



# Memorandum

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Attention: Aaron Hakkaart and Rachael Willox

Company: Mackenzie District Council

Date: 16<sup>th</sup> February 2023

From: Stephanie Griffiths, Urban Designer

Message Ref: District Plan Review - Urban Design Technical Inputs

Project No: BM220319A

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## Introduction

The Mackenzie Spatial Plans, adopted in September 2021, formed the basis for the zoning proposed in Plan Change 21 (PC21). This included the identification of areas for Medium Density Residential development, as part of an overall strategy for accommodating growth in the Mackenzie District Council's (MDC) urban areas. PC21 was notified on 23 September 2022 and included identification of land to be zoned Medium Density Residential (MRZ) along with a corresponding set of zone provisions. It also reviewed the current character-based provisions applying to Takapō/Lake Tekapo Precinct. The MRZ and Takapō/Lake Tekapo Precinct frameworks were based on urban design advice, alongside the preparation of a combined Design Guide that was also notified as part of PC21. In total, 148 submissions were received on PC21.

## Scope

MDC has requested Boffa Miskell provide urban design input to inform the analysis of submissions received on PC21 relevant to urban design and to inform their recommendations in response to those submissions to assist the Hearing Panel in making their decision.

MDC has requested two pieces of work be undertaken. These are to produce a representative shading model to compare the likely additional shading between a two-storey and a three-storey development within Twizel and undertake an assessment of specific submission points raised by Tekapo Limited and Godwit Leisure Limited.

## Qualifications and experience

Stephanie Griffiths is employed as a Senior Professional Urban Designer with Boffa Miskell Ltd. She holds the qualifications of a Master of Urban Development and Design and a Bachelor of Architecture both from the University of New South Wales (UNSW). She has practised as an Urban Designer for the past 7 years.

Her relevant experience includes drafting the Takapō | Lake Tekapo Character Guide and Medium Density Residential Design Guide, assisting in drafting the Takapō | Lake Tekapo Precinct Standards and Medium Density Built Form Standards (Plan Change 21) and preparing the Mackenzie Spatial Plan, all for Mackenzie District Council. She has also drafted the Medium Density Guide and assisting in the preparation of Medium Density Standards and Assessment Matters for Central Otago District Council (Plan Change 19), and prepared the National Medium Density Design Guide for the Ministry for the Environment

## Part 1: Additional Shading Modelling

Several submitters opposed the increase in maximum building height in the MRZ within Twizel to allow for three storey buildings, generally citing increased shading and loss of private views as reasons for their opposition. Loss of private views is not included in the scope and will be addressed elsewhere.

A two-storey height standard is proposed to be 7.5m with a 1m gabled roof allowance, whilst a three-storey height standard is proposed to be 10m with a 1m gabled roof allowance. The relative difference is therefore 2.5m, and the question becomes whether this causes an unacceptable level of shading of neighbouring properties.

MDC has requested that Boffa Miskell undertake a shading analysis to demonstrate the differences between the shading associated with a typical two-storey and three-storey medium density development against existing dwellings. This assesses the likely shading impacts in a transitional phase: that is, how a two-storey development and a three-storey development could impact on existing dwellings.

It is important to keep in mind that this is a theoretical exercise, and the effects may vary across different sites in Twizel.

### 1.1 Methodology:

Step 1. A representative block in Twizel was chosen, being the block bounded by Jollie Road and Falstone Crescent. This block is proposed to be medium density and consists of lots where the sizes and orientation are consistent with the majority of lots in Twizel. This block was also the one that the MRZ standards were tested on within the Urban design inputs appended to the s32 report.

Step 2. Several properties were chosen within the representative block, which were: 1-5 and 19-25 Falstone Crescent. Lots 3-5 Falstone Crescent were chosen as the test site for a 2/3 storey development, as an amalgamated site is more feasible for a 3-storey development (as recession planes on single sites make 3-storey developments harder to achieve, and therefore is not a likely development outcome), and a northern lot has the potential to create a most amount of shadow (i.e. worst-case scenario). Lots 1, and 19-25 Falstone Crescent were chosen as these are the surrounding sites that are impacted by the development of 3-5 Falstone Crescent.



*Image 1: Properties chosen within the representative block.*

Step 3. The existing buildings located at 1, and 19-25 Falstone Crescent were modelled in Sketchup. This modelling is desktop only and high level and was carried out using GIS (building footprints) and Google Earth.

Step 4: A theoretical medium density development (refer to section below for more information) was modelled at 3-5 Falstone Crescent in Sketchup, based on PC21 permitted built form standards and informed by the medium density design guidance proposed. Two variations of this development were modelled, being a two-storey (8.5m) and a three-storey (11m) option. All other attributes remain the same.

Step 5: A shadow study was undertaken using the SketchUp software. This illustrates the extent of shadows cast in two tones to allow comparison between the 2-storey and 3-storey development alongside existing dwellings, across four hours (10am, 12pm, 2pm and 4pm) and three dates (summer solstice, winter solstice and equinox). These periods are an industry standard and have been chosen to allow shadow diagrams to be compared across seasonal extremes to appreciate the year-round effects of shading.

