

Chris Goom, a landscape designer, believes all retaining walls should be inspected by an engineer for stability and effectiveness.

Soundness most important element in a retaining wall

In the Port Hills there are many examples of badly constructed retaining walls, which can be very expensive to repair, says a Christchurch landscaper, Chris Goom.

There are glaring examples of structurally unsound walls which in many cases have the potential "to finish up in someone else's backyard, causing real problems".

Chris advises anyone considering buying a hillside property with retaining walls to employ an engineer to check their construction.

"That's almost imperative, because if they are not stable, it can mean great expense to rebuild them.

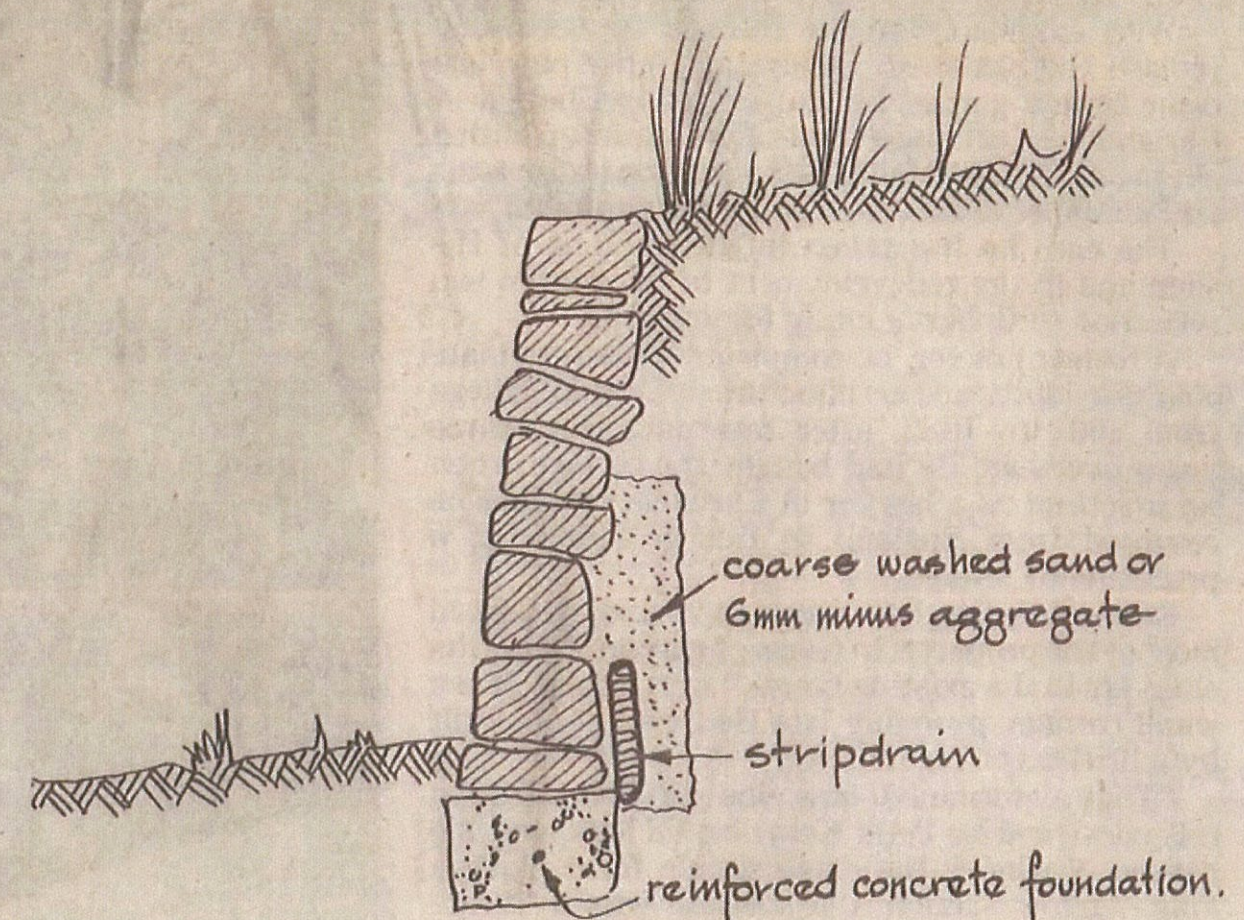
"Gardens, sheds, the house, and driveways are invariably established, and access to the walls can be difficult. That is where the biggest expense comes in. Access can be a nightmare for a contractor," he says.

"Everything we do is checked by an engineer", and an engineer should always be involved in the design of a retaining wall.

The new building codes are also well worth checking with regard to retaining walls. The new rulings need to be clarified in each individual case, and walls over a certain height have to be approved by the council.

The other big concern is that the wall should have adequate drainage to prevent water from building up behind it. Otherwise, the wall acts as a dam, and the volume of water can create a great deal of pressure, creating havoc if the wall collapses.

"You have got to make sure that water has a way out — that good drainage is incorporated during the construction of the wall. Many filter materials on the market today let the



CROSS SECTION: TYPICAL
RETAINING WALL
not to scale.

This cross-section of a typical retaining wall shows important elements of the construction.

water through, but keep the soil particles in place," he says.

First and foremost, retaining walls are a functional element to help to make steep land flat and level. Once that has been achieved, there is a chance to turn them into a feature of the landscape.

They can be created with recesses

for planting; and they can be made of brick or timber, with concrete crib walling, dry stone walling, square boxed walling, or any of the numerous manufactured wall products.

"It becomes a matter of personal taste in the end, but it is vital that the walls be structurally sound, and able to retain the weight behind them."