

Episode 140

What is a quantity surveyor? – with Jerry Thomas of Smith Thomas Consult

The show notes: www.houseplanninghelp.com/140

Intro: Over the next few episodes we'll be looking at some of the professionals you might need in your team, and today we begin with the role of a quantity surveyor.

Jerry Thomas of Smith Thomas Consult is my guest and I started by asking him to explain the basics of his work.

Jerry: Well quantity surveying, which is the building accountancy or building economics side of the industry.

A client will come to us, first principle, say I want to build a house. So we can do everything from an initial budget cost estimate and then working with that client through the work up of the detail estimates, we will work up tender packages if that's the route they want to go. We can help them with costings, viabilities even to the extent of we've looked at funding options, helping with bank appraisals.

Then moving through into the build process, we'll look at as I say the tender, the tender evaluation, working with the main contractor and the client to make sure that there's the best fit. Value engineering in some cases where the contractor's price has come in more than the client's budget so we'll look at ways to save money without diminishing the scheme.

And then working through the contract with variation administration doing monthly evaluations for the contractor to make sure that he's paid regularly during the process and then at the end making sure that the paperwork's in place, making sure the final account's agreed and ultimately making sure that the client walks away happy with the financial side of the job.

Ben: That's a lot of things. We're going to break this down as we go through. Let's start with the training that you get for this. Do you

train generally to begin with and then specify it or how would it work?

Jerry: I did a degree in quantity surveying, so we are literally into the disciplines of quantity surveying from day one. And there are quantity surveyors out there who've come from a more general background, maybe from a building side, where it's a more hands-on on-site approach and then they will maybe specialise as they go through their career. There are estimators, there are quantity surveyors, there are financial modelling etc etc. But my training was quantity surveying as a discipline, as a degree from day one.

Ben: If we're looking for a quantity surveyor, is there a specific qualification that we should be looking for?

Jerry: Well there's a Royal Institute of Chartered Surveyors, so you'd be looking for an MRICS, Member of the Royal Institute of Chartered Surveyors. Either surveyor or practice, a registered practice that is governed by the RICS and will have the qualifications, will have the administration from the RICS, will be overviewed by the RICS.

There is a requirement on all qualified quantity surveyors to have a minimum of 20 hours CPD (Continuing Professional Development) every year for example which maintains, makes sure that the surveyors maintain their professional standards.

Ben: When do you normally become involved in a project?

Jerry: Too late! A lot, I say a lot, on quite a few occasions we get pulled in and asked to provide advice too late.

Ben: When would you like to be involved?

Jerry: From day one. When the client makes a decision that I want to build a house and I've got a sum of money, I've got a pot of money of X and I want to build a house for that. That would be a really, really good starting point.

Unfortunately I see a lot of clients where they've approached architects and like I say I don't want to disparage or put black marks against the architectural profession, but I have seen a number of occasions where an individual has gone along with maybe ideas way in advance of their budget and the architect has drawn up these ideas, drawn up these beautiful plans for either a new build or an extension, that look amazing and at that point then they get the sanity check on cost. And it's like, oh right, okay, I've

seen something like that built on Grand Designs for that sort of money.

But the reality is that their budgets are so way short of their aspirations that involving a quantity surveyor from day one, even if it's to say right, well okay you need to be looking at a budget of X per m², £1500m² for the type of property, £2000m² for the type of property that you're looking to build to the specification you want to build it, that would give them a very very early heads up. And right okay well this is either the style, the specification or the size that I'm looking at and would prevent an awful lot of problems and heartache going back to the architect diminishing designs, reducing designs, reducing specification, reducing aspirations.

And the money that comes with that, going back to the architect and going back to the designers, to change those designs that have already gone too far down the line.

Ben: You talked about two costs there, £1500m² to £2000m² is probably what I'm imagining for a Passivhaus is where I'm hoping to be somewhere in there. So we go to the architect and they start developing these plans, how far is too far along? Because you need to do your job so you need to know all the different bits?

Jerry: A good starting point would be a very simple sketch design that shows a floor plan and a typical elevation, and then is it a flat roof, is it a pitch roof, how much window, what's the level of fenestration, how many windows have we got in it. And a very simple idea of what the construction type is going to be. Is it going to be a timber frame solution, is it going to be a masonry solution, what's the cladding material. Fairly simple first stage design considerations and I think at that stage we can give a client a reasonably good idea of what the out-turn cost is likely to be.

