

Construction Issues: **Masonry** Lift Shafts Within **Timber** Buildings

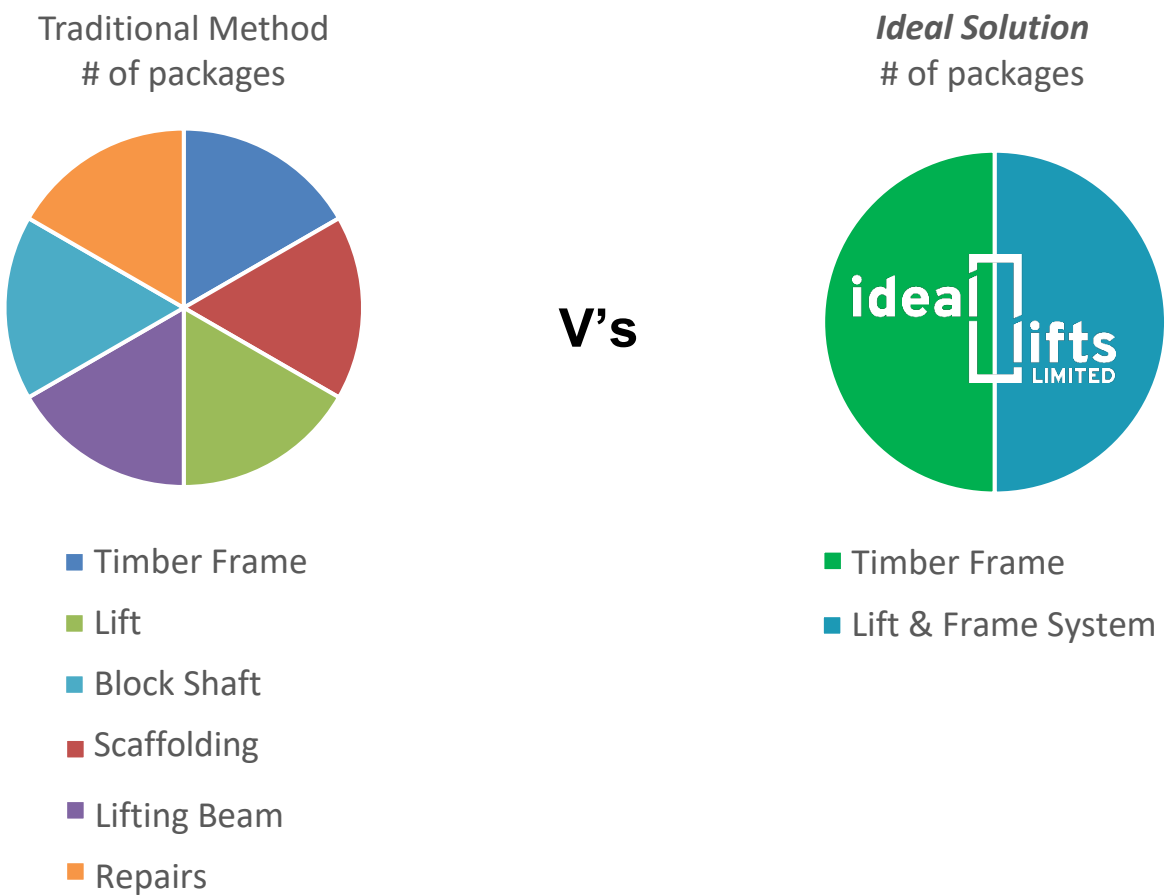
The Ideal Solution

Our [Ideal Lifts Frame System](#) is specifically designed and installed in a way to avoid the issues detailed below from occurring by adjusting with the building settlement as it occurs. Our methods have been successfully used for nearly 2 decades across hundreds of installations.

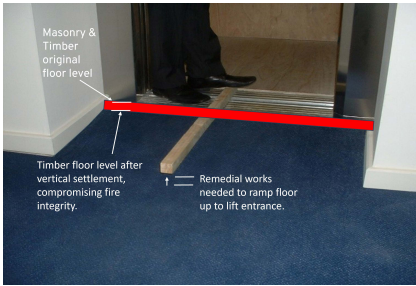
By utilising our Lift and Frame System, you will not only avoid compromising the fire integrity of the building, the need for remedial repairs and the potential for tripping hazards you will also save time and resources by contracting for just one package instead of several.

Procurement & Management:

If intending to install a traditional block shaft within the timber building, you will also need to include for contract negotiation of each individual package, different payment terms and individual invoice and contract processing, as well as on-site project management time i.e. liaison between trades on a traditional block work shaft and for installing and testing the lifting beams and eyes.



Things to Consider:

Process by contractor		Conventional Load Bearing Masonry Shaft Within a Timber Building	Ideal Lift Frame System	
1	Fire integrity	Compromised 	Accommodates differential of movement maintaining fire integrity	
2	Masonry shaft	A limited number of courses can be constructed at a time due to the weight of blocks forcing mortar out of joints. Typically, 6 days labour	Not required with Ideal Lifts Frame System	
3	Landing entrances	Potential for trip hazard 	Accommodates differential of movement eliminating any tripping hazard	
4	Remedial repairs to landing entrance	After settlement, repair work will be required to each individual landing entrance in a newly occupied building	Accommodates differential movement eliminating the need for any repair work	
5	Lifting beams/eyes	Needs to be ordered, built in, tested, and marked with a SWL 	Included with Ideal Lifts Frame System	
6	Scaffolding	Hire cost, including cost for standard scaffold pole lengths and boards (banded) cut to specific shaft size	Not required with Ideal Lifts Frame System	

See our [Ideal Lifts Guide for Timber Construction](#) for further information.

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Shrinkage and Repair

A traditional masonry lift shaft does not allow for timber frame shrinkage and will require remedial (cracking) work around the landing entrances approximately 12 to 18 months after building occupancy. These are difficult to complete in communal areas and residents will not be able to use the lift whilst these works are completed.

Trip Hazard

During the settlement period there is a health and safety risk i.e. with a 5 stop lift, the landing door sills may be up to 50mm higher than the top timber floor level. This not only creates a tripping hazard for residents, but also affects the perceived quality of building construction by the end client. The image below shows ramping on landing entrances to rectify the tripping hazard.

Fire Rating Compromised

Landing doors fitted to the masonry shaft will remain in place whilst the landing entrances/floors move vertically down during the settlement period, this will cause gaps around lift entrances due to differential movement. This movement will compromise the fire integrity of landing entrances or the system's ability to stop flames or hot gases of a fire from physically passing from one side of the element (the fire side) to the other side (the non-fire side) through holes, gaps, cracks or any other types of openings.

