

BEFORE COMMISSIONER WASLEY APPOINTED BY NEW PLYMOUTH DISTRICT COUNCIL

UNDER

the Resource Management Act 1991 ("RMA")

IN THE MATTER

of an application under section 88 of the Act by **GREGORY AND DEBORAH HOW** to the **NEW PLYMOUTH DISTRICT COUNCIL** for land use consent application to establish and operate commercial accommodation at 1844 Egmont Road, Kaimiro.

STATEMENT OF TRAFFIC ENGINEERING EVIDENCE OF IAN DONALD STEELE ON BEHALF OF GREGORY AND DEBORAH HOW

1. INTRODUCTION

- 1.1 My name is Ian Donald Steele. I hold the qualifications of BE (Hons)(Civil)(2002) and Graduate Certificate (Infrastructure Asset Management)(2011); and I am a Chartered Member of Engineering NZ (CMEngNZ) and registered as a Chartered Professional Engineer (CPEng)(#255539).
- 1.2 Over my 19 year career, I have worked as a design engineer (Apex Consultants), mostly working on infrastructure design projects such as stormwater, road renewals, upgrades and road safety projects within Taranaki. I was the Road Network maintenance contract team leader for South Taranaki District (Apex Consultants), responsible for the design and maintenance supervision of the South Taranaki Road network including the role of Traffic Management Co-ordinator (TMC).
- 1.3 I have received Road Safety Auditor training, and my role prior to joining BTW Company was as Team Leader (Queensland / NT) - Infrastructure Management with ARRB Group, where I completed numerous project evaluations, road safety audits pavement assessments, road asset management plans and the like.
- 1.4 I have been employed by BTW Company since October 2011, currently as the director of Engineering. My role for BTW Company, New Plymouth

includes design, supervision and reporting and investigation of various civil projects including many related to road, transport/traffic and site development engineering.

1.5 This evidence is given in support of the land use consent application ("the application") lodged by Gregory and Deborah How ("the applicant"), to construct and operate commercial accommodation at 1844 Egmont Road, Kaimiro including 10 chalets, 24 powered sites for motorhomes and a utilities building with dwelling.

1.6 I am authorised to give this evidence on behalf of the applicant.

2. INVOLVEMENT IN THE PROJECT

2.1 My involvement in the application has included:

(a) Prior to completing this evidence, I had been aware of initial layout plans undertaken by BTW Company as part of the Application, and had contributed in an informal way in some aspects of the layout including traffic matters and general configuration of the site;

2.2 I have also reviewed the material produced with the application, including the AEE dated 12 March 2019, the section 92 RMA response dated 20 September 2019 and the amended application details submitted to New Plymouth District Council ("NPDC") on 31 July 2020, and the applicant's further information response dated 25th September 2020 (in the context of my expertise).

3. CODE OF CONDUCT

3.1 I confirm that I have read the Code of Conduct for expert witnesses contained in the 2014 Environment Court Practice Note and that I agree to comply with it. I confirm I have considered all the material facts that I am aware of that might alter or detract from the opinions I express. In particular, unless I state otherwise, this 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 I express.

4. PURPOSE AND SCOPE OF EVIDENCE

4.1 In this matter, I have been asked by the applicant to address traffic matters.

4.2 I confirm that I have read the submissions on the Application and the Council Officer's Report, including NPDC's Section 92 Further Information Request.

4.3 My evidence is structured as follows:

- (a) Summary (Section 5);
- (b) The Application
- (c) Existing traffic and road environment
- (d) Proposed Traffic
- (e) Site and Site Access
- (f) Matters raised in submissions
- (g) Council Officer's Report
- (h) Proposed conditions of consent and
- (i) Concluding comments.

5. SUMMARY

5.1 The key traffic related issues in my opinion are:

- (a) Vehicle Access to/from the site
- (b) Onsite manoeuvring/queuing management/design to ensure that the public road is not affected in its safety or efficiency.

6. THE APPLICATION

6.1 Details of the application are well described in the section 42a report and Assessment of environmental effects (AEE) and Mr Twigley's evidence.

6.2 My evidence does not repeat the general details of the application site, and my focus is on pertinent traffic related matters.

