Transcript of House Planning Help episode 384

Ben Adam-Smith 00:00
This is House Planning Help - episode 384. Hi there, I'm Ben Adam-Smith, and this is the podcast for you if you're interested in building new or retrofitting. I'm exploring what houses we should be building in the 21st Century and trying to break down the major roadblocks that may get in our way. Coming up in this session, my guest is Sally Godber from WARM. We're going to be talking about de-risking a Passivhaus build, and using Sally's own project as an example. This is one from a few years ago, however, the lessons have not dated one bit.

Ben Adam-Smith 00:31
We'll start with a funny story, because it's always my dream when I do this podcast, firstly, to get out and see the buildings, which even that sometimes isn't possible, they're too far away, or our diaries don't align. But I do my best to get out, check out the building, see the context, and then that helps me relay this all to you and paint the picture in a better way. The other thing is to take my time there. I'd love to mooch around and just casually float in and out. However, the reality is I'm in a rush, I'm on to the next interview, or there's a time slot, and we've got to do this all in a certain amount of time, or I've got to get back to the family. There's always something going on. So this was quite an interesting situation, because I arrived with Sally when she was just about to take her daughter to tutoring. She obviously said, Ben, you can go and do some work in our offices if you want to, or you can come along with us. So I did the 'or come along with us', and had the most amazing couple of hours. First of all, sitting in traffic jams around Plymouth, but I didn't have to drive, so that was fine. Just chatting. We checked out a dodgy pub, did milling around, and yeah, it was something that refreshed me and recharged me, which I think ticks that box of taking your time. It may well have had the reverse effect on Sally, I don't know!

Ben Adam-Smith 01:54
So imagine the situation. It's the end of the day. We've got back to the house. I've been given the grand tour, and we're now sitting down together to talk de-risking. It's an interesting topic because perhaps it's something we all want, however our dreams maybe get the better of us, and then de-risking is just out of the question. It needs to be in from the beginning, so we get underway finding out why Sally wanted to build her own home. And it turns out it runs in the family.

Sally Godber 02:24
I grew up with my parents building houses, and each one was an experiment of what dad was interested in. So one, for example, was where he was really interested in, how do you make a really low energy cavity wall construction? So it was like, full fill [insulation], and he'd shipped in these plastic wall ties. I mean, he had boxes and boxes of them, he was giving them away to anyone he could. And then the next one was, how do you do a green wood, oak frame building and make that airtight. And then putting in MVHR, so that was in the late 1990s, he was doing that, and that was with cellulose blown into a timber frame as well. So he was trying out a lot of things and trying to work out, they're all kind of the stuff which he was doing as his energy practice. He wanted to really understand it, so was giving it

a go himself. So all of this had come in through osmosis, I guess, and I hadn't really ever intended on doing these things or that being something that I was going to carry on. But the whole climate crisis for me just hit me really hard, coming out of university and really wanting to do something different. I'd done engineering, and I went and did building services design, and I particularly was interested in wanting to do sustainable stuff, but found that doing building services, it wasn't rounded enough, it didn't have enough of the building in it. So then I started working with dad, and that was very much about trying to do the whole thing. So both to marry, I had come from doing quite large commercial stuff, and he'd done a lot of his own builds and a lot of small-scale build projects, and it was trying to put that together. Particularly learning off all the things that he'd tried. And so very soon, the difference between what I was telling the people that we were working about and where I was living, it just became impossible for me to live in this old, damp, skanky house. And so me and my husband started looking for somewhere, and everywhere you look at you just go, well, we're going to have to have to rip the kitchen out, and we're going to have to take the roof off. All these things which other people had seen as being valuable, you're like, well, that's clearly rubbish, because it's not airtight, or it's not thermally the performance of it. And we weren't really necessarily looking for a new build project at that time. We were just looking for somewhere to be our home. And in a roundabout way, we kind of realised that we had to get somewhere that needed serious work doing to it, because we weren't going to get any value out of somewhere that someone had already done up.

Sally Godber 05:11
So we ended up buying this pub at auction, and it was very dilapidated. When we got the keys for it, we went in, it was in the middle of winter, and there was water pouring down onto the bar, and it had been empty for several years, so it was in a real state and we kind of knew that. It took us a while to work out what we wanted to do, and our first intention was that we were going to do up that building, and that's what we're going to live in. But we realised there were various issues with it that meant that it was always going to be quite an uncomfortable space for us and not very connected to the garden. And that then meant that we decided that we're going to do a new build in the garden. And at this point, my husband was really not totally on board with this, and I hadn't realised that actually this was like in me, that I wanted to do building. And he was like, I knew you wanted to do this all along, but you didn't tell me, you just pretended. So there was a bit of a sales pitch thing, which we had to negotiate. So it took a while for us to get planning, because at that point we had one child, and they were like two, and I was pregnant with a second, and we knew when it came to both the design and the construction, because we had a young family, I had my business going on, and my husband was not totally sold into this we really needed something that was going to be low risk. So all of the design stuff that we did was about being able to manage the budget. We had a very, very tight budget. We wanted this to be like the polar opposite of a grand design. We just wanted a nice house and somewhere that was going to be warm and comfortable and that we could enjoy being a family together in. And I knew that also I couldn't afford to pay for like master crafts people to build this, and I couldn't spend the time on it to build it to an exquisite quality. So in terms of our choice of construction, and also just some of the basic things about that our windows are very modestly sized, the whole house is as simple as we possibly could. We have got a bit of flat roof which is single storey, and that was a concession to the planners. But everything we just tried to keep as absolutely simple as we possibly could, because we knew that we needed to, we wanted it to be built to the Passivhaus standard, and we just wanted something that was very normal.

