

The Building Sustainably Podcast

Episode 1: The Future of Building Green with Chris Trunkfield, Senior Design Executive at Moda

Host: Ben Stockdale, Director, RPS

Guest: Chris Trunkfield, Senior Design Executive, Moda Living.

Intro: Welcome to the Building Sustainably Podcast by RPS. Sustainable, resilient development demands a new approach to how we plan, design, and build. We invite you to join us as we explore real-life case studies and offer practical guidance. Here's your host, Ben Stockdale.

Ben: Hello and welcome to the first episode of the new season of the Building Sustainably podcast. I'm your host, Ben Stockdale. Recently, I had the pleasure of catching up with Chris Trunkfield, who's a Senior Design Executive at Moda Living. We discussed the latest developments in ESG, how they're impacting Moda as a business, and specific projects like the Mercian in Birmingham. We hope you enjoy the conversation and thank you for listening. Chris, if you could just go through, introduce yourself and your role within Moda Living.

Chris: Thanks for having me. Yeah. So, Moda, I'm senior design executive. So, I look after design across all of our projects and portfolios. I'm an architect by trade. That's where my background sits. But now since I've moved over to the client side, I look after all design, all of the front end in terms of brand standard information, as well as monitoring our schemes architecturally.

But more relevant to this podcast, I think, is I've helped drive the ESG standards and agenda within the business.

Ben: Okay, so just picking up on that point, obviously ESG is important to Moda, can we just touch on why that is, why ESG is important to Moda as a developer, and obviously, particularly yourself and the role that you have within Moda?

Chris: Yeah, of course, I guess the best place to start is Instead of thinking of this as a corporate requirement within a business like Moda, it's best to start with the individuals within it. It's a family business, it's Yorkshire based, it's not a London centric developer, and it's made up of a lot of passionate people, whether that's within our HQ within Harrogate or within one of our neighbourhoods across the country.

And ESG is deep rooted in all of those individuals, and everyone's sort of passionate about pushing it and furthering it. From my perspective, as I say, I come from an architectural background, all-encompassing ambition for me is to always leave the built environment a better place. If you think of that broadly, ESG is absolutely integral to that.

If we then think about Moda as a business, so from a financial perspective, the business aim is to create, if you think about the business and financially is to create a sustainable, long term net operating income in our neighbourhoods to ensure that the investment remains credible. That's from a purely financial standpoint.

Now, if you consider that going hand in hand, With ESG. So, in order to do that, in order to have that sustainable business plan, we have to create sustainable, happy, healthy communities of residents that want to live in our neighborhoods for a long time. It's holding on to those residents for a long time.

And if you're not producing that, then you're not going to hit your ESG aims. So, it's not necessarily a tick box exercise that we're doing in a very corporate environment. It's very integral to the business aims.

Ben: So, do you think with Moda being a developer and an operator, they are able to take a different view when it comes to ESG and then the incorporation and they have a longer-term involvement in projects, and they have an ability to incorporate more ESG strategies into the projects that they deliver?

Chris: Yeah, I think being in BTR, I think we're in a very unique position when it comes to ESG. So, we're long-term custodians of the site and of the community. We're well integrated into the local context. Because we're there for the long term, we're not just trying to necessarily sell apartments. We're there for the long term, we want to have that sustainable revenue stream.

We have a more vested interest in it remaining sustainable.

Ben: taking that longer term view on sites enables things like the way you approach the incorporation of ESG and potential impact on viability. You can take that longer term view and possibly that differentiates you from other developers in the industry because you have that opportunity not just to look at the site as a development in the short term, but the longer-term impact on your customers and your residents further down.

Chris: Yeah. Yeah, absolutely. And if you consider our investors, which are the other side to this coin, we want to be mitigating risk. For the asset and for those investors for as long as possible. So, we're having to look forward to the emerging and the future unknown regulations as well as climate change. So, we're having to design our buildings now so that they can be adapted, they can be changed in 30 years' time.

And if the buildings then sold on in 20, 30 years' time, it's still in a position to do so. It's often referred to as Well, it has been referred to as the green premium. It was thought that ESG credentials within a project would give an asset a green premium in terms of value. But what we've actually found is if you're not doing these things, it's going to instil a brown discount as we call it.

So, it's going to actually reduce the value of that asset.

Ben: What trends or environmental trends are you seeing that's shaping this topic in construction at the moment?

