

Its Not Lego

Yorkshire Build Consultancy



Guide to Project Management

All you need to know to manage the process
of undertaking building work to your house

Self Project Management Guide

You've had the idea and long discussions and now you would definitely like to have the change to your home, as long as you can afford the cost.

Where do you start? In this guide I've tried to cover all the issues that need to be considered in the process of working up to employing a builder and overseeing the work to completion. The order is roughly as you might approach them in the actual process:

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1.0 BUDGET

You have 3 real choices in assessing whether you can afford your idea: Firstly, you can progress the design so that you have good information from which to obtain an accurate price from builders. But there is a risk that you will spend money only to find you can't afford the work. Many, many commercial projects follow this route.

In reality, quite often the domestic market builder is being asked to price something when next to no solid design information is available. Each builder interprets the job differently and the result is 3 or more vastly varying prices. If you then employ the cheapest, you'll probably have a job that takes forever as the builder focuses on other work that he has priced better. When, finally, yours is complete the list of extras may amount to quite a high value beyond your initial budget. If you employ the dearest, assuming you're paying for quality, you may indeed get it, but more than likely you'll just be contributing a fair amount to his new car! You probably received a "cover price" as he was too busy to try & calculate an accurate cost for an uncertain amount of work, so he took a high figure and added 50%, but then was quite surprised to actually get the job!

A second option would be to employ a professional Quantity Surveyor (QS) to cost out the work for you. He won't come cheap and I wouldn't advise this unless you are embarking on a very large project. Only employ a QS through referral based on reputation and experience relevant to your project, however there are no guarantees he'll give you a true reflection of market costs. Again, many, many commercial projects have had to be substantially trimmed because the QS severely under-estimated the costs!

The third option, and the one I'd recommend, is to use a website such as the ones in my Helpful Links on my homepage. For simple work they'll give a fair idea of a cost range. But don't assume you'll get it done for the lowest amount shown! The number 1 rule is: the more you split up the work, generally the cheaper it gets. So, for example, employing someone to dig and concrete the foundations and then a bricklayer to build the walls and then a joiner to put the roof on will in most cases be cheaper than have one builder do the entire project. This is because he is unlikely to do all the work himself (although there are a few such builders out there) and will employ others to help, but you'll still be paying for him as well. This is essentially a Self Build and the House Builder's Bible available from www.rodalia.co.uk will tell you everything you need to know.

There is an obvious downside to splitting up the work elements like this. Supposing the walls, once built, are leaning and the corners aren't square; not enough to be seen in a casual glance, but very noticeable to the joiner trying to fit the roof trusses. What do you do? Even if you manage to get your stage payments back from the bricklayer (very unlikely, at best you'll keep the retention monies, but we'll come to payments later), you'll still have to either demolish all or most of the walls costing you for material to be skipped, new materials, a re-build and possibly pay the joiner for an abortive visit, or you'll have to pay the joiner extra to try and make the roof fit and hope the Building Inspector is satisfied. There will be host of other related issues to deal with too. If both bricklayer and joiner are employed by the builder, it is his problem. This highlights a major issue: work needs monitoring for quality as it progresses NOT after the tradesman declares it done and wants paying. Later I will explain some methods to help monitor quality, but you must feel confident about this process and how to deal with possible confrontation in condemning someone's work as unacceptable if you want to follow this method of splitting up the elements of work. This is essentially "Self Build" and to proceed down this path requires confidence or/ (preferably and) experience. Refer to section 12.14.

1.1 Contingency Allowance

How much extra money to allow for extras and omissions in pricing?
My advice would be for a larger project 10% and 15% for a smaller one.
But start the entire project with an attitude of having a 0% contingency.
Never assume things will cost less than expected. They rarely do. Never think you can borrow money from future expenditure to increase the quality or size near the start. This mindset encourages the same thinking right until the end of the project. You have to be tough on yourself & set limits.

2.0 PLANNING

Planning laws have been relaxed recently in certain areas, but councils haven't relaxed in requiring work undertaken without approval to be removed or demolished. It's worth being open about it. For instance with listed properties there is zero VAT, but only with planning approval. Loft conversions are a good example of where approval may not be required, although you still must comply with Building Regulations. Not to do so will give your home insurance provider a great excuse for not paying out.

So your local planning office website will provide a lot of information, but if in doubt, contact them. Also, be aware if you live in a housing development, that there may be additional conditions that remain in force from the original consent to build on the land.

2.1 Drawings

In order to get planning approval you need to submit drawings. There are various ways of doing this. I remember my Dad drawing up plans for a large garage when I was a small boy. He wasn't a builder, but felt confident he knew what was required. He had to make one revision.

So the complexity of the project with your knowledge, experience and drawing ability should decide matters. If you want to employ someone to do it for you, then traditionally that would be an architect.

2.2 Architect

Make sure you research architects that specialise in similar projects to your idea. Reputation and word of mouth are the best advertisements. These days there are other companies that offer more specific services to the domestic market, such as surveyors and technicians who have obtained "bolt-on" qualifications allowing them to undertake the full package of producing drawings, obtaining approvals and inspecting the work as it proceeds. They may not have studied the classical history of building form and function at university or be members of the Royal Institute of British Architects (RIBA), but they may be very experienced in domestic building work and be familiar with the people working in the Planning and Building Control Departments of your local authority. They may also be cheaper. Read the section below on Building Regulations first and then find a company that will work with you to achieve both Planning and Building Regulation Approval to avoid doubling your expense. There is a section on appointing an architect or similar further on.

2.3 Structural Engineer

Structural issues such as sizing beams or retaining walls will require a structural engineer. This will probably be cheaper if you search out a local private consultant rather than have an architect, surveyor or technician employ their friends on your behalf. Structural engineers are qualified professionals in their own right and should be members of the Institute of Structural Engineers (iStruct) or Institute of Civil Engineers (ICE). For example, an architect or other will make an assumption on their drawing of the size of a beam required to hold a floor or roof up, but it will need verifying by a structural engineer. Planning may ask for this, but Building Control certainly will.

2.4 Material Samples

Do not be surprised if sample materials are required, especially if an extension has to match an existing property. These might be of bricks or stone for the walls, tiles or slates for the roof or many other things depending on your area and property. Doing plenty of homework will not be a wasted exercise as it could help you develop an understanding of the cost of the materials and so better aid your understanding of both the total cost of the project and the prices returned by prospective builders. For example, some planners may let you use new Spanish imported slates in lieu of Welsh or Westmoreland ones at a considerable cost saving. Or removed slates from the existing house roof may be used on the extension's new front elevation with new (cheaper) slates agreed for the rear.

3.0 BUILDING REGULATIONS AND INSPECTIONS

Building Regulations are your next hurdle. In fact, they're really your first hurdle. Many projects are exempt from needing planning approval, but few are exempt from building control (see below). So, you've got planning approval or established that it's not required and now you just want to get on with the project, but have heard that you need an inspector to pick over the design and snoop on the building work....and you've got to pay for him! But try and look at them from a different angle. The Building Regulations were first written to ensure that buildings were built correctly and would stay up in all weathers, not fall down injuring the inhabitants and give some protection in unlikely events like fire. The Great Fire of London persuaded Charles II to introduce some of the first Building Control legislation to stop houses being built so close together. Another good example is comparing the Building Regulations of Chile and Haiti for earthquake resistant design. (regulations we, thankfully, *don't* need to worry about!) Chile suffered a quake 500 times stronger, yet greater than 200 times more people perished in Haiti.

The regulations are very extensive and cover many areas:

BUILDING REGULATION PARTS

PART A	Structure
PART B	Fire Safety
PART C	Site Preparation and Resistance to Moisture
PART D	Toxic Substances
PART E	Resistance to the Passage of Sound
PART F	Ventilation
PART G	Hygiene
PART H	Drainage and Waste Disposal
PART J	Combustion appliances and fuel storage systems
PART K	Stairs, Ramps and Guards
PART L	Conservation of Fuel and Power
PART M	Access to and Use of Buildings
PART N	Glazing - Materials and Protection
PART P	Electrical Safety in Dwellings
REGULATION 7	Materials and Workmanship

If you are employing an architect, structural engineer or any design consultant, they have to produce their design to meet minimum standards set out in the regulations. And your builder has to construct to them.

