

BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL HEARINGS PANEL

UNDER

the Resource Management Act 1991

IN THE MATTER

of the review of parts of the Queenstown Lakes District Council's District Plan under the First Schedule of the Act

AND

IN THE MATTER

of submissions and further submissions by
REMARKABLES PARK LIMITED AND
QUEENSTOWN PARK LIMITED

**STATEMENT OF EVIDENCE OF ANTHONY THOMAS PENNY ON BEHALF OF
REMARKABLES PARK AND QUEENSTOWN PARK LIMITED**

(TRAFFIC ENGINEERING AND TRANSPORTATION PLANNING)

STREAM 13 REZONING HEARINGS

9 June 2017

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LAWYERS**

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QUALIFICATIONS AND EXPERIENCE

1. My full name is Anthony Thomas Penny. I am a Fellow of the Institute of Professional Engineers of New Zealand Civil Engineers and I hold a Bachelor Degree in Mathematics and a Bachelor Degree in Civil Engineering from the University of Canterbury. My background of experience includes over 40 years in traffic engineering and transportation planning with the Christchurch City Council, the Department of Transport in the United Kingdom, the MVA Consultancy in Hong Kong and Traffic Design Group (TDG) Limited. I have worked as a traffic engineering specialist on projects throughout New Zealand for over 30 years having been engaged by local authorities and private concerns in many centres to advise on the full range of transportation issues covering safety, management and planning matters.

CODE OF CONDUCT

2. I have read and am familiar with the Code of Conduct for Expert Witnesses in the current Environment Court Practice Note (2014), have complied with it, and will follow the Code when presenting evidence to the Council. I also confirm that the matters addressed in this statement of evidence are within my area of expertise, except when relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SUMMARY

3. In this matter I have been requested by Counsel for Queenstown Park Limited to investigate the transportation planning implications of the proposed rezoning of a corridor of land to enable the installation of a gondola from Remarkables Park to the Remarkables Skifield and the rezoning of discreet areas of Queenstown Park rural land for rural residential and rural visitor development pods. It is also proposed that provision be made for the balance of the rural land in Queenstown Park Station to be able to be utilised for commercial recreation.
4. My main conclusions are as follows:
 - (a) The proposed rezoning of a corridor through Queenstown Park Station to enable the installation of the gondola will result in reduced transportation

effects associated with the movement of people up to and down from the top of the mountain.

- (b) The proposed rezoning of rural visitor and rural residential pods within Queenstown Park Station can be provided with convenient and safe access via the gondola and/or via a new road largely within the existing road reserve along the south side of the Kawarau River and/or via jet boat ferries and/or walking and cycling tracks.
 - (c) Car parking and drop-off facilities for private and public transport can be provided for the Remarkables Park Town Centre Base Station and at Bridesdale Farm for the Lake Hayes Estate Residential Transit Station or the Queenstown Park alternative Bend Station.
 - (d) The gondola can be used as an effective alternative form of public transport particularly for commuters and school children travelling between Remarkables Park and Lake Hayes Estate.
5. Overall I have concluded that the proposed rezoning is generally consistent with the transportation objectives and policies of the Proposed District Plan and the regional planning documents. Furthermore I expect that the infrastructure and development enabled by the rezoning can be designed to be compatible with the transportation rules in the District Plan, with the appropriate design codes and with the projects included in the respective transport strategies. Accordingly the rezoning can be supported from a transportation perspective. Furthermore I consider that there is no need to introduce any new transportation objectives or policies. However there will be a new rule regarding the possible upgrading of the intersection at State Highway 6 (SH6) and Boyd Road.

INTRODUCTION

6. It is proposed that the gondola corridor will allow for two different alignment options. The first would have an intermediate boarding and alighting station (Transit Station) on the north side of the Kawarau River on land adjacent to Lakes Hayes Estate whereas the other alignment would have an intermediate bend facility (without a station) on the south side of the river and connect to the Queenstown Park Village Station at the foot of the Rastus Burn where it is intended rural residential visitor accommodation and commercial facilities would

be provided. The gondola will then ascend up the Remarkables to the top station of the skifield. The corridor has been made wider in the vicinity of the possible Transit Station to accommodate these two alignment options. The gondola corridor in the vicinity of Remarkables Park is relatively narrow because the masterplan for Remarkables Park has been designed to accommodate a specific location for the Town Centre Station. The corridor up the Remarkables from the Village Station is also wider to allow for design variation once detailed design has been completed for the location of the cable pylons.

7. The intention is that the gondola will provide the preferred access route for skiers and other visitors to the top of the Remarkables. While some visitors are still expected to prefer travelling up the existing access road and parking on the mountain, the majority (60%) are expected to use the gondola in future. This will reduce the area on the mountain required to be provided for car parking and will provide for more efficient transportation in terms of both fuel consumption and environmental effects. There will need to be car parking available at Remarkables Park but this is expected to be less than the equivalent that would otherwise need to be provided on the mountain because more alternative modes of transport (bus, coach, minivan, taxi, private car drop-off as well as walking and cycling) will be available for those travelling to the Town Centre Station for the gondola.

8. People staying at the rural visitor (RV) and rural residential (RR) pods located along the south side of the Kawarau River within Queenstown Park Station will also be able to use the gondola to access the mountain and travel to/from Remarkables Park. However there will need to be an access road along the south side of the Kawarau River from State Highway 6 (SH6) to provide for residents' vehicles and service vehicles as well as for example, vehicles transporting visitor luggage which will not necessarily be transported on the gondola at peak times. Furthermore the gondola does not extend beyond the main rural visitor pods (RV3) so an extended access road is required beyond RV3 so people in the further rural residential pods and the other rural visitor pod (RV4) can get access at least to the gondola station at RV3.

9. The Structure Plan proposed to be associated with the rezoning also indicates possible locations for pedestrian/cycle bridges across the Kawarau River in four locations. These will provide links to existing trails and promote extensive use of

trails to be provided under the new Outline Development Plan along the south side of the Kawarau River. There are also possible ferry/jet boat landing locations shown adjacent to the rural visitor pods RV3 and RV4.

10. I have investigated the consistency of the rezoning and the activities facilitated by the rezoning with the transportation objectives and policies in the proposed Queenstown Lakes District Plan. I have also looked at compliance with the transportation rules that can be assessed at this rezoning stage given that any matters of detail will not be refined until later design stages.

EXISTING TRANSPORTATION ISSUES

Existing Road Network

11. Access to the Remarkables skifield is currently obtained via SH 6 and an access road that connects to SH 6 at a t-intersection some 300m south of Boyd Road indicated in Figure 1 (located at the end of this evidence). This intersection has a wider shoulder on SH 6 approaching from the north which acts effectively as a deceleration and turning lane into the access road.
12. There is no right turn lane provided on the southern approach to the intersection SH6 because the traffic volume turning into the access road from the south is relatively low, however often the vehicles turning right from that direction (eg from Jacks Point in the morning peak) are however often required to wait for traffic turning left into the access road and this causes blocking of other traffic heading north along SH6. This traffic tends to overtake on the left hand side on the shoulder which is not ideal if negotiated at speed. The speed limit in this area is 100 kph.
13. The overall width of SH6 in this location is 7m with minimal sealed shoulders on either side. The road is marked with a centreline and solid edgelines. There are gravel shoulders beyond the sealed shoulders. There are no street lights or flag lighting at the intersection. The intersection does however have advanced signage and appropriate directional signing at the intersection.

14. The access road has only one lane approaching the intersection as the vast majority of the traffic exiting in the afternoon peak turns right onto SH6 heading for Queenstown. Currently at the end of a ski day there are delays for this right turn and some queues form on the access road, even though the traffic volume passing the access road on SH6 is relatively low (6,000 vpd). The access road is privately owned and maintained by the skifield operator. The Remarkables ski field access road is 14km long and involves steep grades over most of that length. The road is approximately 5.5m wide in general with widening on bends. With this configuration the few vehicles that are travelling in the opposite direction to the peak traffic will need to travel slowly and pass carefully.

