as Living 1.**

This option would introduce new rules and standards to manage development in the area, but without introducing a structure plan.

It would also introduce a design guide to inform landowners on good practice in developing a variety of sites.

Rules and standards would include:

- Restrictions on the number of and frequency of entranceways;
- Low density zoning in parts of Waterbridge Way and Fairhurst Place;
- Increased front setbacks in Waterbridge Way and Fairhurst Place;
- Controls on the erection of tall fencing next to roads and right of ways.

Existing indicative routes in the district plan would remain in place. These are footpaths from Jozecom Place to Frame Crescent and Fairhurst Place to Manor Drive, and roads from the end of Waterbridge Way to Brookside Road and Renoir Drive

South of Lowes Road, an average lot size of 1,200m<sup>2</sup> would apply, with a minimum of 750m<sup>2</sup> (Living 1B zoning). The north of the area would be rezoned as Living 1, with a minimum average lot size of 750m<sup>2</sup>.

No special provision would be made for the location of reserves although Council would be able to obtain land at the time of subdivision.

There would be no designated route for transporting sewage from the north of the area to Lowes Road.

The design guide would cover matters such as:

- Preserving existing character and amenity;
- Making the most of unique features like trees and water-races;
- Developing around a visually dominant house;
- Designing lots which create attractive street frontage;
- Avoiding obtrusive fencing.

**Option 3: Introducing a structure plan along with revised provisions to manage development, publishing a non-statutory design guide and rezoning the area north of Lowes Road as Living 1.**

This is the preferred option. It would see the introduction of a Structure Plan into the District Plan. The Structure Plan would show the routes of roads and walkway / cycleways as well as indicative reserves.

Changes to the Plan's objectives and policies and rules would be made to require that land identified in the structure plan for roads, walkway / cycleways and reserves is provided as a condition of subdivision consent.

Existing indicative routes are deleted from the District Plan.

Changes in zoning are made to allow development at an average of 750m<sup>2</sup> over most of the area north of Lowes Road (rezoned as Living 1). The area to the south remains zoned as living 1B (1,200m<sup>2</sup> average and 750m<sup>2</sup> minimum).

Exceptions to the above zoning are areas within Waterbridge Way and Fairhurst Place with identified special character, which are rezoned to retain low density.

New rules and standards would also be introduced to protect the existing character and amenity of the area. These include:

- Low density zoning in parts of Waterbridge Way and Fairhurst Place;
- Increased front setbacks in Waterbridge Way and Fairhurst Place;
- Controls on the erection of tall fencing next to roads and right of ways.

A design guide would be introduced to inform landowners of good practice and how to make use of the Structure Plan features. The design guide would cover matters such as:

- Dealing with walkways;

- Preserving existing character and amenity;
- Making the most of unique features like trees and water-races;
- Developing around a visually dominant house;
- Designing lots which create attractive street frontage;
- Avoiding obtrusive fencing.

The most appropriate sites for reserves are identified and Council has certainty about obtaining the land at the time of subdivision.

Sewage can be piped from the north of the area to Lowes Road via the two north-south road corridors.

**10 A cost/benefit assessment of options, including a consideration of efficiency and effectiveness in achieving the objectives and anticipated environmental results of the District Plan.**

**10.1 Efficiency and Effectiveness**

	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Effectiveness in Achieving the purpose of the Resource Management Act and the District Plan's objectives and policies</b>	<p><u>Connections</u></p> <p>Only minimal connections will be established through the area and it will become a barrier to movement.</p> <p>Existing connections which are in the District Plan would not effectively connect up the area.</p> <p>Pattern of subdivision would be ad-hoc.</p> <p>Not effective in providing for infrastructure.</p> <p><u>Amenity</u></p> <p>The character and amenity of the area is likely to be eroded over time.</p> <p>Not effective at ensuring good amenity is created and preserved.</p> <p><u>Density</u></p> <p>This option is the most effective at preserving the existing sense of spaciousness, but this is at the expense of other considerations, including the need to successfully integrate the area with the rest of the Rolleston urban area and to use land and infrastructure efficiently.</p> <p>It is less effective than options 2 and 3</p>	<p>Only minimal connections will be established through the area and it will become a barrier to movement.</p> <p>Existing connections which are in the District Plan would not effectively connect up the area.</p> <p>Pattern of subdivision would be ad-hoc as rules would not organise development, but deal symptomatically with the most problematic aspects.</p> <p>Not effective in providing for connectivity and infrastructure.</p> <p>Rules would be quite effective in preserving some amenity. However, issues still remain with section design, the effects of more intensive use of existing accessways and with lack of legibility and general street amenity. The design guide would help in some cases but would not be enforceable.</p> <p>More effective than option 1 in preserving character and amenity, but less than 3.</p> <p>This density option supports the need to integrate the area into the town as part of the creation of a high quality township whilst managing the issues that may arise.</p> <p>But some conflicts will arise in the north of the area, making this option is less effective than 3.</p>	<p>Provides a means for walking and Cycling Connections to be achieved through the area. The zone would no longer be a barrier to movement for surrounding urban areas.</p> <p>Provides a means to organise the pattern of development, reserves and infrastructure.</p> <p>Only effective option for connectivity.</p> <p>More effective than options 1 and 2 as it would ensure the creation of good quality streets and avoid the identified disadvantages (problems with legibility, accessways and poor street interface)</p> <p>Most effective option for ensuring good amenity in the future.</p> <p>This option supports the need to integrate the area into the town as part of the creation of a high quality township whilst managing the issues that may arise.</p> <p>This option will better manage conflicts in the north of the area and is more effective than 2.</p>



	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Most Appropriate (efficient and effective) in achieving the Objectives of the District Plan and the purpose of the Resource Management Act.</b>	<p>Not as efficient as option 3 in that connections will not be achieved and effect will not be given to District Plan policies which encourage walking and cycling.</p> <p>Not appropriate in that an urban area would be established with lower amenity than expected by the District Plan.</p> <p>Not as appropriate in terms of the inefficient use of land in close proximity to the geographic centre of the Rolleston Urban Limit.</p> <p>Easier to administer than option 3, but inefficient due to poor outcomes.</p> <p>Less appropriate than options 2 and 3.</p>	<p>Not as efficient as option 3 in that connections will not be achieved and effect will not be given to District Plan policies which encourage walking and cycling.</p> <p>Would succeed in preserving some amenity, but would fall short of the standards expected of urban areas.</p> <p>Easier to administer than option 3 but less appropriate due to lower quality outcomes.</p>	<p>Most efficient and effective option as it ensures that the ability to achieve connections will be preserved in the long term.</p> <p>Would also be the best way to preserve desired level of amenity.</p> <p>The structure plan allows the more intensive use of land north of Lowes Road without poor quality development.</p> <p>Some administrative complexity but this is necessary to achieve desired outcomes.</p> <p>Most appropriate option.</p>
<b>Risk of acting or not acting if there is uncertain or insufficient information</b>	<p>Low risk from uncertainty.</p> <p>High risk as the objectives in the District plan will not be implemented</p>	<p>Low risk from uncertainty.</p> <p>High risk as the objectives in the District plan will not be implemented</p>	<p>Some risk that some connections may not be achieved or may take some years to be established.</p> <p>Some financial risk to Council which will act as “banker” for infrastructure, building roads when needed and recouping the cost from developers.</p>

## Discussion

The plan change is the only effective solution that would provide for connections through the area. The importance of connections has been identified in Plan Change 1 to the RPS, the District Plan and in other plans and strategies as detailed in section 7 of this report. The structure plan has been designed to provide a number of through connections along logical routes that will integrate the area with the rest of the town.

With regard to connections, Options 1 and 2 would be ineffective and would not achieve the purpose of the District Plan.

Option 3 would also be the best way of providing for amenity in the long term as required by District Plan objectives and policies and plan change 1 to the

RPS. Option 1 would be ineffective as it would lead to loss of existing character without establishing urban amenity. Option 2 would be quite effective at ensuring new development provided amenity, but only at L1B density and problems would still remain around Fairhurst and Jozecom Places

The need for compact urban form is identified in the policy framework (the RPS and UDS and also the District Plan). Existing zoning would result in a large area of low density zoning in a central part of the Rolleston Urban Limit. Option 3 would manage this by providing a structure which would allow more intensive development. For this reason it is more appropriate than option 2, which would not facilitate good quality L1 density development.