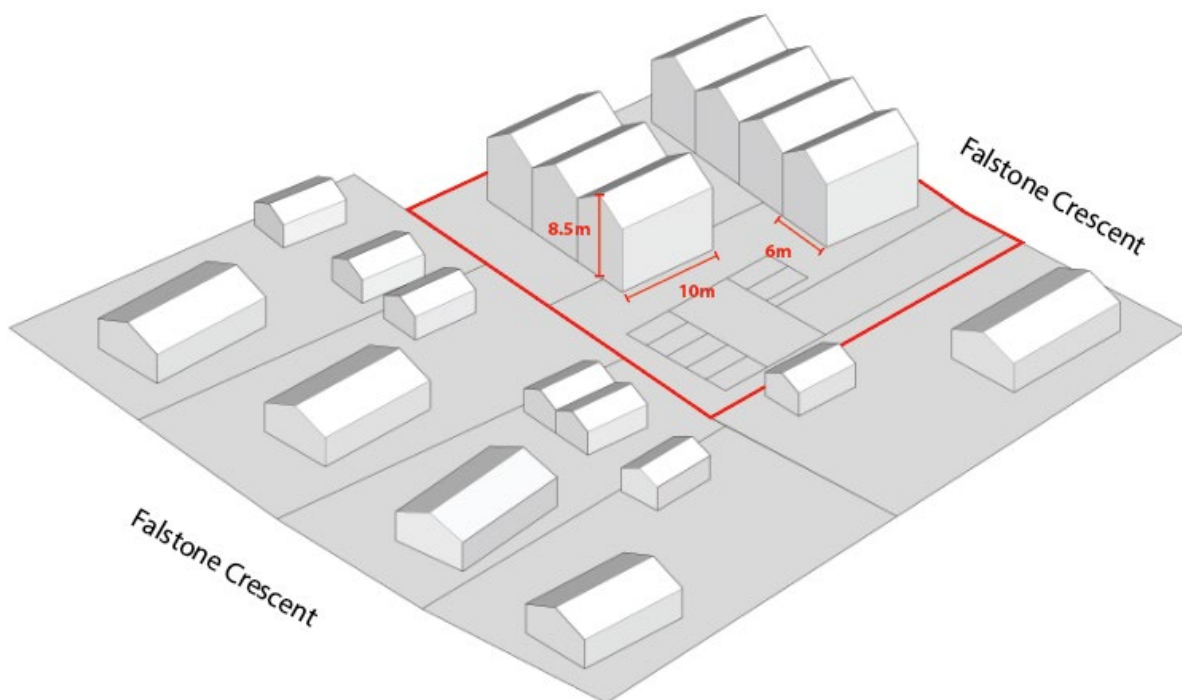
## 1.2 Theoretical Development:

A theoretical medium density development was modelled at 3-5 Falstone Crescent in Sketchup. An amalgamated site was chosen as being the subject site for a theoretical medium density development as it is unlikely that a 3-storey development can be achieved on a stand-alone site due to recession planes.

Two variations of this development were modelled, being a two-storey (8.5m) and a three-storey (11m) option. To ensure that the shading analysis compared like for like, all other attributes remained the same.

This theoretical development meets all the MRZ standards. For a summary of the compliance of theoretical development against the MRZ standards, refer to Appendix A. The development is also consistent with the design guide, in that most units are located along the street to minimise recession plane constraints and maximise developable area within the site.

The development is proposed to be realistic in terms of dimensions and floor area. The unit dimensions measure 6m wide and 10m deep with the floor space of the 2-storey units being 120sqm (e.g. 2–3-bedroom unit) and the 3-storey unit being 180sqm (e.g. 3–4-bedroom unit). The development also allows for seven off-street, surface car parking spaces, located on the southern aspect, which equates to one per unit.



*Image 2: 2-storey theoretical development located at 3-5 Falstone Crescent.*

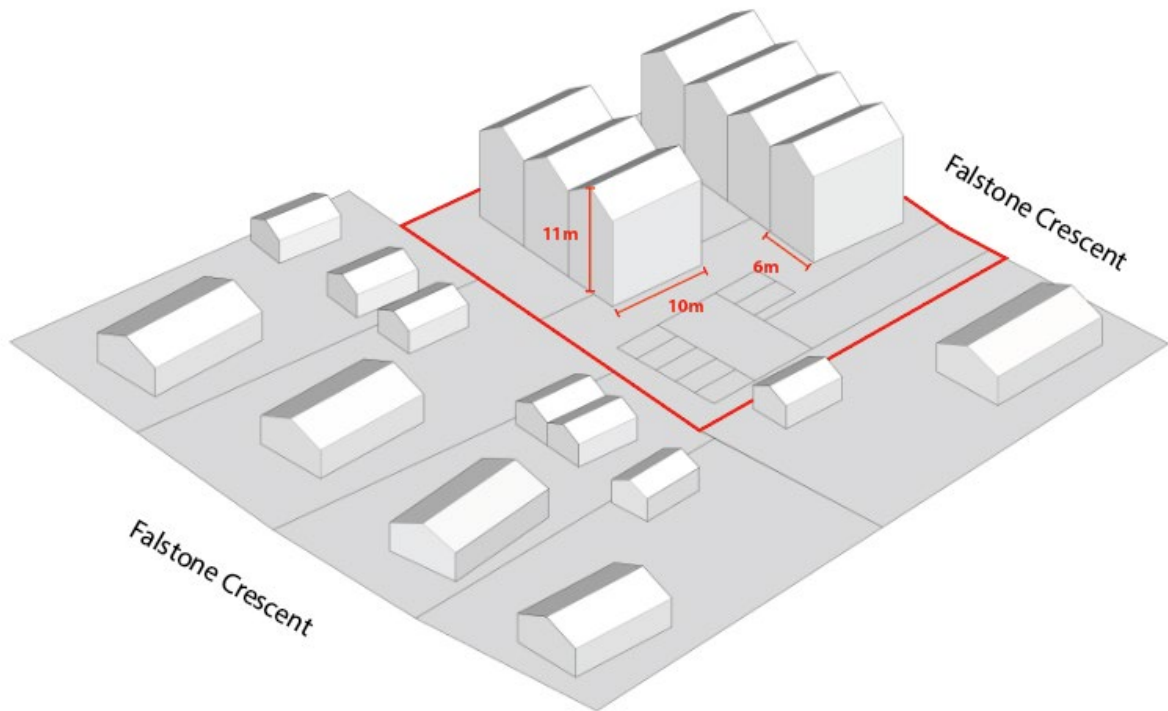


Image 3: 3-storey theoretical development located at 3-5 Falstone Crescent.

### 1.3 Shading Analysis:

The determination of the sensitivity to the shading is described in terms of the dwelling uses affected by the shading, including whether it is internal (e.g. kitchens, dining rooms, etc.) or external (e.g. front, side or rear yards etc.) where specific household activities are likely to occur; and likely occupation of time of those activities (e.g. breakfast in kitchens and dinner in dining rooms). This helps assess the specific locations and the extent to which their typical day-to-day activity may be affected by the shading.

