

Before the Independent Hearings Panel

in the matter of section 71 of the Canterbury Earthquake Recovery Act 2011 and the Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014

and

in the matter of proposals notified for incorporation into a Christchurch Replacement District Plan

submitter **GW Office Limited, K Bush Road Limited, and Brian Gillman Limited** (Submitter 788)

in respect of a submission on the New Neighbourhood Zone rule provisions

Statement of evidence of Warren John McCall on behalf of GW Office Limited, K Bush Road Limited and Brian Gillman Limited

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INTRODUCTION

1. My name is Warren John McCall and I am a surveyor and director of Davie Lovell-Smith Ltd, consulting surveyors, engineers and planners of Christchurch. I have been practising as a Registered or Licensed Surveyor in Christchurch for 27 years. I have been a director of Davie Lovell-Smith for 17 years and consultant to Gillman Wheelans Ltd for the past 15 years.
2. I hold a Bachelor of Surveying (Distinction) and am a Registered Professional Surveyor and Member of the New Zealand Institute of Surveyors.
3. Over the past 15 years I have been involved in creating subdivision design plans for Gillman Wheelans Ltd and various other clients.

CODE OF CONDUCT

4. I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2014. I confirm that I have considered all material facts that I am aware of that might alter or detract from the opinions I express, and that this evidence is within my area of expertise, except where I state that I am relying on evidence of another person.

SCOPE OF EVIDENCE

5. This evidence relates to Chapter 8 Subdivision, Development and Earthworks (part) of the proposed Christchurch City Council Replacement District Plan, amended as a result of the Council's consideration of submissions.
6. The scope of my evidence is to assess how subdivision plans could be created within the framework of the Council's proposed New Neighbourhood Zone rules, particularly for the subdivision option (RD2).

EXECUTIVE SUMMARY

7. Although the Council, through its amended position after considering the submissions, has made a number of suggested changes to its proposed rules, which go some way to improving matters, I am still concerned that the New Neighbourhood Zone rules could be unworkable. In my opinion, the rules need to be considered in the context of how subdivision designs can be created to produce the types of residential neighbourhood that the Council and developers would wish to achieve, also taking various constraints into consideration.
8. The main areas of concern that I have identified are:
 - a. A lack of open space and recreation reserves that the Council is anticipating, and the detrimental effects this will have on green networks and visual amenity.
 - b. The ability for the Council, where open space is shown on an Outline Development Plan, to decline land for a recreation reserve if it does not wish to accept it, thus exacerbating the lack of reserves.
 - c. The likelihood that developers will not be able to deliver the required overall net density of 15 households per hectare while providing a variety of lot sizes including some that are larger. 10% limit on the number of small lots allowed (180m² to 300m²) will constrain the ability to achieve higher overall densities. In my opinion, an overall net density of 15 households per hectare is unrealistic under the subdivision consent option (8.4.2.1, RD2).
 - d. Requirements for a minimum developable area of 7000m² for a subdivision consent application and for a comprehensive subdivision and land use consent application within an overall subdivision appear to be unnecessary.
9. In the conclusion of my evidence I have suggested some amendments to the proposed rules for the New Neighbourhood Zone,

which I believe would significantly improve the ability for developers to comply, and would lead to better quality subdivisions.

BACKGROUND

10. From my experience good subdivision design usually comes from a collaborative effort. It involves the developer, the designer, engineer, traffic engineer and landscape architect bringing together the vision of the developer with the reality of district plan rules, servicing requirements and physical constraints.
11. The amended position of the Council for the New Neighbourhood Zone (to be filed on 11 March 2015) is an improvement on the notified version. Notably, the deletion of density uplift areas, allowing slightly bigger range in residential lot design with up to 10% of allotments between 180m² and 300m², reducing minimum road frontage for terraced houses mid-block to 7m, increasing maximum single housing typology to 80%, and marginal increases in the length of cul-de-sacs. There are still, however, areas of concern.

