

Memorandum

TO: Consent Planner, Mike MacKiggan

FROM: Development Engineer, Dugald Ley

DATE: 25 January 2012

FILE NO: RM100848

RE: **Stanley Brook – Motor Sport Park**

Introduction

The proposed motor sport park complex is adequately set out in the application. If approved, the various activities will be ramped up from an initial 700-800 vehicles per day to 2000 vehicles per day for a specific event.

Background

As per the applicant's transportation assessment, the site is proposed to be accessed off a previous forestry track and then on to road reserve – known locally as Olivers Road. That, in turn, exists on to the Motueka Valley Highway, some 6.5 kms south of Tapawera township and approximately 1.3 km north of the intersection of State Highway 6 and the Motueka Valley Highway.

Motueka Valley Highway (previously State Highway 61) is an arterial road on Council's hierarchy and via Council's engineering standards this has the capacity of over 1600 vehicles per day (presently between 1000 and 1150 vehicles per day). An example of a similar arterial road of a similar standard is the Moutere Highway which presently carries 2500 vehicles per day in some sections.

It is my view that the amount of traffic generated on a set of number of days per year can be accommodated on this highway. I can confirm that the intersection at State Highway 6 and Motueka Valley Highway is also of an adequate design to accept the predicted traffic likely at this location.

Olivers Road

From the limited information held on Council's files, Olivers Road was formed and named in the early 1900s with the main user being the forestry company and one other resident.

Council has no maintenance records for this road and maintenance has been carried out by the forestry company. The road is:

- 630 metres long, 20 metres legal road reserve
- Gravel – unsealed except for the intersection at Motueka Valley Highway
- Carriageway is formed 4.0 metres wide
- Limited side carriageway drainage channel.

The intersection assessment by Traffic Design Group of Olivers Road/Motueka Valley Highway is accepted in respect of the substandard nature, ie sight visibility to the south.

The Traffic Design Group report confirms that once the complex is in full operation during major events most of the traffic (2000 vehicles) will arrive in the two-hour period before the event starts and 1.5 hours after the event concludes. It is also logical to assume that traffic will head “in” at the start of the event and “out” at the conclusion of the event. The majority of events will be held in the weekend and will be spread over the year.

Olivers Road leads on to a private forestry road and sidles up and over the hill to the applicant’s site. The distance from the complex ‘proper’ to the Motueka Valley Highway is approximately 4.9 km and will involve a low-speed climb up and over the hill.

The application is not clear about where the entry booths/pay kiosks will be located and this will control the queue length of vehicles backing out on to the Motueka Valley Highway.

From personal experience of visiting other race tracks, eg Ruapuna, The Levels Raceway, Nelson Speedway queuing or backing up of vehicles should not be problem if at least two to three lanes can form while vehicles enter the ticketing area. It is my opinion that no booths be constructed on any part of Olivers Road. Ideally there are various “skid” sites that could potentially be used for this part of the operation.

Right-of-Way

The right-of-way from Olivers Road up and into the applicant’s site is well graded (1-in-20) and seems to have a good overall width (*subject to gorse/broom growth being removed). Speeds on this road are likely to be in the order of 30 kph after improvements are made.

Discussion

Roading can be split into three sections:

- a) Private right-of-way (Olivers Road to proposed motor sport site)
- b) Olivers Road
- c) Motueka Valley Highway and intersection

Private Right-of-Way (Approximate length 4.3 km)

Previously the right-of-way has been used by logging trucks and is of a grade that many vehicles will easily negotiate. Once vegetation has been removed either side of the existing track a wide bench will be available so that vehicles can move both ways on the road. This is important as it allows emergency vehicles to enter and exit the site when the majority of traffic is in the opposite direction.

Rights-of-way have a lesser standard than a road and it is envisaged that in the long term the right-of-way should be sealed. This would eliminate dust and corrugations, reduce the amount of maintenance required and provide better braking and stopping distances.

It is my view that the standard of the right-of-way will ultimately rest with the motor sport operator as a substandard access may not attract users or visitors in the long term.

Should the application be approved the following recommendations for the design and construction should be used to ensure health and safety conditions are met:

- Minimum 4.5 metre wide gravel carriageway – 4% crossfall;
- Two x 1.0 metre feather edges;
- Purpose-built side drains;
- Adequate delineation of the downside slope of the track; and
- Water tanker to wet the right-of-way surface during dust conditions.

Olivers Road

Olivers Road is a forestry track constructed on a paper road and previously maintained by the forestry company. The existing track is adequate for present use but increased traffic numbers as proposed by the application will require it to be upgraded. Once it is upgraded to Council's standard, it is likely that future maintenance will be carried out by the Council.