Option 3 is the most appropriate way to achieve the purpose of the Plan because it would be effective at achieving its objectives.

	Option 1 <b>Do Nothing</b>	Option 2 <b>Revised Plan Provisions with Design Guide</b>	Option 3 <b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Environmental Benefits</b>	<p><u>Connections</u></p> <p>No benefits with regard to connections</p> <p><u>Amenity</u></p> <p>Avoids loss of amenity effects of new walkway / cycleways on existing landowners</p>	<p>No benefits with regard to connections</p> <p>Avoids effects of new walkway / cycleways on existing landowners</p> <p>Fewer shared accessways with higher quality design in comparison with option 1 will mean more attractive public and shared space, especially around Brookside Road.</p> <p>Preservation of some of the special character of Fairhurst Place and Waterbridge Way (spaciousness and retention of cherry trees).</p> <p>Design Guide will encourage developers to design sections which fit in with existing public character and neighbours and which will provide good quality urban character in future</p>	<p>Reduced reliance on the private car and associated emissions.</p> <p>The amenity of the zone and surrounding area will be enhanced because there will be opportunities for recreational walking.</p> <p>Ensures provision of infrastructure even if a single lot is subdivided.</p> <p>Public amenity benefits of connectivity (such as recreational walking). Will provide connected high quality for general amenity rather than disconnected lower quality rights of way</p> <p>Will minimise the effects of shared accessways by better providing road access to sections, allowing the creation of a good quality urban area. Will provide the best street amenity for Brookside Road</p> <p>High quality public space on new streets</p> <p>Preservation of some of the special character of Fairhurst Place and Waterbridge Way (spaciousness and retention of cherry trees).</p> <p>Design Guide will encourage developers to design sections which fit in with existing public character and neighbours and which will provide good quality urban character in future.</p>

	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
	<p><u>Density</u></p> <p>Lower density zoning allows development with fewer conflicts between neighbouring sections. Existing land-owners less affected by changed intensity of area.</p>	<p>South of Lowes Road, lower density zoning allows development with fewer conflicts between neighbouring sections. Existing land-owners less affected by changed intensity of area.</p> <p>L1 zoning provides some critical mass for central activities (shops and recreation) and public transport.</p> <p>L1 zoning is a more efficient use of a finite resource (land). Also more efficient use of infrastructure (roads, sewers etc)</p> <p>.</p>	<p>South of Lowes Road, lower density zoning allows development with fewer conflicts between neighbouring sections. Existing land-owners less affected by changed intensity of area.</p> <p>L1 zoning provides some critical mass for central activities (shops and recreation) and public transport.</p> <p>L1 zoning is a more efficient use of a finite resource (land). Also more efficient use of infrastructure (roads, sewers etc).</p> <p>Structure Plan provides means to better organise development and avoid some of the intensified amenity issues which will arise under option 2.</p>
<b>Environmental Costs</b>	<p><u>Connections</u></p> <p>Lack of direct routes would restrict choice of transport mode and encourage use of private cars.</p> <p>Increased reliance on private car would increase vehicle kilometres travelled and emissions, especially for trips to take children to the proposed school.</p> <p>Loss of legibility (difficult to navigate)</p>	<p>Lack of direct routes would restrict choice of transport mode and encourage use of private cars.</p> <p>Increased reliance on private car would increase vehicle kilometres travelled and emissions, especially for trips to take children to the proposed school.</p> <p>Loss of legibility (difficult to navigate)</p>	

	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Environmental Costs (cont)</b>	<p><u>Amenity</u></p> <p>Loss of amenity in the medium and long term due to:</p> <ul style="list-style-type: none"> <li>Reliance on private accessways especially around the turning heads of Jozecom and Fairhurst Place, and on Brookside Road (lower amenity of private ways and their impact on public space).</li> <li>Likely that sections would not be designed to create good street frontage and an attractive street scene.</li> <li>More fragmented subdivision encouraged (incremental chopping off of single sections one at a time).</li> </ul> <p>No protection of special character in Waterbridge Way and Fairhurst Place.</p> <p>Proposed District Plan roads linking with Waterbridge Way would erode its special character.</p> <p><u>Density</u></p> <p>Loss of compact urban form in the central area of Rolleston:</p> <p>Lost opportunity to provide critical mass for central activities (shops and recreation) and public transport.</p> <p>Loss of density gradient</p>	<p>Some loss of amenity in the medium and long term (but less than with option 1):</p> <ul style="list-style-type: none"> <li>Reliance on private accessways especially around the turning heads of Jozecom and Fairhurst Place, and on Brookside Road (albeit reduced when compared to option 1).</li> <li>Likely that not all sections would not be designed to create good street frontage and an attractive street scene. But on average development likely to be better than for option 1.</li> </ul> <p>Some increased conflict between developments and neighbours north of Lowes Road (increased impacts on amenity: loss of privacy, public amenity, issues from fencing and rights of way and reverse sensitivity with Pineglades Naturist Club).</p>	<p>Effects of new roads and walkway / cycleways on existing landowner's amenity</p> <p>Effects of link to school on existing amenity, in particular the effects of traffic dropping off and picking up children in the morning and afternoon.</p> <p>Some increased conflict between developments and neighbours north of Lowes Road, but less than under option 2.</p>

	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Social Benefits</b>	No known benefits	<p><u>Connections</u></p> <p><u>Amenity</u></p> <p>Zone Changes mean that a higher proportion of Rolleston's future urban population is within easy reach of services.</p> <p>An increase in development options is likely to give rise to increased housing choice (smaller sections in a more established area)</p>	<p>Provides access to the proposed school site and central areas of new Rolleston urban area for a wide geographical area.</p> <p>Safer access onto the road network (especially onto Jozecom and Fairhurst Places and Brookside Road).</p> <p>Provides choice in transport mode which increases health and wellbeing (through active transport modes)</p> <p>Provides choice in transport which allows some social groups the ability to access services and facilities (eg young people and those on lower incomes).</p> <p>Zone Changes mean that a higher proportion of Rolleston's future urban population is within easy reach of services.</p> <p>An increase in development options is likely to give rise to increased housing choice (smaller sections in a more established area)</p>
<b>Social Costs</b>	<p>Lack of direct routes would restrict choice of transport mode</p> <p>Lack of walkability is detrimental to social cohesion and can increase social exclusion (make it harder to visit other residents or make other short trips, especially for children and older people).</p> <p>Limited choice of walking/cycling route to proposed school and new central urban areas for a wide geographical area reduces ability to walk and access services.</p>	<p>Lack of direct routes would restrict choice of transport mode</p> <p>Lack of walkability is detrimental to social cohesion (makes it harder to visit other residents or make other short trips, especially for children and older people).</p> <p>Limited choice of walking/cycling route to proposed school and new central urban areas for a wide geographical area reduces ability to walk and access services.</p> <p>Increased reliance on car ownership can be socially divisive (those who have limited or no access face increased social exclusion due to limited ability to access services).</p>	<p>Loss of privacy for existing landowners.</p> <p>Loss of choice of development option (some landowners may wish to subdivide a single lot, which may be more difficult where they are required to provide land for linkages).</p>

	Option 1	Option 2	Option 3
	<b>Do Nothing</b>	<b>Revised Plan Provisions with Design Guide</b>	<b>Introduce Structure Plan and associated changes to District Plan, with Design Guide</b>
<b>Economic Benefits</b>	Costs of development may be lower in some cases as there will be less need for developers to fund new roads.	Costs of development may be lower in some cases as there will be less need for developers to fund new roads.  Zone changes lead to higher development potential in north.	Costs of development may be reduced in some cases as there will be less need to build private infrastructure.  Reduced reliance on and distance travelled private car and associated economic costs for residents of Rolleston.  Zone changes lead to higher development potential in north.
<b>Economic Costs</b>	Costs of development may be higher in some cases as there will be a need to build rights of way and other private infrastructure.  Increased reliance on and distance travelled private car and associated economic costs for residents of Rolleston.  Low development potential over whole area	Costs of development may be higher in some cases as there will be a need to build rights of way and other private infrastructure.  Increased reliance on and distance travelled private car and associated economic costs for residents of Rolleston.  Loss of development potential if adjoining landowners won't work together.  Low development potential south of Lowes Road	Costs of development may be higher in some cases as there will be a need to build more roads.          Low development potential south of Lowes Road

## Discussion

As in the tables above, this discussion is divided into Connections (and Infrastructure), Amenity and Density.

