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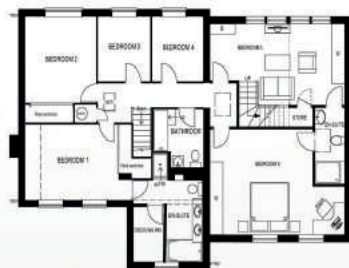
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CONTENTS

Introduction	5	What consents will I need?	25
Financing your project	8	Construction – some key considerations	31
Finding a plot	10	Energy efficiency	37
Searches	12	Other things to consider	41
Finding experts to help design and build your home	15	What paperwork will I need at the end of the project?	45
Top tips on using individual tradespeople	21		

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INTRODUCTION



Building your own home – everything you need to know

LABC teams have been working with custom build, otherwise known as self-build customers, for many years. This guide will steer you through many areas that you need to consider when planning your self-build home. Our surveyors, in partnership with our sponsors and associated companies, can offer professional advice, personal support and significant cost savings on your materials, services and fittings. Self-build projects can be daunting but by choosing LABC for your building control service you've already started making the right decisions and we wish you all the very best with your project.

What is a self-build project?

Every year, rather than buy a standard developer-built property, around 13,000 people choose to build their own homes from scratch. Until recently

the process of building your own home was almost universally referred to as 'self-build' and this had become well-recognised by both consumers and the development sector. In 2011, the Government's Housing Strategy for England introduced the term 'custom build housing'. Since then there has been some debate about what the term 'custom build' means, and after a lot of discussion, the definition is now beginning to settle down.

Self-build are generally projects where you directly organise the design and construction of your new home. Where you select the design you want and then do much of the actual construction work yourself. Some people have summarised self-build homes as those where people roll their sleeves up and get their hands dirty by organising or doing the physical work themselves.

Custom build homes tend to be those where you work with specialists to help deliver your own home. This is usually less stressful as you'll have 'experts'

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working with you such as an architect or agent, a financial adviser and a contractor or builder. These specialists take on most of the gritty issues for you – everything from securing or providing a site in the first place, through to managing the construction work and even arranging the finance for you. This is more of a ‘hands-off’ approach and generally is what people mean by ‘custom-build’.

Either way you’ll need support and guidance to make sure you comply with all the relevant legislation and build a home to be proud of and that’s where you’ll value the help and reassurance offered by working with one of our 3,000 strong

team of LABC surveyors located throughout England and Wales; as public service and not-for-profit you can be sure that you’re getting the very best impartial advice and support.

In this guide we’ll consider how to find and buy a suitable plot of land, how to choose designers, architects and contractors, how to apply for planning and building regulation permission, and how to make sure you protect your investment with the right kind of warranty; plus some information on building in radon or contaminated areas, within flood plains and tips to ensure your new home is as energy efficient as possible.



FINANCING YOUR PROJECT



You might be using your own savings but of course most people put down a deposit and borrow the rest of their land and build costs.

Arranging finance

Building your own home is one way to get a home which meets all your needs and may cost less than buying one already built from a developer. However, financing this type of work can often be problematic but there are mortgage lenders that can help.

As with buying a house on the open market, you need to be clear from the start what sort of home you need and want, where you want to live and roughly what you can afford to pay, including how much of this you can pay up front in cash and how much would need to be borrowed or paid later.

This will help you to identify early on whether your budget is likely to be enough to fund a home that meets your needs or whether you need to consider compromising on certain aspects, such as size, design, location or how much of the building work you'll do yourself.

While you probably won't want to make a formal mortgage application before you've identified a plot of land and estimated your build costs, it's important to get financial advice at an early stage to be confident that you'll be able to get a big enough mortgage. Even if you don't need a mortgage to help buy your plot, you should try to

be sure that you get a mortgage offer for the build before you commit to buying to avoid any nasty surprises later on.

Self-build or custom build mortgages are different in that the mortgage is normally paid in instalments at certain stages during the build process and the lender needs to check progress at these stages to make sure they are satisfied that the work has been carried out before the next instalment of the mortgage is paid out.

Not all lenders offer self-build mortgages so it may be easiest to find a suitable mortgage by using an Independent Financial Adviser (IFA) or mortgage broker, who'll be able to advise what available products may be suitable for you.

There are IFAs across England and Wales who are regulated by the Financial Conduct Authority. To find a suitable IFA in your area, search the FCA website www.fca.org.uk



Whatever mortgage you choose, you'll need to provide a significant deposit to fund your build. In many cases, lenders will not provide any mortgage funding until your build reaches 'wind and watertight' stage i.e. the main structure of the building is complete and weatherproofed (this is in order to reduce the risk to the lender in case the project is abandoned when the home is only part built). Lenders also generally pay for each stage of the build in arrears i.e. once it is complete.



FINDING A PLOT



Finding the plot is often cited as the biggest hurdle deterring prospective self-builders. Unless you own land already, finding a suitable building plot will usually take time and effort, especially if you have constraints on the budget and location. Most of the popular areas will have already been highly developed, while developers are always ready to snatch up prime new plots.

Self-build and Custom Housebuilding Act 2015

The Self-build and Custom Housebuilding Act 2015 places a duty on certain public authorities to keep a register of individuals and associations of individuals looking to buy serviced plots of land to bring forward self-build and custom housebuilding projects. Unless exempt, they also have a legal duty to grant sufficient 'development permissions' to meet the demand for self-build and custom housebuilding in their area

Councils in England are using these registers to gauge interest levels in self and custom building. These registers help local authorities develop their

housing and planning policies to support new self/custom build projects and to have regard to the demand on their local register when exercising their planning and other relevant functions. If you add your details to a register, the council will often keep you updated with details of available land.





How estate agents can help

You can also look around for potential sites in the area you are interested in by checking with local estate agents. While most estate agents may only handle land sales occasionally, it's worth asking to be placed on the mailing lists of those that do.

It's also worth noting that estate agents are likely to receive a commission on the sale of the houses any developer would build – as well as on the plot itself – so it may be in their interest to sell to developers first. However, the answer is to contact estate agents on a regular basis, once a week at least, so they know you're serious about buying and hopefully boosting your chances of grabbing any suitable plots when they do arise.

Estate agent auctions can also provide another good plot source. While there are bargains to be had, this route can be risky, especially if you haven't bought at an auction before or carried out any research before the auction. You'll also need lots of ready cash – usually a 10% deposit is required on the fall of the hammer with the remainder due within a month – it's always best to check with individual auction houses.

Estate agents can also help if you are considering sites with a derelict property which could be demolished or substantially renovated, particularly in areas like the South East where house prices are significantly higher than the rest of the country.

Top tips for finding your plot

- Approach local private developers with undeveloped or partly developed land to see if they would consider selling you a plot.
- Check the Buildings at Risk Register to find possible properties.
- See if there are any community trusts in the area which may have land available for self builders, especially if you want to build in a rural area.
- Check the council's land or property register (which you can search for on their individual websites), which provide details of land and properties which the council or its partners wish to sell. If a council doesn't have a register, you may wish to call the council's property or estates department to ask if they have any suitable sites for sale.

How can I be ready to buy my ideal plot of land as soon as it becomes available?

Talk to your mortgage advisers in advance and start the ball rolling before you've found your land. They'll talk you through the various options for financing your self-build and work out how much you can borrow based on your current finances and commitments. They can also review your existing mortgage and, for example, arrange a re-mortgage with a cash drawdown facility that will make it easier to put an offer on a plot as soon as it becomes available. Some specialist lenders will lend money on land that has only outline planning permission whereas other lenders will only lend on land with detailed planning permission which will restrict the plot opportunities you have.

