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23 February 2024

Enquiries: Andrew Leckie
Project No: 310205844

Attention: Penny Gallagher

Dear Penny

RE: Lake Tekapo Ropes Course
Mackenzie District Council RFI- Transport Responses

We have reviewed the Mackenzie District Council Request for Additional Information in relation to the proposed ropes course on Lakeside Drive, Lake Tekapo and provide responses to the transport-related requests in this letter.

a) *Please confirm if any parking surveys have been undertaken for the site and confirm the representativeness of these.*

Stantec Response: No parking surveys have been undertaken. A site visit was carried out around midday on Sunday 16 July 2023, which was the Sunday of the Matariki long weekend. The photographs in the vicinity of the site included in the transport assessment were taken at this time. As shown below, there was a low level of car parking on this section of Lakeside Drive at the time. Over the 250m length of road south of the boat club, there were two cars parked on the lake side of the road and three cars parked on the camp side of the road.

Figure 1: Car Parking on Lakeside Drive, Midday 16 July 2023

The figure below, taken from the NZTA TMS website, presents daily traffic volumes recorded on SH8 east of Lake Tekapo. It shows that the Matariki long weekend in the middle of July was one of the busiest weekends of the year in

terms of traffic on SH8. It would therefore be expected that it was also one of the busiest weekends in terms of activity within the Lake Tekapo village.

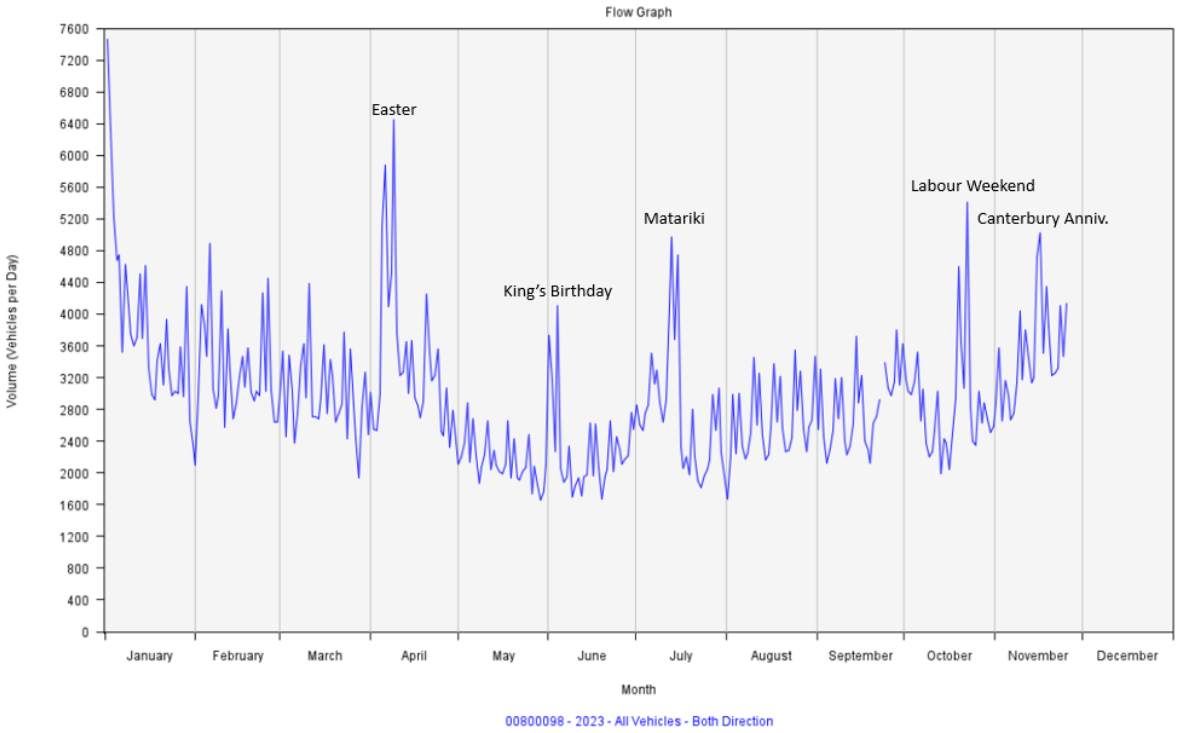

Figure 2: 2023 Daily Traffic Volumes on SH8, East of Lake Tekapo (NZTA TMS)

It is acknowledged that during the middle of winter there is very little activity at the lakeside and clearly Sunday 16 July 2023 was not a busy day in the area of the proposed ropes course. However, it is considered that this level of activity would be representative of much of the year in this location.

