Maple

Manufacturers of

Fine Timber Frame Homes

Welcome

Welcome

to the world

of the self-builder

It's the world where you start to live the dream.

It's the world of unlimited choice and control.

It's the world of enrichment in lifestyle and added value.

It's the world that Maple Timber Frame introduces you to in these pages.

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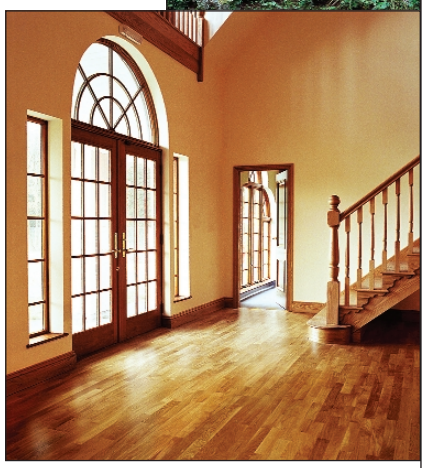
Introduction

In this easy guide to self-build, we introduce you to a history of timber-frame building, and then explain the benefits of this method of house construction in the third millennium.



This is followed by a series of designs and internal layouts available from Maple Timber Frame, interspersed with photographs of completed homes and examples of a variety of fireplaces, entrances and windows.

The variety of house designs available from Maple is evident in the following pages. The quality of service and build provided by Maple is demonstrated by quotations from satisfied customers secured by independent magazines in the self-build industry and used in these pages.

From Maple you can sign up for the complete no-hassle service with everything that entails. This can be for a complete new property, or it can be for an adaption or extension of an existing home.
It's up to you.

Please visit our website at www.mapletimberframe.com where you will find all our designs and a full photo library of previous projects. But first, read, examine and enjoy the following pages. And if you have any queries, get in touch with us at Maple as follows:

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facsimile (01995) 679769

email enquiry@mapletimberframe.com

Company Profile

Our experience covers all areas of commercial and residential construction, so no project is too big or too small for Maple Timber Frame. Our knowledge and expertise in designing and manufacturing complex structures ensures that we deliver unsurpassed quality of service to all our clients.

We take our environmental responsibilities seriously, and as part of that we strongly believe that everything we do must have minimal impact. Our factory has been developed with careful consideration of the local environment. All timber used by Maple Timber Frame comes from well-managed, certified sources. Our design and manufacturing processes ensure that waste is minimised, and the little that is produced is managed and recycled. The world's natural resources are limited and we believe that we should 'be living off the interest and not the capital.'

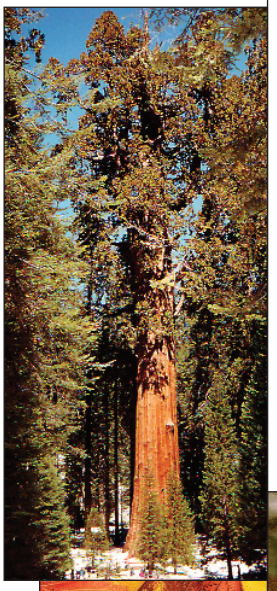
During the last five years Maple Timber Frame have grown 23% year on year and currently employ more than 40 staff at the Head Office site in Lancashire.

We are constantly developing our products and services as technologies improve, keeping us at the forefront of the industry. Our vision for the future is to provide affordable, truly sustainable, zero carbon homes without requiring major changes in the way we live.

Company Profile

Environmental Considerations

There are many benefits from choosing to build with maple.



- Timber is a truly renewable material with a very low embodied energy value compared with steel and concrete
- Timber, throughout its whole life cycle, is effectively carbon neutral
- European softwood plantations are growing by 30 times UK consumption
- Off-site manufacture reduces on-site waste
- Our whole supply chain is fully FSC or PEFC compliant
- We are Q Mark accredited
- We have a holistic approach to sustainability – not only are our materials sustainable but, due to the increased thermal efficiency of timber, so are our homes.

