

Two Essential Requirements for a Home Built to Last

For many of you who are reading this book, by the time you have finished, you may well be ready to embark on a venture you might not have dared imagine ten years ago – building your own home. While this book is also for the guidance of those who already work in the construction industry, we wanted to include those of you who have sound do-it-yourself (DIY) skills. The cold-formed steel (CFS) frame, or skeleton for ADUs (accessory dwelling units) or affordable housing is easy to erect and thanks to the plethora of YouTube videos on the 'net, there is nothing in the realm of property construction, from laying foundations to plumbing in a sink that doesn't have a selection of 'how to' videos to watch, and in every language imaginable! You don't need the knowledge, just a basic skillset and access to the internet to be able to build your own steel-frame home!

In reality, there is something of a revolution occurring in the construction industry across the globe with steel-frame skeletons enabling more and more of you to build your own home, and at a price appreciably more affordable than buying a traditionally built property from a developer – one of the main reasons steel-frame properties are becoming so popular.

So, what are the two essential requirements of a home built to last?

In simple terms, a solid frame, or skeleton (what you build) and firm foundations (on what you build).

The Frame or Skeleton

<https://youtu.be/MerPhwrbB-c>

CLICK HERE



<https://youtu.be/GncoRZO4rAI>

CLICK HERE



https://youtu.be/0_WsAvPYoLE

CLICK HERE



To avoid any confusion, properties with a main structure made of timber are referred to as timber-frame properties. Where cold-formed steel (CFS) is concerned, the CFS frame

in a property is referred to as a skeleton. Both structures fulfil the exact same purpose – they provide a solid structure around which you build the walls, roof and fit out the interior.



Multiple Advantages of a CFS skeleton

Timber is prone to bending and warping under extreme conditions such as high or low temperatures, excessive moisture or high winds. CFS does not suffer from any of these drawbacks.

Timber is subject to attack from dry and wet rot, woodworm, termites, boors, carpenter ants and various other insects. CFS is impervious to all such attacks and infestations.

Timber is flammable and in a fire is likely to aid in the total destruction of a property. CFS is non-combustible and can help to retard the spread of a domestic fire.

As a result of the above, insurance companies rate CFS-framed properties lower than timber-framed ones, thus lowering your insurance premiums.

International acceptance

Part of the reason for the global spread of FRAMECAD steel-frame housing is the international standards which it meets. The CFS skeletons we provide at FrameUpNow are designed to International Building Code (IBC) Standards. The IBC is responsible, globally, for ensuring that the quality, safety and sustainability elements of a

construction project are strictly adhered to. All 60 FrameUpNow steel-frame skeleton designs meet the IBC standard.

All FrameUpNow skeletons are delivered with an IBC stamp of approval.

The Foundations

If the foundations of a building are not rock solid, then it doesn't matter how stable the skeleton or frame of a property is: the property won't last and at best will be unsafe to live in.

It is no coincidence that in life we refer to so many things requiring 'solid foundations', though in most instances we are talking figuratively, not literally. Anything built on a solid foundation, whether literally or figuratively, will last much longer.

The foundations to a property perform two functions. They ensure that the property does not sink into the ground when built – you would be surprised just how much a house weighs! Second, they help to evenly distribute the weight of the property across the ground to optimize stability.

Hire a professional for this stage of construction

https://www.youtube.com/watch?v=8kx_BZTx2hs



There is no 'one size fits all' type of foundations. Foundations for a property built on rock differ from those for a property built on clay soil, or sandy soil. For this reason, we strongly recommend you employ the services of an architect or structural engineer to carry out tests on the land the property will be built on. They will also check for groundwater levels and seismic activity and provide you with detailed drawings (plans) of the most appropriate foundations for the property you wish to build.

Once you are in receipt of these plans, you should then hire a professional contractor to lay the foundations. They will have comprehensive knowledge relating to site preparation, formwork, concrete mixing, pouring, finishing, and curing.



Get official paperwork to guarantee the work on your foundations

There are two reasons we recommend you employ professionals to build the foundations of your property. First, you will have peace of mind that your property has been built on 'solid ground' while also giving you the right to legal recourse (insurance) if anything goes wrong. Second, and more important, you are protecting the value of your 'investment'.

There may come a time when you need to sell on your steel-frame property. Depending on where you live, the value of the property can be affected if there is no paperwork to prove that the property has been built to the standards required by local building regulations/authorities. In many instances, banks or building societies will not lend money to the purchaser of a property if it lacks the required paperwork and plans to prove that everything meets all required regulations.

It is also worth noting that that if you do decide to build the property yourself and intend to do the wiring and plumbing yourself, it will also pay to have a registered electrician and registered plumber check and 'sign off' all your work to show that it has all been installed to the correct specifications. Note also that in many countries, it is against the law to install plumbing and fires/furnaces/boilers that involve gas unless you are fully trained and qualified.

In other words, in several instances, while the costs of building a steel-framed property are lower than a traditionally built one, there are certain corners you cannot afford to cut or you could end up affecting its value or, where appropriate, its saleability!

What is included in foundation plans?

Without foundation plans, the contractor you employ to lay the foundations will have no idea what is required of them.

Foundation plans may vary, depending on where you live, but can include any or all of the following:

- Foundation Layout
- Footings
- Foundation Walls
- Columns and Piers
- Foundation Materials
- Floor Elevation Drainage Details
- Site Information

Three types of foundations

There are generally three types of foundations used in residential construction, which can be modified based on local terrain conditions:

- Shallow foundations
- Deep foundations
- Combined foundation systems

Get the foundations and the frame right, and you can build a property that will last a lifetime and beyond.