Chris: So, I guess for us, so carbon reduction, I'd say, particularly from my perspective as an architect as well. So, carbon reduction is massive for us.

It's hugely challenging. So, what we've done over the last few years, we've incorporated embodied carbon as well as operational carbon targets within development. And we're working towards those targets. So, when it comes to operational carbon. It's much more achievable. We're doing, typically doing all electric schemes.

They generally include individual air source heat pumps within apartments. In doing that, we managed to bring the energy usage intensity of those projects right down. So, as we've seen across the board, we're getting very close to that LETI RIBA target at 35 kilowatt hours per meter squared. So, in terms of operational carbon, doing really well.

It's now the embodied carbon that's the focus. It's often thought of as an iceberg, and the tip of the iceberg that you can see above the waterline is what we've been addressing and what regulations have been addressing for the last few years, which is the operational carbon, and now we're having to address this much bigger expanse below the water, which is embodied carbon.

Ben: And I suppose that embodied carbon in your projects that starts from the very early stages, the development of the brief and setting those, setting that strategy in that brief from the outset and getting the consultants and the design team on board at the early stage to bring it in.

Chris: I guess first and foremost, it's about getting the right people involved, getting the right consultants in, because they're the ones that are going to enable all this.

They're the ones that do all the hard work for it. So, we just need to ensure that we pay them the right fee, their scope is correct, and we give them enough space to manoeuvre to do the job right. So that's first and foremost. Secondly, we need to set all of our targets correctly and we need to ensure that the projects are doing the right assessments.

And the earlier on you can do all of that, the more impact you can have. So, we like to take form factor and fabric first approach. If we're dealing with a larger site, we're considering where those buildings are placed, how they're orientated, even taking into account early wind assessments. The orientation of the building can

affect the structural calculations of it, which can affect this main content, size of columns, the size of substructure, which all affects them.

Yeah. All of those decision making as early as possible. And then we run those assessments throughout the design process.

Ben: So, in terms of if you took the sort of the traditional the time cost quality assessment of Changes or development of project briefs carbon reduction or carbon impact is so becoming the fourth element of that I suppose

Chris: Yeah, definitely.

Yeah, so originally you sort of think of that as a triangle, don't you? So now we're beginning to think of that as more of a square. So yeah, exactly. As you said, we're balancing cost time quality as well as carbon impact.

Ben: And do you think going back to obviously the, what we said about the long term or your future customers, are you seeing trends?

I'm guessing you're seeing trends in what they want from a place to live. So, you know, things like carbon reduction or just generally ESG credentials of building, that's something that your future residents and future customers are really looking for and really value when they're considering where to live.

Chris: Yeah, the data at the moment for us, so we're moving from millennials to call it Gen Z, don't they? I think so. I'm never sure which one I'm in. Yeah, we're having this generational shift at the moment. And I'm hopeful that in the future, or in the near future, residents will start to go to a project or rent in a neighbourhood.

The development that performs highly and that will be a big part of the decision-making process. I don't necessarily think it's there at the moment. We're not seeing the data for it. There has been research that offers up that residents prioritise, or it affects their decision making, but we're not necessarily seeing the data from it in terms of letting our spaces at the moment.

They're probably more concerned about the rent, electricity bills, et cetera. But as I say, I'm very hopeful that within the near future, people will start to sort of move with their feet on it.

Ben: Yeah, and then I suppose as a developer you can then be able to see that in the rental values that you're getting so that investment that you've made in the early stages then comes to fruition when you're seeing customers or potential residents really valuing that and being willing to pay a bit of a premium for it. Because it's something that they really value in how they're impacting the environment by things like the place they live and why they choose to do that.

Chris: Yeah, I think the intention's there with a lot of the younger generation, but I think, and it's probably on our part as a developer as well and as an operator, we need to inform them about what that means.

They might, a lot of the time, they might prioritise recycling when the impact of that. Well, 40 percent of all carbon emissions that are put into the atmosphere are done by the built environment. There are far bigger issues relating to construction that you should be prioritising. So, it's probably more about informing and educating residents so they can make the right decisions on deciding where to go.

But as I say, we're not necessarily seeing the data.

Ben: And then I suppose just picking up on the point you just said there about the specific impact of the built environment and particularly picking up on things like net zero, which, you know, from an RPS point of view is something that we're working heavily towards with all of our clients.