Environmental

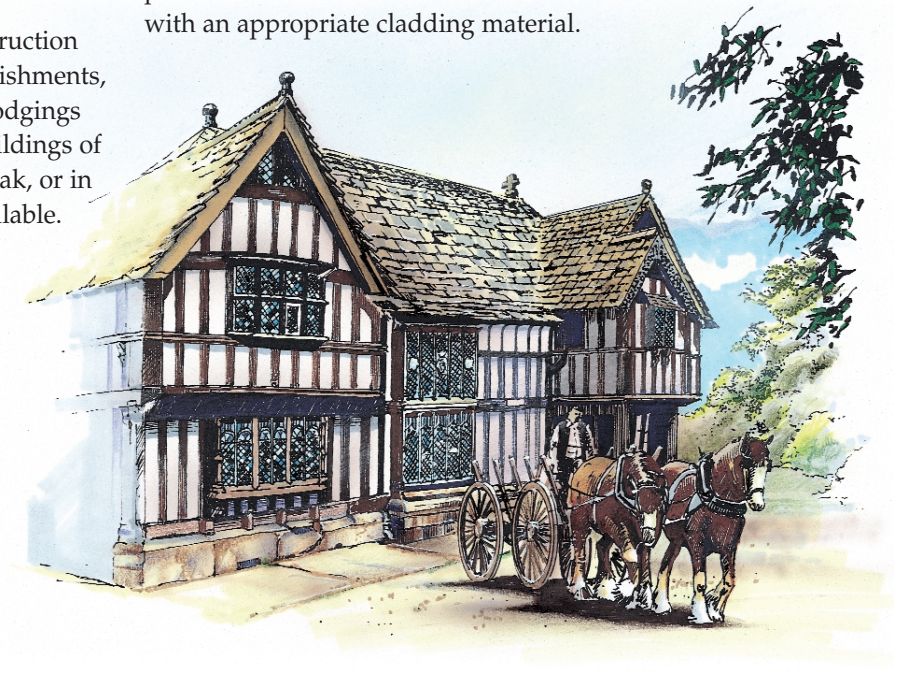
Timber Frame Building –
A Fine Tradition

Large areas of medieval England were covered with forests, so it is not surprising that until 400 years ago timber was the principal building material in Britain. Even in the Cotswolds and Derbyshire, where other materials such as stone were readily available, timber was preferred, for it was plentiful, cheap and easy to handle, with the added advantage that every woodland cleared provided additional land for cultivation.

The timber-framed buildings that survive today do not reflect the almost universal use of timber until about 1500. Although timber was the principal building material, it was not until the latter part of the 16th century that oak was used almost universally, for until that time 'men were content to dwell in houses built of sallow, willow, plum tree, headbeam and elm'.

With oak being restricted to the construction of churches and other religious establishments, and to princes' palaces, noblemen's lodgings and ships, between 1550 and 1660 buildings of inferior timber were often rebuilt in oak, or in stone in those areas where it was available.

In Saxon times, most buildings were of timber. These timber-framed buildings can be classified into two types: box frame and cruck construction. Box frame construction was by far the most common and comprised horizontal and vertical timber members jointed together to form a wall with the open panels infilled or with the entire wall covered with an appropriate cladding material.



A fine tradition

In cruck construction, pairs of inclined cruck blades were spaced at intervals along the building to collect the roof loads by means of ridge-beams, purlins and wallplates to transmit the loads to the ground. The walls, which were non-structural, were often timber-framed but could be of any material. Within both groups were many variants; in box frame there was the close studding, post-and-truss and interrupted sill, while in cruck construction there were, apart from the crucks, many forms, the most important being the base-cruck and jointed cruck.

The structural use of timber was, therefore, in use for centuries, with surviving examples spanning for some six centuries. During this long period, timber-framed buildings were affected not only by the various technical developments which occurred, by also by the many local traditions which influenced the appearance of these buildings from region to region.

During the 18th century, British forests were so depleted that it became increasingly necessary to import softwood from northern Europe and Scandinavia, supplemented in the 19th century with supplies from Canada and the United Sates where timber-framed homes are now almost universal. These softwoods, particularly with modern preservatives, are vastly superior to the timbers used in earlier times.

Ever conscious of the need to preserve and enhance the environment in which we live, we at Maple Timber Frame continue to develop our buildings, applying new technologies and ensuring continuity for the future.

Only One Option

In the third millennium, timber-frame construction uses timber as the skeleton of the structure. This can take many forms, including the cruck frame and post/beams methods of old, to the more modern engineered timber products such as laminated beams and fibrous boards.

