

Appendix 36: Context Urban Design Limited

TOWARDS A RATIONALISATION OF ZONING OF RESIDENTIAL GREENFIELD PRIORITY AREAS

CHRISTCHURCH REPLACEMENT DISTRICT PLAN - STAGE II,
Prepared for Christchurch City Council

16 April 2015

Context Urban Design



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1. INTRODUCTION

1.1. The Land Use Recovery Plan identifies a number of Residential Greenfield Priority Areas within the Christchurch City Council boundary. Some of these are currently zoned Living G, two are proposed as Residential New Neighbourhood in Stage 1 of the Christchurch Replacement District Plan (CRDP) and the remainder have been proposed as Future Urban Development Areas in the draft Stage 2 proposal. The Ministers for Canterbury Earthquake Recovery and the Minister for the Environment have provided comments on the draft proposals for the CRDP highlighting the “multiple and confusing residential zones, especially within the Greenfield priority areas identified by the LURP”.

1.2. Ideally all of the Residential Greenfield Priority Areas would have the same zoning. Given the difficulties experienced with the complex and prescriptive Living G Zones¹ and an objective in developing the Residential New Neighbourhood provisions to rectify these issues, it would be preferable, both in terms of simplicity and ease of use and in terms of achieving good urban design outcomes for all the Residential Greenfield Priority Areas to be rezoned RNN (or possibly other Residential Zones introduced through Stage 1) and for the Living G Zoning to cease to exist. This report considers the implication and practicality of effecting this change. Due to time constraints this is necessarily a somewhat cursory examination, however it is based on an in-depth knowledge of greenfield residential development in Christchurch over the past 18 years. The primary objective of this exercise is to ensure the development of those areas currently zoned Living G is not made more difficult nor their overall development capacity reduced by any rezoning.

1.3. There are currently nine operative Living G Zones namely: Yaldhurst/Masham; Belfast East; Awatea; Wigram; Prestons; Halswell West; North West Belfast; Highfield; Highsted. These are in varying stages of development from not yet commenced to nearing completion.

2. COMPARISON OF LIVING G ZONE AND RESIDENTIAL NEW NEIGHBOURHOOD ZONE PROVISIONS

2.1. Subdivision provisions

1. Residential yield

Both the Living G zoning and the RNN zoning require a density of 15 households per hectare².

2. Lot size and mix of building typologies

The Living G zones provide for three or four density bands (Density A,B, C & D). The parameters of the bands vary between Living G zones. Each density band has a minimum lot size, Bands A,B & C also have an average lot size range. Awatea, Wigram, Prestons and Halswell West also have a maximum lot size for each band. The new neighbourhood zone provisions are much simpler, with minimum lot sizes specified for standard lots and corner lots and an allowance is made for 10% of the lots to be smaller, mid terrace lots. This provides more flexibility in design and reduces the need to meet quotas of different lot sizes. However, in order to ensure that the RPS requirement for variety is met, there is a requirement for no more than 80% of the lots to be for the same building typology. This means for example that 80% of the lots can be designed to accommodate standalone houses, with the remaining 20% being duplexes or terraces. There is no minimum lot size for lots formed within comprehensive developments or variable density areas.

If the Living G zones were rezoned to RNN there should be little difficulty in meeting the new lot size or building typology requirement.

¹See Attachment 1: Draft Greenfield Residential Subdivision- Urban Design Issues and Recommendations Report. 16 August 2013

²Yaldhurst/Masham has a limit on the total number of lots provided in the Zone of 1100 for infrastructure reasons, this equates to a density of c. 13 hh's/ha. Prestons has a requirement for 2200 lots overall (c. 13 hh's/ha).

3. Distribution of density

The ODP's in the Living G zones locate different density bands across the site. This provides some certainty for residents in determining the type of housing that is intended to be located next to them (although, in Living G developments currently underway, changes have been made to the Masterplans such that the density blocks are no longer in identical locations to those shown on the ODP). However, it is a very inflexible approach and does not lend itself to changes in the market or improvements in, or necessary changes to, layouts at the subdivision stage. The RNN does not predetermine the location of different densities other than in a general manner through the ODP. This means there is greater ability to have a mix of densities throughout the neighbourhood and changes can be made due to off-site changes, such as changes in a bus route or location of school.

If the Living G zones were rezoned to RNN developers could maintain the distribution of density predetermined by the current ODP, if they wished, but would have the opportunity for making changes.

4. Lot dimensions

Each of the Living G density bands has a concomitant minimum lot width. This ranges from 6 metres to 16 metres. The RNN has minimum road boundary length widths ranging from 7m for mid terrace to 14m for corner lots, with a standard width of 10 metres.

While the minimum for terraces is slightly higher, overall there should be little difficulty in substituting the RNN minimum road boundary length for the Living G lot dimensions.

5. Other subdivision rules

The following rules are included in the RNN provisions which do not occur in the Living G provisions

- Maximum cul-de-sac length
- Minimum percentage of road frontage to public reserve
- Minimum size for a reserve
- Maximum residential block size (East Belfast and North West Belfast have walkable block requirements)
- Allotment frontage
- Minimum NN entry area widths

These are provisions introduced to ensure good urban design outcomes. Urban designers were involved in the development of the majority of the Masterplans for the existing Living G Zones and whilst there may need to be some minor adjustments at subdivision stage it is not anticipated that there would be any great difficulty in complying with these rules. In order to test this, subdivision proposals at Awatea and Prestons have been examined to determine whether they would comply with the new provisions and if not, what adjustments would need to be made (see Appendix 1). Difficulties in ensuring an integrated development which develops into a community, are more likely to arise in those Greenfield Areas where there are multiple owners and no overall developer such as Awatea. The existing Living G provisions are not generating good urban design outcomes in these areas and the introduction of these rules would provide a better framework with more guidance for subdivision layout designers, without restricting development capacity.

6. Minimum area for a comprehensive subdivision and land use application or a variable density area

This requirement in the RNN provisions is to ensure that a site is of sufficient size and dimensions to enable a comprehensive development as opposed to a small lot subdivision. The minimum dimension allows for 'back to back' development and the minimum size is sufficient to create a cluster of housing with communal areas if necessary. Because the houses are designed as a collection, the relationships between them can be established at the outset, hence the more permissive built form standards.

To date there has been little or no take up of this opportunity in the Living G Zones other than for retirement complexes. This is for various reasons such as a perceived lack of a market for such a product (the aversion to party walls and shared ownership increasing since the earthquakes) and the capacity of builders/developers to undertake a project of this scale. Instead the Density A sites have either been developed as lines of terraces or have been left as future development lots, mostly one section deep.