SEARCHES



Environmental searches

Many homes are built on or near land which was previously used for industrial purposes, or where manufacturing processes were carried out. Because many of these old industries no longer exist, or have been relocated, there may be little evidence to show where they once were, but the by-products caused by old industries may still be a future health hazard if the land is contaminated. For example, toxic chemicals such as lead, arsenic, mercury and other heavy metals will remain in the ground and may be a potential danger to occupiers, especially children. Your plot may also be located in the vicinity of a landfill site.

Environmental searches are provided by companies that have detailed information about previous land uses. They also detail current uses which may have an environmental impact, such as waste disposal plants

and petrol storage facilities. These searches will also indicate if the land is in a radon affected area.

The search will state whether the property is free of risk, or whether there is a potential risk. In some cases a further site investigation will be needed. If a property is affected, the local council may expect you to remove the contamination which is usually extremely expensive so it's worth having all this information in advance.

Property searches

Property searches (also known as conveyancing searches) are enquiries with the local authority and other parties that look for additional information about a property you plan to purchase and are usually carried out by conveyancer. They typically include aspects such as whether planning permission may be granted for a future development

– obviously critical for a self-build project – or the quality of the ground or details of common drains and access rights.

Your solicitor will also send an extensive list of preliminary enquiries to the seller's conveyancer requesting details of any disputes, boundaries, planning constraints or existing permission, rights of way, utilities providers and any additional restrictive agreements.

These searches should be completed and approved before you exchange contracts and legally commit yourself to purchasing the land or property, as they may highlight planning or structural issues that could either affect the value of the property, or result in additional costs further down the line.

Local authority searches

When buying a property your conveyancing lawyer will submit a local authority search on your behalf. You'll have to have one of these if you are getting a mortgage in order to meet your mortgage lender's requirements. If you're a cash buyer you don't have to have the search conducted, but your conveyancing lawyer will always recommend one. The main purpose of a local search is to protect property buyers from any unpleasant eventualities that could affect their use and enjoyment of the property or which may have an effect upon its value

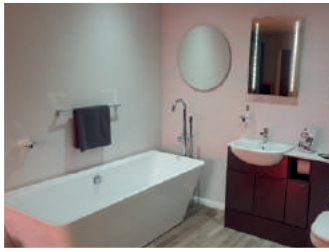
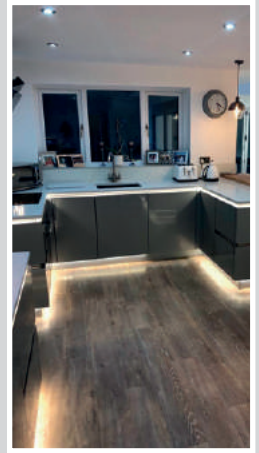
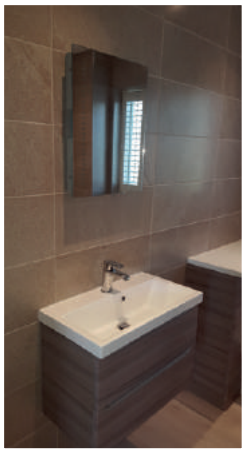
(for purchaser and potential lender) and therefore, is a key element in the conveyancing process.

The search is undertaken at the local authority where the property is located and is not a physical search of the property or surrounding area.

The local authority search contains a list of standard enquiries and will look at all information held by the local authority about the property, amongst other things, it will tell you:

- Whether the roads and footpaths adjoining the property are publicly maintained.
- Whether the council has in place any major road schemes close to the property and minor schemes affecting the property.
- All planning decisions affecting the property.
- Contaminated land in or around the property.
- Whether the property is in a conservation area, has a tree preservation order or compulsory purchase order over it.
- Enforcement notices for violation of planning permissions or other known breaches.
- Whether there are any charges/debts owing to the local authority in respect of the property (such as right to buy reduction) that will need to be paid off.





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FINDING EXPERTS TO HELP DESIGN AND BUILD YOUR HOME



Once you've secured your plot, the next stage is to organise your ideas into a complete house design or design 'brief'.

It's important that everyone involved in the project is very clear about what the finished project will look like and how it will perform. A good design brief will strike a balance between what you want from your new home with what the planners want, and between regulatory requirements for the build and what is going to be realistically achievable within the budget.

There are a number of options to choose from at this stage, but you will almost certainly need an architect or a qualified designer to draw up some plans. You may also need the help of other professionals including structural engineers and planning consultants.

Your architect will ask you a number of questions about your requirements and the site you have bought or are planning to buy to make sure their design suits your needs, but make sure that you have considered all the possibilities, such as methods of construction, size, layout and energy efficiency and renewable energy measures – more information on all these are available towards the end of this guide.

Why it's worth paying for an architect/designer

Having a professional architect or designer on board for any sizeable scheme is always worth the additional cost. These professionals are up to date with current regulations and a good one will



key aspects of the build and you should continue to monitor progress to make sure that your home is being built as you'd intended.

The fee you will have to pay your architect or a separate project manager in this situation will be higher than if a main contractor is appointed, but there would normally be a corresponding saving in the payments made to the building contractors. You should make sure you try to agree any separate project management costs upfront.

If you're appointing a separate project manager, you should speak to several firms to find someone you can trust and get on well with. Make sure you're as clear as possible about your plans because if you change your plans later on this could cause delays and/or lead to increases in the costs.

Your project manager should have recognised qualifications in a construction discipline (eg. HND, BSc, MSc, etc.), be experienced in managing builders, tradesmen and logistics (ask for his/her CV) and, ideally, belong to a professional institution (eg. RIBA, RICS, APM, ICE, etc.). Ideally, your project manager should be relatively local, with good knowledge of local tradesmen, builders, builders' merchants, etc. so they can be on site regularly and can meet tradesmen and professionals face to face.

You should check with your mortgage lender what professional input they require for certification of the building design and construction before they'll release funds.

invariably help you to achieve your dream project to the best specification and design for your budget.

You architect or designer can also make applications for planning permission and your building regulations on your behalf and liaise with the associate professionals such as planning consultants and structural engineers bringing the whole package together for you.

Most architects and designers will also offer an additional service to carry out site inspections for you as building work progresses to check that everything is being carried out satisfactorily and in line with the designs you have chosen and the planning and building regulations approvals.

Do I need a project manager?

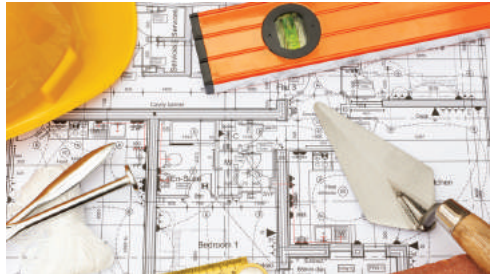
You could also appoint a separate project manager to manage the build process for you, particularly if you aren't choosing to work with a main contractor. This could be your architect/designer or a third party. This will take away a lot of the hassle as he or she would be in charge of liaising with all the different tradesmen who need to be involved, ordering materials and also liaising with professionals, for things such as water and electricity connections and ensuring that lenders' surveyors and building control inspectors are able to carry out site inspections at the appropriate time.

Even for a single property, this can be a big job so if you need to work full-time it will be helpful to have the project managed for you. You should remember though that you will still need to make decisions on



Top tip – negotiating fees

When appointing your design team, you'll have to negotiate fees. While some professionals will charge a set fee for an agreed level of service, some professionals link their fee to the overall construction cost, so be aware, it could be in someone's interest to create designs that will be expensive to build.



Where can I get more help?

The Association of Self Build Architects (ASBA) offers good advice on how to prepare a design brief while the Royal Institute of British Architects (RIBA) has a free referral service which will help identify suitable architects near to you.

Similar services are also available from the Chartered Institute of Architectural Technologists. If you are seeking a surveyor, the Royal Institution of Chartered Surveyors (RICS) can assist, and for structural engineering advice, The Institution of Structural Engineers is a good starting point.

