

**Before Independent Hearing Commissioners
In Queenstown**

Under the Resource Management Act 1991 (the Act)

In the matter of the Proposed Queenstown Lakes District Plan

and in the matter of Hearing Stream 14: Chapter 24: Wakatipu Basin and transferred Stage 1 submissions related to Arrowtown and Lake Hayes

and in the matter of The New Zealand Transport Agency
Submitter 2538

Statement of Evidence of Matthew Charles Gatenby for the New Zealand Transport Agency

Dated 13 June 2018

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1 Qualifications and Experience

- 1.1 My full name is Matthew Charles Gatenby. I am a Principal Engineer Transportation in the Dunedin office for WSP Opus New Zealand.
- 1.2 I hold the qualifications of Master of Civil Engineering (Honours) from the University of Nottingham, UK. I am a member of Engineering New Zealand and the Transportation sub-group.
- 1.3 I have over 20 years of transportation planning, traffic engineering and transport modelling experience. I have used my skills across projects in transport planning, development planning, traffic and revenue forecasting, public transport initiatives and road safety schemes. I have led teams on key projects across London and the wider UK, the Middle East, and North and South America.
- 1.4 Most recently, I have been involved in the State Highway 6 (**'SH6'**) Grant Road to Kawarau Falls Bridge Improvements Detailed Business Case (**'DBC'**) for the NZ Transport Agency (**'Transport Agency'**). The purpose of the DBC is to determine a range of solutions to improve operation within this critical section of the strategic road network for all road users. This has included using outputs from the Queenstown-Lakes Tracks Transportation Model to provide information about traffic patterns and traffic growth. As a result, I have a good level of knowledge about the operation of the wider Wakatipu Basin road network, and the likely impact of potential future development on key transport links within the network.
- 1.5 In addition, I have provided support into the Ladies Mile Housing Infrastructure Fund (**'HIF'**) DBC application for Queenstown Lakes District Council (**'QLDC'**). My work has included preparing a preliminary integrated transport assessment to determine the various transport solutions that need to be integrated into the Ladies Mile HIF development to mitigate the impacts of increased traffic growth both from the development and background growth on SH6.
- 1.6 My current role at WSP Opus involves maintaining a key technical role on a range of transportation planning projects in New Zealand and Australia.
- 1.7 In relation to the Proposed District Plan (**'PDP'**), I have been asked by the Transport Agency to provide evidence in relation to transportation matters for Hearing Stream 14. My evidence considers the traffic and transportation impacts should submissions requesting the re-zoning of land within the Wakatipu Basin be approved.

1.8 While this matter is not before the Environment Court, I have read and am familiar with the Code of Conduct for Expert Witnesses in the current Environment Court Practice Note (2014). I have complied with the Code in the preparation of this evidence, and will follow it when presenting evidence at the hearing.

1.9 Unless I state otherwise, my evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

2 Scope of Evidence

2.1 My statement will address the following matters:

- a The transport network in the Wakatipu Basin and the functional aspects of its operation.
- b The submissions seeking re-zoning for more intensive development, and the potential for such development to adversely affect the transport network.
- c The current capacity of the Lower Shotover Bridge, and the effects that increased residential development in the Wakatipu Basin could have on this.
- d Integrated development and integrated transport planning.
- e Responses to specific submissions seeking re-zoning.

2.2 I have read the evidence of Mr David Smith and Ms Anita Vanstone for QLDC. My evidence comments on relevant parts of their evidence where appropriate.

3 Executive Summary

3.1 SH6 through Ladies Mile Highway is an important transport link, providing the key route between Frankton/Queenstown and most of the rest of the South Island, as well as providing more local links within the Wakatipu Basin itself. Therefore, it is of utmost importance that this section of SH6 operates in an efficient and resilient state.

3.2 The SH6 Shotover Bridge is a key pinch point within the existing road network, with limited spare capacity to accommodate additional development-related or background trips in the future.

