

3.2 Design Criteria


Six grades of off-road trail relating to level of difficulty are presented in Table 2. These grades have been derived from the International Mountain Bike Association's trail rating system. Guidelines from the Department of Conservation, and Mountain Bike New Zealand were used when developing these criteria and characteristics.

The grade system is important for distinguishing between users' abilities and desired ride characteristics. From an economic point of view, it may be best to design routes for less experienced or less energetic riders to maximise market potential (Grades 1 and 2). Additional challenges can be built in for more advanced riders to ensure their appreciation of the trails (Grades 3 and higher).



DOC's Track Construction and Maintenance Guidelines (2008) provides a comprehensive account of the various stages of producing off-road trails. Designers are directed to sections of the DOC guide for subsequent considerations.




It is most important that the trail's grade does not change more than one grade category over the course of the route. There is no point building a path that incorporates Grades 2 to Grade 4, as the Grade 4 sections will be impossible to negotiate by those riders whose level of experience and skill is suited for a Grade 2 trail. It will be necessary to improve the Grade 4 sections to Grade 3 standard, or it will not be necessary to build Grade 2 sections, as Grade 3 features will suffice.

Table 2: Design specifications for off-road trails

Grade	Grade Description
<p>1.</p> 	<p>Description: Flat, wide, smooth, trail. Trail feels safe to ride. Ideal as a first ride for non-cyclists, and those wanting an easy gradient or experience. Trail allows for cyclists to ride two abreast most of the time, and provides a social component to the ride. Cyclists will be able to ride the total distance of the trail without dismounting for obstacles.</p> <p>Gradient: 0-2 degrees for 98% of trail on any one day, maximum 4 degrees, and more than 2 degrees gradient for no longer than 200 m at a time. If the track is designed to be ridden predominantly in one direction then the downhill can be steeper (up to 5 degrees for long stretches or 8 degrees for stretches up to 20 m long, if a straight, flat section follows).</p> <p>Width: 'Double trail' preferred = minimum of 2.5 m for 90% of trail, where cyclists may ride side by side. 'Single trail' average width 1.8 m, with 1.2 m minimum. Horizontal clearances as in Section 3.5.</p> <p>Radius of turn: 6 m minimum.</p> <p>Surface: Compacted/stabilised base course or similar, with maximum top course aggregate of 20 mm.</p> <p>Watercourses: All water courses bridged</p> <p>Bridge Width: Recommended bridge width of at least 1.5 m, absolute minimum width of 1.2 m.</p> <p>Obstacles: None. No stiles. Cattle stops should preferably be at least 1.5 m wide, and minimum 1.2 m wide.</p> <p>Length: 3.5-4.5 hours/day (30-50 km/day).</p> <p>Barriers/Guard rails: Areas such as bluffs or bridges where a fall would result in death or significant harm require hand rails.</p>