If you're looking to engage a local project manager, the RIBA, the RICS, the Institute of Clerk of Works or the Institution of Civil Engineers can all offer advice on potential suitably qualified project managers in your area.



Early stage considerations for self-builders

It's helpful to consult an architect or designer at an early stage on what is most appropriate or feasible in relation to your circumstances; they'll also advise you on what's affordable, based on your budget.

If possible, arranging for your architect to view your plot before you purchase it will help make sure you're aware of any significant costs or issues upfront.

Key considerations:

- Do you want a kit house (such as a timber frame home that's prefabricated, using one of a number of set designs) or do you want a bespoke home designed for you? (If you buy a kit house, you'll need to make sure it fits your requirements and is suitable for your plot.)
- Minimum number of bedrooms required. Is this likely to change in future?
- How many levels/floors do you want in the house?
- Minimum size of plot needed.
- How much storage space do you need? Whereabouts do you need this and what for?
- Do you have any preferences about the orientation of different rooms? For example, if you want sunlight in the main bedroom in the morning or in the living room in the evening. Or if you want to maximise energy efficiency by maximising the sunlight coming into key rooms (known as solar gain).



Choosing your builder

If you're prepared to undertake some background research, tracking down the right builder for your self-build project needn't be difficult.

Recommendations from a family member or friends is probably the best way to find a good builder – if they've done a good job once, then there's no reason to think they won't do again.

Trade directories can be helpful but the wide choice can often be confusing, so it's worth checking out builders' websites for further information, previous work, testimonials etc. Try to avoid the builder who can start straight away. A good builder will be busy and can often have jobs lined up weeks, and sometimes months, in advance.

Trade association websites can also be a good starting point for sourcing professional builders. Builders on the FMB's 'Find A Builder' service, for example, are checked and inspected when they join up and can also offer a warranty on work they carry out.



Here are a few other tips to consider to avoid cowboy builders.

Prepare a brief

As a self-build project, it is important that you get exactly what you want from the build phase. A good idea therefore, would be to prepare a brief for any would-be builders, showing detailed drawings where possible.

Obtain quotes

Self-builders would be advised to obtain quotes from at least three different builders. Carefully assess the breakdown of costs in any quote – and don't just opt for the cheapest. Always question particular aspects of the build if they look significantly cheaper than others, they could be cutting corners.

Check what's included

Make sure you read the quotes carefully to make sure everything you'd like done is actually accounted for, especially things like removal of rubbish, site waste and the specification of any fixtures and fittings.

Visit previous work

Even if recommended by family or friends it's important to go and visit some of the builder's previous jobs. Reputable builders should be more than happy to show off their work.



Do I need a contract?

Self-build projects, like any other construction project, are often complicated affairs. There can be a multitude of different trades and professions involved on site at any one time and issues such as ground conditions, bad weather and the unavailability of materials can pose significant risks to the project.

Contracts can mitigate this risk and offer protection for you, your builder and any other professionals/tradesmen involved in the project by providing a formal framework for all parties at each stage of the construction process.

Contracts should include everything you would like done, including supply of materials, safe removal and disposal of waste, snagging and 'making good' after all the work is finished.

Each party's obligations are agreed at the outset and clearly documented, and if disagreements do arise, everyone can refer back to the original contract for clarification.

Contracts can not only help prevent serious disputes, they can also prevent costly legal proceedings further down the line.

Contracts that cover self-build are produced by the Joint Contracts Tribunal (JCT), a leading authority on construction contracts, who have a number of standard documents available. Visit www.jctcontracts.com for more information.

Top tip

Remember to advise the tenderers of the contract you will be using before they send in their quotations.

Contract documentation for the self-builder can also be found at RIBA Bookshops, the RICS Shop and the Contract Store. The latter has produced a very useful guide for self-builders full of hints and tips on the terms you need to include in your contracts with builders, tradesmen and suppliers, visit www.contractstore.com for more details.

Competent Persons Schemes

Competent Person Schemes (CPS) were introduced by the Government to allow individuals and enterprises to self-certify that their work complies with the Building Regulations.

A Competent Person must be registered with a scheme that has been approved by the Department for Communities and Local Government (DCLG).

An installer registered with a Competent Person Scheme is qualified to carry out specific types of work in accordance with Building Regulations and will both notify the local authority of the work and issue you a

certificate of compliance with Building Regulations either directly or through their scheme operator.

Examples of CPS schemes are:

- Installation of cavity wall insulation
- Installation of solid wall insulation
- Installation of gas appliances
- Installation or replacement of hot water and heating systems
- Installation or replacement of oil-fired boilers and storage tanks
- Installation or replacement of solid fuel burners
- Installation of fixed air conditioning or mechanical ventilation systems in dwellings
- Electrical installation work in dwellings
- Installation of plumbing and water supply systems and bathrooms and sanitary ware
- Installation of microgeneration or renewable technologies

Your new build house must have a Building Regulation application for the construction in its entirety, but you may choose to also use an individual registered with a competent person scheme to carry out certain works.

Electrical work

Running energy and other networks into a new home is becoming an increasingly complicated business. Apart from the usual mains cables, most self-builders these days will be looking to install high-tech kit such as security and networking systems as standard.

By law, the self-builder will have to prove that all electrical installation work on their property meets the requirements of Building Regulations Part P (Electrical Safety) or they will be committing a criminal offence.

For these reasons, most self-builders contract out this part of the project. Engaging a qualified professional for electrical work not only gives peace of mind but also a fall back should anything go wrong.

Self-builders can demonstrate that electrical work is compliant with Part P by self-certification by an installer who carries out the work, if they're a member of one of the electrical installations competent person self-certification scheme – to find an electrician that is a member of these schemes you can go to their register. When the work is finished you should receive:

- an Electrical Installation Certificate or, where applicable, a Minor Electrical Installation Works Certificate that confirms the work meets BS 7671; and
- a Building Regulations Compliance Certificate that confirms the work meets the Building Regulations.

Another choice is to use an electrician who is registered with a trade body, such as NICEIC, ECA or NAPIT, but who is not member of competent person self-certification scheme. These contractors will be qualified to design, install, test and issue certification to BS 7671.

Their work is checked and certified by building control as part of the building regulation application.



Top tips on using individual tradespeople

- Once you have found suitable tradespeople, agree a timetable of work and get confirmation of their expected completion dates in writing. This should cover all aspects of any agreed work and be signed by both parties. You should also ask that they tell you immediately if they're not going to meet the completion date given.
- Agree payment terms so you can ensure that you have the funds available. Some trades may ask for material costs up front and also request staged payments for a larger job. If you do need to make changes, confirm them in writing and make sure you get a revised quote before the modified work starts.
- Avoid dealing in cash as it is easy to lose track of what you have paid. Always ask for a receipt or statement of account.
- If you have any concerns or questions, talk to the tradesperson straight away. If you're dealing with a larger company, speak to the person in charge. This will usually be a supervisor or manager. Make it clear exactly what you are concerned or unhappy about, explain what you want done and give them a chance to put things right.
- If you're unable to resolve any issues, contact their Competent Person Scheme Operator or trade association. They'll be able to advise you and will work with both parties to try and reach a solution.

What if my builder or tradesperson does something wrong?

If you're unhappy with the standard of work you have received, there are a number of ways to tackle this.

The first thing to do is to contact the builder or tradesperson straight away and explain the situation. Follow this up with a letter to confirm what the problem is, outlining what was agreed in the contract; what you'd like them to do to rectify the problem; and the timescale for them to do it in.

Self-builders, like any consumer of goods and services, are protected under the Consumer Rights Act, which came into force in October 2015. This legislation stipulates that consumers who enter into a contract for goods and services can expect them to be supplied with reasonable care and skill – this also applies to tradesmen as well as builders.