3.3 In terms of network resilience, the only alternate traffic route over the Shotover River is at Arthurs Point, which is a single lane facility with priority for

southbound/westbound vehicles. Consequently, this bridge has limited capacity.- QLDC has plans to duplicate the bridge to provide a lane in each direction, but this would only marginally reduce the number of trips across the Shotover Bridge, due to the significant additional diversion distance and the requirement to use local roads unsuitable for heavy traffic volumes to access this crossing point.

- 3.4 The Queenstown Integrated Transport Programme Business Case ('**QITPBC**') sets out a programme of projects to improve transport links within the Wakatipu Basin and reduce the reliance on the private car. However, I understand there are currently no proposals to duplicate the Shotover Bridge, or provide a significant level of capacity across the river at this location by other means.
- 3.5 Any re-zoning of land that would increase density in the Wakatipu Basin would have a detrimental impact on the operation of the SH6 Shotover Bridge. Although many submissions would result in only a marginal increase in trips on the road network, there is a risk that the cumulative effect of the combined zonal changes will see a significant impact on the operation of the Shotover Bridge, as the gateway to Frankton and Queenstown.
- 3.6 Therefore, without mitigation of these effects, I oppose all re-zoning of land which would enable a higher density of development, beyond that set out in Chapter 24 (Wakatipu Basin) of the PDP.
- 3.7 As QLDC has indicated in its evidence,¹ a higher density of development could be introduced under the Special Housing Area ('**SHA**')/HIF process. However, this process incorporates integrated planning which would facilitate establishment of transportation solutions to accommodate any additional trips on the network, both in terms of access to the Ladies Mile Highway section of SH6, but also on the wider transport network. As such, the SHA/HIF process is better aligned with the objectives of the QITPBC, and recommended programme elements within.

4 Transport network in the Wakatipu Basin

- 4.1 The main arterial road that runs through the Wakatipu Basin is SH6, also known as the Ladies Mile Highway. This includes the Shotover Bridge, which runs over the Shotover River.

¹ Statement of Evidence of David John Robert Smith on behalf of Queenstown Lakes District Council, Traffic and Transportation, 28 May 2018, paragraph 18.9.

4.2 SH6 is classified as a Regional road by the Transport Agency One Network Road Classification ('**ONRC**):²

these roads makes a major contribution to the social and economic wellbeing of a region and connect to regionally significant places, industries, ports or airports. They are also major connectors between regions and in urban areas may have substantial passenger transport movements.

4.3 As such, the Ladies Mile Highway section caters for a range of vehicle classifications and types:

- a Heavy goods vehicle movements, in particular from Port Otago and Lyttelton to Queenstown, Frankton and beyond;
- b Tourist trips throughout the area, travelling to and from Arrowtown, Wanaka, Cromwell and beyond; and
- c Commuter trips to and from the main employment centres of Frankton and Queenstown, from residential areas to the east of the Shotover Bridge.

4.4 Consequently, SH6 is an important transport link, providing the key route between Frankton/Queenstown and most of the rest of the South Island, as well as providing more local links within the Wakatipu Basin itself. Therefore, it is of utmost importance that this section of SH6 operates in an efficient and resilient state.

4.5 Ladies Mile Highway itself is generally a single lane road in each direction, although local widening is provided on the approaches to and exits from some intersections. However, the capacity of the road network is linked to the operation of the Lower Shotover Bridge – which is described in more detail in Section 6 of this evidence.

4.6 The following intersections are located on SH6 east of the Shotover Bridge and west of the intersection with Alec Robins Road:

- a Stalker Road/Lower Shotover Road roundabout – SH6 widens to two lanes on the approach and exit, and the roundabout has a two-lane circulatory;
- b Howards Drive – conventional priority controlled T- intersection with channelised right turn facility; and

² [<http://www.nzta.govt.nz/assets/Road-Efficiency-Group/docs/functional-classification.pdf>].