<p>2.</p> 	<p>Description: Some gentle climbs, smooth trail. Suitable for beginner riders, the trail is predictable with no surprises. Social component with riders able to ride side by side at times, but possibly large sections of single trail.</p> <p>Gradient: 0-4 degrees for 96% of trail on any one day, maximum 6 degrees, and more than 4 degree gradient for no longer than 200 m at a time. If the track is ridden predominantly in one direction then the downhill can be steeper (up to 8 degrees or 10 degrees for stretches up to 20 m long, if a straight, flatter section follows).</p> <p>Width: Between 0.9 m and 1.5 m for single trail and minimum 2.2 m for double trail sections with adequate clearances. Horizontal clearances as in Section 3.5.</p> <p>Radius of turn: 3 m minimum with at least 4 m desirable.</p> <p>Surface: Compacted/stabilised base course, with maximum top course aggregate of 30 mm.</p> <p>Watercourses: Watercourses bridged, except for fords with less than 100 mm of water in normal flow which can be easily ridden. Surface should be as smooth as adjacent trail.</p> <p>Bridge Width: Recommended bridge width at least 1.5 m, absolute minimum width of 1.2 m.</p> <p>Obstacles: Some rocks/roots/ruts that can either be avoided, or are less than 50 mm high. No stiles. Cattle stops should be minimum 1.2 m wide.</p> <p>Length: 4-5 hours/day (30-50 km/day).</p> <p>Barriers/Guard rails: Areas such as bluffs or bridges where a fall would result in death or significant harm require hand rails.</p>
<p>3.</p> 	<p>Description: Narrow trail, there will be some hills to climb, obstacles may be encountered on the trail, and there may be exposure on the edge of the trail. Suitable for riders with intermediate level skills.</p> <p>Gradient: 0-5 degrees for 90% of the trail, maximum 9 degrees (up to 12 degrees for stretches up to 20 m long, if a straight, flatter section follows)</p> <p>Width: 0.9 m for 90% of the trail, 0.6 m minimum with adequate clearances. Horizontal clearances as in Section 3.5.</p> <p>Radius of turn: 2 m minimum, with at least 3 m desirable.</p> <p>Surface: Generally firm, but may have some muddy or loose sections.</p> <p>Watercourses: Watercourses bridged, except for fords with less than 200 mm of water in normal flow, which can be easily ridden.</p> <p>Bridge Width: 1.2 m with minimum width 0.9 m.</p> <p>Obstacles: Occasional rocks/roots and ruts may be up to 100 mm high/deep and may be unavoidable.</p> <p>Length: 4-6 hours/day (30-50 km/day for an intermediate cyclist).</p> <p>Barriers/Guard rails: Areas such as bluffs or bridges where a fall would result in death or significant harm require hand rails.</p>

<p>4.</p> 	<p>Description: Steep climbs, with unavoidable obstacles on a narrow trail, and there will be poor traction in places. Possibly some walking sections. Suitable for intermediate and advanced riders.</p> <p>Gradient: 0-7 degrees for 90% of trail, maximum 12 degrees (may be steeper if a straight, flatter section follows).</p> <p>Width: 0.6 m average, 0.4 m minimum. Horizontal clearances as in Section 3.5.</p> <p>Radius of turn: 1-2 m minimum.</p> <p>Surface: Firm and loose.</p> <p>Watercourses: Watercourses bridged, except for fords with less than 300 mm of water in normal flow, which can be easily ridden.</p> <p>Bridge Width: 1.2 m with minimum width 0.9 m.</p> <p>Obstacles: Many rocks/roots and ruts up to 200 mm high/deep. Also some purpose built obstacles to liven things up, such as sea-saws and jumps.</p> <p>Length: 4-8 hours/day for advanced cyclists.</p> <p>Barriers/Guard rails: Areas such as bluffs or bridges where a fall would result in death or significant harm require hand rails.</p>
<p>5.</p> 	<p>Description: Technically challenging, and suitable for advanced/expert riders. Physically tough. Big hills, lots of rocks, some walking likely.</p> <p>Gradient: 0-9 degrees for 80% of trail, maximum 20 degrees</p> <p>Width: 0.4 m average, 0.25 m minimum. Horizontal clearances as in Section 3.5.</p> <p>Radius of turn: 1 m minimum.</p> <p>Surface: Huge variety of surfaces.</p> <p>Bridge Width: 1.2 m with minimum width 0.9 m.</p> <p>Obstacles: Many rocks, roots and ruts, up to 0.6 m high/deep. If there are not obstacles then they are likely to be added afterwards (i.e. jumps, and wooden structures).</p> <p>Length: 4-12 hours/day.</p>
<p>6.</p> 	<p>Description: Purpose built extreme Downhill/Free ride trails. Extremely steep and dangerous jumps and obstacles. Fear factor is essential. High risk of injury. Suitable for extreme riders.</p> <p>Gradient: Anything goes!</p> <p>Width: Minimum of tyre width.</p> <p>Radius of turn: Minimum 1 m</p> <p>Surface: Anything – likely to be unsustainable.</p> <p>Obstacles: 'North Shore' wooden obstacles, big jumps, etc</p> <p>Length: Trail may take less than a minute to ride, but will be ridden over and over again.</p>

