Top notch and timber framed

Situated in the quiet Essex village of Langford a few miles from Maldon and the Blackwater estuary, Sunbury Homes are building 11 luxury, detached homes with a difference.

For as well as being beautifully light and spacious, with high ceilings and a very high quality finish, these homes, or a large part of them at least, are actually being constructed in Ireland.

Sunbury Homes are using an advanced, closed panel timber frame construction system which has been developed by TTFC Ltd (The Timber Frame Company) and is fabricated in Wexford. Ian Jeffrey, the co-founder of the developers, Sunbury Homes, had invited me to Langford to see for myself how modern timber frame construction was benefitting their customers and their business.

Ian is a career housebuilder with 30 years' experience in the construction industry. He began his career with Barratt East London in the mid 1980's and having started in technical roles, moved into land acquisition and development. Prior to founding Sunbury Homes with business partner Angus Bates in 2011, Ian had spent five years as the MD of the Essex divisions of Bellway Homes and most recently, Persimmon Homes. In just four years Sunbury Homes have completed 30 new homes and together with schemes in the pipeline, will have achieved a projected turnover in excess of £30m GDV. In addition, Ian and Angus recently welcomed Terry Brunning to the team as a partner of Sunbury Homes.

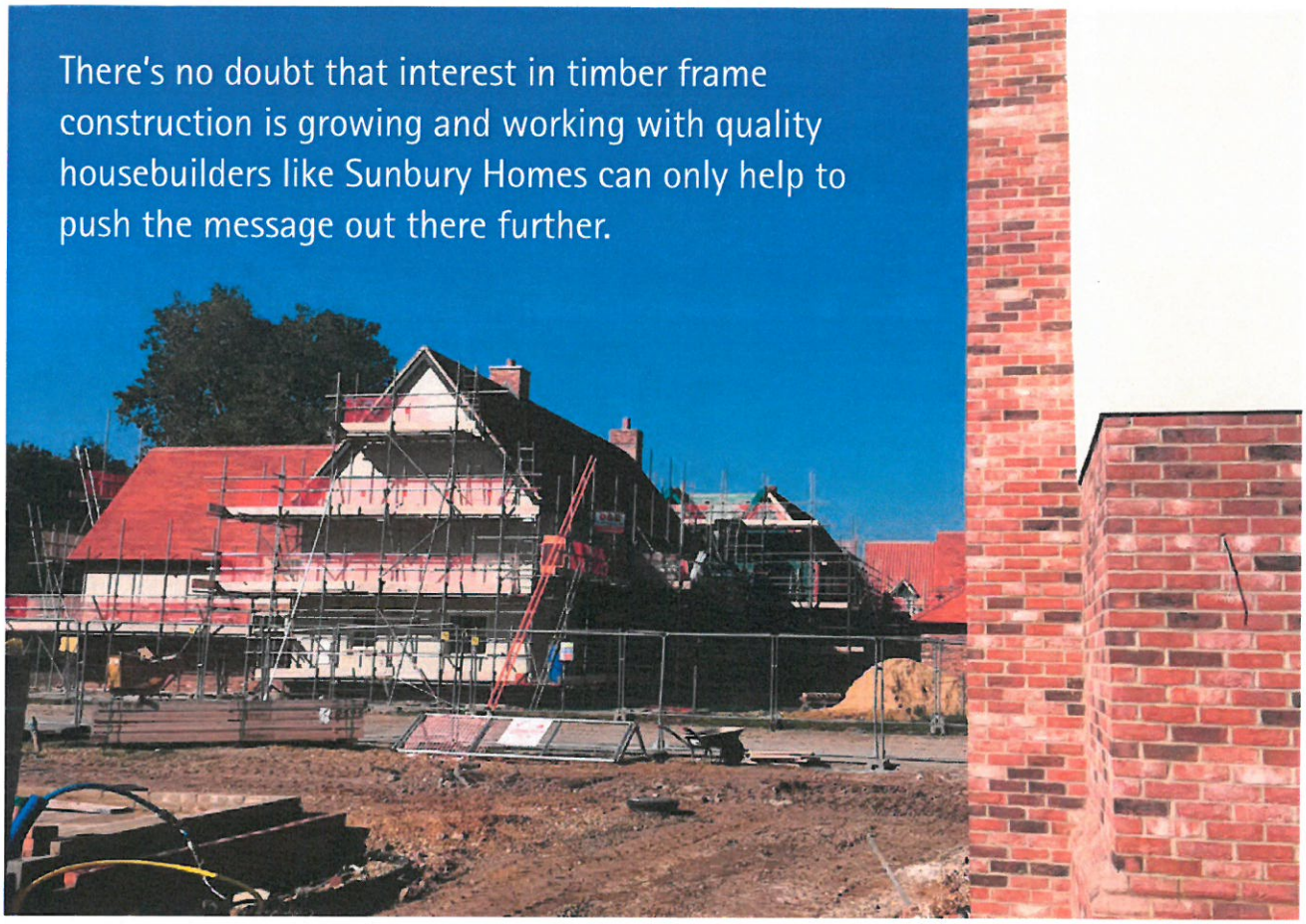
As Ian shows me around what will soon be the show home, he explains why developing his own projects has been more satisfying than running a major housebuilding company.