- c McDowell Road – conventional priority controlled T- intersection with channelised right turn facility.
- 4.7 In addition, a further 5 access points are located on the north kerb, and 6 accesses on the south kerb, providing linkage to a small number of existing properties in all cases. No separate (channelised) right turn lanes are provided at these locations.
- 4.8 Posted speed limits through the Ladies Mile section are 100kph, from just east of the Stalker Road roundabout, to just west of the Alec Robins Road intersection. To the west of this section, an 80kph speed limit is in force, which continues along the section of SH6 through Frankton Flats, before dropping to 50kph in the vicinity of the Queenstown Events Centre access intersection (Joe O’Connell Drive). To the east, the posted speed limit is also 80kph through the intersections with Arrowtown-Lake Hayes Road, McDonnell Road (Arrow Junction) and Crown Range Road, although a 100kph section operates between the two intersections providing access to Arrowtown.
- 4.9 In terms of network resilience, the only alternate traffic route over the Shotover River is at Arthurs Point, which is a single lane facility with priority for southbound/westbound vehicles. Consequently, this bridge has limited capacity, and would not be able to accommodate all diverted trips should there be an incident on the Shotover Bridge. The Regional Land Transport Plan (‘RLTP’) was varied in 2018 to include a project for duplication of the bridge, but I understand funding is currently limited to an initial \$500,000 for initial planning work. The duplication work is also contained within the QLDC Ten Year Plan 2018-2028, currently out for consultation, with funding allocated to enable construction to begin before 2031, subject to approval. Further consideration of this alternative route is provided in Section 6 of this evidence.
- 4.10 The Transport Agency’s Queenstown to Rangitata Corridor Management Plan provides that the section of SH6 through the area is characterised by having a Medium-High (2-star) or Medium (3-star) collective and personal risk rating. The desired customer level of service for Regional roads is Medium (3-star), and so there is an aspiration to improve this level of performance.
- 4.11 Funding for SH6/Tucker Beach Road intersection improvements has recently (May 2018) been approved, and this scheme is currently proceeding towards Contractor appointment, with construction due for completion in early-2019. This improvement will provide an alternative, safer route for vehicles travelling from

Tucker Beach Road towards Frankton, by provision of an underpass under SH6 and westbound on-ramp.

- 4.12 In terms of public transport, there has been a significant investment in public transport operation in recent months. Subsidised public transport services commenced in November 2017 as an outcome of the Wakatipu Basin Public Transport Detailed Business Case Stage 1 ('**WBPTDBC**'). The public transport network features 4 routes, with \$2 fares to travel anywhere within the District. This is linked with a significant change in parking operation in Queenstown town centre, both in terms of higher charges and a reallocation of some spaces from long-stay to short-stay. Combined, these changes have resulted in a sizeable increase in passenger journeys, from less than 40,000 per month in October 2017 (before the introduction of the new services) to over 100,000 per month in March 2018. Although it is difficult to determine, the growth in numbers is considered to represent an increase in both commuter (local resident population) and non-commuter (tourist) patronage.
- 4.13 For the Ladies Mile Highway, service 2 operates with an hourly frequency (30 minutes in weekday morning and evening peak periods) from Arrowtown to Arthurs Point (via Frankton and Queenstown). There are currently no bus stops located in the section between Tucker Beach Road and Amisfield Winery (McDonnell Road) – this is due to very few properties being adjacent to the road through this section. Service 4 operates with an hourly frequency (30 minutes in the weekday morning peak period) between Lake Hayes Estate and Jack's Point (via Frankton), joining SH6 from Stalker Road. Again, there are no bus stops currently along this section between Tucker Beach Road and Stalker Road itself.
- 4.14 I understand Otago Regional Council is currently undertaking a review of the new services, with a view to implement Stage 2 of the WBPTDBC, although it is likely that these will be fairly minor route changes and/or increases in existing service frequencies.
- 4.15 At present, public transport services share the road with all other vehicles throughout the District, with no significant sections of bus lane, save those used to protect boarding and alighting activities at bus stops. Therefore, although incentives to use public transport are presented in terms of low fares and rising car park charges, there is no such incentive in terms of public transport journey times.

