Retaining Walls Factsheet

Queenstown Lakes District Council's (QLDC) Retaining Wall Factsheet details which approvals are needed prior to constructing a retaining wall.

A retaining wall is any wall constructed to retain or support the surrounding ground. The Building Act (2004) and QLDC's District Plan define when a building and/or resource consent is required for a retaining wall, and the exemptions provided.

Building consent

Building consent for a retaining wall is generally required when:

- The retaining wall is more than 1.5 metres vertically off the ground.
- And/or the retaining wall supports any surcharge or any load additional to the load of that ground (i.e., the retaining wall has something above it, like an existing retaining wall, driveway, buildings, or sloping ground).

EXEMPTIONS

Section 42A of the Building Act allows for some building work to be completed without building consent, defined in <u>Schedule 1</u> (Part 1 – Exempted building work, and Part 3 – Building work for which design is carried out or reviewed by a chartered professional engineer).

Exempt building work must still comply with the Building Code and other legislation such as the Resource Management Act.

Exemption 20: Retaining walls

Building work in connection with a retaining wall that:

- a. Retains not more than 1.5 metres depth of ground; and
- Does not support any surcharge or any load additional to the load of that ground (for example, the load of vehicles, sloping ground above or existing retaining walls or buildings).

This exemption does not apply to retaining walls that are subject to any additional load or surcharge, such as:

- Vehicle driveways
- Parking spaces
- Swimming pools
- Buildings
- Other retaining walls
- Sloping ground above the top of the retaining wall

It is the responsibility of the designer/structural engineer to determine the appropriate surcharge that can reasonably be ascertained from the site condition for both during the construction stage and long-term condition in which the retaining wall is to be built.

If the ground above the top of the retaining wall is only gently sloping, this may not be considered as 'surcharge'. To determine the impact of the sloping ground and its pressure on the stability of the proposed retaining wall, you may wish to seek professional advice from a suitably qualified and experienced engineer.

Exemption 20: Retaining walls in Urban Area	Building consent required
Retaining wall ≤ 1.5m without surcharge	No
Retaining wall ≤ 1.5m with surcharge	Yes
Retaining wall ≥ 1.5m	Yes

Exemption 41: Retaining walls

- 1. Building work in connection with a retaining wall in a rural zone, if:
 - a. The wall retains not more than 3 metres depth of ground; and
 - b. The distance between the wall and any legal boundary or existing building is at least the height of the wall.
- In subclause (1), rural zone means any zone or area (other than a rural residential area) that, in the District Plan of the territorial authority in whose district the building work is to be undertaken, is described as a rural zone, rural resource area, or any rural environment, or by works of similar meaning.

If you are constructing a retaining wall in a rural zone, you may construct one up to 3 metres in height without building consent. This is possible if the wall meets the above clauses, and its design has been carried out or reviewed by a chartered professional engineer.

Exemption 41: Retaining walls in Rural* zone with CPEng design	Building consent required
Retaining wall ≤ 3.0m and > than height from boundary	No
Retaining wall ≤ 3.0m and < than height from boundary	Yes
Retaining wall ≥ 3.0m	Yes

Resource consent

If you do not require building consent for your retaining wall, you may still require resource consent. A resource consent is required for any cut or fill, greater than 0.5 metres in height, supported by a retaining wall that is not set back from the site boundary. This is set out by Rule 25.5.18.2 (a) of the *Earthworks chapter* under QLDC's Proposed District Plan.

Interpretative diagram: Cut supported by retaining wall Elevation view

Earthworks greater than 0.5 metres in height or depth shall be set back from the site boundary the following minimum distances:

25.5.18.1

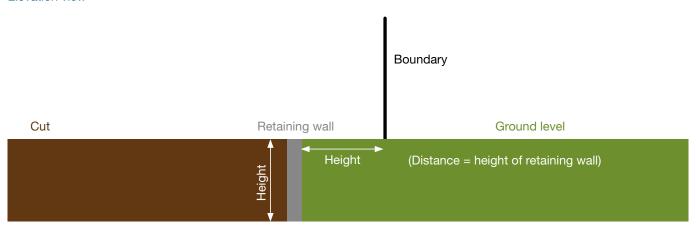
Earthworks not supported by retaining walls:

- A distance at least equal to the maximum height of the fill, as measured from the toe of the fill, with a maximum batter slope angle of 1:3 (vertical: horizontal); or
- 0.3m plus a batter slope angle of a maximum of 1:3 (vertical: horizontal), as measured from the crest of the cut.