Ben Adam-Smith 07:49
So you covered a lot of ground there. One thing I did want to mention is, I'm not sure that you said what you do by day as such, because you've had some amazing insights from the work that you do. So I'm going to take you back there first. What do you describe your day job as?

Sally Godber 08:07
Oh, yeah that, sorry I kind of yeah, got a bit jumped over on that one

Ben Adam-Smith 08:09
You were keen to get onto your house, and we're coming back to the house, don't worry. But I just think for context, yeah, this will be good.

Sally Godber 08:18
Thank you. Yes, so we've got an energy consultancy called WARM, which does both, mostly Passivhaus consultancy and also certification, and we work all over the UK on a range of building projects. We do quite a lot of education, we do a lot of social housing, and we do occasional weird and wacky things like swimming pools and stuff like that. And yes, as I said, certification and we also do quite a bit of researchy bits, like post occupancy and we've been involved in things like the social housing and learning how well that works. It's really lovely feeling that people, that it's not their desire to build, this isn't their kind of perfect dream house, they never were particularly interested in having a Passivhaus and then their experience of it is just phenomenal. So it's really lovely to be able to see that and to be able to work with clients, where they have this long-term commitment to their tenants and to their community, really. It's just lovely, yeah, to have those kind of shared values, and a lot of that also then starts to go off into things like embodied energy, we do quite a lot of work around that, and material choice and all of these kind of bits and pieces. So we do certify one-off homes, and we also do provide some design consultancy on one-off homes, but it's quite rare. We don't do it that often, we tend to do kind of larger things.

Sally Godber 09:55
I forgot to say also, obviously we're doing a lot of stuff in retrofit as well, which is a really crucial one. And then the other part, there's another sister business called Coaction, which is our training organisation, and this does the full Passivhaus Designer course and the Tradesperson course, but also what you can learn from Passivhaus. So things like the Bitesize course, which is very much just about lessons from Passivhaus that you could apply to any project, and are going to make them better in energy terms.

Ben Adam-Smith 10:29
Because I've had the inside track of a lot of this, and I know how good it is, which is why I wanted you to say all of that. And also going back to WARM as well and working on some significant projects, Goldsmith Street being one of them, so that's fascinating how you fed back into there. I remember watching one of those lessons that you had and just seeing, you know, so there's a lot of experience, that's all I'm underlining.

Sally Godber 10:54

And this comes up quite a lot on this podcast about simplicity, so it's fascinating. The more experience that you get, the more you understand the beauty of simple. What do we mean by de-risk? It's a term that I've not fully explored, but people have sometimes asked me, now, how do I de-risk my project? So maybe you could explain that?

Sally Godber 10:55
There's a lot of experience, and really wanting to tie that into the practicality of it, and making it buildable and simple, and all of that is something that is really important to us and us to use materials efficiently. For us to do that, having things as simple as possible is one of the best ways that you can do that.

Sally Godber 11:41
Well, I guess there's multiple risks. Your imagination about how the project's going to go and what actually happens. And so some of those risks might be about the cost increase, some of those risks might also be about there might be a failure. So if something isn't protected during construction, that might mean that there's like water damage or something like that, so kind of waterproofing and things like that. Particularly in terms of the energy performance, the airtightness and the insulation continuity and the build quality are absolutely at the core of this. And often what we see on projects where things go wrong is either the contractor's understanding about what the expectation is, so they're looking at drawings and they're going like, oh yeah, I'm going to build this like that. And when we have a lot of complex details, it's very hard to price those, and I quite often have conversations with QS's [quantity surveyors] about this. So people that are doing this, as you know, this is their daily job to work out what they think the cost to build something is, and when you've got these details that are incredibly complicated, and then, particularly in three dimensions, how do they work out how much time and effort it's going to be to build that to a decent quality. So those are the two kind of pulls. So either they're just making a guess at that. So the more of those complex bits you've got, the more guessing they're going to make. And so that difference between their expectation and what could actually happen is quite significant. This feels like around the houses description of it, but where there is that risk, no one wins. You know, if something takes longer than they have anticipated, and even if they're working to a fixed fee, they will try and do it quicker, which will mean you won't get the quality that you want, or they'll find a way of charging for it in somewhere else, because they have to, you know, they are a business, and they have to be able to sustain that. So for us, what we want is a fair price for doing the job which has got the least of those guesses in it. And groundworks, there's always some guesses. But when we get to doing new build... And retrofit the guesses just carry on going all along. And we know that from our office, which is an EnerPHit office, and that's a refurbishment, and the pub building, which we also did a refurbishment on that, you can't unmanage that. But for a new build, once you are out the ground, the risks are about the things that you've added into the design. So the amount of risk that you have on your project is about how complex you've made the design. And that can come into the geometry of it, or it could just be the construction choices. And there's a range of decisions that you can make during the design which won't necessarily on paper save you money, but they mean that the risk of it going up or it not being what you wanted, or them building to a poorer quality is a lot less.

