The Institution of Structural Engineers

Audio transcript

File name: Higher Risk Buildings Competency Register.mp3

Audio length: 33:31

Date transcribed: 02 December 2025

Notes: Transcript has been edited for cleaner reading.

Michael Lewis:	Welcome along to this IStructE member talk. I'm Michael Lewis, the Exams and PRI Manager at the Institution of Structural Engineers, and on this episode we'll be talking about the Higher Risk Buildings Register, or HRB as we'll refer to it throughout, and the license we've been granted to administer the register with the Institution of Civil Engineers, for those working on these types of structures. I'm joined on this chat by two of the committee members who have been instrumental in getting this ready to set up, and I think it's best to throw it over to you both to introduce yourselves.
Chris O'Regan:	My name is Chris O'Regan. I am a Chartered Engineer and a Fellow of the Institution of Structural Engineers and Institution of Civil Engineers, and I am the Chair of the joint committee for HRB's Competency Register for structural engineers.
Ruth Haynes:	Hi, my name's Ruth Haynes and I'm a structural engineer. I'm a Fellow of the Institution of Civil Engineers and I'm a member of the committee for the Higher Risk Buildings Register, the joint register with the ICE and the IStructE. Chris is the chair, I'm just a lowly member, but both of us are Chartered Engineer Higher Risk Buildings because we're both now on the register.
Michael:	*(Laughing)* There's no such thing as a lowly member, Ruth. Thanks to you both for being here to talk about this. And I guess the first question I'll put your way, which perhaps people listening might have to, is what is classified as an HRB?
Chris:	A Higher Risk Building, also known as an HRB, comes in three flavours. Hey, most people think it's one. It's three. The first one, and the most common, this is the residential building. They have to be at least 18 metres tall, or have seven stories to them. But the physical dimension is 18 metres, but the seven stories thing also applies. OK. And this measurement is taken from the point of entry of the building. So if you have a semi basement where there's an elevated ground around the building, some people say wait, that's a basement that's not included in the story height, oh no, but you can enter it from that point, so it's the point of entry. That's how I've always equated it. Now that is a bit too simplistic. So there's a more verbose description of what they actually are in the Building Safety Act itself, which I strongly recommend people have a look at, but that's more or less what it is; 18 metres, 7 stories

residential. Now, that building must have at least two residential units within it. If it has only one, you're fine, but it has two, oh, no. So if ever a commercial building with a couple of penthouses on the top, that's a good example of a resident Higher Risk Building. What about the other two? There are two more. No one talks about these, but there are two more. The other two are care homes and hospitals. Yes, they're Higher Risk Buildings as well, but they're only considered to be higher risk up until Gateway 2. Beyond that, they are treated somewhat differently, especially for Gateway 3 because of their management in place of the occupants, because that's what the Building Safety Act is about. It's about the safety of the occupants of the building and care homes and hospitals are very, very carefully managed in terms of health and safety of the occupants. So yeah, there's the major difference and most people don't need to refer to those buildings because they're so different. But the Build Safety Act is very specific and tells people that, yes, they are considered to be Higher Risk Buildings. Ruth, am I missing anything?

Ruth: Yeah, I I'd just like to sort of emphasise that point that Higher Risk Buildings have to have something to do with the residential element, and Chris's comments about the fact that hospitals and care homes are treated differently, it's partly to do with the way we use the building. So for example, if you look at an entirely residential building, a block of flats, you could have up to 100 different families doing different things. And in your own home, you have a right to do whatever you like, subject to the laws of the land, and an element of common sense, of course. But you've got a lot of people who are unmanaged. In a hospital or care home, these buildings are managed buildings, they have staff, they have maintenance strategies, they have fire alarm testing they have fire alarm practises, so they're a very different type of building. So a hospital and a care home has many vulnerable people in it, but there's also a lot of staff, whereas within our own homes, if we live in a residential building in a flat, we don't have staff to manage us, though it would be nice to have some staff, we generally don't.

The other thing that people get a bit mixed up on is it's HRB which stands for Higher Risk Building, a lot of people often say high risk building or even high rise buildings. But a Higher Risk Building only has to be 18 metres or seven stories, which isn't actually what we would think of as a high rise building with respect to structural engineering. So it's quite important that people realise HRB stands for Higher Risk Building.