### Connections

In this assessment of costs and benefits, no differences have been identified between options 1, and 2 with regards to connections.

The social and environmental costs of options 1 and 2 are the costs that the community will face due to the lack of connections. The policy framework is clear that these costs are not acceptable in Selwyn's townships and these must be regarded as a major cost of those two options. The policies are especially clear on the importance of connections to schools, such as the

proposed school on land adjacent to Fairhurst Place. Only option 3 presents a solution.

Option 3 would impose environmental costs on landowners and residents in the form of the effect of rights of way on amenity and reduced choice for developers as a result of the need for connections. These costs should be considered in the context of the pattern of development which is likely without a structure plan. The amenity effects of the structure plan are regarded as preferable to those that will occur under options 1 and 2. This issue is considered further below.

The specific issue of the effects of traffic dropping off and picking up children would be a cost of the structure plan. It is intended to deal with this through street design measures to discourage casual parking, especially on the new cul-de-sac leading to the school from Fairhurst Place.

For connectivity, no social or environmental benefits have been identified with options 1, or 2. In comparison, there are significant benefits associated with option 3.

The economic costs of the first two options relate partly to the costs of developing the roads and infrastructure that the structure plan requires. Whilst these costs are real and significant, they need to be balanced against the costs of development without a structure plan (the cost of private rights of way and private infrastructure). These costs will also be substantial and may exceed those of the structure plan.

Either way, the costs of infrastructure will be met by developers, as is always the case for development in the district.

Other costs would arise for the community if options 1 or 2 were implemented in the form of increased spending on transport, due to increased need for ownership of private cars and longer distances travelled.

### Amenity

A number of particular issues have been identified which can be divided into those related to the identified special character of parts of the area (Fairhurst Place and Waterbridge Way) and those related to general amenity (existing amenity and desirable urban character as the area is intensified).

Under option 1, the present spacious amenity of the area is likely to be progressively eroded as development occurs. This would affect both the identified special character (which would not be protected and would be lost with intensification to L1B section sizes) and general amenity.

A number of issues have been identified with regard to general amenity, which are detailed in Section 8.2. These predominantly relate to accessways.

Also important are the amenity effects of legibility and connectivity (being able to find your way through a network of roads and pathways).

Option 2 deals with these issues (and special character issues) symptomatically by including rules to address each of them. This would be an effective way to improve the way development relates to the special character areas and would be effective at addressing some of the identified

problems by requiring fewer, better designed accessways. However, it would not address the fundamental problem of poor organisation of urban space.

This problem of organisation is evident around the turning head of Fairhurst and Jozecom Place and in the centre of the area to the north of Lowes Road, which have very little accessibility. Development will depend on long, shared private accessways which will have poorer public amenity than streets. Development would simply not meet the standard expected for townships in the District Plan.

There may also be economic costs with option 2 if developers were to lose development rights (for example if they could not reach agreement to share accessways).

### Density

Compared to the other options, the lower density of option 1 would reduce the potential for conflicts as the area develops (and more intensive use is established around the current rural residential use).

However, for a number of reasons identified in Section 8.3, the policy framework identifies that some density is desirable in the L1B deferred zone, due to its location.

Option 2 proposes that the area north of Lowes Road be zoned as Living 1. However, some of this area may not be suitable for higher density use because of the awkward shape of the parcels of land.

Option 3 differs in that it manages the effect of density by providing a structure to allow development to occur successfully at higher yields. This effectively balances the aim for some increased density in the location with the possible conflicts that might arise.

### **10.1.3 Conclusions**

There are substantial costs identified with options 1 and 2 and it is clear that they would not be effective at achieving the objectives of the District Plan.

By Comparison, option 4 is efficient and effective, has fewer costs and more benefits.

## Appendix 1

### Plan Amendments

#### Amend Part B Issues, Objectives and Policies as follows:

- 1 Insert a new policy under Subdivision of Land – Policies and Methods:

##### **Policy B.4.2.9**

**To ensure development in the Rolleston Lowes Road Structure Plan area is in accordance with the Structure Plan (Appendix 33) so that development proceeds in a logical and coherent manner that provides for internal and through connections and a high standard of public amenity by:**

- a) **Providing for pedestrian, cycle and vehicle movement within and through the area in accordance with the structure plan map (Appendix 33), with such land to be vested in Council at the time of subdivision.**
- b) **Providing reserves and public amenity within the zone as identified in Appendix 33.**
- c) **Ensuring coherent, safe and attractive public areas by implementing an appropriate development pattern and density of development.**
- d) **Protecting the special character of Waterbridge Way and Fairhurst Place by ensuring: the retention of a lower density of development; the avoidance of obtrusively positioned buildings; the preservation of existing special features.**

#### **Explanation and Reasons**

The Structure Plan will promote integrated development by providing a logical road and walkway/cycleway network and providing direct street access for a larger proportion of allotments. Land required for structure plan connections will be obtained at the time of subdivision. New buildings should not be positioned in a way that would frustrate the ability of Council to obtain connections in future.

The road and walkway/cycleway connections in the structure plan have been designed to provide for permeability and for through movement. They serve the wider needs of Rolleston as well as those of the residents of the zone. Without them the area is likely to be a barrier to movement for surrounding residents.

The Structure Plan aims to provide for reserves within the area on a logical basis, taking advantage of significant features such as trees and water-races. Council will buy the land required using reserves contributions from development in the area.

Two parts of the area have been identified as having a special character:

- Waterbridge Way, due to its low density of development and unique streetscene (landscaped water-races, narrow bridges and buildings set well back from the street).
- Fairhurst Place, due to the sense of spaciousness on the street, especially for



views extending south-east from Lowes Road into the distance, and the established cherry trees and front boundary planting.

A low density area (with increased setbacks) is regarded as the best way to prevent the loss of this character from cramped development. The establishment of more closely spaced (L1B density) houses and accessory buildings in locations where they are noticable from the street would undermine this. The special character results in part from the absence of any incongruously positioned dwellings in the street scene. Subdivision proposals which are likely to lead to such development due to the shape and position of lots should be avoided.

## **Methods**

### District Plan Rules

- Subdivision: General
- Buildings and Building position
- Structure Plan

### LTCCP

- Development Contributions Policy

### Rural Residential Re-Subdivision Design Guide

## **Amend Part C (Rules) as follows:**

- 2 Insert new rules to give restricted discretionary status to new buildings when positioned on or near structure plan elements and introduce increased setbacks for buildings in the new L1C zone

*Under 4.9 Buildings:*

### **Permitted Activities – Buildings and Building Position**

- 4.9.19 Within the Lowes Road Structure Plan area, any building shall be positioned at least 5m away from the indicated route of any proposed road; or 2m from any proposed walkway/cycleway; routes as shown in Appendix 33.

### **Special Character Low Density Areas (Living 1C zoning)**

- 4.9.20 In Living 1C zoned areas, buildings shall have a set back from the road boundary of not less than 6m.
- 4.9.21 Dwellings and family flats shall be positioned at least 6m from any existing dwelling or family flat (or footprint of a planned dwelling or family flat for which a building consent has been granted within the previous 2 years).

An exception is where family flats are attached to the principle dwelling.

*Renumber subsequent points.*

## Restricted Discretionary Activities – Buildings and Building Position

- 4.9.26 Any activity which does not comply with 4.9.19 shall be a restricted discretionary activity
- 4.9.27 Under rule 4.9.26 the Council shall restrict the use of its discretion to consideration of whether the erection of the building would frustrate the ability for the structure plan connections and reserves in Appendix 33 to be obtained at future subdivision. In assessing this, regard shall be given to:
- a) The location of the building with regard to whether it would obstruct the implementation of the structure plan.
  - b) The location of the building and its impact on the amenity of proposed public space
  - c) The permanence of the building
  - d) Whether structure plan elements could otherwise be provided through the site:
    - i) in such a way that a logical pattern of development for the area as a whole will result.
    - ii) without compromising the ability of adjoining landowners to develop their land whilst providing for the indicated reserves and linkages.
    - iii) whilst resulting in public space of equal or better quality than the structure plan without excessive additional costs in the construction of roads or paths.
- 4.9.28 Any activity which does not comply with 4.9.20 or 4.9.21 shall be a restricted discretionary activity
- 4.9.29 Under rule 4.9.28 the Council shall restrict the use of its discretion to consideration of:
- a) the matters listed under rule 4.9.26
  - b) the unique spacious character of the area and its sensitivity to incongruous or closely spaced buildings

*Renumber subsequent points.*

- 3 Insert new section on buildings and streetscene\*

### **4.13 BUILDINGS AND STREETSCENE**

#### **Permitted Activities — Buildings and Streetscene**

For all residential development located within the Lowes Road Structure Plan Area

4.13.1 The maximum height of any fence between the front building façade and the street or a private Right of Way or shared access over which the allotment has legal access, shall be 1m. For allotments with frontage to more than one road, this rule shall only apply to the façade that includes the front entrance to the allotment, with fencing on the other road frontage to be no higher than 1.8m.