Time	Magnitude of change		Sensitivity		Effect
	Location	Extent	Use	Occupation	
Period of the day analysed	Specific neighbouring properties effected by shading.	Degree of proposed shading across the neighbouring site, relative to shading from existing build forms (e.g. houses, fence lines), excluding vegetation.	Likely internal dwelling and/ or external yard activity type potentially effected by shading, particularly habitable rooms.	Whether areas of the dwelling or external yards are likely to be inhabited at the time of day or during that season.	Summary value applied to the time period based on a balanced assessment across each factor.

When assessing the shading impacts, it is important to keep mind that a 2-storey development could create slightly different shading impacts depending on how the development is laid out. For ease of comparison, the theoretical 2-storey development has identical setbacks to a 3-storey development, however, 2-storey development could be built closer to all boundaries within the recession plane, and therefore could have similar shading impacts to the 3-storey development.

Effect Rating	Use and Definition
<b>Very High:</b>	Total loss of sunlight access.
<b>High:</b>	Major loss of sunlight access. <i>Concise Oxford English Dictionary Definition</i> <i>High: adjective- Great in amount, value, size, or intensity.</i>
<b>Moderate- High:</b>	Material loss of sunlight access, particularly across mid-day at the highest intensity level of the sun. Shading effects more sensitive internal and external yard activity types, particularly habitable rooms that are likely to be inhabited at the time of day or during that season.
<b>Moderate:</b>	Partial loss of sunlight access, particularly across mid-morning or afternoon with a moderate intensity level of the sun. Shading effects sensitive internal and external yard activity types, particularly habitable rooms that are unlikely to be inhabited at the time of day or during that season. <i>Concise Oxford English Dictionary Definition</i> <i>Moderate: adjective- average in amount, intensity, quality or degree</i>
<b>Moderate - Low:</b>	Minor loss of sunlight, particularly across early morning and evening at the lowest intensity level of the sun. Shading effects less sensitive internal and external yard activity types, particularly non-habitable rooms that are unlikely to be used at the time of day or during that season.
<b>Low:</b>	Little material loss of sunlight. <i>Concise Oxford English Dictionary Definition</i> <i>Low: adjective- 1. Below average in amount, extent, or intensity.</i>
<b>Very Low:</b>	No loss of sunlight, approximating a 'no change' situation or a negligible change.

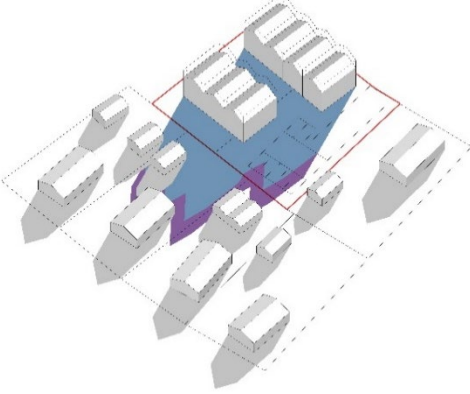
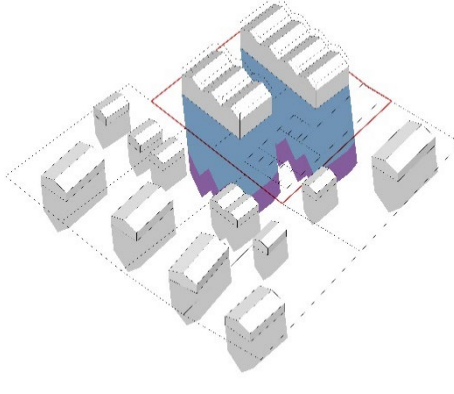

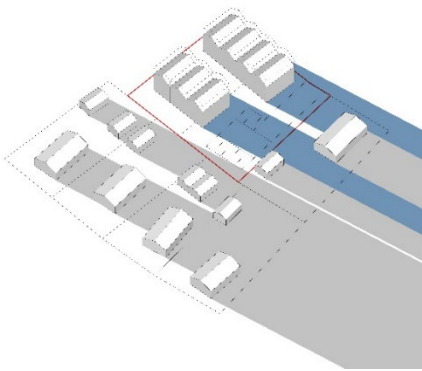
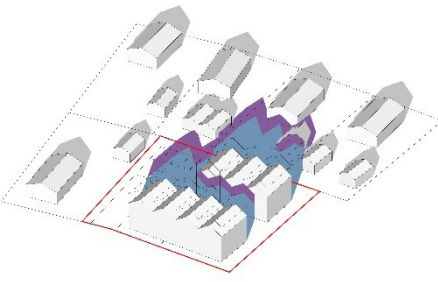
#### Mid-Winter Solstice (22<sup>nd</sup> June):

- Worst-case scenario
- The highest effect of shading happens at 10am, followed by 2pm. The difference between a 2-storey medium density development and 3-storey medium density development is additional overshadowing of primary outdoor living space at 21-23 Falstone Crescent, which is the outdoor space immediately to the rear of a dwelling, which is likely to be the most used, as well as the northern façade of the dwelling. This results in a moderate and a moderate - low effect.
- At 4pm the shadows from all dwellings are large, and the additional shading impacts will not be seen on neighbouring properties.

Time	Magnitude of change		Sensitivity		Effect
	Location	Extent	Use	Occupation	
10am	19, 21, 23 Falstone Crescent	Northern half of 21 and 23 Falstone Crescent and northern corner of 19 Falstone Crescent.	Northern façade of dwelling, primary outdoor living space and car parking.	Potential morning activities (e.g. breakfast) largely based within the dwelling.	Moderate
12pm	1, 21, 23 Falstone Crescent	Northern half of 21 and 23 Falstone Crescent and western side of 1 Falstone Crescent.	Rear and side gardens, car parking and driveways	Potential active morning activities outside.	Low
2pm	1, 23, 25 Falstone Crescent	Northern sliver of the rear of 23 and 25 Falstone Crescent and south of existing building at 1 Falstone Crescent.	Primary outdoor living space and rear gardens.	Potential active afternoon activities outside.	Moderate - Low
4pm	None	-	-	-	Very Low
Overall					Moderate - Low