The other thing is that in the Building Safety Act the seven storey, 18 metres is not actually defined to give the opportunity for other buildings to be brought into the regime of the Building Safety Act, should that be required going forward in the future. So the definition of Higher Risk Building is not actually in the act. I think it refers to in scope buildings or something like that.

Chris: Indeed, another really good example of where a building type confuses people a lot is hotels. I've heard a couple of times where people go ‘why aren’t hotels Higher Risk Buildings? Why they people live in them. You know, residents, aren't they? Why are they considered to be higher risk?’. Well, it's because again, to build on what Ruth has just said there, the hotels have staff, a great army of staff that monitor and inspect every single residential unit every day. They go in, they inspect it, they test, they do the fire alarm tests, they do all the electrical tests, they clean it. They basically maintain it. There's a level of control that doesn't exist in regular residential buildings. And why is that? Well it’s rights of privacy, isn't it? You don't want your landlord bundling into your home and demanding that they have, or indeed have all the residents have regular

maintenance staff for their residences to make sure what they've got in there is safe. That's up to the leaseholder or the tenant, typically. And because right of privacy is absolute fundamental human right, that does carry with it additional risks, OK, because of a lack of control or lack of monitoring, a lack of ability to mitigate against those risks. So in recognition to that, we've created this new category of building known as the Higher Risk Building.

Michael: Fantastic. Thanks for that comprehensive summary of what HRB's are and what they also aren't as well. It's really good to know from the outset.

I mentioned earlier, and we've kind of touched on this, this is a new thing that the Institution has been granted a licence for with the Institution of Civil Engineers, but how do we get to this point? What's actually led to the creation of the need to have an HRB register for structures?

Chris: I was there at the outset when this all came about, so this is a personal matter to me, but in the first instance you gotta be careful with language because there is an HRB register, but that's a different thing to the HRB Competency Register. So the HRB register is a vast database of all the higher risk buildings in England, Wales and Scotland, so that's a different thing. The HRB Competency Register came about as part of the response by the Engineering Council to say that we need to create a competency register to demonstrate that the people that duty holders, clients, building developers, call them what they will, but the legal term is duty holder, are commissioning people who are competent. And they are, as part of the Building Safety Act, legally required to do that for all buildings, by the way, not just Higher Risk Buildings. It's an important point, but I'm not going to focus on that now. And you have to demonstrate that the people that they're commissioning, or employing if you like, are competent. And that's where it all came from. And that's something the Building Safety Act stipulated. The Engineering Council said 'well, let's help with that, let's help with making sure that happens, we're the best body to actually do that, to engage with that, to actually say, right, we can actually make that happen, and let's make a register for all disciplines, not the structure engineers'. Now I was involved with creating the competency framework, if you like, or contextualised framework of competencies for the register. So that's where I come in. And that's what it becomes about, it's a means by which competence can be demonstrated to those who are commissioning construction experts and specialists.

Ruth: Yes. So the Higher Risk Building Register for structural engineers created by the Institution of Civil Engineers and Institution of Structural Engineers of course was prompted by the fire at Grenfell, and the Grenfell inquiry revealed that lots of people were working outside their competence. It also revealed an element of deceit, an element of lack of control. So this register is one of the many things that have happened in the post Grenfell environment. At present it isn't actually compulsory for an engineer working on Higher Risk Buildings to be part of the register, which is different to registered building inspectors. So everyone who is a registered building inspector, which is a relatively new term, has to be on a register. And registered building inspectors have different classes that determine what kind of buildings that they can work on, so this register isn't actually compulsory as yet, but of course we don't know what's going to happen in the future.

