

# "The Original ProFrame® Project!"

## "DIY (Single-Handed) Self-Building!"

*Location: A Market Town In Shropshire (UK)*

How the young "Self-Build-Pro" single-handedly created a 138 m<sup>2</sup> four-bedroom, two-bathroom, three reception room luxury home and garage for less than half-price in under nine months ~ despite simultaneously working full-time as a partner in a professional practice!

Not only that; but this was also the first timber-frame project he had ever tackled as a "Hands-ON" self-builder ~ in fact; he had never actually been inside or even seen a modern timber-frame house before embarking upon the 'build'. Apart from two terms of woodwork at school, there was NO other practical training to draw upon before tackling this project in the mid 1970's! Which just goes to prove that any reasonably healthy person; i.e. anyone capable of undertaking manual work; can certainly save many £10,000's, perhaps even a £100,000 or more, by undertaking a 'DIY' Self-Build and doing the vast majority of the work with minimal sub-contracting ~ the 'secret' for success being that the entire project must be designed and planned so that it can be handled efficiently as a 'DIY' self-build project\*!

(\*Beware all the so-called 'self-build experts' ~ they never seem to think there's any difference!)

(**NB:** Nowadays; using the refined ProFrame® advanced timber frame approach for this same single-handed 'DIY Self Build' project, we would expect that tackling the house would only take about 25 weeks (spare time); i.e. less than SIX months; to get it built and finished whilst still managing to slash over 50% OFF the cost!)

### \*\*\* The Original Project Itself \*\*\*

The site was the former orchard of the adjoining property whose owner very graciously agreed to allow the end of their dilapidated glasshouse (seen below ~ covered with polythene sheeting) to be used to store bags of cement, etc. and also allowed the use of the greenhouse's water-tap ~ saving the need to get a 'building water' supply laid onto the site!

A JCB & driver were hired for a day; enabling the vegetable soil to be stripped away into a spoil heap; profile-boards set-out and trenches excavated with soil into a second spoil heap on site. Trenches were hand-trimmed prior to ready-mix concrete being poured and levelled ready for the foundation walls to be built.

(The house was designed to require very simple 'slim-line' foundations; i.e. a simple rectangle with a small rectangle attached to the front ~ the need for any internal wall foundations was also designed out!)



Being started during the hot summer of '76; every single brick had to be 'dunked' in a bucket of water before being laid on the mortar bed; especially as the front & back walls were just single-skin (half-brick thick) brickwork. It not only saved brickwork but also meant the foundation wall only needed a narrow 'slim-line' concrete footing beneath!

Designing out the need for internal wall foundations speeded up the construction even more and reduced costs further still!



Hardcore was laid and compacted; blinded with sand to receive the damp-proof membrane, topped off with the ready-mix concrete slab. (The ground floor was finished off later with an insulated 'floating floor' laid over the concrete slab.)

Finally; the damp-proof course and timber anchor-plate were bedded in mortar on the walls and fixed in place ready for the timber-frame to go up!



Having used the 'cutting schedule' to pre-cut all the timber and plywood sheathing for the entire house (off-site); nailing panels together and erecting them was a quick, simple process!

The rear view right shows the first floor joists have just been finished ready for the floor sheathing to be laid. The infill panels over the windows also need fitting in place. (With 'hindsight'; all subsequent projects had all the wall-panels framed up 'on-site' as complete 'units' before they were erected!)



The picture seen on the left-side of the next row shows the internal view towards the rear (i.e. breakfast room/kitchen) together with the 'load-bearing' partition wall supporting the floor joists above.

As the windows were already on site; they were fitted into the erected panels as the work proceeded to make theft more difficult!

The 'hindsight' gained on this project benefitted all subsequent projects!



The first floor wall-panels also went together quickly; although neither the 'scenario' nor gable panel construction shown right has ever been repeated; e.g. roof-trusses are always erected before the gable-ends for both safety and peace of mind; whilst the panel construction has also radically changed since this first project!

When the roof trusses were erected; it was done without the aid of any lifting gear whatsoever ~ one of the many things that hasn't needed to be changed over the decades that have elapsed since!



The 'breather' paper was applied in horizontal 'bands' around the structure working off a ladder ~ something else that has never been repeated since, again for safety reasons!

(NB: Our apologies for the poor quality of the pictures. They were taken on an old 'box' Brownie camera ~ long before digital cameras were invented! Unfortunately; scanning the 30+ year old prints into a digital format hasn't improved the quality of their appearance!)

Trusses and gable-ladders in place (all without lifting gear) ready for closing in and tiling the roof. 1st floor windows are still to be fitted whilst the 'bay' window and front entrance door openings are still closed in with plywood sheathing for 'security' purposes.



The facing brickwork to the house gable ends, entrance porch and garage (seen below right) was done by sub-contractors who supplied, erected and removed their own scaffolding over a five day period whilst they were doing the brickwork!



Fascia and barge-boards were all fixed working from inside the timber-frame; as was the felting and battening ~ apart from the last little 'bit'. A 'DIY' tower scaffold was used to make 'loading out' quicker and safer. (The tiles were literally carried up a ladder and stacked on the platform, four at a time, making four piles of twelve before being taken, four at a time, to load out the roof ~ five tons of them in all ~ over a single weekend.) The actual tiling was very easy by comparison.