Not all of them apply to domestic work and some only in part. And there are a few total **exemptions**, including: small detached buildings such as garages, garden storage sheds/huts, all with less than 30 square metres floor area and no sleeping accommodation. Also extensions such as porches, covered ways, conservatories (again less than 30 square metres floor area) and greenhouses that are not for retail use are exempt (but if your house is part of a larger development, check the deeds for additional planning conditions). But there may still be areas to watch for, such as needing safety glass for glazing below 80cm or to the side of glazed doors. It is always best to check as the regulations are generally good sense and your insurance may be invalidated if building work doesn't meet them.

One section of regulations that causes much discussion and misunderstanding is Part M. It is often thought that all of new building work must now be wheel chair friendly. This does not apply to domestic extensions. You cannot make the access arrangements worse than those of the home to be extended, but that is all.

3.1 Notification and Appointment

So what is the best way to progress? The role of approval and inspecting was solely in the domain of the local authorities until it was deregulated. Now suitably qualified private companies offer the service too. Although these tend to focus on large lucrative projects, it is still worth doing an internet search and comparing fees.

Try <http://www.approvedinspectors.org.uk>.

Your Local Authority Building Control department will have its own website that will set out what fees are payable and their process you have to follow.

There are two routes: Full Plans Approval Notice or Building Notice. The first is similar to Planning Approval. Send off the complete design with structural calculations etc where applicable and you'll receive a Full Plans Approval Notice that is valid for 3 years.

The second method of applying for a Building Notice means you can start work immediately (after a wait of 48hrs or as your local authority directs) and the compliance will be assessed as the work progresses on site. Only use this route if you know for certain that everything you do will satisfy the regulations.

With the first method, your Local Authority will still have a visiting Inspector who will liaise with your Builder. Try to make sure they liaise with you too. You're the one paying the bill! Some inspectors will expect to be informed when certain stages of work have been completed or before certain elements are hidden for good. If they want to they can demand that new work is removed to allow them to inspect at your cost. Make sure you and your builder know who is responsible for making the phone call.

At the end of the project, regardless of what method you adopt, you need a Completion Certificate. Your insurance provider may want a copy of this as well.

All this may alter your thoughts as to whether you need a qualified and experienced designer or not. Whoever draws up your plans need to be conversant with Building Regulations relevant to your project. There are plenty of firms in the market place that offer a role of qualified technician to get you to the starting blocks of having everything in place to get a builder on board and start building.

4.0 APPOINTING AN ARCHITECT, SURVEYOR OR TECHNICIAN

Designers enjoy a reputation in this country of being perceived as professionals and are therefore trustworthy (unlike builders who suffer the opposite). But in reality they vary as much as builders. A larger practice or a busy one might give your small project less than required attention or delegate to a young trainee, for example. Shop around and seek quality from reputation and experience on similar projects. A search will provide plenty of options of possibly suitable companies or sole-traders, but before appointing them, ask them to answer at least these questions:

1. Do you guarantee that your drawings will comply with Building Regulations?
2. Should the Planning Authority want further drawings, do you accept that that is your error and produce them at no further cost to me?
3. Should the builder need further drawings, do you accept that that is your error and produce them at no cost to me?
(Unless you change your mind on the design, but we'll talk about variations later.)
4. You want the right number of drawing copies in the price. 1 set for the Planners, 1 set for Building Control (we'll come to these guys soon) 1 set for you. And how many sets for the builder depends on how many you're going to have pricing the work. Make sure they're included.
5. The materials on the drawings should be fully specified in discussion with you. What you're trying to avoid is the builder making an assumption and using something cheap/ poor quality or just rubbish to look at and then wanting more money to change it. That would be the architect's problem, but you'll struggle to get him to pay after the event.
6. That the drawings show all the Building Services (this is a term that covers all the electric sockets, switches, lighting, heating, cooling, ventilation (openings to windows included), data (computer) points, TV points and home entertainment points.
Why not incorporate as much wiring for what you need into the build? Surround sound speaker cable will be hidden for good!
You can see that this list can only be made definitive when the actual work is clearly known.

In the "Contracts" section under "Select a Builder" there are details of a contract that can be used to formalise arrangements with your consultants. It should set out exactly what the designer or technician's scope of works and responsibilities are; what is included in the price and what is considered an extra at a specified rate. If you believe some of these should be included or if there are items missing from the scope of works (such as showing electrical points and radiators on drawings) then re-negotiate before you sign. Regardless of whether you chose to use a contract though, make sure you understand the letter of appointment your designer/technician sends you.

If you are employing a designer rather than a technician who will simply produce drawings for you from experience with standard detailing, then make sure they have Professional Indemnity Insurance in case their designs prove inadequate or cannot be built, putting you considerably out of pocket.

If you are employing a technician simply to produce drawings for you (and as stated in section 2.2, this will be the cheapest option) you must remember that he is not a designer. There are however many excellent sources of quality standard detailing for domestic situations, this being one of the best:

<http://www.nhbc.co.uk/Builders/Technicaladviceandsupport/TechnicalGuidance/>

Bear in mind though that the Building Inspector is still entitled to ask for evidence that a detail is suitable and sufficient for a specific situation and although he would be struggling to argue against a relevant NHBC detail, a Structural Engineer may still be required to prove certain loadings can be withstood for beams or retaining walls, etc.

4.1 Drawing Approval

Your designer will produce (or should produce) quite a few drawings. These will be presented to you for your comment and approval. Interpreting plans and sections is a skill and unless you have an innate knack for it, you may find the task quite daunting.

The plans should be drawn to show the primary features of a room or building, such as windows, doors, fire place etc. And they should be to a scale. There will probably be a disclaimer comment against scaling from the drawing, but this is really in case the drawing gets photocopied and distorted. All aspects should be to scale including wall thicknesses and door openings. Don't be afraid to get coloured pens out and mark on the drawings your queries or interpretations. Write on the widths and lengths of new rooms and then compare them to existing ones. Measure alcoves and if a size is critical to take a bookcase, etc, make sure that finished size is marked on the drawing for all to see.

Sections should show the relationship of floors to existing and new ground levels, to the existing floors of a house to be extended and to the new and old roof. They should show the specification of the new walls, floors and roof. For example, the size of cavity and thickness of cavity insulations should be clearly shown as should the location and height of any damp proof course. These will be required by Building Control to show compliance with Building Regulations.

Designers will often make assumptions and/or cover themselves with notes on the drawings. Make sure you read and fully understand them all. If you see "dimension to be checked on site", check it as soon as you can. Try to remove uncertainty.

If they haven't been shown, mark on where you want new sockets, switches, wall lights, radiators etc. For porches, mark on coat racks (thinking about how far out coats project) and shoe racks. You get the idea...use the drawing as a tool for thinking rather than a document to be simply read.

Kitchens and Bathrooms: Obviously all of the above becomes even more critical here. If you're planning to use companies to design the layout then send them the relevant drawings as soon as you can. Alternatively, use tools available on the web such as

Ikea at http://www.ikea.com/ms/en_US/rooms_ideas/kitchen/download1.html

or SmartDraw at <http://www.smartdraw.com/>

to see whether the new room size and shape will fulfil your expectations.

Now of course, many room sizes are set by the space available for the new building or extension, but it never hurts to fully think things through in advance. At the very least it eliminates or reduces the unpleasant surprises later.

The architect's work, your brief to him and your review of his drawings can all be made much, much simpler by Room Data Sheets.

5.0 ROOM DATA SHEETS

These sound impressive, but are really very simple tools for making sure nothing is overlooked. Overlooking means doing something again or disruption to the build process. Either way it'll cost you money and time.