- 4.16 Consequently, existing public transport services through the Ladies Mile Highway are limited in their capacity to switch large numbers of current road users to public transport.
- 4.17 I have considered Section 8 of the evidence of Mr Smith for the QLDC, which sets out an analysis of the role of public transport. This section concludes that public transport can play a key part in reducing the need for (road) infrastructure investment, but that fundamentally this can only defer the need to provide additional capacity over the Shotover River.
- 4.18 I would agree with this analysis, and highlight that the cumulative effects of re-zoning for more intensive development has the potential to adversely affect the transport network, and in particular the operation of the Shotover Bridge, without significant investment in infrastructure improvements.
- 4.19 In terms of active modes, Queenstown Trail provides a (largely) traffic free route between Gibbston Valley to the east, and destinations in Frankton and Queenstown to the west. However, the trail is routed away from SH6 through the Ladies Mile Highway section to both the north and south:
- a To the south, a trail is provided along the north bank of the Kawarau River which links into the Lower Shotover Bridge to the north of the main Shotover Bridge, before heading back south to the Kawarau River, and following the bank around the south edge of Frankton Flats;
 - b To the north, a trail is provided on quiet roads between Arrowtown and Lower Shotover Bridge, merging with the trail taking the southern route;
 - c Links are also provided to the west of the Lower Shotover Bridge to access the north areas of Frankton Flats, via a segregated cycleway along the south side of SH6 – although the route is broken in some key locations. A commuter trail link is also provided from the Kawarau River trail, through Lake Hayes Estate, across SH6 and towards Lake Hayes itself, largely on lightly trafficked roads or dedicated trails – however there is no dedicated cycle crossing across SH6 for this route.
- 4.20 Although the location of the Ladies Mile area is only around 3-6km from Frankton Flats (depending on the destination), and 11km from Queenstown along SH6, the indirect alignment of the trails (either north or south routes) result in distances being significantly longer. In addition, due to the topography of the area, significant gradients are encountered along various portions of the route.

- 4.21 The alternative more direct route along SH6 also contains significant gradients approaching 10 per cent on either side of the Shotover Bridge, and high traffic speeds (80kph and 100kph sections) result in attracting only the most confident cyclists. No footway for pedestrians is provided across the Shotover Bridge, and therefore walking routes must use the old Lower Shotover Bridge.
- 4.22 Whilst, therefore, the trails are popular as a tourist/leisure route/activity, the level of commuter trips is limited, particularly for walking.
- 4.23 I have considered Section 9 of the evidence of Mr Smith for QLDC, which sets out an analysis of the role of active modes. This section concludes that walking trips from the Ladies Mile area to Frankton and Queenstown are unlikely given the distances involved, and that cycle trips to and from Queenstown are also likely to be minimal. I agree with this analysis, but also suggest that the current indirect route of the two cycle links between Ladies Mile and Frankton means the propensity for cycle trips between these two locations is also likely to be negligible, without significant upgrade of the existing route.

5 Transportation Proposals within the Wider Network

- 5.1 Queenstown has experienced a high level of growth in both resident and transient tourist population in recent years, which has placed considerable stress on the existing transport network. The continued development of the Frankton Flats area has also resulted in significant changes to traffic patterns in the area.
- 5.2 The QITPBC was completed in 2017, and developed a number of transport interventions in order to address growing issues in the District. The existing status quo of car dominance is leading to increased trip unreliability and congestion within the network.
- 5.3 Although most of these interventions are geographically outside of the Ladies Mile Highway section of SH6, many have an indirect impact on the operation of the corridor, as shown below.

Option	Description
PT Improvements	Improve routes, service frequencies, bus stop provision and ticketing
SH6 Grant Road to Kawarau Falls Improvements	Provide bus lanes, intersection capacity improvements
Ladies Mile Corridor Improvements	Intersection improvements at SH6/Tucker Beach Road, SH6/Stalker Road and SH6/Howards Drive
Park and Ride (P&R)	Provide a number of sites to act as P&R hubs, and provide frequent service to Frankton/Queenstown
Mass Rapid Transit (MRT) corridor	Provide MRT corridor between Frankton and Queenstown
SH6A Improvements	Improve efficiency of SH6A corridor, particularly for public transport
Wakatipu active travel network	Improve cycle and walking links through the District for all journey types
Queenstown town centre pedestrianisation, parking strategy, workplace travel plans	Re-prioritise the town centre towards supporting non-private car modes