Note:

1. Any short sections of trail that do not meet the stated criteria should only be one grade harder, but only in short sections of no more than 200 m.
2. If a more difficult section is included in the trail, over and above the minimum criteria, it may be looked upon more favourably for funding approval if compensatory factors are included to mitigate the difficulties.
3. If a section of a trail is steeper than that recommended for the trail grade, this may be compensated for by making the trail wider, easing the turns, improving the

8 March 2012

Richard Kempthorne
The Mayor
Tasman District Council
Private Bag 4
Richmond
Nelson 7050

Dear Richard

Re: The Completion of the Great Taste Trail

Thank you for the meeting with us to discuss the status of the Great Taste Trail and what is required to complete construction of the trail. The original plan was for a three stage roll out, with stages two and three being largely funded by Tasman District Council (TDC). We now understand your draft Long Term Council Community Plan shows this funding being deferred for ten years.

If the Great Taste Trail is to deliver economic growth and jobs to your community, then it is vital that the trail developed is attractive to cycling tourists. The short return rides to Mapua and Wakefield (stage one) will not attract many riders from out of your district.

We did discuss a solution to this problem that would be a Great Ride and construction would be completed within 12 months (proposed by The Nelson Tasman Cycle Trails Trust - the Trust). The solution trail links the downtown Nelson t-site with Kaiteriteri and provides a 175km loop via Dovedale and Wakefield. This is shown on the attached map labelled: Plan B -- Route Options.

This Great Taste Trail will attract international and domestic cycle tourists, while also providing significant investment opportunities for businesses along the route. It is this investment that will provide economic growth and jobs to the Tasman District, and was the primary reason why the New Zealand Cycle Trail, and in particular the Nelson/Tasman trails were funded by the Government.

The current cost estimate for this option is set out in the table below.

Great Taste Trail Funding Priorities

	Spent	Planned	Notes
Airport to Mapua	\$300k	\$1,570k	
Mapua to Riwaka	-	\$850k	Tasman View Road
Riwaka to Kaiteriteri	-	\$380k	New opportunity
Riwaka to Woodstock	-	\$100k	Short link needed to country road
Woodstock to Wakefield		000	Opportunity to use quiet road
Wakefield to Richmond	\$310k	\$500k	Saving of \$400 if speed reduced on Higgins Road
	Total spent: \$610k	Total planned: \$3,400k	Employing all cheapest options
		Spent + planned: \$4,010k	
		NZCT funds: \$2,146k	
		TDC Trust committed funds: \$1,041	
		Total less committed funds = \$823k	
		Funding gap = \$823k	

TDC, the Trust and the NZCT team are reviewing all components for this estimate to ascertain where savings can be made without compromising safety or the experience of the ride.

In order to gain certainty to the completion of the Great Taste Trail, I suggest a variation be submitted to the NZCT team by 31 March 2012, including the following:

- Project milestones to complete the full loop
- Revised budget with cost estimates for each section
- Confirmation of the sources of co-funding

We do have a modest "client reserve" fund available and we would be amenable to receiving an application for up to a maximum of \$150,000. This would be provided that this, along with TDC funding, will complete the Great Taste loop and Kaitereri link by 31 December 2012.

Yours sincerely


John Dunne
Programme Manager, New Zealand Cycle Trail

CC: Chair, The Nelson Tasman Cycle Trails Trust; Chief Executive, Tasman District Council

Dep Chair Eng, ? Cycle Trust
~~Manager~~, Eng ~~Managers~~, Dep'd meet with MED
to discuss options for ^{the creation of a loop} ~~loop~~ acknowledging ^{funding through} cost savings,
not need money, reported back to Eng Services before
any decision is made
Council?

Lower Moutere / Upper Moutere

Plan B - Route Options