So Room Data Sheets are simply a description of what you want in each room. That's it! For example, floor finish, skirting (type, size and finish), window size (type, finish, height and location...you want that book case to fit in that corner), power sockets number & location...and type! Fancy brass or the cheap plastic the builder's electrician will try and give you. You can see how a drawing becomes far more worthwhile if it has your furniture shown on it. Power socket positioning becomes easy then. You'll find a simple example of a Room Data Sheet on the next page.

For ease of understanding call the front of the house north and then points of the compass can be used to identify all walls. Please add to it as thoughts occur to you.

It may seem like a lot of thinking and pondering, but if you don't do it, the designer or the builder will make assumptions for you (generally to suit them).

There are software programmes available that allow you to draw out room layouts and this may help you visualise your requirements by forcing issues such as window and door locations to be considered against proposed furniture. See, for example:

<http://www.smartdraw.com/specials/room-layout-design.htm>

So now you're now at a stage where the look and functionality of the proposed new rooms are written down on various bits of paper.

Don't fret over whether you might really want a tiled skirting in the new en-suite bathroom instead of the oak you've chosen. You now have a record of what you want at this time and it sets a system for any variations as I'll explain later.

I want an architect, after all

You may have come to the conclusion during this process that you just don't have the time or the inclination to work all this stuff out. You may feel that you don't have enough confidence to visualise how it will all look at the end of the day. This is really where architects come in. That is what they are qualified in. They take the client's requirements and produce a design that is based on their interpretation rather like an artist paints their version of what the camera sees.

A good architect will produce a building with style (at a cost) that will turn the heads of passers by, but the inhabitants of the building may not be so impressed (or vice versa!) A really good architect will do both. If you feel confident in your architect and can afford the fees, then this is a reasonable path to follow. However, be aware that the architect will ask you to approve the drawings so that should you decide to change things later as the work progresses, the cost could be quite high both in re-drawing and delays to the builder. Meanwhile any mistakes that the architect makes will be expected to be paid for by you. Additionally, you will only really know the build cost after pricing by a few builders, making working to an initial budget difficult.

But even with a full design service, my advice is: Room Data Sheets. Kill ambiguity.

If you're reading this then most likely you are trying to keep costs down and, unless you're considering a bespoke new home, this will all seem irrelevant. What you really want is someone who knows how to put a drawing together that satisfies the planners, tells the builders what to price and build and gets approval by Building Control for compliance with Building Regulations. A nuts & bolts service to the domestic market where most projects are similar and lack technical specialities.

As covered in section 4.0, designers that work at this level are plenty, but do shop around. They will send you a letter confirming their appointment, detailing their fees & outlining their services. Make sure you read and understand this and also ensure that there is reference to the build time on larger work; you do not want an architect delaying the builder as he may insist on being paid to wait.

ROOM DESIGNATION	STUDY	WALLS			COMMENTS
		N	E	W	
SIZE	2M X 3M				
WINDOWS	1.2M H X 0.9M W				X sun on work area: fixing for blind required lockable
DOORS	Standard	X			
LIGHTING	Wall light nr desk			X	
HEATING	Radiator				X under window
SOCKETS	6-way socket board in wall & one next to door	1		6	
SWITCHES	light switch only				
SPEAKERS	stereo on shelf over desk			X	
TV/ DATA/ TELEPHONE	TV pt & phone at desk for PC (house router position)			X	
SHELVING	2 shelves over desk. Floor to ceiling to left of door	X		X	
SKIRTING	Stained oak	X	X	X	X
ARCHITRACE	Stained oak	X	X	X	X
WALL FINISH	Wall paper to walls without shelving		Paint	Paint	Paper
FLOOR COVERING	Carpet				
CEILING FINISH	Paint				

6.0 SELECTING A BUILDER

This is the part of the process that daunts most people. All of the above can be done, in most instances, in advance of the actual building work commencing so we'll assume this is the case. You have the drawings, room data sheets, planning approval letter, building control approval letter and now you need a builder.

Well here's the truth: you are an attractive client to work for. Let's put ourselves in the builder's shoes for a moment and ask what he needs in a client.

1. A clear understanding of exactly what they want.
2. Drawings that are fully dimensioned and specify the materials to be used.
3. A clear understanding of the process with the inherent disruption from undertaking the work. Just like the motorways, where we have to put up with cones for safer, better roads afterwards (hopefully!)
4. A sensible and affordable budget. Remember the builder will be your creditor until he's paid.

Here's a commonly held misconception: All builders like extras and variations. What they really like is to know exactly what they'll be doing on each day so they can plan their day, the next one and the next job. In reality, building work presents all manner of unforeseens whether it is materials being delivered late or wrongly, bad weather problems, plant breaking down or design problems. Extras generally only exacerbate things, especially when announced at the last minute! A builder who likes extras is one who is using them to cover up incompetence or bad pricing. Beware.

In the domestic market, good builders will choose their clients as carefully as the clients choose the builder. They want to know that if they do a good job they'll get paid the amount agreed on time without argument or hassle. How can you run a successful business otherwise?

The Federation of Master Builders (<http://www.fmb.org.uk/>) are a well publicised organisation. At the end of the day, if a builder that you are going to invite to submit a price for your project is a member, then you have an additional tool to assure quality with and if he is not, then ask him why not. Not all builders who are not members will be untrustworthy, but they should have a realistic reason for not being members.

6.1 Dirty finger nails or manicured hands?

Slightly silly and in jest, but I have heard people worry over the polished presentation of builders, just as I've heard the opposite. Different people expect different things. The analogy, though, can be useful in describing two types of building business and the differences you can expect as the client.

The builder who obviously does manual work on a regular basis probably runs his own business which is relatively small. He will take on additional labour or skill as he needs to, but is essentially trying to do the work himself. He is limited by how much work he can undertake by his own resources and will tend to move from one job to another with minimal overlap. There are many of these types of builders. The good ones will probably be in great demand. Do not expect paperwork from him or a detailed quote. He probably has never needed to produce much in this regard and will work to a great extent on trust. Minor hiccups and delays during the works will probably be dealt with by trying to progress other elements and keep things moving. Where works are outside of his experience he may try to muddle through with dubious results.

The builder who is professionally presented will either be a front man for a builder as just described or be the proprietor of a larger firm. If he does not contribute to the building work then he must employ or contract all of the work to others and that means his costs will be higher. By having numerous projects running simultaneously he can reduce those costs, but also his ability to closely manage the individual projects. His quality is not limited to his own skill level, but more to his ability to manage and his knowledge. He may well produce very professional looking letters and quotes. His contractors will be less flexible so if they are delayed on a project they may charge him and so he will try to charge you.

Both types of firm exist in number both with excellent and poor reputations. The "dirty finger nail" builder, if he comes with really great testimonials, is probably going to be more efficient as he will mostly be on the project himself and it is in his own best interest to progress the entire project as quickly as possible. He is also likely to be the cheaper option. His weakness is working outside of his experience.

From the internet, search out the numerous impartial websites. Bear in mind that people only post when they've either had really great service or just the opposite. Also have a look at MyBuilder.com

You ideally want 3 or 4 builders to price your project to get a good indication of the present market costs. And the best way to get 3 or 4 names of good builders is to ask around.

If you know friends or acquaintances that have had work done, ask them for recommendations. Keep in mind though that a good retaining wall and patio builder may not do such a great job on a 2 storey extension.

Drive around the local area and look for work newly completed or on-going and chat to the house owners. Be proactive, it really does pay dividends.

6.2 Make Contact

Once you have a list of possible builders, ring them and ask if they would like to price your project. Judge their attitude. Builders know that reputation counts for everything, so they may appear keen so as not to disappoint, but if you have to hassle them for a price it probably indicates they're too busy to look at your project. And the best way to make a good builder turn bad is to over stretch them.

You know exactly what you want by now, so let them explain how they're going to do it. If they want the work then they'll take the time. Pricing the actual new build is only one part. For example, ask him to explain:

1. The order of works, or the build programme. (see section 9.0)
2. Where will he store materials or will he deliver daily?
3. Where are the skip(s) to be sited?
4. Where will the scaffold go?
5. What happens if delivery lorries damage the kerbs or verge in the road?
6. How will he make the roof temporally weather proof?
7. What happens if your property is damaged in the build process?