Under the RNN provisions there is the opportunity for larger clusters of development, but no compulsion to utilise the provision. The incorporation of variable density areas enables more flexibility in lot size across the whole subdivision.

RECOMMENDATION: Replace the Living G subdivision provisions with the RNN provisions. However, there are a number of site specific provisions which need to be carried through to the CRDP.

2.2. Outline Development Plans

The existing Living G Zones have a plethora of Outline Development Plan diagrams due to the adoption of a system of 'layers' which separate out various aspects. These are generally repetitive and some of the layers are superfluous. The RNN provisions introduce a much simpler form of ODP as given for North Halswell in the Stage 1 Subdivision Chapter proposal. The RNN provisions allow for the more detailed consideration of the nature and form of a new neighbourhood to take place through the development of a neighbourhood plan. This process is designed to overcome the lack of flexibility of the current Living G ODP's as discussed in Attachment 1 part 1. It also means that decisions about the detailed design of a new neighbourhood can be made closer to the time of subdivision.

As the Living G Zones have been put together as a package reflecting the existing Outline Development Plans and some of the Living G Zone developments are well underway it will not be possible to merely replace the Living G ODP's with the new style RNN ODP, but instead some of the layers will need to be kept and some may be amalgamated or updated.

A cursory examination of the Prestons Living G Zone led to the conclusion that:

- Most of the information on the various layer diagrams is included on the Outline Development Plan layer.
- The location of density bands does not match those shown on the Density Layer diagram.
- In order to allow for the continuing co-ordinated development of the Prestons Greenfield Residential Priority area the Outline Development Plan Appendix 3W needs to be retained. The Density Diagram 3X needs to be updated to reflect the Masterplan. All other layers can be removed and not carried over to the CRDP.

RECOMMENDATION: The suggested revision of the Living G ODP's is included as Appendix 2, however, those dealing with the processing of the Living G Zones (subdivisions, land use consents, roading, reserves, stormwater etc.) would need to be consulted to ensure that they are comfortable with the reduction in ODP diagrams and confirm which text needs to be carried forward to the CRDP.

Through the submissions process there will be an opportunity for affected parties to request the replacement in some Living G Zones, such as Highfield, of existing ODP's with a new style ODP if they wish. If possible discussions should be held with affected land owners/developers to establish an agreed position.

2.3. Built form provisions

A brief discussion of each standard is given below.

1. Site coverage

The RNN provides a blanket site coverage of 40% for all lots except where they are developed through a comprehensive process³ or are a retirement village where the maximum percentage shall be 45%. The Living G Zones have a range of site coverage percentages with greater site coverage for smaller lots, this is complicated and somewhat illogical (see discussion 4.1. page 17 Attachment 1). In those Living G Zones where development is not yet underway the change from the variable site coverage provisions to a standard one should not cause too much difficulty and when designing a subdivision layout, lot sizes can be determined with this in mind. A problem will arise in those Living G Zones where properties are already built or underway such as Wigram, Prestons and Halswell West and the existing site coverage maximum is greater than 40%, since this would cause a reduction in expected development rights.

RECOMMENDATION: Adopt the RNN the standards for site coverage with exceptions for some Density A and/or Density B Areas of those Living G Zones already underway.

2. Height

The RNN provides for a standard maximum height of 8 metres and a higher maximum of 11 metres in sites created by a comprehensive process. In the Living G Zones, the limit is generally also 8 metres⁴, except for Density A areas, which have a maximum height of 11 metres. Therefore on the face of it there would be little difficulty in replacing the Living G provisions with the RNN provisions, except that those Density A properties already consented would need to be identified on the ODP in order to clarify which properties have a greater permitted height limit. In those Living G Zones which would be developed under the RNN rules, after the CRDP became operative the difference would be that the greater height limit would not apply to smaller groups (under 7000m²) of small lots. Given that development in Living G zones is predominantly single storey with some two storey development, this would not appear to be a cause for great concern. Furthermore if small groups of Density A lots were developed under the Living G standards, achieving a height of 11 metres would not be possible in many cases due to recession plane restrictions.

RECOMMENDATION: Adopt the RNN the standards for height with exceptions for Density A Areas for those Living G Zones already underway.

3. Recession planes

The RNN adopts one standard for recession planes. This is Diagram A which is the most restrictive of the recession plane diagrams i.e. with the shallowest recession plane angles. The Living G Zones adopt various recession plane diagrams. Densities C and D adopt Diagram A in all Living G Zones, therefore there is no difference between the two regimes. For Density B areas the choice of recession plane diagram varies with A,B, C or D all utilised and Density A is generally Diagram C, albeit with special conditions where density A lots adjoin other density areas. Adoption of the RNN standard would make it simpler for those working with the Plan, however there are implications for achieving the density of built form anticipated. Including steeper recession planes for Density A areas could be carried forward for some Living G Zones, but it would seem an unnecessary complication to carry through the various diagrams for different Density B areas

RECOMMENDATION: Adopt the RNN standard Diagram A with exceptions for Density A Areas for some of those Living G Zones already underway, which would be subject to Diagram C. Also include a requirement for the more restrictive recession planes to apply on the boundary between a Density A lot and an adjoining lower density lot.

³ A comprehensive process may be a comprehensive subdivision and land use consent or a variable density area in a RNN Zone

⁴Yaldhurst/Masham and Prestons also have a 10m height limit. This is not recommended to be carried forward as it is a complication and a height of 10 metres does not coincide with either 2 storey or 3 storey development.

4. Building setback from road boundary

The RNN provisions require a blanket 4 metre setback from the road except on the south side of a road orientated east-west where a 4.5 metre setback is required. The Living G Zones generally have a 3 metre setback requirement. Higher density parts of some Living G Zones have a 2 metre setback requirement and in some Density C and D Areas the required setback is 4.5 metres.

Where development is already underway and setbacks of less than 4 metres have been adopted it would be inconsistent and possibly incongruous to adopt a greater setback mid-way through the development process. However, where a development pattern has not yet been established a standardisation of the setback would not appear to be onerous, it would merely mean that in some cases buildings were set back a little further on their lot and will not affect the development capacity which is determined by site coverage.

Setbacks from specific roads: Some of the Living G Zones have a requirement for a greater setback from a road bounding the Zone e.g. Highfield, where a 10m setback is required from Hills and Hawkins Road, because it interfaces with a rural area.

RECOMMENDATION: Adopt the RNN standard 4 metre and 4.5 metre except for a blanket 3 metre setback requirement for those Living G Zones already underway. Carry forward any specific road setback requirements.

