

BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL

IN THE MATTER OF

the Resource Management Act 1991

AND

IN THE MATTER OF

Plan Change 54 – a Request for a private plan change to the Queenstown Lakes District Council Operative District Plan by Northlake Investments Limited

STATEMENT OF EVIDENCE OF ANDREW DAVID CARR

TRAFFIC

Dated: 6 July 2023

Counsel:

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Introduction

- 1 My full name is Andrew (“Andy”) David Carr. 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.
- 2 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.
- 3 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.
- 4 I am presently a director of Carriageway Consulting Ltd, a specialist traffic engineering and transport planning consultancy which I founded over nine 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 Greater Wellington Regional Council, Ashburton District Council, Waimakariri District Council and Christchurch City Council.
- 5 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.
- 6 I have been involved in a significant number of private plan changes requests which have sought land rezoning to facilitate residential development. Within Queenstown Lakes district, these have included plan changes 4 (North Three Parks), 18 (Mount Cardrona), 25 (Kingston), 39 (Arrowtown South), 41 (Shotover Country), 43

(Frankton Mixed Use Zone) and 46 (Ballantyne Road Industrial and Residential Extension). I also provided advice for Plan Change 45, which rezoned the land for the Northlake subdivision.

- 7 My experience also included providing advice for the rezoning of land through District Plan reviews, which has not only included the proposed Queenstown Lakes District Plan, but also the forthcoming District Plans in Central Otago, Selwyn and Waimakariri.
- 8 I have provided transportation advice for a range of resource consent applications for residential development, ranging from sites with only a few residential lots (for example, a 5-lot subdivision on Tenby Street in Wanaka) to those with considerably more, such as Te Pa Tahuna within Queenstown town centre and the Bright Skies Special Housing Area in Wanaka.
- 9 I have been involved in providing transportation advice for the Northlake subdivision since 2010, and have worked in the district for nearly 20 years. As a result of my experience, I consider that I am fully familiar with the particular traffic-related issues associated with plan changes of this nature and the residential development facilitated.

Code of Conduct

- 10 Although this is a Council hearing, I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence.
- 11 Except where I state that I am relying on the evidence of another person, this written 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 expressed in this evidence.

Scope of Evidence

- 12 My evidence is presented on behalf of Northlake Investments Limited (**'Northlake'**), the Requestor to PC54 in these proceedings.

- 13 In preparing my evidence, I have reviewed:
- (a) The relevant parts of the Queenstown Lakes District Council Operative District Plan.
 - (b) The Council Section 42A Report, with particular reference to the accompanying technical review of traffic matters by Mr Mike Smith of Stantec Limited (dated 9 June 2023)
- 14 Subject to any points of difference, clarification or addition detailed below, my evidence for this hearing comprises:
- a. My initial assessment of the transportation effects of the development facilitated by the plan change request (Carriageway Consulting report dated 2 February 2022, Document 6 of the plan change request) and subsequent letter dated 31 May 2022;
 - b. the relevant parts of the Section 42A Report which I state below that I agree with and adopt; and
 - c. this evidence.

Summary of Transportation Assessment

- 15 Within the Transportation Assessment, I assessed the extent of residential development that would be facilitated by PC54, of an additional 63 residences. I calculated the traffic generation that would arise from these, and assigned them onto the Northlake roading network and evaluated the consequential effects on roading capacity and road safety.
- 16 In order to do this, I based my receiving environment for PC54 on the extent of consented and permitted development within Northlake, rather than simply using the current traffic volumes. My analysis therefore allows for development which could occur as of right, but which is not yet generating traffic (for example, consented subdivisions which are not yet constructed).
- 17 I found that the bulk of traffic from PC54 would be likely to use Northburn Road, and this would change the current average peak hour flow of 1 vehicle movement every 5.6 seconds to an average peak hour flow of 1 vehicle movement every 5.2 seconds. This

increase is small and I do not consider it will adversely affect the level of service provided by the road. Other roads are similarly able to accommodate the increased volumes.