25.5.18.2

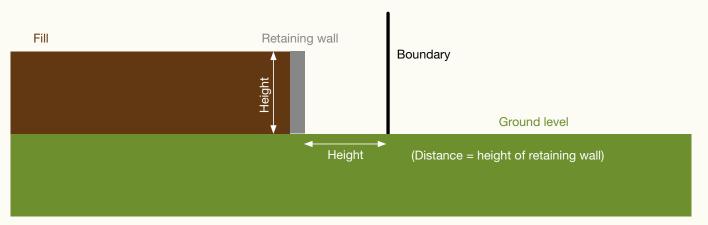
Earthworks supported by retaining walls:

- a. Cut or fill supported by a retaining wall must be setback a distance at least equal to the height of the retaining wall;
- b. Cut and fill equal to or less than 0.5m in height is exempt from this rule.



Interpretative diagram: Fill supported by retaining wall

Elevation view



These diagrams demonstrate the setback rules under the Proposed District Plan. If the retaining wall does not meet these requirements, then resource consent is required.

Additional factors to consider

While retaining walls may not always require a building or resource consent, some temporary cuts to install a retaining wall could breach boundaries. Regarding drainage behind the structure, please be aware of the soil type as a 1:1 batter slope may not always be appropriate. Always seek the advice of a suitably qualified professional prior to undertaking works.

If there is a fall of 1 metre or more from the retaining wall, you may be required to install a safety barrier under clause F4 of the Building Code (Safety from falling). Factors to consider include:

- a. The purpose or use of the retaining wall
- b. How accessible it is
- c. Whether it is frequented by children

While a cut up to 0.5 metres can be made on the boundary, you cannot undermine neighbouring structures. Please discuss this with a suitably qualified engineer in the event that there is a structure in close proximity to your boundary, prior to undertaking any works.

If the construction of retaining wall includes works on an adjoining property, whether or not a building or resource consent is required, the adjoining landowner will need to provide approval for those works. This is a private property matter and not a matter for Council to resolve.

Any works related to a retaining wall, including drainage works, constructed on an adjoining property will require the adjoining landowner's approval. Approval may include the requirement for registration of an easement for the right to drain water. The parties should seek independent legal advice on the matter before commencing works. Council has no responsibility to ensure that property issues between parties are resolved.

It's important to remember there are circumstances where a retaining wall may be exempt from building consent but may require resource consent under the District Plan, and where building consent is required but resource consent isn't. For example: If you have a retaining wall on your property boundary that is less than 1.5 metres in height but greater than 0.5 metres in height, QLDC's District Plan would be applicable and limitations would apply. Engineering acceptance may also be a requirement of the resource consent process, and specific conditions relating to engineering and construction methodology may be included in an Engineering Acceptance where the retaining wall structures are complex. The Engineering Acceptance process is separate and additional to the Building Consent process and may require more information on staged construction methodology and survey monitoring requirements.

Glossary of terms

Batter slope

Batter slope is an unreinforced embankment.

Cut

Cut is earth removed from an area.

Fill

Fill is earth that can be sourced either from the cut material within the site, or from an offsite location.

Surcharge

Surcharge is any vertical pressure applied to the ground surface in the vicinity of a retaining wall. The surcharge load will result in an additional horizontal pressure on the retaining wall.

Further information and resources

A QLDC Duty Planner is available to provide 10 minutes free assistance for the following types of queries:

- Confirmation of the zoning of a property
- Providing interpretation assistance of District Plan provisions (rules, objectives, and policies)
- Providing an outline of the resource consent process
- Providing assistance in relation to a s37 notice on a building consent

Duty Planners cannot provide advice as to the likelihood of obtaining a resource consent for a project, nor detailed information as to what consents are required for a proposal.

More information can be found on Council's website at <u>www.qldc.govt.nz/resource-consents</u>