"I'd enjoyed my time at Barratt, Bellway and Persimmon but I felt the time had come for me to start building homes I could take a real personal rather than corporate pride in. I wanted to build homes I would be happy to live in myself, and that generally means doing things differently to a volume builder."

In addition to taking the more unusual decision of building with a closed panel timber frame construction system, Sunbury also took a different route when clearing the 4 acre site. Instead of digging up and carting away several hundred tonnes of soil only to buy in aggregate and shingle later on, they hired equipment to screen and grade the soil onsite. The process saved hundreds of lorry miles and as well as being better for the environment and the neighbours, Sunbury believe they ended up with better quality aggregates and topsoil too.

"I am certain that in addition to the environmental benefits that this exercise will have saved us money" he says. "But even if it were cost neutral I feel good about it. Sometimes there are different and better ways of doing things if you think about them rather than just jumping in and doing things the same way because that's how they've always been done."

With floorplans ranging from around 2800 ft2 to 3200 ft2, plus one special house with the potential for a huge roof-space den, cinema or man-cave, these attractive houses were never going to be small. However, instead of putting in extra bedrooms to boost the saleability of the circa £900k homes, Sunbury wanted the emphasis to be on the roomy rather than the room count.



companies like Huf Haus making self-build chic and programmes like 'Grand Designs' showing that there can be more to housebuilding than bricks and mortar.

Leigh is delighted that timber frames are making a comeback in this country. "There's no doubt that interest in timber frame construction is growing and working with quality housebuilders like Sunbury Homes can only help to push the message out there further. Ian is making full use of the benefits of the closed panel system and creating desirable, energy efficient homes for discerning buyers."

But does timber framed construction present any challenges for securing development finance? I asked Noel Meredith, Executive Director of United Trust Bank, Sunbury Homes' development finance provider.

"Some development finance lenders aren't keen on timber frame." He explains. "Firstly because some lenders don't like to look at anything out of the ordinary but also because the funding requirements for a timber frame project are slightly different to a traditional build."

Noel continues; "In most cases the timber frame supplier, in this instance TTFC, needs a significant part of the build cost much earlier in the project cycle than with a traditional build. There's a 10% deposit at the planning stage, then a 40% payment at the manufacture stage and the balance of their invoice required about a month after the on-site construction of the frame. When a project is progressing quickly that could mean the developer has incurred around 50% to 60% of their construction costs within two months of starting the build. The lender needs to be comfortable with and prepared for that outlay."

United Trust Bank are no strangers to funding more unusual projects using cutting edge construction methods. Recent developments have included a London apartment block where entire apartment units were constructed in Latvia complete with kitchens and bathrooms and then shipped by lorry to the Battersea site where they were dropped into place like giant Lego bricks.

Noel and Ian were first introduced when Ian and business partner Angus had found it difficult to get funding for the first Sunbury Homes project in Upminster, Essex.

"We were a new development company and this was our first project and although banks like to deal with developers with a good track record, Noel recognised that the experience Angus and I had gained in our careers to date made us a good bet." Explains Ian. "Within a few minutes of meeting Noel I felt that he understood what we were about and recognised the opportunity we presented. We seek out sites which may not be as straightforward as some developers prefer. But with our combined experience we can overcome issues and potentially add even greater value through revisiting the planning and redesign. Some lenders don't like tricky sites but UTB look at proposals in the round. We've found them to be a very knowledgeable and supportive finance partner who understand the development process and ensure that the money for suppliers and contractors is always there ready when we need it."

It has been a beautiful, sunny September day. There's not a cloud in the sky and it's warm enough for shirtsleeves. But following hard on the heels of the wettest August on record, many developers will be turning their thoughts to winter and hoping that heavy rain and snow will stay away. However, in this particular patch of Essex it doesn't really matter what the forecast is. Come rain or come shine, these luxury homes will be finished exactly when Sunbury Homes wants them to be ■

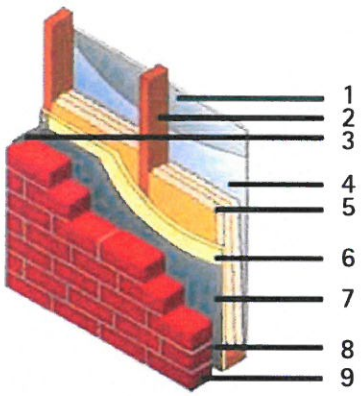
"Four bedrooms and three to four reception rooms is enough for most families," says Ian "and at that price ➤ ➤ point they're going to offer great value for money in this location. We decided to have generous room sizes, high ceilings, wide corridors and an impressive hallway and landing area to give the house that luxury feel rather than just trying to squeeze in extra rooms."