5. Street frontage and street frontage landscaping and fencing

Frontage planting: The Living G Zones all include a requirement for a 2 metre planting strip along the road boundary as does the RNN Zone.

Garage doors: The requirement for a garage door not to comprise more than 50% of the ground floor elevation occurs in both the Living G and RNN Zone provisions. Some of the Living G Zones also have a maximum width of a garage of 6 metres.

Width of Driveways: Some of the Living G Zones have a standard relating to the width of domestic driveways at the street frontage. This is not included in the RNN provisions. To some extent this will be controlled by the maximum width of a garage.

Height of fences: The Living G Zones generally have a requirement for any fences within the road boundary setback to be a maximum height of 1m unless 50% visually transparent, in which case they can be 2m, whereas the RNN provision is for a maximum fence height of 1.2m. High fences can spoil the appearance of a street frontage as well as providing a disconnection between the street and the house. Also, due to a smaller setback requirement in some Living G Zones there is more need for an open frontage to avoid a 'hemmed in' feeling. The substitution of the RNN provision would not seem onerous and would be in the best interest of creating a community.

RECOMMENDATIONS: Adopt the RNN standards for frontage planting, garage door percentage of elevation and maximum width, and maximum fence height. Do not carry over driveway width requirement.

6. Separation from neighbours

The Living G Zones generally adopt the longstanding 1.8m setback from internal boundaries (although Highfield has a 1.5m requirement). There are some complex explanations and special provisions. Standardising this rule should remove some complexity with little overall effect.

The Living G Zones include a requirement for windows to be setback from boundaries. This is generally a distance of 3 metres at ground floor and 4 metres at first floor. The RNN Zone has a requirement

for windows of living areas to be a minimum of 4 metres from the boundary. However, in other proposed residential zones there is a lesser setback required at ground floor level and this may be a mistake in the current (26 March 2015) draft of the RNN provisions.

RECOMMENDATIONS: Adopt the RNN standards for minimum building setback internal boundaries and minimum setback for windows.

7. Continuous building length ridgelines, parapets and external walls.

This rule is a standard one used in the Operative Residential Zones. It is a complex rule which does not necessarily give a good urban design outcome and is not included in the RNN provisions. Given the scale of residential properties in new neighbourhoods, long continuous stretches of walls or rooflines are not anticipated to occur except where a terraced building form is adopted, and in such cases it would be possible for long lengths of unmodulated building facades to occur. The RNN neighbourhood provisions do not carry this rule over, however there is limited provision for this aspect to be considered for Variable Density Areas through the Assessment Matters (8.5.4.).

RECOMMENDATION: Introduce a requirement to the RNN provisions for building facades over 20 metres in length (such as terraces on adjoining lots) to trigger an urban design assessment.

8. Outdoor living space

The Living G Zones all have similar provisions which require a different amount of outdoor living space for each Density Band. The RNN has a standard requirement of 30m² for residential units with two or more bedrooms which is less restrictive and a standard minimum dimension of 4 m, which is generally comparable with the Living G Zones. A lesser amount of outdoor living space (16m²) is required for one bedroom units and studios.

There is some difference in the amount of outdoor living space and required dimensions between the two zonings for upper floor units. In fact it is difficult to understand how the required amount of outdoor living space required for upper floor units in RNN will be achieved, since in most cases some communal space will be required and this is not always achievable (especially in the case of small groups of apartments) or desirable.

RECOMMENDATION: Adopt the RNN standard for outdoor living space at ground floor. Review the RNN standard for units above ground floor level.

9. Screening from neighbours

The Living G Zones require parking areas to be screened by fencing or landscaping to a height of 1.5 metres in some zones and 1.8 m in others. The RNN provisions do not give a minimum height but where fencing is used it is to be a maximum height of 1.2 metres. The RNN standard is likely to give a better urban design outcome and is less onerous.

RECOMMENDATION: Adopt the RNN standard for parking areas.

10. Fences on sites adjoining the green or blue network

Some of the Living G Zones have a requirement for fences adjacent to open spaces (and in some cases waterways too) to be restricted to a height of 1m unless 50% visually transparent in which case they can be 2 metres.

A restriction on the height/transparency of fencing adjacent to open spaces and waterways does not occur in the RNN standards. A good interface between residential properties and adjoining open spaces and waterways is an important urban design principle.

RECOMMENDATION: The current provision restricting the height of fences adjacent to open spaces and waterways should be carried forward for all RNN zones. To standardise fence requirements across the RNN Zone, fences should be restricted to a height of 1.2m.

11. Ground floor habitable space

Most of the Living G Zones have a rule which requires each residential unit to have a habitable room at ground floor level which is internally accessible to the rest of the unit. Such habitable rooms are required to have a minimum floor area of 12m² and a minimum dimension of 3 metres. This rule is carried through to the RNN provisions but the minimum floor area required has been reduced to 9m² through the Hearings process. Therefore RNN version is less onerous. However, in both cases the standard does not appear to allow for units which are entirely above ground floor level such as apartments (except for loft units).

The Living G provisions require the ground floor habitable rooms to provide a total window area of at least 3m² that overlooks the setback from the road boundary. In the RNN provisions there is a requirement for a window of 2m² for each ground floor habitable space which overlooks the setback. The RNN is now (26 March 2015 version) drafted such that it does not require the ground floor habitable room to overlook the street. This defeats the object of the rule.

RECOMMENDATION: Adopt the RNN standard for habitable rooms except redraft to reinstate the window area requirement to 3m² and ensure that there is a requirement for a habitable room to overlook the street.

12. Service, storage and waste management spaces

Currently the Living G Zones do not have a requirement for service, storage and waste management space. Such facilities could be expected in a residential development of this nature.

RECOMMENDATION: Adopt the RNN standard for service, storage and waste management spaces.

13. Minimum unit size

Minimum unit sizes are not required in the Living G Zones. However, the required minimum sizes included in the RNN provisions would not appear to be onerous for a development in a new subdivision.

RECOMMENDATION: Adopt the RNN standard for minimum unit size.

2.4. Site specific requirements

There are special circumstances in Living G Zones which require site specific rules, such as setbacks from the Southern Motorway (Awatea), setbacks from the Rural boundary (Prestons and Highfield) geotechnical setbacks (Highsted), tangata whenua consultation requirement (Awatea), special planting and fencing requirements, staging conditions. These will all need to be picked up and carried through to the CRDP, unless they are requirements that have already been met.