**Legend**

- Shadow cast by existing dwellings
- Shadow cast by the 2-storey development
- Additional shadow cast by the 3-storey development beyond that of the 2-storey development




	
Winter Solstice – 10am	Winter Solstice – 12pm
	
Winter Solstice – 2pm	Winter Solstice – 4pm
	
Winter Solstice – 10am (looking south)	

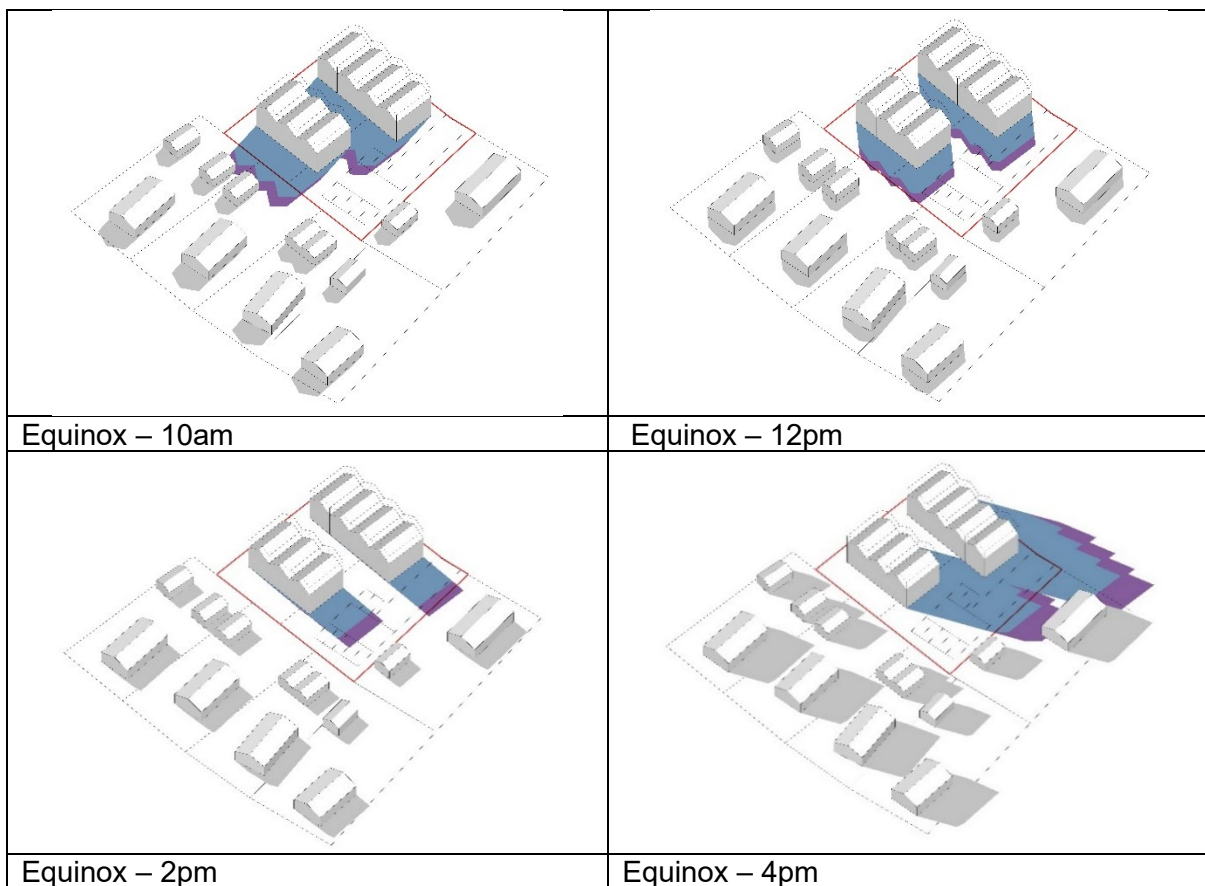
Equinox (21<sup>st</sup> March and 23<sup>rd</sup> September):

- Moderate case scenario
- The shading effects from a 2-storey and 3-storey development are mostly contained within the site boundary between 12pm and 2pm.
- The effects are greatest at 10am and 4pm. At 10am a 3-storey development creates additional overshadowing to the rear of 19 and 21 Falstone Crescent, however this area is along the rear fence and overshadows car parking, which has a low occupation. At 4pm, a 3-storey development creates additional overshadowing to the western half of the site, including the western façade and driveway.

Time	Magnitude of change		Sensitivity		Effect
	Location	Extent	Use	Occupation	
10am	19-21 Falstone Crescent	Northern rear of the two properties.	Rear gardens and car park / sheds.	Potential morning activities (e.g. breakfast) largely based within the dwelling	Low
12pm	None	-	-	-	Very Low
2pm	1 Falstone Crescent	Western boundary.	Narrow side gardens and driveway.	Potential active afternoon activities outside.	Very Low
4pm	1 Falstone Crescent	Northern and western boundary.	Western façade of dwelling, narrow side gardens, driveway and front yard.	Potential active afternoon activities inside and outside.	Low-Moderate
Summary					Low

**Legend**

-  Shadow cast by existing dwellings
-  Shadow cast by the 2-storey development
-  Additional shadow cast by the 3-storey development beyond that of the 2-storey development



