

# Multi-Storey Seismic Resistance



# FACT SHEET

## Overview

As a result of R&D programmes in which TimberLab has been involved, the resilient performance of Timber Structures in recent earthquakes has been enhanced with new technologies involving post tensioned multi-storey solutions.

Post tensioning enables the structure to return to its original position. Timber's ability to absorb energy means structural integrity is maintained after the seismic event. Where concrete and steel may shatter or deform, post tensioned timber structures continue. TimberLab's wide experience in gluing large structural timber members means fabricating large LVL sections is a natural progression.

Achieving adequate gluing pressure and dimensional accuracy are prerequisite to achieving the designer's expectations.

## Benefits

- » **Accuracy** - With the use of our 5 axis CNC bridge, TimberLab's accuracy is unparalleled, removing any uncertainty about rework onsite.
- » **Pre fitting** - critical connections in the factory makes on site assembling so much simpler and quicker.
- » **Factory Assembled** - Full size in-factory assembly ensures a correct fit to prepared site.
- » **Long lengths** - avoid complicated splice joints
- » **Utilities & Conduits** - Can be cut/drilled in factory for easy running of utilities onsite.
- » **Economical** - Fabricated LVL offers an extremely economical structural material.
- » **Environmental** - As TimberLab's LVL comes from only plantation timber, it is the good sustainable choice.



## TimberLab's LVL Projects - a Snapshot

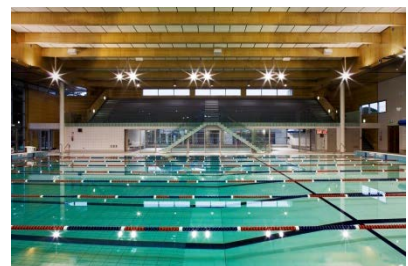
Carterton Events Centre (Carterton)  
LVL Shear Walls & Trusses



Christchurch Transitional Cathedral  
**Fabricated LVL rafters**; the structural component of the cardboard tube. Additional joinery of the rose window.



Diocesan School (Auckland).  
Post Tensioned box beams  
27m span over indoor swimming pool.



Trimble (Christchurch)  
**2 storey post tension office block.**  
LVL fabricated columns, floor and roof beams



### Some of our Other LVL Projects

Transpower (Christchurch) / Brands Laboratory (Wellington) / Ihenga - Waiariki Training Centre (Rotorua) / Rangiora College (Rangiora) / St John Vianney Church (Auckland) / Shirley Primary (Christchurch) / Ecofast House (Matakana)