2.5. Commercial activities

Most of the Living G Zones include some sites for Commercial use. Where they are already consented, such as at Halswell West and Wigram, they can be rezoned commercial and the relevant provisions in the Living G Zone carried through to the Commercial Chapter of the CRDP. Elsewhere where it is not known whether a commercial/neighbourhood centre will eventuate or its exact location or precise boundaries it will be more difficult to make provision for. The need for such facilities could be identified as part of the new style ODP. However, it would need to be allowed for in the Activity Status Table.

3. CONCLUSION

The zoning of all the Greenfield Residential Priority Areas as Residential New Neighbourhoods would appear to be feasible and desirable. As a package the RNN provisions are more flexible and provide comparable development rights. RNN provisions would generally accommodate the subdivision layouts, distribution of densities and housing typologies currently underway in the Living G Zones with some minor amendments. Some more permissive development rights have been secured in some of the Living G Zones, particularly Wigram and Prestons. It is recommended that these are carried forward where development is already well advanced. In other cases advantage can be taken of more lenient RNN standards to compensate for those which are more restrictive.

There are site specific aspects of the Living G Zone provisions which need to be carried forward into the CRDP.

APPENDIX 1:

Testing of compatibility of subdivisions prepared under the Living G Zone provisions with the RNN provisions

Test case 1 – Awatea Living G Zone

7.5 hectare block at the junction of Awatea Road and Owaka Road

This proposed subdivision comprises 72 conventional lots, including two incorporating existing houses and two future development lots which are shown to incorporate 27 narrow (terraced housing) lots, making 99 units in total. See Figure 1.

| Living G provisions | Compatibility with RNN provisions | Comments |
|--|---|--|
| <u>Compliance with ODP</u> | | |
| The ODP (see Figure 2) shows a band of Density A lots (one lot deep) along the northern boundary of the site, with the remainder of the site being Density B. The two future development lots and five lots fronting Awatea Road fall approximately within the Density A band. | | The location of a single line of Density A allotments on the south side of a road is problematic and it is possible that a better design solution could have emerged if there were more flexibility in the location of smaller lots. |
| <u>Residential yield</u> | | |
| The subdivision does not comply with the density requirement of 15 hh's/ha even if the lots incorporating existing houses are removed from the calculation. With these removed the density is 13.5 units per hectare | 15/hh's/ha required | The conventional lots are all generous in size and could be reduced in width to accommodate more lots on this site. |
| <u>Lot size</u> | | |
| Lots 3-72 all range in size from 450m ² - 800m ² (apart from the larger lots containing existing properties). They are intended for standalone houses. Lot 200 is 4242 m ² and indicates 19 allotments the smallest of which is c. 140m ² | The standalone lots all exceed the minimum lot size of 300m ² /400m ² The smaller lots exceed the 10% allowance for smaller lots and are below the minimum size of 180m ² | In order for this subdivision to comply with the new provisions (and also with the Living G provisions) there would need to be some adjustment – see below. |

| | | |
|---|--|--|
| <p>Lot 201 is 1700 m² and indicates 8 allotments the smallest of which is c. 170m².</p> <p>The lot sizes do not comply with the minimum for Density A allotments in this Living G Zone, which is 200m².</p> | | |
| <u>Mix of building typologies</u> | | |
| <p>70 units assumed to be for standalone house types. Future development lots appear to be terraces.</p> | <p>Some duplex or apartment units would need to be included.</p> | <p>If some of the standalone lots were made narrower, these could be used for duplexes.</p> |
| <u>Distribution of densities</u> | | |
| <p>The higher density lots are concentrated in the northern area of the site</p> | <p>This distribution of densities could be accommodated within the RNN provisions.</p> | |
| <u>Lot dimensions</u> | | |
| <p>Most lots have a road frontage of at least 15 metres.</p> | <p>All of the lots comply with the RNN (half the length of the splay on corner lots is included in the frontage length) except Lots 15 and 22 which are back lots and Lot 64.</p> | <p>Lot 64 could be easily adjusted to comply with the 10m minimum width.</p> <p>Lots 15 & 22 are more difficult to adjust.</p> |
| <u>Maximum cul-de-sac length</u> | | |
| <p>Lot 101 = 80 metres Lot 104 = 85 metres</p> | <p>Both culs-de-sac would comply with RNN requirement of 100m and 150 metres respectively</p> | |
| <u>Minimum percentage of road frontage to public reserve</u> | | |
| <p>Lot 300: Perimeter length = 205. Road frontage = 36.33m. %age road frontage = 17.72%</p> <p>Lot 301: Perimeter length = 166m. Road frontage = 40m. %age road frontage = 24%</p> <p>Lot 302: Perimeter length = 158m. Road frontage = 43m. %age road frontage = 27%</p> | <p>Lot 300 would not meet the 25% road frontage requirement, however, part of the boundary is along a stormwater reserve.</p> <p>Lot 301 would meet the requirement with minor adjustment.</p> | <p>Although the arrangement of the reserves provides a view and a pedestrian link through the site, it might be more of a feature of the subdivision, more useable and in accordance with the CCC Open Space Strategy (which recommends a minimum size of 3000m²), if it were one larger squarer reserve.</p> |

| | | |
|---|--|--|
| | Lot 302 would comply | |
| <u>Minimum width for a reserve</u> | | |
| The reserves are 20m, 20m and 43m wide | Comply with the minimum width of a walkway reserve of 8m. | |
| <u>Maximum residential block size</u> | | |
| The blocks in this subdivision are relatively small. For example the block in the north west corner is 696m. | Would comply with the maximum residential block size of 800m | |
| <u>Allotment frontage</u> | | |
| Every standalone allotment which has a frontage to public open space has a frontage to it of at least 10 metres The higher density units have a frontage of 6m or 8m. | There would need to be some adjustment in some of the higher density lots to comply with the 10m/7m width requirement. | |
| <u>Minimum NN entry width</u> | | |
| Lot 105 would appear to be a NN entry. It is 6m wide. | The access would need to be widened to 8m to comply. | |

CONCLUSION:

In order for this subdivision to comply with the new provisions (and also with the Living G provisions) there would need to be some adjustment. This could be achieved by:

1. Readjusting the lot width throughout the subdivision (apart from the two future development lots) to create more lots and slightly smaller lots (since they are mostly of a generous size).

This would enable a reduction in the number of smaller lots to no more than 10% of the total and an increase in their size to a minimum of 180m²

If there were 97 lots then 9 of them could be between 300m² and 180m² and contain terrace units

A further 10 would need to be duplexes to comply with the mix of building typologies.