15. The access road consists of extensive cut excavation and any further upgrading to widen the road would require considerable cost and would have a visual impact in what is an outstanding natural landscape. The road is sealed for most of its length except for the section near the top of the mountain. This section remains unsealed as the gravel surface is less dangerous in frost conditions and requires less maintenance than a sealed road which can be more critically damaged during snow clearing. As a result there is some dust generated from the road at other times of the year. The access road has steep grades over the majority of its length, which results in relatively high fuel consumption and vehicle emissions.

16. The traffic generated by the skifield in the winter has created severe congestion at the Kawarau Falls single lane bridge across the Kawarau River. In recent years traffic signals have been added to the bridge in order to control this traffic as efficiently as possible. However NZTA is now in the process of constructing a new two lane bridge immediately downstream of the existing structure and this will relieve much of the congestion associated with ski traffic.

17. However there is still congestion further north along SH6 which will be affected by skifield traffic. The critical intersection in this regard is the BP roundabout at the intersection of SH6 and SH6A. There are large queues formed at this roundabout for long periods of the day which will affect traffic heading to the skifield in the morning but more particularly in the afternoon when skifield traffic will be directly affected by the long queue of traffic that forms back along SH6

from the BP roundabout often as far as the airport roundabout and beyond along SH6 and into the airport roads.

18. The new Eastern Arterial Road (EAR) being constructed around the eastern end of the airport runway will help to relieve this congestion on SH6 as traffic heading east along Ladies Mile (SH6) from Remarkables Park and traffic heading south along SH6 from Frankton Flats North will be able to use the EAR and avoid the BP roundabout. Traffic from the skifield will have the option to use the EAR as a bypass of the BP roundabout if queuing is severe but this will involve extra travel distance particularly without the Humphrey Street extension that would improve access from the Kawarau Falls bridge to the EAR.

Traffic Volumes

19. The following table indicates existing daily traffic volumes along SH6 and also projected traffic volumes. Figure 2 indicates how much traffic volumes fluctuate at various times of the year across the Kawarau Falls bridge. The traffic volumes in Table 1 do not necessarily include traffic associated with the Remarkables Skifield or with expanded patronage of the skifield.

Road	Traffic Volumes Vehicles per Day	
	Existing	2026
SH6 (South of Access Road)	4,740	8,300
SH6 (North of Kawarau bridge)	10,000	13,800
SH6 (Ladies Mile)	26,300	23,500
Eastern Arterial Road	-	6,400
Humphrey Street	1,900	3,400
Lucas Place	14,400	13,700

Table 1: Daily Traffic Volumes

20. The above table includes traffic volumes on the EAR (Hawthorne Drive leading to Remarkables Park) which will be affected by the installation of a gondola as traffic will divert from SH6 and the skifield access road to Remarkables Park and the station at the start of the gondola.

21. The above table includes traffic volume forecasts for the section of the EAR around the east end of the airport runway as traffic will also divert to this section from Ladies Mile to get to the gondola station.

Queenstown Park Access Road

22. Currently there is a track from Boyd Road that allows for vehicle access along the south side of the Kawarau River through Queenstown Park and in fact running all the way to Chard Farm and onto SH6. Much of this track is within a legal road reserve but the reserve is not continuous and therefore the existing track is not able to remain entirely within the existing road reserve.
23. The existing track does not follow the road reserve that crosses diagonally from the intersection of Boyd Road and SH6 close to the house on the Mee Property before connecting to the road reserve following the river as indicated in Figure 3 (located at the end of this evidence). That existing diagonal road reserve is currently farmed as part of the Mee property and does not have any vehicular access facility. The existing track is rough and has some steep grades and narrow sections. There are also some fords.
24. At the eastern end of the track beyond the area of Queenstown Park and the area where residential and visitor pods are proposed, the track has heritage significance because of the road construction dating from gold mining days that is formed by rock paving
25. The access road to Chard Farm from SH6 is formed to a better standard in terms of the surface of the road but the road is very narrow and has some very tight bends and very poor visibility. Accordingly it is not considered appropriate that any access to the development facilitated by the proposed rezoning should rely on this route for access.

Road Safety

26. I have reviewed the existing road crash record for the Remarkables Skifield access road described above using the NZTA crash analysis system (CAS) which included all police reported crashes. In the past 10 year period from 2007-16 inclusive there were 8 reported injury crashes and 9 reported non-injury

crashes on the access road. The main cause of these crashes were loss of control. The CAS records do not include the Queenstown Park track because it is not generally a publicly accessible road.

GONDOLA OPERATION

27. The proposed gondola will operate on electricity and therefore will have a minimal environmental footprint. It will have a back-up generator which will be used only if there is a power outage.
28. It is expected that the gondola will have a capacity of 2,000 passengers per hour. It is projected that up to 5,000 skiers could be accommodated on an expanded Remarkables skifield and accordingly it would take over two hours to transport that maximum number to/from the skifield. However it is expected that there will be skiers who will still prefer to drive to the field.
29. Currently there is capacity for approximately 1,000 vehicles in the skifield carpark and it would be difficult to expand that adequately to accommodate all the vehicles that would be required to transport 5,000 skiers. More use of buses would be required. Furthermore without the gondola the access road with the required additional number of vehicles would have a large % increase in delays at the SH6 intersection at the bottom of the access road in the afternoon as indicated in Table 2. These delays have been calculated based on projected traffic for the ski field and SH6. The delays predicted without the gondola would require the upgrading of the intersection to improve safety and convenience for SH6 traffic and to increase the access road capacity. Such upgrading might not be necessary if the gondola is constructed and the number of vehicles using the access road reduced significantly as a result.

	Existing	2026 (without Gondola)	2026 (with Gondola)
Traffic Volume (vph)	500	550	300
Delays (sec/veh)	12	Very large	64

Table 2: Ski Field Access Road / SH6 Intersection (afternoon peak hour)

30. It should be noted that the gondola would not only be used by skiers. It is likely to become a major tourist attraction for sight-seers who would travel to the top of the mountain for the panoramic and spectacular views that are available. It is also intended that mountain bike trails would be implemented with the gondola providing access to the top of these trails. This is similar to many ski fields overseas and the recently installed Adventure Park in Christchurch.

31. The peak demand for the gondola would occur during the ski season and it would occur in the upward direction in the morning and down the mountain in the afternoon. This means that the cabins moving in the non-peak direction will be underutilised and they can be effectively back-loaded with people travelling to and from the visitor and residential pods within Queenstown Park and Remarkables Park. People arriving at the visitor facilities are more likely to do so in the afternoon and therefore provide a convenient backload. Similarly people travelling to homes in the residential pods would be less likely to arrive during the morning ski peak.

32. The other convenient back-load would be for the residents of Lake Hayes Estate, Shotover Country and Bridesdale who would be able to use the gondola in the morning to travel to/from work or to school at Remarkables Park (the new high school at Remarkables Park opens in 2018). This very efficient backload in terms of gondola utilisation would also be a particular benefit for the road network efficiency given the increasing traffic volumes on Ladies Mile. This reduction in road traffic is likely to be higher if the bend facility is constructed on the Lake Hayes Estate side of the Kawarau River and integrated with a station where the residents of Lake Hayes Estate, Shotover Country and Bridesdale can board and alight the gondola.