Ben Adam-Smith 14:58

I think we'll come back to this as we work through, but you said auction, and auctions, I've heard are quite scary, because you need to know what you're getting into. You put your money down, and that's it, it's yours. So you made it sound very simple that you bought at auction. Was it so?

Sally Godber 15:16
Well, we were really lucky in where our office was at the point before we did our refurb, the person next door to us was a surveyor, and he often did auctions on behalf of clients. And so he gave us a fantastic pep talk, and he said, the number one thing is that you decide on your absolute price. I mean, this is something that I'm sure everyone says, you decide on your absolute price, and you do not go past that. And we had a previous project, a house that we were bidding on, and we went and did this, and it went well over our budget, and I came away really sad, and I was like, Javen, this is rubbish, I've changed my mind, actually, I don't think this is okay. But it was a fantastic experience, and I definitely think that as a way of selling buildings it's actually really great in terms of getting something very quickly. There's lots of positives about it, I guess.

Sally Godber 16:10
So the second one, the pub, which we ended up getting, we went into and I was mumbling to my husband that I wasn't totally sure about our maximum price and he said, right in that case, you are not allowed to put your hand up, which is really lucky, because there was a car park for sale, which overlooks a bay on the north of Cornwall that was £15,000, I just thought it was amazing, and I really tried to persuade him that we should be buying that instead. And there were various other things I got very excited about, but it was very clear here, us being in the room, that we were very much the minority, as people that weren't there as professionals. So nearly everyone else in the room were there as investors, and so for them, like we were bouncing up and down, we had so much adrenaline and the whole experience of this, even before we got anywhere close to our bid, but everyone else was just, like, it was just, I mean, whether they're pretending or not, it was a normal day in the park. And every time they came back to us, we were conferring and like, I don't know, what should we say? What should we say? And then standing up and putting our hand up and getting very excited about all of it. So everyone in the room was giggling about this, and thought it was very entertaining, because we clearly, we were real novices. And there was a phone bid that came in, and our last bid was our absolute maximum. We got it on that, and you have to pay 20% on the day, and they do it like with a card reader. And neither me or my husband could remember our pin number, because just the excitement of the day, and we ended up having to spend several hours there sorting out this whole thing. We weren't sure that we're going to be able to pay it. And then I think you have to pay the whole amount within two weeks. And we also knew, because it was a pub and because the bank had taken it in, it wasn't clear if we were going to have to pay VAT on it either. So there was a potential for an additional 20% which we were just crossing our fingers because we didn't have that money. So it was a really emotional transaction. But in comparison, particularly for buildings where you know that you're going to do a lot of work on anyway, the process is so much smoother than any other building that we've ever sold that I'd really I think it's a great way to buy somewhere, and even if it's not necessarily a bargain, I think just sticking to what you think it's worth and what you're willing to pay, there will be something that comes up. And there seemed to be, particularly for us, there was quite a lot within the local area that gave us a good range. So yeah, second time lucky, and my husband is very much happy that this is the one that we got, not the first one.

Ben Adam-Smith 18:51
So can you describe the plot and what was on it, the existing building and then the opportunities and the constraints?

Sally Godber 19:01
Okay, so there's a little spit of land that sticks out, probably about 400 metres wide and at the end of it, it's got this old naval victualling yard, which I think is Grade II listed, that they've now turned into, it's got lots of restaurants and things like this, and creative space, so it's got lots of office space and things like that. So we're right next to the gate of it. So we bought the pub that was right next to the entrance, but it had been closed for a long time. It then had quite a large pub garden with a really large tree in it, which was very beautiful. And that was the bit that we kind of fell in love with, the garden and the tree and the local area was very nice too. But it is still in the city, so there's quite a high density of houses and things like that nearby, even though we've got the sea on both sides. So our intention was that we were going to retrofit the pub and we thought, well, for us to really do a good job of it and to know how it's going to work, we should go, and because it had a flat upstairs, we said, well, we'll go and live there for a year and work out how we want it to be, so that we've got experience of being there. And that was absolutely fantastic and it made it very clear to us quite quickly that it wasn't a great space, and particularly wasn't very connected to the garden, which was the thing that we absolutely loved, and it also was very, very dilapidated. So the extent of refurb, we soon realised was going to be quite a lot more expensive than we were planning on. So after that, we decided that we would build our house in the garden instead, so build a new house. And so we built the new house and lived in the pub and unfortunately, it meant that we lived in the pub for three years, and the flat was really quite uncomfortable, so we really felt the difference moving into the Passivhaus. And then after that, we had a break of a couple of years, and we finally had enough courage to go and tackle the pub building. Then we did this big refurbishment of that, and it's now, it's still got a pub licence, but it's running as a cafe on the downstairs. So lots of interesting things about what is the Passivhaus, or low energy equivalent for that, and also that we are at sea level, so thinking about sea level rise, and that it is going to flood at some point. And then putting a dwelling on top of that and making that all comfortable. It's not listed, but it is mentioned in the conservation plan, which the conservation officer took as free reign to be quite critical about our planning plans and stuff like that.

Ben Adam-Smith 21:30
So that's the other thing, that you were not necessarily going to get planning permission for a new dwelling, were you? So how did you do it?

