ROLLESTON
OUTLINE DEVELOPMENT PLAN AREA 1

INTRODUCTION

This Outline Development Plan (ODP) is for that area of land in Rolleston situated generally to the north of Burnham School Road and Brookside Road between Dunns Crossing Road and the recently developed Stonebrook Drive subdivision to the east of Stonebrook Drive.

This ODP is known as the Stonebrook Drive ODP and uses urban design principles to set the pattern of development over the area to guide future development, and provide a degree of certainty for all parties in the establishment of land uses across the site. It provides a design rationale for the key structuring elements, including the road network, cycle and pedestrian network, open space network, development pattern and utilities to service the area.

Consistent with the Greater Christchurch Urban Development Strategy (UDS) and Proposed Change Number 1 to the Regional Policy Statement (RPS PC1), the ODP provides an opportunity for the creation of an integrated development which meets the objectives of those planning documents, as well as being in keeping with the strategy set out in the Rolleston Structure Plan.

URBAN DESIGN

The design principles that underpin this ODP are in line with the New Zealand Urban Design Protocol, and promote the following environmental outcomes:

- An urban form which creates a distinguishable sense of place and encourages a community to develop.
- A safe, comfortable and healthy living environment (CPTED - Crime Prevention through Environmental Design – principles applied).
- Integration of the roads within the neighbourhood area with existing state highway and arterial roads and public transport routes.
- An integrated roading hierarchy that supports effective and efficient public transport.
- Installation of all the necessary services within the zone, and the connection of those services to all external infrastructure networks.
- Provision of a network of open spaces integrated with cycle and pedestrian routes.
- Dual purpose reserve areas, used for recreation and amenity purposes as well as for stormwater management.
- Opportunities for a wide variety of residential development at low, medium and high residential densities in order to attract a wide range of people from different economic and social groups as future residents.
- Medium density development including elderly persons housing located in conjunction with a core of community facilities and having ready access to public transport.
- Opportunity for high density buildings which relate well to each other and are strategically located in relation to open space and amenities.
- A development that meets District Plan policies to achieve an overall increase in residential density, urban consolidation and a compact urban form.
- Provisions to enable neighbourhood retail, community, or medical facilities to be located within walkable distance (400 - 800m) of any part of the zone, and be within walkable distance of a bus stop within the zone (400 - 800m).

- Provision of neighbourhood shopping and small business facilities.
- A sustainable stormwater disposal system integrated with open space and reserves.
- The establishment of a master planned concept that provides a defined basis for integrated future development.
- Protection of groundwater resources from contamination.

ROAD NETWORK

A specific transport assessment completed by Traffic Design Group Ltd (TDG), May 2009, has been carried out, which describes the existing transport environment, provides an assessment of the traffic generation associated with the proposed ODP, considers the development in terms of the local, regional and national planning documents, and assesses the potential traffic effects. The assessment also takes into account the Christchurch Rolleston and Environs Transportation Study (CRETS) formalised within the Canterbury Transportation Regional Implementation Plan (CTRIP).

Access to the area is from four locations: an existing connection to Dunns Crossing Road via Newmans Road, a new road connection to Dunns Crossing Road, a new road connection to Brookside Road and a connection to Stonebrook Drive.

The internal road network includes a main road through the site that will link the southern most access point on Dunns Crossing Road through to Brookside Road, in accordance with the Rolleston Structure Plan. This will be designed in accordance with the principles of new urbanism to promote reduced vehicle speeds and increased safety to other street users. Some form of intersection treatment is appropriate at the main intersections on the main through road to reduce traffic speeds, such as roundabouts or raised tables.

Noise attenuation will be required along the boundary with SH1 to mitigate the effects of traffic noise from that route.

The TDG assessment confirms that the intensification of the site is in accordance with the RPS PC1, and concludes that the increased traffic volumes are not expected to give rise to any road safety issues.

CYCLE AND PEDESTRIAN NETWORK

Pedestrian footpaths will be provided on at least one side of each internal road. A number of pedestrian and cyclist links will be provided through the site following road and green linkages.