33. Obviously people within walking distance of this transit point would be particularly attracted to the convenient service which is expected to provide concession tickets for regular users. Other people may either ride a bike to the station or be dropped off at the station from further away. There might also be the possibility that commuters could park their vehicles adjacent to the station and ride the gondola to Remarkables Park. However most of this parking is intended to be made available to people riding the gondola to the top and particularly for skiers.
34. In terms of the likely patronage of the gondola during the ski season, I have identified four different categories of skier. People who live in Queenstown and are regular skiers are likely to buy a concession ticket and utilise the gondola extensively. Similarly high-end tourists would not be deterred by what is expected to be a reasonably significant single ticket cost. The budget tourist may utilise the gondola if it is part of their package but other tourists particularly local tourists on a low budget would probably find it more economic to take a bus or to drive to the carpark at the top of the mountain particularly if they have several passengers in the vehicle. Similarly some local residents who are only occasional skiers may find it more convenient and economic to get together and share a vehicle driving up the access road. However it is expected that most people will at least utilise the gondola on one occasion for the experience.
35. While we do not have reliable projections at this stage, it is estimated that approximately 60% of skiers would utilise the gondola. This would have a dramatic influence on transportation effects. There would be significant efficiencies in terms of reduced fuel consumption and also reduced environmental effects such as vehicle emissions, dust and pollutants resulting from runoff on the access road etc. There would be no need to increase the car parking at the skifield and possibly upgrade the access road. Also the maintenance of the access road would be reduced significantly. I also expected that there would be a reduction in the number of vehicle accidents on the access road. Many of the past accidents have been caused by dangerous road conditions. Not only would the number of vehicles using the road be less at all times, but it is likely that when road conditions are dangerous, even more skiers would divert to the gondola and this would result in a reduced risk of vehicle accidents.

36. If the operation of the gondola was halted due to adverse weather conditions such as high winds, it is likely that the access road would also be closed and the skifield itself. I fully expect that maintenance on the gondola would be conducted in the summer when demand for the gondola will be less. Therefore I do not expect that the traffic demand for the access road would become excessively high during such times. The gondola is the feature that will make the Remarkables more of a tourist attraction in the summer as discussed previously. So during maintenance tourists are less likely to choose to travel up the mountain.
37. A significant feature of the gondola operation will be the station at Remarkables Park which will be adjacent to tourist facilities such as hotels and the convention centre as well as restaurants and retail outlets. There will be a purpose built pick-up and drop-off area designed adjacent to the convention centre and the gondola station. This will contain a bus stop for regular public bus routes as well as off-street bays that will accommodate tourist coaches, hotel minivans and taxis. There will also be space for skiers to be dropped off by private cars where the driver may or may not be joining the ski party. If the driver is joining the party they will drop their ski gear with the other passengers and then drive to nearby car parking. It is also expected that people from immediately adjacent visitor accommodation will be able to walk to the station while those from accommodation further afield will have the option of using transport provided by the hotels. There will also be parking for bicycles for those who may be hiring their ski gear at the field or who are simply going up the mountain sightseeing.
38. It is proposed that significant numbers of car parking spaces will be provided at Remarkables Park to accommodate users of the gondola. Where possible shared use of car parking will be made such as allowing it to be used by coaches overnight. If necessary because of other shorter stay parking demands, remote parking may be provided with shuttles transporting people to and from the gondola station.
39. The parking at Lake Hayes Estate has been investigated and it would be possible to provide some 140 spaces in an existing road reserve within convenient walking distance of the Transit Station. Again a drop-off area would be provided at the area immediately adjacent to this station to facilitate people who want to drop-off

or pick- up their ski gear before parking. This carpark is expected to accommodate people from areas around Lake Hayes Estate and Shotover Country or further afield in Arrowtown or Cromwell. It is not expected that this parking would become overloaded because many people will choose to continue onto Remarkables Park because of the other activities which are available there after skiing. However there is space for additional parking if needed.

QUEENSTOWN PARK ACCESS ROAD

40. The proposed new access road to the visitor and residential pods on the south side of the Kawarau River at Queenstown Park will be constructed largely along the alignment of the existing farm track. The track will be upgraded to a 5.5-5.7m wide cross-section generally although there will be some sections where the road will be kept narrow to avoid or minimise the need for further excavation that would add to costs and also result in visual effects. These narrow sections would be constructed in such a way that forward visibility is maintained at all locations. Where necessary on longer narrow sections passing bays would be provided with sufficient sight distance again being maintained.
41. It is deliberately intended that the road would not be of a high standard because Queenstown Park Limited do not want to encourage high use of this access road. Accordingly it is preferred that the access road should not be sealed. QPL would prefer people to use the gondola not only for their own transportation but also for transporting goods and luggage for example. Although it is expected that some service supplies will be transported on the gondola at non-peak times, there will be a need for some goods and service vehicles to use the access road.
42. While some of the access road is within the existing legal road reserve, it is not possible for all of the road to be within the existing reserve. Queenstown Park Limited would be prepared to operate the access road as a private road albeit without a total restriction on public access. They might however install a gate at the edge of the Queenstown Park property to discourage general public access. It is not intended to provide much car parking at the visitor pods as guests will be sold gondola passes as part of their package. So it is important that most members of the public who are not staying at the visitor pods but who wish to use the associated facilities such as restaurants etc, either use the gondola to travel

from Remarkables Park, park their car at Lake Hayes Estate and walk across the foot bridge, or use a ferry.

43. The access road could be connected to SH6 at the intersection with Boyd Road using the road reserve that crosses diagonally through the Mees property and close to their house. However, it is expected that an alternative alignment will be able to be agreed with the Mees to align the access road further from their house. Figure 2 shows 4 alternative alignments, 3 linking to SH 6 at the Boyd Road Intersection and one that links to SH6 via the Ski field access road (Option 4). Option 1 maximises the use of Boyd Road and therefore would be relatively cheap to construct. However, the Mees are not keen to have the road in front of their house and the alignment would also have an impact on the Boyd's property.

44. Options 2-4 all involve an alignment along the base of the Remarkables as far from the Mees house as practical. Option 2 involves the shortest link but would separate the paddocks on the Mees property. Option 3 overcomes this issue but adds some length to the access road trip. Option 4 avoids the need to upgrade the Boyd Road/SH6 intersection but adds further distance to the access road trip. It is not considered necessary to determine at this stage which of the above alignments will be used in the future. As far as the rezoning is concerned, there is a legal road reserve along which the access road could be constructed. However it is necessary to consider the effect of the access road on traffic using SH6.

45. To ensure the Boyd Road/SH6 intersection is able to operate at maximum efficiency and safety, it is proposed that the intersection should be upgraded. The existing configuration with Boyd Road linking to SH6 at two separate locations on the tangent points of the curve in SH6 is not desirable from a safety perspective. This is because drivers approaching along SH6 northbound could mistake Boyd Road as the main road and miss the bend. Furthermore exiting from Boyd Road on either leg involves some sightline difficulties that affect safety. The intersection should be upgraded by providing a single link from Boyd Road that meets SH6 at the apex of the existing bend. This removes the above issues and allows turning bays to be provided on SH6 in each direction.

46. I have estimated that with the gondola there may be some 1,000 vehicle movements per day (two-way) along the section of the Queenstown Park access road linking to Boyd Road or to the skifield access road. This is likely to result in an afternoon peak demand of some 130 vehicle movements per hour (vph) with some 120 vph turning right onto SH6. If the Queenstown Park access road is connected to the ski field road, the predicted traffic could be accommodated at the skifield road intersection because more than 120 vph will be removed from this movement by the gondola as indicated in Table 2 (above). However some upgrading of the intersection might be necessary.

47. If the Queenstown Park access road uses the Boyd Road intersection the 120 vph right turn will be able to be accommodated safely and efficiently. The volume on SH6 in the future (2026) is predicted to increase significantly. However even in this worst case scenario, the delays for the right turners have been predicated to be reasonable given that there will be gaps in the SH6 traffic and there will also be no visibility issues to affect safety. The delays predicted are shown in Table 3.