Or

2. Lots 65, 66, 200, 300 and 201 could be combined to form a Variable Density Area of 8420m², complying with the requirement to accommodate a rectangle 50m x 50m and incorporating a pedestrian link if necessary.

This would enable a comprehensive development with no minimum lot sizes. To achieve the required number of units to meet the 15 hh's/ha requirement, and a good urban design outcome it would probably also be necessary for some lots to be readjusted elsewhere in the subdivision to reduce the number of lots required in the Variable Density Area.

A slight adjustment in the width of lot 301 to comply with the minimum frontage of a reserve to a road

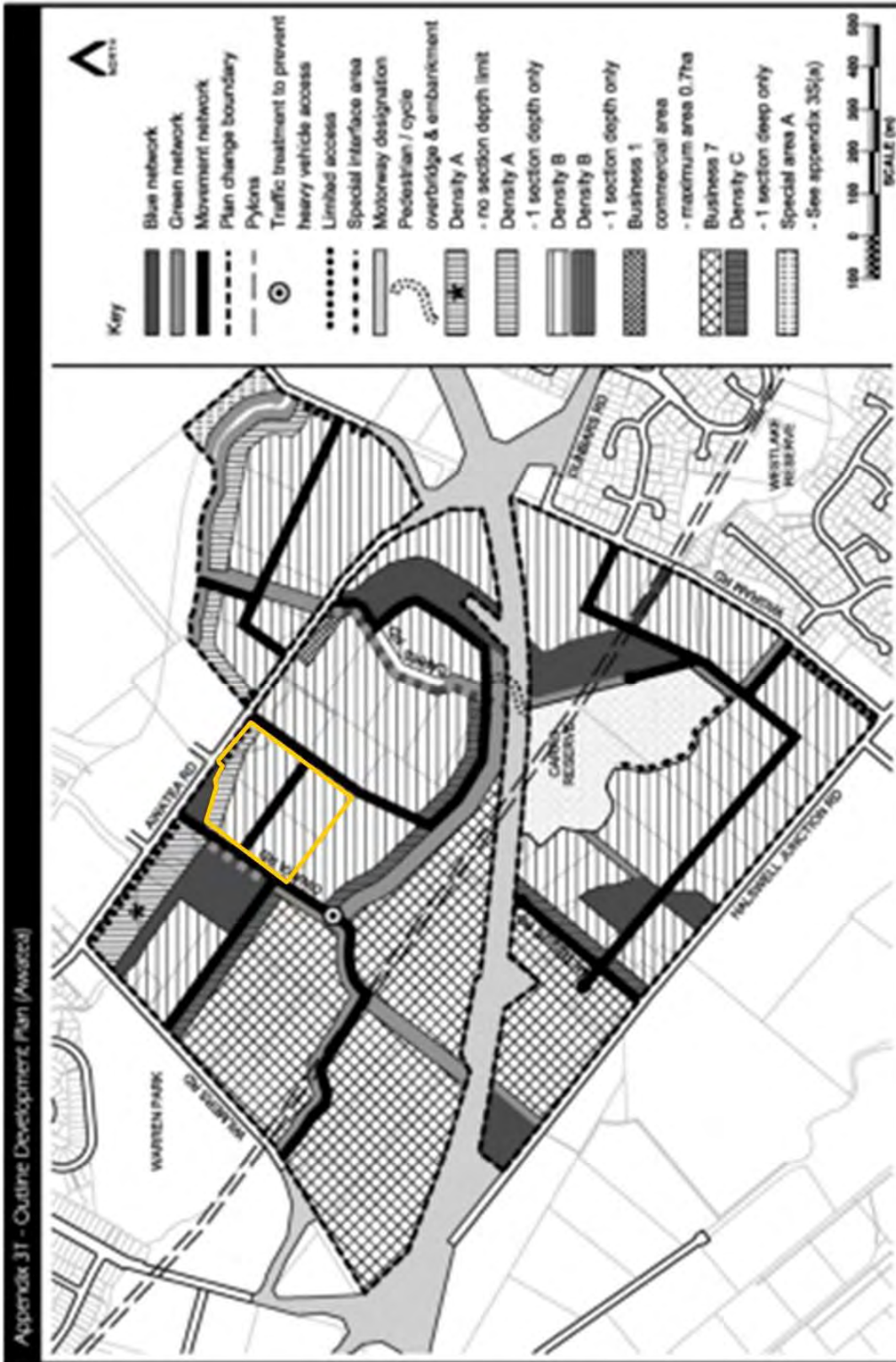
It would be less easy to eliminate the non-compliance of the 2 back lots with the minimum frontage width.

If a scheme plan were to be designed for this block of land using the RNN provisions from the outset a similar product could be produced if desired. Alternatively the RNN could be used to provide more scope in density distribution, avoid small lots backing onto Awatea Road and the stormwater basin and provide a single larger reserve. The RNN provisions would not appear to be difficult to work with.

FIGURE 1: Scheme plan, Awatea



FIGURE 2: ODP Awatea



Test case 2 – Prestons Living G Zone

Development area to the south of Prestons Road adjacent to the western site boundary

This proposed subdivision comprises 208 lots. These are split into different density bands as follows: Density A = 8 lots, (680-885m²) each capable of accommodating 3 or 4 units.

Density B= 49 lots (450-500m²)

Density C = 115 lots (600-650m²)

Density D = 36 lots (800+ m²)

See Figure 3.

| Living G provisions | Compatibility with RNN provisions | Comments |
|---|--|--|
| <u>Compliance with ODP</u> | | |
| <p>The ODP Density Layer (see Figure 4) shows Density A lots adjacent to the linear park running along the eastern boundary. Density B lots along this boundary and also through the middle of the block. Density D along the western boundary and Density C elsewhere. The scheme plan generally follows this pattern although not precisely and a smaller area is devoted to Density A.</p> | | |
| <u>Residential yield</u> | | |
| <p>Information on the size of the development block is not available but given the generous size of most of the allotments it would appear that the subdivision does not meet the requirement for 15 hh's/ha. However, unlike the other Living G zones Prestons is required to yield 2200 lots overall, a density less than 15hh's/ha.</p> | 15hh's/ha required | Exception made for density of this development. |
| <u>Lot size</u> | | |
| <p>Density A lots range in size from 680² – 885². They could be subdivided into lots of 200m²+ (the minimum size for Density A lots in this Living G Zone) and produce 30 lots.</p> | <p>30 Density A lots represent more than 10% of the total lots and therefore would not comply with the RNN standards. Density B, C & D lots all exceed the minimum lot size of 300m²/400m²</p> | <p>In order for this subdivision to comply with the new provisions there would need to be some minor adjustment in the lot sizes such that only 20 lots were below 300m².</p> |