Sally Godber 21:40
This was a real headache. I found the whole experience of going through the planning system, when you want to build something which is really good quality, and you're thinking about not just building for your family, but for generations. You know, wanting to build something that's good, that's going to last, and it both be good quality in terms of the building performance, the longevity of it, and also wanting it to really fit into the environment. It felt like there was very little concern from the planning department about any of those things and how much care and attention we were going to put into it was not really something that they thought of as valuing either. So it was an emotional roller coaster, and this was the

bit that my husband found particularly frustrating, and I've got an awful lot of empathy for everyone that has been through that process and is going through it. It feels like a real lottery. We had a situation where we had a pre application, and the planning officer was really positive about the whole thing, so we put in the application. There was some stuff to do with the tree roots, but we loved the tree, and that was really important to us. So we were like, of course, we'll do whatever to protect the tree. I mean, it's a Holm oak and that thing is, like, hard as nails, it's really hard. But at the same time, we're like, if you think something's worth doing, we'll do it.

Sally Godber 23:08
Then we got a phone call, which was the last working day before Christmas. We got a phone call from the planning officer saying, by the way, you're going to get a letter tomorrow saying that we've decided to decline your application and you're not going to get it. And at this point, we were living in the pub as well, so in our heads we were all set to be starting to think about building and all those kind of things. It was really painful and I had to go back and tell Mikey, my husband, about this. Yeah, he was not happy at all. And it was a really low moment for us, and it was really difficult. Luckily, our architect, Jae Cotterell, went and spoke to them about it, and she just said, this is absolutely barmy, what is it? You know, this is all the feedback you've given us. And I can't remember exactly how they did it, but basically they said, the planners, in the end said, if you take the PV off the roof, then we'll give you planning permission, which I'm not sure they're actually technically allowed to do. But at the same time, at that point, we're just like, I don't care.

Ben Adam-Smith 24:16
Like you say it's a lottery sometimes. Yes, we'll do that. Fine.

Sally Godber 24:19
It did feel like, particularly after working on large projects for developers and people that are not necessarily that committed to the local area, it felt like a very different experience as an individual. And I would love them to be more open to self-builders, because they obviously have a commitment to wanting to build it better. And I felt quite sad about that, not just for me, but for everyone else also that was having to go through that experience. It just felt like this is, it does feel like it's kind of all balanced up against you.

Ben Adam-Smith 24:56
And weighted to the major developers. Tick this box, build 1000 homes. Jae, presumably you've known her for quite some time, so I didn't realise she'd designed this.

Sally Godber 25:08
Yeah. So initially, part of our de-risking was getting Passivhaus Homes to do the design and then to do the build of it as well. And they were involved from the beginning, when we were still like, oh, we think we're going to do the pub building. So they were really helpful in terms of being able to walk us through all of that, and us getting to a point where we got something that we knew that we wanted. And I think having her experience of having dealt with planners and knowing that, but I think the downside was she wasn't local. So if we'd had a local architect, they'd have probably have known the individuals more and been able to play to some of that. But she was really fantastic, and did an absolutely cracking job.

Sally Godber 25:54
Sadly, it didn't work out. At that point, Passivhaus Homes were still physically building homes as well as doing the kit stuff. And it didn't work out in terms of time frame, because we ended up, I had my second child, Emily, who was born on the floor of the pub, which is definitely something that she's never going to live down. So at that point, then I was like, I need a house, and I need someone to build it now, and their time frame of when they could slot us in just didn't work. That was part of, actually, what was really positive about all the stuff that we'd done to de-risk it. It meant that we could get away with just getting any timber frame person to make it and it would be okay, whereas we could have, because of Passivhaus Homes experience, we could have pushed the limits a bit more and gone for something that was a bit fancier. But it really helped, for my husband that wasn't totally on board the whole way along this experience, for him to have that confidence that we're being really careful, particularly financially, that we weren't splashing out on things that meant that he felt much more comfortable that we were well within our budget. It's different for different people and certainly the second project, he was a bit more relaxed about us pushing closer to that upper limit, which didn't exactly end well, but I mean, retrofits never do. But for the first one, it was really important to him. So one of the things that we did at the beginning that was really great was we did do quite a lot of chatting through what was important to us about doing the project. And this, the financial stability for him was the most important thing. For me, it was just not building anything that was too big. I did not want a big house, and so we had to make sure that all the spaces worked really hard for us. So we spent a long time looking at the internal layout and getting that to work so that we knew that we could grow as a family in a relatively small house.

Ben Adam-Smith 27:58
So what's the floor area?

Sally Godber 28:00
So in Passivhaus terms, I think it's about 120 square metres, so it's not tiny, but it also is not like... We could have quite easily put more on without it being a massive... And I think that it probably wouldn't have cost us very much more. You know, the cost is in the build, having a little bit more space, wouldn't have added more money onto it. But for us, it also meant that long term, we'd moved out of a terraced house that was Victorian and was just absolutely massive, and I just found it really stressful, because there were always things breaking and everything else, I was just like, I just need it to be as condensed as possible, and for us have to the smallest area to clean that will work for us. So that was the conflict, I guess there.

Ben Adam-Smith 28:48
So can you describe the design, the finished design, that you ended up with?