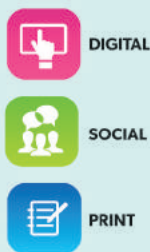
If the builder or tradesperson fails to turn up, contact them again and agree a final date for which the work can be completed. It doesn't matter if they say they're busy, the remedial work should be completed as a priority.

If they continue to ignore the problem, set a final deadline for completing the work. At this point, they should be made aware in writing that if the deadline is broken you'll be getting somebody else to do the work (including estimates from other builders) and that you will be claiming back the costs from them – through the courts if necessary.

Taking legal action in the county court can be costly and should only be used as a last resort. You should also take into account the likelihood of recovering the costs/damages in long run, particularly if a builder or tradesperson has financial difficulties and/or is facing insolvency.

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Consumer Code for Home Builders

Self-builders should check to see if the builder they are looking to engage is covered by the Consumer Code for Home Builders, an industry-led code of conduct which came into effect in April 2010.

The Code applies to all builders registered with the UK's main new home warranty providers including LABC Warranty and consists of 19 requirements and principles that builders must meet.

Home warranty providers require that all their registered builders adopt and comply with the Code. Failure to comply with the Code may result in

a builder being excluded from the warranty scheme and consequently the Code.

Builders of new homes are also subject to the provisions of the following pieces of legislation:

- The Defective Premises Act 1972 in England and Wales
- The Defective Premises (Northern Ireland) Order 1975 in Northern Ireland

This legislation imposes duties on builders, developers, architects and other professionals involved in the design or construction of new homes in England, Wales and Northern Ireland (but not in Scotland). If, at the end of the job, the home is unfit for habitation because of poor workmanship, those builders are liable to put everything right.



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WHAT CONSENTS WILL I NEED?



Building regulations and planning permission

What's the difference between planning permission and building regulations?

The building regulations set standards for the design and construction of buildings to ensure the safety and health for people in or about those buildings. They also include requirements to ensure that fuel and power is conserved and facilities are provided for people, including those with disabilities, to access and move around inside buildings. The building regulations are enforced by building control bodies including your local authority building control team who check plans and actual work on site for compliance against the building regulations.

Planning is interested in the way our towns, cities and countryside is developed. This includes

the appearance of buildings, the use of land & landscaping considerations, highway access and the impact that the development will have on the general environment.

Watch our video explaining the differences between planning permission and building control bit.ly/2y8u56U

Your local planning authority may offer pre-application advice and may carry out a site visit as part of the application process. They will generally then not carry out any further inspections unless you deviate from the approved plan. They don't check how it's actually built, they don't look at the quality of the work, whether it's safe, or whether it will leak, fall down or burn down.

That's why we have building regulations. Regulations are the same throughout England. Wales and

Scotland have their own regulations. You can find out more here bit.ly/2f85HxF

Planning permission

Your local planning authority is responsible for deciding whether a development – anything from an extension on a house to a new shopping centre – should go ahead. Your new home will need planning permission and you must apply for this from your local planning authority.

You can get lots of free advice and information from your local council and their websites.

Obtaining planning permission will take at least two months, plus however long it takes to get the plans ready for submission. So you should allow enough time so it doesn't hold up your project.

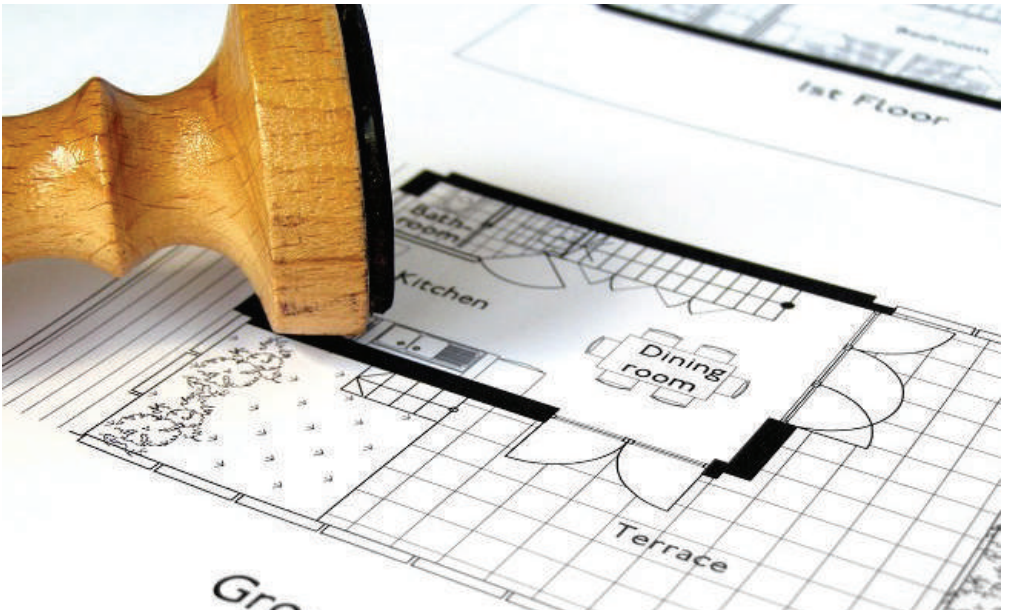
Planning considerations include the location of the project, the siting, height and size of the building, and the percentage of the plot that you want to build on. Planning Officers consult local policies regarding land use, appearance and the proposed materials. They'll consult with neighbours and others that may be affected by the development; they'll ensure that nature and wildlife are suitably considered; roads and

highways are appropriate and that environmental considerations such as building within the influence of any contaminants are considered. Planning applications are often approved with conditions and you should get all relevant matters signed off by your local council before you build on site or as soon as possible afterwards.

Talk to the planning department about local planning policy for new homes. If you buy an existing dwelling to demolish and redevelop you might be restricted in footprint and height. If you buy an empty plot without planning permission you're taking a gamble on obtaining permission for what you really want to build in the future. Buying a plot that already has planning permission in place is a safer option but you might not want to build exactly what has been approved so would need to apply to the council to amend the plans.

The Government has produced a guide to the UK planning system. Visit bit.ly/2wc4qNh for more details.

You can also find all the information you need and apply for your planning permission online using the Planning Portal. Visit bit.ly/2c5KbW3 for more details.



What about CIL and Section 106?

The Government has confirmed that self-builders (and the clients of custom builders) will usually be exempt from paying the Community Infrastructure Levy (CIL) that is normally charged when planning permission is granted for a new house. It has also confirmed plans to exempt self-builders from paying Section 106 (S106) Affordable Housing Contributions – things change so check with your local planning team.

The building regulations

You must apply for building regulations permission before you start work. Working with your local authority building control team gives you plenty of options. It's probably a good idea to arrange a meeting initially to discuss your project. You can apply in person, by post, by email or online via your LABC team's website or via the Planning Portal.

What type of application do I need?

For domestic work there is a choice of application routes: Full Plans, Building Notices and Regularisation Applications for retrospective works.

Full plans

If you wish to have your plans checked and approved before the work starts, to avoid any costly errors and corrective work on site by not being fully up to speed with the ever-changing regulations, we recommend you apply using the Full Plans route.

An application deposited under this procedure needs to contain plans and other information showing all construction details, preferably well in advance of when work is to start on site.

Your local authority will check your plans for compliance and best practice and consult any appropriate authorities including the Fire Service and water authority.

If your plans comply with the building regulations your LABC surveyor will issue an Approval Notice. You can only obtain an Approval Notice from a local authority team. You or your agent may be asked to make amendments or provide more details before this can be issued. Sometimes a conditional approval

may be issued. This will either specify modifications which must be made to the plans or will specify further plans, calculations or design details which must be added to your application.

In the unlikely event that your plans have to be rejected, the reasons will be stated in the notice and you will be given the opportunity to resubmit your information with the additional information at no further cost. Your LABC surveyor will work with you or your agent/architect to help you obtain approval.