4.13.2 Garages are to occupy no more than 50% of the width of the building façade facing the road, or a private right of way

### **Restricted Discretionary Activities - Buildings and Streetscene**

4.13.3 Any activity which does not comply with 4.9.20 or 4.9.21 shall be a restricted discretionary activity

4.13.4 Under Rule 4.13.1 the Council shall restrict the exercise of its discretion to consideration of:

4.13.3.1 The degree to which an open streetscene is maintained and views between the dwelling and the public space, private Right of Way or shared accesses are retained.

4.13.3.2 The extent to which the visual appearance of the site from the street, or private Right of Way or shared access over which the lot has legal use of any part, is dominated by garden planting and the dwelling, rather than front fencing.

4.13.3.3 The extent to which the proposed fence is constructed out of the same materials as the dwelling and incorporates steps in plan, landscaping, and see-through materials such as railings or trellis.

4.13.4 Under Rule 4.13.2 the Council shall restrict the exercise of its discretion to consideration of:

4.13.4.1 The extent to which the front façade is dominated by habitable rooms and glazing rather than garaging.

4.13.4.2 The extent to which the opportunity for passive surveillance and overlooking of the street, private Right of Way, or shared access from the dwelling is provided.

*\*Note that this section is also added by Proposed Plan Change 7, which also adds the same rules, but for different zones (Greenfield Living Z). A tidying up exercise (via Clause 16 of the first schedule) is likely to be required to reconcile the numbering of the clauses if both plan changes are approved.*

## **4 Amend Table C12.1 – Allotment Sizes**

TOWNSHIP	ZONE	AVERAGE ALLOTMENT SIZE NOT LESS THAN
Rolleston	Living 1	750m <sup>2</sup>

Living 1A	Minimum lot area of 300m <sup>2</sup>
Living 1B	1,200m <sup>2</sup> with a minimum lot area 750m <sup>2</sup>
<u>Living 1C</u>	<u>2,000m<sup>2</sup> with a minimum lot area of 1,000m<sup>2</sup></u>

- 5 Exclude the Structure plan area from the indicative roading requirements in for Rolleston:

12.1.4.45 Except in the Lowes Road Structure Plan Area (Appendix 33), the extent to which a failure to conform with the roading pattern identified in Appendix 23...

- 6 Add new assessment matters under 12.1 to require compliance with structure plan:

#### **Restricted Discretionary Activities – Subdivision - General**

##### **Rolleston**

12.1.4.48 For allotments within or adjacent to the Lowes Road Structure Plan area, that the proposed layout is in general accordance with the structure plan map in Appendix 33.

In assessing whether the layout is in general accordance with the structure plan map the following will be considered:

- a) that the ability for Council to obtain the indicated linkages is not compromised.
- b) that the ability for Council to obtain the indicated reserves is not compromised.
- c) that the layout will result in a logical pattern of development for the area as a whole.
- d) that the ability of adjoining landowners to develop their land whilst providing for the indicated reserves and linkages is not unduly compromised.
- e) That the proposal will result in public space of equal or better quality than the structure plan
- f) That the proposal will not involve excessive additional costs for Council in the construction of roads or paths funded by development contributions.

- 7 Add new assessment matters for subdivision in special character areas:

##### **Rolleston Special Character Low Density Areas (Living 1C zoning)**

12.1.4.49 In the Living 1C zoned area adjacent to Waterbridge Way, that the subdivision would not require the piping of a water-race or its relocation away from the path shown in the Lowes Road Structure plan unless:

a) an alternative path of equal prominence is provided;

b) the water-race is landscape to a standard equivalent to surrounding landholdings.

In the assessment of this matter, consideration should be given to the likely size, shape and location of any dwellings to be built on the new lots.

12.1.4.50 In the Living 1C zoned area adjacent to Waterbridge Way, that the subdivision design minimizes the need for additional crossings of the water races by sharing accessways where possible. Where this is not feasible, the water race should be crossed by a bridge of similar design, materials and colour to the existing bridges on Waterbridge Way.

12.1.4.51 In Living 1C zoned areas in Fairhurst Place, that the subdivision would not require the removal of street trees in order to provide access.

*Renumber subsequent points.*

8 Add a new discretionary activity to section 12.1.6

12.1.6.5 Any subdivision in a Living 1C zone with an average lot size above 1,200m<sup>2</sup>.

9 Add a new non-complying activity to section 12.1.7:

**Non-Complying Activities – Subdivision - General**

12.1.7.4 Any subdivision in the Lowes Road Structure Plan area that is not in general accordance with the Structure Plan.

12.1.7.5 Any subdivision in a Living 1C zone with an average lot size below 1,200m<sup>2</sup>.

10 Add a definition for *front building façade*

**Front Building Façade:** applies to a dwelling and refers to the elevation which most directly faces the road or right of way from which the site is accessed.

11 Insert Attachment 1 (Lowes Road Structure Plan) into appendices.

12 Amend Planning map zoning in accordance with Attachment 2.

## Appendix 2

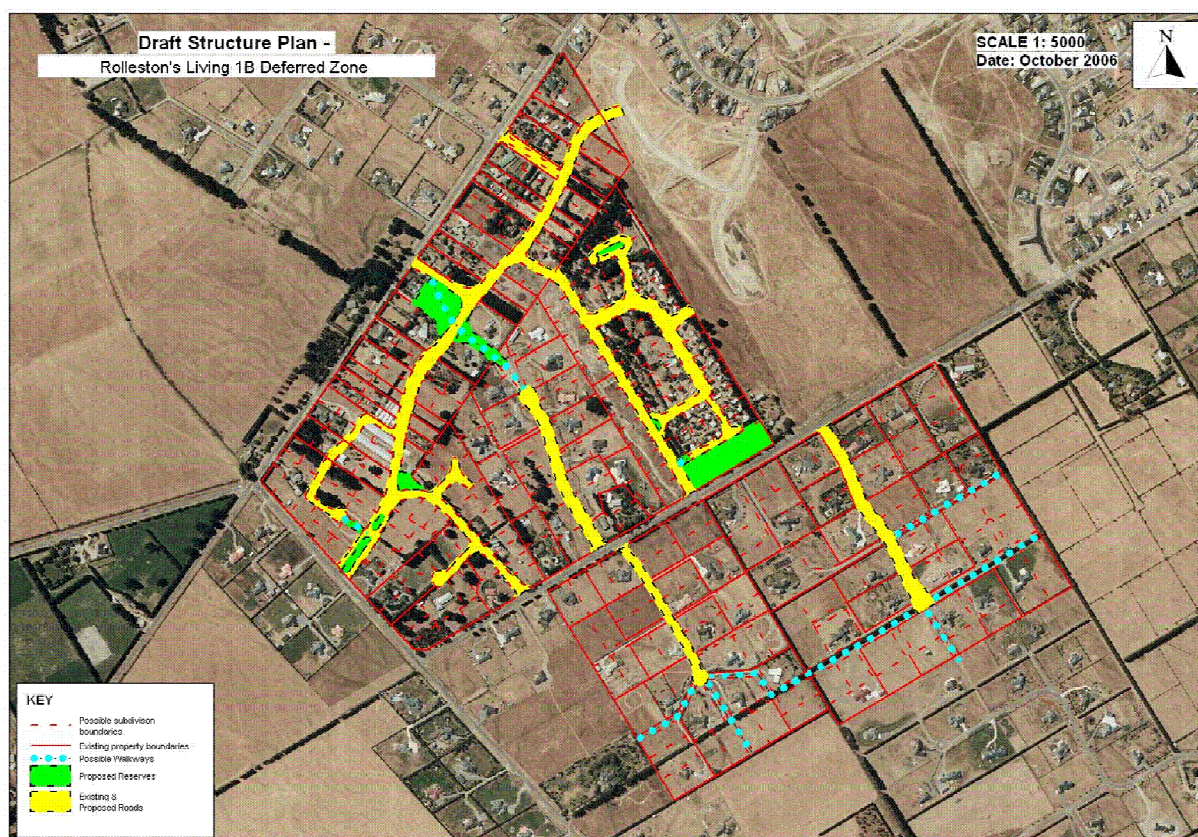
### Summary of Consultation

Development of the Structure Plan has proceeded in two stages. An initial consultation took place in 2006/7. The structure plan was not progressed at this stage, and there was a subsequent consultation in 2009, when a revised plan was produced.