- 5.4 In addition, as noted above, duplication of the Edith Cavell Bridge (at Arthurs Point) is included as a variation to the current RLTP.
- 5.5 All elements of the QITPBC are structured to provide fast, frequent and reliable alternatives to the private car, both for residents and visitors. In terms of the Ladies Mile Highway section, it is likely that the improvement of cycle and walking links, the expansion and enhancement of the existing public transport service, and the introduction of Park & Ride will all have a positive impact on the transport links through the area.
- 5.6 It is noted in section 10.12 of the evidence of Ms Vanstone for the QLDC, "...a *Park and Ride facility on the Ladies Mile is provided for in the Queenstown Integrated Transport Programme Business Case*". I am not currently aware of any definite proposals under development within the Ladies Mile Highway itself for the placement of a new Park and Ride site. However, a Public Transport Demand and Capacity Study for the whole area is due to be commissioned shortly by the Transport Agency. This includes the investigation of potential sites and operational requirements for a Park and Ride system to serve Frankton and Queenstown. In addition, as part of the Ladies Mile HIF DBC application (due end

of June), a preliminary scoping of future park and ride within the corridor is being undertaken, including sizing, location options, timing of implementation, and compatibility with local bus service.

- 5.7 The QITPBC also includes an item from the RLTP for “Ladies Mile Corridor Improvements”. Funding for the SH6/Tucker Beach Road intersection improvement element of this programme has recently (May 2018) been approved, and this scheme is currently proceeding towards Contractor appointment, with construction due for completion in early-2019. Whilst this improvement will provide an alternative, safer route for vehicles travelling from Tucker Beach Road towards Frankton (by provision of an underpass under SH6 and westbound on-ramp), it is unlikely to result in any improvement in operation of SH6 through this section – any efficiency savings from removing the difficult right turn movement out of Tucker Beach Road, will be offset by the merge of these vehicles at the end of the on-ramp back into the westbound SH6 traffic stream.
- 5.8 As part of the QITPBC, it was also concluded that a range of planning based interventions would optimise the success of any transport-related improvements:³

“These elements include:

- Enabling further mixed use developments
- Reducing the district plan requirements for parking to compliment a parking strategy
- Increasing the density of land use in the urban area
- Enabling sustainable travel orientated development

Each of the above can be addressed by taking a more integrated approach to the strategic planning of transport and land use.”

- 5.9 Although specific statutory processes would need to be undertaken to achieve such elements, I consider that all of the above planning interventions, in combination with the delivery of more specific transport infrastructure projects, would be the optimum approach to achieve the overall objectives of the QITPBC.

³ Queenstown Integrated Transport Programme Business Case, Part B – Developing the Programme, Section 2.1.3.

6 Capacity of the Lower Shotover Bridge

- 6.1 Any more intensive development along State Highway 6 must be considered in light of implications that it will have for the operation of the Shotover River bridge. I have considered the Shotover River Bridges Capacity Analysis (14 May 2018) which is appended to the evidence of Mr Smith for the QLDC. This report presents a high level capacity analysis focusing on when the existing structure will reach its theoretical capacity and how this could be affected by additional development along SH6 and the Ladies Mile Corridor.
- 6.2 As noted in Mr Smith's evidence (both Section 7 and Appendix B):
- a When considering the Precinct and Amenity Zones as notified, the Shotover Bridge is predicted to be at capacity in the PM peak at year 2035;
 - b Any additional intensification of development (compared to that notified) will bring forward the point that capacity is reached on the Shotover Bridge – an example given is 2000 extra units will result in capacity operation to year 2021.
- 6.3 I agree with the above statements. Additional development within, or to the east of, Ladies Mile Highway will generate additional trips onto SH6, the majority of them moving to and from Frankton and Queenstown over the Shotover Bridge. As already discussed, public transport and active modes (even with some modest infrastructure/service improvements) are likely to only accommodate a minority of these trips.
- 6.4 The modelling work undertaken and presented in Appendix B to Mr Smith's evidence is based on a 2016 base year. Recent (2018) observations and data collected both manually and using the Transport Agency Traffic Monitoring System (fixed count locations), show that background traffic growth over the last 5 years (i.e. that not related to local development) is running at a level significantly higher than the future forecast growth rates within the modelling work. Consequently, the conclusions presented in Mr Smith's Appendix B are somewhat conservative – it is likely that if the current observed background growth levels continue, the capacity of the bridge will be reached prior to 2030, and potentially even 2025 (with development of zones at notified levels).
- 6.5 Consequently, whilst any single re-zoning would be unlikely to have a noticeable impact on the operation of the bridge (by generating additional trips), the cumulative effects of such re-zonings would result in the operation of the Shotover Bridge reaching capacity in a relatively short timescale.