7. EXISTING TRAFFIC AND ROAD ENVIRONMENT

7.1 The application site is located on Egmont Road, with entrance to the site approximately 95 metres south of Peters Road. Egmont Road is a Collector Road with a posted speed limit of 100 km/hr. From Egmont Village to the north (intersection with State Highway 3) to the National Park Boundary to the south, the road is a sealed, two lane two way road with marked centreline. Seal widths are 6.0-6.5 metres as typical.

- 7.2 From the south (approaching the site entrance), Egmont Road has three horizontal curves one after the other, with approximate radii in the order of 70 m for the southern two curves, and 120 m for the horizontal curve closest to the site. This corresponds to an operating speed through the two southern curves of approximately 60 km/hr, increasing to just over 70 km/hr through the last curve approaching the site. There are advisory speed signs of 55 km/hr and 65 km/hr for the first and second curve, when approaching from the south.
- 7.3 From the north (approaching the site entrance), there is a straight approximately 750 metres long. This means that any traffic approaching the site from this direction are expected to be operating at 90-100 km/hr, noting the speed limit for heavy vehicles is 90 km/hr.
- 7.4 Peters Road intersects Egmont Road from the west, approximately 95 metres north of the site entrance.
- 7.5 Lepper Road Upper intersects Egmont Road from the east, approximately 210 metres north of the site entrance.
- 7.6 Existing traffic on Egmont Road is estimated at 250 vehicles per day (3% heavy vehicles) south of the intersections with Peters and Lepper Roads. North of those roads, the estimated daily traffic is 570 vehicles (10% heavy vehicles).
- 7.7 Egmont Road links to the National Park (and North Egmont Visitors Centre), and during peak seasons there can be a significant amount of traffic that uses the road (especially after recent snowfall and during (summer) public holidays).
- 7.8 In 2019, the New Plymouth District Council announced long term plans for a carpark located on Egmont Road, to allow a shuttle service to the Department of Conservation (DOC) visitors centre and walking tracks during peak times. During summer there are congestion issues at the Visitor Centre Carpark (located approximately 10 km south of the site, noting the National Park Boundary is located approximately 4 km south of the site). The relevance of these plans is around the seasonal peaks that are observed along the upper sections of Egmont Road.
- 7.9 While peak traffic counts on Egmont Road due to such seasonal demand have not been sighted, DOC have reported up to 1900 visitors in a day (2016). Using typical vehicle occupancy of 2.4 people per vehicle, this would

correspond to daily traffic of approximately 1600 vehicles per day (measured as to and from movements).

8. PROPOSED TRAFFIC

- 8.1 The application provides for 24 sites for motorhomes, and 10 chalets.
- 8.2 Predicted occupancy is expected to fluctuate (seasonal) and have a typical maximum occupancy of 60% for the chalets and 40% for the motorhome sites. Occupancy is generally proportional to proposed traffic.
- 8.3 I have reviewed the proposed traffic generation for the site as described in the Application, and consider it realistic. My evidence is based on these proposed movements, and I have also considered the traffic effects under the scenario of a higher level of occupancy (noting that higher levels of occupancy are not expected by the applicant).

9. SITE AND SITE ACCESS

- 9.1 The site has been designed to provide suitable parking for each of the motorhome parks and chalets.
- 9.2 A one way loop has been indicated to simplify traffic flow within the site.
- 9.3 Following the NPDC S92 Request for Further Information, a detailed plan was provided as part of the revised application, allowing for simultaneous 11 metre vehicles entering and exiting the site. (Sheet 2 BTW Drawing 180139-01).
- 9.4 The sight visibility from the proposed entranceway to the north is in excess of 250 metres. To the southern approach, sight visibility is limited due to the horizontal curve described in paragraph 7.2. The sight distance is approximately 180 metres to the south.
- 9.5 The required sight distance according to the New Plymouth District Plan for a Collector Road with greater than 200 vpd for a 100 km/hr posted speed limit is 250 metres. This requirement is met for visibility to the north, but not the south. This is further explained below.
- 9.6 The sight visibility to the south is limited by a horizontal curve, which itself limits the speed of approaching vehicles to 70-80 km/hr. Using a speed of 80 km/hr, the sight distance requirement drops to 175 metres – which is essentially the sight distance available from the entranceway. Further to this point, and using the Safe Intersection Sight Distance (SISD) from Austroads

Guide to Road Design Part 4a, the SISD is 170 metres for a reaction time of 1.5 seconds and 180 metres for a reaction time of 2 sections, noting that this is for greenfield design requirements using an observation time of 3 seconds. The guide allows for a brownfields site reduction in both reaction and observation times – but this less extended design criteria does not need to be applied in this case as it generally meets the greenfield (desired) criteria.

