

Before the Council's Hearings Panel at Cromwell

Under: the Resource Management Act 1991

In the matter of: Proposed Plan Change 13 to the Central Otago
District Plan

between: **River Terrace Developments Limited**
Requestor

and: **Central Otago District Council**
Local Authority

and: **NZ Transport Agency**
Submitter Number 254

EVIDENCE OF RICHARD JOHN SHAW

MAY 2019

1 Introduction

- 1.1 My name is Richard Shaw and I am a Principal Planner for the NZ Transport Agency. I have worked in this role for the last 3 years. Previously I have worked elsewhere in New Zealand and in the United Kingdom in local and central government roles as well as the private sector. I have worked in planning and environmental management roles for over 20 years.
- 1.2 I have a MSc. Qualification in Resource Management from Lincoln University.

2 Expert Witness Practice Note

- 2.1 While not a Court hearing I note I have read, and agree to comply with, the Code of Conduct for Expert Witnesses as required by the Environment Court's Practice Note 2014. In providing my evidence all of the opinions provided are within my expertise and I have considered, and I have not omitted to consider any material facts known to me which might alter or qualify the opinions I express.

3 Scope of Evidence

- 3.1 My statement of evidence will address the following matters:
- the NZ Transport Agency - its statutory objective and role and the reason for its involvement in this process;
 - the strategic significance of the State highway system;
 - the NZ Transport Agency's submission.
- 3.2 I also have Matthew Gatenby with me today who will be presenting transportation evidence.
- 3.3 My evidence reiterates and expands on some of the matters raised in the NZ Transport Agency submission following consideration of the Section 42A Planning Report and the Briefs of Evidence which have now been provided. Of specific relevance is the Evidence from Mr Andy Carr which includes a revised transportation assessment

in response to the matters raised in the Stantec review on behalf of the Council, of the original assessment.

4 NZ Transport Agency

4.1 The Land Transport Management Act 2003 (LTMA) defines the objective of the Transport Agency as being to carry out its functions in a way that contributes to an effective, efficient, and safe land transport system in the public interest (section 94).

4.2 The functions of the Transport Agency are defined in section 95 of the LTMA, and include among other things:

- to contribute to an effective, efficient, and safe land transport system in the public interest;
- to manage the State highway system, including planning, funding, design, supervision, construction, maintenance and operation; and,
- to investigate and review accidents and incidents involving transport on land; and
- to assist, advise, and co-operate with approved organisations (such as regional councils and local territorial authorities).

4.3 When carrying out its functions, the Transport Agency must exhibit a sense of social and environmental responsibility. When managing the planning and funding of transport activities, the Transport Agency must give effect to the Government Policy Statement on Land Transport (GPS). The Transport Agency also has a role in contributing to the objectives of the GPS through investing to achieve the strategic priorities of safety, access, environment and value for money.

4.4 In carrying out its functions the Transport Agency must also have regard to other policy documents and legislation such as the Government Roding Powers Act 1989, the Resource Management Act 1991, the National Infrastructure Plan 2015, and the Safer Journeys Strategy 2010–2020.

5 Strategic Significance of the State Highway Network

5.1 In a national context, State highways form an integrated national network of inter-regional and inter-district routes, and major urban arterials. While State highways form part of a wider roading network in New Zealand, the distinguishing functions of State highways among others are to:

- Connect major centres of population;
- Provide access to ports, airports, major industrial areas, major primary production areas and major tourist areas; and
- Service major urban corridors.

5.2 State Highway 6 in this location is classified as a Regional Road in accordance with the Transport Agency One Network Road Classification. This means it is a major connection between regions and urban areas. Further detail on the function and significance of SH6 is provided in the evidence from Mr Matthew Gatenby.

6 NZ Transport Agency Submission

6.1 The Transport Agency's submission to Plan Change 13 generally supported the intent of specific objectives and policies around transportation and sought these objectives and policies to be retained if the Plan Change was to be approved. The submission also queried the provisions to provide for connection from the Plan Change site to Cromwell for transport modes other than private vehicles, as well as the provision for alternative road connections other than the State highway. More directly related to the potential impacts on the State highway network the submission also addressed the proposed Rules regarding improvements to the SH6/Sandflat Road intersection as well as reverse sensitivity effects.

6.2 I have read the Section 42A Report and am satisfied that the Transport Agency's submission has been accurately summarised and discussed. I propose to highlight some of the matters of

interest to the Transport Agency, and that are important to your deliberations on this matter.

- 6.3 I have also read the requestors transportation evidence provided by Mr Andy Carr which revises the transportation assessment that supported the notified version of the Plan Change. The revised assessment includes significant changes to the assumptions informing the traffic modelling and consequently differences in the potential traffic distribution and effects. I consider that revision of the assessment introduces a level of uncertainty to the potential effects of the Plan Change and also the details of the mitigation required. The revised transportation assessment is covered in detail in Mr Matthew Gatenby's evidence.