- 6.6 Therefore, it is difficult to see how the traffic effects of such rezoning could be mitigated, except for a significant transport infrastructure investment to ease pressure on the existing Shotover Bridge. Such projects would take several years to plan, design and construct. In addition, whilst adding vehicular capacity to the Shotover Bridge would likely ease congestion at this current pinch point in the network, it would most likely have two significant detrimental and interlinked impacts:
- a It would require significant additional investment in road infrastructure throughout Frankton Flats, SH6A (Frankton Road) and Queenstown town centre to accommodate the increase in traffic generated to the east of Shotover Bridge; and
 - b It would reduce the incentive to use public transport and active modes, which would in turn have reduced private car trips on the network.
- 6.7 Both of the above effects are contradictory to the objectives of the QITPBC, as identified in one of the two problem statements of that study, *“Car dominance and associated congestion is affecting the liveability and attractiveness of the area”*.⁴
- 6.8 The only other existing vehicle route across the Shotover River is the Edith Cavell Bridge at Arthurs Point. As presented in Mr Smith’s evidence for QLDC,⁵ the bridge in its current form has limited capacity available to accommodate additional trips. There is currently a 2018 variation to the RLTP so as to include a project for duplication of the bridge, but I understand funding is currently limited to an initial \$500,000 for initial planning work. The duplication work is also contained within the QLDC Ten Year Plan 2018-2028, currently out for consultation, with funding allocated to enable construction to begin before 2031, subject to approval.
- 6.9 However, in respect of the ability of this (proposed) improvement to ease operational issues on the SH6 Shotover Bridge, it should be noted that:
- a Trips originating around Ladies Mile Highway (and further east) are unlikely to use this alternative route if heading to/from Frankton;
 - b Trips originating around Ladies Mile Highway (and further east) could use this alternative route if heading to/from Queenstown. However, the differential in journey distance is significant at around 6-8km (depending on

⁴ Queenstown Integrated Transport Programme Business Case, Part A – The Strategic Case, Section 4.1.1.
⁵ Statement of Evidence of David John Robert Smith on behalf of Queenstown Lakes District Council, Traffic and Transportation, 28 May 2018, Attachment B, Shotover River Bridges Capacity Analysis .

origin), or around 40-60% longer than the direct route on SH6 and SH6A. In, addition, the route requires traversing local roads across Speargrass Flat which are not suitable for some vehicle types due to topography – and are not designed to accommodate anything other than low volumes of traffic;

- c Consented development within the Arthurs Point area would most likely add significant numbers of trips on the Edith Cavell Bridge, heading to and from Queenstown.

6.10 Consequently, I consider that even if the Edith Cavell Bridge were improved to increase capacity at that point, it is unlikely to provide an attractive alternative for the majority of trips currently using the Shotover Bridge, except in the case on an incident on that section of the SH6 network.

7 Integrated Development and Integrated Transport Planning

7.1 The planning of transportation infrastructure has a significant timeline, generally through the Transport Agency Business Case procedures, through to detailed design and implementation.

7.2 In terms of the Ladies Mile Highway area specifically, as set out previously, the capacity of the Shotover Bridge is the key link in the area, as it provides the main route into Frankton and Queenstown from the east. The capacity of this bridge will be reached in the near future, and an increase in (vehicular) capacity at this location would most likely result in only short-term relief, before the capacity of downstream sections of SH6 and SH6A became critical.