The interesting thing about this register, I think, is that it has a lot more of a human content than potentially other things we do as engineers. So Chris is a member of the IStructE, I think you're a Fellow as well. I'm a member of the ICE and an element of proving ourselves for that focuses very much on the technical. And I'm not saying that's wrong at all. In fact actually we have a responsibility to be really good technical people. But this register has a slightly different essence to it, in that when we're looking at people's competencies, we're also looking at how they understand their role with respect to the people who live in these buildings. And I think too often, as engineers, we think of engineering as a bit of an academic exercise and we actually forget that we're building people's homes, we're designing people's homes. And everyone who is living in a building at the moment which has flammable cladding which is currently being removed will be so stressed about that situation. They're living in houses they can't necessarily sell. Plus, they might actually be concerned about the risk. I found the process of applying to be on the register helped me look at that human element that actually what we're doing is designing homes for people and of course homes are very important to us. They're our major asset often as an owner, or if we're a tenant, it's one of our biggest expenses and we have a right to feel safe in our home. So, I think it's interesting that the criteria to go into this register expects an element of us understanding what we're actually doing. This isn't just about solving a technical problem. This isn't just about delivering a value engineered product, i.e. a building built as cheaply as possible. This is also about building a safe home for someone.

Michael: Thank you both for that information. So what do those who are working in the field of structural or civil engineering need to do to get on to the competency register?

Chris: Well, first of all, we go to the relevant website, which I'm sure will be linked to this very podcast. But the mechanicals of things aside, the first thing you need to do is fulfil these minimum requirements. You have to be a member of either the Institution of Civil Engineers or the Institution of Structural Engineers in some capacity. So, in other words, a professional grade, that grade being Engineering Technician, Incorporated Engineer or Chartered Engineer, the three recognised grades. The second thing you need to have held that membership for at least five years. And then finally, and this is a little bit of soft one here, but I'm going to say it anyway and it might be quite obvious, also actively involved with the design, construction, maintenance, operation and assessment of Higher Risk Buildings, because you may be a member of those institutions, but currently working on a lot of car parks. At which point this is not a Higher Risk Building, is it? It's an obvious one, but it needs to be said. But these are the minimum requirements to be on the register. Ruth, anything else I might have missed there?

Ruth: It is an interesting point that you have to have been a member of the institutions for five years because actually five years post membership is actually quite a long time. You could be quite well into your career. I think it's also worth saying that, and a lot of my colleagues are a bit guilty of this, is that we all think that being an engineer is about designing stuff and some of us design stuff. But some of us also maintain stuff, we're involved with maintenance. Some of us check the compliance. So my role is within building control, so I actually check the design of Higher Risk Buildings, so I don't want people to exclude themselves from applying because that they think that because they're not designing a new Higher Risk Building, they're not eligible. And in fact what we've seen is that a lot of the issues with Higher Risk Buildings are often to do with

things like maintenance, long term maintenance, allowing risks to happen that no one does anything about them, for example, so don't, please don't dismiss yourself from applying to the register because you're not designing a building.

And then of course this register is joined with the IStructE and the ICE. There's lots of people involved with Higher Risk Buildings who aren't designing the superstructure. You might be involved with drainage design or geotechnical design or possibly some civil engineering works to do with high risk buildings. And of course, there's all the secondary structure elements, so you might be someone who designs facades or is involved with balconies or any other system, but the basic requirement is that five years and some kind of membership of the ICE or IStructE. If you're a member of a different institution, like the Institution of Mechanical Engineers, there'll be a different register for you.

Michael: OK. So yeah, that's interesting, Ruth it and it's good to see that it's not just limited to those working in design in structural engineering, it's a much broader register that can cover and accompany people that work on multiple different parts of projects and disciplines. So good thing to note that it's yeah, it's not limited to just a select number of people. So when we're talking about joining the register, what are candidates expected to know before they can think about joining?

Chris: Outside their own technical knowledge of working on Higher Risk Buildings, there's other, maybe less obvious or more obvious things that they really need to be very well versed in. And there's about two or three things that immediately spring to mind that many people do not think, or indeed actively engage with because they don't think they need to. But the reality is they do. The first one is be reasonably knowledgeable of the legislation. When I say that, there's a lot to that because when I say the legislation, I mean the Building Safety Act and the relevant rules and regulations and laws, that it in turn has affected. So that means, fairly obvious, CDM regulations has affected that. The Building Regulations, the Building Safety Act, the fire protection orders. It's multifaceted unfortunately.