A significant cycle/pedestrian route will run through reserve areas north to south along the redirected water race. A formal road crossing facility will be provided where this pedestrian/cycle link crosses the main road through the site.

The low speed traffic environment will create pedestrian and cycle friendly public spaces, and provide direct and convenient access within 400m walking distance to open space areas from any dwelling within the site, in accordance with the Rolleston Structure Plan.

OPEN SPACE NETWORK

An existing water race runs through part of the site. This is shown on the ODP realigned and incorporated into the reserve and open space network.

The ODP indicates three key open space locations as well as a green network throughout the site. A significant reserve linkage incorporating two of the key open space locations is envisaged that will generally follow the realigned water race through the eastern portion of the site to Burnham School Road.

The other key open space location is shown within the western portion of the site providing green areas at either ends of one of the east-west green linkages.

All key open space locations are adjacent to local business areas, in general accordance with the Rolleston Structure Plan for the positioning of neighbourhood and local centres in this area of Rolleston.

Other areas of open space will be developed as neighbourhood reserves in terms of the overall subdivision design. These will be integrated throughout the area by the green linkages shown on the ODP, and will provide a maximum walking distance of 400m from any dwelling in accordance with the Rolleston Structure Plan.

SERVICING NETWORK

All services, including water, sewer, power, and phone are available to the site via the existing road network. There is a sewer pumping station at the corner of Burnham School Road and Brookside Road and there is an existing electricity substation at the corner of Burnham School Road and Dunns Crossing Road.

Water will be supplied from the Council's existing reticulation by connecting to the water main on Brookside Road. Water pressures for the site have been calculated as meeting the requirements of NZS 4404:2004 Land Development and Subdivision Engineering and The New Zealand Fire Service Fire Fighting Water Supplies Cod of Practice NZS PAS 4509:2008.

Sewage will be disposed of to the Rolleston Sewage Treatment Plan via new and existing reticulation. Two sewer main connections will be made from the site to the existing sewer mains. The first connection will service approximately 400 lots and connect to an existing manhole on Burnham School Road. Due to the increase flows, the existing pipe through to the pumpstation will require upgrading for a length of no more than 50m. The second connection will service approximately 150 lots and will connect to an existing manhole on Brookside Road. The remaining lots will connect to the existing sewer mains running along Burnham School Road and Brookside Road. The existing pump station will not require upgrading to service development in accordance with the ODP.

The servicing assessment has been carried out with the Selwyn District Council Five Waters Strategy in mind, and the possibility for recycled water to be made available from the Rolleston Waste Water Treatment Plant to Burnham School Road. If this is available the development may be double plumbed to allow for outdoors irrigation, laundry and irrigation of public areas with recycled water. This would reduce the potable water input of the development by as much as 40%.

Network operators for both electrical and telecommunications supplies have confirmed that the existing networks have sufficient capacity to reticulate the development area.

Stormwater will be treated in a variety of ways depending upon its origin within the development. Stormwater runoff from house roofs will be disposed of via onsite soak pits, sized to ensure that flow from a roof in a 1 in 10 year storm event will not exceed the infiltration rate.

Soakage basins located within reserve areas will collect stormwater from the roads via low profile kerb and channel before providing treatment and detention and discharging to ground. Stormwater may also be treated at source using raingardens and passive infiltration areas on each allotment to capture stormwater from hardstand areas. In addition carriageway discharges may be transported and treated using swales and vegetated areas. Wherever possible, areas for stormwater treatment and disposal will be incorporated into the overall green network for the site, adding value to its amenity and character.

RESIDENTIAL DENSITY

The ODP provides for a variety of allotment sizes, with comprehensive residential development and medium density development located close to open space areas and local business centres. More intense development concentrated around the key open space locations will provide greater amenity and encourage high quality urban design features in these areas.

The neighbourhood and local centres are located with frontage to the main through road.

The ODP area achieves a net density of 11 households per hectare, based on a net area of approximately 57.5 hectares. The inclusion of medium and comprehensive housing areas within the ODP covering some 5.5 hectares means that the entire area will accommodate approximately 633 households.