A full plans approval notice is valid for three years from the date of deposit of the plans

Building notices

You might elect to use the Building Notice route for your project. In this case you won't have to supply all the plans, details and calculations up front and can start work within 48 hours, but you should be aware that all work is essentially unchecked in advance and knowledge of and compliance with the Building Regulations is entirely your responsibility. You will still need structural, thermal and acoustic details, calculations and designs so it may be better to submit these early on so that your LABC surveyor can assess them and advise you of any omissions or errors.

Some people think this route will save them money as plans are not required with this process so you don't need to employ an architect or designer. However, invariably a good design saves you a great deal of time and money in the long run and the Building Notice charge is generally more expensive than the Full Plans charge as more inspections are usually required.

There are also specific exclusions in the regulations as to when building notices can be used in relation to domestic work. A Building Notice cannot be used:

- For work which will be built close to or over the top of rain water and foul drains shown on the 'map of sewers'
- Where a new building will front onto a private street
- If the building contains any communal areas such as a hallway in an apartment building.

A Building Notice is valid for three years from the date the notice was given to the local authority, after

which it will automatically lapse if the building work has not commenced.

Retrospective regularisation applications

If the work has already recently started or possibly even been completed without proper consent, then a retrospective application can be made using a regularisation form.

You can even use this if the work was carried out by a former owner. Any work can potentially be regularised as long as it was carried out after the 11 November 1985.

The purpose of the process is to legitimise the unauthorised works and obtain a certificate of regularisation. Depending on the circumstances, exposure, removal and/or rectification of works may be necessary to establish compliance with the building regulations.

It's best to contact your local authority building control team to discuss your individual circumstances before submitting a regularisation application.

Will my work be inspected as it progresses?

Local Authority Building Control is committed to providing a robust and accessible inspection service to our customers as part of your application. We believe that a second pair of eyes on site at regular stages of your build is the key to spotting any problems early and reducing the cost and disruption involved in putting them right.

When will my work be inspected?

The stages of inspection will usually be agreed in advance and might include:

- **Intermediate stages:** Different types of projects will require different inspections which might include foundations, the floor, damp proofing to walls and floors, the roof structure, any drainage, structural beams and openings, fire proofing and thermal insulation.
- **Completion:** The main purpose of this stage is to make sure the work meets the various building regulations before it is occupied and put into use. When your surveyor is happy with the work they will issue you with a completion certificate, free

of charge. This is an important document used by solicitors/personal search agents when you come to sell the property and by mortgage lenders and property insurers.

You should be aware that the person carrying out the work, or if you are project managing the build yourself, you must inform the local authority:

- Before starting work and;
- When the work is complete or occupied

Because our teams are local and responsive you can normally book a next day or even same day inspection, minimising delay and disruption. Talk to your surveyor about how to contact them to book yours.

The Party Wall etc. Act 1996

You need to be aware of this Act which provides a framework for preventing and resolving disputes in relation to party walls, boundary walls and excavations near neighbouring buildings. A building owner proposing to start work covered by the Act must give adjoining owners notice of their intentions in the way set down in the Act. Adjoining owners can agree or disagree with what is proposed. Where they disagree, the Act provides a mechanism for resolving disputes. The Act is separate from obtaining planning permission or building regulations approval.

The main types of party walls are:

- A wall that stands on the lands of two (or more) owners and forms part of a building – this wall can be part of one building only or separate buildings belonging to different owners
- A wall that stands on the lands of two owners but does not form part of a building, such as a garden wall but not including timber fences
- A wall that is on one owner's land but is used by two (or more) owners to separate their buildings

The Act covers:

- New building on or at the boundary of two properties
- Work to an existing party wall or party structure
- Excavation near to and below the foundation level of neighbouring buildings



You must have a Party Wall Award in place if necessary before you carry out any building work. Any costs incurred in setting up this award are payable by the person who wishes to carry out the work.

You can find more information on the Party Wall Act at: bit.ly/2h35Rkr

Warranties

A warranty is generally only needed if money needs to be borrowed against a property. Even if you don't need a mortgage or loan to help build your property it's worth bearing in mind that should you wish to sell within the first 10 years any prospective purchaser who needed to lend against the property would need the added security of the remaining term of a warranty in place. A retrospective warranty can be provided but it's usually a significantly higher premium than the cost of a 10-year warranty placed at commencement of the build and the insurer would likely need opening up of part of the work.

LABC's warranty provider has transferable protection and provided the property isn't sold within the first year, the LABC Warranty will be reassigned to the new owner.

Important things to consider when you're looking for a warranty:

- Look for A-rated backed insurance company (this is an independent evaluation of an insurer's ability to meet their financial commitments (most importantly, to pay any claims). LABC

Warranty's insurers are A-rated. This means they are considered to have an excellent ability to meet on-going insurance obligations.

- Make sure the warranty provider is part of the Consumer Code – this will protect you should you have issues with the developer.
- Unlike a professional consultant's certificate (sometimes known as an architect's certificate) which is limited in its scope and often only provides cover for six years, the LABC Self-Build Warranty provides 10 years of cover for damage to your home caused by any defects in the design, workmanship, materials or components of the structure or the waterproof envelope.
- First party protection – If you've employed a builder to construct the property, in the event of a defect occurring you will be covered by the Builder Liability Period for the first 12 months of the insurance period. This means that the builder is responsible for rectifying any defects that may occur within this time period.
- Raising finance – If you're looking to raise finance for your project, LABC Warranty is recognised by all leading UK banks and building societies and we can provide the paperwork required for stage payments.

For more information on LABC's warranties visit: www.labcwarranty.co.uk/self-build-warranty



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CONSTRUCTION – SOME KEY CONSIDERATIONS



Contaminated land

Failing to deal adequately with contamination could cause harm to human health, property and the wider environment. The planning authority alongside building control and Environmental Health departments work together to identify potential sources of contamination, remediation or treatment of contaminants, and where development is possible, the reasonable physical precautions to be taken to avoid danger to health and safety caused by contaminants in the ground to be covered by buildings and associated ground.

When is contamination likely to be present?

Contamination is more likely to arise in former industrial areas but can't be ruled out in other locations

including in the countryside (eg. by inappropriate spreading of materials such as sludges, or as a result of contamination being moved from its original source). In addition, some areas may be affected by the natural or background occurrence of potentially hazardous substances, such as radon, methane or elevated concentrations of metallic elements.

Only a specific investigation can establish whether there is contamination at a particular site, but the possibility should always be considered particularly when the development proposed involves a sensitive use such as housing with gardens.

What do I do if my site is contaminated?

Early engagement with the local planning and environmental health departments, particularly if

the land is determined as contaminated land under Part 2A of the Environmental Protection Act 1990, will clarify what assessment is needed to support the application, and issues that need to be considered in the design of a development, for example how land affected by contamination can be made compatible with sustainable drainage.

The Environment Agency will also have an interest in the case of 'special sites' designated under Part 2A of the Environmental Protection Act 1990 and all sites where there is a risk of pollution to controlled waters. Remediation will need to meet their requirements.

If there is a reason to believe contamination could be an issue, you will need to provide proportionate but sufficient site investigation information (a risk assessment) to determine the existence or otherwise of contamination, its nature and extent, the risks it may pose and to whom/what (the 'receptors') so that these risks can be assessed and satisfactorily reduced to an acceptable level. The risk assessment should also identify the potential sources, pathways and receptors ('pollutant linkages') and evaluate the risks. This information will enable the local planning authority to determine whether further more detailed investigation is required, or whether any proposed remediation is satisfactory.

At this stage, you may need to provide at least the report of a desk study and site walk-over. This may be sufficient to develop a conceptual model of the source of contamination, the pathways by which it might reach vulnerable receptors and options to show how the identified pollutant linkages can be broken.