Sally Godber 28:53
So it's super simple. It's got a pitched roof. Unfortunately because we're very close to one of our neighbours, the eaves are quite low on one side, which in efficiency terms, that makes me a bit sad. But apart from that, it's fine. So most of it is just a standard house with a pitched roof. And then on one side, we've got a single storey element, and that was about giving our neighbours a view out over into

the yard, which we were really happy for them to have. It was not a problem. It was just the added in complexity of the detailing around there, I'd have preferred not to have had, and the waterproofing of flat roofs and things like that. So downstairs, we've got an open plan living kitchen, but it's designed so that if at some point, there is a natural position that a wall would fit in, we could separate those off if we wanted to. I don't think we ever would, but it's an opportunity. And then we've got a spare bedroom downstairs, which is quite compact, and a utility and a downstairs bathroom. And then upstairs, we've got three bedrooms and one bathroom, so it's quite simple. There's not a lot to it. And that was, yeah a big part of it was just making the spaces work.

Sally Godber 30:02
And what Jae did, which was particularly nice, was she really understood our constraints and still helped us to design some really nice spaces. So one of the things was that she kept trying to make our hallway bigger. And in my engineering brain, I was like, why would you want a big hallway? And I just kept trying to slim it down again. And eventually, we came to a compromise. And I'm really happy that she did that, because it means the welcoming in and the coming into the house is actually really lovely. So that balance of, I mean, we questioned everything they did, and I think we were probably quite irritating clients, I'd say, because we wanted to understand everything. My husband has got a very similar brain to me and that he's like, I'm not on board until I understand it fully. But at the same time, I feel really happy that we made the design work really hard for us.

Ben Adam-Smith 31:02
What was the biggest challenge, then, of construction?

Sally Godber 31:07
So it still was the airtightness and part of this was a change from using the Passivhaus Homes timber frame to a standard timber frame. Passivhaus Homes have got a portal frame that meant that they didn't need a ridge beam, and the spans downstairs, they didn't need a steel beam for that. And unfortunately, when we started talking to other timber frame manufacturers, because they're not used to doing the lift of the ground floor and first floor in one which is what you need for a portal frame, because you need the sides of it to be really strong. Separating it into a ground floor timber frame and a first-floor timber frame meant that we ended up having to put some steel in there, which I felt really sad about in terms of well, I guess I didn't really, we didn't really call it embodied energy, it was just materials. I didn't really want to be using steel, I wanted to be using wood, so I was really sad about that. And the airtightness detailing of that was pretty horrific. Those were the bits where they really struggled as standard timber frame suppliers. So what I'd do next time that's different, was actually it wouldn't have taken that much of a change of design, it just was too late, for us to have broken up the spans, which would have meant that we could have used timber instead, but it would have meant a major redesign. And, well, it would have meant a major structural redesign, and we'd have had to pay for that. And so we'd just got too far down the road. But I think, yeah, coming at it again, definitely, engineers are really great at solving problems, and often we don't want them to solve the problem. We want them to tell us what the constraints are, so to know what the natural limitations are of materials, I think is a really, really important thing for us to understand as designers and for clients to ask for as well. So for instance, the steel, the first time it's often mentioned, is when they're doing the detailed timber frame design, and that's when they're solving the problem that you've created by having a span

that's too wide. If we know that at an early stage, then it's easier to design to it. So that's what I'd like to do in terms of on our next project.

Ben Adam-Smith 33:27
There probably will be a next project! I can feel it. And how did that all come together?

Sally Godber 33:34
It was actually really well overall, the timber frame contractor was called Allwood Timber Frames, and they're just a very standard twin stud timber frame that we then put cellulose insulation in. Again, I knew that we could get the Warmcel guys to come and that they would do a really fantastic quality install and we didn't have to rely on lots of checking of the insulation as we went. So we had the insulation under the slab. And then when it came to the walls and the roof, it was all the same construction. On the roof, it was I beams, but the same kind of idea. And then an OSB on the inside. And then they cut holes in that and blew in the Warmcel. And the guys came from, I think they came direct from PYC, actually, in north Wales, and they just did an absolute cracking job of it. They were there for like, maximum of two days, and they answered all my questions. I only came on both afternoons and checked in with them. Again, I just didn't have lots of time to come and be checking things. So having a simple shape and being able to run your eye over everything and be able to see that everything, that the airtightness line is continuous.

Sally Godber 34:47
So we did a bit of the airtightness taping ourselves. But also that was done by the timber framer and various others. And the first time round, the first air test we did, was not great. I think we got something like 1.2 and it turned out that they hadn't pressed down a lot of the tapes. So this is a really interesting thing, that it looked absolutely cracking, but it wasn't pressed down, and as soon as you pressed it all down, we saved 0.2 on our air test. The other thing that was leaking was the steel beam and the detailing around it, the pocket they'd put together was not okay. Now, I'd be going in with the airtightness paint and sorting all that out, but at that particular point, it was just a late evening with a load of tape. I think our final result was something like 0.56, so we're not in that category of super low, with really high performance, but that's absolutely fine. We still got to the standard with a standard construction and a normal set of techniques, and our windows and doors were Rationel, because we knew that they were, we'd use them on several projects, and we knew that they're relatively cheap in comparison to others, and we had designed all of our windows so that they could be openable with a single span. A lot of them are top hung because we particularly really liked that in terms of the security of being able to leave them open at night time. They're really super simple, which meant that the airtightness of a lot of those as well, the detailing was really easy. So a lot of those simplifications really bore fruit in terms of the construction. The airtightness was still hard. I think with the amount of checking that we did on site, I'm really happy with the result that we got. You know, we didn't have lots of people on site with a huge expertise in this, they weren't master crafts people. So when we did the retrofit next door, we actually got a better airtightness than we did on our house. But that was dealing with a local contractor called Greenacre Building who is really superb and an amazing skilled team. And they are great problem solvers and fantastic at dealing with detailing and all of those kind of things, so of course, they did exceptionally well. It was actually their first go at doing a kind of Passivhaus project, so it was really, really great. But sometimes you don't have those teams, and you either can't afford

those tradespeople, or you just don't have those contacts in your area. So being able to design to it was really helpful.

