Building A House

by David Nossiter Architects

A Guide to Building A House

by David Nossiter Architects

Useful Resources

The Planning Portal
planningportal.co.uk

The Self Build Portal
selfbuildportal.org.uk

NACSBA
(National Custom & Self Build Association)
nacsba.org.uk

TRADA
(Timber Research & Development Association)
trada.co.uk

RIBA
(Royal Institute of British Architects)
architecture.com

IStructE
(Institution of Structural Engineers)
istructe.org

RICS
(Royal Institution of Chartered Surveyors)
ricsfirms.com

Your Ideal Site
People often contact me about potential sites they would like to build a house on. Often the sites are simply too small. Although a house would fit they have not taken into account the building line of adjacent properties, the character of the area or whether there can be provision for outside space requirements, such as gardens and parking.

Planning Legislation
In rural areas, except for a few specific exceptions, planning will not be approved for developments that are within the green belt. Therefore sites should be within the boundaries of an established settlement.

Conversely, in urban areas if no off site parking provision is made there can be additional stress to on street parking facilities. Sites within close proximity of public transport are often exempt from providing off street parking, but you will have to provide cycle spaces.

Planning Approvals will only be granted if it can be demonstrated that any proposed design conforms to the local policies set out by the council. This will include things such as parking, accessibility, refuse storage, outside amenity space, room areas and distances from other houses.

Backland Development
This is when part of a garden belonging to an existing dwelling is sold off in order to a form new plot to build on. The approach only works on large plots with street access. Many urban councils have policies against such developments, although each case should be judged on its own merits.

CIL
CIL stands for Community Infrastructure Levy. These are payments charged to private developers by local council planning departments. The funds are re-directed into local community projects within the Borough. Not all projects are liable.

Join A Self-Build Register
As pat of a central government policy to increase self build opportunities, all councils have to identify sites that are suitable for self-builders and keep a register of those who are interested in self-building.

Flood Zones
Is your site within a flood risk zone and if so what measures will you take to alleviate the risk? Measures might include providing floor drains, more durable finishes and installing electrics beyond the reach of flood levels.

Utilities
Sites in rural locations might be a long way from connections to mains utilities and drainage. You might need to install a sewage treatment plant as well as connections for electricity and water.

Searches & Title Deeds
Are there any restrictive covenants on the land? Are the title deeds absolute rather than possessory?

Surveys
Almost certainly environmental surveys will also be required by the local planning authority. These will identify any invasive plant species on the site as well as protected wildlife that might inhabit it. The planners often stipulate that you time your development around breeding seasons or provide suitable alternative habitats for wildlife.

Borrowing
Self-build mortgages are available from specialist providers. The interest rates are usually higher than a traditional mortgage. The lender usually releases funds in arrears in stages. Sometimes funds may be released in advance depending on the particular lender and product. Be aware that, depending on the lender, the release stages are not always flexible and cannot easily be adapted to the particulars of a build.

Legislation
The work will of course be subject to Full Planning Approvals. There will probably be conditions attached to any approvals that require further submissions of details. Building work is also subject to the Building Regulations Approval. The Party Wall Act might also apply. In addition, if you are building near or over an adopted sewer you may require an agreement from the water authority.

Design Team
You will need a good design team. As a minimum this will consist of an architect, or designer and a structural engineer. You may also opt to use a cost consultant or quantity surveyor. You will probably find that the documents prepared as part of the planning approval contain several conditions that need to be satisfied and require specialist input.

Architect
The architect designs the building. They are usually the lead consultant, coordinating the work of all the design team. The architect may be involved from the initial discussions right through to the completion of the building, or for only part of the process. Architects are adept at developing designs, submitting applications for Planning and Building Regulations Approvals, preparing tender information and administering contracts on site.

There are also specialist architectural technicians. They have a good knowledge of technical details and construction technology, but without the breadth of design expertise of an architect.

Structural Engineer
The engineer will design the structure of your building and submit drawings and calculations for Building Regulations.

Quantity Surveyor
Cost specialists, their services range from providing initial cost plans to preparing full tender packages and ongoing cost control on site.

Procurement
Where sort of procurement route will you opt for?

Self-Build
The broad definition of self build can range from living on site in a caravan and building the project yourself, to organising the operatives and ordering materials, or employing a main contractor. Chiefly, the motive is to build a house for yourself.

Main Contractor
A main contractor will be responsible for building the project. They will employ a series of sub-contractors, but your contract would be with the main contractor. The advantage of this route is that the main contractor is the single point of responsibility for organising and completing the build. You will of course rightly pay a premium for this service.

Project Manager
A project manager drafts the programme for the works, forms contracts with the individual contractors, orders materials and organises the site. They have overall control of the build. The project manager could be yourself or someone employed on your behalf with extensive construction experience.

Construction Methods

Masonry
Typically consisting of an insulated cavity wall blockwork inner leaf, cavity insulation and a facing brick outer leaf. Masonry has been the most popular construction type in the UK for decades. Masonry construction is slow and the materials are heavy. Lintols are required above openings and consequently this kind of construction is typified by small widow openings. Care must also be taken to ensure that there are no uninsulated spots, called cold bridges.

Timber Frame
Timber frame and pre-fabricated timber panels are becoming increasingly popular. Timber construction is quicker to build and easier to insulate. There are restrictions with fire performance. Care is required with detailing and construction. Timber frame is light weight and it is easier to produce large openings in walls without the use of heavy lintols.

Steel & Concrete Frame
Termed a structural frame, it consists of a grid of columns supporting beams to form the structure of the building. The advantages of this system are speed and flexibility and accuracy. The internal planning does not reply on being structural so there is much more freedom afforded. Additionally, the facade is freed up so that there is greater flexibility in the placement of openings. Facades are clad, which allows greater choice of materials. Tighter tolerances are required than with timber frame or masonry construction.

You might opt for combination of several types of construction, for example a steel frame with masonry infill panels, or a timber frame with masonry cladding.

Pre-Fabrication
Off site construction is becoming more common. This can range from whole houses to individual elements. Quality control and minimal tolerance**s** can be achieved more easily within a factory environment than on a building site. However, you will need to programme in lead times and site surveys.

Orientation
Orientation alone should not determine which way your building faces, other site factors are equally important. However, if your proposed dwelling is south east/west facing building it is generally the most suitable orientation to make the most of heat passively generated by sun paths. Winter sun can help warm south facing spaces, but equally summer sun can cause over heating.

Renewable Technologies
The subject of renewables could warrant a guide in itself. Broadly, these technologies save on the use of fossil fuels to provide hot water and heating for your home, hence saving on fuel bills. The investment is generally long term. The theory being that the savings you receive on your fuel bills over a long period of time will offset the initial installation outlay cost.

The most efficient of these is the passive house principal. That is, a house that is so well insulated and air tight that it requires little or no energy to heat, thereby being carbon neutral.

Build Costs
Approximate NET build costs may range from £1800 per square metre to £3000 per square metre and upwards, depending on your specification, the location, the size of the project and its complexity. You should always have a contingency sum in addition to this.

At the time of writing, VAT on one-off new build houses to house you and your family is zero rated, subject to certain conditions, so it is certainly researching this aspect further.

I hope this guide is a useful starting point for those of you that are considering embarking on a house project.

Should you have any questions, please feel free to email the studio:

mail@davidnossiter.com