At Maple, the bulk of our business revolves around platform frame construction, using a series of timber studs and rails to form prefabricated wall panels in storey heights on which is supported the floor structure, again using timber joists and engineered board flooring, to form the first platform on which subsequent levels are built up to the roof structure. The frame can be clad with any of the usual, and many unusual, materials; indeed it is often the case that the structure type of the house cannot be determined without detailed investigation.

When compared to other building methods in use today, timber-frame has many benefits. The major benefits to the self-builder include, but are by no means limited to, the following:

Speed of Erection: A dry, weatherproof shell can be achieved in a fraction of the time taken for masonry construction, resulting in a reduction in capital outlay and enabling internal work to proceed without regard to weather conditions.

Building Regulations: All of Maple Timber Frame packages exceed the requirements of Approved Document L1A. Our current specification outlines the standards of insulation offered, including the extra insulation levels offered by the Eco-pack and SupaWall® options. Please note that our standard specification is a starting point – we can tailor every package to include as much or as little as you require, and we can alter the specification of individual components to meet your needs.

Approved Document L1A: Conservation of fuel and power in new dwellings. There is now only one approach to demonstrating compliance with the energy efficiency requirements. This addresses five key criteria:

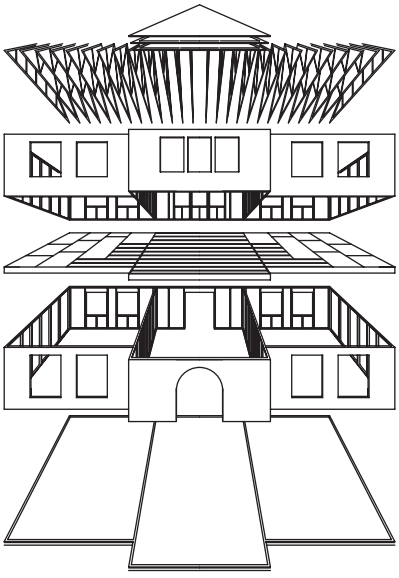
- The annual C02 emission rate of the completed dwelling, as calculated using SAP 2005, must not exceed the target set by reference to a notional building
- Building fabric and services performance specifications are within reasonable limits (*see table below*)
- Solar shading and other measures to limit risks of summer overheating are reasonable
- Fabric insulation and air tightness, as built, are as intended
- Satisfactory information must be provided enabling occupiers to achieve energy efficiency in use. (Information to be provided in the forthcoming Home Information Packs).

The technical provisions mean that higher standards of fabric, heating, ventilation and lighting systems designs will be necessary, delivering an overall improvement of 20% on average.

Limiting U-value Standards (W/m2K)		
Element	Area-weighted average U-value	Limiting U-value
Wall	0.35	0.70
Floor	0.25	0.70
Roof	0.25	0.35
Windows & Doors*	2.2	3.3

* including Roof Windows and Rooflights.

Quality control. As the bulk of the construction process is carried out under factory conditions, including assembly of external panels and internal partitions, trimming to length of joists and rafters, etc, there are fewer margins for error. The site is treated as point of assembly for the prefabricated structure, not where manufacturing is carried out.



Fully engineered. Structural engineers design each individual building. They have particular experience in timber frame systems and a certificate is provided on completion to indemnify the structure. All components are stress graded, engineered, British Board of Agreement (BBA) certified or comply with current British standards, and a rigorous checklist is completed with the client or their representative when erection of the building has been completed on-site.

Sound insulation. It is a common misconception that timber-frame structures transmit sound more readily than masonry constructions. Field-testing by the Building Research Establishment (BRE) has shown that timber compartment walls have a success rate of over 99% in meeting sound insulation regulations. Masonry walls achieve only 50-70% pass rate, mainly due to the quality of workmanship on site, such as mortar joints not being fully filled (even small gaps can result in seriously reduced performance). It is with this in mind that, as standard, we insulate all internal partitions for acoustic purposes.

The above factors, along with other benefits including flexibility of design, combined with the fact that the vast proportion of the world's houses are timber-frame structures, should go a long way to convince you that there is only one option available when building your own home:

Maple Timber Frame.

