



REBUILD RIGHT

FOUNDATIONS GUIDE FOR CHRISTCHURCH

FLAT LAND IN CHRISTCHURCH HAS BEEN DIVIDED INTO 3 FOUNDATION TECHNICAL CATEGORIES RELATING TO THE POSSIBILITY OF FUTURE DAMAGE FROM LIQUEFACTION IN THE EVENT OF A SIZEABLE SEISMIC EVENT.

**SEISMIC
LIQUEFACTION
POTENTIAL**

TC1

FUTURE LAND DAMAGE FROM LIQUEFACTION IS **UNLIKELY**

TC2

MINOR TO MODERATE LAND DAMAGE FROM LIQUEFACTION IS POSSIBLE IN FUTURE SIGNIFICANT EARTHQUAKES

TC3

MODERATE TO SIGNIFICANT LAND DAMAGE FROM LIQUEFACTION IS POSSIBLE IN FUTURE SIGNIFICANT EARTHQUAKES





REBUILD RIGHT WITH **RIBRAFT**[®]

The **Firth RibRaft**[®] foundation system is becoming the most popular solution in NZ due to the floor's construction sitting **ON** the ground not **IN** it. It has been developed specifically for applications such as light commercial building and residential housing.



The Firth RibRaft[®] floor system is:

- ✓ Seismically strong
- ✓ Energy efficient
- ✓ Cost efficient due to reduced time/labour
- ✓ Far less intrusive on land due to reduced excavation



WHICH ONE IS RIGHT FOR ME?

FIRTH'S RIBRAFT® FOUNDATIONS ARE MODIFIABLE TO PERFORM IN EACH TECHNICAL CATEGORY (TC) ZONE A HOME WILL BE BUILT IN:



This standard system uses a combination of polystyrene pods, steel reinforcing rods, plastic spacers and Firth RaftMix™ concrete. Each component fits together simply, dramatically reducing labour and costs, while still producing a seismically sound structure. This system has been reviewed by Certmark Australasia and has been awarded Codemark certification. It is the only floor system in NZ to receive such certification.



This system uses a combination of polystyrene pods, steel reinforcing rods, plastic spacers and RaftMix™ concrete. Each component fits together simply, dramatically reducing labour and costs, while still producing a seismically sound structure. The system is specifically engineered to comply with DBH guidance documents for a TC2 land category.



This adds a steelcrete base slab and patented relevening technology to allow the slab to be relevelled easily following a seismic event.

Firth RibRaft® & groundworks options in TC3 zones

Expected settlement in SLS earthquake due to movement in top 10m of soil strata

↑ MAJOR (>100mm) ↓ MINOR (<100mm)	Options: RibRaft ⁽²⁾ + deep piles RibRaft TC2 + ground improvements ⁽¹⁾	N/A – solutions in development
	Options: RibRaft TC3 RibRaft ⁽²⁾ + deep piles RibRaft TC2 + ground improvements ⁽¹⁾	Options: RibRaft TC3 RibRaft TC2 + excavate and cement stabilise* RibRaft TC2 + deep soil mix columns to 8.0m

MINOR TO MODERATE

MAJOR

Global lateral movement or lateral stretch

⁽¹⁾ Refer 'DBH document' Interim guidance for repairing and rebuilding foundations in Technical Category 3

⁽²⁾ RibRaft® - a specifically designed version of RibRaft®

* Application only if liquefaction depths less than 10m



Rebuild Right with RibRaft® here

For more detailed information on a seismically strong RibRaft® floor, contact Firth on 0800 800 576 visit www.firth.co.nz/ribraft or talk to one of our Rebuild Right partners.



You'll find more solutions to **Rebuild Right** at www.firth.co.nz

..Dricon Trade Mortar

..Masonry Veneers

..Keystone Retaining Walls