

Before the Selwyn District Council

In the matter of The Resource Management Act 1991 (RMA)

And Proposed Plan Change 60, being the rezoning of 17.7 ha of
land from Living 2A to Living 1 in Kirwee

Statement of evidence of Andy Carr for Kirwee Central Properties Limited

13 July 2020

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Qualifications and experience

- 1 My full name is Andrew ("Andy") David Carr.
- 2 I am a Chartered Professional Engineer and an International Professional Engineer (New Zealand section of the register). I hold a Masters degree in Transport Engineering and Operations and also a Masters degree in Business Administration.
- 3 I served on the national committee of the Resource Management Law Association between 2013-14 and 2015-17, and I am a past Chair of the Canterbury branch of the organisation. I am also a Chartered Member of Engineering New Zealand (formerly the Institution of Professional Engineers New Zealand), and an Associate Member of the New Zealand Planning Institute.
- 4 I have more than 30 years' experience in traffic engineering, over which time I have been responsible for investigating and evaluating the traffic and transportation impacts of a wide range of land use developments, both in New Zealand and the United Kingdom.
- 5 I am presently a director of Carriageway Consulting Ltd, a specialist traffic engineering and transport planning consultancy which I founded six years ago. My role primarily involves undertaking and reviewing traffic analyses for both resource consent applications and proposed plan changes for a variety of different development types, for both local authorities and private organisations. I am also a Hearings Commissioner and have acted in that role for Greater Wellington Regional Council, Ashburton District Council, Waimakariri District Council and Christchurch City Council.
- 6 Prior to forming Carriageway Consulting Ltd I was employed by traffic engineering consultancies where I had senior roles in developing the business, undertaking technical work and supervising project teams primarily within the South Island.
- 7 I have been involved in a number of proposals which have involved assessing the traffic generation and effects of large residential developments. Within this district, this includes the residences facilitated by Plan Changes 24 (Darfield) for rezoning 113ha of land for residential and business development and 34 (Southbridge) for rezoning 6ha of rural land as residential. In respect of resource consents, my experience includes Levi Park (470 residences on the eastern side of Rolleston), Faringdon (in excess of 1,200 residences in Rolleston), Stonebrook (460 residences on the western side of Rolleston).

- 8 Elsewhere, in Greater Christchurch I have provided transportation advice for Plan Changes 68 (600 residences in Halswell), 30 (Prestons, for more than 2,000 residences towards the north of the city), and Plan Changes 11, 12, 17, 18, 20, 22 and 23 in Waimakariri.
- 9 I have carried out commissions in Selwyn District for more than 15 years. As a result of my experience, I consider that I am fully familiar with the particular traffic-related issues in the region and also the transportation characteristics of residential plan changes and resource consent applications.

Code of Conduct for Expert Witnesses

- 10 I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2014 and that I have complied with it when preparing my evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of Evidence

- 11 In this matter, I have been asked by the Requestor, Kirwee Central Properties Limited, to:
- a. Review my previous assessments to ensure that they remain current;
 - b. Assess the submissions received on the plan change and identify whether the matters raised are relevant to the transportation considerations of the plan change and any actions arising; and
 - c. Comment on the Council Officers' reports.
- 12 I have been involved in this project since November 2018, and this has included the production of a Transportation Assessment (Appendix 5 to the Plan Change Request). I visited the site in November 2018 and September 2019.

Review of Transportation Assessment

- 13 The Transportation Assessment was produced in December 2018. I have therefore taken the opportunity to review the information provided to ensure it remains current.
- 14 There have been no fundamental changes to the roading networks in the area. However in Section 4.1 of the report, I identified the traffic flows on the adjacent roads and these are now slightly different:
- a. Hoskyns Road is unchanged (previously 150 vehicles per day)
 - b. Courtenay Road is unchanged (previously 1,000 vehicles per day)

- c. School Lane carries 325 vehicles per day (previously 120 vehicles per day)
- 15 The increase in School Lane traffic does not change any of the analyses within my earlier report. This is because in the Transportation Assessment I identified that the traffic volume on School Lane appeared too low, and calculated that it should be in the order of 350 vehicles per day, and then used this higher figure within my analyses.
- 16 The Transportation Assessment also reported the road safety record in the immediate area, but as it was produced in late 2018, there is a further 1.5 years of data (2019 and the partial year of 2020). I have used the NZTA Crash Analysis System to identify crashes on the same roads (School Lane, Courtenay Road and Hoskyns Road) and find that there have been no new crashes recorded. I therefore remain of the view that the crash records in this area is excellent, with no evident road safety concerns.
- 17 Overall then, I confirm that the Transportation Assessment remains up-to-date, and in my view, the conclusions are robust.

Response to Submissions

- 18 I have reviewed the submissions received on the plan change request, and address the matters raised by submitters below. Where the same issue has been raised by different submitters, I have only responded to the issue once. For clarity, the issues are not set out in any particular order.

Submitter Concern: The safety of children travelling to Kirwee Model School should not be adversely affected

- 19 The plan change provisions show a walking/cycling connection between the plan change area and the eastern end of School Lane. Given that there is already a footpath running along the southern side of School Lane, this means that there is a suitable route for children and caregivers traveling between the plan change area and the school.
- 20 The plan change will introduce a small increase in traffic volume on School Lane (5 vehicle movements in the peak hours) but this is likely to be imperceptible, and will not affect any road safety matters.

Submitter Concern: There is no roading connectivity to local roads within Kirwee, such as School Lane or Walter Place

- 21 The plan change makes provision for walking and cycling routes to both School Lane and Walter Place, but I can confirm that there is no roading connection proposed in either location.