Obviously every project is different, but by asking questions that test the builder's knowledge and consideration of your project, his answers will help you judge his professionalism. A builder who just insists that you don't need to worry about such things and that he'll sort it all out is not one to employ.

6.3 Comparing Prices

This is a simple issue made very complicated. If every builder is given exactly the same information to price and told to present his price in a standard manner, then comparison is made easy. This is how the commercial market attempts to organise things. I say attempts because there are always complications. A good example is when a builder has an idea of how to use a slightly or radically different construction method that saves a lot of money. A client would be foolish not to be open to such suggestions, although they should be scrutinised carefully and vetted by the designer.

The best way is to ask the builder to break his price down as much as he feels able. (Remember that he is working for nothing here, until he secures the contract). Highlight where the price variations are between builders. In the domestic market place, all the labour for the varying trades involved will be approximately the same for each builder except where a small builder is adept at doing much of the work himself. So ask how each work element will be done. Does he do his own plastering, bricklaying, joinery work? In many ways, the recommendations that come for small builders who do their own work are more reliable because you can see his workmanship and not that of contractors that he brings in and that may vary from project to project.

When prices vary drastically, it is generally due to assumptions made by the builder doing the pricing. Examples might be, materials specifications not indicated on drawings or elements of work forgotten about like a retaining wall needed to accommodate a house extension encroaching into a rising garden.

You have to be detailed in your comparison to make sure when the work starts you don't have the "I haven't priced for that" discussions.

If you've been thorough in your work up to the point of asking for prices, this should be a relatively easy process.

6.4 Builders Payments

Ideally you want stage payments agreed up front. 1st typically would be on completion of foundations up to DPC level, 2nd at wall plate (top of the walls before the roof is built) and 3rd on final completion. Or you might agree more stages for lesser amounts. If the work is tied in with stage payment releases from a new mortgage then this should be easy to arrange.

If there are high value purchases to be made that the builder needs to incorporate into the works, be wary of giving money up front. A legitimate builder might still have limits to his cash-flow credit and in this case will not mind you paying the supplier direct, but any builder that needs money upfront to buy standard building materials is operating at a very hand-to-mouth level. His overall price may well be very cheap, but unless you feel very confident to manage such a builder's work, be very wary of this route.

If you do make payments upfront, you have little legal protection. We'll come to insurance later, but if you do buy materials or equipment for the builder to incorporate into the works, you must ask the question: what happens if he breaks or damages the goods. Who pays?

The most important thing to remember is that your builder is operating as a contractor. He undertakes work and then receives payment for it after. It is much easier to argue about quality when you still have the money in your hand!

Retentions Monies

This should be agreed before the works commence. The agreed amount wants to be at least 5% of the value of the builder's contract. This percentage should be deducted from every payment. Normal practice is to release 50% of the retention money at completion of the project (after Building Control and Planning satisfaction, not just yours), the other half after a named "defects" period. Try for 12 months, but 6 is not uncommon. This is to provide an incentive to the builder to return and rectify defects that have only become apparent after completion. For example a leaking roof, basement or plumbing work.

Any shrinkage or movement cracks that occur should be left for at least 6 months to allow them to form to their largest before rectification, otherwise they'll only need doing again.

VAT

New homes are zero rated for VAT on materials and labour. This can only be claimed once though. For example a person self-building a new home might want to wait until everything is fully complete before claiming the VAT refund. An existing property having an extension added is not eligible. Work to listed buildings is also zero rated provided planning approval is gained.

6.5 Material Purchasing

The materials element of the total cost of your project will be 40-50% depending on various issues from design and specification through to ease of accessibility. Your builder may get reasonable purchasing discounts from certain builders' merchants or suppliers (depending on his credit worthiness with them) that help to make his price competitive, but you may well be able to negotiate similar discounts for over the counter sales if the order is fairly large (bricks for example) and payment is immediate and not on account.

Purchasing all of your own materials is really in the realms of "Self Build" (see section 12.14), but it is worth making mention here for certain elements. It is not unreasonable to ask a builder to price a project whereby certain specified materials are supplied for him. (A contract would be sensible: see section 6.6) This could give you time to research and purchase at best price any unusual building elements required such as special roof slates, bricks or windows requiring bespoke manufacture.

These issues should be considered and agreed with the builder:

1. Who accepts liability for damage to materials in storage and whilst being worked?
2. Who calculates the quantities?
3. What happens if more materials are needed and there is a delay to the works for the order period?
4. Who organises the delivery and storage?
5. Should there be a defect, a good relationship is required to sensibly establish whether it is the workmanship or the material/product at fault.

Each project is different, as is the experience of each client together with their individual desired involvement in a project. Requesting a builder to price the entire project should give you peace of mind and a one-stop-shop in the event of problems. If you are looking for ways to save money, however, purchasing certain items yourself may well be an option worthy of consideration.

Material Storage

The proper storage of materials is important. Keeping the building elements dry will mean there is less drying out time for the new building once it is weather-tight and, therefore, less associated shrinkage meaning less cracks. Materials or components such as joinery that are delivered at moisture contents to suit a finished building must be particularly well looked after.

6.6 Contract

Under statute law, if there exists an offer and acceptance by two parties, then there is a legal contract. The offer is the builder's price for the work as defined and the acceptance is your agreement to pay him. This gives some degree of protection, but you can easily see the ambiguities unless matters are more clearly stated. Signing a formal contract doesn't necessarily mean that from then on all things need to be dealt with in a contractual manner, but it does set out the basic framework of the offer and acceptance and gives recourse should everything go awry. A legitimate builder will not fear to sign one.

The contract will set out what your builder is responsible for, how payment is to be made and what you must do. By formally agreeing to matters like this, it often ensures that nothing is forgotten at the time of execution. By including a schedule of works, the builder cannot claim that he has not priced for certain elements and therefore gives you more comfort with regard to cost certainty.

The worst case scenario is if you have to use money that you still owe the primary builder to pay another one to rectify the work. A contract will greatly aid your argument so long as you follow the guidance provided. Essentially you must give the builder written notice of your intent to determine (cancel) the contract should he not rectify the works within 7 days.

There is no need to go to a solicitor and have a contract drawn up. Specific domestic contracts are readily available online. The Federation of Master Builders offer ones to be downloaded for free at <http://www.fmb.org.uk/find-a-builder/free-contracts/>

Alternatively you can buy one from the Joint Contract Tribunal who produce the most common contracts used in the commercial sector. This comes with the Plain English Campaign's Crystal Mark for clarity. What maybe worth the additional expense with this one, is that it includes a Consultancy Agreement so if you are using architects/ surveyors/ structural engineers, it binds them in to the project as well.

Available at: <http://www.homeownercontracts.com/>

6.7 Insurance

Your builder needs to be properly insured. Do not just take his word for it, but ask to inspect his policy documents and if in doubt ring the relevant insurance companies and check that the builder is indeed covered for the work he has given you a price for. Do this before work starts.

As a base minimum, he should be covered for:

1. Contractors' All Risks Cover
2. Employers' Liability Insurance
3. Public Liability Insurance
4. Personal Accident Cover

Sometimes the Contractors' All Risks insurance cover (sometimes called Contract Works Insurance) includes Employer's Liability, Public Liability and Accident Cover. Sometimes these are optional extras so check. If it all goes wrong and the builder's insurance refuses to pay out you'll have to pursue a civil action against him for the money...not worth thinking about.

Also find out what conditions the policy has. There might need to be fire extinguishers placed about the site, for example. Remember your own Building and Contents Insurance is still covering your house, but not the actions of your builder.

If you're having work done that might affect other properties then further insurance cover is necessary. Examples would be where a Party Wall is involved (see later section), a new retaining wall to your garden boundary with potential to destabilise your neighbours property or the removal of a large tree (again see later section). Ask your builder whether his insurance covers these possible eventualities. If not, insist he takes out JCT Insurance 21.2.1 (the numbers refer to the clause in their standard contract).