Obviously with very early design stages there's going to be a degree of, a range of costs within that, but it's a starting point and from that we can say okay well just use the figure of £1500m² and say well okay if you want to go for this particular type of window, or you want to go for this type of heating system or super duper roof covering, this will add or subtract from that base cost.

Ben: What is my dealing with you then? Is this a service that you provide to the architect or am I coming to you directly saying I'm chatting to this architect, here's the design.

Jerry: We've done it either way. My preference would always be to work for the client because if you work for an architect there is always a danger that you're answerable to your paymaster.

Professional quantity surveyors have a duty of care to effectively state things as they are, not pull any punches, not be beholden, actually just state facts and if there's a problem, give answers to those problems. If there's a variation, give our estimate to the cost of that variation. So we've got to give our costs pretty much as they are.

If you're working for an architect there's always the danger that "it can't possibly cost that much and our design is based on this, it can't possibly cost that much". So you often get pressure to maybe understate figures to make it more palatable or dress figures up in a certain way that looks attractive to the client.

I'm not saying we do that but I would always prefer to work directly for the client so you're telling it how it is and if the client has designed something that is way over budget then there's no secondary pressure there to sort of try and massage your figures to make it look a little bit better for the client.

Ben: Can we talk through a particular self build project that you might have advised on? Would you always need a quantity surveyor for a self build or might be there reasons where you wouldn't need one?

Jerry: I would always say yes you need one. I think it's the level of involvement. Our level of involvements range literally from giving someone a £250 worth of 2/3 hours worth of time to look and give a very high level order of magnitude cost, just to give them the sanity check that what they're proposing, what the architect has proposed, is of the right order. And then they've gone off and either between themselves and the architect gone off and secured a tender from a local builder and everything's been fine.

I suppose the advice I would give is it depends on the size of the project. If you're doing a £20,000 extension or a £50,000 extension, really I think that initial level of quick sanity check if you want it is a good idea. If you're planning on building a £4,000,000 house clearly I would recommend that you have a full suite of services ranging, as I touched on earlier, right the way from initial budget advice right the way through to bayonetting the wounded at the end at the final accounts stage!

Ben: So would it work to talk through this example? So you mention a situation of high level, but let's say it's a project that's going to go forward, I don't know, £500,000 / £1,000,000. What are you actually doing?

Jerry: Okay, well what we would do, we would start as I say we would take, if there have been some plans prepared we would take those initial sketch scheme designs and as I say give a preliminary order of magnitude cost.

Ben: How are you getting those numbers? Why could I not do this?

Jerry: We're basing it on experience. Within the RICS we have a database of costs, this nationwide database of costs and the Building Cost Information Service which is the BCIS, which is administered and compiled by the RICS which we have access to as quantity surveyors. Costs us a bit of money to have that access.

Ben: And what, that's listing every product out there?

Jerry: No, it's not so much every product. The BCIS is more a case of a building type by building type average costs. And it also provides, the service provides inflation indices, build cost indices, tender price indices. So we can use that as a high level going to our initial cost estimate. That's a high level check for us.

We also have in-house projects where we've got cost data from that we use to benchmark projects, look at the information that's been provided at an early stage and say okay, well in conjunction with discussions with the architect and with the client, we want gold taps, we want zinc windows, zinc roofs, and limestone floors. And okay we've got a similar project that had a very high level of specification with gold plated taps. That came in at £2500m² so we can apply those rates. Similarly, very simple design, no frills, no frippery, okay well we can bring that in compared to a similar project we've had and that's backed up by the BCIS figures and maybe I don't know, £1300m².

So yeah we have that service and also there are cost books, cost data books, again which have everything from the cost of square metre for brickwork, for stonework, for timber, for wall plates, for you name it, any major component that's needed in a building we have got annual cost rates for.

And then you're relying on our experience. This year for example probably one of the most reliable cost data books was indicating

that steelwork per tonne was I think coming in at something like £1800 a tonne. Current market rates and current tender rates are indicating that steelwork is coming in now at about £2500 a tonne. So you can imagine on a sizeable building, maybe not so applicable for self build housing, but as an indication there you'd be relying on the quantity surveyor's expertise in keeping an eye on market trends, keeping an eye on building press and someone just looking at the cold hard facts in a book would get that hugely wrong and with a huge cost penalty.

Ben: Because you can get costs calculators sometimes as an online service now. You've rolled your eyes there!

Jerry: I suppose they have a value on small projects. But there's a huge danger there that you miss out on so many factors that go to build up a construction cost.