RESERVES

12. One of the key elements of designing a residential subdivision is the network of reserves and how it integrates into the development. Reserves do not need to be large. Often a small area of reserve in the right place can provide the opportunity of an outlook from higher density housing, or perhaps provide view lines, or to protect a deserving tree. With higher density development (15 households per hectare) including duplexes, terraced houses and apartments, it becomes essential to have good quality pockets of open space to reduce the harshness of the built form. Such small reserves are vital to adding texture, colour and life to a residential area.
13. According to Christchurch City Council's Public Open Space Strategy (2010-2040), local parks of 3000m² or more should be provided at a rate of 1 hectare of reserve per 1000 people. This equates to only 10m² of reserve per person. Assuming an average of 2 people per household and 15 households per hectare, this suggests that reserves be provided at a rate of 300m² per hectare. That is only one reserve,

of 3000m² minimum area, per 10 hectares of residential development. The council of course will say that drainage reserves, provided as part of the blue network, will complement the green network. However, stormwater systems are inherently utilitarian in character, are often poorly maintained, and do not offer the same level of visual amenity.

14. The Council's position under proposed Rule 8.4.2.5 (5) of the New Neighbourhood Zone is consistent with its Public Open Space Strategy: "*The minimum area for a recreation reserve shall be 3000 square metres*". However, with so few local reserves, this offers very little opportunity to promote a strong green network.
15. In many cases 3000m² is excessive for a local reserve. Some of the best recreation reserves in Gillman Wheelans' subdivisions are around 2000m². With careful consideration as to layout, many of these reserves include a tennis court, basketball area, playground, picnic or bar-be-que area, pedestrian or cycle way, within attractively landscaped settings.
16. Note 1 under Proposed Rule 8.4.2.1, RD1 and RD2 of the New Neighbourhood Zone states: "*Where open space is shown on an Outline Development Plan and that land is not required by the Council as a recreation reserve or local purpose reserve then that land can be developed for residential purposes...*" The purpose of this rule presumably is so that the Council can eliminate reserves it does not wish to maintain. This will only exacerbate the scarcity of reserves and necessitate a reworking of subdivision designs at additional expense to the client as well as causing unnecessary delays. These requirements may result in a lower quality development outcome.

NET DENSITIES

17. Rule 8.4.2.1, RD1 and RD2 requires that subdivision in the New Neighbourhood Zone shall achieve a minimum net density of 15 households per hectare.

18. Perhaps the most comparable Gillman Wheelans subdivision to this level of density is Delamain, Yaldhurst. Plans or images are attached for perusal.
19. Delamain was the first subdivision, developed in 2007-09, in accordance with the Living G (Yaldhurst) Zone. It consists of approximately 320 residential lots with a mix of densities with minimum lot sizes of 250m², 330m², 550m² and 800m². The average lot size is 453m² approximately. However, the overall density (excluding stormwater reserves and a regional park) is only 14 lots per hectare.
20. I believe that the density requirement of 15 households per hectare is unrealistic, as the Council is underestimating the land required for reserves and possibly roads. Assuming roads and reserves are provided at a similar rate to Delamain (210m² of road and 47m² of reserve per lot) excluding stormwater and a regional park, then to achieve a density of 15 households per hectare would require a maximum average lot size of 409m². This would make it very difficult to achieve the variety of lot sizes and housing types that is envisaged.
21. Corner lots are required to be a minimum of 400m². With the predicted large number of corner lots (400m² minimum) as a result of grid style roads and small blocks, and with only 10% of allotments allowed to be less than 300m², this leaves very little scope to include larger lots. I believe the resulting developments will be dominated by duplexes and terraced houses with standalone houses limited to allotments of not much greater than 500m². In my opinion, this does not represent an adequate diversity of housing type.
22. From my experience with Delamain approximately 18% of the lots were less than 300m² yet the subdivision achieved an overall net density of only 14 households per hectare. By comparison proposed Rule 8.4.2.5(1)(i) provides for a maximum of only 10% of lots less than 300m². This suggests that the overall net densities that could be achieved in the New Neighbourhood Zone could be less than that of Delamain.