6.8 Insurance Backed Guarantee

Some builders guarantee their work for a certain number of years. This is as it should be, but if they go bust in that time, their guarantees become worthless. Insurance backed guarantees remove some of this risk, because the insurer is guaranteeing that the work will be rectified regardless of whether the original builder is still trading. There are independent companies that you can approach directly or ask your builder. Again though, read the small print for unpalatable exclusions.

6.9 Surety Bonds

Sometimes called a Performance Bond, surety bonds are supplied by an insurance company to compensate a party in a contract for failure by the other to honour their part. The Federation of Master Builders offers this service to its members and for a large house extension it is not an unreasonable request of your prospective builder, although he may ask you to pay the premium.

7.0 QUALITY OF WORKMANSHIP

Your builder is about to start. An old transit van parks at your property and some slightly scruffy young men knock on your door and announce they're here to start the foundations. Some builders will look professional whilst others will not. It can be a dirty messy job, so wearing old clothes is quite sensible and not driving a sparkling new van complete with flashy logo might simply imply a builder who is content with lesser profits, but:

Professionalism lies deeper. If the young men know what they're there to do, have drawings, knowledge of the work and are simply being polite in informing you of their arrival then that is a good start. Their boss maybe delayed on another project or resolving issues that cannot be postponed, but he is managing his workforce well.

If, however, they begin by asking you to show them where the work is, for a drawing, where you want the arisings to be tipped, etc, etc....do not let them start. You are seeing the thin end of a fat wedge.

Quality comes from effective management of the men doing the work. Human nature will always mean that short-cuts will be taken to get home that little bit earlier. Or problems and/or mistakes will be hidden from either you/ their boss in order to save money, face or their jobs.

So what am I saying here? Selecting the right builder in the first instance is your primary quality control method.

That said, quality can be split into 2 relevant parts to help understand how to monitor & assure it:

1. Drawing compliance
2. Workmanship

For the first, you have to have the drawings to check against. If you cannot find a relevant drawing, then ask the designer or technician for one. It is not for the builder to improvise even if he wants to. Ignore the grumbling. Believe me, the silence will be deafening if in a year's time you're trying to get a bad detail rectified as water pours through the roof.

Of course, the Building Control Inspector (whom you are paying) visits to ensure that the work complies with the relevant building regulations. They should be looking at these obvious issues as well as others:

1. Ground in trenches before covered with foundation concrete
2. Thickness of that concrete
3. Surface water (including roof drainage) & sewerage drainage.
4. Cavity wall construction including ties, insulation damp proof course & cavity trays.
5. Roof connection to supporting walls and roof bracing.
6. Roof insulation.

But a local authority Building Control Inspector will typically only make 3 visits to your project, so its asking a lot for anything other than the major general points to be observed.

Workmanship is harder to judge without experience and/or training. Again the Building Inspector will (or should) make comments on poor quality of workmanship as he sees it. You can help though, by seeming to take an interest in the building work. That way, the guys producing the work know you see pretty much everything. If you see work that simply looks rough or untidy, then enquire why and politely ask with a smile "you won't mind if I take a photo of this, will you?"

If you really feel that the best that's being offered simply isn't good enough, you should contact the designer. This may make the builder raise his game to avoid his reputation being tarnished via an effective conduit in the industry. Equally an experienced third party like YBC or the Federation of Master Builders can also independently assess the work.

7.1 Photo Diary

You may see from what I've said up to now that keeping a photo diary is a sensible thing to do. A daily or weekly diary depending on the progression of the work, serves two distinct purposes.

Firstly it improves quality without a word being spoken (don't take the photos without the builder's knowledge for this ploy to have any value). Secondly, during the defects period or beyond, it may well give a clue as to what is causing a problem. Something that was perhaps innocently missed by all during the construction work, may be identifiable by the builder or an expert later on from reviewing the photos. Rectification works could then be less costly, obviating lengthy exploratory works causing disruption and distress.

7.2 Qualifications

An obvious way to try to ensure you have quality is to choose a builder who is qualified in his trade. "Time-served" tradesman, that is who have served a fully indentured apprenticeship and hold qualifications such as City & Guilds, Master Craftsman or the more modern NVQ (SVQ in Scotland) preferably Level 3 or higher, should be able to produce better work than ones who don't. For example a qualified bricklayer will know why a cavity needs to be clean, wall ties need to be at correct centres and have drips in the correct place and why cavity trays need stop-ending. A builder who is just good with his hands, may not.

For the more specialist trades, more specific qualification are required by law.

A gas installation must have at least the final connection done by and the entire installation checked by a Gas-Safe registered heating engineer or plumber. Gas-Safe replaced the Corgi register in April 2009

Further information can be found here: <http://www.hse.gov.uk/gas/>

For solid fuel heating or stoves you want to look for a HETAS registered installer.

An electrician working in a domestic property needs to have his Part P registration. The Part P refers to the relevant section of the Building Regulations. An electrical fire due to faulty wiring by an unqualified electrician working without appropriate insurance could mean your insurance is void.

7.3 Trade Associations

For window replacement you should employ a FENSA or CERTAS registered installer. This will ensure that the process of informing Building Control and meeting the design standards laid down by Building Regulations will be achieved. For example, fitting safety glass where it is required.

I've mentioned The Federation of Master Builders before, but there many trade associations who exist with the aim of delivering uniform high standards. The National Federation of Roofing Contractors is one such. Ensuring a roof is covered correctly to the accepted Code of Practice details should not be a concern if the roofer has joined the Association. For example, if your project is in a highly exposed and windy location your roofer should know how often to clip the tiles. There are many products available for roof coverings whether they are traditional slate, single ply polymer membranes or sedum green roofs. It is such an important element of any building it is important to get it right.

Injection damp proofing, timber treatment and basement tanking are three processes where for the product to work they must be installed in exact accordance with the manufacturer's instructions. It is often easiest to make sure that the contractor is on an approved list produced by the manufacturer.

8.0 HEALTH and SAFETY

8.1 CDM Construction (Design and Management) Regulations 2007

This is taken directly from the Health and Safety Executive's (HSE) website <http://www.hse.gov.uk/construction/cdm/buildingcontrol.htm>

"If you are having construction work done on your own home, or on the home of a family member, as a domestic client you do not have to notify the work to HSE and you will not have duties under CDM 2007 - although those doing the work on your behalf (such as designers or contractors) will.

If you are having construction work done as part of a trade or business, for example as a landlord or a developer, it may be notifiable and you will also have other duties as a client under CDM 2007."

CDM stands for: Construction (Design and Management) Regulations 2007

In most cases, these will not apply to you, but it is worth considering that they were made law for a reason and that they *do* apply to your builder and designers. Don't let designers draw something that is quite difficult or dangerous to build or leave you with windows that are virtually impossible to wash, gutters impossible to clean or light bulbs nearly impossible to change. Equally, don't let builders risk their labourers' lives by digging deep trenches without support, erecting unsafe, wobbling scaffold or using tools without the necessary hand, ear or eye protection.

Try to understand the building process to check the builder is working in a safe manner and by that I mean not only to himself and his employees or contractors, but to you, your family, neighbours, passing public, postman etc.

As an example, is the scaffold going to be erected by a qualified scaffolder or by the builder using rusting poles he acquired 20 years ago?

The majority of accidents on a construction site are caused by either objects falling on people (hard hats and tidiness), people falling (proper scaffold with open edge hand railing) or through slips, trips and falls (safe access and a tidy work place). An inefficient builder will suffer working in a pig-sty and the chances of an accident will be high (his work will probably be poor too).

8.2 First Aid

Accidents will occur in construction, statistically more so than in other work areas. Having a First at Work qualified person around is the ideal, but a correctly stocked First Aid Box is essential. It is the builder's responsibility, but its worth asking. A nasty accident, and no one knowing what to do, is not what anyone wants, least of all the casualty.

See <http://www.hse.gov.uk/firstaid/legislation.htm>

9.0 PROGRAMME OF WORKS

This is something that just about every commercial project has, but very few domestic ones. Commercial projects often come with “Liquidated and Ascertained Damages” too. These are penalty costs that are supposed to reflect the loss of earnings or additional costs that a client would suffer if the construction work was finished late.