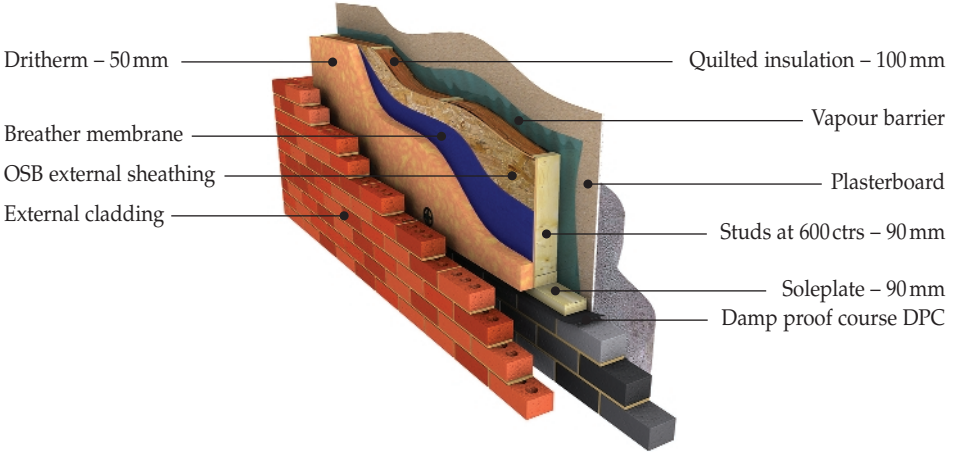
External Wall Options

We offer three external wall types, each of which provides a different level of insulation and exceeds current Building Regulations. So whether your requirements are design, price or enviromnentally lead, Maple Timber Frame have the solution.

- *SlimWall (90 mm stud)*
- *EcoPack (140 mm stud)*
- *SupaWall® (140 mm stud)*

SlimWall

Our SlimWall timber frame system consists of a 90mm timber stud sheathed on one side with OSB and an external breather membrane. This system uses 50mm DriTherm in the cavity with 100mm of quilted insulation in the external walls and 250mm of quilted insulation in the roof.



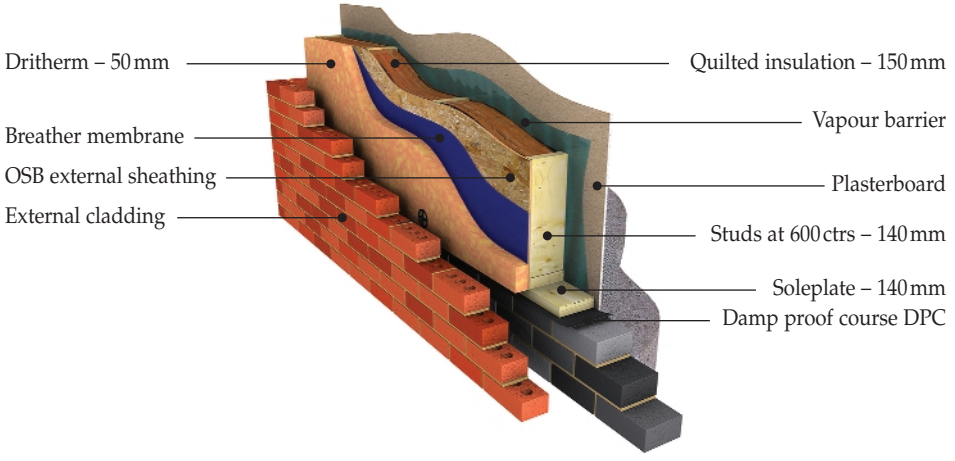
Advantages

- Cost efficient
- Achieves a U-value of 0.26W/m2K
- Surpasses current Building Regulations
- Increases habitable living area.

SlimWall

EcoPack

The first package upgrade we offer, the EcoPack, uses a 140mm timber stud sheathed on one side with OSB and an external breather membrane.. The extra width allows for more insulation to be used, further increasing the thermal performance of the panel. This system uses 50mm DriTherm in the cavity with 150mm of quilted insulation in the external walls and 300mm of quilted insulation in the roof.