- 22 The particular concern raised relates to the requirement for people accessing services within Kirwee by car to have to travel on a circuitous route via Hoskyns Road. I note though that it is 0.4m to 0.7km from any point within the plan change area to reach Courtenay Road, and therefore the journey can easily be carried out without using a motor vehicle. The analysis thus far has taken account of all traffic movements being made via Hoskyns Road, and excellent levels of service are provided.
- 23 For the plan change as requested then, I do not consider that roading links are required as the submitter seeks.

Submitter Concern: Adverse road safety effects will arise at the Hoskyns Road / Suffolk Drive intersection

- 24 As set out in the Transportation Assessment, the traffic flows at this intersection are below the threshold at which a formal analysis of queues and delays is required. It will therefore operate under 'free flow' conditions (as a priority intersection). Further, since it is newly-constructed to meet current standards, I do not consider that safety issue will arise.
- 25 One matter that has been raised related to road safety is sunstrike. This is when the sun is low within the sky and dazzles the driver. In this regard Hoskyns Road runs with an east-west alignment and therefore sunstrike may arise. That said, there are numerous roads within the district that also have the same alignment, and drivers are well used to the phenomena.

Submitter Concern: Adverse efficiency effects will arise on the wider roading network

- 26 It is invariably the case that the traffic effects of any development are the most pronounced on the roading network in the immediate vicinity of that site. This is because as distance from any site increases, traffic effects become more dispersed due to drivers having a greater number of routing choices that decrease the volume of extra traffic on any roading link. As such, any traffic-related effects of the plan change request will be most pronounced in Kirwee, rather than in (say) Christchurch which is some 25km away.
- 27 In the vicinity of Kirwee, State Highway 73 carries 5,550 vehicles per day (two-way) and has a weekday peak hour flow in the order of 500 to 550 vehicles (two-way). The development of the plan change area will increase this by 106 vehicle movements (two-way) if all vehicles were to use the highway (which is unlikely). The resultant peak hour traffic flow of 600 to 650 vehicles (two-way) is well within the capacity of the highway.

- 28 I therefore do not consider that the traffic generation of the development facilitate by the proposed plan change will lead to any adverse efficiency-related effects on the wider roading network. I also note that the capacity of the highway is not a matter/concern raised by NZTA.

Submitter Concern: The increase in traffic poses a safety risk for pedestrians using the Hoskyns Road footpath

- 29 The footpath on Hoskyns Road is on the southern side of the carriageway. The arrangement is not uncommon, and so I do not anticipate that pedestrians or drivers will misunderstand the layout. Pedestrians travelling east-west will need to cross Suffolk Drive, but crossing a road in this manner is also a common occurrence.

Submitter Concern: The increase in traffic poses a safety risk for children and pets playing within the road reserve

- 30 As with all people using the legal road, it is incumbent on pedestrians (of all ages) to use the road safely and responsibly.

Response to Council Officers

- 31 I have reviewed the report of Ms Jocelyn Lewes, a planning officer of the Council, which in turn references a memorandum by Mr Andrew Mazey, the Council's Asset Manager (Transportation). Ms Lewes relies on Mr Mazey's comments, and therefore I have focussed my comments on Mr Mazey's inputs.
- 32 In summary however, Mr Mazey supports the transportation layout shown on the Outline Development Plan (his paragraphs 6 and 7) including the potential for future roading connections, and notes that the absence of internal roading connectivity towards the west (School Lane and Walter Place) is an outcome specifically sought by the Council to support non-car travel (paragraph 8).
- 33 Mr Mazey considers that the Hoskyns Road / Suffolk Drive intersection has been constructed to accommodate larger volumes of traffic than at present, but that even with the plan change area fully developed, traffic flows will be low (paragraphs 12 and 13). He considers that formal 'give way' signs and markings would be of benefit at the intersection (paragraph 13), and I agree with this view. However these can be provided through standard engineering approvals and do not need to be considered in the context of a plan change request.
- 34 With regard to the formation of Hoskyns Road, Mr Mazey considers that an upgrading of the section between Suffolk Drive and Courtenay Place is is

required especially in view of Suffolk Drive having been constructed to an 8-9m formed width (paragraphs 14 to 17).

- 35 In my Transportation Assessment, I noted that to achieve compliance with the District Plan, Hoskyns Road should have a 9m wide carriageway but since Courtenay Place is presently also only formed with a 6m carriageway, for consistency then the latter should also be upgraded. However Courtenay Place already carries high traffic volumes within the 6m formed width apparently without difficulty. I also highlighted that the widths of the District Plan are much greater than is now required under overarching standards, such as Standard NZS4404:2004 'Land Development and Subdivision Engineering', where a 6.7m seal width is sufficient to accommodate the traffic from up to 200 residences (and therefore meaning that an additional 1m seal width would be required to accommodate the traffic generated by the plan change).
- 36 That said, there are two important matters to note. In the first instance, any upgradings can take place wholly within the road reserve, since the legal width is 19-20m, and third party land is not required. The second matter is whether provision for widening is better placed within specific plan change provisions, or considered as part of a subsequent subdivision application. In my experience, the latter is the better option (noting that the site cannot be subdivided as of right, but requires consents to be sought). I note this is also the view of the Council Planning Officer Ms Lewes (her paragraph 7.46).
- 37 Otherwise, I find that Mr Mazey's views generally concur with my own. Ultimately he supports the plan change request with the exception of the seal widening of Hoskyns Road. For the latter, I consider that this can be addressed at a later time.

Conclusions

- 38 Having assessed the transportation implications of the requested plan change, I am able to support the request and consider that it will not give rise to adverse effects on road efficiency or road safety.

Andy Carr

Dated this 13 July 2020