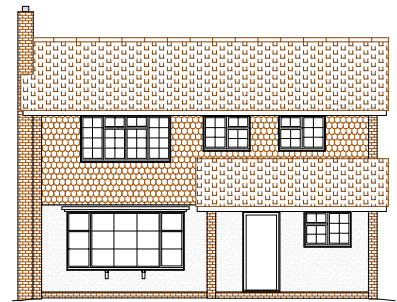


THE QUICK, LOW-COST, "ON-SITE" SOLUTION FOR HOUSE-BUILDERS!

With "Timber-Frame" Components Supplied By Builders' Merchants
& Trade Suppliers @ Net Trade Prices!



(2017 PRICES)



TYPICAL COST OF OUR "ON-SITE" EQUIVALENT
TO A 'PACKAGE-KIT' BASED VERSION
(including external doors & windows ~ weathertight
ready for external wall & roof claddings)

£175 ~
£185/m²

The ProFrame® "TIMBER-FRAME KIT" ~ comprising full structural design specifications & calc's, material lists, cutting & nailing schedules, wall & floor panel framing layout drwgs, assembly & erection instructions, with Builders' Merchant supplied structural floor, wall & roof framing components including sheathing, nails, etc.

£65/m²

"SLIM-LINE"
(GROUND-BEARING)
FOUNDATIONS ~
Designed to take full advantage of both timber-frame's incredible strength to resist differential settlement and/or subsidence issues and the huge reduction in deadweight loadings upon footings!

£32/m²

(Typical cost of fabrication and erection on-site.)

£35/m²

Fully insulated ~ NO thermal bridging!
(Ready for floor finish)

£21/m²

ADD YOUR CHOICE OF EXTERNAL DOORS & WINDOWS ~
Typically with 1.4 'U' values (windows) & 1.8 'U' values (external doors) ~ all fitted to timber-frame; including fire-stopping and roof joinery, membrane & battening to complete 'closing-in'.
(Ready for external claddings.)

£75-85/m²

Learn "How To Do Timber-Framing" In 5 Minutes Flat!

(It's The Simple, Inexpensive "ON-SITE" House-Building Solution!)

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DID YOU KNOW? Timber-frame is so simple that just the ordinary 'DIY' enthusiasts in the USA alone ~ build more houses than the entire housing output of the UK house-building industry ~ despite the fact that most of the UK's housing output is actually flats and apartments; i.e. they are NOT houses at all!

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The fact is that in a typical year something over 3 million timber-framed properties are built around the World by commercial house-builders and self-builders alike; without using a 'package-kit' or 'SIPS' for a single one of them! Like our clients; they don't worry about loadings and stresses, timber sizes or stress-grades, etc. ~ they simply use 'cutting schedules' and then follow the sizes and layout of timbers shown on the framing drawings.

All that anyone has to do is cut pieces of wood to the indicated length and trim sheets of plywood or OSB to size and then nail the various pieces of wood together. They simply keep repeating that process until the whole house is nailed together!

It's because timber-framed properties are so incredibly easy to build that using an expensive factory-produced 'package-kit' OR 'SIPS' construction is never considered a sensible or financially viable way to build in most countries around the World. (As illustrated later; building timber-frame houses 'on-site' is very cheap compared to the cost of buying & erecting package-kit & 'SIPS' houses!)

(The only exception being countries like Canada and Sweden where winters are so protracted and outside conditions so severe that the only practical way to prevent house-building from 'shutting down' for several months each year is to build 'indoors' and then get everything outside and erected during the 'warmer' months. Even then; most Canadian homes are still built simply and cheaply on-site just like the rest of the World!)

No doubt; thanks to years of intensive advertising & hype about 'SIPS' & 'package-kit' timber-frame houses; you are still finding it hard to believe that building a high quality timber-framed house can be as simple and easy as we claim? Well let's see exactly what "wall-panel" fabrication entails ~ so you can judge for yourself!

Creating the "basic building block" of every timber-framed property ~ the structural wall-panel.

Timber-frame construction usually involves what is known as 'CLS' (Canadian Lumber Standard) timber; although (within the UK) it is more likely to have come from Scandinavian or Central/Northern European sources these days.

Typically; it is a smooth-surfaced construction grade timber with rounded corners (clean & easy to handle); normally either 100 mm x 50 mm or 150 mm x 50 mm (nominal) section ~ the actual 'finished' dimensions being about 10 mm less than the 'nominal' sizes. (What timber section to use will be clearly shown on the drawings and material schedules!)

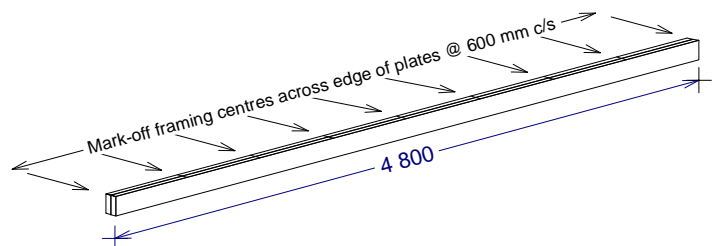
Don't worry about details such as what nails to use, how many nails per 'butt-joint' or how far apart the nails should be for fixing the sheathing. All necessary information is provided on the drawings.