| | | |
|---|---|---|
| Density B, C & D Lots range in size from 450m ² - 880m ² | | |
| <u>Mix of building typologies</u> | | |
| All of the lots, apart from the Density A lots, assumed to be for standalone house types. Density A lots assumed to be terraces. | At least 42 of the units would need to be other than standalone houses. | If there were 30 Density A terraces, at least 12 of the Density B lots would need to be paired to accommodate duplexes to provide for 3 typologies. Zero lot boundaries would provide more useable space around the houses. |
| <u>Distribution of densities</u> | | |
| The higher density lots are concentrated in the eastern area of the site. | This distribution of densities could be accommodated within the RNN provisions. | |
| <u>Lot dimensions</u> | | |
| Corner lots have road frontages of 14m (when the curved corners are taken into account). All mid block lots have a frontage width of at least 10m except for lots 23,24, 186 & 187. | All of the lots comply with the RNN except Lots 23, 24 186 & 187, which are back lots. | It would be difficult to adjust these lots without changing the overall layout. |
| <u>Maximum cul-de-sac length</u> | | |
| There are no culs-de-sac | | |
| <u>Minimum percentage of road frontage to public reserve</u> | | |
| Lot 3031 is a walkway. Lot 3032 is a small reserve providing a link to the linear stormwater reserve. Its road frontage is 22% of the perimeter length. | Lot 3032 would not meet the 25% road frontage requirement, however, it is part of a much larger linear stormwater reserve, which does appear to have a road frontage of at least 25%. | |
| <u>Minimum width for a reserve</u> | | |
| The walkway (Lot 3031) is 10 metres wide. The reserve (Lot 3032) is 18.9 metres wide. | Comply with the minimum width of a walkway of 8m. | |
| <u>Maximum residential block size</u> | | |
| The blocks in this subdivision are relatively small. However, the | Would comply with the maximum residential | Provision for a mid-block road or pedestrian link (Lot 56) would |

| | | |
|---|--|--|
| block along the western boundary has a perimeter road frontage of 680m. If this were mirrored with development to the west in the long term, the perimeter of the whole block could be anticipated to be about twice this distance. | block size of 800m except block on western boundary. | provide better connection to land to the west if developed in the future and meet the RNN requirement. |
| <u>Allotment frontage</u> | | |
| Every allotment which has a frontage to public open space has a frontage to it of at least 10 metres. However, the Density A lots will need to be further subdivided. | Density A lots would need to be re-subdivided such that each midblock unit has a frontage to the stormwater reserve of at least 7m and each end terrace 10m. | The Density A blocks would need to be subdivided differently – see below. |
| <u>Minimum NN entry width</u> | | |
| Not applicable | | |

CONCLUSION:

Only minor adjustment would be needed to largely comply with the RNN provisions i.e:

1. The safeguarding of Lot 56 for a future road or pedestrian link
2. The resubdivision of the density A blocks to accommodate no more than 20 lots less than 300m².
This could be achieved by resubdividing lots 52-54 to accommodate 4 end terrace lots of 300m² and 7 mid-terrace lots of 195m² and resubdividing lots 103-107 to accommodate 6 end terrace lots of 300m² and 12 mid-terrace lots of 185m².

The loss of perhaps 2 units by these changes could be countered by the reduction in width of some of the Density B lots to accommodate duplexes or reductions in lot width elsewhere.

It would be less easy to eliminate the non-compliance of the 4 back lots with the minimum frontage width.

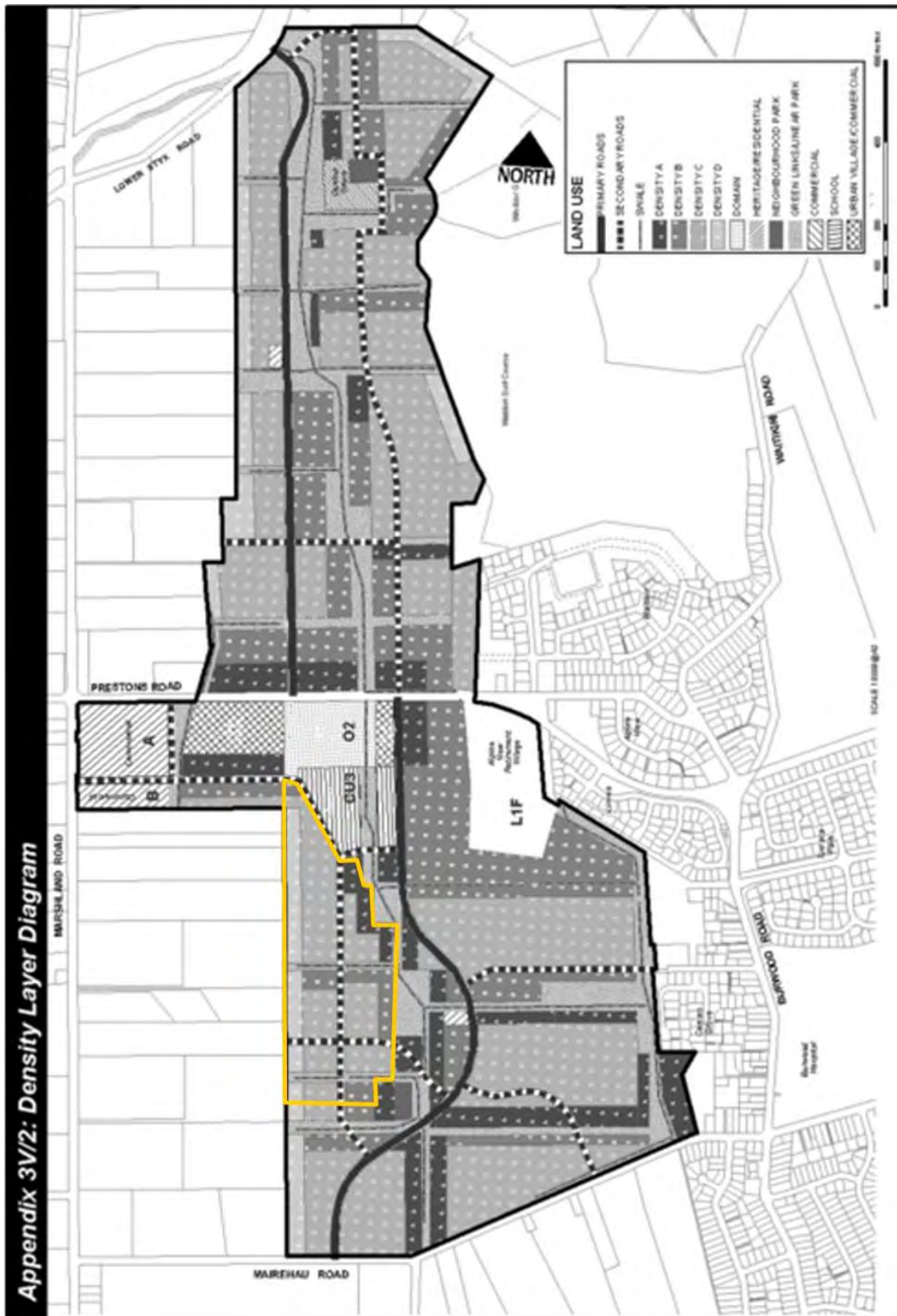
If a scheme plan were to be designed for this block of land using the RNN provisions from the outset a similar product could be produced if desired. Alternatively the RNN could be used to provide more scope in density distribution and a less regimented layout. The RNN provisions would not appear to be difficult to work with.