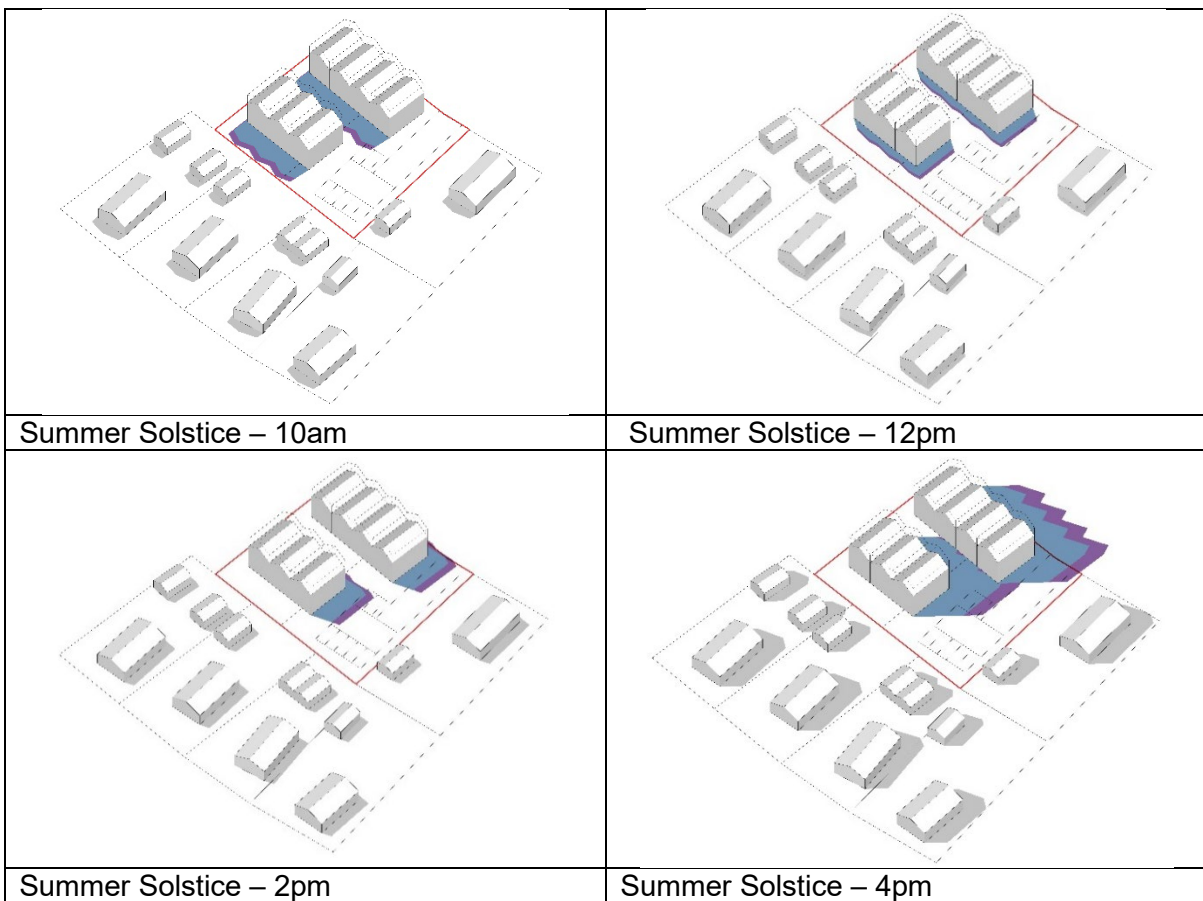
Mid-Summer Solstice (22<sup>nd</sup> December):

- Best-case scenario
- All shading effects from a 2-storey and 3-storey development are contained within the site boundary, and therefore have no shading effects to neighbouring properties.

Time	Magnitude of change			Sensitivity		Effect
	Location	Extent	Duration	Use	Occupation	
10am	None	-	-	-	-	Very-low
12pm	None	-	-	-	-	Very-low
2pm	None	-	-	-	-	Very-low
4pm	None	-	-	-	-	Very-low
Overall						Very-low

**Legend**

- Shadow cast by existing dwellings
- Shadow cast by the 2-storey development
- Additional shadow cast by the 3-storey development beyond that of the 2-storey development





## Part 2: Assessment of the submission points raised by Tekapo Landco Limited and Godwit Leisure Limited

Tekapo Landco and Godwit Leisure own land at Lakeside Drive, Lake Tekapo and the Station Bay Development and have objected to PC21 in its entirety.

MDC have requested that Boffa Miskell provide urban design advice on specific submission points relating to changes sought to the MRZ and Takapō / Lake Tekapo Precinct provisions. These include three provisions related to the MRZ zone (i.e. height, minimum outlook space and fencing), two provisions related to the Takapō / Lake Tekapo Precinct (i.e. building scale and height) and one element of the design guide (i.e. roof typology).

A summary table can be found in Appendix 2.

### MRZ-S2: Height

Tekapo Landco and Godwit Leisure oppose the height provision and seek to remove the requirement that all floors shall have a minimum floor to ceiling height of 2.7m. The reasoning behind this is that it is not a planning or urban design matter.

A 2.7m floor to ceiling height is best practice for medium density dwellings that provides good internal amenity for residents, including good sunlight access and internal spaciousness for residents. However, typical floor to ceiling heights in New Zealand is 2.4m and for efficiency reasons it is not realistic to prescribe a minimum floor to ceiling height of 2.7m. It is important to note that the maximum building heights recommended (being 7.5m in Tekapō and 10m in Twizel and Fairlie, both with a 1m roof allowance) would allow for floor to ceiling heights of 2.7m.

It is recommended that the minimum 2.7m floor to ceiling requirement is removed.

### MRZ-S8: Minimum Outlook Space

Tekapo Landco and Godwit Leisure oppose the minimum outlook space and seek to include a definition that states that outlook spaces 'may be within the site, over a public street or other public space'.

The purpose of outlook space is to ensure that living spaces and bedrooms have windows that provide access to daylight, adequate privacy and an outlook to create a sense of space, which the community has identified as a high priority for Mackenzie. As such, outlook space may be within the site, over a public street or other public space, as this will still provide daylight, privacy and a sense of space for the residents.

It is recommended that a definition of outlook space be included within this standard, or within the 'definitions' chapter of the Plan. This definition may be derived from the MDRS definition of outlook space, which is:

- a) The width of the outlook space is measured from the centre point of the largest window on the building face to which it applies.
- b) Outlook spaces may be over driveways" and footpaths within the site or over a public street or other public open space.
- c) Outlook spaces may overlap where they are on the same wall plane in the case of a multi-storey building.
- d) Outlook spaces may be under or over a balcony.
- e) Outlook spaces required from different rooms within the same building may overlap.
- f) Outlook spaces must—
  - be clear and unobstructed by buildings; and
  - not extend over an outlook space or outdoor living space required by another dwelling."

