

Te Tai o Poutini Plan - transport advice

Submissions on rule FC-R4 Full Cost Financial Contribution for Roads

Prepared for	West Coast Regional Council
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1. Introduction

West Coast Regional Council engaged Abley to assist with transport matters relating to Te Tai o Poutini Plan (TTPP), which is the proposed combined District Plan for the Buller, Grey and Westland District Councils.

This technical note discusses submissions received on Rule FC-R4 Full Cost Financial Contribution for Roads (FC-R4).

2. Notified Rule FC-R4

We understand that the notified Rule is as follows:

FC - R4 Full Cost Financial Contribution for Roads

1. *Roads outlined in 2 below which are at capacity for their structure are unable to accommodate additional loadings. The financial contribution for these roads shall be the full cost to accommodate the additional loadings and to bring the road up to the relevant District Council's Subdivision and Development Infrastructure Technical Requirements Code standard for its place in the road hierarchy or where no such Code of Practice exists, the standards in NZS 4404:2010 Land Development and Subdivision Infrastructure.*
2. *This rule applies to the following roads:*
 - i. *No roads have been identified in the proposed Plan.*

3. Submissions

We have not been provided with submissions relating to FC-R4, however we understand that several submissions seek that the rule is retained, one submission from Buller District Council seeks to remove reference to specific roads, and one submission seeks consideration of whether Lake View Terrace in Moana should be included in the rule.

4. Key matters

We have considered the following matters:

- Is Lake View Terrace “at capacity” or at risk of becoming so?
- Should Lake View Terrace be included in FC-R4?
- Whether there is an alternative way to structure FC-R4, specifically:
 - Whether the word “capacity” and “loadings” provides adequate scope to consideration of the potential transport effects generated by development

We discuss these matters in the following subsections.

4.1 Is Lake View Terrace “at capacity”?

Lake View Terrace is located near Moana, within the Grey District, and serves a small catchment of less than 50 dwellings, as shown in Figure 1.



Figure 1: Lake View Terrace location (shown with arrow), sourced from TTPP

From our desktop assessment, Lake View Terrace has:

- a legal width of approximately 15.8m
- a narrow carriageway without line markings, approximately 4.5 – 6m wide as shown in Figure 2
- streetlights
- no footpaths.



Figure 2: Lakeview Terrace layout¹

Mobile Roads' average annual daily traffic (AADT) estimate indicates that Lake View Terrace carries approximately 40 vehicles per day, a count significantly lower than expected for a road serving 40 – 50 dwellings. It is worth noting that some of these dwellings may be holiday homes, which would result in fewer daily traffic movements compared to primary residences.

Using a first principles approach to calculate daily traffic movements, NZTA Research Report 542 (RR453) is a commonly used reference point. RR453 estimates that dwellings in rural areas generate around 10.1 vehicle movements per day. With 40 – 50 dwellings on Lake View Terrace, traffic movements could be up to 400 – 500 vehicles per day. In our view this is would still characterise Lake View Terrace as a low trafficked road. Considering this, we conclude that, at present, Lake View Terrace is not operating at full 'capacity' in terms of traffic movements.

We note that the surrounding land is zoned as Settlement Zone (refer to Figure 3), which suggests there is potential for additional development accessing Lake View Terrace in the future. However, we anticipate that this growth is unlikely to generate traffic movements surpassing the capacity of Lake View Terrace, although an assessment would be required to confirm this for any resource consent application.

¹ Image sourced from Google Maps Streetview <https://www.google.com/maps/@-42.612429,171.5027652,3a,60y,167.82h,84.72t/data=!3m6!1e1!3m4!1sDtzCxCcw-qZI3XtQHbU1aQ!2e0!7i16384!8i8192!5m1!1e4?entry=ttu>