Rule 20.7.7 (ii) (a) and (b)

- 6.4 Proposed Rule 20.7.7(ii)(a) and (b) provide for the staged upgrade to the SH6/Sandflat Road intersection to mitigate the transport effects of the development. The Transport Agency submission on this Rule sought changes to provide more flexibility in terms of the design of the intersection improvement required if the Plan Change was to be approved. The flexibility was seen as important in the event that the development of the site was delayed, or the intersection improvement requirements changed. This reflected the likely long-term nature of the proposed development for the site.
- 6.5 Based on the information provided as part of the transportation assessment, the suggested amendments to Rule 20.7.7 (ii) in the Transport Agency submission identified that:
- a median separated left turn deceleration lane, similar to the layout of the SH6/SH8B intersection to the north of the Plan Change site, would be required in the early stage of the development; and
 - a left turn acceleration lane would be required once the demand for this movement increased as the site developed.

- 6.6 These improvements were seen by the Transport Agency as an appropriate method to mitigate the transport effects of the proposal as assessed, on the State highway intersection.
- 6.7 However, the peer review of the transportation assessment undertaken by Stantec to inform the Section 42A Report on potential traffic effects, and Mr Carr's subsequent review of the assessment has introduced more information and raised potential questions regarding the mitigation proposed. Mr Gatenby's evidence covers the additional transportation assessment in more detail.
- 6.8 In response to the added uncertainty, Mr Carr, in paragraph 23 of his evidence, has suggested an amendment to the wording of Rule 20.7.7(ii)(a) and (b) as proposed in the Transport Agency submission. The suggestion is to add the clause "*or as otherwise agreed with the NZ Transport Agency*" to the Rule to allow some further discretion as to the intersection upgrade details required. The suggested wording of Rule 20.7.7(ii)(a) and (b) would therefore be as follows:
- (a) *No more than 40 residential lots shall be created within the Resource Area until **a median separated** left-turn deceleration lane is constructed to the State Highway 6/Sandflat Road intersection **to the NZ Transport Agency standards, in accordance with Austroads Guide to Road Design Part 4A ("unsignalised and Signalised Intersection")**; **or as otherwise agreed with the NZ Transport Agency.***
- (b) *No more than 300 residential lots shall be created within the Resource Area until left-turn acceleration lane is constructed to the State Highway 6/Sandflat Road intersection **to the NZ Transport Agency standards, in accordance with Austroads Guide to Road Design Part 4A ("unsignalised and Signalised Intersection")**; **or as otherwise agreed with the NZ Transport Agency.***
- 6.9 This addition would meet Mr Carr's concerns if a situation arises where an upgrade option is agreeable to the Transport Agency which does align with the NZ Transport Agency standards. Given

the potential uncertainty that has been introduced by the revised transportation assessment, it will also give additional discretion to determine the appropriate mitigation to address the effects on the SH6/Sandflat Road Intersection at the time the proposal is being constructed. The suggested addition would help make the provisions in the plan more flexible rather than prescriptive and allow further consideration of the potential traffic effects and any changes to standards at the time of development.

- 6.10 This is potentially relevant to the current GPS which was released around the same time as the submission period for this Plan Change. The new GPS has four strategic priorities including safety, access, environment and value for money. The strategic safety objective is "*a land transport system that is a safe system, free of death and serious injury.*" This objective is promoted through a safe systems approach which aims for a more forgiving road system that takes human fallibility and vulnerability into account. Under a safe system approach the intention is to design the whole transport system with the goal to protect people from death and serious injury. This approach could lead to different mitigation solutions for intersections in response to development proposals.
- 6.11 If the Plan Change were to be approved the suggested amendment to Rule 20.7.7(ii)(a) and (b) would help give effect to this GPS objective by allowing a safe system approach to be part of any assessment to address the effects of the proposal on the highway at the time of development.

SH6/McNulty Road Intersection

- 6.12 Mr Gatenby in his evidence notes the further analysis offered in Mr Carr's evidence identifies a potential effect on the operation of the SH6/McNulty Road intersection to the north of the Plan Change site. This is as a result of the change in trip assumptions for development traffic that are now more heavily weighted towards Cromwell rather than Queenstown. Given that this issue was not identified in the earlier transport assessment it was not raised in the Transport Agency submission. I support Mr Gatenby's call for more analysis

to identify what the effects of the proposal may have on this intersection.