The RFI presents a photograph taken on a hot Saturday afternoon in January (during school holidays). The above traffic data shows that January is the busiest month of the year in Lake Tekapo, and this day, being a hot Saturday during school holidays, will likely be one of the very busiest days of the year at the lakeside. Car parking demands during the very busiest times of the year are not typically used for assessment purposes, as it is not an efficient use of resources to design to meet all car parking demands.

In the case of Lakeside Drive in Lake Tekapo, if there are any days where there is no car parking available on Lakeside Drive, people would either park elsewhere, e.g. park in the village and walk, use a different mode of travel, e.g. cycle, or choose not to visit the Lakeside Drive area. Car parking supply potentially limiting the number of vehicles that can be in Lakeside Drive on the very busiest days of the year is not a concern in itself from a transport perspective.

b) *The assessment of the receiving traffic environment recognises the Station Bay subdivision and the proposed hotel development. However, it is noted that there is also a consented mini-golf and a reception / café complex approved for the holiday park. Please confirm whether these activities have also been considered as part of the receiving traffic environment and, if not, whether this would influence the assessment of the traffic environment.*

Stantec Response: These activities were not specifically accounted for in the transport assessment. However, both activities are providing on-site car parking, and the Decision documents for the two consents describe assessments which found that car parking demands will be accommodated on-site. Based on this, these two activities will not contribute to notable increases in car parking demand along Lakeside Drive and would not impact the assessment for the proposed ropes course.

c) *Please confirm whether the 15 car parks estimated during peak times excludes all day staff parking and what the estimated parking demand for staff will be.*

Stantec Response: A peak car parking demand of 10-15 vehicles was adopted in the assessment. It should be reiterated that this was adopted in assessment as a possible maximum car parking demand based on the capacity of the activity, not a car parking demand that would be expected every day or at all times throughout a day.

As outlined in the transport assessment, there could be four or five staff at peak times of the year. It is considered likely staff will be active people living locally, and therefore likely to make use of active travel modes. Given the seasonal nature of the activity, staff could be tourists, possibly travelling and living together. Based on all of these factors, any staff car parking demand would be expected to be very low (possibly up to one or two vehicles only) and would have a negligible effect on both the transport assessment and on the availability of parking in the area in practice.

d) *The traffic assessment assumes that 30% of people could arrive by walking or cycling and that 50% of vehicle movements are pass-by movements. Please provide greater detail regarding the reliability of these assumptions.*

Stantec Response: These numbers were adopted based on engineering judgement to allow what was considered to be a conservative assessment to be made. As outlined above, the assessment is intended to be based on any occasions that the ropes course is operating at capacity, rather than with typical occupancies.

In practice, this will be a small activity which is proposed on Lakeside Drive because there are already a lot of people visiting the area. It will not be a major attractor in its own right, but rather a complementary activity to all the existing and planned activities along Lakeside Drive. These include the Tekapo Springs attractions, the lakeside, the consented mini-golf, as well as the camping ground and other, expanding residential development in the area.

It is considered that the ropes course will be busiest during the busiest times on Lakeside Drive, since this is when there are the most potential visitors, already in the area, seeing the activity. These times are during the summer when the weather is fine, and active travel modes are likely to be more attractive than at other times of the year. Similarly, at these times, the number of people staying in the various accommodation offerings in the Lakeside Drive area will be highest, and these people would be expected to make use of active travel modes given their proximity. During the busiest days, if there is a lack of car parking capacity along Lakeside Drive, this would also likely encourage non-car travel modes. Based on all of the above, the 30% non-car travel mode uptake adopted is considered to be conservatively low for the peak periods.

The sensitivity of the calculated maximum car parking demand (based on the maximum occupancy of 60 people) to both the percentage of people arriving by non-car travel and the average vehicle occupancy has been tested, with the below table presenting the results.

Occupancy: 60		% Non-Car Travel			
		20	30	40	50
Average Vehicle Occupancy	2.5	19	17	14	12
	3	16	14	12	10
	3.5	14	12	10	9
	4	12	11	9	8

Figure 3: Sensitivity of Calculated Maximum Car Parking Demand to Non-Car Travel Percentage and Average Vehicle Occupancy

The table shows that the calculated maximum car parking demand is not especially sensitive to either one of these parameters. A maximum parking demand of 10-15 vehicles was conservatively adopted in the assessment but it is considered in practice that it would be even lower at the busiest times on Lakeside Drive, tending towards the bottom right of the table. This level of additional parking demand would represent a negligible increase in the level of parking activity already occurring on Lakeside Drive at peak times.