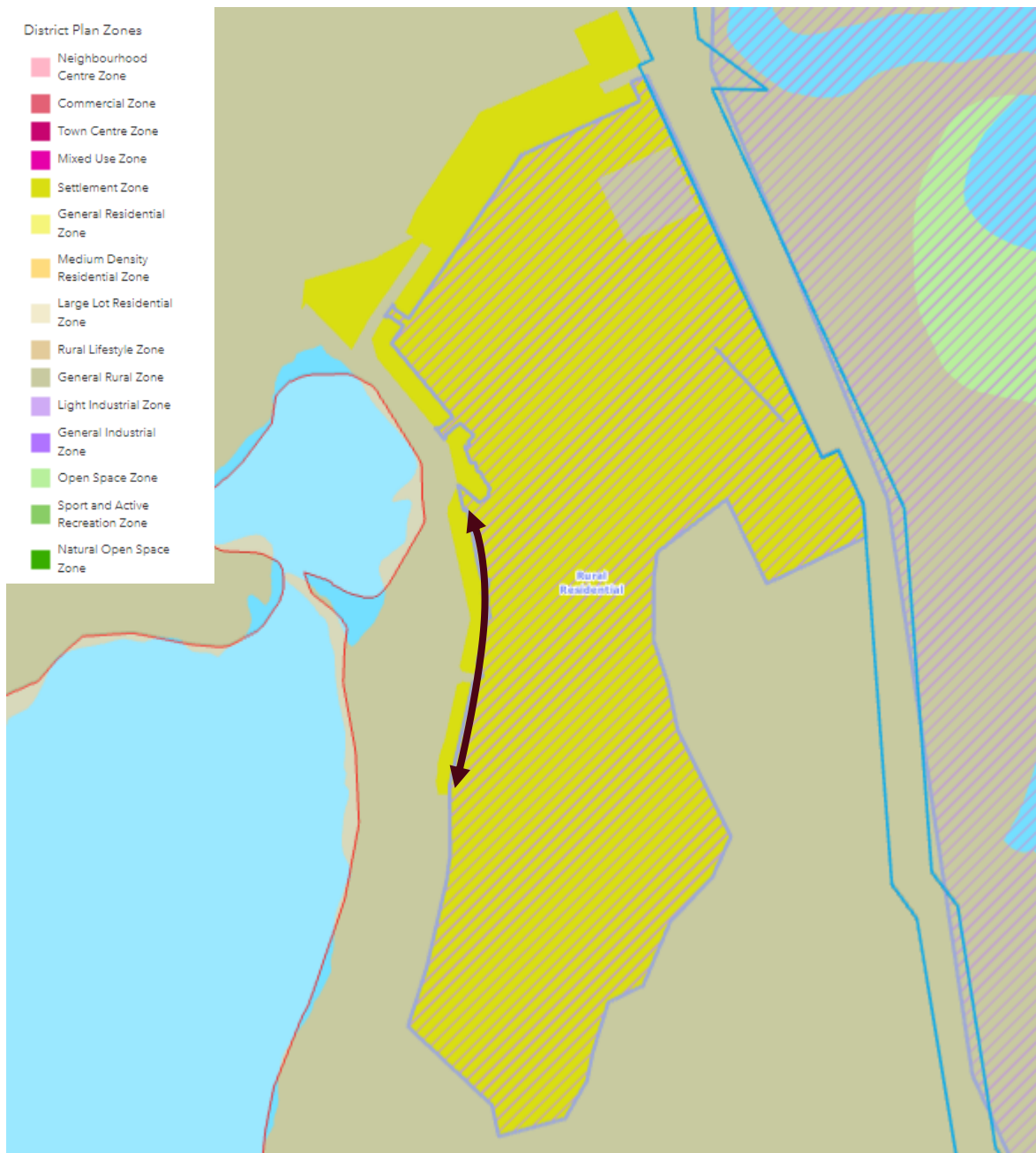


Figure 3: Lake View Terrace location (shown with arrow), with zoning overlay, sourced from TTPP

Grey District Council does not have a Subdivision and Development Infrastructure Technical Requirements Code for Roading, instead it refers to NZS4404-2010 Land Development and Subdivision Infrastructure (NZS4404-2010) in the Operative District Plan Appendix 5 – Subdivision Rules².

² Grey District Plan, Appendix 5 – Subdivision Rules, Schedule 1 – Code of Practice for Subdivision, available online at <https://www.greycdc.govt.nz/repository/libraries/id:2cvtsvtyv1cxbyz1k6uz/hierarchy/sitecollectiondocuments/Pre%202021/ourservices/planning/districtplan/chapters/25%20Subdivision%20Rules>

We have therefore referred to NZS4404-2010 Table 3-2, reproduced below in Figure 4. NZS4404 identifies that a Rural Road for “Live and Play” land use, which carries less than 200 vehicles per day, should meet the following minimum requirements:

- 9m legal width
- 5.5m to 5.7m movement lane with 0.5m shoulders (total of 6.5 – 6.7m sealed width)
- No specific provision for pedestrians or cyclists.

Lake View Terrace does not meet the minimum standards of NZS4404-2010 Table 3-2, as the existing carriageway is approximately 1m to 2m less than the minimum standard width.