Unless this initial assessment clearly demonstrates that the risk from contamination can be satisfactorily reduced to an acceptable level, further site investigations and risk assessment will be needed before the application can be determined.

Could planning permission be refused if there are concerns about land contamination?

Local planning and building control authorities will work with you to find acceptable ways forward if there are concerns about land contamination. However, local planning authorities will have to be satisfied that a proposed development will be appropriate for its location and not pose an unacceptable risk.

Radon

Radon is a naturally occurring radioactive gas which is prevalent in areas overlying granite. You cannot see, smell, hear or feel it. It comes from minute amounts of uranium that occur naturally in all rocks and soils, and the air in all buildings contains, a degree of radon. The gas can move through cracks and fissures in the subsoil and eventually to the atmosphere. Most of the radon will disperse harmlessly but some will pass from the ground and collect in spaces under or within buildings.

It has been identified throughout the UK and some areas of the country might have unacceptably high concentrations unless precautions are taken. You can find out in advance whether it is known to occur in the location of your site by accessing maps which indicate the highest radon potential within each 1-km grid and determines whether full or basic radon precautions are required or if radon protection is not needed at all. More accurate information is available from the Health Protection Agency or the British Geological Survey.

Radon protection measures can range from simple membranes to more complex systems with sumps below the building and can be included relatively easily and cost-effectively.



Full radon protection includes a damp proof membrane (minimum 1200g) which acts as the radon barrier. It is important that the membrane extends through the cavity and is linked with a cavity tray. A subfloor sump is also required. Basic radon protection just requires the continuous damp proof membrane. The detailing in both cases will depend on the type of construction used and the positioning of the damp proof membrane.

Building on a flood plain

Flood plain land is some of the cheapest available to developers. A flood plain is an area of flat land near a river, stream, lake or other open waterway that is subject to flooding when there is significant rainfall. Flood zones are areas identified by the Environment Agency (EA) and refer to the probability of river and sea flooding, ignoring the presence of defences. Flood zones are divided into Flood Zone 1 (Low probability flooding events), Flood Zone 2 (Medium probability), Flood Zone 3a (High probability) and Flood Zone 3b (the functional floodplain). Many homes in at-risk areas are being built with the EA's approval because they are behind existing flood defences which are considered to provide adequate protection from flooding or because they are in small developments of 10 units or fewer which would include individual self-build homes.

It is possible to build safely in a fluvial flood plain and tidal flood zone but the risks of flooding should be reduced by incorporating flood protection measures in the design and construction of your home. Generally this would involve building the structures above the base flood elevation and you will need an engineering evaluation to prove that there will be no adverse impact to upstream properties. You can also build in flood mitigation measures like tanking, waterproof windows and doors, one way valves on drains and ensuring that flooring and fixtures on the ground floor are water resistant.





Building near trees and avoiding subsidence

Generally you're advised to carry out a detailed survey of the site including identifying any trees or drainage. A trial hole will help identify the soil classification and your building control surveyor will usually be happy to meet you on site as part of your pre-application discussions to offer advice. You can also use the LABC Warranty online foundation depth calculation tool which helps to identify unexpectedly deep foundations which might add to your build cost. In areas with clay subsoil, trees up to 20m away can have a significant effect on foundations which generally means that they need to be deeper, sometimes as deep as 2.5m. If you know you're building on filled ground, a brownfield site, highly shrinkable clay or any other problematic soil type, it may be preferable to consider a piled or engineered foundation and ground beam system.

Types of construction

An architect will be able to give you detailed advice about the type of construction best suited to your needs as each type of method has pros and cons, which depend on the particular site and your own individual requirements. It's worth thinking early on about your requirements in terms of number of rooms or flexibility to change the internal layout of the home in the future as this may have an impact on which type of construction method is best.

The most common types of construction in self build are:

Timber frame

There are a number of companies selling timber frame 'kit homes' in a range of sizes and designs. It is probably the most common method of construction for self-builders. Timber frames are where a home has an internal wooden frame supporting the property. It's quick to build on site (as it's partly pre-fabricated) and often provides much of the internal finishes as part of the kit so this can save time. The frame is then clad in weatherproof material (eg. stone, bricks or timber cladding) so the home can generally reach wind and watertight stage relatively quickly.

Brick and block

Brick and block is also a common and well-known construction method for self-build. There's normally an outer wall built with bricks, with an inner wall of built of blockwork with a cavity in between which is filled with a thermal insulating material. It generally takes longer to build than using a timber frame structure as the bricks all need to be laid one by one on site, but it's a form of construction that's familiar to lenders.

Steel framed construction

This involves a steel frame being constructed, which panels (of various materials) can be attached to. The external panels are then coated in render or made weather-tight by other means. Like for timber frame construction, many of the materials can be prefabricated so it is normally a comparatively quick to construct once it is on site.

Insulated concrete formwork

This involves the assembly of polystyrene blocks with

a cavity inside. Concrete is poured into the cavity on site. This then makes the structure airtight and very well insulated so it doesn't need any additional insulation inside the home to meet building regulation requirements. The polystyrene blocks are then clad internally and externally.

Modern methods of construction

Types of Modern Methods of Construction (MMC) are categorised as volumetric or modular construction, panelised, hybrid (semi-volumetric) or site-based systems. Modular construction involves the 'off-site' production of quality controlled three-dimensional units. Modules are then brought to site in different forms, ranging from a basic structural shell to one where all the internal and external finishes and services are already installed. They may be timber frame, light gauge steel and concrete or composite constructions. External cladding may form part of the prefabricated system, with only localised on-site specialist sealing required or you may opt for traditional masonry cladding. Panelised units are produced 'off-site' in a factory under a quality controlled process, and assembled on-site to produce a three-dimensional structure. The panels may consist of wall, floor or roof units, sometimes referred to as cassettes. Closed panels involve the factory installation of lining materials and insulation, and may be constructed of timber, steel frame or concrete panels. Panels can often include services, windows, doors and finishes. Open panel systems do not include insulation, lining boards, vapour control layers, etc. which are applied to the frame system on-site, together with the external cladding and internal finishing. Careful control of on-site finishing

is essential and the panels must be protected against the elements until weather tight. 'Conventional' timber frame panels are typically classed as 'open panel systems', and would normally arrive on-site with the sheathing board fixed but without insulation or internal boards. Treatment for insect attack will also be required in certain parts of the country.

There are also a number of other MMC, particularly environmentally-friendly, energy efficient types of building which can minimise your home's impact on the environment and reduce fuel bills. These are usually partly prefabricated off-site and have the advantage of quick assembly on site of the external weatherproofing and structure of the building. With any eco or modern method of construction it's important to double check that your lender will provide a mortgage for this type of build as they're not always willing to lend for construction methods which they may view as more risky if they haven't got a long track record. See LABC's Registered Details for more details at: bit.ly/2jtbWxh

MMC are being increasingly used as they can represent savings in time and materials and provide higher standards of quality than more conventional methods of on-site construction. Off-site assembly means quick erection times on-site (but you will probably need to employ the recommended labour



and machinery) and a quick, weather-tight shell. It is vital that setting out and foundations are accurate. MMC, particularly modular systems and large panel systems, will require advanced planning of the site for access, off-loading, installation and possibly storage of systems. The construction, design and layout of a typical system is planned in advance, so last-minute changes have to be avoided by good project management and what is known as a 'design freeze', imposed in advance of production commencing in the factory. MMC may be less adaptable for complex architectural or planning design requirements. It's important to ensure that MMC, products or systems meet the requirements of British Standards or Codes of Practice or equivalent standards current at the

time of application. If you're buying a warranty, the materials/products or systems should be covered by a current approval from an independent third party technical approval body which is accepted by your warranty provider. This would be either a UKAS accredited or a European equivalent accredited organisation, such as ILAC (International Laboratory Accreditation Co-operation).

