

10 February 2019

Planning and Development  
Queenstown Lakes District Council  
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**Attention: Blair Devlin**

Dear Blair,

## **LAUREL HILLS SPECIAL HOUSING AREA, LOWER SHOTOVER TRANSPORT ASSESSMENT REVIEW**

1. This letter sets out our high-level review of the transport effects associated with the proposed Special Housing Area at 6 and 8 Layton Lane, Lower Shotover in Queenstown. We have relied upon the following documents in preparing our review:
  - *Transport Assessment* dated 14 December 2018 prepared by Bartlett Consulting (*the TA*). Appended to this assessment is a comprehensive *Integrated Transport Assessment for Ladies Mile HIF* dated June 2018 and prepared by WSP / Opus.
2. In brief, the proposed development is 160 residential lots with a new intersection to Stalker Road.

### **Review of Transportation Assessment**

#### **Assessment Context**

3. It is noted from the outset of this review that the effects on the State highway network are outside the scope of our work and not part of our terms of reference. The WSP / Opus *Ladies Mile HIF Integrated Transport Assessment* and subsequent memorandum set out a programme of works and development to remedy adverse effects on the State highway network, with Programme 3 being adopted. That programme accounts for greater development than is proposed with this SHA.
4. It is understood that this programme has been adopted by the relevant authorities (including the NZ Transport Agency, Queenstown Lakes District Council and Otago Regional Council). We consider that the effects of the proposed development traffic on the State highway network have been satisfactorily covered by that report and assume that suitable infrastructure and travel management measures will be implemented by the appropriate authorities to mitigate the transport effects of this development.
5. Given the above, the scope of review for transport effects is limited to the potential effects on the surrounding local authority road network.



## Existing Transport Network

6. The TA estimates traffic volumes on Stalker Road with the completion of the Shotover Country and Lake Hayes Estate subdivisions. The WSP / Opus report includes traffic volumes on Stalker Road from 2018 traffic counts and predicted 2028 volumes. We have compared the estimated traffic volumes from these two sources and consider the volumes used in the TA for the intersection modelling to be acceptable.

## Predicted Development Traffic Generation

7. The predicted traffic generation set out in the TA uses survey data from another residential development in Queenstown and this is considered appropriate. It is noted that the WSP / Opus report included traffic generation estimates from the Shotover Country and Lake Hayes estates. These rates differ from those used in the TA as the WSP / Opus traffic generation rate per unit per hour is lower in the AM and higher in the PM<sup>1</sup>. However, the additional traffic that may be generated in the PM peak hour is 0.05 vehicles per dwelling (8 vehicle movements when applied to the 160 lots) and in this instance is sufficiently small as to not be considered material.
8. The distribution of the site generated traffic has the majority of vehicles (85%) routing via the SH6 / Stalker Road intersection. This is considered to be appropriate as most drivers will be heading out of the subdivision to / from greater Queenstown (largely home to work trips), although there will be a smaller proportion heading to / from the school within the subdivision.

## Site Access Intersection

9. The TA identifies that although Stalker Road is currently classified as a *Local* Road, it has been reclassified as an *Arterial* Road in the proposed replacement District Plan. The proposed intersection arrangement has been undertaken on the basis of the future road classification and this is considered appropriate.
10. An intersection model has been created of the proposed intersection arrangement, which uses the traffic volumes set out in the TA. The results of this model indicate that the proposed intersection would operate at Level of Service A and this is considered to be “good operation”<sup>2</sup>. Only the right turn out of the proposed access leg is predicted to operate worse than this, at Level of Service B and this remains acceptable.
11. The available capacity at this intersection indicates that small variations in background traffic volumes (such as those indicated at paragraph 6) and development generated traffic (such as those indicated in paragraph 7) would not lead to the operation of this intersection being materially impacted. As such, we consider that this intersection would be able to operate safely and efficiently.
12. We also note that the WSP / Opus report indicates there could be 225 dwellings broadly in this area, whereas at the TA is for 160 dwellings. It is understood that the additional development would occur on land outside of the application boundary, although there is

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<sup>1</sup> The Bartlett Consulting traffic generation rates used were 0.81 and 0.72 vehicle movements per dwelling per hour in the AM and PM peak hours respectively. The WSP/Opus rates were 0.74 and 0.77 vehicle movements per dwelling per hour in the AM and PM peak hours respectively.

<sup>2</sup> RTA Guide to Traffic Generating Developments table 4.2.



potential this land would be accessed via the road network within the application site. Whilst an assessment of this has not been undertaken, it is anticipated that this intersection would be able to satisfactorily accommodate that increase in traffic generation because of the available capacity.

13. We note that the existing operation of the SH6 / Stalker Road intersection leads to queues that can (at times) extend beyond the proposed site access location. Whilst not ideal, this is a function of the existing traffic environment. The majority of vehicles will be turning left out of the proposed subdivision road or right into the proposed subdivision road. The provision of the right turn-bay in particular provides a safe location for vehicles waiting on Stalker Road for the subdivision road to become clear. It is specifically noted that this queuing issue is the focus of the proposed Programme 3 works identified in the WSP / Opus assessment.

### **Internal Transport Network**

14. The internal transport network is identified as being based on the current NZ Standard *Land Development and Subdivision Infrastructure* (NZS4404) and the QLDC *Code of Practice*. Whilst a copy of the proposed layout was not included in the TA, it is worth noting that it is stated the proposed layout would be sufficient to accommodate future bus routes through the subdivision in the future.
15. It is recommended that the satisfactory tracking of vehicles at the Stalker Road / Site Access intersection be undertaken during the next stage of development to ensure sufficient space has been provided to accommodate buses. Consideration should also be given to the potential for future land to gain access via this subdivision road and whether any future-proofing of the proposed road arrangement is required.

### **Summary**

16. Overall, we are satisfied with the assessment provided and we accept that the transportation issues are acceptable on the receiving environment. The proposed road and intersections may require some refinement of the detailed design at a future subdivision stage, although these could be readily overcome.



17. We trust that this letter satisfactorily sets out the findings of our review of the information provided. Please do not hesitate to contact the undersigned if you have any queries regarding this matter.

Yours sincerely,

**Novo Group Limited**

Nick Fuller

Senior Transport Engineer

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