7.3 Consequently, and as developed through the QITPBC, the longer-term strategy is to provide fast, frequent and reliable alternatives to the private car – in order to achieve a considerable mode shift towards these alternative modes, which in itself would then create capacity to absorb development growth. In combination, a number of planning based interventions would be desirable to maximise the effectiveness of any new transportation measures.

7.4 As set out in Section 13 of Ms Vanstone's evidence for QLDC:

“...I do not consider the rezoning of the area to RLZ or RRZ would be an efficient use of this area compared to that which the Council is trying to achieve through the Lead Policy and Masterplan for Ladies Mile, as well as the work that is being undertaken as part of the HIF”

7.5 In addition, also in Section 13 of Ms Vanstone's evidence for QLDC, and referencing Mr Smith's evidence for QLDC:

“Mr Smith opposes any zoning that would allow for an increase in development of this area because of the cumulative significant impact on the efficiency of the network on the Shotover Bridge that would necessitate significant investment that has not been planned. However, Mr Smith does note that the RLF or RRZ densities that are proposed would be less significant than those under a higher density zoning such as the densities indicated in the Ladies Mile Masterplan or those indicated in the Land Use Study.”

- 7.6 I agree with the two statements above. In dealing with the issue of the Ladies Mile Masterplan and Ladies Mile HIF application, the co-ordinated planning of the development site is the optimum method for ensuring that supporting transportation infrastructure best meets the requirements of the site. This also includes the incorporation of a range of land uses within the site (specifically local amenities) to reduce the propensity for longer distance trips to be generated onto the transport network.
- 7.7 The cumulative impact of small-scale re-zoning is likely to result in fewer additional trips on the network compared to the establishment of a higher density zone through the SHA/HIF process. However, the integrated planning of the latter process would allow sufficient time and resource to be available so as to establish the optimal transportation solutions to accommodate any additional trips on the network, both in terms of access to the Ladies Mile Highway section of SH6, but also on the wider transport network. Accordingly, the SHA/HIF process would have fewer adverse traffic impacts on a per-dwelling basis.
- 7.8 A higher density of development, as would be introduced under the SHA/HIF process, would also maximise the efficiency of public transport modes in particular (due to a denser catchment area), and is therefore better aligned with the objectives of the QITPBC, and recommended programme elements within.

8 Submissions on Chapter 24: Wakatipu Basin and the relevant proposed maps

- 8.1 I have read those submissions which the Transport Agency has made further submissions on that will be considered as part of Hearing Stream 14. I have addressed a number of those submissions below.
- 8.2 Submitters 229 and 351 have sought to rezone certain land within Map 30- Lake Hayes from Rural to Rural Residential or Rural Lifestyle. Submitter 838 has also asserted that certain sites located on Map 31 ought to be rezoned from Rural to Large Lot Residential. These submitters all have slightly varying reasons for

proposing the re-zoning of this land, however a common theme of their submissions is the desire to increase residential development in these areas, which the re-zoning of the relevant land would cater for.

- 8.3 All three properties lie adjacent to SH6, between Arrow Junction and Shotover Bridge. Consequently, all additional generated traffic from the allowance of re-zoning (and subsequent higher density development) would have an adverse impact on the operation of SH6, and Shotover Bridge in particular, as it would be expected that the majority of residents would work and/or visit Frankton or Queenstown.
- 8.4 I oppose any zoning which would allow an increase in development in this area, due to the impact on the operation of the Shotover Bridge – which would require significant investment in additional capacity that has not been planned at this time. Although the additional traffic levels are unlikely to be noticeable on the road network when considered in isolation, the cumulative effect of development in the Wakatipu Basin will have a long-term detrimental impact on the operation of the road network. I therefore oppose the re-zoning application on transportation grounds.
- 8.5 Submitter 2489 has sought to slightly amend submissions made as part of Stage 1 (submissions 532 and 535), and has asserted that land adjacent to SH6 Ladies Mile should be re-zoned from Rural to Wakatipu Basin Lifestyle Precinct. They are also seeking to add further rules specific to the area adjacent to Ladies Mile that is outlined in its submission.
- 8.6 The properties lie adjacent to SH6, on Ladies Mile Highway, to the east of the existing Howards Drive intersection. All additional generated traffic from the allowance of re-zoning (and subsequent higher density development) would have an adverse impact on the operation of SH6, and Shotover Bridge in particular.
- 8.7 In terms of access, I am not aware of the proposed access arrangements for the sites on either side of SH6, although it is assumed that the land under submission 532 could be safely accommodated from Howards Drive (rather than directly onto SH6). For the northern site (submission 535), access arrangements would need to be provided directly onto SH6, and I am not aware that any details have been provided as to these arrangements.
- 8.8 I oppose any zoning which would allow an increase in development in this area for the reasons explained in paragraph 8.4 above. I therefore oppose the re-zoning application on transportation grounds.