- 18 I modelled the performance of the Aubrey Road / Northburn Road intersection, and found that the changes in queues and delays due to the increased traffic flows were small, and largely confined to the right-turn movement out of Northburn Road in the morning peak hour (as would be expected).
- 19 I therefore concluded that the traffic generated by development of the plan change area could be accommodated on the road network.
- 20 Importantly, Plan Change 45 (PC45) which facilitated the Northlake subdivision made allowance for 1,600 residences within the Northlake Special Zone. I found that the subsequent patterns of subdivision has meant that, even when the additional residences of PC54 are included, the total yield is 1,532 residences, 4% lower than initially tested in PC45. Since the number of residences is slightly lower than initially evaluated, I anticipate that the traffic effects identified in PC45 will be broadly aligned with the traffic effects now expected.
- 21 As the roads and intersections are newly-constructed, and therefore meet current guides and standards, I do not expect that any adverse road safety effects will arise from PC54.
- 22 The existing infrastructure for non-car modes of travel in the area is easily able to accommodate an increase in walking and cycling.
- 23 I subsequently provided a letter in response to a request from the council which set out in more detail the routing of traffic within Northlake and hence the traffic flows on the various roads. This analysis underpinned the Transportation Assessment and so it does not materially affect the conclusions of that report (rather it simply provided much supporting technical information).
- 24 Within the Transportation Assessment I concluded that PC54 could be supported from a transportation perspective and there were no transportation reasons why it could not be recommended for approval. I remain of this view.

Officers' Reports

- 25 I have read the s 42A report of Mr Munro, consultant reporting planner to the Council, who relies on technical evidence provided by Mr Mike Smith, Council's consulting transportation engineer.
- 26 Mr Smith considers that the existing Northlake Special Zone road network could absorb the traffic generated by development of PC54 subject to additional treatments being applied to a number of roads. The engineering measures that he identifies are achievable wholly within the legal road reserve and so in my view they relate to matters of detail that are appropriately considered at subdivision stage or as part of the council's day-to-day management of the roading network. As such, at this stage (of a proposed plan change) I have not turned my mind to the merits of these, or other, possible measures. That said, I agree with Mr Smith's overall view, that the existing roading network is able to accommodate the generated traffic.
- 27 Mr Smith also considers the effects which may arise through the provision of a roading link to Sticky Forest. Within my letter of 31 May 2022 I set out my view that up to 325 residences could be developed within Sticky Forest and served by the Northlake roading network. Mr Smith considers that a lower figure is appropriate (75 residences). Mr Smith does not explicitly set out this calculation within his report and so I have been unable to identify how he has derived this figure. However I note that he sets out a range of calculations (his Table 5-1) and so it is plausible that the difference arises because we have adopted different development assumptions.
- 28 At this stage then, I remain of the view that up to 325 residences could be developed. Mr Smith notes, and I agree, that at the current time we do not know what scale of development might be enabled in future within Sticky Forest. Consequently, and because both Mr Smith and myself agree that the traffic generated by PC54 can be accommodated on the roading network, I have not carried out any further analysis of this matter.
- 29 I understand however that traffic generated by logging of the forest is a matter that is to be considered. Mr Smith considers this within his Section 7.

- 30 Under Clause 2.3(3) of the Land Transport (Road User) Rule 2004, heavy vehicles are permitted to undertake turning movements using both sides of a road, provided that it is safe to do so and does not create obstruction for other traffic. Consequently I consider that heavy logging trucks could potentially travel to and from Sticky Forest using the Northlake roading network (or future roading network within the WFH subdivision towards the southwest), although I agree with Ms Shepherd's comment that in practice, this depends on the size and length of the trucks involved.
- 31 I generally agree with Mr Smith's description of High Productivity Motor Vehicles (HPMV) although there are several other further relevant matters:
- (a) The permit necessary to operate an HPMV is issued by the Road Controlling Authority, which in this case is Queenstown Lakes District Council. The legislation under which this is issued is the Vehicle Dimensions and Mass (2016) Rule.
 - (b) As part of applying for the permit, the driver or operator has to specify the route/roads that they will use.
 - (c) The entity considering whether to grant a permit is required to consider the safety of other road users, and the potential for adverse effects on their infrastructure (paras 5.2(1)(b) and (c) of the Vehicle Dimensions and Mass (2016) Rule).
- 32 In other words, HPMV permits cannot be issued by the council unless they are satisfied that adverse effects on road safety and infrastructure will not arise. This means that HPMV cannot be present within Northlake without explicit council permission, and council having found that no adverse road safety effects will arise.
- 33 Mr Smith notes that heavy logging trucks could also be standard-sized trucks (that is, they are not over-weight or over-sized) and I agree. He has suggested that these could be controlled, and potentially prevented from moving through the Northlake roading network, through implementing a weight limit on roads which might be used.