I mean we're not looking purely... It's very easy to look purely at the building, but you look at drainage, where are the drainage connections to, how are you connecting into foul drainage system. Are you going into the road, if so how far away is the road, how far is the main drainage connection? Are you having to put a septic tank in, are you relying on soakaways for stormwater drainage? Are you able to connect into the local stormwater system? Where are your services coming from – electric, gas, water, where are they coming from, BT?

And there's this mass of peripheral costs that sometimes, I have to confess I haven't gone into much detail and I think a number of the builder's merchants offer these cost data or cost build up services, and I'm not saying they're hugely wrong or hugely right, but there is a danger that they don't capture everything that's needed to build up a full project cost. And also they may not have up to date cost data where you're going back to the steelwork example, where the market costs may have fluctuated wildly in a 6 month period or a 12 month period and you could be out by a factor of 50 on a very expensive element of the build.

Ben: How often are some of the estimates that you put together, either spot on, under, over? Is it a game that gets easier and easier the longer that you're in it?

Jerry: That's a nasty question! That's a very nasty question! I like to think generally it gets easier but what's happened, particularly in the last 2-2.5 years is that as we've come out of recession there's a massive skills shortage, a number of the, a lot of sub-contractors

and contractors have had 3, 4, 5, 6 years of operating at very very low margins and possibly even losses and as the economy has picked up and as the volume of work has picked up it's been a bit like the top coming off the champagne bottle.

And tender prices have ranged, massive increases in certain sectors in tender prices and I've actually had tender returns with ranges of nearly 100%, which is very scary, has resulted in value engineering. For example we had tender prices increasing up to 15% per annum and trying to spot those.

And again you have sub-contractors and main contractors and smaller contractors who have got a full order book but they'll put tenders in at vastly inflated prices, that if they get the work then well okay that's a nice problem to have, because I'm going to make a lot of money out of it because I've increased my tender price by 25% because I don't really need the work, and yet you've got others that are still scratching around for work and are still very keen to get work who are pricing very competitively. So again you're getting these huge tender spreads.

Now on the whole we've managed to get these back to where the budget was and where our cost plans were, but it's making life a lot more difficult.

Ben: That's so interesting isn't it, this range of prices, because am I right in saying that construction on the whole has tended to go for the lowest price a lot of the time, or near to low or is that just a huge generalisation?

Jerry: No, on the whole I'd say you're probably right there, that it is budget driven. A lot of work is budget driven and what we do as quantity surveyors is obviously rigorously test the tenders when they come back in and the skill is to make sure that there's a set of documentation that allows you to check those tenders when they do come back in, so you are comparing apples with apples when you get a tender back.

And with the right documents you can see where maybe the building services has got a range of 60% or maybe where the sub-structure has got a range of 40%. And you can see whether there's a consistent approach to pricing, whether someone is consistently high in their tender return in which case you might want to discount them, or where someone has been dropping way below where we'd expect to see it.

And on that area we can see whether or not indeed the lowest tenderer is representing value for money, has been priced correctly or is indeed a price that has been submitted purely just to get a foot in the door and it might not therefore be the best price for the client because that contractor then may be looking to recoup costs through variations – oh, I didn't price that or that's not included.

So either with a schedule of works or a bill of quantities we can actually do that analysis at tender stage which prevents problems maybe post-contract when the works are on site with a contractor who is trying to recover a bad position.

Ben: So in some ways you're almost helping assess what's a good route to go down, even with tender?

Jerry: Yeah, absolutely. There are a number of routes that you can take in procuring work. You can go down what's termed a traditional drawings, bill of quantities, specification route in which case it's very clear and set out, or you can go down a design and build route where you issue a contractor with a set of drawings and almost a performance requirement for the specification. We want the building to look like this, we need it to be this footprint but come back with a proposal.

Now I think probably where we're going here with the self build or the smaller domestic side I would always advocate going down a fully designed route rather than leaving the contractor to advise or assist in developing the specification. But even with that you can just issue the drawings and a specification and ask for prices back.

But going back to the previous question, what you don't get then is the transparency of price. You don't get the ability to look through the contractor's price and say okay, well that's value for money or that's not value for money.

And similarly, going into again the post contract, the on-site period without that detailed breakdown of cost, if there is a variation, let's use an example, you wanted to add a new window in, if you've got a bill of quantities or a schedule of works with windows of 1m x 1.2m costs £500, you know that it's £500. You're not then at the mercy of the contractor to come back and say "new window that's going to cost you £1,000 gov".

Ben: Can we take a typical day of what you actually do? So maybe when you're sitting in the office, what tasks are getting done today?