#### The 2006/7 Consultation

A consultation exercise was undertaken by Council in 2006 to canvas the views of the residents. This included letters to landowners, two series of open days, newsletters and on-site meetings with landowners.

The consultation took place in two stages. Residents were first asked about the elements that should be included in a structure plan. Responses to these questions helped to inform the production of a draft plan. Residents were then asked their views on a draft structure plan.



***The 2006 Structure Plan***

Responses to the process were received from 47 of the 86 landowners in the study area (55%).

A report of consultation was circulated to the community in April 2007. The main points are summarised below:

- Of the 47 respondents, 15 indicated that they were interested in subdividing, 6 that they may be interested in subdividing whilst 13 were not intending to subdivide.
- Most of the respondents indicated that they appreciated the property size and lack of close neighbours. Only five indicated that the potential for subdivision was a reason for buying the land.
- The majority of respondents had a preference for a development pattern based on cul-de-sacs rather than connected streets. A majority supported the retention of the rural-style of the existing roads (no kerb and channel), but supported kerb and channel for new roads.
- Participants in the first round of consultation were very supportive of the principle of walking and cycling through the area. However, when possible routes were shown on a draft plan there was some opposition, with 17 of the Jozecom Place and Fairhurst Place landowners being against the proposals. There was also some support for the proposed walkways.
- There is no clear consensus on the appropriate section size for subdivision. In all, 19 respondents supported section sizes of either 750 or 1000m<sup>2</sup>, whilst 13 supported larger section sizes, including 8 who wanted the existing 5000m<sup>2</sup> minimum to remain.
- There was some opposition to the principle of the use of existing private accessways as walkway/cycleway routes.

### **The 2009 Consultation**

In response to the consultation, and also to changes in circumstances (such as Council policy changes), amendments were made to the Draft Structure Plan. These included a change in approach away from the use of rights of way for walkways, to a design which is based on the likely future pattern of development. This involved more vested roads (rather than relying on private accessways) and shorter lengths of footpath.

The consultation took place in two stages.

The first, in March, was aimed at finding out views on the future development of the area as a concept, as well as reaction to a draft plan for roads, walkway/cycleway connections, reserves and zoning.

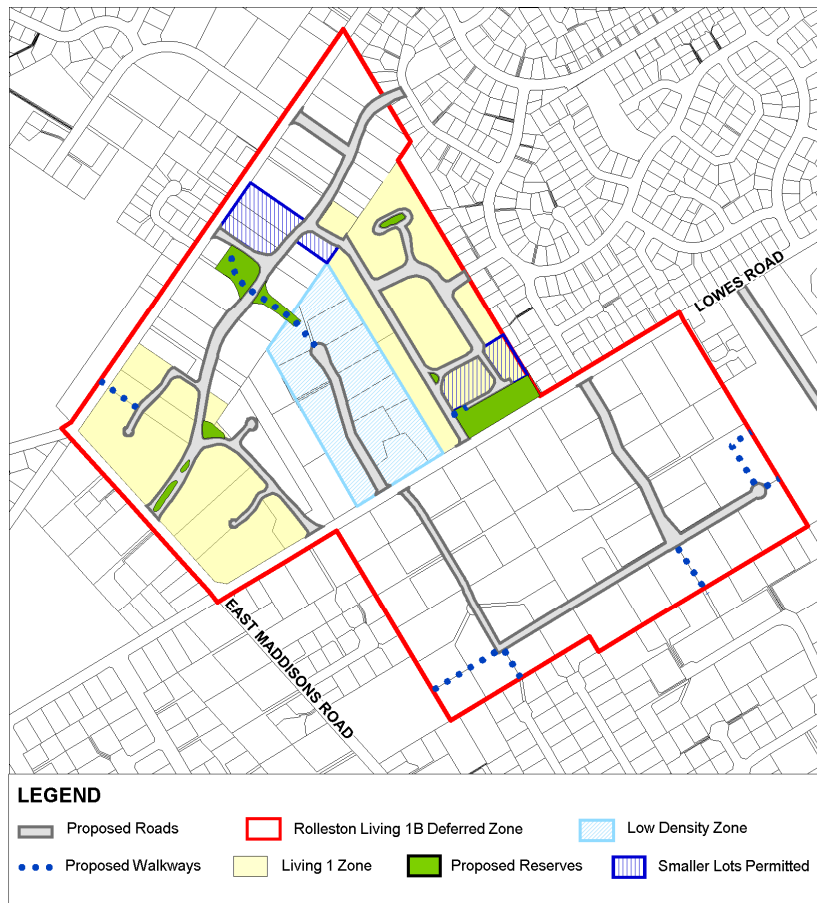
This took the form of a leaflet which was distributed to all residents and landowners and an open evening with Council staff.

The second stage, in May, was aimed at refining the structure plan, for instance to locate roads and pathways where they best suit landowners.

### **First Stage**

A total of 48 responses were received. Of these, a small majority (25) were generally supportive of the structure plan, whilst 23 were generally opposed.

There was a significant difference in reaction in the north of the area (north of Lowes Road) to the south.



*The 2009 Structure Plan (for Consultation)*

### South of Lowes Road

In the south, the structure plan was generally opposed by 17 respondents with 9 being in generally in favour.

The main reasons for opposition were road and walkway/cycleway connections. Many comments were made to the effect that the proposed road link between Fairhurst and Jozecom Places was not wanted.

There was a noticeable difference in the response from Jozecom Place and Fairhurst Place. In Fairhurst Place there was a more prevalent desire to retain the existing character and circumstances. 12 respondents were against the structure plan and 5 in favour (29%). 12 wanted low or very low density zoning (with only 4 wanting Living 1 or Living 1B). Only 5 indicated that they may subdivide in future. 13 opposed the proposed roads.

Opposition to the structure plan was less widespread in Jozecom Place, where 5 of the submitters were opposed and 4 were in favour (44%). A lower proportion of respondents wanted low density: there were 6 requests for L1 or L1B zoning, as against 3 for low density. 7 indicated that they may subdivide.

### North of Lowes Road

In the north, the structure plan was opposed by 6 responses and supported by 16 (73%). Again, the response was not uniform and sub-areas have distinct characteristics.



In Waterbridge Way, the plan was generally supported by 8 of the 9 respondents. 6 of the respondents wanted low density zoning (as proposed), with the remainder requesting L1B. 6 were in favour of the walking and cycling links and 2 opposed.

For East Maddisons and Brookside Roads, 7 of the 11 responses were favourable (63%). 5 respondents disagreed with the roads, but only 3 with the walkways and cycleways. 7 intended to subdivide. 2 opposed the reserves, but it is worth noting that this area contains landowners who are directly affected by the proposed reserve fronting Brookside Road. With regard to density, 8 respondents requested L1 zoning, 1 L1B and 2 low density. 5 supported higher density 450m<sup>2</sup> sections over part of the area.

In the Pineglades area, 2 responses were received. One was from the Pineglades Naturist Club, which accounts for the majority of the area. This indicated that they do not intend to subdivide for now.

### **Conclusions from First Stage**

- The structure plan was supported by a small majority of respondents (25 out of 48).
- The structure plan was supported by a clear majority in the north (73% in favour)
- The structure plan was opposed by a majority in the south (65% against).
- Higher (L1) density was generally supported in the north except for Waterbridge Way where low density zoning is preferred. There is some support for higher density 450m<sup>2</sup> zoning in affected areas, but not a majority.
- The proposed road and walkway/cycleway connections are supported by a majority of respondents in the north.
- Residents in the south were opposed to the road link between Fairhurst and Jozecom Places.
- A clear majority of Fairhurst Place residents would like to retain low density and would prefer structure plan linkages not be established. Few submitters intended to subdivide.
- Opposition to the structure plan is less prevalent in Jozecom Place (5 out of 9 were opposed). There is no consensus to retain low density in Jozecom Place. Most submitters intended to subdivide.