Ultimately the choice of whether to choose conventional traditional construction methods or innovative solutions is a personal one – you will find lots of conflicting advice but make sure you discuss your final choices with building control at design stage to avoid any issues later on.



ENERGY EFFICIENCY



How can I reduce the future costs of running my home?

All new and converted homes have to meet the standards set out in the building regulations for energy efficiency. Double glazing, insulated walls, floor and roofs and low energy lighting are the norm. You'll need to have SAP calculations prepared to show how energy efficient your home will be and obtain an Energy Performance Certificate on completion. The Design SAP (Standard Assessment Procedure) is a complex set of calculations prepared by an accredited SAP Assessor that combines all the various elements of your proposed new home to ensure that the energy performance is in line with regulations. This

will include an estimate of the air-tightness of the finished build which is checked via an air pressure test before completion.

Many self and custom builders are keen to be as eco-friendly and sustainable as possible and choose to build well above the minimum building regulation levels. The most important thing that you can do is invest in really good levels of insulation, well above the minimum standards set by the Building Regulations, so that any heat generated within your home isn't lost. A very well insulated home will cost hardly anything to heat and won't need expensive heating systems to keep everyone warm. So, especially if you only have a modest amount available to make your home sustainable, insulation should be your first priority.

Innovative solutions might include using triple rather than double glazing, using external insulation, multi foils, sheep's wool, hemp, wood fibre and recycled paper products. There are thousands of suppliers and your building control surveyor will be able to confirm whether your chosen product meets the legal requirements. Don't forget to follow the manufacturer's installation instructions and remember that cheaper substitutions are often inferior, so are a false economy.

Heating and Cooling

Choosing a heating system for your home can be complicated – you might want to consider renewable energy, boilers, wood burning stoves, radiators, underfloor heating and PV panels. Before you consider the details you should also consider design, location, orientation, shading and fabric of your home as these have a huge impact, particularly on the need for any mechanical cooling. The orientation of large areas of glazing plays a huge part in ensuring that solar gain doesn't become an issue and so it's vitally important that your architect/designer and SAP assessor (if they're not the same person) work together to design the optimum solution for low heating and low cooling costs.

Why does orientation matter?

Proper orientation of a new home allows you take advantage of the best source of lower utility costs – passive solar energy. Ancient Greek and Roman houses were oriented and constructed with seasonal solar exposure in mind so this isn't a new idea. The sun rises in the east and sets in the west and midday sunlight is at a low angle in winter and a high angle in summer. Given those basic facts, you can position your home so the daily and seasonal movements of the sun work to your advantage to increase indoor comfort whilst reducing heating and cooling expenses.

It's generally best to locate your most frequently used rooms on the south-facing side to take advantage of greater solar warmth in winter and reduced lighting costs because they'll be more consistently lit by sunlight.

Landscape and terrain

You can position your house to take advantage of existing natural landscape features. Deciduous trees offer heat-reducing shading from high-angle summer sun, yet allow solar heat exposure when they lose their leaves in winter. Small hills and evergreen trees to the north can buffer cold winter winds. Nearby





bodies of water can provide cooling breezes in summer if they're located on the hotter, south-facing side of the home.

Eco-technologies

Everyone agrees that a fabric-first approach to insulation works best but you may want to add some renewable energy options to supplement traditional energy sources. Solar panels (some produce hot water, whereas photovoltaic generate electricity), air and ground source heat pumps or generators, wood pellet/biomass boilers, log burners, wind and water turbines, mini domestic combined heat

and power generators are increasingly popular. Some are very expensive to purchase and install so consider which will give you the best return over the period you expect to live in your house. You may also be interested in mechanical ventilation and heat recovery systems (MVHR), the latest generation of really efficient gas boilers and smart control systems, low energy lighting and using energy efficient domestic appliances.

Super high efficiency designed homes aren't only in the reaches of people with huge budgets. Passivhaus is one such design concept. Passivhaus buildings meet stringent energy-efficient standards well above building regulation levels. A typical Passivhaus home is air tight, equipped with a high level of insulation and designed to use a bare minimum of eco-technologies for heating and cooling. They can prove to be more expensive to construct but, with almost no financial outlay for heating, costs can be recovered quickly. Passivhaus homes are ultra-sustainable and have a very low carbon footprint more information on Passivhaus can be found here www.passivhaus.org.uk

Timber frame or masonry?

The key difference between timber frame and masonry isn't so much the materials used to make



the walls, but the fact that timber frame components are manufactured off-site. This is generally quicker to erect and requires less labour on site but brick and stone are traditionally more popular in the UK. Both methods have their pros and cons, and selection is a personal choice. Generally timber frame has been considered more expensive, but it may be possible to offset this by reducing the build time overall, thus reducing overhead and finance costs. Recently skilled bricklayers have become more expensive, eroding the cost differential while timber frame factories have had more orders thus lengthening the time taken to process and thus losing much of the speed advantage. In short, there is very little cost or performance difference.

Timber frame construction tends to be a much more engineered product. The walls are therefore usually plumb and the rooms are totally square, unlike many site-built masonry homes. This can have advantages when it comes to fitting items like stairs and kitchen units. However, engineered houses require incredibly accurate foundations.

Neither system is inherently more energy efficient. This is down to the design. In practice, a surprising amount of energy performance is also down to build quality and here factory-built homes tend excel. It's easier to fit insulation into timber frame walls, and to leave the cavity between the two skins empty as well. However, masonry homes claim an edge on heat retention, as heat is effectively 'stored' in the structure because of its thermal mass.

Acoustics

Acoustics are of particular importance on separating walls between semi-detached properties and to the floors and ceilings in apartments. Specialist construction techniques and sound testing are usually needed for such walls – your architect/designer and building control surveyor will be able to guide you. In detached housing, the chief area of concern is noise between floors, whilst it's important that sound limiting construction is used around bathrooms and to the floor/ceiling between bedrooms and living rooms/kitchens these don't need to be sound tested by specialist teams.

Local planning authorities can also apply conditions in relation to external acoustic control, so check current guidelines.

Solid or suspended floors?

The ground floor of your home performs a number of tasks: it supports the floor loading, keeps out damp and any contaminants and provides thermal insulation. A common method of ground floor construction is a multilayer structure; the top soil under the floor area is removed and a layer of compacted stone is placed over the site. This is covered with sand and a layer of polythene is then placed over the sand and lapped in with the damp proof course in the wall to prevent moisture ingress; if contaminants are a potential problem then a specialist membrane is applied instead. A layer of insulation is then provided including perimeter insulation to prevent cold bridging, and a concrete slab at least 100mm thick is poured over the insulation (some insulations may require an additional membrane). The concrete can either be float finished or a screed applied at a later date.

On some sites where the ground floor is significantly higher than external ground level or where the site has been affected by trees, a suspended floor may be needed. These can be formed from either concrete beams or timber. A suspended floor must also incorporate damp and contaminant proofing and suitable insulation.

Basements

Basements are a great way of getting extra room in your house on a limited footprint. There's no minimum headroom other than over the stairs - a simple 2m minimum above the pitch line. The main issues to consider are the structure, the method of preventing water ingress using a tanking system, and means of escape in case of fire.

Basements are a potential cause of major structural and damp issues and so warranty providers will expect the design and construction to be completed by a specialist accredited basement company.

If you're looking to include a sink, bathroom, shower room or utility room in your basement, it is wise to consider drainage at an early stage, bearing in mind that the drains are usually above the level of the appliances that you wish to install so you are likely to need to install a pumped drainage system. Various package systems are available that macerate the drainage and pump it via a small diameter pipe to the drainage system. Remember that a macerator WC cannot be the only toilet in a dwelling in case of power failure.

OTHER THINGS TO CONSIDER



What causes condensation and how can I avoid it?

