

Before Queenstown Lakes District Council

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In the matter of            The Resource Management Act 1991

And                            The Queenstown Lakes District Proposed District Plan –  
Hearing Topic 13 – Queenstown Annotations and Rezoning  
Requests

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**STATEMENT OF EVIDENCE OF ANDY CARR FOR**

Oasis in the Basin Association (#1289)

Dated 9 June 2017

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**Solicitors:**

Maree Baker-Galloway | Rosie Hill  
Anderson Lloyd  
Level 2, 13 Camp Street, Queenstown 9300  
PO Box 201, Queenstown 9348  
DX Box ZP95010 Queenstown  
p + 64 3 450 0700 | f + 64 3 450 0799  
maree.baker-galloway@al.nz | rosie.hill@al.nz

**anderson  
lloyd.**

## 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 am a member of the national committee of the Resource Management Law Association and a past Chair of the Canterbury branch of the organisation. I am also a Member of the Institution of Professional Engineers New Zealand, and an Associate Member of the New Zealand Planning Institute.
- 4 I have more than 27 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 in early 2014. 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 assessed the transportation-related outcomes of rezoning land, either through undertaking the supporting technical transportation work, or writing and presenting evidence to the relevant hearings panel, and in most cases, both. Within the Queenstown Lakes district, these have included District Plan Changes 4 (North Three Parks), 18 (Mount Cardrona), 25 (Kingston), 39 (Arrowtown South), 41 (Shotover Country), 45 (Northlake), Queenstown Plan Change 43 (Frankton Mixed Use Zone) and 46 (Ballantyne Road Industrial and Residential Extension). I have also been involved in plan change requests for a wide variety of activities elsewhere in the South Island.
- 8 I have carried out transportation-related commissions for a variety of new developments in the Queenstown area for more than 12 years.

9 As a result of my experience, I consider that I am fully familiar with the particular traffic-related issues associated with the rezoning of areas of this nature.

10 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note. This evidence has been prepared in accordance with it and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### **Scope of Evidence**

11 I have been asked by the submitter to comment on the transportation matters associated with the submission of the Middleton Family Trust (#338) for the rezoning of land between the Shotover River and Lake Johnson as Low Density Residential Zone and Rural Residential Zone (*"the site"*).

12 My evidence addresses the matter of the proposed roading link which would connect the submitter's site with the State Highway 6 / Hawthorne Drive roundabout.

### **Overview of the Proposed Road**

13 Based on the submitter's plans, the proposed road would be in the order of 2.5km in length, running with a highly curving horizontal alignment from the southern edge of the submitter's site, to form a fourth leg on the State Highway 6 / Hawthorne Drive roundabout. It is evident from the contour lines on the plan that the topography is challenging. From an assessment of the contour lines I consider that the road will need to rise by at least 100m from the roundabout to the southern edge of the site.

14 Roads which have gradients are not unusual within the alpine environment of the district. However they can be challenging to build, often requiring earthworks which increases the cost of construction. In this instance, to meet the Council's Subdivision Code for new roads, the road would need to be sealed and have a formed carriageway width of at least 8.4m, both of which will increase the construction costs even further.

### **Alternative Route**

15 It is unusual in my experience to seek to construct a new road where alternative roading provisions already exist (unless there is some form of capacity constraint). In this case, the submitters site already has access to legal road towards the northeast, and Tucker Beach Road. This generally has a 20m wide road reserve (although it reduces to 13m width over one 150m section), which is sufficient to meet the Subdivision Code. The gradient of the road is generally gentle, since it skirts the eastern flank of Ferry Hill.

- 16 At the moment, there is a capacity constraint on Tucker Beach Road which constrains it from being used for an increased traffic flow. This is at the State Highway 6 / Tucker Beach Road intersection which is presently formed as a priority intersection. Due to the high volumes of through-traffic on the highway, at peak hours there are extensive delays for drivers emerging from Tucker Beach Road to turn right (in the direction of Queenstown). In my view, it would not be possible to serve the submitter's site under the current intersection configuration.
- 17 However the New Zealand Transport Agency ("NZTA") has recently identified the need for an improvement scheme at this intersection. According to press releases, the scheme being investigated is to accommodate the right-turn movement through an underpass of the highway and the construction of a westbound slip lane to enable drivers to rejoin the main highway carriageway.
- 18 The scheme is at a very early stage, but if it was to be confirmed, then this would in my view completely remove the current bottleneck at the intersection. Slip-lane type arrangements have the highest capacity of any type of intersection because drivers do not need to significantly slow or otherwise give-way to other traffic streams but rather they simply adjust their speeds to facilitate a merging manoeuvre.
- 19 Even if the slip lane proposal does not progress, I consider that there can be confidence that some form of improvement scheme will be implemented by NZTA in this location in the short-term. I also consider that any such scheme will improve the capacity of the intersection.

### **Conclusions**

- 20 On the basis of my assessment, I consider that, if the submitter's site was to be rezoned as sought, then the (upgraded) Tucker Beach Road route provides the most viable and economic means to gain access rather than the construction of a wholly new road through challenging topography.

**Dated this 9 day of June 2017**



**Andy Carr**