Ben Adam-Smith 37:34
So you've mentioned about how busy you were at the time. What were you able to do? How were you keeping tabs on the project?

Sally Godber 37:43
It's really tricky, because actually just being a client takes just a shed load of work. So just all the ridiculous questions, and I'm not someone that really cares about door handles or any of those interior design things, it's not really me. So there was a lot of the questions where we were having to order shower trays, and so the work that just goes into keeping everything going on the client side is quite significant. And I ended up taking on quite a lot of the detailing work, the architectural detailing, and then the services design for the building, anyway, which I felt more comfortable with. But the architectural detailing was something I hadn't really done an awful lot of, but ended up having to do quite a lot of that as well. So then there was a lot of questions coming back to me about how the detailing was supposed to work and how they were supposed to sequence it, which was quite interesting. So with all of those things going on, it was after work, I would come in and have a check and see what was going on. Now also we decided that at the point where the building was watertight, we decided that actually we wanted to take it on as a self-build, because we were finding it too difficult to manage, particularly us not being there when contractors were there and so things happening and us not being responsible, not feeling like it was well communicated to them. So I quite often pop back. I mean, luckily I just worked down the road as well. So I quite often pop back at lunch time and have a quick, kind of five minute, oh no, not that thing, this thing, but it always felt like it was chasing our tails. So from then on, we got a contractor in to do the plastering and the skimming, and we did all the services ourselves, apart from the final electrical bits. And that felt really good, actually. And one of my friends, that's a carpenter, came and did all the architraves and the flooring, and every time I told him that I just wanted soft wood. He'd say, no, he'd refuse to do it. So it was really nice, actually, because it's felt that has put the quality into the build. And the bits that we really appreciate are the final touches that he has put into our project. So very simple but lovely bits of carpentry that both me and my husband really love and really appreciate. So for us, it felt like, whilst it was difficult because we couldn't make any noise after a certain time in the evening, and we actually bought a hand drill, which I don't know if you've ever used one, but is like the most painful thing, basically, you might as well just bash your head against the wall to try and make a hole, to try and not make noise. And we had a window on the Saturday where we could do, I think it was nine till 12, where we could make noise, so cutting bits of ductwork, or drilling things and all that kind of stuff where we were. But we found that once it's watertight, it feels like you can just kind of breathe a bit, and it's a bit easier to manage. And yeah, so whilst it took longer, it meant we were much more in control of it. So we still had contractors coming in to do specific bits of work, but we felt like we were able to manage when they were coming in better, and to make sure that we were giving them really clear instructions, rather than it going through a second kind of main contractor.

Ben Adam-Smith 41:11
So what does the timeline look like then, if you were just going to draw it out a couple of key stages?

Sally Godber 41:17
Well, clearly it had to be done for a Christmas because that's what every project has to.

Ben Adam-Smith 41:21
Come on Sally, I was hoping you wouldn't have that as your target, but yeah, go on then, at Christmas!

Sally Godber 41:28
So I do think the one thing that was really successful, was from my memory of growing up on my parents' projects, was that I really held off us moving into the house, until it was absolutely finished, because I knew as soon as we moved in that was it, basically nothing was going to get done. And we only last year, which is now seven years since we built it, we put the tiles in the kitchen, and that was one of the things that hadn't been done. So we took just over a year for the construction. And prior to that, it took us two years from the point where we bought the pub to us being able to start construction. So it's pretty much a year faffing around and kind of working out what we wanted. And then once we settled on a house, a year of trying to get planning and various other bits and pieces, probably a bit shorter than that, there was a bit more faffing. A bit more at the beginning, but actually, and I remember getting to the point where we had lived in the pub for two years and just feeling so frustrated, and it felt like such a waste of time. But now we've been in this house for seven years, it feels like all of that faffing around was actually really meaningful and really worthwhile. And it feels, it feels like an age when you're in that point where you're like, ah, another year has gone by and we haven't really progressed anywhere. But actually, there's loads of stuff that you have just ironed out that means that it's going to be a much better home, and you're going to want to be there for longer. So yeah, looking back on it three years feels totally fine.

Ben Adam-Smith 43:00
And did you de-risk it in the way that you had hoped in the beginning?