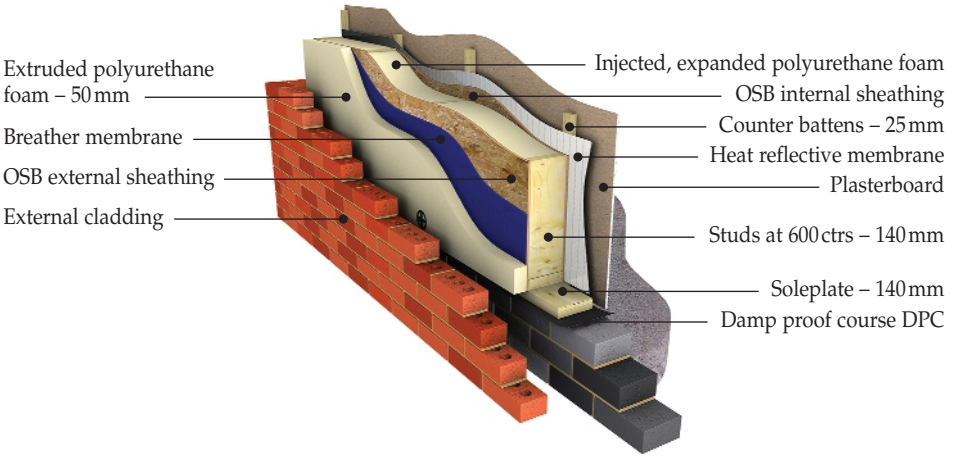
Advantages

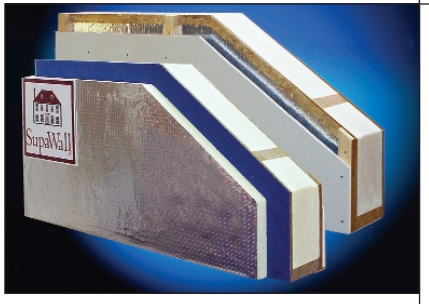
- Economical option increased thermal performance
- Achieves a U-value of 0.21W/m2K
- Surpasses current Building Regulations.

EcoPack

SupaWall®

The key component of the SupaWall® System is a closed timber-frame panel, usually comprising 140mm studs sheathed both sides with Oriented Strand Board (OSB) and filled with Polyurethane foam insulation. The interior side of the panel is faced with a heat reflective membrane and an air gap is left between it and the internal wall cladding. The exterior side is faced with a breathable waterproof membrane and 50mm of cavity insulation. Roof insulation consists of 400mm of quilt insulation.





Advantages

- Cuts down on heating bills
- Achieves a U-value of 0.113W/m2K
- Negates the need for 'central' heating
- Cuts down on reliance on on-site construction quality.

SupaWall®

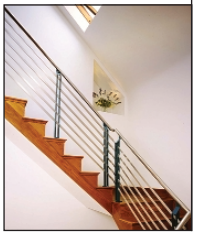
Maple for individual homes

We were on site before the full tendering process for the timber frame was complete. We went to about eight companies and based on a combination of cost and reports from others before deciding on Maple.

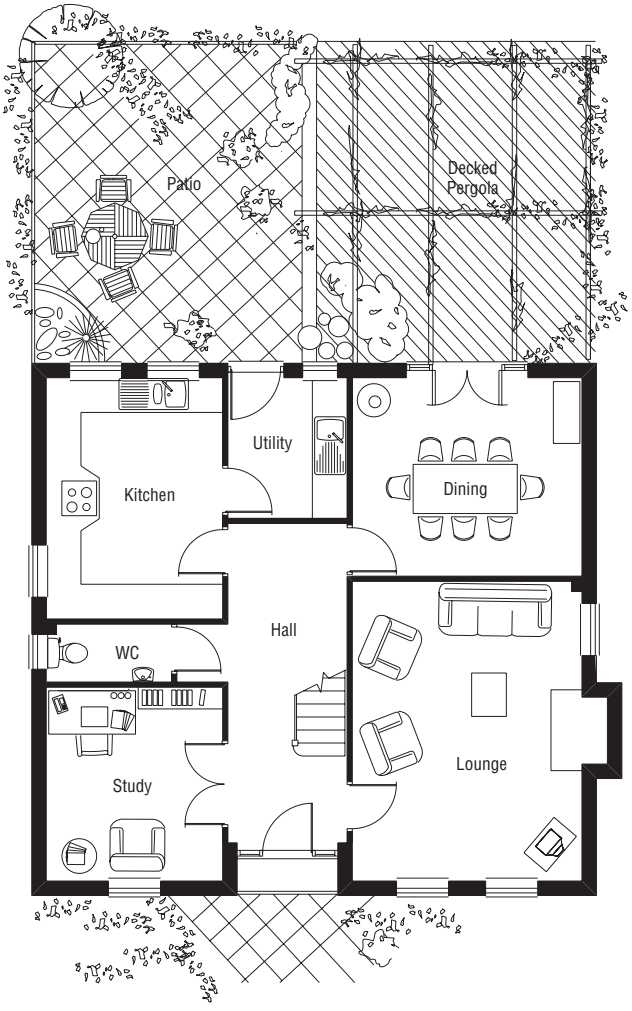
Sandra Parkyn
Homebuilding & Renovating Magazine