	AM Peak	PM Peak
Traffic Volume (vph)	100	120
Delays (sec/veh)	22	54

Table 3: Queenstown Park Access Road (Boyd Road) / SH6 Intersection (2026)

48. If the gondola were not to be constructed then the full development in the Queenstown Park RV3 pod is not expected to occur. It is likely that only the rural residential development would progress. All trips associated with the residential activity would then use the access road but that would involve less traffic than the scenario with the gondola. In this case it is predicted that delays at the Boyd Road/SH6 intersection would be 44 seconds per vehicle.

49. However it is unlikely that the option to link to the ski field road would be viable because of the higher number of vehicles accessing the (expanded) ski field and the expected delays exiting onto SH6 in the afternoon peak. Exiting at Boyd Road would also be more difficult because of the additional ski traffic, but it would be tolerable because there would be less traffic exiting and there would be gaps in the traffic created at the ski field access intersection.

RURAL RESIDENTIAL / VISITOR PODS

50. The rural residential and rural visitor pods included in the proposed rezoning for Queenstown Park are proposed for discreet locations mostly along the south side of the Kawarau River. The largest pod (RV3) will be provided with direct access by the proposed gondola. This pod will not only have visitor accommodation but will have commercial activities for tourists as well. The other two visitor pods are much smaller and will be primarily for visitor accommodation.
51. The rural residential pods are expected to contain a mix of permanent dwellings and holiday homes. Although a major focus of access will be the gondola, it will be necessary to provide road access to all of these pods. Even if residents use the gondola they will still need transportation from their specific pod to the gondola station at RV3. For permanent residents it is expected that there will be a form of internal transport (eg golf carts or a shuttle service run by visitor accommodation facilities). So while they may use their car and the proposed access road for travel outside of Queenstown, it is expected that they will be shuttled to the gondola or possibly be dropped off by somebody, and then use the gondola to get to Remarkables Park and other public transport to reach other parts of Queenstown.
52. It is also expected that there will be a jet boat/ferry service which will provide access to many of the pods where residents will be able to walk to the ferry or otherwise be shuttled from their particular property. Also with the extensive system of trails proposed within Queenstown Park and the existing trails, people will be able to walk or ride their bicycle conveniently to many locations within the Wakatipu Basin.
53. The visitor accommodation in RV3 will be within walking distance of the gondola station but RV4 is not and so a shuttle service will need to be provided for these guests and their luggage. A network of roadways is proposed within RV3 and the access road described above will provide a link to RV4 and the rural residential pods. There may need to be a parking area in RV3 to accommodate vehicles used to shuttle people from RV4 and the rural residential pods.

54. The rural visitor pod and the rural residential pod (RV1/RR1) adjacent to the ski field road shown in Figure 1 are no longer included in the proposed rezoning.
55. It is proposed that the car parking for the rural residential pods will be limited to one vehicle per unit. Parking at the rural visitor pods (RV3 and RV4) will be restricted to encourage the accommodation operators to make maximum use of the gondola and the ferry service. There may need to be more communal parking at RV3 to accommodate shuttle vehicles used to provide access to the rural residential pods and to RV4.

OBJECTIVES AND POLICIES

General Transportation Matters

56. All Queenstown Lakes District Council roads are deemed to be designated for the purposes of road. Accordingly a new designation may have to be established when the preferred alignment for the Queenstown Park access road to SH6 is determined. As noted previously, there are several options for this connection but there is an existing road designation which could be used so it is not necessary to establish the preferred connection alignment and designation as part of the proposed rezoning. It is expected that one of the alternative options will be agreed with appropriate landowners and that the existing road designation across the Mee land will be stopped in accordance with either the Local Government Act 1974 or the Public Works Act 1981 and the road corridor rezoned for rural activity. This section of road is outside the area associated with this current rezoning and will be dealt with appropriately at a later date.
57. The section of SH6 which the Queenstown Park access road will connect to is a limited access road. *“The objective of this control is to protect and maintain the safety and high level of traffic service on these important routes ... the effect is to prevent the proliferation of new access points and to reduce the number of accesses and volumes of traffic using them.”* Accordingly it is proposed that the access road should connect via the existing Boyd Road intersection or the intersection of the Remarkables skifield access road. This would not adversely affect the existing skifield access road intersection on SH6 as the volume of traffic using SH6 will be reduced because of people using the gondola instead of driving motor vehicles up the skifield access road. If Boyd Road is used for the

QPL access road however then the opportunity should be taken for the SH6 intersection to be upgraded as discussed previously.

Strategic Direction

58. The proposed District Plan has an *“overarching strategic direction for the management of growth, land use and development”*. From a transport perspective this includes *“compacted and connected settlement so as to encourage public transport, biking and walking”* and *“diverse, resilient, inclusive and connected communities”*. This relates to a series of objectives and policies which have been investigated in turn to assess the consistency of the proposed rezoning with the strategic direction of the District Plan.

Objective 3.2.1.5 *“maintain and promote the efficient operation of the District’s infrastructure, including designated airports, key roading ... networks”*. [Redraft 3.2.8.1 p.3-7, QPL Submission 3.2.1.5 p.10]

The proposed rezoning is not anticipated to have any adverse effect on the Queenstown airport and the gondola facilitated by the rezoning will reduce traffic flows on the section of SH6 between Frankton and the Remarkables skifield access road by considerably more than the new traffic associated with the residential and visitor pods that will be added to this section of road.

Objective 3.2.2.1 *“Ensure urban development occurs in a logical manner*

- *To promote a compact, well designed and integrated urban form*
- *To manage the cost of Council infrastructure”*

[Redraft 3.2.2.1 p.3-3, QPL 3.2.2.1. p.10]

While the residential and visitor pods are located to the south of the Kawarau River, they are otherwise adjacent to the main urban boundary in the Wakatipu Basin formed by Lake Hayes Estate, Shotover Country, Bridesdale and Remarkables Park. They will be integrated in a transport sense through the proposed gondola and through proposed cycle and pedestrian bridges across the river. An access road will be provided but it will rely on the new Kawarau Falls bridge currently being constructed. It is also proposed to look at providing a jet boat / ferry service to the various locations in the vicinity of the pods. The operation and maintenance of the gondola and the operation of the ferry are expected to be privately managed and therefore will not add to

the cost of maintenance for the Council. The bridges across the river for pedestrians and cyclists could be vested with the Council in order to become part of the public trail system. The new access road will be constructed and maintained at the landowner's expense unless the Council wishes to maintain the road as part of their public infrastructure.

Policy 3.2.2.1.4 *“Encourage a higher density of residential development in locations close to town centre, local shopping zones, activity centres, public transport routes and non-vehicular trails”*. [Redraft deletes this policy, p.3-4]

The residential pods will be within convenient reach of the Remarkables Park Town Centre either via the gondola, the ferry or the new access road (to a lesser extent). The gondola will be able to be used by the general public and as such will form a public transport route. It is expected that concession tickets will be made available for residents to use the gondola on a regular basis at a reasonable cost. It is intended that new trails will be constructed to form part of the existing trail system and that the bridges across the Kawarau River will link to the existing trails.

Objective 3.2.4.7 *Facilitate public access to the natural environment*

Policy 3.2.4.7.1 *“Opportunities to provide public access to the natural environment are sought at the time of plan change, subdivision or development.”* [QPL 3.2.4.7, p.12]

The gondola certainly provides such an opportunity as does the access road, the proposed bridges, trails, and ferry service.