But what we'd expect candidates to have is a reasonably well-rounded knowledge of the Building Safety Act itself, and the Building Regulations principally, and also the relationship between the Building Safety Act and the CDM regulations and what differentiates them because one deals with one aspect of construction and another deals with the other side of construction, and specifically, rather than be dancing around it, CDM deals with the safety of the operatives of those who are working on the construction and maintenance and demolition of buildings. The operatives, the skilled work people, you know the constructors if you like or deconstructors, their safety, that's what the CDM has always been about, principally the safety of those who are interacting with buildings in terms of their construction, maintenance and demolition.

The Building Safety Act deals with the occupants of the building. Those who live in it work in it, work around it, who are nearby. It's the occupants, how it affects them environmentally, mentally, that kind of thing. So they're the key differences and we'll expect someone who wants to go on the register, qualified or competent, or deemed to be competent would know these things. So there's other things as well, and there's another sort of key point I'm going to let Ruth sort of chip in on, and this is the ethics, empathy and understanding the needs of occupants of HRBs. That is really, really important because that drives the design of them. That's the point that runs right

through like a spine. It goes right through the very core of HRBs. It's really about the comfort and safety of the buildings occupants, and that must be foremost in someone's mind when they're designing these buildings, or contributing to the design of them.

Ruth: Yes, I agree with that. And I think the other thing that I stressed earlier is that engineers have been very used to working in this industry about solving problems and we possibly haven't thought about the human side of things and we should be remembering that this is about people's safety.

I think with respect to some of the practicalities of applying, there's five attributes that engineers need to demonstrate and technicians need to demonstrate that they have met, and the last attribute is about personal and professional commitment to the profession. As Chris says, one needs to understand the legislation, and we wouldn't expect everyone to know the Building Safety Act and all the secondary legislation off by heart. But it's very important to know the basics of that act, to know the basics of the Building Regulations and approved document A.

Now, of course, people can't be competent at everything, and also there's some things that we were competent at and because we haven't done them for a while, we've become less competent at. But of course, the important thing as someone involved with the design or maintenance or construction of a building is to know what you don't know. And. I think there's sort of four principles that that we need to acknowledge as members of the ICE and IStructE, and that's one of being accountable for the thing that we do. That we're competent and that we are proportionate in what we do and also open and transparent. Now, as someone who checks a lot of designs, I'll get a design submission in and there's quite a few bits missing and the design engineer will say 'well, we're not responsible for that bit'. But of course I know they're not responsible for that bit of the design, but someone else is. And I think often as professionals, we've hidden behind our contracts, and we've known we're not responsible for things, but we also have to make sure that everyone else on the design team knows where the gaps are and understands who is fulfilling that role. So, I think for me the register is a time when engineers can really step up and think about what am I actually doing. Am I doing this? Am I accountable for what I'm doing? And am I delivering design or maintenance or construction competently? And if I see things that I'm not happy with, what am I doing about these things? And of course, one of the aspects of the Building Safety Act is there's mandatory occurrence reporting. And I just don't think we're in an era where we hide behind our scopes of work and our contractual arrangements. You know this is about being professional people and doing what is right and what is right might sometimes be admitting that we don't know something, in which case we then have to go and find someone who does.

But I would encourage people to read the attributes or the objectives and also encourage people to reach out to anyone who is on the register, and everyone who is currently on the register and as part of this committee is quite happy to help people.

Michael: Yeah. And as you say, Ruth, we have a very detailed document on the website, where you're probably listening to this right now, which has all the information about the core objectives that you need to satisfy. So highly recommended to download that, read it fully, take it all in and understand what is being asked of you for an application. And of

course, if there's anything you're not too sure of, you can contact us and we can help the best we can we if the application process.

So as a final part of our chat here, what are the benefits of being on the register for structural engineers, civil engineers, people working in the structural engineering, civil engineering field in general?

Chris: Independence.

Michael: OK.

Chris: And that sounds a bit strange, but that's the best way, it's the most succinct word I can come up with. The thing about being on the register is that it demonstrates that you've been reviewed by your peers in an independent forum outside of your work colleagues, outside of your organisation. Even those who you work with externally, like clients and contractors. This is people who don't know you from anyone, OK? Don't know you personally at all. And they're assessing your competence against a very strict set of criteria, which is well detailed. And that's really affecting. That's really powerful. To have that to say yep, I have people, peers who I don't know who've assessed me against these very strict set of criteria. That I've spent effort, the effort spent, is not insignificant to actually get on to the register, and it is not easy, but it needs to be that. It needs that kind of elevation in terms of effort to get on to it because the benefits are multifold.