- 6.13 The SH6/McNulty Intersection is an important intersection, as in addition to providing for local traffic movements, it provides heavy traffic access into the Industrial area of Cromwell as well as being the intersection mostly used by people commuting between Cromwell and Queenstown. As land use develops further in this area additional traffic movements through the intersection are also likely. It is therefore important to identify if Plan Change 13 will significantly affect this intersection and if it will trigger the requirement for further upgrades. Based on the further assessment by Mr Carr, I consider there is a potential effect on the State highway that requires further assessment to identify what if any mitigation is required.

Rule 20.7.7(vii): Reverse Sensitivity

- 6.14 Reverse sensitivity is the legal vulnerability of an established activity to complaint from a new land use. Reverse sensitivity arises when new sensitive land-uses (e.g. residential activities) locate in close proximity to a lawfully established activity that by its nature has effects beyond the boundary. For land transport network operators, including the Transport Agency, there is a risk that new activities (such as houses and schools) that choose to locate near to established roads or railways may object to the effects of the land transport network (such as noise and vibration) and seek to take action against the operator. The same issues arise around ports, airports and other infrastructure.
- 6.15 The meaning of “effect” is defined in Section 3 of the Resource Management Act (1991). The Environment Court has held that reverse sensitivity is an adverse effect under the RMA. It follows therefore that there is a duty, the same as with any other adverse effect, to avoid, remedy or mitigate reverse sensitivity effects, in order to achieve the RMA’s purpose of sustainable management.
- 6.16 Landowners, therefore, have a duty to mitigate the effects of their activities on the State highway network. As the effects of a State

highway usually extend beyond the road designation, it is appropriate to control the establishment of new activities close to State highways to reduce potential conflicts and manage reverse sensitivity effects.

- 6.17 The Transport Agency has developed a stepped approach to protect sensitive activities. This approach is based around buffer and effects areas. To achieve a reasonable level of acoustic amenity, all noise sensitive activities should be located outside of a buffer area, providing a setback from State highways. Beyond the buffer area new buildings containing noise sensitive activities need to be designed and constructed to achieve reasonable indoor acoustic amenity.
- 6.18 The proposed land use activities provided for in Plan Change 13 include residential activities which are activities that are sensitive to road noise. The proposed noise sensitive activities appear to be located outside of the buffer area but within the wider State highway 'noise effects area'.
- 6.19 In view of the above, the Transport Agency supports Rule 20.7.7 (vii) with the suggested amendments as follows:
- (vii) **Acoustic insulation of dwellings near State Highway 6**
*Any new residential buildings, or buildings containing activities sensitive to road noise, located within 80m of the boundary of State Highway 6 shall be designed, constructed and maintained to ensure that the internal noise level does not exceed 40dB_{L_{Aeq}(24 hr)} in bedrooms and other habitable spaces. **This shall take account of any increase in noise from projected traffic growth during a period of not less than 10 years from the commencement of construction of the development.***
- 6.20 The inclusion of this Rule would help address the Transport Agency's concerns with the potential reverse sensitivity effects from State highway traffic noise if Plan Change 13 is accepted.

Rule 20.7.8

6.21 The Transport Agency is supportive of a Structure Plan of the proposal being included in the District Plan, particularly showing the proposed strip of Open space immediately adjoining SH6 and a splay to the west of Sandflat Road. This inclusion in the plan will signal to future developments that buildings should be set back from the State highway to manage reverse sensitivity effects and if required the space would be available to accommodate and help facilitate the upgrade of the SH6/Sandflat Road intersection.

7 Conclusion

7.1 The NZ Transport Agency submission on Plan Change 13 generally supported the intent of specific objectives and policies around transportation and Rules intended to provide protection for the operation of the State highway network. These measures were seen as important to be included if the Plan Change were to be approved.

7.2 The specific provisions relating to the upgrade of the SH6/Sandflat Road intersection were sought to be amended to include more flexibility regarding the mitigation required. The need for flexibility was in response to the extended timeframe for the development of the site and the likelihood that the preferred intersection solution may change. The uncertainty regarding the effects and therefore the likely mitigation required has been further exacerbated by the revision of the transportation assessment. This has resulted in significant changes to the assumptions informing the traffic modelling and consequently differences in the potential traffic distribution and effects. Consequently, the measures proposed to ensure the effects on the immediate intersection and the wider network through to Cromwell are adequately mitigated are called into question.

7.3 To address this uncertainty amendments have been proposed to the Plan Change provisions to provide more flexibility in determining the appropriate intersection improvements. The revised transportation assessment has also raised potential concerns with the performance of the SH6/McNulty Road intersection. The

previous assessment did not note any concerns with this intersection and although the revised assessment raises concerns regarding level of service no mitigation measures are proposed. I consider that further assessment is required to identify what if any mitigation is required.

Richard Shaw
16 May 2019