Objective 3.2.4.8 *Respond positively to climate change*

Policy 3.2.4.8.1 *“Concentrate development within existing urban areas, promoting higher density development that is more energy efficient and support public transport, to limit increases in greenhouse emissions in the district”*. [QPL 3.2.4.8, p.13]

While the residential and visitor pods are not within existing urban areas, they will be linked by a form of public transport that is very energy efficient and limits the increase in greenhouse gas emissions. The pods will support the viability of the gondola to the extent that the residents will utilise the service often at non-peak times for the skifield and often as a backload on the service. In supporting the viability of the gondola in this way, the pods assist energy

efficiency and reduced emissions that the gondola will produce by replacing the transportation to the top of the mountain by motor vehicle.

Urban Development

59. This section of the district plan notes that *“the roading network of the district is under some pressure in more low density residential development located remote from employment and service centres has the potential to exacerbate such problems.”* The objectives and policies in this section *“seek to achieve integration between land use, transportation, services, open space networks, community facilities and education”*.

Policy 4.2.1 *Urban development is coordinated with infrastructure and services and is undertaken in a manner that protects the environment ...* [Redraft 4.2.1, p.4-1]

Policy 4.2.1.1 *“Land within and adjacent to the major urban settlements will provide the focus for urban development.”* [Redraft 4.2.1.1, p4-1]

As discussed previously the residential and visitor pods are generally adjacent to the major urban settlement in Queenstown. I note the redraft removes the words “and adjacent to”.

Policy 4.2.1.2 *“Urban development is integrated with existing public infrastructure, and is designed and located in a manner consistent with the capacity of existing networks”*.

The urban development associated with the rezoning of the pods is not necessarily conveniently integrated with **existing** public infrastructure but that is very much mitigated by the provision of the gondola and ferry service, and by being linked to existing trails. In terms of the capacity of the existing networks, the gondola increases the capacity of the road network by removing vehicles associated with the Remarkables skifield.

Policy 4.2.1.3 *“Encourage a higher density residential development in locations that have convenient access to public transport routes, cycleways, or are in close proximity to community and education facilities”*.

The residential and visitor pods will have convenient access to the gondola to the extent that it is a public transport facility and to existing

trails/cycleways. These facilities will effectively be “in close proximity to community and education facilities” particularly the proposed new high school, the Remarkables Park Town Centre and the other facilities being provided at Remarkables Park.

Policy 4.2.1.4 “*Development enhances connections to public recreation facilities, reserves, open space and active transport networks*”.

The pods and the gondola facilitated by the proposed rezoning certainly enhances these connections.

Policy 4.2.1.5 “*Urban development is contained within or immediately adjacent to existing settlements*”. [Redraft 4.2.1.5, p. 4-2]

As discussed previously the proposed pods are relatively adjacent to the main urban area in the Wakatipu Basin. I note the words “or immediately adjacent to” are deleted in the redraft.

Transport Section

60. The transport section of the proposed district plan is unchanged from the existing district plan. My evidence concentrates on those issues, objectives and policies in the transport section which relate to rezoning proposed by Queenstown Park Station Limited. In general the issues covered in the transport section are consistent with the previous strategic direction and urban development sections by tend to look in more detail at the direct transport related matters. The main issues are outlined in 14.1.2 and cover efficiency, safety and accessibility, and the environmental effects of transport. In relation to efficiency, the issue is stated as the “*efficient use of the district’s roads and other transport infrastructure, and the efficient use of fossil fuels for transport, can be adversely affected by the inappropriate location, nature and design of land use activities, their access, parking and servicing.*” In relation to Objective 1 the associated policies largely reiterate the objectives and policies in the sections addressed above albeit in some more detail. The policies that add new aspects include 14.1.3.1.8 “*to consider options for encouraging and developing greater use of public transportation facilities and in particular to continue to investigate the options for alternative transport means*”. The gondola and the ferry service facilities

associated with the proposed rezoning certainly are consistent with this policy in terms of providing alternative transport means.

Policy 14.1.3.1.9 “To require all off-road parking and loading for most activities to limit congestion and loss of safety and efficiency of adjacent roads and to promote the maintenance and efficiency of those roads.”

This is particularly significant in terms of the skifield parking and also the parking to be provided at the base gondola station at Remarkables Park and also at the Bend Station at Lake Hayes Estate. It may also be necessary to provide parking at the base gondola station for people travelling from the visitor and residential pods further to the east who wish to use the gondola to travel to Remarkables Park or to the skifield. The previous sections have demonstrated the ability to provide car parking at Remarkables Park and at Lake Hayes Estate. Parking for the base station will need to be investigated at a later date when detailed design of the RV3 pod and the visitor accommodation and road network in that vicinity are designed.

Policy 14.1.3.1.10 “To require access to property to be of a size, location and type to ensure safety and efficiency of road function”.

The access road associated with the residential and visitor pods will have a carriageway width that generally complies with the Queenstown subdivision code (5.5-5.7m) and will connect to SH6 either at the existing Boyd Road intersection or the existing intersection of the Remarkables skifield road. The more detailed design of access to individual properties within the pods along the access road will be specified at a later subdivision stage. However it will be designed to comply with rules within the district plan. The access road will be a “local road” as identified by the district plan if the Council wants the road to be public.

Objective 2 – Safety and Accessibility

“maintenance and improvement of access, ease and safety of pedestrian and vehicle movement throughout the district.”

Policy 2.1 *“To maintain and improve safety and accessibility by adopting and applying a road hierarchy with associated design, parking and access standards based on the intended function”.*

The access road will be designed appropriately and all of the options for obtaining access from SH6 will ensure adequate safety and accessibility is provided. The accessibility and safety associated with the skifield access road will be improved by the reduction in traffic resulting from the gondola installation.

Policy 2.2 *“To ensure the intensity and nature of activities along particular roads is compatible with road capacity and function, to ensure both vehicle and pedestrian safety”.*

The pods along the access road will be very low intensity and consistent with the access road design.

Policy 2.3 *“To ensure access and movement throughout the District and more particularly the urban areas, for people with disabilities is not unreasonably restricted”.*

People with disabilities can use the access roads or the gondola. The gondola stations will include lifts.

Policy 2.4 *“To encourage the development of pedestrian and cycle accessways, within the main townships”.*

Not applicable.

Policy 2.5 *“To maintain and upgrade, where appropriate, the existing roads and provide for new roads and related facilities where these are important for providing access”.*

A new access road and a gondola are proposed. The existing skifield road will be maintained and the intersections with SH6 will be maintained and could be upgraded if necessary.

Policy 2.6 *“To ensure intersections and accessways are designed and located so:*

- *Good visibility is provided;*
- *They can accommodate vehicle manoeuvres;*
- *They prevent reverse manoeuvring onto arterial roads; and*
- *Are separated so as not to adversely affect the free flow of traffic on arterial roads”.*

New access road has been designed to appropriate standards and connection with SH6 will either be at existing Boyd Road or skifield road intersections.

Policy 2.7 *“To ensure vegetation plantings are sited and/or controlled so as to maintain adequate visibility and clearance at road intersections and property access and to prevent the icing of roads during winter months, except and unless that vegetation is important to the visual amenity of the District or is protected as part of the Heritage Provisions”.*

This is not expected to be an issue in this case.

Objective 3 - Environmental Effects of Transportation

Minimal adverse effects on the surrounding environment as a result of road construction and road traffic

Policy 3.1 *“To protect the amenities of specified areas, particularly residential and pedestrian orientated town centres from the adverse effects of transportation activities”.*

Rezoning not inconsistent with this policy and the pods are likely to have special pedestrian areas.

Policy 3.2 *“To discourage traffic in areas where it would have adverse environmental effects”.*

The net effect of the gondola will be to reduce effects

Policy 3.3 *“To support the development of pedestrian and similar links within and between settlements and the surrounding rural areas, in order to improve the amenity of the settlements and their rural environs”.*

Gondola, bridges, trails and ferries will improve links and amenity.