### **Second Stage**

A leaflet was distributed to all residents and landowners outlining some revised options and seeking comments. The suggested changes were:

- That Jozecom and Fairhurst Places not be linked by a road. Instead two (longer) cul de sacs would be formed and connected via a short walkway.
- That a low density zone be established in Fairhurst Place
- That any walkway through to the proposed school not be opened for at least 5 years
- That the route of the spine road in the north be amended
- That the whole of the north (excluding Waterbridge Way) be rezoned as Living 1.

During this time, discussions were also held with individual landowners and amendments made as a result, usually after consultation with affected neighbours.

Additionally, feedback forms at the open evening were aimed at fine tuning the structure plan and these also fed into this stage of the consultation. In all, 51 landowners responded during the second stage.

The consultation is more difficult to summarise as it involves many details of the structure plan, some of which are specific to particular landowners. Some problems raised have also been resolved by small changes to the plan.

The main findings of the consultation are as follows.

### South of Lowes Road

Responses were received from 32 landowners (a 71% response).

There was little support for the proposal to link Jozecom and Fairhurst Places by road, with only 2 responses being in favour. When given the choice of extended cul de sacs with footpaths (as now proposed) or a link road, 17 requested cul-de-sacs. 8 respondents requested that there be no walkway/cycleways, even though this was not an option on the feedback form. It is suggested that residents prefer the idea of a walkway/cycleway link to a road link, but that a walkway/cycleway link is would probably not be supported by a majority of respondents.

Of the 15 landowners directly affected by the walkway/cycleway, 9 have indicated that they do not favour its inclusion in the structure plan.

The proposal to establish a low density zone in Fairhurst Place was supported. Of the 12 affected lots, 2 requested L1 zoning. These were the lots adjacent to Lowes Road and could feasibly be excluded from the low density zoning. Of the remainder, 5 want low density zoning and 1 would like L1B zoning (with 4 not responding).

Otherwise, there is no consensus for rezoning in the South. Of the respondents in Fairhurst Place overall, 7 requested low density and 7 requested L1 or L1B. In Jozecom, there were 3 requests for L1, 1 for L1B and 1 for larger lots.

There was little response to the idea that the opening of the footpath through to the new school be delayed although some suggestions were made with regard to traffic management.

### North of Lowes Road

There were 19 responses from this area, with 4 being from Waterbridge Way. As no specific questions were asked in regard to Waterbridge Way, it is not possible to draw any conclusions (issues were tackled in stage 1).

In the area outside Waterbridge Way, there were 15 responses. Of these, 13 expressed a preference for rezoning the majority of the north of the area as L1 (or higher density).

The route of the spine road is supported by a majority of affected landowners. Following negotiations over its route, it is now believed that one landowner remains opposed, with another having reservations over its route.

The location of the reserve adjacent to Waterbridge Way is opposed by the landowner.

There are 5 landowners affected by the walkway/cycleway connection from this reserve to Waterbridge Way. Of these, two remain opposed to the link being in the structure plan, whilst three do not object.

## **Conclusions**

The following are the main conclusions that can be drawn following stage 2:

- L1 zoning is supported in the north.
- A special low density zone around Waterbridge Way is generally supported.
- A special low density zone around Fairhurst Place is generally supported.
- There is no consensus for other rezoning in the south.
- The proposed roading pattern in the north is supported by almost all respondents.
- The revised roading pattern in the south, based on two cul-de-sacs, is preferred to a linked pattern.
- The proposed walkway/cycleway in the south is not supported by most affected landowners.

## **Appendix 3**

### **Rolleston Urban Limit**

## Appendix 4

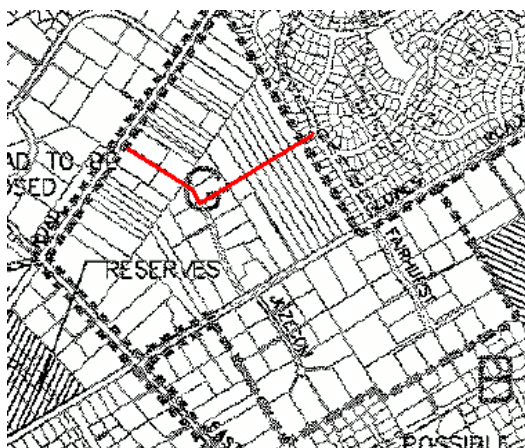
### Assessment of Specific Road and Walkway/Cycleway Connections

#### 1 Overview

##### Through Road Connections

At present there is only one connection through the study area (Lowes Road). The study area is large and this lack of permeability is a barrier to movement. In the past this has not been problematic because the study area has been peripheral to the town. However, as more development takes place in the north-west corner of the town, this lack of permeability will affect an increasing number of residents.

Existing District plan policy provides for some road connections through the north of the study area which are required at the time of development of the land over which they pass (figure 1). These consist of a north/south link from Brookside Road to Lowes Road and an east/west link from Waterbridge Way to Renoir Drive.



**Figure 1: Road connections required by the District Plan**

The Structure Plan proposes to alter the position of these routes. The north-south route will be accommodated on a separate new road (avoiding Waterbridge Way). The East-West link will be extended to East Maddisons Road and avoid Waterbridge Way. An additional link through to Campion Place will also be provided.

A number of minor connections are also proposed in the north. No new connected roads are proposed south of Lowes Road. Roads in this area are for access only.

##### Walkway and Cycleway Connections

Pedestrians and cyclists are more affected by poor connectivity than drivers. A poorly connected network of footpaths may impose long detours that make the journey highly inconvenient. This may result in extra car journeys as people are discouraged from walking or cycling.

The central location of the study area makes the provision of direct pedestrian and cycleway connectivity particularly important, for both the future residents of the area and for those who may wish to make through journeys.

The structure plan will introduce basic connections to the study area, but there will be much less connectivity than is the case in most of Rolleston.

The Council's Draft Walking and Cycling Strategy and Community Services Asset Plan place some importance on the provision of improved walking and cycling links. They identify that such connections are appropriately obtained during the course of new development. The Structure Plan represents a way to implement this existing Council approach and obtain the links the Community requires in an orderly fashion.

The principle walking and cycling connections required are:

- a north-south connection from Brookside Road to Oak Tree Lane via Waterbridge Way, Jozecom Place and Frame Crescent
- an east-west link south of Lowes Road, which will form part of a connection from East Maddisons Road to Goulds Road via Jozecom and Fairhurst Places.

These proposed linkages are in addition to those provided by the road network, and walking and cycling routes are also on the road network.

In addition to these connections, the link from Fairhurst Place to Manor Drive is important to avoid the need for pedestrians to make long diversions. This link is already in use.

A further link is proposed from Brookside Road to the Spine Road on the boundary between 191 and 193 Brookside Road and via the proposed cul-de-sac.

## **2 Discussion**

### **2.1 New Roads**

New roads are required to provide for movement and to organise development. In terms of movement, the structure plan has been designed to:

- provide connections for through-journeys
- provide logical (not convoluted) routes for journeys originating in the study area
- provide for direct pedestrian and cycleway movement

As regards the need to organise development, the structure plan roads are intended to

- avoid untidy and potentially dangerous streets dominated by right of way accesses
- To allow efficient development (avoid wastage of land on multiple rights of way).

The need for the structure plan is illustrated by figure 2 which shows two development scenarios for the north of the area. These have both been designed to illustrate how the area would look if developed to the maximum permitted under the plan rules. Whilst in reality each exact scenario is unlikely to be built over the entire

area, they do give an indication of the type of development that may happen. None of the individual developments are unrealistic.