The transport assessment outlined that the applicant expects up to 250 users on a busy day. Based on users staying for an average of one hour and having their visits spread across six hours of the day, an occupancy of approximately 40 users is considered an appropriate 'design' occupancy for assessment purposes. The below table is a repeat of the earlier table but based on an occupancy of 40 users. It shows that the expected car parking demand during typical busy days will be less than 10 vehicles, which again would represent a negligible increase in the level of parking activity already occurring on Lakeside Drive at peak times.

Occupancy: 40		% Non-Car Travel			
		20	30	40	50
Average Vehicle Occupancy	2.5	13	11	10	8
	3	11	9	8	7
	3.5	9	8	7	6
	4	8	7	6	5

Figure 4: Potential Car Parking Demand for Design Occupancy (40 Users)

The 50% pass-by figure was solely for the purpose of assessing effects on the SH8 intersection, acknowledging the level of activity within the Lakeside Drive area, associated visitor numbers and the ever-expanding residential catchment. The SH8 intersection has been upgraded recently and its performance is not seen as a critical matter for this application.

e) *No loading space is proposed. Please provide details of any bus or coach movements which may be associated with the proposal and provide an assessment of the traffic effects of this, including manoeuvring, parking and loading and unloading requirements.*

Stantec Response: The proposed ropes course is a small activity unlikely to be attracting large groups such as tour coach groups, at least partly due to its limited capacity. If coaches did visit, they would need to make use of available space, either in front of the activity or within the space on the opposite side of the road (outside the camping ground). This would work during quieter times on Lakeside Drive but may not be achievable during busier times. If there is a lack of suitable parking, this would be another reason that tour coaches would be unlikely to visit the activity specifically.

The possibility of school groups visiting the activity has been considered. While there is not a large number of schools in the area, it is expected that there would be readily available space in the close vicinity for a school bus to park, noting that parking demand in the area on a weekday during school term would be expected to be low.

f) *No loading is proposed. The traffic assessment notes that delivery vehicles are expected to be infrequent and small in size, if required at all. Any small and infrequent delivery will be able to use the informal parking*

area in front of the base station and it is considered that any associated manoeuvring will have a negligible effect on the safe and efficient operation of Lakeside Drive. Please indicate on the site plan where the unloading of delivery vehicles will occur.

Stantec Response:

The below image includes a black arrow indicating where existing informal car parking will remain with the ropes course operational. Any infrequent, small delivery vehicles, such as those supplying a vending machine within the base station, will be able to make use of the informal parking area, noting that any deliveries would be expected on weekdays outside of peak times.

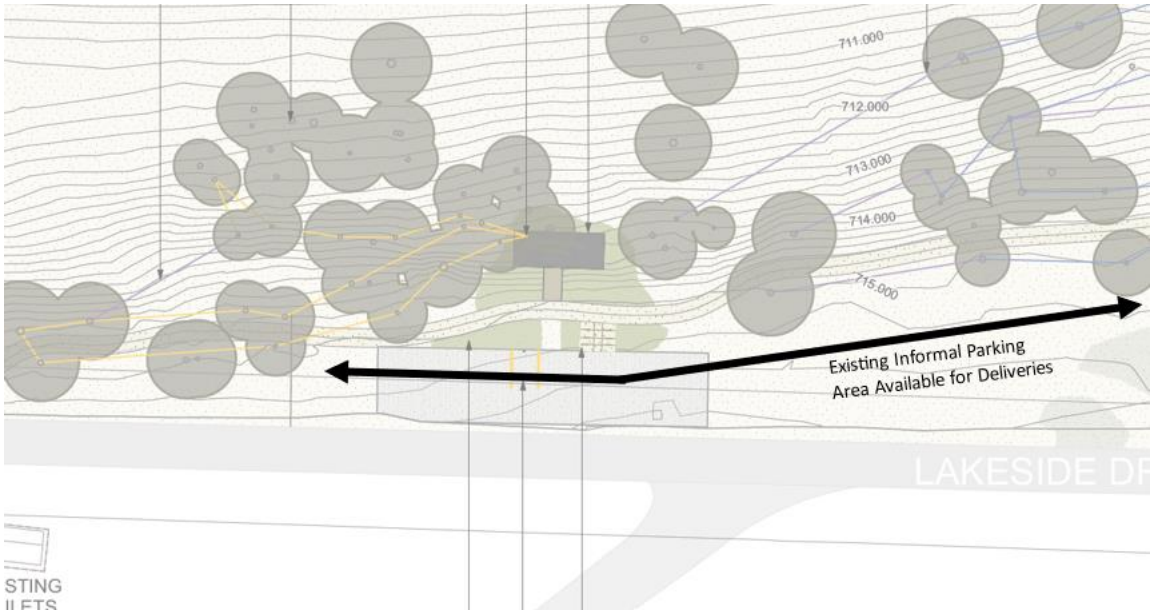

Figure 5: Diagram Highlighting Parking Area In Front of Base Station

g) *Please show the proposed bike parking on the site plan. Please assess whether the bike parks will reduce / interfere with any existing parking in the area.*