Policy 3.4 *“To ensure new roads and vehicle accessways are designed to visually complement the surrounding area and to mitigate visual impact on the landscape”.*

The new access road will be generally constructed on the alignment of an existing track but there will be some further cut and fill to form what will generally be a two-lane road. The visual effect of the access road (and the gondola) is addressed by others.

Policy 3.5 *“To maintain and enhance the visual appearance and safety of arterial roads which are gateways to the main urban centres”.*

The new access road will not affect the safety of SH6.

Policy 3.6 *“To incorporate vegetation within roading improvements, subject to the constraints of road safety and operational requirements, and the maintenance of views from the roads”.*

Given the rural environment it is not considered necessary to include plantings but it may be appropriate to incorporate vegetation to the cut and fill sections of the Queenstown Park access road.

Policy 3.7 *“To implement appropriate procedures, in conjunction with the takata whenua and Historic Places Trust, should any waahi tapu or waahi taonga be unearthed during roading construction”.*

This is a standard requirement that is not expected to influence the rezoning

Policy 3.8 *“To set areas aside for staff car parking in Business and Industrial Zones”.*

Some staff parking will be provided for staff at visitor pods but staff for the main visitor pod (RV3) will be required to use the gondola from Remarkables Park or use the parking to be provided at Bridesdale Farm.

Objective 5 - Parking and Loading - General

Sufficient accessible parking and loading facilities to cater for the anticipated demands of activities while controlling adverse effects

Policy 5.1 *“To set minimum parking requirements for each activity based on parking demand for each land use while not necessarily accommodating peak parking requirements”.*

It is proposed that there should be 1 car parking space for each unit in the residential pods. The main visitor pod will have minimal parking possibly in the order of 1 space per 5 units because visitors will be encouraged to travel by gondola. Parking will be provided in general parking areas for those who drive and for vehicles which will be used to shuttle guests to/from facilities within the pods and the gondola and ferry berths.

Policy 5.2 *“To ensure business uses have provision for suitable areas for loading vehicles on-site”.*

One appropriately sized loading bay will be provided for each business activity in the visitor pods.

Policy 5.3 *“To ensure car parking is available, convenient and accessible to users including people with disabilities”.*

Convenient parking will be provided as described above – including parking for people with disabilities at the visitor pods as required by code. However there will be minimal parking at RV3 which will predominantly be accessed via the gondola and to a lesser extent via ferries.

Policy 5.4 *“To require all off-street parking areas to be designed and landscaped in a manner which will mitigate any adverse visual effect on neighbours, including outlook and privacy”.*

The development facilitated by the rezoning can conform with this policy, particularly as car parking demand will be kept to a minimum.

Policy 5.5 *“To require the design of parking areas to ensure the safety of pedestrians as well as vehicles”.*

The development facilitated by the rezoning can conform with this policy.

Policy 5.6 *“To set areas aside for staff car parking in business and industrial zones”*.

See my comments at paragraph 3.8 above.

Objective 6 - Pedestrian and Cycle Transport

“Recognise, encourage and provide for the safe movement of cyclists and pedestrians in a pleasant environment within the District.”

Policy 6.1 *“To develop and support the development of pedestrian and cycling links in both urban and rural areas”*.

It is proposed to provide new cycle and walking trails and to link them to and promote existing trails by providing bridges across the Kawarau River.

Policy 6.2 *“To require the inclusion of safe pedestrian and cycle links where appropriate in new subdivisions and developments”*.

This will apply on a small scale within the pods, while there will be extensive provision for new trails in the surrounding area.

Policy 6.3 *“To provide convenient and safe cycle parking in public areas”*.

This will be applied at the gondola stations and within the visitor pods.

Objective 7 - Public and Visitor Transport

“Recognition of public transport needs of people and provision for meeting those needs.”

Policy 7.1 *“To plan and encourage an efficient pattern of public transport”*.

It is proposed that the gondola be operated as an alternative form of public transport both for the ski field and for travel associated with the pods, as well as for trips between Lake Hayes Estate and Remarkables Park.

Policy 7.2 *“To investigate opportunities for public transport as an alternative to, or in association with, changes or extensions to the major road network”*.

Providing access to the skifield with the gondola potentially provides an alternative to future upgrades of the existing access road. The gondola may also in time delay or even avoid the need to upgrade SH6 and potentially the need for a second Kawarau River bridge.

Policy 7.3 “To promote and investigate opportunities for a public transport link between Queenstown and Frankton”.

The gondola attracting more tourists to the Remarkables would promote such opportunity.

Policy 7.4 “To support the development and operation of various types of tourist transport”.

This rezoning in providing for the gondola, ferry services, a new access road and trails/bridges, is very much supporting tourist transport.

Policy 7.5 “To liaise with the Otago Regional Council and public transport operators to ensure the public transport needs of the District are met”.

This will be essential outcome of the rezoning because of the need for existing public transport modes to service the gondola station at Remarkables Park.

PROPOSED OTAGO REGIONAL POLICY STATEMENT

61. The transport policies in the Regional Policy Statement (RPS) reflect those in the QLDC PDP which is to be expected because the PDP should not be inconsistent with the RPS.

Policy 4.3.4 “The development of the site will not impact on any roads of regional or national importance.”

The Queenstown Park access road will connect with the state highway network (SH6) either via Boyd Road or the Remarkables skifield access road. The gondola facilitated by the rezoning will reduce traffic flows on the section of SH6 between Frankton and the Remarkables skifield access

road by considerably more than the new traffic associated with the residential and visitor pods that will be added to this section of road.

Policy 4.4.6: “Energy efficient transport”.

This seeks to enable energy efficient and sustainable transport. The residential and visitor pods are adjacent to existing urban development, and with the gondola and river bridges, can contribute to the development of well integrated urban areas, to reduce travel needs (by road). The pods may not be “compact” as a whole but with restricted road access the demand for private motor vehicle travel will be reduced within those areas. In terms of Policy 4.4.6.a, it will be possible to provide good connectivity. In terms of Policy 4.4.6.b, with the existing urban areas adjoining the site with the gondola, ferries and river bridges. This will particularly be the case for walking and cycling. There will also be good connections to existing walking and cycling trails.

Policy 4.5.1 *“Managing for urban growth and development”*.

This discusses managing urban growth and development in a strategic and co-ordinated way. My assessment has shown that this policy will be achieved through the gondola connection with the supporting access road link to SH6, and provision of pedestrian and cycle access throughout the zone.

Policy 4.5.7 *“Integrating infrastructure with land use”*.

This discusses locating and designing infrastructure to take account of actual and reasonably foreseeable land use change. The pods that will be zoned for urban development areas are very unlikely to need to allow for future roading connections because of the adjacent river to the north and the Remarkables topography to the south. The policy also discusses locating growth and development where there is sufficient infrastructure capacity; or where infrastructure services can be upgraded or extended efficiently and effectively.

My assessment has identified that effective local connections can be made from a transportation perspective with the gondola, ferry services, pedestrian/bike trails supported by the proposed access road.

REGIONAL PUBLIC TRANSPORT PLAN, OTAGO 2014

62. I have reviewed the Regional Public Transport Plan for Otago (2014). A focus of the plan is on bus services within the Wakatipu Basin. Whilst the plan discusses increased transport demand, it does not identify any current or future intention to develop a public transport route to Jacks Point. In that respect, if services are provided, they are unlikely to provide a suitable level of accessibility for the Queenstown Park pods.

63. No bus route could be justified into the development pods and a through route via Chard Farm could not practically be provided. Even greater housing density and less topographical constraints could not warrant any service along the access road. Accordingly it is unlikely the pods will be within an accessible walking distance of a bus route.