Prepare To Be Amazed How Simple It Is!

Take two lengths of 'CLS' timber, mark-off the required length of the top & bottom-plates (using a steel tape-measure), then mark-off the centre-lines of the vertical framing members (400 mm or 600 mm apart) as shown on the drawings.

Then cut the two timbers to length.

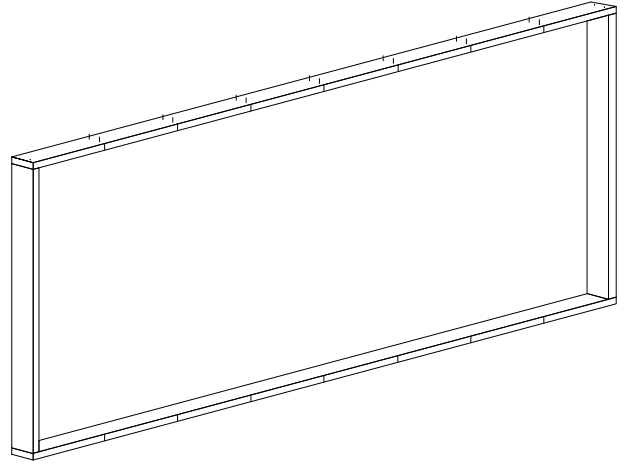
NB: The drawings and 'cutting schedule' will show the individual component lengths; i.e. exactly how long the two (top & bottom plates), etc. need to be.



Assuming a simple 4.8 m (16 ft.) long wall-panel; our example will need nine (identical) vertical framing members ~ so simply mark off the required length as per the 'cutting schedule' (using a steel tape-measure) and cut the nine timbers to length.

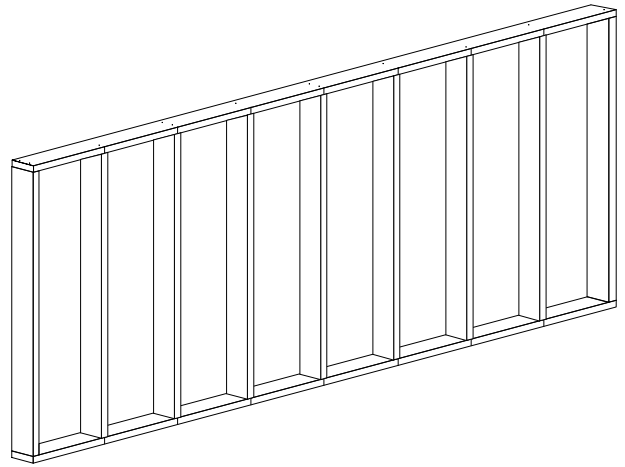
Start by half-driving nails into the face of the top & bottom timbers; in line with the setting out markings; ready for nailing-in the end and intermediate vertical members.

Next simply twice nail through the top and bottom timbers into the two end vertical members as shown right ~ keeping the faces of the top & bottom timbers flush with the faces of the end vertical members.



(Incidentally; all this nailing together is done with the timbers laid on the floor adjacent to where the finished wall-panel will be erected ~ totally avoiding the need for any wall-panels to be lifted and/or carried around the building site!)

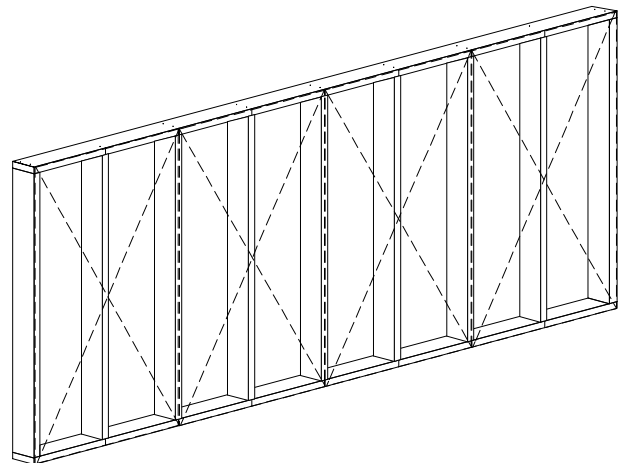
Now complete the panel framing by nailing in the remaining seven vertical timbers at the marked framing positions ~ as shown right ~ ensuring that all ends and edges are kept flush with each other!



NB: Whereas 'stick-building' entails cutting and fitting diagonal 'bracing' timbers after erection to keep the open framework squared up; our method is to simply nail sheets of plywood or OSB onto the upper face of the open-framing ~ the 'sheathing' then acts like a giant 'gusset-plate' and keeps the whole panel truly rectangular during erection and carrying the subsequent structural loadings!