Condensation is generally caused by a lack of adequate ventilation either within rooms or in concealed spaces such as roofs and sub-floor voids. Fresh air is essential to healthy living and the building regulations require your home to have adequate ventilation. Generally an opening window with a 'trickle vent' is all that is required to each room with the window having an openable area equivalent to at least 1/20th of the floor area of the room that it is ventilating. The trickle vent is a small slot type vent that you can leave open to allow some background ventilation without the need to open the window, generally these are found in the top of the window frame. In kitchens, utility rooms or bathrooms you'll need an extract fan and will have to show that you

have specified and installed the correct fan for the type and size of room. Alternatively you might choose a less traditional way of ventilating your home and opt for passive stack ventilation or mechanical ventilation with or without heat recovery. If you opt for the latter you'll generally need to employ an expert in MVHR to design, install and commission your system.

Roof voids and sub-floor voids generally require cross ventilation using air bricks, ridge and eaves vents and soffit ventilation. There are also breathable roofing membranes available which, if correctly installed, prevent condensation forming on the underside of the roof covering.

Reducing water consumption

Water consumption is controlled to some extent by Part G of the building regulations which restricts



some key principles that influence the planning and design process enabling SuDS to mimic natural drainage by:

- Storing runoff and releasing it slowly (attenuation)
- Allowing water to soak into the ground (infiltration)
- Slowly transporting (conveying) water on the surface
- Filtering out pollutants
- Allowing sediments to settle out by controlling the flow of the water.

Your architect/designer and building control team will be able to provide more information on sustainable drainage solutions.

Can I install a wood burning stove?

Wood burning stoves are a popular way of supplementing the heating in your new home.



target water consumption to 125 litres per person per day. You can use a fittings-based approach whereby the taps, showers, baths and toilets are limited in their water use, or complete a water calculation to show that your house will comply. In some cases where a water authority has identified a potential for water shortage, a local authority planning department may choose to add a clause to the adopted Local Plan to restrict this further to 105 litres per person per day. Common water consumption methods include installing low flush toilets, low flow showers rather than rainfall showers, more efficient washing machines and dishwashers, and grey water or rainwater harvesting systems.

SuDSs and surface water management

From April 2015 the requirements for design of surface water drainage on new developments was strengthened. Changes to planning legislation requires the local planning authority to consult with the Lead Local Flood Authority (LLFA) on all major applications. This would not apply to a single custom build house but you're still responsible for making sure that building your new house doesn't increase the likelihood of flooding elsewhere. And of course, you need to include adequate measures for collecting and dispersing your own rainwater. You might want to consider using a sustainable drainage system (SuDS).

Sustainable drainage is a departure from the traditional approach to draining sites. There are

Installation and design are covered in Approved Document J and you need to consider structural issues such as the design of your chimney, hearth and flue as well as ventilation, carbon monoxide detection and fire precautions.

LABC has produced a comprehensive guide on the installation of solid fuel stoves that can be found here: bit.ly/ZvYwhMC

Further information is available from HETAS, the official body recognised by the government to approve wood burning appliances and associated equipment and services. Visit www.hetas.co.uk for more details.

Suppression systems in Wales

If you're building a new home in Wales it's now mandatory to install a fire suppression system. A fire suppression system is defined as an automatic system that controls and extinguishes fires without human intervention. Typically these are sprinkler systems, although other types are available.

Where sprinklers are mandatory, compensatory features can't be added to the building to avoid their inclusion. Suppression systems must be designed and installed to BS 9251/2 or other equivalent standard. The system should cover the whole dwelling, except fire separated garages, bathrooms under 5m², cupboards under 2m² and concealed voids.

Many people choose to use sprinklers or mist systems in England and these may also be required if you are building on a site with restricted access for the fire service. Some people are worried about the reliability of sprinklers and there are a number of myths.

- Sprinkler heads do not all activate in the event of a fire. This only happens in the movies. In the event of a fire individual sprinkler heads will activate once the air around the head reaches a certain temperature.
- Sprinklers create significantly less water damage than fire service firefighting operations.



- Sprinklers do not ‘false alarm’ as they only operate on elevated air temperature, not in response to smoke particles. Burning the toast will not result in activation of the sprinkler system.

Watermist systems

An alternative type of fire suppression to sprinklers is a ‘watermist’ system. Mist systems release tiny droplets of water that absorb the heat from a fire and generate a steam that interrupts the combustion process. Watermist systems should be designed in accordance with BS8458

Water supply

You need to check that your local water company can confirm the typical operating water pressure range and flow capacities that are needed for a sprinkler or mist system. Currently the water companies in Wales won’t guarantee a suitable mains water pressure for a mains-fed suppression system and so you would need to provide a booster pump or a tank feed.

There is a limited market availability of in-line booster pumps at this time, meaning that tank-fed systems will be the most common solution. Where tank-fed systems are used they require a low-water alarm, and dedicated sprinkler pumps also require a fault alarm. The tank must be sized in accordance with BS 9251:2014, depending on system category.

The design, installation and commissioning of domestic suppression systems must be carried out by competent persons, defined as: ‘a person, suitably trained and qualified by knowledge, understanding and practical experience’. A compliance certificate should be provided by the competent installer to demonstrate compliance with the British Standard.

Accessibility

All new dwellings must be designed so that they’re accessible. There is a minimum base standard which ensures your home has an accessible entrance, a toilet on the entrance storey which is of a minimum size with an outward opening door, switches and sockets at an accessible height and a suitable staircase.

Other higher standards may be imposed by your local planning authority if these are part of their

adopted Local Plan – your local authority building control team will be able to advise you which standard applies to your project.

The idea of lifetime home design has already entered the building regulations and standards have changed to ensure all new homes are ‘inclusive’. But as a self-builder you can go further by really planning for the future of your family and your home. This can address the future changing needs of your family – including making room for a growing or adapting family and factoring in potential mobility issues – but also looking at sustainability and how the home is designed for a greener future.

A home that adapts as your family’s needs change removes the need to move home. Consider the number of bedrooms you might need. Will you work from home at some stage and need an office? Think about hobbies and adding space for bikes, sports kit, musical instruments and office equipment.

Many people now prefer open plan homes with a fluid large space. This is great, but can actually reduce future flexibility rather than increase it. For instance, children playing in one part can severely impact on the peace and serenity in another. You can keep the flowing space, but plan for full-height glazed doors to be able to close off areas and yet allow permit views and light through. You could design zones that allow screens or doors to be added later.

Later life and accessibility

Designing a home that can accommodate someone with limited mobility means that life doesn’t need to drastically change should circumstances change. If you plan for this to be your forever home, make sure it’s designed to offer you a comfortable and stress-free life.

You might also want to consider the reality of a growing number of families who take in an older relative, to offer them care and companionship.

Lifts are a luxury but can be a really practical feature in any house with more than two storeys, especially split-level houses, where the entry floor may not contain the main living space or kitchen. Lifts that don’t need a lift pit are considerably easier and cheaper to install at around £15,000.

WHAT PAPERWORK WILL I NEED AT THE END OF THE PROJECT?



Towards the end of the construction and before you move in you'll need to provide your building control surveyor with various certificates. They'll need any certificates from electricians and gas installers for the boiler installation. You'll also need to give the air pressure test certificate to your building control surveyor plus the as built SAP which confirms that the designed energy efficiency has been achieved in the construction. You'll also need an Energy Performance Certificate and acoustic test results if your property has shared separating walls or floors with another dwelling.

If you have a warranty on the property your warranty provider will need to inspect in order to

provide the CML (Council of Mortgage Lenders) Certificate – this informs the lender that the property is completed satisfactorily and final funds can be drawn down. Finally, once your home has been completed and checked by your building control surveyor, you'll receive a Completion Certificate – make sure you have this before you make final payments to any builders or contractors and don't lose it – you'll need it if you ever decide to sell or need to raise finance against your property.

Good luck and we wish you many years of happiness in your new home.



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