FIGURE 3: Scheme Plan, Prestons

Frontage length of this block = 680m



FIGURE 4: ODP Prestons Density Layer



APPENDIX 2:

Rationalisation of Outline Development Plans and accompanying layer diagrams for Living G Zones

There are currently nine operative Living G zones:

1. Yaldhurst/Masham
2. Belfast East
3. Awatea
4. Wigram
5. Prestons
6. Halswell West
7. North West Belfast
8. Highfield
9. Highsted

Each Living G Zone has its own suite of District Plan provisions and a set of Outline Development Plans. The nine Zones are in differing stages of completion. Each Living G Zone is discussed in turn below.

1. Yaldhurst /Masham

This Living G has three components:

1. Delamain to the south which is all built out.
2. Noble Village to the north which is all consented, however there has been little work on the ground due to legal challenges. The intention of this developer is to carry out a comprehensive development .
3. Masham to the east which largely complete

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3n Outline Development Plan (Yaldhurst)

This plan shows the density bands. These are not in accordance with the 'as built' portion of Delamain, nor the consented portion of Noble Village.

Appendix 3n.1. Key structuring elements (Yaldhurst)

This plan is in similar vein to the RNN ODP. It includes a written explanation of the purpose and characteristics of the structuring elements – which is very useful.

Appendix 3o Layer Diagram Green Network and Key Principles (Yaldhurst)

Appendix 3p Layer Diagram Blue Network and Key Principles (Yaldhurst)

Appendix 3q Layer Diagram Movement Network (Yaldhurst)

These three appendices have diagrams and accompanying explanatory text, which is useful in understanding the rationale for design and components of the neighbourhood.

RECOMMENDATION:

Retain Appendix 3n Outline Development Plan but update to reflect current location of the density bands. Amalgamate the other four appendices into one in the same format as the RNN ODP. The explanatory text can be condensed but should not be lost.

2. Belfast East

No development has occurred on the ground in this Living G Zone. Council has had some pre-application discussion in relation to land to the west of Blakes Road.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3s Outline Development Plan (East Belfast)

This layer contains the density bands.

Appendix 3s/1 Layer diagram Green Network (East Belfast)Appendix 3s/2 Layer Diagram Blue Network (East Belfast)Appendix 3s/3a Layer Diagram Movement Network – Vehicle Network (East Belfast)Appendix 3s/3b Layer Diagram Movement Network – Public Transport Network (East Belfast)Appendix 3s/3c Layer Diagram Movement Network – Cycle Network (East Belfast)Appendix 3s/3c Layer Diagram Movement Network – Pedestrian Network (East Belfast)

RECOMMENDATION: The information from all of the layers be used to prepare a new style RNN ODP. There would appear to be little need for the density bands to be retained. Additional information contained in the diagrams and accompanying text should be carried forward in some way.

3. Awatea

All of the land north of Awatea Road has been consented and is underway. To the south of Awatea Road, north of the Southern Motorway and west of Carrs Road there are proposals at various stages (from consented to pre-application discussion) for most of the land parcels. On either side of the motorway are parcels of land which are the subject of an affordable housing development proposal from the MBIE. The manner in which this is recognised is beyond the scope of this report, except to say that the development of the block as a comprehensive subdivision and land use scheme would appear to fit more comfortably into the RNN provisions rather than the complex density bands of the Living G Zone. There is a subdivision consent for part of the Living G Zone south of Carrs Road and north of Halswell Junction Road but for the remainder there has been no development interest to Council's knowledge.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3T Outline Development Plan (Awatea)

This layer contains the density bands.

Appendix 3T Outline Development Plan (A) (Awatea)

This layer only contain the required width of the Conservation Zone either side of the Heathcote River

Appendix 3T (a) Fixed Structural Elements (Awatea)Appendix 3T (i) Layer Diagram Green Network (Awatea)Appendix 3T (ii) Layer Diagram Blue Network (Awatea)Appendix 3T (iii) Movement Network Layer Diagram (Awatea)Appendix 3T(iv) Public Transport Network Diagram (Awatea)Appendix 3T (v) Cycle Network Diagram (Awatea)Appendix 3T (vi) Road Design Parameters (Awatea)

This is a table of road standards

Appendix 3T (vii) Tangata Whenua Layer (Awatea)

RECOMMENDATION: That the information from all of the layers be used to prepare a new style RNN ODP. There would appear to be little need for the density bands to be retained. Additional information contained in the diagrams and accompanying text should be carried forward in some way.

4. Wigram

Development of this Living G zone is well advanced and it is expected to be completed by the time the CRDP is operative. The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3U/1 Outline Development Plan (Wigram)

This layer contains the density bands but they do not exactly match those in the Masterplan. There is a retirement village underway in an area zoned Density C.

Appendix 3U/2 Key Structuring Elements (Wigram)

Explanatory text

Appendix 3U/3 Layer Diagram – Green Network (Wigram)

Appendix 3U/4 Layer Diagram Movement Network (Wigram)

Appendix 3U/4 Figure 2 Road Hierarchy (Wigram)

Appendix 3U/4 Figure 3a Cross Section Reference (Wigram)

Appendix 3U/4 Figure 3b Typical Cross Sections (Wigram)

Appendix 3U/4 Figure 4 Public Transport Network (Wigram)

Appendix 3U/4 Figure 5 Cycle and Pedestrian Network (Wigram)

Appendix 3U/5 Layer Diagram- Blue Network (Wigram)

RECOMMENDATION: Redraw the Outline Development Plan to reflect the current position of the different density bands. The other layer diagrams are no longer needed.