- 9.7 With respect to the proximity to the adjacent Roads (Peters and Lepper Roads), there are a 7 existing vehicle access points, plus the Kaimiro Hall, located along Egmont Road within 100 metres of either Peters or Lepper Roads. The effect of these access points as a group, in conjunction with the Road intersections themselves, creates an informal built-up road environment where road users are expecting the potential of other road users accessing Egmont Road, including slowing and turning movements.
- 9.8 The New Plymouth District Plan requires 250 metres separation between a vehicle access point and an intersection on a Collector Road with greater than 200 vpd. Under the existing road layout, the proposed location for the site vehicle access point is just under 100 metres, and the furthest away from the intersection of the group described in paragraph 9.7 above.
- 9.9 In my opinion, the proposed site and vehicle access point design is appropriate for the occupancy typically expected for the reasons above.
- 9.10 Like other property accesses along Egmont Road under seasonal traffic peaks, there is potential for some effect on Egmont Road traffic flow – noting that the most significant effect on efficiency is the seasonal traffic itself. Given that there is ample sight visibility and likely decreased operating speeds in such events, I do not perceive that this scenario poses an undue risk on road users.

10. SUBMISSIONS

- 10.1 I have reviewed the submissions received by Council which raise the following particular matters within my field of expertise:
- (a) Traffic volume;
 - (b) Traffic speed/safety including walkers and cyclists;
 - (c) Road maintenance.

- 10.2 With respect to the traffic volume and general traffic safety of the road and road users due to the effects of this proposal, I have considered this within the context of my evidence, including the site layout, site access and additional traffic.
- 10.3 Traffic growth is a normal and expected aspect of a road network. Road Controlling Authorities such as New Plymouth District Council inherently plan for increased traffic growth within the road network – for maintenance, safety and traffic efficiency. This means that Council is actively planning for such an occurrence including maintenance effort, road improvements and the like.
- 10.4 With respect to the specific safety of vulnerable road users such as walkers, cyclists and the like, I make the following comments. Most walkers and cyclists on rural roads in New Zealand are doing so as a form of recreation and or exercise. Those road users are typically well prepared with high visibility clothing and good proximity awareness of vehicular traffic on the road, and are also typically either adults or supervised closely by adults due to the understood consequence of an incident with a motor vehicle and the associated speed on a rural road (when compared with an urban road).
- 10.5 Egmont Road is a two lane, two way sealed rural road with relatively low traffic volumes for the width and general configuration of the road. As such, I do not believe that the additional traffic potentially created by the proposed activity poses any additional specific risk that does not already present itself to vulnerable and other road users.

11. RESPONSE TO COUNCIL OFFICER S42A REPORT

- 11.1 I have read the Officers report (Cate Southworth) dated 13 October 2020 and have the following comments:
- 11.2 I agree with the Officers conclusion that no adverse traffic effects will arise from the proposed activity.
- 11.3 I also agree with the proposed traffic related conditions, should consent be granted.

12. CONCLUSION

- 12.1 My evidence has assessed the matters that I am aware of in relation to the Application and I can safely conclude that:

- (a) The proposed vehicle access point is suitably sized and located for the proposed level of activity at the site.
- (b) The proposed site has suitable size and layout to accommodate onsite parking and manoeuvring, and therefore not effect the safety and efficiency of the road network in an adverse way.
- (c) I have reviewed the submissions and believe that suitable mitigation is provided for the proposed activity.
- (d) The Officer report recommends consent is granted and I agree with this conclusion.

Ian Steele
BTW Company Ltd

27 October 2020