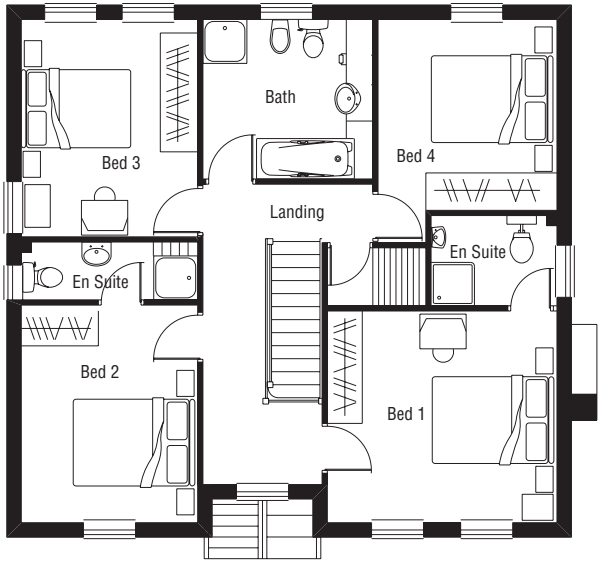
Lynn and Audrey had visited the Homebuilding & Renovating Show together and had both been impressed by Maple Timber Frame, who worked with them to develop their ideas into workable designs. They were interesting to talk to and interested in what we had to say, but what really clinched it was their flexibility. We weren't prepared to compromise on our design.

Homebuilding & Renovating Magazine



Kingswood





Ground Floor Layout

Total Floor Area = **157 sq m (1689 sq ft)**
Frontage = **9.76 m (31'9")**

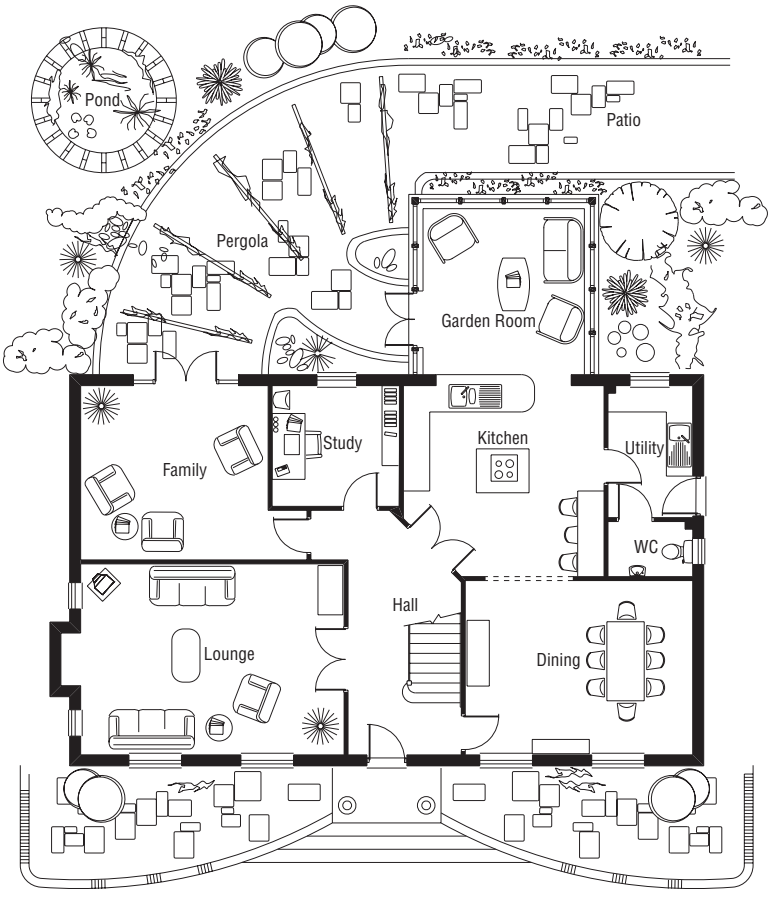
Lounge	**5.18 x 3.97 (17'0" x 13'0")**
Study	**3.35 x 3.05 (11'0" x 10'0")**
Dining	**3.97 x 3.43 (13'0" x 11'3")**
Kitchen	**4.17 x 2.49 (13'8" x 8'2")**
Utility	**2.43 x 2.06 (8'0" x 6'9")**