But is that something that Moda are focusing on in any way?

Chris: Yeah. So, we have a net zero strategy. So, we're working towards achieving net zero by 2030 with our operations. It's very much a moving space. We're developing it as we go along, well, because we're part of a wider group as well.

So, we're part of the Caddick group. We're trying to bring in a group wide strategy. That's going to trickle down into the various subgroups as well. But let's say we have an established strategy that focuses on

carbon. We have targets that we want to hit for operational carbon for both 2025 and 2030. The same for embodied carbon.

As I say, much more challenging for embodied carbon. We also pull on other metrics, such as potable water use, which is a key metric within the RIBA Net zero strategy as well. So yeah, we've very much got our eye on emerging regulations, best practice. and industry best practice. I'm particularly looking forward to the emerging net zero carbon building standard, which we hope is going to be released towards the end of the year.

Ben: We said earlier about you're not currently seeing the trends, but the next point was around your data collection and the engagement with residents that you undertake in the operation stage of your building. So, could we just touch on that a little bit more and understand how that's being used to drive sustainability more so in the operational side of a project?

Chris: Yeah, of course. So, we're collecting a massive amount of data. Sometimes you want too much data, but we're collecting a massive amount of data. So, throughout the development phases, we're doing operational carbon assessments. So TM54 assessment model how Residents use our buildings, whether that's going through the lifts, going into their apartments, turning light switches on, putting the TV on, the heating, the cooling, every single factor that generates electricity within our buildings gets modelled within that system.

And that helps us design which systems we put in our building, which methods of hot water, heat, etc. So that gives us all that data. We then meter, or our prime schemes that are operational at the moment, they all have some metering. We can have live data on the operational use of each of those apartments, as well as our landlord spaces.

So, we're getting in a position now where we can compare those TM54 assessments that were done in the design phases, and we can then compare them and analyse it against the actual in-use data. And the benefit of that, and the purpose of that, is to then reduce the performance gap. We want to be able to more accurately assess how our buildings are going to be used to more accurately assess the systems that now we design.

So that's one side to it. The other side to it is because we're sub-metering it, we know where the building is actually performing against industry standards and against our own targets. Now, we don't have direct control of that because how a resident uses their apartment is up to them. Whilst we give them all the systems, you know, we can ensure it's all electric so it can then be powered by renewable sources and it's not creating on-site emissions.

Or indirect emissions. So, we do that, but we can't necessarily control how they're going to use it. So, what we're now looking at doing is engaging our residents based on that data to try and encourage them and inform them and educate them about how they can better use the hot water, their electricity, the potable water usage.

So, we just started to do that now, and we're going to do that via a number of ways. So, we have a resident app. And all of those sub meters that go through the Utopia platform can then be fed back into that app. Yeah, so through that, we're going to be able to start engaging with them. Some of the ways we want to do that is through gamification.

So, we think one of the softest ways of getting people on board with this is gamifying it and getting them to perhaps compete a little bit. As I say, do it in quite a soft way. So, you can have a scoreboard on the building and not necessarily calling out individuals, but you could say whether you're in the top 10 percent of performance within that building.

Or we could set challenges within the development, within the neighbourhood. Set challenges, see how they meet here, we could put prizes on it. Yeah, there's a whole assessment going on at the moment, designing how we're going to do that.

Ben: Are there any examples where you implemented that gamification or that education of your residents and you've seen actual real impact?

Chris: So, yeah, so the past Christmas, so Christmas just gone, we had a campaign or our very talented on-site teams, marketing teams had a campaign across a number of our neighbourhoods to reduce energy usage over Christmas, over the holidays. So, it was identified through that sub-meter, and it was identified that residents were leaving to go home or to go abroad over Christmas and they were still having quite a bit of a large energy meter.

So, the readings on the energy meters were still quite high, so it was clear that heating was being left on. There might be lights on TVs on etc. So yeah, that was a key part of resident engagement. So, what the teams did was. They marketed it and they really engaged with the residents to try and get them to turn all of those things off over Christmas.

I suppose it's funny to say, so we have all this technology. We have sub-metering, we have the app. But one of the most effective methods was a guy stood in the lobby dressed as the Grinch, speaking to residents, trying to encourage them to turn the lights off, turn the heating off when they go for Christmas.

And it turned out that actually worked really well. And we saw a 70 percent reduction in, I think a 74 percent reduction in the Lexington. For those apartments in terms of electricity usage over Christmas. So yeah, really good example of how you can engage. We want to roll that out.