5. Prestons

Development of this Living G Zone is well underway with development on the north side of Prestons Road all consented and that on the south side of Prestons Road largely consented. The pace of development is such that the Prestons is expected to be substantially completed by the time the CRDP is operative.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3V Zoning (Prestons)

Appendix 3V/1 Outline Development Plan (Prestons)

This plan combines most of the information contained on the other diagrams except for the density bands

Appendix 3V/2 Density Layer Diagram (Prestons)

This layer contains the density bands.

Appendix 3V/3 (i) Movement Network Layer Diagram and associated key principles (Prestons)

Appendix 3V/3 (ii) Movement Network Layer Diagram - cycle(Prestons)

Appendix 3V/3 (iii) Movement Network Layer Diagram - pedestrians(Prestons)

Appendix 3V/3 (iv) Master Plan Road(Prestons)

Appendix 3V/4 Blue Network Layer Diagram (Prestons)

Appendix 3V/5 Green Network Layer Diagram (Prestons)Appendix

3V/6 Planting list

Appendix 3V/7 (i – v) Intersection upgrades

Appendix 3V/8 Accidental Discovery

RECOMMENDATION: Retain Appendix 3V/1 Outline Development Plan. Update Density Layer 3V/2 to reflect 'as built' or Masterplan. There may be a need for outstanding information such as intersection grades to be carried forward.

6. Halswell West

This Living G Zone is well underway and is expected to be largely complete by the time the CRDP is operative.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3W Outline Development Plan (Halswell West)

This plan contains the density bands.

Appendix 3W/a Marker Buildings and Focal Points (Halswell West)

Appendix 3W/b Movement Network (Halswell West)

Appendix 3W/cBlue Network (Halswell West)

Appendix 3W/d Green Network (Halswell West)

Appendix 3W/e Reticulation Network (Halswell West)

Appendix 3W/f Tangata Whenua Layer Diagram (Halswell West)

RECOMMENDATION: Update Appendix 3W Outline Development Plan to reflect 'as built' or Masterplan. There may be a need for outstanding information to be carried forward.

7. North West Belfast

Development has been consented and has commenced on The Groynes subdivision on the north side of Johns Road, although development has currently stalled. There is also a consented development in the western corner of this zone. Elsewhere there have been some pre-application discussions with Council staff but there has been little progress in this Living G Zone since its approval.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendix 3X (a) Densities and Key Infrastructure (North West Belfast)

This plan contains the density bands

Appendix 3X (b) Living G (North West Belfast) Zone

This is a diagram identifying the northern end of the block as Area 4

Appendix 3X 2(a) Green Network Layer Diagram (North West Belfast)

Appendix 3X 2(b) Protected trees (North West Belfast)

Appendix 3X 3Blue Network Layer Diagram (North West Belfast)

Appendix 3X 4Movement Network Layer Diagram (North West Belfast)

Appendix 3X 4 (a) Movement Network Layer Diagram (North West Belfast) –Spine Road 2

Appendix 3X 4(b) Movement Network Layer Diagram (North West Belfast)- Local Road

Appendix 3X 4 (c)Movement Network Layer Diagram (North West Belfast) Spine Road 1

Appendix 3X 4(d) Movement Network Layer Diagram (North West Belfast) – Public Transport

Appendix 3X 4(e)Movement Network Layer Diagram (North West Belfast) – Interim Public Transport

Appendix 3X 4(f) Movement Network Layer Diagram (North West Belfast) – Cycle Network

Appendix 3X 4(g) Movement Network Layer Diagram (North West Belfast – Pedestrian Network

RECOMMENDATION: That the information from all of the layers be used to prepare a new style RNN ODP for the whole of this Living G Zone. There would appear to be little need for the density bands to be retained. Additional information contained in the diagrams and accompanying text should be carried forward in some way.

8. Highfield

There has been no progress on this Living G Zone since it was made operative. There are multiple landowners and the developer promoting the zone as a comprehensive development has apparently run into difficulties.

The set of Outline Development Plans in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan are as follows:

Appendices 3Y(a) and 3Y (b) Outline Development Plan (Highfield)

Appendix 3Y (c) Plants species for Living G (Highfield)

Appendix 3Y (d) Cross Sections for Roads (Highfield)

RECOMMENDATION: The ODP be converted to a new style RNN ODP and additional information contained in the other appendices be carried forward in some way.

9. Highsted

This is the most recent Living G Zone and is a part of a larger Residential Greenfield Priority Zone known as Upper Styx. Unlike the other Living G Zones it is not one contiguous area but is separated into three blocks. Two of these have now been consented. The remainder of the Greenfield Residential Area remains as a Rural Zone. An ODP in a similar level of detail to those proposed in the RNN Zone has been prepared by Council for the whole of the Greenfield Residential Zone.

This Zone has only two Appendices in Volume 3, Part 2- Living Zones, of the Operative Christchurch City Plan which are:

Appendix 3Z Masterplan (Highsted)

Appendix 3ZA Movement Network (Highsted)

RECOMMENDATION: Convert the existing ODP for the Upper Styx area into the same format as the RNN ODP's

SUMMARY

The Living G Zones basically fall into two categories, Those that are well underway with many residential properties completed and those where development has not yet commenced or is in its very early stages.

| Living G Zone | Retention and updating of existing ODP layers required | RNN ODP required |
|-----------------------|---|--|
| 1. Yaldhurst/Masham | Update Appendix 3n Outline Development Plan | Use information from existing layers to create new style ODP |
| 2. Belfast East | | Use information from existing layers to create new style ODP |
| 3. Awatea | | Use information from existing layers to create new style ODP |
| 4. Wigram | Update Appendix 3U/1 Outline Development Plan | |
| 5. Prestons | Retain Appendix 3V/1 Outline Development Plan. Update Density Layer 3V/2 | |
| 6. Halswell West | Update Appendix 3W Outline Development Plan | |
| 7. North West Belfast | | Use information from existing layers to create new style ODP |
| 8. Highfield | | Convert existing ODP |
| 9. Highsted | | Convert existing Upper Styx ODP |

All of the Living G Zones contain additional information and requirements which needs to be carried forward although this may be limited in areas such as Wigram which are a long way through the development process. This could be incorporated in the CRDP or provided in the form of a separate Greenfield Residential Priority Zones Development Manual (similar to the Infrastructure Design Standard but containing site specific as well as general information).

For those areas for which the density layer is not intended to be carried forward, there could be an issue if stakeholders consider their development rights have been downgraded from that which they would enjoy through the Living G Zoning.