Stantec Response: The landscape plan shows the cycle parking located between the car parking area and the existing lakeside path. It is proposed in an area 4.7m long by approximately 3.8m wide. As shown below, it will be possible to set out six cycle rails to NZTA Cycle Network Guidance (CNG) standards. The set out would include 0.9m separation to the car park, 1.1m between cycle rails and 0.7m separation to the shared pedestrian / cycle path. This will be more than adequate for a bicycle to rest against one of the end rails clear of the path. The cycle parking will not impact the existing car parking or the operation of the path.

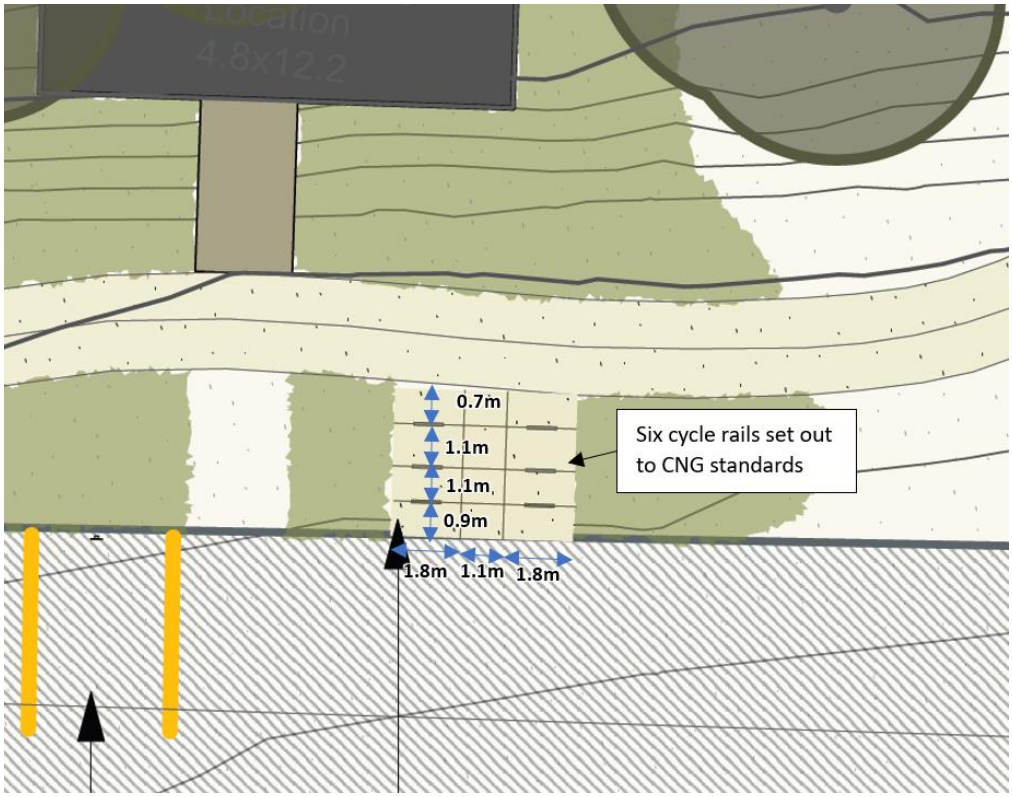

Figure 6: Cycle Parking Area Annotated

h) *The applicant relies on the use of public toilets located adjacent to the site. The traffic assessment is silent on the increase in pedestrians associated with the activity crossing the road to use the toilets. Please provide an assessment of this and confirm whether any additional safety measures are proposed.*

Stantec Response: There are five public toilets on the western side of Lakeside Drive, opposite the boat club and approximately 70m north of the proposed ropes course base station. These toilets serve the wider area and there would be demand already for pedestrians to cross the road to use the toilets, particularly those spending time at the lakeside. Given the small scale of the proposed activity and the relatively short expected duration of stay by visitors, it is considered that any additional demand to cross Lakeside Drive to access the public toilets will be very low compared to existing demand at busy times. Any small increase in pedestrian crossing demand between the proposed activity and the public toilets will have a negligible effect on the safety of the pedestrian crossing movement.

Please do not hesitate to contact the undersigned if you have any queries.

Yours sincerely

Stantec New Zealand

Andrew Leckie
Principal Transportation Engineer