- 34 Restricting the weight of vehicles using a road is permissible under the Heavy Motor Vehicle Regulations 1974, where a road controlling authority may prohibit heavy motor vehicles from a road “on reasonable grounds” (s 10(3)). To my understanding, there is no requirement to consult or any other stipulation that would suggest that there is any doubt about the ability of the council to implement such a weight limit.
- 35 However if the trucks are moving for logging-related reasons, this would be a temporary outcome that would change the usual operating conditions of the roads. Consequently, the provisions of the Code of Practice for Temporary Traffic Management (CoPTTM) would apply. This applies to “any activity that varies the normal conditions of any road” (CoPTTM Preface) and has been developed by Waka Kotahi to “meet the statutory duty of road controlling authorities to ensure so far as reasonably practical the safe and efficient operation of the roading network under their authority” (CoPTTM Preface, and s 353 of the Local Government Act 1974).
- 36 In other words, when some activity is being undertaken (such as logging) where the normal conditions of a road are varied (such as would occur with a greater number of heavy vehicles) then CoPTTM applies and there is a requirement to have a Temporary Traffic Management Plan (TTMP) approved by the Council before any logging vehicles can use the roads. To reiterate, this is a process that occurs separately to the Resource Management Act.
- 37 One part of any TTMP is ensuring that the anticipated traffic volumes are known, the routes which they can use are specified, and measures are put in place to ensure that the roads continue to operate safely. The TTMP is approved by the Road Controlling Authority, the council.
- 38 In other words, these standard-size trucks could also not be present within Northlake without a process having been followed and council approval being given.
- 39 Finally, I note that Mr Smith has considered the potential transportation effects if the entirety of the WFH subdivision was to be developed. However Condition of Consent 4 to that consent (RM180502) means that further development of the site beyond

Stages 1 and 2 cannot be undertaken as of right, and Condition of Consent 6 sets out that all infrastructure is required to meet the Council's Code of Practice. Thus the concerns raised by Mr Smith for that subdivision will be assessed and addresses as appropriate when consents are sought for Stages 3 and beyond.

Response to Submissions.

- 40 I understand that for the most part, no submitters have raised transportation matters beyond those highlighted by Messrs Munro and Smith. However one submitter, Mr McGlenn, has raised a matter relating to a potential road safety issue due to a brow of a hill on Riverslea Road.
- 41 The roads within Northlake are newly-constructed and I am aware that in many cases, they were subject to a road safety audit. On that basis it would be unusual for a road safety issue to be present, such as a shortfall in a sightline due to a crest curve. However this is a matter that can be considered further at subdivision stage.

Conclusions

- 42 As set out in the Transportation Assessment, having assessed the effects of development that would be facilitated by PC54, I consider that there are no traffic and transportation reasons why the plan change request could not be recommended for approval. I remain of this view having read the reports of Messrs Munro and Smith for the Council.
- 43 In large part I agree with Mr Smith's technical assessment (and therefore, with the views of Mr Munro who relies on Mr Smith's advice) where he concludes that the roading network is able to accommodate the increase in traffic volumes arising from PC54. The mitigation that he considers to be necessary can all be undertaken within the legal road reserve and so I consider that this can be addressed at the time of subdivision and/or engineering approvals.



Andy Carr
6 July 2023