- 8.9 I support the submission made by submitter 2095, which is that the development of the Wakatipu Basin should not be carried out until a full assessment of the impacts on the transport network and the relevant infrastructure has been undertaken.
- 8.10 As noted in Section 7, the integrated planning approach towards the Ladies Mile masterplan would allow an assessment to be carried out, so as to optimise the use of the existing transportation network and develop targeted transport infrastructure solutions, for both the development area itself and adjacent sites along SH6 (i.e. Shotover Country Estate, Lake Hayes Estate) and settlements further to the east (e.g. Arrowtown and Cromwell).
- 8.11 In addition to the comments above, I have reviewed Sections 16-19 of Mr Smith's evidence for QLDC, in reference to the predicted transportation effects arising from changes to zoning.
- 8.12 In Section 16, Mr Smith considers the submissions that have been received that apply to approved SHAs in the Ladies Mile area. The Transport Agency further submitted on submitter 404, who seeks to rezone to an urban allocation a mix of zone types that would increase demands on the transport network. Consequently, I agree with Mr Smith's conclusion that the submission should be opposed on transportation grounds, except for the element of Large Lot Residential and Low Density Residential, which would reduce the traffic impacts compared to the currently approved level.
- 8.13 In Section 17, Mr Smith considers submission 532, which seeks to re-zone from Rural to Rural Lifestyle together with a number of other amendments. I agree with Mr Smith's assessment that although the number of additional trips generated onto the network would be minimal, such trips would have a detrimental effect on the operation of the road network when considered in the context of cumulative effects of development throughout the Wakatipu Basin. Therefore, I oppose the re-zoning on the grounds of cumulative transport network effects.
- 8.14 In Section 18, Mr Smith considers submissions 535 and 277, which seek to re-zone from Rural to Rural Lifestyle and Rural Residential together with a number of other amendments. I agree with Mr Smith's assessment that the number of additional trips generated onto the network (estimated as 53 additional vehicle trips in the PM peak period) would have a detrimental effect on the operation of the road network –particularly in light of the operation of the Shotover Bridge approaching capacity. Therefore, I oppose the re-zoning on the grounds that the

development adds additional trips onto the network without identifying suitable mitigation.

- 8.15 In Section 19, Mr Smith considers submission 838, which seeks to re-zone from Rural to Large Lot Residential. I agree with Mr Smith's assessment that, although the number of additional trips generated onto the network would be minimal, such trips would have a detrimental effect on the operation of the road network when considered in the context of cumulative effects of development throughout the Wakatipu Basin. Therefore, I oppose the re-zoning on the grounds of cumulative transport network effects.

9 Conclusions

- 9.1 The re-zoning requests within the Wakatipu Basin, and especially on land adjacent to SH6 Ladies Mile Highway, that propose to increase density would result in additional trips of the road network. Whilst many of the submissions would result in low levels of additional trips, when considered as a cumulative effect they are likely to increase congestion issues within the existing transport network, and in particular compromise the operation of the Shotover Bridge.
- 9.2 Such cumulative effects are difficult to address, and the timing and development of appropriate mitigation cannot be easily planned. Consequently, I oppose all submissions which seek to increase density without the appropriate mitigation being developed through an integrated planning approach.

Matthew Charles Gatenby

13 June 2018