Sally Godber 43:05
It's really hard to say, because we delivered it on budget, but with every self-build, there's an awful lot of time put in. I remember Jae saying that one of her previous clients had actually totted up the hours that it had taken being a client, and it was something horrendous. And I was like, well, I'm clearly not, I don't want to do that. So that was a real success for us and the complications that were there were not necessarily design things that we had chosen. There were things that came in that we definitely would do better next time. So I'd say yes, that we were very careful and conservative. I think there is one thing that I would really like. I mean, it's hard. You look around your home and you just see the things that you want to be different, and particularly to start with, that does seem to wear off over time. You can't remember quite so much, which is really great. It's lucky, actually, isn't it, because it's quite a difficult thing to look at and go, ah, why did they do it that way, or, well, I didn't want it like that. But there is one window that I wish was larger, and I think out of the whole project that's all right, I'll take it actually. So I think for something where the whole way through, we were trying to be really conservative and trying to be really careful, and my worry was that we'd gone too far, and that it'd just come out feeling really mean. And the reality is it really doesn't, and if you are on a tight budget, it makes a huge amount of difference feeling in control and feeling and that was ultimately why we took on the self-build. Part of it

was so that we could also have financial control over the subcontractors and be able to negotiate, and we could have the discussion about quality versus cost with them as individuals, and what materials they were going to be using, and making sure that we felt comfortable about where they were sourcing them, and not finding out that they were using some tropical hardwood, or, you know, all of those things, which are very hard when you've got a main contractor in the way, particularly if you've got a fixed price. You don't often have those, the relationship is very different. So it was a real relief actually getting to that point for us, it felt like, bizarrely, my husband said that this is better than when we had the main contractor that was responsible for it all.

Ben Adam-Smith 45:17
So you have mentioned next time, a few times, and when you build your own house, and given the location and where your office is, I think you'd be slightly mad. But what would you do if there was a next time? What would you like to implement that didn't happen on this time?

Sally Godber 45:33
There's so much you pick up and you realise just how naive you are and this is something where, you know, I'm a Passivhaus geek, so I should know everything about this. And going through the whole experience, it felt like I was constantly being thwapped in the face with a wet fish, you don't know this, you don't know this. And it gave me a real appreciation for all of the different, the team that it takes to build a project. And I really enjoyed that whole experience of both stretching my mind and also physically doing stuff as well was really cool, and I really enjoyed it. I don't think there's enough of that crossover. I mean, obviously it would be a financial nightmare, but I think we need as designers, we need real practical experience of having to try and do stuff as well. And that really felt like it was a really valuable experience for me. So I'm definitely, now our pub was finished three years ago, I'm definitely at a point where I'm like, I'm ready for another project. I don't really know. It's not that I have any deep desire to do a particular thing, but I feel like the learning...

Ben Adam-Smith 46:44
Oh dear, it's in the blood, isn't it?

Sally Godber 46:44
I know this is a problem. My husband has made it very clear, this is the last one, but I don't think I'm ready to stop.

Ben Adam-Smith 46:50
And then the Passivhaus side, well, I suppose you've almost had that from the office. I was going to ask whether it lived up to expectations. But what about for your home and for having the family grow up in your house?

Sally Godber 47:02
Yeah, so we designed it as a Passivhaus, and when it had come to the question of certification, we started talking about that just before we built it, so probably a bit late, really. Ideally, you do it a bit earlier and get in touch with your certifier. And at that point, I was absolutely exhausted, and I remember having this conversation with dad, who also used to be my business partner, so he was the

set-up of WARM and everything else, I'm not sure if I said that. But anyway, I said, do you know what? I just think certification is, it's just too much hassle, and I haven't got the energy for it. And he has very rarely told me what to do about anything in my life and he turned around, and he was like, you will certify your house! You cannot do your job and not certify.

Ben Adam-Smith 47:56
That's good advice, I think, you know, given what you do as well.

Sally Godber 47:59
And you know, it was really great. I think there's some things where you just don't, you know, if you haven't got the drive for it yourself, and you feel like there's just too much. But actually, it worked out. I was really pleased that we did it, we did certify it, and we got it, which was great. But also, because I was so focused, it felt on so many other things, having a certifier that was going to be checking through everything was incredibly valuable, and it felt like I had a second pair of eyes. That meant that whilst I was doing my best to check things, I couldn't be guaranteed that I did. And they actually picked up that we hadn't put the shading in quite correctly. And so that was really great to have that corrected and have it properly assessed. And then also the floor insulation ended up being different to what we'd anticipated, and I hadn't checked it.

Ben Adam-Smith 48:54
Hold on, who is they? have you tried to go outside your own business?

Sally Godber 48:58
Oh, so, yeah, yeah, of course. So this was Will South from Etude, who did the certification. And so having someone else that is independent, that doesn't have skin in the game, all they care about is, have you built this thing right and to the standard? It gave me a real appreciation both of just how hard it is getting everything together for certification and this is something that as certifiers, from that experience of both certifying the office and our house, it's something I'm really aware of, and wanting to keep that constant balance of how much checking is enough? This is a conversation that we have a lot in the office, but I have a real appreciation from doing it ourselves, and also got real value out of it, that we had someone check through and say, yeah, yeah, you're right. All your calculations, apart from this bit, which you didn't get right, and that was the wrong insulation. I mean, luckily we had a bit of margin, so it was absolutely fine, and it was picked up relatively early. So even if we didn't have that margin, there's something that we could have done about it somewhere else, possibly. So that was the process of certification, which, of course, I'm a massive advocate of. I do think that there's very little quality control and so having someone, whose sole job, which is incredibly dull, a lot of it, is going through and checking that what you said that you're going to build is actually what gets built. As a homeowner, it gives me a huge sense of relief that I haven't had to do that, someone else has done it, and I very happily paid their bill. So that was good.