64. On the other hand the gondola and the ferry service proposed would offer effective alternative public transport services. The gondola would connect directly to Remarkables Park and passengers will be able to interchange there to use public buses to reach further destinations around the Wakatipu Basin. On balance, I consider an effective connected public transport network will be provided and would not necessarily require an altered future public transport provision in the area, such that it does not need to form a key consideration of the zoning provisions.

WAKATIPU TRANSPORTATION STRATEGY

65. The Wakatipu Transportation Strategy emphasises the “promotion of public transport, walking and cycling.”

66. There has been some investigation that identified Boyd Road or the existing road reserve across the Mee property as a possible future access to an additional river crossing bridge providing a “Frankton bypass” which would probably have access to the EAR in the vicinity of the eastern end of the airport runway. This provision

has been included in the Wakatipu Transportation Strategy as a “potential” project to be implemented “post 2026”.

67. The strategy also expresses support for new ferry services including “park and ride” facilities.

68. It also includes an upgrade to the BP roundabout intersection (SH6/SH6A) with priority for buses. The Humphrey Street upgrade and extension to provide access to Remarkables Park is also listed as a specific roading project.

REGIONAL LAND TRANSPORT STRATEGY

69. The Regional Land Transport Strategy contains various objectives and policies seeking to provide for safe and efficient travel by a range of travel modes, including walking and cycling.

70. The strategy has programmed some projects that have been identified by the Wakatipu Transportation Strategy as I discussed earlier. However the Frankton Bypass project has not been programmed within the current planning horizon.

COUNCIL TRANSPORTATION REPORT

71. Denis Mander has reported that he could not support the proposed rezoning because he did not have sufficient information on traffic effects at the time of writing his report. In particular he refers to the intersection on SH6 for the proposed access road to the new zone.

72. Mr Mander has suggested that the 90 rural residential units would generate 963 vehicles per day. This is not consistent with the Council’s generation rate of 8 vehicles per day per unit or 720 vehicles per day (two-way).

73. With high use of the gondola expected for the rural visitor activity and the associated commercial activities, the related number of vehicles using the proposed access road is predicated to be approximately 1,300 vehicles per day (two-way). Combined with the rural residential traffic, the total movement is predicted to be some 240 vehicles per hour in the morning and in the afternoon.

These values have been used in the (SIDRA) intersection analyses referred to earlier.

74. As described previously the access road could be linked either to the ski field access road or to Boyd Road. If the ski field road is used then it is expected that the SH6 intersection will have sufficient capacity because of the reduction in ski field traffic due to the gondola, the limited amount of traffic expected to use the zone access road and the fact that the respective traffic peaks will not necessarily coincide.

75. If Boyd Road is used, the proposed upgrading of the intersection and the limited traffic using the zone access road will ensure that the SH6 will operate both efficiently and safely as described previously.

76. In terms of the capacity of SH6, the reduction in ski field traffic due to the gondola will exceed the additional traffic from the new zone and therefore the effect will be positive.

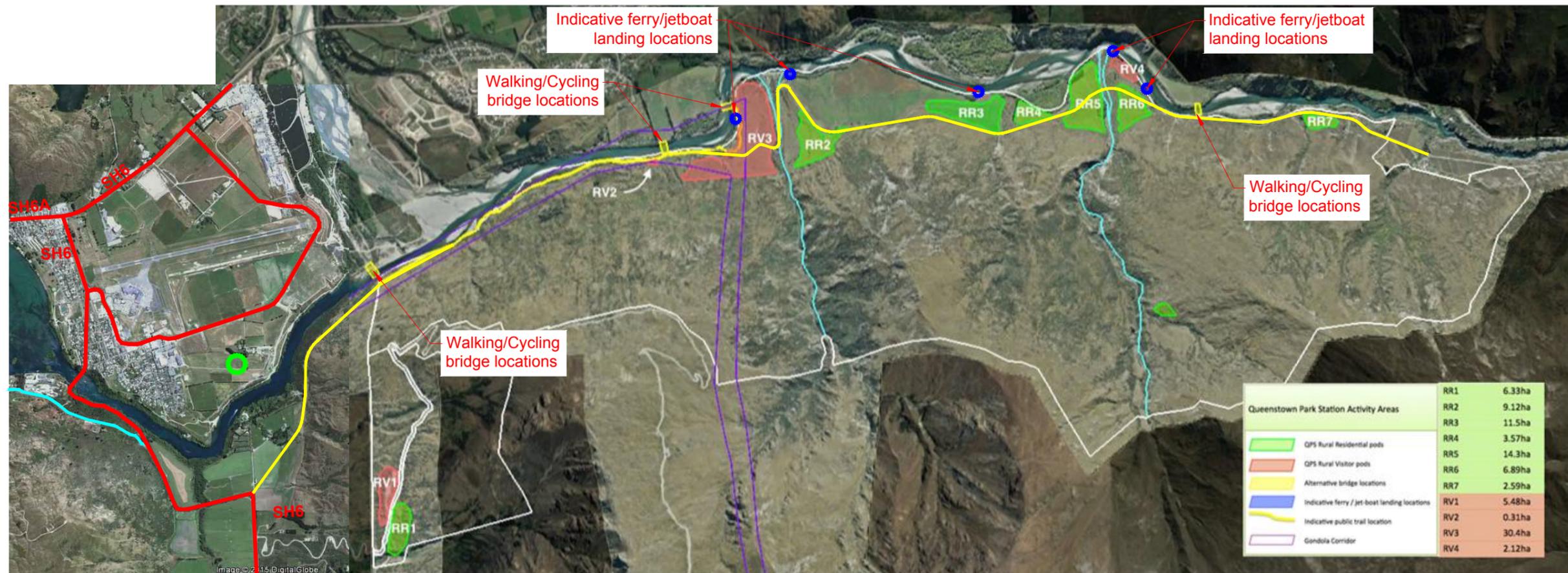
77. Accordingly I am confident that Mr Mander will be satisfied that the transportation effects of the proposed rezoning have been shown to be acceptable and that he can support the rezoning.

CONCLUSION

78. I have concluded that the proposed rezoning is generally consistent with the transportation objectives and policies of the Proposed District Plan and of the Regional Policy Statement. Furthermore, in my opinion the infrastructure and development enabled by the rezoning can be designed to be compatible with the transportation rules in the district plan. Accordingly the rezoning can be supported from a transportation perspective.

Anthony Thomas Penny

9 June 2017



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Thursday, 25 May 2017 1:55:46 p.m.