Table 3.2 – Road design standards

PLACE CONTEXT			DESIGN ENVIRONMENT				LINK CONTEXT					TYPICAL PLAN AND CROSS SECTION <small>SEE APPENDIX E FOR LARGER VERSION OF FIGURES</small>	FIGURE NUMBER
Area	Land use	Local attributes	Locality served	Target operating speed (km/h)	Min. road width (m)	Max. grade	Pedestrians	Passing, parking, loading, and shoulder	Cyclists	Movement lane (excluding shoulder)	Classification		
Notes			See table 3.1	See table 3.1	See 3.3.5	See 1.2.2, 3.3.1.9, & 3.4.16	See 3.3.11	See 3.3.6 & 3.3.1.4	See 3.3.1.5, 3.3.7, & 3.3.11.2	See 1.2.2, 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.10, 3.3.11.3	See 3.2.4.2 & 3.3.1.6 (Typical max. volumes)		
Rural (3.3.1.7, 3.3.1.8, & 3.3.1.9)	Live and play	Access to lifestyle or clustered housing	1 to 6 du	20	6	20%	Shared (on shoulder and berm)	Allow for passing up to every 50 m, total shoulder 0.5 m, sealed	Shared (in movement lane)	2.50	Lane (this would normally be a private road or private way)		E1
	Live and play	Access to lifestyle or clustered housing	1 to 20 du	30	9	16%	Shared (on shoulder and berm)	Total shoulder 0.5 m, sealed	Shared (in movement lane)	5.5 - 5.7	Lane (~ 200 vpd)		E2
	Live and play	Access to housing	1 to 150 du	70	15	12.5%	Shared (on shoulder and berm)	Total shoulder 1.0 m, sealed shoulder 0.5 m	Shared (in movement lane)	5.5 - 5.7	Local road (~ 1000 vpd)		E3

Figure 4: NZS4404-2010 Table 3-2, Road Design Standards

4.2 Should Lake View Terrace be identified in FC-R4?

As noted in the previous section, we consider that Lake View Terrace is unlikely to be “at capacity” from the perspective of traffic movements. Therefore based on the wording of FC-R4, as notified, Lake View Terrace should not be identified in FC-R4.(2).

4.3 What is an alternative way to structure FC-R4?

The Lake View Terrace example demonstrates several potential issues with the notified wording of FC-R4:

- The notified wording lacks a clear definition or measure for determining when a road is deemed "at capacity". User expectations of road network performance can vary based on factors such as location, e.g. what might be acceptable traffic delay in a dense urban area during peak commuter periods potentially differing from what is acceptable in a rural area.

- The current wording does not address situations where a road may not be operating “at capacity” but still fails to comply with the District Council's Subdivision and Development Infrastructure Technical Requirements Code or NZS4404:2010. This gap may lead to a failure in capturing the minimum requirements for pedestrians, cyclists, heavy vehicles, parking, street amenity, etc.
- The term "loadings" in FC-R4 implies a focus solely on traffic movements, disregarding broader considerations such as the effects on, and the need to, accommodate other users and requirements of the transport network such as pedestrians, cyclists, heavy vehicles, parking, street amenity, etc.

In light of identified gaps, we recommend the following amendments to FC-R4:

- Utilise the relevant District Council's Subdivision and Development Infrastructure Technical Requirements Code standard or NZS 4404:2010 as a measure of "compliance". This reduces ambiguity about what is being assessed.
- Replace the term "loadings" with "transport demands" to better encompass the broader effects and necessities related to pedestrians, cyclists, heavy vehicles, parking, street amenity, etc. This change ensures a more inclusive consideration of factors influencing the transport network.

These recommendations aim to enhance the clarity and effectiveness of FC-R4, ensuring it addresses a wider range of transport network user needs.

5. Recommendation

We recommend that:

- The relief requesting the Lake View Terrace be added to FC-R4 is rejected
- The relief requesting that FC-R4.(2) be removed is adopted, with modification
- FC-R4 is restructured to improve the clarity and effectiveness of FC-R4, ensuring it addresses a wider range of transport network user needs.

Our suggested amendments are provided below, with deletions in ~~red strikethrough~~ and additions in red underline:

- ~~1. Roads outlined in 2 below which are at capacity for their structure are unable to accommodate additional loadings. The financial contribution for these roads shall be the full cost to accommodate the additional loadings and to bring the road up to the~~ any road that does not comply with the minimum requirements of the relevant District Council's Subdivision and Development Infrastructure Technical Requirements Code standard ~~for its place in the road hierarchy~~ or where no such Code of Practice exists, the standards in NZS 4404:2010 Land Development and Subdivision Infrastructure, shall be the full cost to accommodate the effects of the activity on the transport network.
- ~~2. This rule applies to the following roads:~~
 - ~~i. No roads have been identified in the proposed Plan.~~

Clean version:

1. The financial contribution for any road that does not comply with the minimum requirements of the relevant District Council's Subdivision and Development Infrastructure Technical Requirements Code standard or where no such Code of Practice exists, the standards in NZS 4404:2010 Land Development and Subdivision Infrastructure, shall be the full cost to accommodate the effects of the activity on the transport network.

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