### MRZ-S9: Fencing

Tekapo Landco and Godwit Leisure oppose the fencing standard and seek to lower the fencing requirement from 1.8m to 1.2m along the road boundary. In addition, they seek to change the visual permeability requirement of fences along the road boundary from only being required over 1.2m to the entire fence. The

submitter notes that the standard does not support good urban design outcomes and does not align with the MRZ Design Guide.

It is likely that lots on the northern side of blocks could result in front yards being the primary private open spaces for residents (i.e. ensuring they have adequate sunlight access). It is therefore important that a front fence rule is put in place to balance privacy and security for residents with maintaining the open feel of the Mackenzie area and a positive streetscape experience (e.g. addressing passive surveillance, activation, etc). The front fence rule does this by providing for a solid base with a visually permeable upper portion.

It is recommended that the maximum 1.8m fence height along the road boundary is maintained, however, the visual permeability threshold be lowered to 1m to better manage any potential visual dominance.

#### PREC-S3: Building Scale

Tekapo Landco and Godwit Leisure oppose the building scale standard and seek that the requirement of any wall of any building shall not be greater than 14m without a recess in façade and roofline of at least 1m in depth and 2m in length be removed in the Takapō / Lake Tekapo Precinct. The submitter notes that stepped facades may increase building costs on already challenging sites, and the orientation of lots is typically that the long façade is to the internal boundary and does not impact the streetscape.

Building scale was identified as a high priority at the stakeholder workshop. Site analysis of the town (including a site visit and GIS analysis on building footprints) indicated that building bulk is predominantly reduced in a variety of ways, either by creating two or more primary forms linked together by secondary forms, or by splitting the building into multiple 'cells' with secondary links. Most building forms are well proportioned rectangular footprints and visually manageable building lengths, creating discrete profiles and a layering of building forms across slopes. This analysis informed the recommendation of building lengths and scale.

The submitter is correct in that the typical orientation of lots in the Takapō / Lake Tekapo Precinct does mean that the long façade is typically to the long internal boundary. These long facades generally also occur along sloping sites, which would most likely require steps in the wall and roof forms, so would be manageable without a provision in place. However, larger sites, corner sites and future amalgamated lots could have longer facades to streets. Lots can also have their long facades to other public spaces, such as parks and pedestrian pathways.

It is recommended that the maximum wall length is 14m without a recess in the façade and roofline applies only to those facades along the street or other public space.

#### PREC-S4: Height

Tekapo Landco and Godwit Leisure oppose the maximum building height and seek that the maximum building height in Takapō/Lake Tekapo is to be 8m above ground level. The submitter states that an 8m height limit is consistent with the operative standards and is appropriate for a range of roof forms.

The current R2 rule for building height is 8m. Whilst this would allow for two-storeys, it is unlikely that this would enable higher-quality 2.7m floor to ceiling heights and a gabled roof. A maximum height of building of 8m and a 1m gable roof allowance could result in three storey buildings within Takapō / Lake Tekapo Precinct, consisting of low floor to ceiling heights and a shallow gable roof. This is not aligned with the existing or the community's desired future character of Takapō / Lake Tekapo Precinct, and therefore is not recommended.

It is recommended that the current standard of 7.5m and a 1m gabled roof allowance is maintained, as this allows a higher-quality 2.7m floor to ceiling heights and a gabled roof which aligns to the existing and desired future character of Takapō/Lake Tekapo.

Tekapo Landco and Godwit Leisure also seek to remove the minimum floor to ceiling height of 2.7m. As stated earlier, it is recommended that this standard be removed.

APP2: Design Guide

Tekapo Landco and Godwit Leisure have also requested that the Takapō / Lake Tekapo Character Design Guide be updated to make it clearer that hip style roofing is not an acceptable roof type for Takapō/Lake Tekapo. The submitter states that hip style roofing does not fit with the current aesthetic or character of Takapō/Lake Tekapo.

Site analysis identified that there is a wide variety of roof types, pitch angles and orientation in Takapō/Lake Tekapo. Gabled roofs between the angles of 20-40 degrees predominate with shallower monopitch and steeper A-Frame roofs common. Shallow or asymmetrical gabled roof forms and hipped roofs were identified as outliers, and do not fit within the desired future character of Takapō/Lake Tekapo.

The current Takapō / Lake Tekapo Character Design Guide states that “Complex roof forms, such as hipped roofs, can detract from the town’s character.” The current standards (under PREC1-S2) align with this and state that roofs must have a flat or monopitch roof angle up to 20 degrees; or a gable of between 20 – 65 degrees, and that secondary roof forms (e.g. linking structures, lean-tos, verandahs, accessory buildings and garages) shall be the equivalent or lower in pitch and not project above the primary roof form. The matters of discretion on roof styles are the consistency with the Takapō / Lake Tekapo Character Design Guide.

It is recommended that the text in the design guide be extended to state “Complex roof forms, such as hipped roofs, can detract from the town’s character, and is not an acceptable roof form.”

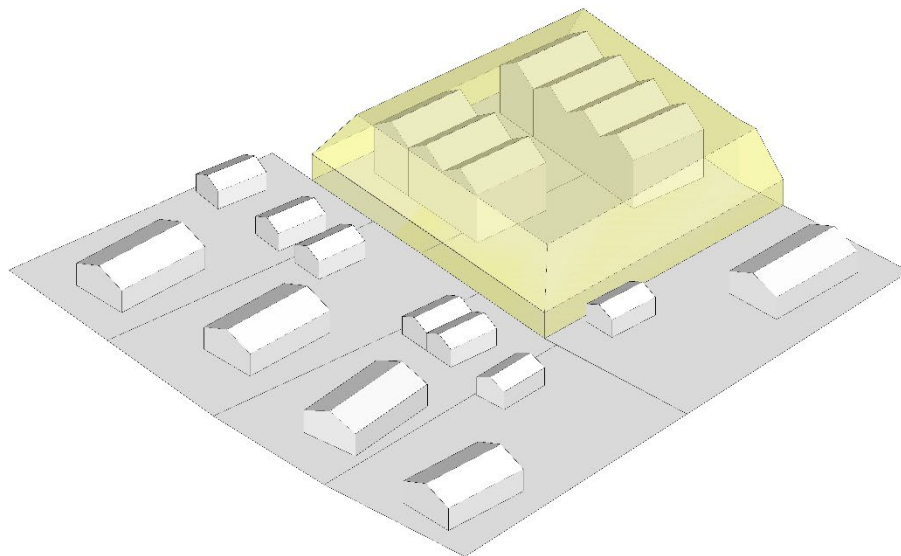
## 2.1 Summary

The table below provides a summary of recommendations:

