

**BEFORE THE WAIMAKARIRI DISTRICT  
COUNCIL HEARINGS PANEL**

**IN THE MATTER** of the Resource Management  
Act 1991

**AND**

**IN THE MATTER** of a submission by Survus  
(submission 250)

**BRIEF OF EVIDENCE OF ANDREW DAVID CARR**

**Date 27 February 2024**

## QUALIFICATIONS AND EXPERIENCE

1. My 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 34 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 Limited, a specialist traffic engineering and transport planning consultancy which I founded more than ten 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 have previously been a Hearings Commissioner and acted in that role for Waimakariri District Council, Christchurch City Council, Ashburton District Council and Greater Wellington Regional Council.
6. Prior to forming Carriageway Consulting Limited 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. My experience includes providing transportation assessments for proposed residential subdivisions and private plan change requests. Relevant experience includes providing technical inputs to, and presenting evidence for, the following plan changes, which range from 50 to 2,000 residential lots:

- a. Within Waimakariri District: Transportation Assessments and advice for Plan Changes 11&12 (Ruby Views), 17 (Ohoka), 22 (McHughs Road), and 23 (Fernside)
  - b. Within Selwyn District: Transportation Assessments and advice for Plan Changes 24 (Silverstream), 34 (Southbridge), 36 (Conifer Grove), 41 (Shands and Trents Road), 60 (Kirwee), 61 (Darfield), 62 (Leeston), 64 and 70 (Faringdon) and 77 (West Melton).
  - c. Within Christchurch City: Plan Changes 30 (Prestons) and 68 (Halswell)
  - d. Within Queenstown Lakes District: Transportation Assessments and advice for Plan Changes 4 (North Three Parks), 18 (Mount Cardrona), 25 (Kingston), 39 (Arrowtown South), 41 (Shotover Country), 45 (Northlake), and 53 (Northlake).
  - e. Central Otago: Plan Changes 12 (Wooing Tree), 13 (River Terrace), and 14 (Ripponvale)
8. I have also provided Transportation Assessments for numerous large and small scale residential subdivision applications, as well as for submitters seeking residential land rezonings through the review processes of the Waimakariri, Selwyn, Queenstown Lakes and Central Otago District Plans.
  9. As a result of my experience I consider that I am fully familiar with the transportation characteristics of the type of activities that could establish if the submission is accepted and the site is rezoned as sought.
  10. I confirm that have prepared this evidence in accordance with the Code of Conduct for Expert Witnesses contained in Part 9 of the Environment Court Practice Note 2023. The issues addressed in this statement of evidence are within my area of expertise except where I state that I am relying on the evidence or advice of another person. The data, information, facts and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. I have not omitted to consider material facts known to me that might alter or detract from the opinions I have expressed.

## EVIDENCE

11. I have prepared the attached report (**Appendix A**) in respect of the transportation matters likely to arise if the site was to be rezoned as sought.
12. In summary the report sets out an assessment of the various transport and access elements of the site rezoning requested, to Large Lot Residential Zone. I understand that this means that the site will be able to accommodate in the order of 79 residences.
13. My assessment shows that the traffic generated by the development of the site can be accommodated on the adjacent roading network without capacity or efficiency issues arising. In practice, the traffic flows on the adjacent roading network are very low at present, and development of the site generates comparatively little traffic, meaning that even the busiest intersection will operate with low queues and delays, and a good level of service.
14. I have used the Waka Kotahi Crash Analysis System to identify the reported crashes in the vicinity of the site and have reviewed these. I consider that the crash history in the vicinity of the site does not indicate that there would be any adverse safety effects from the proposal.
15. The nature of Large Lot Residential Zones means that they are typically located outside urban areas. In this case though, I note that the site is within a viable walking / cycling distance of all amenities within Oxford, including the school, supermarket and other facilities.
16. As the proposal is for a rezoning, there is no confirmed subdivision plan for the site. However I have reviewed the Outline Development Plan that has been produced to identify whether there is likely to be any inherent non-compliances with the transportation provisions of the Proposed District Plan. Overall I consider that there is likely to be a high degree of compliance but that non-compliances are likely in respect of the following:
  - a. Road Intersection Spacing: There is a requirement for a separation of 160m between intersections but this is not achieved in one location. However the separation proposed easily achieves the appropriate separation distance under the Austroads Guide to Road Design and the national Standard NZS4404:2010 ('Land Development and Subdivision Infrastructure')

b. Separation of Vehicle Crossings and Intersections: There are existing driveways on Bay Road and Ashley Gorge Road / High Street, and the formation of new intersections to serve the site would result in a lesser separation to those driveways than expected. However the vehicle crossings are on the opposite side of the road to the minor approach of the intersections, meaning drivers could not be confused about whether vehicles ahead of them are turning. Road user intervisibilities are excellent, plus the vehicle crossings serve only one residence each where drivers will be travelling forwards onto the frontage roads (rather than reversing). Consequently, I am able to support the reduced separation distances.

17. The internal roads within the site are able to meet the Council's standards.

18. Overall, I am able to support the request for rezoning from a traffic and transportation perspective. In my view there are no traffic and transportation reasons why the zoning is inappropriate in this location.

Andy Carr

27 February 2024