DENSITY CALCULATIONS

23. I have produced some density calculations, as an attachment to my evidence, to demonstrate what was achieved at Delamain and then three scenarios under the New Neighbourhood Zone.
24. The 1st scenario shows the densities that could be expected under the Council's proposed rules (but ignoring 15hh/ha) assuming a typical spread of lot sizes that Gillman Wheelans Ltd would wish to develop. At an average lot size of 470m² the overall net density that could be achieved is approximately 13.7hh/ha.
25. The 2nd scenario assumes a rule change with the number of allotments of 180m² to 300m² (250m² average) increased to 20% and a corresponding reduction in the number of standalone houses. The average lot size under this scenario reduces to 435m². However, the overall net density is only 14.39hh/ha, still well below the minimum required density of 15hh/ha.
26. Under the 3rd scenario a higher proportion of smaller lots has been chosen to demonstrate the type of housing density required to deliver 15hh/ha overall net density. This scenario shows that while it is possible to produce a subdivision of 15hh/ha, approximately 85% of the lots would be average 450m² or less and 20% would be less than 300m². This scenario, in my opinion, does not produce an adequate range of lot sizes or housing diversity.

ROAD DESIGN

27. Although I expect it is not part of these deliberations, the subdivision section of the proposed rules (Appendix 8.6.3) requires that local residential roads have a minimum legal width of 16m, which in many situations is excessive. Delamain by comparison has "walkable" or "living" streets with only 10m legal width, which provide excellent visual connection and interaction between streets and adjoining reserves. Narrower roads also help achieve greater overall density.

DEVELOPABLE AREAS

28. The Council's amended position (Rule 8.4.2.1, RD2 (c)) requires that subdivision consent applications be for a minimum of 7000m² developable area, the reasons of which are not apparent. I expect there will be existing development properties within the New Neighbourhood Zone that are less than 7000m², for which a minimum developable area should be irrelevant.
29. Similarly, Rule 8.4.2.1, RD2 (g) requires that a comprehensive block subdivision and land use consent application within the bounds of a subdivision application shall be for a minimum area of 7000m² and contain a 50m x 50m square. These requirements seem to be arbitrary and have no relevance. Why does a comprehensive development block need to be 7000m² and 50m square? The reality is that these comprehensive development blocks will be sold to building companies with the shape and area of the land determined by the type and quantity of housing product they are going to build.

CONCLUSION

30. In my opinion the proposed rules for the New Neighbourhood Zone will frustrate the subdivision design process and make it very difficult to achieve 15 households per hectare density. I support the introduction of a greater range of allotment sizes and housing types to provide higher overall densities. However, the restriction of only 10% of allotments to be less than 300m² compromises the ability to increase the density. More pocket parks of less than 3000m² are required and these will also compromise density.
31. As the Delamain example has demonstrated, once sufficient land has been set aside for roads and reserves, a higher density subdivision with an average lot size of 453m² could only achieve 14 households per hectare. If a 10% restriction on the number of lots less than 300m² had applied (as is proposed for the New Neighbourhood Zone) Delamain's density would have been even less.
32. In my opinion the following amendments would significantly improve the proposed rules for the New Neighbourhood Zone:

- a. Rule 8.4.2.1 RD1 and RD2 - Amend the proposed new neighbourhood minimum net density to 13 households per hectare (or such other changes as to achieve objectives 3.3.2 and 3.3.4).
- b. Rule 8.4.2.5 1 i - Failing amendment (a) above, increase the number of small allotments that can be provided (180m² to 300m²) to 25% of the total number of residential allotments.
- c. Rule 8.4.2.5 5 a - Delete the minimum area requirement of 3000m² for recreation reserves and rely on the design process to deliver appropriate reserves.
- d. Rule 8.4.2.1 RD1 and RD2 Note 1 - Delete reference that the Council can arbitrarily eliminate open space that is shown on an Outline Development Plan.
- e. Rule 8.4.2.1 RD2 c - Delete the requirement for a minimum of 7000m² developable area for a subdivision consent application.
- f. Rule 8.4.2.1 RD2 g- Delete the requirements for a minimum of 7000m² developable area and a square of 50m x 50m for comprehensive block subdivision and land use consent.

Warren McCall

20 March 2015