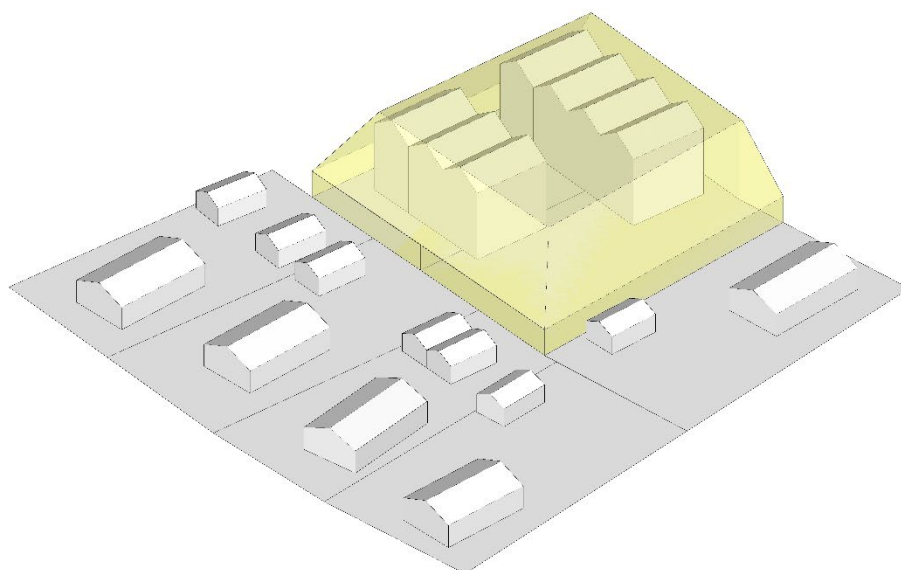
Standard	Recommended Provision
MRZ-S2: Height	<ol style="list-style-type: none"> <li>1. The maximum height of any building or structure shall not exceed 10m above ground level except a gable roof may exceed the maximum height by no more than 1m.</li> <li>2. <del>All floors shall have a minimum ceiling height of 2.7m</del></li> </ol>
MRZ-S8: Minimum Outlook Space	<p>No change recommended to the standard.</p> <p>A definition of ‘outlook spaces’ is recommended to be added into this or the ‘definitions’ section.</p>
MRZ-S9: Fencing	<ol style="list-style-type: none"> <li>1. All fencing along the road boundary shall be:               <ol style="list-style-type: none"> <li>a. No higher than 1.8m above ground level and</li> <li>b. Any part of the fence higher than <del>4.2m</del> <u>1m</u> above ground level shall be visually permeable, excluding support structures</li> </ol> </li> </ol>
PREC-S3: Building Scale	<ol style="list-style-type: none"> <li>1. The wall of any building shall not be greater than:               <ol style="list-style-type: none"> <li>a. 20m in total length; and</li> <li>b. 14m <u>along a public street or other public place</u>, without a recess in façade and roofline of at least 1m in depth and 2m in length.</li> </ol> </li> <li>2. There shall be a minimum separation distance between any buildings on a site of no less than 2m.</li> </ol>
PREC-S4: Height	<ol style="list-style-type: none"> <li>1. The maximum height of any building or structure shall be 7.5m above ground level except a gable roof may exceed the maximum height by no more than 1m.</li> <li>2. <del>All floors shall have a minimum ceiling height of 2.7m</del></li> </ol>

## Appendix 1: Compliance check of theoretical development

MRZ Standards		2-storey development (120sqm GFA)		3-storey development (180sqm GFA)	
		Actual	Complies	Actual	Complies
MRZ-S1	Site area: minimum 200m <sup>2</sup> .	205sqm	✓	205sqm	✓
MRZ-S2	Height of building: 2 storey: 7.5m + 1, 3 storey: 10m + 1m	8.5m	✓	11m	✓
MRZ-S3	Height in relation to boundary	(refer to image 4)	✓	(refer to image 5)	✓
MRZ-S4	Setbacks: 2m from any road, 2m from any internal boundary	>2m from road and internal boundaries	✓	>2m from road and internal boundaries	✓
MRZ-S5	Site coverage: maximum 40%	29%	✓	29%	✓
MRZ-S6	Landscaping: minimum 30%	Not measured, but can comply.	✓	Not measured, but can comply.	✓
MRZ-S7	Outdoor Living Space: 25sqm with a minimum dimension of 3m	Approx. 30sqm with a minimum dimension of 5m	✓	Approx. 30sqm with a minimum dimension of 5m	✓
MRZ-S8	Minimum outlook space: 4m x 4m principal living room, 3x3 principal bedroom, 1x1m other habitable rooms.	Not measured, but can comply.	✓	Not measured, but can comply.	✓



*Image 4: Recession plane over a 2-storey development*



*Image 5: Recession plane over a 3-storey development*

Appendix 2: Summary table of Urban Design advice relating to the submission points raised by Tekapo Landco and Godwit Leisure