REV	DATE	DRN	CHK	DESCRIPTION

QUEENSTOWN PARK STATION RE-ZONING

ROAD NETWORK

DRAWN: MP --- ---
 DATE: 14/05/15 STATUS: ---
 SCALE: 1:40000
 DWG NO:6604-33_C1B



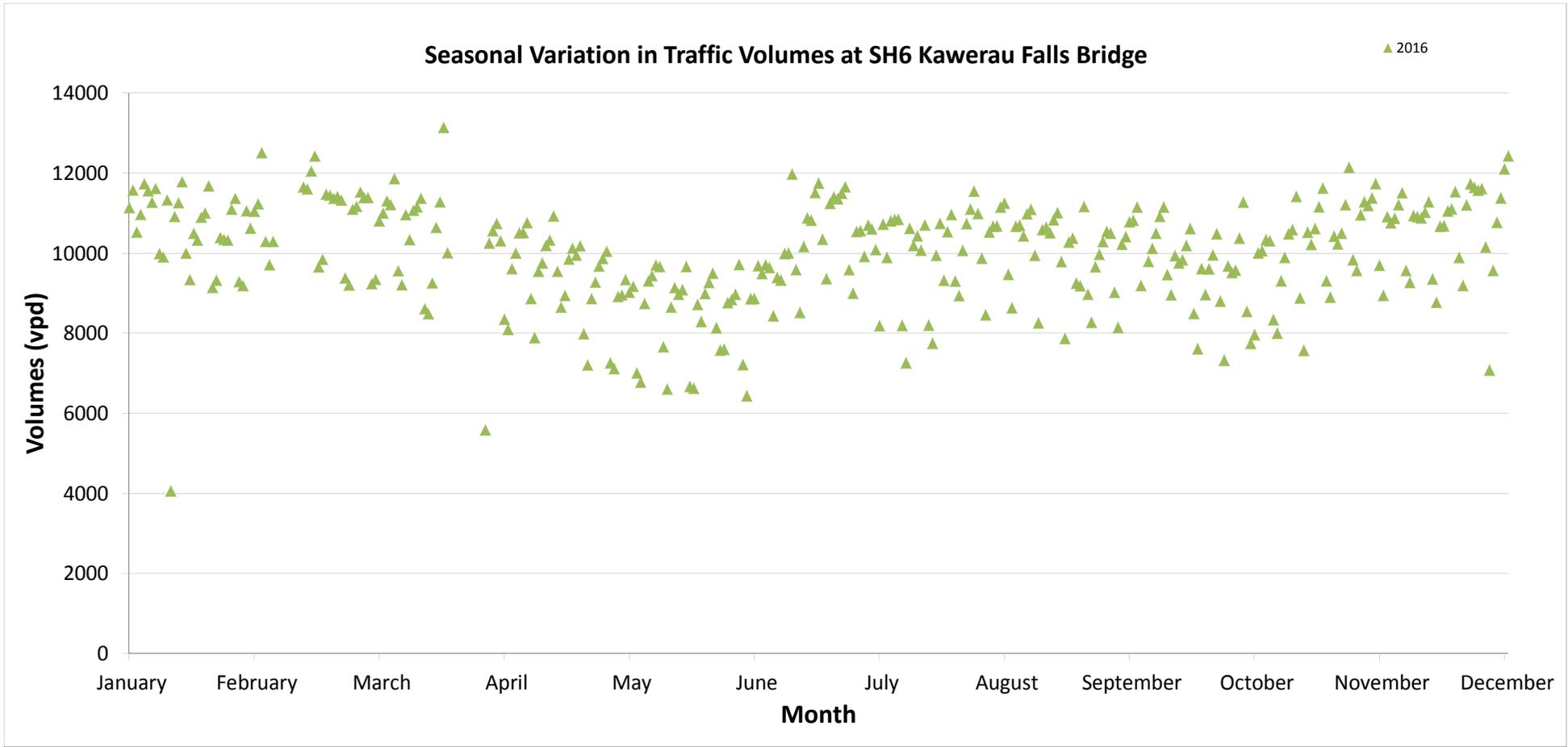
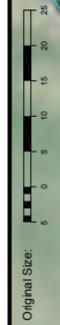
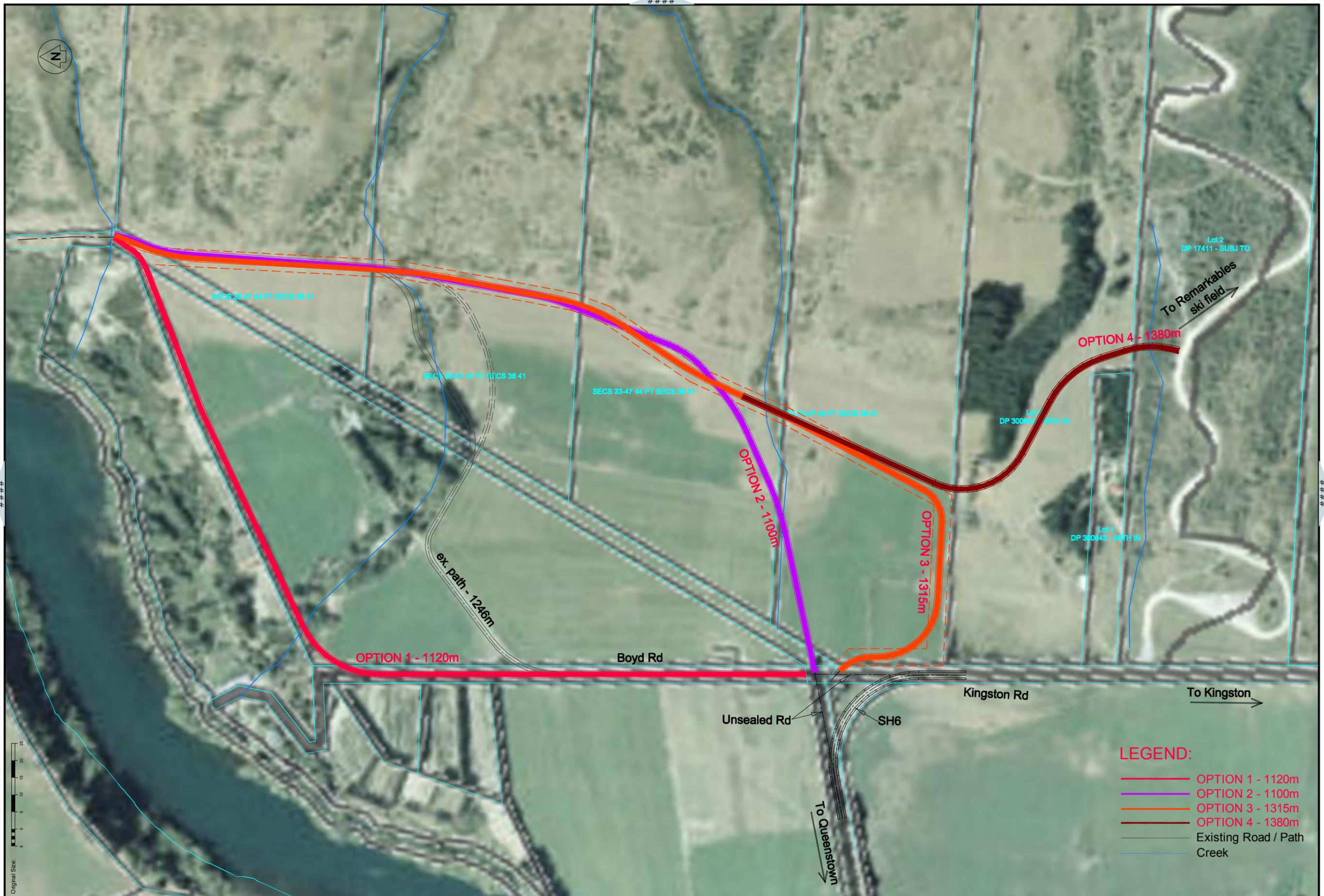


Figure 2

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No.	Revision Details	(Current Revision Date : ###)	Date

LEGEND:

---	EXISTING STORMWATER	---	EXISTING WASTEWATER	---	EXISTING WASTEWATER	---	EXISTING WATERMAIN	---	EXISTING IRRIGATION	---	EXISTING GAS	---	EXISTING TELECOM	---	EXISTING POWER CABLE	---	PROPOSED STORMWATER	---	PROPOSED WASTEWATER	---	PROPOSED WATERMAIN	---	PROPOSED IRRIGATION	---	PROPOSED GAS	---	PROPOSED TELECOM	---	PROPOSED POWER CABLE (HV)	---	PROPOSED POWER CABLE (LV)
○	EX. MH	○	PROPOSED SWMH	○	PROPOSED WWMH																										

Design J.G. RALSTON (442 3101)
 Survey LIDAR
 Drawn T.NYDRLE
 Checked
 Date 24/05/2017
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Job Title
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BOYD ROAD OPTIONS
QUEENSTOWN



Drawing Title ROAD LAYOUT PLAN - OPTIONS	
File No. 11977-08	Rev. ----
Dwg. No. 200	