First of all, it demonstrates independent peer review. Second of all, it does prove, but it's not a panacea, but it does put a great deal of weight into your declaration of competence. But it is not a panacea. It's not everything you do, it has to be backed up by other things, like your own CV and past work experience and recent project experience that would be still be expected you to share. But having that protected title, which by the way it is a protected title, so you could become a Chartered Engineer, Incorporated Engineer, Engineering Technician with the follow on bracket HRB. That's a protected title that you gain once you get on the register. And once you do that, it derisks things as far as the client is concerned. Sorry to talk like that. It's very commercial and cold and heartless, but ultimately this is about investment as well and money, we can't ignore that. It would be naive to do so. Clients want to say duty holders are trying to de-risk their personal exposure to legal action.

And one of the ways they want to do that is to ensure that the people they commission or employ, if you like, are competent and one of the ways they can do that is to have people who are on a recognised register, and this register is not something that's being cooked up by the Institutional of Structural Engineers or the Institution of Civil Engineers. It's not cooked up by them at all. It's been developed by the Engineering Council, and has been ratified by the Privy Council, so this is a significantly sponsored thing. This is not something that a group of engineers have come together and said 'let's do that'. Not there's anything wrong with that at all, I'm not diminishing that at all. I'm just saying this particular register has a lot of weight behind it, a lot of oomph behind it because the industry itself has been reacting since Grenfell all those years ago now to say this cannot happen again. And unfortunately, there's still things in line that we're not quite there yet, but we need to do more and do better. And this register is part of that.

But ultimately it's really about you demonstrating your competence by your peers, independently of your people, and also giving some comfort and some evidence to your duty holders, to the people you work with, for, that you've been commissioned by, that you are indeed competent. Ruth.

Ruth: Yes, I would like to add to what Chris has said that it's a relatively difficult process and therefore, I don't want to put people off by implying it's so difficult, don't get started, but because there was an element of work to join the register, when I got onto the register, I actually felt quite proud of myself. I felt quite pleased and as Chris says, we were judged by people who we don't work with. And those of us who are sort of more mid to late career, the last time we were sort of tested in this way was when we became members of these institutions. But for me that's 23 years ago and so it was quite nice at a mid to late career point to think, oh yeah, yeah, I've actually demonstrated something again.

And the other thing is, if I was a client appointing a design team or a contractor, if I knew I was appointing people who'd made a commitment to their personal learning to their CPD, to their career development and their professional development, I would look at them very differently to a bunch of people who've never done anything to keep up with their learning. So, post chartership, post IEng or post EngTech, we're expected to keep up our CPD, but we aren't often tested in this way. So yeah, there's an element of personal pride. There's an element of actually sitting back a bit and reflecting on what we've learned. And sometimes the writing of something demonstrating how you meet these attributes actually can be like 'oh my gosh, I didn't realise actually, I knew quite a bit and that I've reflected on this'.

If we look at the commercial thing again, again I check buildings for compliance to the Building Regulations and I work for a company and we have a contract with the Building Safety Regulator. So we are checking buildings that are going to the regulator for approval. It's very costly if there are delays in your approval, so for developers, they need to know that their teams can get these buildings through Gateway 2 and then through Gateway 2 later on. And so there is a commercial merit to this. Then finally of course we could end up at a point in time when it is compulsory to be on this register, as it is with our Registered Building Inspector colleagues.

Michael: Thanks both for all that information about the HRB register. You can find all the information relevant to this register on the IStructE website. We've got multiple documents to download. There's a value statement on which this conversation is kind of based upon. There's lots of information about the competencies that you need to demonstrate as part of the application process. So head over to the website, download everything you need to have a good read through it and then start to build your application in your own time.

Chris, Ruth, thank you so much for your time and for giving us this information on HRBs. You were obviously heavily involved in the creation of this and the guidance document, so you're the two best people to speak to about this. So thanks for your time and for everyone listening. Look out for more of these membership talks coming your way very soon. Thanks very much.