The internal work was carried out during the winter months and the house was moved into in the New Year (1977)!

The final picture (above right) was actually taken several years later ~ hence the better quality of picture ~ and shows the finished house from the same view-point as the picture 'above left' of it. Note the single-skin construction to the front elevation (it is repeated on the rear elevation too); rendered lower storey and tile-hanging above; which not only reduced the costs considerably, but also 'enhanced' the appearance of the house!

Incidentally; despite the incredible cost-savings and fast erection time; constructional quality wasn't sacrificed ~ without any upgrading, the house was still perfectly capable of exceeding the Building Regulations thermal insulation requirements, etc. over a quarter of a century after it was originally built!

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"Despite being restricted to working only evenings and weekends, due to doing normal full-time hours Monday to Friday, this first "Hands-ON" self-build project took just under **NINE** months to build a luxury four-bedroom, two-bathroom, three reception room, detached house ~ and it was done without incurring the high (upfront) cost, and practical "handling" problems of prefabricated wall-panels, inherent with using any timber-frame "package-kit" company in the hope of saving a bit more time; albeit at much greater expense!"

The timber-frame house plans were drawn up to meet personal requirements. Apart from four bedrooms and two full bathrooms (one ensuite) upstairs; the house also had an entrance hall, lounge, dining-room, study, fitted cloakroom/WC, fitted out utility-room, fully-fitted kitchen/breakfast-room, attached garage and full central heating. With an internal floor area of just 120 m<sup>2</sup>/1290 ft<sup>2</sup>; the whole layout was very efficiently designed to feel spacious without wasting space ~ an excellent example of how to design the house you really want properly; i.e. efficiently!

~~~~~ "Saving Money" ~~~~~

**NB**: The Insider's Design Guide; written and illustrated by the "Self-Build-Pro" himself and published by "Self-Build-Pro (Chartered Surveyors)" gives an excellent, unique insight and introduction to anybody seeking to learn how to design the house they want in a way that ensures you can actually afford to build it or have it built ~ irrespective of the construction method used!

~~~~~ "Saving Money" ~~~~~

Sub-contracted work amounted to just under 15% of the total work involved; i.e. even in its basic 'unrefined' state, the forerunner of the ProFrame<sup>®</sup> advanced technological design work enabled over 85% of the whole construction, service installations and finishings work to be effectively "unskilled" work; thereby removing the need for, or dependence upon, specialist skills or training to do it!

Upon completion; the total build-cost of the project worked at just 46% of the normal house-building costs for the region. With the property's open market valuation also well in excess of double the total project cost (i.e. including the plot purchase costs), a luxury home was created for well under **half-price** in just **thirty-eight weeks** (spare-time) working on a 'DIY' (Hands-ON) Self-Build basis!"

~~~~~ "Saving Money" ~~~~~

**NB**: Often used as a technical guide whilst physically building; The Insider's "Hands-ON" Construction Guide; written and illustrated by the "Self-Build-Pro" himself and published by "Self-Build-Pro (Chartered Surveyors)"; gives an excellent and unique insight into how anybody (whether house-builder, carpenter or 'DIY' enthusiast) can save a 'small fortune' building superb, high-quality, timber-frame houses using the unique ProFrame<sup>®</sup> design and construction methods!

~~~~~ "Saving Money" ~~~~~

### THE BIGGEST SURPRISE OF ALL!

The money that the "Self-Build-Pro" could (and did) **SAVE** doing his first 'Hands-ON' self-build; purely in his 'spare time'; was considerably **MORE** than he was making from his 'day -job' as an equity partner in a professional firm of chartered quantity surveyors! **AND** ~ it was all totally 'tax-free' too!

**We can enable you to do the same!**

## Practical Conclusions

In the light of his personal 'Hands-ON' self-build experience whilst doing some 85% of the original project himself ~ the "Self-Build-Pro" immediately refined his approach on all subsequent projects ~ considering it to have been counter-productive to have done more than around 65% - 70% of the whole project himself ~ meaning that 30% - 35% should be the realistic minimum that is 'sub-contracted' out ~ even on a house this size. Larger projects can also be tackled single-handed; in fact the project that formed the basis of the "An Insider's 'Hands-ON' Construction Guide" was over 100 m<sup>2</sup>/1000 ft<sup>2</sup> larger and infinitely more complex; but 'DIY' enthusiasts should beware the longer time-scales involved. They can rapidly sap enthusiasm and erode cost savings due to external considerations such as interest charges and/or rental costs!

**The actual work to fabricate and erect a ProFrame® designed timber-frame house is amazingly quick & simple to do ~ it is specifically designed for that precise purpose ~ and to allow any house to match the best thermal and 'airtightness' performance that even 'SIPS' can achieve ~ at a fraction of the cost!**

So whether you're interested in just constructing the timber-frame building structure or doing much more; we can show you how to get the house you really want and how to go about actually building it yourself; as well as how to minimise the cost of any sub-contracted work that you do not want to do yourself!

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