I’m not suggesting you include these penalties, because unless all parties are used to working in such an aggressive contractual environment, the positive protection can be offset by the associated distrust and communication breakdown that these mechanisms instil. But we all know stories of people having building work done where they’d had to wait in chaos for a few weeks until a plasterer finally turns up to do a 3 day job.

So where’s the balance? Well, as I said earlier on, if a builder has mistakenly agreed to a low price, he may concentrate on other jobs more profitable or if you appear not to care (you may, but not demonstrate it) you may be used as a “hospital” job. That is, one kept going to soak up slack time for tradesmen who can’t progress elsewhere.

By going through the process of selecting the correct builder you hopefully should avoid these scenarios. We have also left the unsustainable boom years now, so available labour and available work will be more in balance.

It is not unreasonable to ask for a completion date and monitor against it. There may be no contractual obligations, but the process acts to improve progress just as monitoring the work improves quality.

Microsoft Excel or similar are great tools to sketch out programmes of work, but a sheet of A4 with a ruler and pencil can achieve the same.

See the example on the next page and the associated notes.

Giving agreed reasonable time periods to each task and then monitoring against them, acts as a great tool to highlight many things:

1. It quickly shows what should be happening at any given time and whether the project is ahead of time or behind.
2. It shows the critical stages and when they should occur, e.g roof tie-in allowing you to plan for this.
3. It shows where any big cost items will be needed and by working backwards with order and delivery periods, when they need purchasing.
4. It shows your cash-flow in payments to the builder, allowing you to manage your finances accordingly.
5. It allows the architect or other specialists to know by when they need to produce specific design work for.

You can actually produce an “Information Required Schedule” from such a programme detailing when design work is needed to allow for, say, Planning Authority approval of samples or detailed design calculations of steel support beams, roof-tie etc by a structural engineer.

ACTIVITY	TRADE	wk	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Locate services in garden	B		█																	
relocate flower bed & hardcore over	B		█																	
Demolish existing garage	B		█																	
Mark on outside wall exact existing floor levels to match	B		█																	
EXTERNAL SHELL																				
re-align existing drainage & install new	B		█																	
Excavate foundations	B		█																	
Building Control Inspection				X																
Concrete founds	B			█																
Build masonry to DPC	BL			█																
Building Control Inspection					X															
BUILDERS PAYMENT						X														
Backfill foundations & dress ground	B				█															
Erect masonry to first floor joists	BL				█															
Install joists	J					█														
Erect external scaffold	S					█														
Build masonry to roof wallplate	BL						█													
Building Control Inspection								X												
BUILDERS PAYMENT									X											
Lift on new roof trusses	J							█												
Spread & fix new trusses	J							█												
Prepare (strip back) existing roof for tie-in	R								█											
Fixing diminishing trusses & valley boards to old roof	J								█											
Lead valleys & fix fascias	J								█											
Install velux windows	J									█										
Install breather membrane & batten	R									█										
Relocate incoming services to new walls as required	U										█									
Building Control Inspection											X									
Tile roof & install vent tiles	R										█									
Point verges & ridge tiles	R										█									
Install soffits with vents	J										█									
Decorate high level joinery (in not upvc)	D											█								
Remove scaffold	S											█								
Hang external door & make secure	J												█							
Seal windows externally	W													█						
Start external paths & reinstate garden	B														█					
BUILDERS PAYMENT																				
INTERNAL FITOUT																				
Board first floor	J											█								
Break through existing wall to form new opening FF	B												█							
Install windows	W													█						
Fix window boards	J														█					
Joist & board ground floor	J															█				
Break through existing wall to form new opening GF	B																█			
Erect internal partition walls (one side only)	P																	█		
First fix plumbing & electrical	EL & PL																		█	
Building Control Inspection																				X
Board ceiling & close up walls	P																			
Insulate roof space	IN																			
Plaster external walls & skim finish partitions	P																			
Install kitchen/ bathroom	J & PL																			
Hang internal doors, fix architraves & skirtings	J																			
Second fix electrical & plumbing, etc	EL & PL																			
Builders clean of all dust & remaining debris	B																			
Building Control Inspection																				X
Decorate	D																			
Lay floor finishes	C																			
Building Control Completion Certificate																				X
BUILDERS PAYMENT																				X

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9.1 Notes on example

This is a very conservative programme of a 2-storey extension in place of an existing attached garage. (This has to be demolished as the foundations, even if the plan size remained the same, would not be strong enough.) Each builder must agree his own work rate with you, but it does serve to highlight the method. You can see that certain key events can be predicted with reasonable certainty, such as the date of the roof tie-in allowing rooms to be cleared only when necessary to avoid damage from water ingress or accidents (always assume the worst & you'll generally be pleasantly surprised!)

Also how certain activities cannot make an effective start until others are finished, like works to the ground floor until the first floor is boarded. It also allows you & the builder to discuss what additional tradesmen will be required that he will need to contract in. These men are likely to be the jam cans on the race track... by not turning up when they say they will or not completing work, they have the potential to really slow the whole thing down.

I've used the following arbitrary notation:

- B=builder BL=bricklayer J=joiner S=scaffolder
- R=roofer U=utility company D=decorator
- W=window fitter P=plaster/ dry liner PL=plumber
- EL=electrician IN=roof space insulator C=carpet fitter.

You can also discuss and add numbers of men likely to be working on the project on any day. Holidays both you & the builder intend to take or family function days.

9.2 As-Built Programme

If you monitor the actual work as it progresses against a programme, then together with a brief written diary, photo diary (this is invaluable) and the inspection records of the Building Control Inspector you have the tools to demonstrate a solid argument with the builder that he is not working quickly enough. If matters unfortunately deteriorate to the point where you need to get another builder to finish the work or to rectify substandard work, then you also have a much better demonstrated defence for withholding payments.

Even if you do not choose to use a programme of works, you should keep a diary of progress as the bare minimum.

9.3 Variations

Let's face it, even with the best head-scratching, planning and review, there will always come a point when you want to change something. If it's before the work is done then it may just be drawings that need altering, goods re-stocking, progression of works altering or a small delay. If the work has been started or completed, then some demolition will be required. The most important factor with variations is *record keeping*. There will always be costs involved and in a few weeks or months those costs will be hard to ascertain perhaps resulting in a little creativity by your builder when producing the invoice.

It is completely reasonable to ask for a price from your builder for a variation to the project before instructing him to undertake it.

If you casually give verbal instructions to a builder to undertake variations, don't be surprised if he justifies a large addition to the monies he thinks you owe him. By arguing disruption to his continuity of work with loss of progress and inefficient working together with additional costs from accommodating the late instructions and loss of buying gains from urgent purchasing or labour hiring, a large bill can easily be justified and may not be entirely unreasonable.

It is so important to keep talking about what is being done, what is about to be done and what is required to enable things to be done. Keeping the dialogue open will really help in reducing costly variations, but if they must happen....record all the details around them including getting your camera out again.

10.0 YOUR PART IN ASSISTING THE BUILDING WORKS

Speaking from the experience of a being a Project Manager on large commercial projects I can easily recall clients that were a pleasure to work for and those that were not. Similarly, you can ask tradesmen to tell stories of which site or project managers were great to work with and those that made life difficult.

If you asked a mechanic to fix your car, you know you will get better results if he has a well equipped garage with hydraulic ramps, organised tools and space to work rather than if he were to try and do the same job at the side of the road.

The same logic can be applied to building work. Builders are used to having to work in awkward situations with less than desirable access and egress - it comes with the nature of the work - but that doesn't mean to say that is fine in all situations. Firstly, there will be a cost, which can be considerable. If a tradesman cannot set out his work place to give best efficiency, then he will be disrupted and delayed. Having to constantly walk a distance for tools or materials, or move to another area to undertake cutting work or transport waste materials a long way to a skip, for example, will all add time, time that constitutes part of the money he needs to earn that day to make his wages. And remember the greater part of the cost of building work is the labour element. Less easy to measure is the effect that disruption has on the flow of work being produced and its quality. A great indicator of a good builder or tradesman is organisation.