**A** Possible Development without Structure Plan



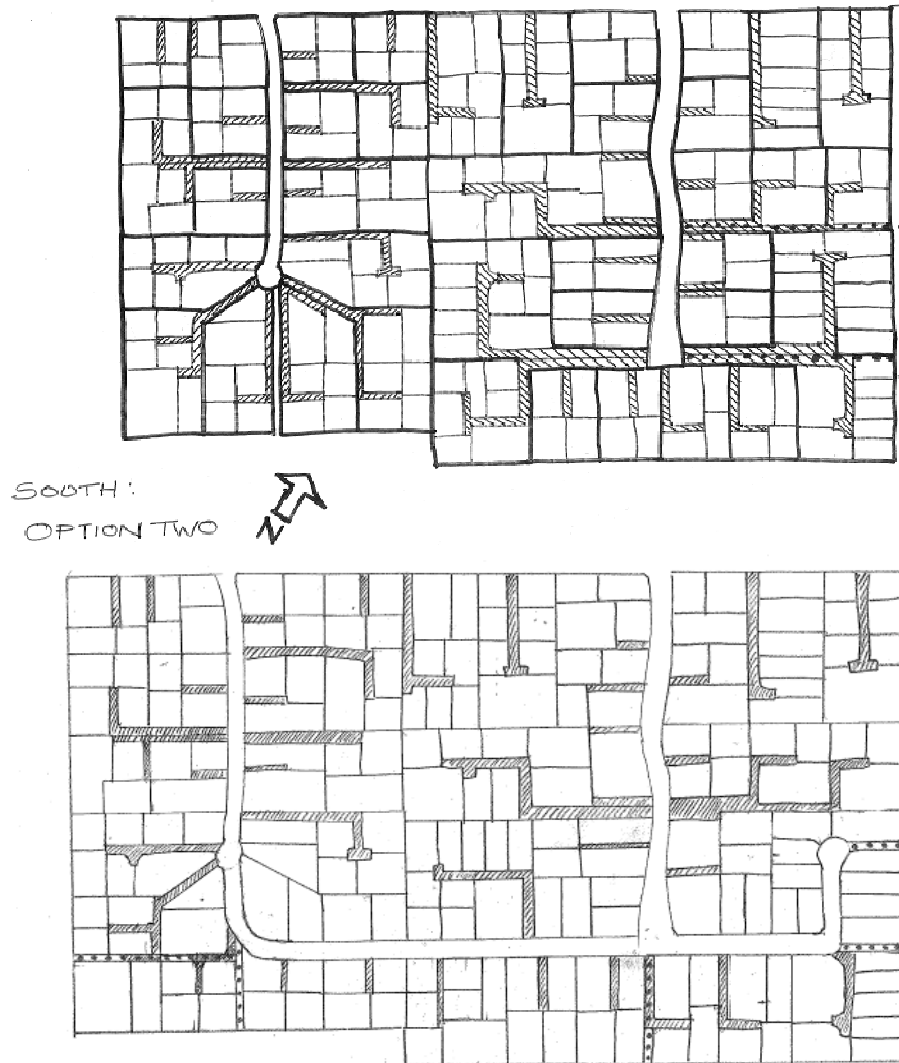
**B** Possible Development with Structure Plan

**Figure 2: Subdivision Scenarios for the North of the Structure Plan area**

The first of these (A), without a structure plan, is dominated by long rights of way, frequently over 150m in length. These are an inefficient use of land, can be unattractive, unsafe and are expensive to build.

Figure 2(B) shows that the structure plan will effectively remove the need for many of these rights of way and allow a tidier form of development.

Figure 3 illustrates the same principle for the south of the area. The impact of the structure plan is most evident around the turning heads of Jozecom and Fairhurst Places.



**Figure 3: Likely Pattern of Development without structure plan (top) and with structure plan (bottom).**

### 2.1.1 Specific Connections Required

The specific roads required are discussed below.



1      Spine Road (runs in an arc from East Maddisons Road to Lowes Road)

This spine road is required for four reasons:

- This road is key to the functioning of the road network within the area north of Lowes Road. It will provide important connections within the structure plan area, allowing residents to get direct access to multiple points on the road network to avoid convoluted trips.
- The road provides organization within the area. Without it, newly created sections must be accessed via right of ways. Sections adjoining Brookside Road are frequently long and thin and there would be a multitude of right of ways accessing onto the South side of Brookside Road. This is undesirable for the reasons identified in section 8.
- The spine road provides for some through traffic. It provides an east/west through connection from Brookside Road to Campion Place/Renoir Drive and a north/south connection from Lowes Road to Brookside Road. Given the central location of the study area, this is an important linkage.
- The road is also critical for providing pedestrian linkages through the area, especially important for access to the geographic centre of the Rolleston Urban Limit.
- The road provides a route for sewer and water connections. Additional sewer and water capacity is required if the area is to be developed. This cannot be provided from the existing mains located around the perimeter of the area for technical reasons.

The provision of connectivity has been identified as being central to the future success of Rolleston. A spine road providing through connections is critical to this.

There are problems inherent in the proposed route. It passes through a large number of sections in many different ownerships. It would bisect some separating the front from the back. Some landowners are opposed to the road because it would reduce their privacy and the sense of ruralness. Obtaining the land may be difficult, although Council has the option of compulsory purchase through land designation.

A number of alternatives have been considered, both during and prior to the consultation period. A road running parallel to proposed road 2, along the rear of the sections fronting Brookside Road, would be an alternative (avoiding cutting sections in two) but would not provide good road frontage for new sections and would not be the best solution going forward into the future. The issue of many rights of way accessing onto Brookside Road (and also the new road) would remain.

An alternative layout using two cul-de-sacs was also considered. This layout, without a complete spine road, would improve the amount of road frontage available but would not provide good connections within the area. Whilst it would help satisfy some of the landowners, it would not be a good option for the future of the area.

There does not appear to be a satisfactory alternative to the proposed road, which would link up to Campion Place via land which has been acquired for the purpose.



**Figure 4: Alternative layout without spine road**

It is worth noting that the link has been positioned to avoid conflict between the Pineglades Naturist Club and future sections. If residential lots were positioned directly adjacent to the naturist Club, it is likely that there may be pressure for the removal of screening which is valued by the club.

## 2 Connections with Brookside Road and Campion Place

These connections are required to organise the pattern of development and complete the road network. They are essential to the functioning of the spine road, to provide the local connections and access.

## 3 New cul-de-sac on 191-203 Brookside Road

This road provides an organizational function to avoid problems accessing the newly created sections. It would also form the basis for a walkway/cycleway connection through to Brookside Road.

## 4 New connection to Lowes Road adjacent to 218 Lowes Road

The connection between the Spine Road and Lowes Road is important to provide for good access to the road network, as well as providing road frontage for new sections. It is important as a pedestrian link as well as a roadway.

This road also provides a route for a north-south sewer connection which is required if the area is to develop.

## 5 Indicative linkage through the Pineglades Naturist Club site connecting to Renoir Drive

This link implements the existing District Plan requirement for a link to Renoir Drive through the Pineglades site. The site is large and has established trees throughout. It is most appropriate that it is developed to a comprehensive plan which takes advantage of the sites particular features. With this in mind, it is best that the position of the connection is left to the detailed design stage.

## 6 New Roothing south of Lowes Road

The possibility of linking Jozecom and Fairhurst Places by Road was suggested at the consultation but was strongly resisted by landowners. It is now proposed that some additional roading is built to help to organise the pattern of development, but that the roads are not joined.

If the area is allowed to develop without further roading, it is likely that there will be many right-of-ways opening onto the end of each road, many of them serving a number of sections. The disadvantages of multiple right of ways are covered elsewhere in this report, but it is likely that both Fairhurst and Jozecom Places will become unsafe and unattractive places, especially for pedestrians and cyclists.

Figure 4 shows the likely pattern of development with the proposed road and without it. It demonstrates that the road will be a very effective way to improve access to the southern part of both cul-de-sacs.

There are particular concerns about the proposed cul-de-sac which leads east from Fairhurst Place to the new school, mostly related to concerns about traffic from parents dropping off and picking up children.

It is worth noting new school is likely to be built with the need for on-site parking in mind and as a result the effect of dropping off and picking up in streets surrounding the school will be less noticeable than for Rolleston's existing school. The Council also intends to use road design measures to discourage casual parking.

## 2.2 **New Walkways / Cycleways**

New walkways proposed would provide for direct pedestrian and cyclist connections. They would be formed to Council standards which require a width of at least 6m and landscaping. A relatively large number of walkways are required around Jozecom and Fairhurst Places because of the smaller amount of roading in this area.