Use a small 'DIY' circular-saw to trim the plywood or OSB sheets to the correct length and width.

Finally; measure the two diagonal lengths of the overall framing and adjust the framework until both diagonal lengths are equal ~ that guarantees the framework is truly rectangular; i.e. ready for actually nailing the sheathing plywood or OSB onto the framing!



And that's all there is to it ~ one structural wall-panel ready for erection!

NB: Creating another similar wall-panel and then nailing the ends of two panels together at 90 degs to each other ~ with the meeting ends (vertical edges) flush with each other ~ will automatically guarantee that a truly vertical corner is created every time!

You don't even need a 'plumb-bob' or a spirit-level to ensure that the wall-panels in-between the corners end-up truly vertical either!

Using our methods; erecting the wall-panels is extremely simple ~ whether at ground floor OR upper floor level.

*Individual wall-panels upto 4.8 m/16 ft. long are easily positioned and erected ~ even if working single-handedly ~ WITHOUT needing to use scaffolding or any lifting gear!

And it gets better because simply repeating that same process guarantees that every corner, and the wall-panels between them, will always be truly vertical! Hard to imagine a simpler way to build houses than that; isn't it?

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**REMEMBER:- There are NO joints involved in ProFrame® designed timber-frame construction!**

The 'fabrication' of wall-panels simply involves nailing the timber and 'sheathing' together as illustrated and described above! Where openings are required; that simply means cutting & nailing a few more timbers together and trimming the 'sheathing' around the opening!

Furthermore; using ProFrame® designed timber-frame construction ~ houses can match or exceed the insulation and airtightness levels of ANY other method of construction; including 'SIPS'; whilst still achieving quite massive savings OFF the cost!

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NB: BEWARE THE 'SIPS' HYPE! We had a 'NHBC' client who used our services upon a couple of 5-bed houses and sailed through 'SAP' compliance. On another development; that same builder opted for a 'design & build' sub-contract that used the KingSpan 'TEK' system (SIPS) for four 4-bed houses. All the 'SIPS' panels had solid timber (i.e. thermal bridges) to all panel edges, including edges to openings; they needed a structural steel frame (so NOT timber-framed as generally 'claimed'!). The superstructure loadings increased dramatically causing major foundation problems and, of the finished houses, three of the four initially 'failed' to achieve 'SAP' compliance! Airtightness languished between 4.00 - 4.67; whereas the two timber-framed houses achieved 2.66! Finally; there was a very substantial increase in the cost of both the foundations and superstructures!

Alternatively; you can choose to blithely pay out a small fortune* purely to cover the 'added-on' cost of factory premises, office staff, business rates, general overheads and the 'kit' company's required profits ~ just so that people can enjoy the comfort of making these extremely simple panels in a nice warm factory somewhere!

NB: THE 'RETAIL PRICES' CHARGED BY 'PACKAGE-KIT' & 'SIPS' COMPANIES HAVE VERY LITTLE RELATIONSHIP TO THE ACTUAL COST INVOLVED WITH PRODUCING WHAT IS BEING PROVIDED!

*In our professional experience; profit margins are habitually "inflated" upto a level whereby the 'Retail Prices' charged effectively cancel out ALL the savings that will be made 'on-site' from having the much more labour-efficient installation of electrical & plumbing services, internal/external finishings, etc. and a much foreshortened overall construction period; i.e. the 'Retail Prices' charged for 'kits' deliberately push-up the overall 'build' cost to a similar level to any other method of constructing the same house IN ORDER TO MAXIMISE 'KIT' COMPANY PROFIT MARGINS!

Of course; the expense doesn't stop with the 'Retail Prices' charged for the 'kits' because; as a direct consequence of having the panels made in a factory; they then have to be loaded onto a HGV and transported around the countryside to wherever the house is to be actually built ~ whereupon yet more expense is incurred to 'hire-in' the fork-lift truck and/or crane that is needed in order to lift each individual factory-made wall-panel carefully off the delivery lorry and transport it safely around the site to wherever it is eventually lifted into position ready for the 'erection crew' to fix it ~ that alone often costs more than the cost of simply building everything 'on-site'!

NB: The ProFrame® "Builders' Merchant" approach avoids ALL the expensive 'on-costs' charged by 'kit' manufacturers whilst being much simpler and more 'eco-friendly'; i.e. it needs NO factory premises or HGV's charging around the countryside ~ each worker simply assembles the wall-panels, raises and fixes them to complete the house ready for following trades; all as illustrated above AND all without needing to use fork-lift trucks, cranes, scaffolding, etc. to get the job done!

FINALLY: With the ProFrame® "Builders' Merchant" approach there is NO huge 'upfront' payment to be financed; as required when purchasing 'package-kits' or 'SIPS'; because everything needed can be bought at net 'trade' prices from regular trade sources; i.e. timber and/or builders merchants; and paid for via the usual trading account facilities!

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