To go back to my first comment, a good client is one that understands the nature of the work to be done and gives adequate allowance. If works are very restricted and nothing can be done to alter this fact, then the detail planning must be even greater. If a builder knows there is no other way, then just like the human nature in all of us, he will accept this and accommodate it. Unfortunately some clients want their building work done as cheaply and as quickly as possible, but without any disruption to them. All problems are seen as the builder's and not of their concern. Of course, in reality they are paying in many ways. And if the individual tradesmen do not enjoy their work environment, it is not straining reason to understand that quality may suffer.

So as both Project Manager and Client, what can you do to help? To begin with you must understand the project construction sequence. Discuss this in depth with your builder. Access is the primary consideration. Every bit of your new project will have to be delivered in a lorry or van. The longer this takes, the slower the progress and the higher the cost. Likewise with waste materials leaving the work place to be carried to a skip. Insisting that a piece of garden or plant bed is left untouched may be costing you dearly and far more than replacing it afterwards. Depending on the project, water & power may also be key issues. The cost of a temporary stand-pipe erected from your supply or a power point in the works may offer many benefits at minimal cost.

To summarise, communicate regularly with your builder to understand the problems he is trying to think round. He may often be assuming he has do it a certain way just because previous clients may have been less than helpful.

To repeat a common cliché, but one that holds so much truth, for either party to assume makes an ass of u and me.

11.0 COMPLETION

At the completion of a construction project such as a house extension there will be no final presentation like in TV make-over programmes. In fact in commercial contracts the term “practical completion” is used. This tries to be realistic in accepting that there will generally always be something extra that someone finds needs doing, but that the building is “fit for the purpose for which it was designed” In your case that means that you have the Completion Certificate from the Building Control Inspector confirming that everything is constructed as it should be in accordance with the Building Regulations and the notification from the Planning Officer that your project has satisfied the restriction of the approval. Of course, your Building Inspector and Planning Officer aren’t concerned with such matter as the quality of the finishes. That is where you have the chance to do some snagging.

11.1 Snagging

If you’ve been actively involved over the course of the project, there really should be little snagging to do as you’ve in essence been doing this all along in monitoring the work and the quality as it is done. So it’s not like snagging a new house where you are trying to look at everything, most of which is now covered up and cannot be inspected. Here we are really focusing on the final stages and to be fair, these can come together very quickly with architraves and skirting boards being fixed, doors being hung and the decorator painting away in coordination with the joiner, electrician, plumber, floor layer, etc.

Refer to the Guide to Snagging document for a check list of things to look for.

12.0 OTHER ISSUES TO CONSIDER

In the remaining sections I have tried to cover other important topics that you may need to consider or may not be aware of. Of course, this list isn’t extensive, but it does highlight some common issues.

Beware: try to establish what you don’t know!

12.1 Material Wastage

I include a brief note on this because in today’s society with rapidly filling landfill sites and pressures on the environment it will become more of an issue as each year goes by. On commercial projects over £300k there is now legislation stating that a Waste Management Plan is mandatory that obliges the client and building contractor to compare planned wastage of all building materials, fuel and water consumption against actual to demonstrate that excess has not been used. This does not, for the time being, affect domestic projects, but it does raise an interesting issue. When materials are specified by a designer they are generally done so without thought to the factory sizes that certain materials are produced in and what wastage there will be. An architect has little interest in how many £150 skips will be removed from the work site over the course of the build programme. In reality, when extending a house the dimensional constraints will probably have to take precedence over other issues such as this, but it is worth keeping the subject in mind when reviewing the architect’s drawings.

See the next section on skips too.

12.2 Skips

Landfill taxes are high. Currently the standard rate is £48 per tonne increasing by £8 per year until at least 2014. Skips will always increase in price! There is a rate of £2.50 per tonne for inert waste such as soil, rocks, brick and concrete rubble. Bear this in mind!! Some slight contamination is allowed, so don't let your skip man bully you.

Larger skips are proportionally cheaper than smaller ones. [HERE](#)

Most skip companies employ labour to sort through the waste into categories that can be disposed of more cheaply.

When contacting skip companies for the best price, discuss these matters with them.

Ask the builder what wastage he expects for different building elements, such as bricks and blocks, flooring and roofing timber, roof tiles and plasterboard. You cannot put paint tins in skips. Ensure that the decorator has a policy for their safe disposal.

This leads to a final point: when you or your builder sign for a skip to be taken away, you are also signing the Waste Transfer Note as the producer. (if you're not asked to do this, then the skip company is breaking the law). As a waste producer, you are equally responsible for the waste being removed. Fly tipping by a disreputable skip firm or builder emptying his van rather than paying for commercial tipping has onerous penalties. The waste will be sifted through and if it can be traced back to you, expect to be prosecuted.

12.3 Demolition

Perhaps the first task will be demolition of an existing structure such as a garage to make room for the proposed new construction.

A competent builder will approach this with the same care as he will the new build. Things to consider and ask how he plans to deal with could include:

- Avoiding any damage to structure that is to remain
- Ensuring that the structure to be demolished isn't acting in support of the structure to remain.
- That all the locations of incoming services such as gas, water, electric, cable are known and how they are to be protected if necessary. Breaking out existing concrete garage floors is an obvious one here.
- Sorting inert waste from mixed contaminated waste to reduce the costs.
- How any asbestos in the building will be assessed and dealt with in compliance with regulations. (see next section)

12.4 Asbestos

This is a subject too large to be covered here in any depth. It is also a very scary subject. The number of people who die each year from exposure to asbestos is around 3500, but the deaths will not stop in the near future due to the 20-40 year incubation period. The product was used extensively all the way into the 1980s. Houses of that time, that haven't been extensively refurbished, will more than likely have some asbestos somewhere, whether it is a corrugated garage roof, soffit boards to the eaves, soil vent pipe, roof insulation or contained in the vinyl tiles covering the concrete floor beneath the carpet. In fact, it was permissible to use it up until the year 2000. Yes really!

Some builders will have a laissez faire attitude to it. This isn't from knowledge, but from ignorance. If in doubt, get a survey undertaken by an accredited company. (If you're a landlord, this is a legal requirement regardless of having any builder's work undertaken) The accepted rule is to leave asbestos undisturbed if that is possible. Any needing to be removed should be done so exactly as recommended guidelines

(<http://www.hse.gov.uk/pubns/books/l143.htm>) and then bagged and disposed of as recommended by your Local Authority. The Health and Safety Executive do not recommend this as a DIY task. There are plenty of licensed contractors in the market. They are licensed by the HSE and that is a good place to start to learn more. Follow the links to your own Local Authority. <http://www.hse.gov.uk/asbestos/home.htm>

12.5 Incoming Services

As mentioned in the “Demolition” section, make sure you know where incoming services cross your property relative to where your proposed building work will be. Also think about heavy delivery vehicles. All services should be at prescribed depths to keep them safe, but you cannot rely on this. Make sure you know where the water stop cock is. There will be one in road at the edge of your boundary and one in your house. The one at the edge of your boundary may have become full of detritus such as gravel, rubbish or leaves and be difficult to operate. Clear it out. If it still will not shut your water off or the side walls of the chamber have collapsed, inform your water board and they will rectify this.

The water supply pipe is your responsibility up to your boundary.

The gas supply is your responsibility from your side of the meter. Make sure you have the emergency call out number in your phone.

The electric supply is also your responsibility from your side of the meter. Again, although you really don't want this situation to occur for the cost alone, have the emergency callout number to hand.

Unless you have a relatively new house, any cable installation will have been installed retrospectively to the external finishes around the house. They can be at appallingly shallow depths making them very vulnerable to damage.

With all of the above, if in any doubt it is worth spending an afternoon carefully hand-digging holes to locate the alignment and depth of each service. Take nothing for granted.