The pathway network includes four important through-connections. These are:

- 1 A north/south link from Brookside Road to Frame Crescent (allowing access to Oak Tree Lane), via Waterbridge Way and Jozecom Place.
- 2 An east/west connection through Jozecom and Fairhurst Places allowing a link between East Maddisons Road and the geographic centre of the Rolleston Urban Limit area.
- 3 The connection from Fairhurst Place to Manor Drive.
- 4 The connection from Brookside Road to the Spine Road on the boundary between 191 and 193 Brookside Road and via the proposed cul-de-sac.

Without all of these connections, there will be a shortage of direct links through the area and pedestrians and cyclists will be forced to divert long distances. These connections have been designed to provide a basic amount of connectivity and also make use of the roads within the study area.

The need for these connections is considered in detail below

## 1 The North/South Connection

The link between Waterbridge Way and Brookside Road walkway provides for a high-quality direct connection alongside the water race.

The purpose of this link is to provide for amenity as well as connectivity, the majority of it being located within a proposed reserve. It will connect the central amenity feature (the reserve) to an attractive walking route through Waterbridge Way. It is likely that the water-race will be landscaped to provide a feature for the reserve and walkway.

The link from Jozecom Place to Frame Crescent would provide a high quality connection to Oak Tree Lane. Very long diversions may be required without it. Land has been taken from the turning head in Frame Crescent in anticipation of this link being provided.

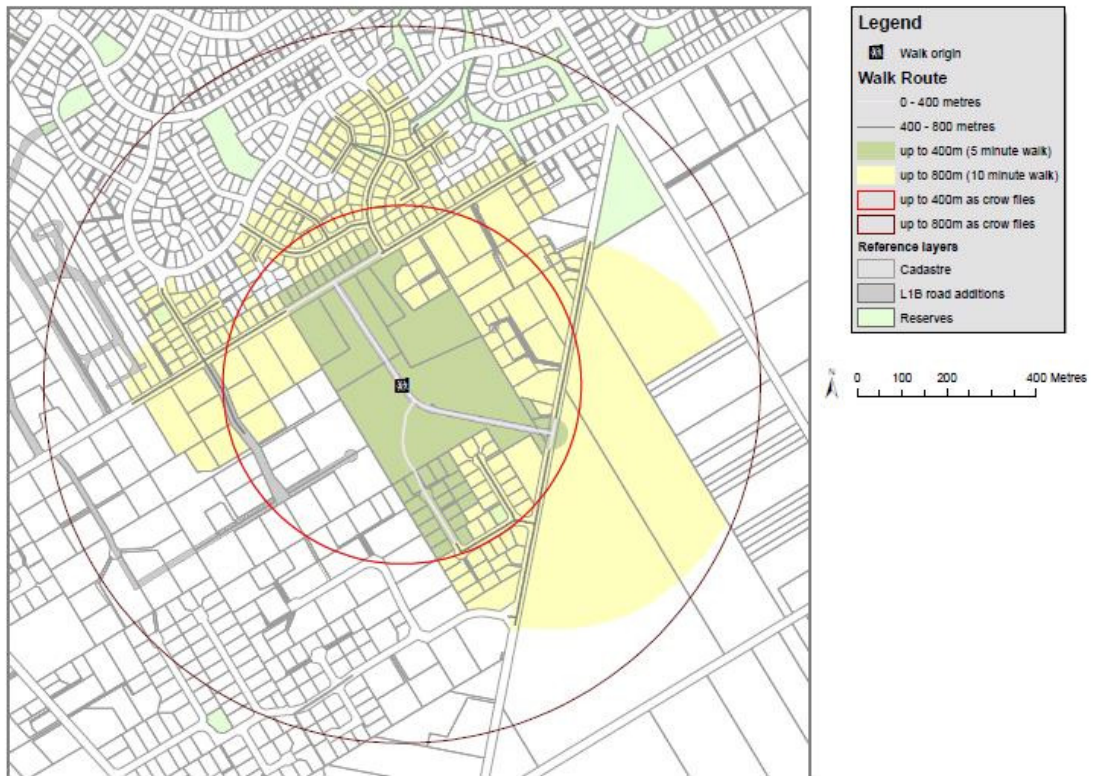
## 2 The East/West Connection

This important link will in time provide access from East Maddisons Road to the school site and beyond to the geographic centre of Rolleston. Without it, there would be a shortage of direct links through the area and pedestrians and cyclists will be forced to divert long distances, sometimes along arterial roads which may not have a high standard of amenity.

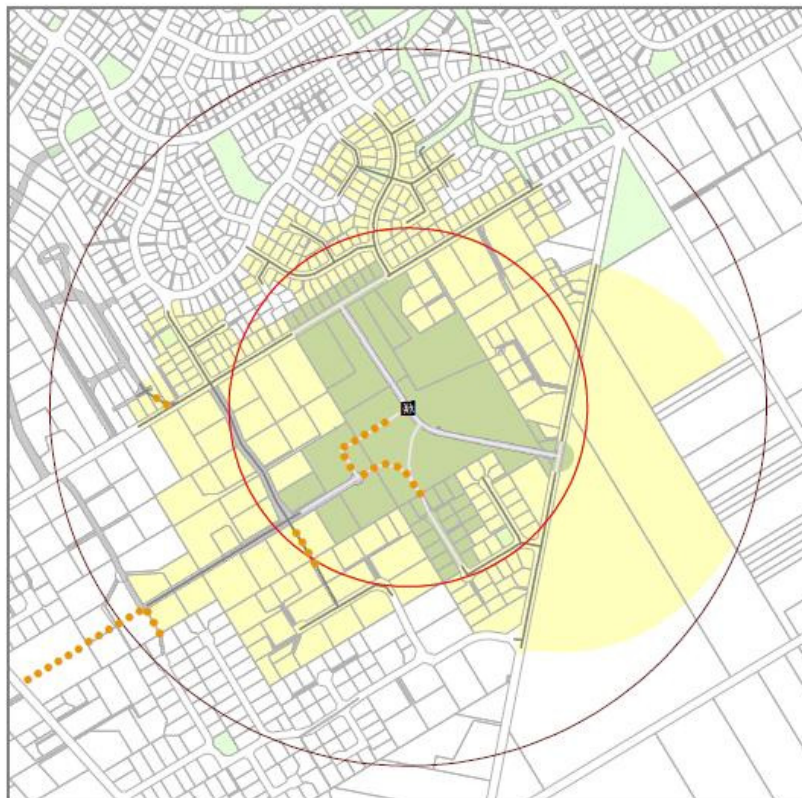
Two short walkway connections are proposed to the East of Fairhurst Place, both of which would connect to the new school and a new north-south road planned to link Lowes Road with Goulds Road.

The southern-most connection would lead through the proposed school. Access through the school site would be possible, but would be at the discretion of the Ministry of Education. In the longer term, a legally protected route is desirable and for this reason the structure plan proposes a second connection to the north of the school site, from a new cul-de-sac.

Some connection to the school is essential from Fairhurst Crescent. The alternative is a diversion of more than a kilometer. This has a substantial effect on the ability to walk to school which has been identified as a priority in the Walking and Cycling Strategy and other Council policy. The effect on walkability for the proposed school of a link is profound and can be illustrated by a walkability analysis.



**Without Structure Plan**



**With Structure Plan**

**Figure 5: Walkability assessment** (mapping provided by Boffa Miskell Ltd)

A walkability analysis shows the distance from a point (in this case the school) that can be reached within an average ten minute walk (800m), given the connections that are available. In the comparison below (figure 8), the areas within the blue perimeter are those within an 800m walk. The additional area served by the walkway/cycleways covers a substantial area in the study area and the area immediately to the south. Under the current and deferred zoning, this area could accommodate around 180 households, which would otherwise not be within an easy walk of the school.

The walkway/cycleway would eventually connect through to Sheridan Drive and Dunns Crossing Road.

### 3 Fairhurst Place to Manor Drive

This link is already in place although access through some of it is due to the goodwill of the landowners rather than any formal agreement. This provides a through connection to Lowes Road from Manor Road, Goulds Road and the geographic centre of the town area.

### 4 Brookside Road to Spine Road via new Cul-de-sac

A pedestrian/cycleway link would provide a reasonably direct connection for pedestrians from road 2 to 3 and avoid the need for long diversions, especially for residents of the new cul-de-sac and surrounding area.