Sally Godber 50:31
In terms of the experience of the family. As I said, my husband was not totally on board with why, he was like, why are we bothering with certification? Why are we bothering with MVHR? Why are we bothering with triple glazing? He was like, I don't really get it and I was like, no, we're just going to do it,

you know, don't question it, just go for it. And we had this experience where we had also been living in the pub. I was having to wash the mould off our kids' walls. It was really skanky. And our daughter was actually living in a cupboard in our room because she didn't actually have a room! So it was not good.

Ben Adam-Smith 51:08
No longer a neglected family, she actually had a bedroom!

Sally Godber 51:14
There was a fairly low bar, and also it was the size, it was 60 metres squared, so it's the size that if we were in social housing, that's how big a house we would have, which also gave me a huge amount of compassion for the amount of conflict and arguments, of like, when you're trying to cook and you've got Lego and a duvet under your feet, it's not a pleasant experience. You know, we need space, and so building houses that are super tiny is very, very difficult, particularly for families. So that experience of moving into somewhere that was a lot bigger was obviously, like, it was a revolution for us in terms of the amount of arguments and conflict we had. But the kids were absolutely hilarious, because they would never believe us that you needed to put a coat on to go outside, because it was so warm in the house. They just didn't think that was a thing, so we'd be chasing after them with coats, being like, oh, you need to do this and they just, it was, yeah, it was really amazing.

Sally Godber 52:14
I think all these things also, I'd been kind of spouting this stuff and saying, oh yeah, you don't need this and it's really comfortable, it's really warm. But there's something really different about knowing it and really experiencing it. And my husband, who had been quite skeptical, I guess, of it all, he straight away, was like, the MVHR is incredible, and there's a whole load of little things which we hadn't realised. Like where we were in the pub, we just didn't invite people around because everything was just damp, all our clothes smelled damp, and we just couldn't get stuff dry. And it just, particularly where we are, right on the southwest coast, we get a lot of driving rain, so it doesn't get super cold, but there just is a general dampness in the air, and it's just having the MVHR and having the lower humidity in the winter is just phenomenal. It really is a game changer for us. And the kids like getting in the bath and making big splashes everywhere. Then being able to just hang the towels up on the back of the door, the door being open most of the time, and them being dry when you come back to them, is just yeah. I hadn't realised how stressful all of those things about the mould and the dampness and the realisation of how much inherent stress that was giving me. So basically, I'm totally a snowflake now, and I find it very difficult when you go away to stay in other people's houses.

Ben Adam-Smith 53:49
I don't know what's made me think of it, but I gave a talk where I thought I'm just going to get everyone to put up their hand. Has anyone here experienced some damp in their house? And you know, most of the room puts their hand up, and then anyone experienced some condensation, and the same thing. And by the end of it, you know, anyone got any draughts? Everyone was laughing. It was quite interesting, I wasn't expecting that reaction, but it just goes to show how widespread these are and accepted. You just accept it, don't you? That's just how you live. How would you like to close up this podcast? We can either emphasise something that we've mentioned today, or a key takeaway or something from your house build.

Sally Godber 54:33
In hindsight, it's a really lovely process, and I kind of feel it's a bit like when you have young kids, at the time, it feels like your hair is on fire and you've got sick down your front, and you've just stepped in something you'd rather not and it's very difficult to see the pleasure in it. But when you look back, you think that is an absolutely incredible experience. Particularly trying to find ways of it bringing your family together, or whoever is part of your team, building it, seeing that as part of the job of building it, is that relationship thing as well, I think is really important. So as much as possible, try to enjoy the sick down the front feeling!

Ben Adam-Smith 55:20
I don't think I've finished a podcast like that before! Sally, thank you very much.

Sally Godber 55:25
Thank you.

Ben Adam-Smith 55:26
Head online to take a look at the show notes for this session - houseplanninghelp.com/384. You can review the key points in our summary. There are photos of the project as well, and we'll give you social media links in case you want to interact, perhaps with a comment or a question. We'll link you to WARM, all of that today at houseplanninghelp.com/384.

Ben Adam-Smith 55:50
My call to action is to check out The Hub, and this is our membership community that we've been running for a number of years, with all sorts of goodies in there designed to keep you going on your journey, prep you up if you're in the early days. In fact, it's probably most effective for that. And I thought, since we had mentioned PH15 in today's interview, that we might as well highlight that bit of content, because we spent about nine months to a year filming on one of the PH15 sites in Buckinghamshire. And you see it all come together. We broke it up into about 20 different parts, but the timber frame system that they've got is really good. You can see why they've developed it. And every so often I end up mentioning it, as I'm doing here today. So that's one of the things that you can get stuck into in The Hub. We've got other case studies as well where we've been filming. We've got 'ask the expert' if you've got a question that you want answered. We've got the courses, the forum if you want to get interactive, or just chat with me in an office hour. It's all in The Hub. Houseplanninghelp.com/join if you want to find out more.

Ben Adam-Smith 56:57
Next time, architect Kirsty Maguire is my guest. She fulfilled a lifelong ambition to build her own home. It's always good when architects manage to do that, and it is fantastic, I can confirm. So we'll get the full story next time. Thanks for listening. The House Planning Help podcast is produced by Regen Media - content that matters.