Ben: I'm guessing that wasn't part of your role as ESG custodian to dress up as the Grinch.

That was left to somebody else. It wasn't yourself.

Chris: Yeah, I never got the offer. I might tell you if I got the offer.

Ben: Okay, we sort of talked about the environmental element of ESG and ESG strategies, but I suppose moving a little bit towards the S, so the sustainable elements and how local recruitment and employee training to create that sustainable construction industry, I suppose, and how that's playing a part of Moda's, part of their ESG strategy, so looking at sort of skills, because I know working on a number of projects with yourself, you know, Certainly in Birmingham, that's a key part of what Birmingham City Council focus on in terms of their planning requirements for training and local employment.

How does that factor into Moda's plans and strategies moving forward?

Chris: Yeah. So, employment and recruitment and social value, massive part of our ESG strategy overall. We're fortunate that we work with a lot of really good contractors as well. So, you mentioned Great Charles Street where we're working with Sisk.

So Sisk. They're really, really well in terms of that social value piece. And we're fully engaged with them and working alongside them on it. So, yeah, we already worked a lot of times to contrast that do that very well. From a client point of view. So, what we're doing is we added requirements within our ESG standards, which goes into the employee's requirements on projects that has particular requirements for contractors on employment, apprenticeships, there's various metrics that we want them to hit minimum metrics. And that's all off the back of what we've done with contractors like Sisk on previous projects.

In addition to that, when we talk about data, so the challenging part of this is how do you get the data for it and how, and is it accurate? So, what we're doing is we're working with RLB on all projects now, and we're doing social value assessments, preplanning. Post planning and then at PC (Post-completion) so that those assessments should allow us to bring together all the metrics and understand and benchmark where each project sits.

I think the challenge of that though, Ben, I was at a conference on Wednesday, the BTR annual conference and when social value came up, there's about 200 people in the room. So, when social value came up, one of the speakers asked, raise your hand if you can define what social value is.

And out of those 200 people, about two people raised their hands, and then he said, keep your hand raised if you agree with the other person's definition. And then they both put their hands down. I think it's really important to understand that social value is a bit of a dark art. It's very difficult to get accurate information, and it's very difficult to quantify what social value is.

I think it's very important for us to be understanding it, to be assessing it, and to be putting initiatives in. But it's not as easy to quantify it as, say, carbon, where you've got, you might know the exact carbon coming out of that piece of concrete or that piece of plasterboard and you can add it to the pot and so for that is very difficult.

So, we had, so in the mercy and we had a young apprentice that joined Sisk. They stayed with, so they had all the skills and training with Sisk. They then worked throughout the construction period on the site all the way through to PC. Following PC, they then applied for a job with Moda to maintain that building moving forwards, which they got.

And they're now at, they're still at the Mercian and they're still maintaining it. If you think that massive lineage of employment and what's been taught to that young lad, and now he's continuing on past that initial construction, it's difficult to quantify that and put a value on that, isn't it? Put it in a spreadsheet.

So yeah, I think it's very hard to define what it is and it's very hard to quantify it, but it doesn't stop the fact that we need to be doing it.

Ben: Yeah, I suppose it's difficult to quantify it in a, like say on a spreadsheet, but it's relatively easy to understand for that young, that young lad that was starting off in his career before the Mercian was being built.

He was starting off in his career and the Mercian is giving that career. It's given him a long-term future career of operating the building. I imagine he's got quite a unique perspective, because very rarely do you get to work on a project, deliver the project, and then actually operate it. I'm sure there's been sometimes where the rest of the ops team, the rest of the ops team have, I've sort of given a little bit of stick for that if they've come up against any issues.

So he's definitely in a unique position there, isn't he? Of living and breathing that all the way through for a number of years. And that's given him his career, which is great. And it's obviously the main aim of those targets that the local authorities set, or developers set for themselves of making a real impact, which might not be able to put on a spreadsheet, but you can see it's got a real impact on people in the local community.

Chris: And that's just one story, isn't it?

Ben: Yeah, and obviously you at Moda operate. We talked about Birmingham a little bit, but you operate across the whole of the UK. So do you see that value of engaging with the local community population, the local workforce as being a key part of your sort of successful delivery of your projects.