Jerry: Today, right, okay. Today, I prepared an agenda for a pre-start meeting where we'll pull together the main contractor, the key sub-contractors and the designers. Next week sit them down around a table, 3 or 4 weeks in advance of the work starting on site to make sure that the design has been fully analysed, that the key sub-contractors know what they're doing on site, so getting an agenda ready for that. And that sort of just irons out any problem before we start on site. Doing a high level cost plan for a development in Bristol where 140 housing starts, and again it's early cost advice to allow the client to make strategic decisions.

Just done a bank monitoring report, or concluded a bank monitoring report where a client has borrowed money from a bank to complete the project. What we do every month is prepare basically a statement of spend progress where the planning conditions have been discharged, what the cash flow forecast for the project is looking like, what the variation status on the project is, and just giving the bank the comfort on the monthly basis that what the contractor is asking for or the client is asking for to pay his contractor is in line with what's actually happened on site and a general status update on the site.

And another couple of projects where we're acting as employer's agent where we're not only doing the quantity surveying and financial side of things, we'll almost act as a go-between between the design team, the employer, and site and the contractor where we, it's almost a sort of a project management light service where we will chair the design team meetings, chair key meetings with the contractor and the sub-contractor and today's task is to prepare the minutes from one of those meetings that we had a few days ago.

Ben: We've talked a lot about planning upfront, getting all the numbers right, do people come to you mid-way through projects or towards the end or times when things are not going right?

Jerry: Yes. I have had a few of those and they're not pleasant experiences. Again not on a self build house but this was on a commercial venture where a client had gone with bank money which makes the situation even worse, had gone to a friend of the family who was a contractor and they'd made an arrangement with the contractor where the contractor was effectively being paid on a cost plus basis. On what was an infrequent basis he would put a bill in for materials, time that he'd spent and then add his cost plus 10% of those charges. And the client was readily paying him, the bank were readily paying the client and all of a sudden the contractor disappeared.

We got brought in by the bank to look at, or the funding bank, to look at the situation and found basically the contractor had been paid circa 70% of the contract value, had done 30% of the contract works and not only had he done it to that particular client, friend of the family, but also a very similar friend and a similar development not a million miles away and similar sort of percentages and walked away with the money and was found abroad, sitting on a yacht. Very extreme example but again I suppose just errs towards caution in terms of setting up a scheme and paying money without professional advice, particularly if you're talking about larger numbers.

I go back to again earlier in our conversation where maybe £30/40/50,000 either a refurbishment or an extension, get some high level cost advice to make sure that you're in the right ballpark, that you're not paying over the odds for it or similarly not paying under the odds for something which might come back and have a contractor who's trying to recover costs.

But certainly on larger spend projects get professional advice, get professional support from early days and it can be tailored to suit, as I say from sanity checks on budgets through to estimates, through to tender documentation through to preparing contracts.

And that's another subject actually I'd like to touch on. Make sure if you've got, even if it's a form of letter saying what the sum is, that you're paying for the works, what the sum is based upon in terms of drawing A, drawing B and drawing C from the architect, specification Z. It's based on a start date of and has a finish date of. So you have a programme, even if it's just those two start and finish dates and even if those requirements are just in a letter between you and the contractor before you start it forms the basis of a very simple, rudimentary contract.

I would always recommend there are the JCT the Joint Contracts Tribunal have a suite of contracts ranging from a very simple homebuilder contract right the way through to a full blown JCT contract which you could use on large commercial projects. But always have a contract, no matter how simple and how rudimentary it is. And wherever possible do not pay money upfront to a contractor.

Ben: Well we're just about at the end now, so I don't know whether you have any final thoughts? Maybe nothing to do with quantity

surveying, it might be just for self builders on their projects but yes, what are you thinking?

Jerry: Planning. Planning, planning and more planning. Get everything sorted, get all the designs finalised how you want them. Get costs sorted, get it tendered or agreed, or negotiated with the contractor before you start.

Arrange your incoming services before you start, just be very happy that you've got a full, considered, joined up package of information, cost, programme and contract before you start on site.

So many of the problems I see are where information has not been considered, where variations occur after the event, once the contractor has started on site, whether it be ground conditions that should have been spotted and should have been identified beforehand, whether it's the electricity board saying well you should have spoken to us 6 months ago, we might have been able to get your electricity supply on site when you wanted it for when the building is finished. Whether it be a contractor screaming for variations because the design isn't complete or hasn't been considered on a particular element of the build, preparation. Defer your project 6 months if necessary but get that information sorted before you start.

Ben: Very good point to end on. Jerry, thank you.

Jerry: Thank you.