Ref	Provision	Submission/Decision Sought	Reason	Recommended Provision	Reason
MRZ-S2 Height	Height 1. The maximum height of any building of structure shall not exceed 10m above ground level except a gable roof may exceed the maximum height by no more than 1m 2. All floors shall have a minimum ceiling height of 2.7m.	Oppose. Amend as below. 1. The maximum height of any building of structure shall not exceed 10m above ground level except a gable roof may exceed the maximum height by no more than 1m <del>2. All floors shall have a minimum ceiling height of 2.7m.</del>	Clause 2 is not a planning or urban design matter	3. The maximum height of any building of structure shall not exceed 10m above ground level except a gable roof may exceed the maximum height by no more than 1m. 4. <del>All floors shall have a minimum ceiling height of 2.7m.</del>	Support.  A 2.7m floor to ceiling height is best practice for medium density dwellings that provides good internal amenity for residents, including good sunlight access and internal spaciousness for residents.  However, typical floor to ceiling heights in New Zealand is 2.4m and for efficiency reasons it is not realistic to prescribe a minimum floor to ceiling height of 2.7m.
MRZ-S8	Minimum Outlook Space	Oppose. Amend to include <u>'Outlook spaces may be within the site, over a public street or other public space.'</u>	To allow outlook spaces to extend over public spaces where relevant	1. All habitable rooms shall have minimum outlook space of at least: a. 4m in depth and 4m in width, for principal living rooms; b. 3m in depth and 3m in width, for principal bedrooms; and c. 1m in depth and 1m in width, for	No change recommended to the standard.  However a definition of 'outlook spaces' is recommended to be added into this or the 'definitions' section.  This is recommended to be adapted from the MDRS definition.

				other habitable rooms.	
MRZ-S9	Fencing	<p>Oppose. Amend as below:</p> <ol style="list-style-type: none"> <li>1. All fencing along the road boundary shall be: <ol style="list-style-type: none"> <li>a. No higher than <del>4.8m</del> <u>1.2m</u> above ground level and</li> <li>b. <del>Any part of the fence higher than 1.2m above ground level shall be visually permeable, excluding support structures</del></li> </ol> </li> </ol>	<p>Rule as notified does not support good urban design outcomes and does not align with the MRZ Design Guide</p>	<ol style="list-style-type: none"> <li>2. All fencing along the road boundary shall be: <ol style="list-style-type: none"> <li>c. No higher than 1.8m above ground level and</li> <li>d. Any part of the fence higher than <u>1m</u> above ground level shall be visually permeable, excluding support structures</li> </ol> </li> </ol>	<p>Support in-part by lowering the visually permeable height to 1m.</p> <p>It is likely that lots on the northern side of blocks will result in front yards being the primary private open spaces for residents (ensuring they have sunlight access). It is therefore important that a front fence rule is put in place to balance privacy and security for residents with maintaining the open feel of the Mackenzie area and a positive streetscape experience (e.g. addressing passive surveillance, activation, etc).</p>
Lake Tekapo Precinct	PREC-S3	<p>Oppose. Amend as below:</p> <ol style="list-style-type: none"> <li>1. The wall of any building shall not be greater than: <ol style="list-style-type: none"> <li>a. 20m in total length; and</li> <li>b. <del>14m, without a recess in façade and roofline of at least 1m in depth and 2m in length.</del></li> </ol> </li> <li>3. There shall be a minimum separation distance between any buildings on a site of no less than 2m.</li> </ol>	<p>Remove requirement for stepped facades as these may increase building costs on already challenging sites. The orientation of lots is typically that the long façade is to the internal boundary and does not impact the streetscape.</p> <p>Exclude minor buildings and structures from the setback</p>	<ol style="list-style-type: none"> <li>3. The wall of any building shall not be greater than: <ol style="list-style-type: none"> <li>c. 20m in total length; and</li> <li>d. 14m along a <u>public street or other public place</u>, without a recess in façade and roofline of at least 1m in depth and 2m in length.</li> </ol> </li> <li>4. There shall be a minimum separation distance between any buildings on a site of no less than 2m.</li> </ol>	<p>Support in-part from an urban design perspective.</p> <p>The orientation of lots does mean that the long façade is typically to the long internal boundary.</p> <p>However, larger sites, corner sites and future amalgamated lots could have longer facades to streets. Lots can also have their long facades to other public spaces such as parks and pedestrian pathways. It is recommended that the maximum wall length is 14m without a recess in the façade and roofline applies only to those facades along the street or other public space.</p>

			requirements for buildings.		
Lake Tekapo Precinct	PREC-S4 Height	<p>Oppose. Amend as below:</p> <ol style="list-style-type: none"> <li>The maximum height of any building or structure shall be <del>7.5m</del> <u>8m</u> above ground level except a gable roof may exceed the maximum height by no more than 1m.</li> <li><del>All floors shall have a minimum ceiling height of 2.7m</del></li> </ol>	<p>8m height limit is consistent with the operative standards and is appropriate for a range of roof forms.</p> <p>Minimum floor height is not a planning or urban design outcome.</p>	<ol style="list-style-type: none"> <li>The maximum height of any building or structure shall be 7.5m above ground level except a gable roof may exceed the maximum height by no more than 1m.</li> <li><del>All floors shall have a minimum ceiling height of 2.7m</del></li> </ol>	<p>Support in part.</p> <p>The current R2 rule for building height is 8m. Whilst this would allow for two-storeys, it is unlikely that this would enable higher-quality 2.7m floor to ceiling heights and a gabled roof.</p> <p>A maximum height of building of 8m and a 1m gable roof allowance could result in three storey buildings within Takapō/Lake Tekapo, consisting of low floor to ceiling heights and a shallow gable roof. This is not aligned with the existing or desired future character of Takapō/Lake Tekapo, and therefore is not recommended.</p> <p>A 7.5m height limit with a 1m gable roof allowance would enable a higher-quality 2.7m floor to ceiling heights and a gabled roof which aligns to the existing and desired future character of Takapō/Lake Tekapo.</p> <p>As above, recommend that the 2.7m minimum floor to ceiling height standard is removed.</p>



APP2	Design Guide	That it is made clearer that hip style roofing is not an acceptable roof type for Tekapo	Hip Style roofing does not fit with the current aesthetic or character of Tekapo, and the design guide should be made more clear that this is an unacceptable roof type.	The Design Guide states that: "Complex roof forms, such as hipped roofs, can detract from the town's character." This could be reworded to state: "Complex roof forms, such as hipped roofs, can detract from the town's character, <u>and is not an acceptable roof form.</u> "	Support.  Hip style roofs do not fit within the existing to desired future character of Takapō/Lake Tekapo, and a sentence can be added to the Guide that states these are not an acceptable roof form.
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