The house is light too, with big windows and plenty of them. Ian continues; "One of the benefits of the TTFC closed panel timber frame system we're using is the tremendous insulation qualities. The homes are virtually airtight and because the u-values are so good we can have more glass and more light but still produce a really warm and energy efficient home."

If it wasn't pointed out that there was only one layer of brick or blockwork on this house there's very little to give the game away that this is a timber frame structure. One tell-tale though is the external walls, which comprise structurally insulated panels (SIPs) plus your choice of exterior layer (in this case brick but it could be a range of finishes from rendered blockwork to timber or metal cladding). The walls to this house seem thicker than usual and they actually make it seem more substantial and solid than a traditional build. I can't resist the urge to tap the walls with my knuckles to see if I get that disappointing hollow sound. I needn't have worried. The interior "plasterboard" is made from a high density fibreboard produced by British Gypsum called Rigidur which has been developed for off-site construction methods. It has excellent acoustic and fire resistant properties and is so strong you can screw heavy loads like kitchen cabinets straight onto it without any special fixings. You can Ebay your hammer drill. You aren't going to need it any more.

The benefits of timber framed construction to the homeowner are just one side of the equation. The other side are the benefits to the developer. From Sunbury's point of view one of the key advantages is the speed at which the weathertight 'shell' can be erected enabling work inside to commence straight away. Ian explains;

"It takes around a week to get from a screeded floor slab, with underfloor heating already installed, to a wind and water-tight structure with all windows and doors fitted and the roof felted and battened. The day the bricklayers can start work on the outer skin is the same day the electricians, plumbers can get started on the first fix internally. Enabling these critical path activities to progress simultaneously rather than sequentially saves time and reduces the chances of any delays to the build being caused by bad weather or labour issues on the brick or blockwork. As a developer, that gives me greater certainty about project timescales, something which is also appreciated by the bank."



The illustration indicates a timber frame structure:
1. **Inner lining of plasterboard**
2. **Structural timber frame**
3. **Stainless steel wall tie**
4. **Vapour check**
5. **Thick insulating quilt - CFC free**
6. **Sheathing board**
7. **Waterproof breather membrane**
8. **Brick or block outer cladding**
9. **Clear wall cavity**

It does look strange seeing a full size scaffold erected around a bare ground floor slab, but once the panels arrive from TTFC's factory in Ireland, an experienced crew from TTFC work quickly to crane in the panels and fix them all together. Once the design is signed off it takes a month for the panels for a house of this size to be manufactured and shipped to the site. The panels are pre-insulated and the windows and doors are usually already installed at the factory. Holes for power sockets and light switches are pre-cut with conduit fixed behind the Rigidur panels ready to drop the cables down. It's an electrician's dream.

Timber frame construction has come a long way since the method fell out of favour with major housebuilders in the mid-1980s when a notable World in Action TV documentary about Barratt's timber framed houses caused so much controversy that attitudes towards the construction technique are still coloured by it over 30 years later.

The investigation at that time revealed that some of Barratt's homes had been constructed so badly that there could be serious issues with condensation leading to wood rot and that inadequate fire stopping in the cavities increased the risk of a serious fire. The fall-out saw Barratt and other major housebuilders largely turn their backs on timber framed building. However, the technology, and quality control has moved on a great deal since then.

Leigh Porter has been the Sales and Marketing Manager of TTFC since they started operating in the UK five years ago. However, the company has been at the forefront of timber frame construction since 1995 and in the last 20 years has provided the frames for thousands of residential houses, offices, hotels and nursing homes, to name but a few of the uses for which TTFC frames have been employed. To say Leigh is passionate about TTFC's closed panel system would be an understatement, and it's clear she takes a personal pride every time a new project gets underway.

"Timber frame construction is eminently suitable for a climate like ours" she says, "and the further North you go the more timber frame houses you find. The Scandinavians and Canadians have embraced the benefits of building warm homes quickly in places where the weather can be wet and wild. Our panels are very weather resistant and can be erected in rain and cold without a problem. As long as it's not blowing a gale and the crane can operate, the build goes on."

The image and reputation of timber frame construction has improved with