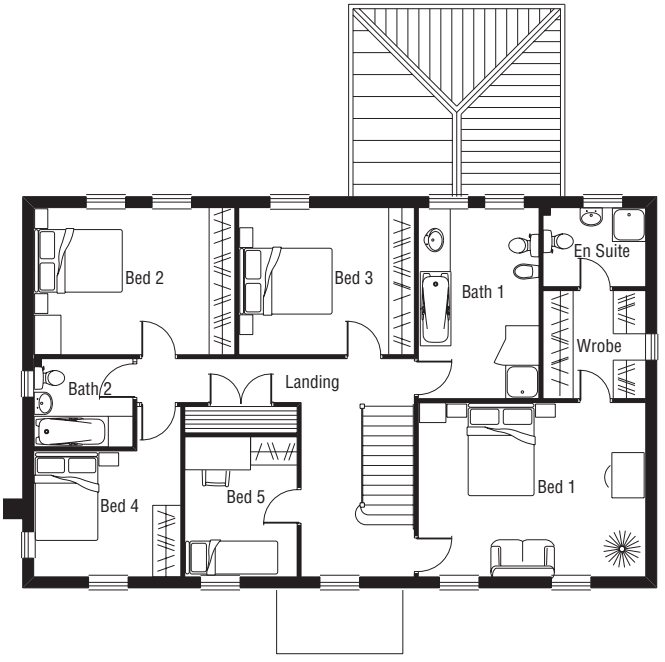
First Floor Layout

Bed 1	**3.97 x 3.66 (13'0" x 12'0")**
Bed 2	**3.76 x 3.05 (12'4" x 10'0")**
Bed 3	**3.76 x 3.05 (12'4" x 10'0")**
Bed 4	**3.30 x 3.03 (10'0" x 10'10")**
Bath	**2.94 x 2.76 (9'8" x 9'1")**
En Suite	**2.18 x 1.56 (7'2" x 5'1")**

Kingswood

Maple





Ground Floor Layout

Total Floor Area = **234.5 sq m (2524 sq ft)** *excl. Garden Room*
Frontage = **14.44 m (47'4")**

Lounge	**6.00 x 4.3 (19'8" x 14'3")**
Family	**4.27 x 3.97 (14'0" x 13'0")**
Study	**2.90 x 2.75 (9'0" x 8'2")**
Dining	**5.18 x 3.97 (17'0" x 13'0")**
Kitchen	**4.57 x 4.35 (15'0" x 14'3")**
Utility	**3.06 x 1.93 (10'1" x 6'4")**
WC	**1.93 x 1.20 (6'4" x 3'11")**

First Floor Layout

Bed 1	**5.18 x 3.97 (17'0" x 13'0")**
Bed 2	**4.58 x 3.35 (15'0" x 11'0")**
Bed 3	**4.00 x 3.35 (13'1" x 11'0")**
Bed 4	**3.35 x 2.87 (11'0" x 9'5")**
Bed 5	**3.19 x 2.56 (10'6" x 8'5")**
Bath 1	**4.35 x 2.75 (14'3" x 9'0")**
Bath 2	**2.26 x 2.00 (7'5" x 6'7")**
En Suite	**2.34 x 1.80 (7'8" x 5'11")**

Maple