12.6 Drains and Sewers

There are to be some changes in the ownership and responsibility of domestic sewer pipes in 2011 and onwards. At present it is the property owner's responsibility to maintain the sewer up to the point of connection to the main sewer. This will probably be in the middle of the road passing your house. In 2011 these will be adopted by your water supply company so the house owner will only be responsible for the sewer up to the boundary of the property. Refer here:

<http://www.defra.gov.uk/environment/quality/water/industry/sewers/existing/index.htm>

With regard to modifying the drain, adding junctions or installing new manholes to suit new building work, these be inspected by your Building Control Officer to ensure both quality and design meet the relevant regulations.

Bear in mind that existing manholes should not be simply covered over. The problems of impossible or restricted access may only become apparent when a drain needs unblocking and the cost and disruption then could be very considerable indeed.

If you are considering covering part of your property's garden with hardstanding for car parking, you now require Planning Approval. This popular conversion has led to increased water flow into drains that are struggling to cope. Refer to this:

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/pavingfrontgardens.pdf>

12.7 Trees

Many if not most mature deciduous trees in urban areas, including private gardens, have a tree protection order (TPO). You will be prosecuted if you fell them, damage the roots or excessively coppice or trim them without approval.

Even if the tree is to stay, make sure it is well protected from local building work.

More than this, if the underlying soils are clay you can de-stabilise a local property if felling occurs. If the tree pre-dates the building or is roughly contemporary to it, then the building foundations are seated on clay that has a reduced water content due to the continual removal of water by the tree. Should you fell that tree, the water will re-saturate the clay and alter its bearing capacity. This can cause it to heave, pushing up the foundations.

Research this well. Your Local Authority Tree Protection Officer is a good place to start.

12.8 Injection Damp Proofing and Timber Treatment

Many instances of “rising damp” are in effect penetrating damp from problems externally or condensation where an external wall is uninsulated and generally cold.

For example I observed recently a rear house door with damp showing internally at skirting level to either side where the walls closed off the cavity (the reveals). This was from the cavity tray over the door neither having weep holes nor being stopped ended to prevent the water cascading into the cavity.

Many timber rot problems (fungal infestations or woodworm) are due to the timber being damp. This may be because of penetrating water and/or inadequate ventilation such as air bricks that have been covered over or were insufficient to begin with.

Quite often problems will disappear after the causing situation has been rectified, avoiding any need for toxic chemical use.

Surveyors who assess dampness using a moisture meter are often measuring the harmless salt content rather than dampness.

This is a good place to start: <http://www.property-care.org/> but beware of surveys undertaken by companies that undertake their own work or where a surveyor recommends companies.

12.9 Neighbours

Generally, under the Building Regulations, there are no obligations to consult your neighbours about your proposed building work, but it would be sensible to do so. You should be careful that your work does not interfere with their property as this could lead to bad feeling and possibly civil action for the modification or removal of work.

Although consultation with your neighbours is not required under the Building Regulations, you should note that if your project is subject to the Party Wall Act 1996 you must give formal notice to adjoining owners under that Act. It is advisable to discuss your proposal with the adjoining owners before giving any notice. Keep talking!

12.10 Party Walls

Party walls are any wall that divides two distinct properties. The wall might straddle the boundary and therefore have joint ownership or it might be an original external wall to a property where another has been built alongside at a later time utilising the existing wall. It can be a dividing wall between properties acting as a fence or it can be the floor construction between storeys of buildings. In all its forms the Party Wall Act 1996 prevents you from undertaking works to it without the consent of all parties involved. As this is a civil act, it lies outside the jurisdiction of your Local Authority.

A neighbour planning an extension that has a new wall on the boundary or if the existing wall's foundations need to be deepened to carry a heavier load – such as putting an additional floor on – and that wall is 6m or less from the adjacent property's wall, then this may also be subject to the party wall act. Neighbouring properties to houses, where planning permission has been granted for an extension, may well receive unsolicited letters from legal firms marketing their services.

The number 1 rule is: keep things friendly and open with your neighbours and make sure your insurance properly covers the work.

Full details are available in a booklet for free download here:

<http://www.communities.gov.uk/publications/planningandbuilding/partywall>

12.11 Listed Buildings

Some buildings are listed by English Heritage for their historic interest. Grade 1 being an exceptional example of an historic building. Most listed buildings are Grade 2. Grade 3 no longer exists as a category.

A common misconception is that Grade 2 buildings are only to be preserved on the outside. Not so. Each building listed has its own issues and you must check with your Local Authority Building Conservation Officer. If you alter one of these buildings without Planning Approval you will definitely be legally challenged. Work to listed buildings is zero VAT rated, but only with planning approval. There are often grants available too, especially with grade 1 buildings. Refer to English Heritage.

Listed buildings are also exempt from certain building regulations where there is conflict with the historic interest of the building design or construction. An example might be the windows not being double glazed.

Work done without agreement could well be (most likely) made by legal authority to be removed and the building reinstated, costing an arm and a leg.

12.12 Grants

There are often grants available for various improvements to a home. They are politically led and reflect fashionable thinking. They are on a first come, first served and merit basis and are changing all the time. Whether they all dry up in these financially restricted times only time will tell, typical ones being:

1. Condensing boiler replacement
2. Wall & roof insulation
3. Renewable energy (micro-generation)
4. Listed building restoration.

The first three are related to energy efficiency improvements are covered by the government's new Green Deal. This is specific a subject to be covered here, but in essence means borrowing money from your energy supplier to make certain energy saving improvements to your home and paying the money back through your energy bills. You can read more here:

http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/green_deal/green_deal.aspx

12.13 Green Building

I include reference to this, because it is a spotlight on the future. The government is focusing on the energy saving potential in new homes by radical new designs challenging traditional construction methods. The long term serviceability and longevity of these homes remains to be seen, although, of course, the intent is justified.

Of course, there are many more existing dwellings than new homes and if real aggregate energy savings are to be made then this where the government will need to focus with greater force than at present.

If you are engaged in research for a new extension, then you may be considering "green" building techniques and/or micro-generation such as wind, solar or ground source technologies. There are many publications and websites now offering plenty of advice regarding these matters. The Building Research Establishment (BRE) sets the standards for the industry to work to. Their Environmental Assessment Model or BREEAM sets out a standard for all new buildings and homes. See: <http://www.breeam.org/page.jsp?id=86>

For an informative read and some practical ideas, The Green Building Bible Volumes 1 and 2 from the Green Building Press is an excellent source of information.

12.14 Self Build

I mentioned this in section 1.0 Budget as being the cheapest method of building (up to 15% less without undertaking any of the skilled work), but with the added caveat that confidence and experience are essential. If you are planning on undertaking a self-build extension, I would guess you feel pretty confident and have already done extensive research that will go beyond the detail of this guide. If you haven't considered this option though, it is certainly worth reviewing. It takes the project management to a high level whereby you employ specific trade contractors as you need them to undertake the tasks you cannot do yourself. Should you only elect to do the general labour work by assisting the tradesmen and loading out materials (purchased by you) in preparation, this alone will save a substantial amount of money.

These are a couple of good places to start:

<http://www.buildstore.co.uk/>

<http://www.self-builder.com/sb3/help-and-advice/House-Extensions.aspx>

I hope this guide has proved valuable in highlighting the many areas of potential concern when contemplating having building work undertaken to your property and some practical measures to help avoid problems.

To seek further advice contact info@yorkshirebuildconsultancy.co.uk

Consultation and project management by YBC is available for the West and North Yorkshire and East Lancashire regions.

13.0 DISCLAIMER

All of the information contained in this guide is true at the time of writing, but cannot be regarded as being an absolute authority on the various subjects covered. It is intended as a summarisation of the essential elements that should be considered prior to embarking on a domestic construction project. There may be other issues specific to your project that have not been covered here or there may be general issues that equally require further research for which the author cannot be held responsible. It is hoped that this document gives food for thought to any inexperienced or experienced domestic householder who is considering having major building work done to their property. It is not intended to be a guide to a property landlord who is administering a business whereby other laws may apply to safe guard the well being of their tenants.