Increased traffic numbers on the existing Olivers Road will create the following adverse effects:

- Dust and corrugations;
- Increased maintenance requirements;
- Lack of passing areas;
- Lack of stormwater control;
- Increased braking distances; and the
- Tendency of some drivers to practice their "off road" skills as seen on the day.

For the above reasons, the present road will need upgrading. This could be carried out in stages as traffic numbers increase while the motor sport park development occurs. In my view this could be monitored by the use of a traffic counter at specific events. When traffic at any one event meets a certain vehicles per day amount then full upgrade of the road is required.

I recommend that if the application is approved then the following upgrades and threshold points should be implemented:

- a) Prior to any motor sport/recreation etc activity starting on site:
 - Road carriageway widened to 5.0 metres;
 - Feather/side edges of 600 mm width required;
 - Gravel surface;
 - Side drains on both sides of the road appropriately design with regular cut offs/break outs to these drains and draining to an approved system;
 - Vegetation clearance at least 1.0 metres outside the side drain; and
 - Dust control via water car during dust-promoting weather.
- b) Once traffic counts reach 700 vehicles per day) (ie 350 vehicles in, 350 vehicles out) then a two-coat seal as per the current Tasman District Council Engineering Standards shall be applied to the surface to a 5.0 metre width.

Motueka Valley Highway and Intersection

The Traffic Design Group report highlights substandard sight visibility to the south. Following a site visit on 11 December 2011 it was noted that an area of roadside bank to the north also restricts visibility for drivers exiting Olivers Road.

As these are real health and safety issues, they need to be mitigated via physical construction works being carried out and supervised by a Chartered Professional Engineer.

In addition, widening and tapers at Olivers Road will be required in order to assist the safety at this intersection. At specific events a traffic management plan may be required and may include additional signage lane coning and traffic marshalls.

Should the application be approved the following conditions are recommended to be imposed prior to any activity being permitted on site:

- a) Road improvements to the south of Olivers Road on the Motueka-Tapawera Highway so that 248 metres of clear sight visibility is achieved from a point 1.8 metres back from an inferred limit line when installed on Olivers Road. As per the applicant's report from Traffic Design Group this will entail approximately "0.8 metre needs to be removed from the crest of the road", ie Motueka-Tapawera Highway.
- b) The intersection improvements will also require this to be upgraded to the standard intersection plan as per diagram three of Section 16.2c of the TRMP. The two-coat chip seal as part of this upgrade shall extend into Olivers Road for a distance of 20 metres from the white edge line of the Motueka-Tapawera Highway.
- c) Pavement markings and signage to the standard for a "Give Way" intersection is required following the completion of the intersection upgrade and before any events take place.

Submissions

Reynolds – Dust, Cycle Trail

Dust effects are a concern and can be mitigated via the suggested condition of sealing Olivers Road together with keeping dust down with regular use of a water cart on the road.

A proposed cycle trail is envisaged from Richmond to Tapawera to Motueka and back to Richmond. The exact location and funding are yet to be determined. Several meetings have been held with local residents and at this stage a preferred shared path alignment may traverse the Motueka River berm between Kohatu and Tapawera. Therefore this application will have no effect on the proposed cycle trail.

Udy and Blount

As mentioned the Motueka Highway was once a state highway and constructed to accept large traffic flows. In my view, this application with the suggested road improvements will have no more than a minor effect on the highway and access leading to the motor sport park.

Reitsma and McQueen

The submitters access their property via Olivers Road for the first 380 metres of its length. The suggested upgrade conditions for the road will reconstruct Olivers Road in keeping with the increased traffic use. This road, when brought up to standard, will be no different to many in the district where children walk down the road to meet the school bus. The applicant has advised that the majority of motor sport events will be held in the weekend and therefore the safety of school children using the road will not be an issue. The submitter's property abuts the Motueka Highway and safety could be assured if the children used a path on their own property to gain access to the intersection.

In regard to the safety of children getting on and off the bus, this is clearly an issue where, under the transport regulations, the bus driver must ensure the children are safe.

It is noted that the intersection upgrade will require substantial widening, ie 2.5 metres in addition to the existing pavement which will allow a short duration pull off area for vehicles.

Dust will be mitigated via the suggested condition of sealing Olivers Road in the long term or water cart spraying in the short term.

Increase in vehicle accidents

Past records shown no account of accidents at the Motueka Valley Highway/Olivers Road intersection and with the suggested road improvements it is my opinion that these works will allow the increase in traffic numbers.

Summary

Subject to the implementation of the conditions suggested in this report, it is my opinion this application will have less than minor effects on Council's engineering infrastructure.

Dugald Ley
Development Engineer