Chris: Yeah, absolutely. As an architect, it's not my area of expertise, but we have a lot of good examples of what we're doing. So, in Hove, we've got an art installation, a massive mural that's being produced out there using local artists. We've got collaborations with institutions like Glasgow School of Arts we're working with, and we hope to further work with charities.

In Birmingham, on our Stone Yard project, I think it's really important because Moda projects, Moda neighbourhoods, they're not dropped into a city, they're not islands or compounds, they're deep rooted in that local area and the local context. We employ from the local area, we need people to work within our buildings that know the area, they know all the good places to go, they can speak to our residents and tell them about a good restaurant around the corner, they're deeply embedded in it.

So, it works with the business strategy as well. So yeah, it's incredibly important.

Ben: Okay. Just moving on from that then. So, in terms of comparing or comparing yourself against peers and alternative developers, what sort of benchmarks or accreditations are Moda working towards on their projects? Because you want to demonstrate the good work that you're doing on your development.

So, is there, what sort of accreditations are you focusing on?

Chris: Carbon aside, so I think we've talked about carbon quite a lot on social value. We use certifications to demonstrate the performance of our schemes. We're already doing quite a lot. It's difficult without a certification to demonstrate that and for it to be legible and transparent.

So, we use on our PBSA, our student schemes, on our co-living schemes, we use BREEAM. So, part of that BRE suite of certifications. And we target BREEAM excellent across all of those projects. For our residential, so our build to rent schemes, we use Home Quality Mark, and we target 4Star. So, they're both part of that same BRE family.

That's focusing more on sustainability aspects. We also use FitWell, which has a bit more of Health and wellbeing focus. And it works quite well in terms of operations. So, it assesses, you have to redo it every three years and it assesses how we're operating our buildings. So, we target three stars with FitWell as well.

We're fortunate to, because of how we've been pioneering FitWell in this country, US certification, because of all the hard work and the successes we've had across our projects, we've been invited to what they call the FitWell champion status within the last year. Yeah. We use those certifications to demonstrate our performance in ESG.

Ben: The next point I wanted just to cover was, you touched on it earlier, but in terms of you're in the unique opportunity as being the operator, that you have access to the people that ultimately occupy your buildings and your residents. So again, you can capture that data and you talked about how you're capturing that data with residents, feeding that back into designs.

But does that engagement with your residents' impact or influence your ESG strategy?

Chris: Yes, it does. Yeah. So, we are routinely pushing out surveys. We don't want to give the residents survey fatigue. You don't want to be doing too many, but we do push out surveys to understand what the priorities are for our residents.

Some of the metrics we've heard is 90 percent of residents say that their living environment impacts their wellbeing. Absolutely true. So, what we've been trying to design into our buildings, it's just good architecture really, so it's good levels of light, biophilia within the spaces, so views of natural spaces, external foliage, trees, green spaces, all helps mental health and wellbeing.

We've had 70 percent value of the community and 77 percent are willing to pay a premium for higher quality amenities. The amenities that we put in our spaces are absolutely amazing. They could be private dining rooms on upper levels that have got city lounge spaces with them. Cinema rooms we have, particularly following COVID and working from home or we put in really generous co working spaces now.

So, this is like the equivalent of going into your grade A office scheme. We have those spaces within our buildings now. So, a resident doesn't have to work from home in their apartment. They can have that clean separation between where they want to live, where they want to work. So, they can go downstairs, they can go to the co working space, leave their monitors down there, the keyboards, and they can take up their space, work alongside the wider community.

And some of our residents even run businesses out of our buildings. Further to those, we're always pushing out those surveys, but also, we have within each apartment put in what's called a utopian multi-sensor. So that multi-sensor pulls out a load of metrics such as light levels, air quality, acoustics, temperature.

So, using all of these metrics, we can ascertain the quality of the space. And we can also work out whether the space is used optimally. So, during the hottest days of the year, when there's a risk of overheating, we can know whether the curtains are closed or open, the windows open, et cetera. So, you can then push out cues as well to help improve how residents can use the spaces.

Ben: Yeah, again, creates that feedback loop, doesn't it, if there's lots of things I'm sure that are discussed in a design team early on in a project and people have this assumption about how residents are going to use a space or how residents are going to use their apartments, how they're going to use the building, but then actually until you see it in reality and actually capture that data and say, those assumptions, are they valid?

Because as you said, you can't influence, you can't tell people how to live in their spaces, but you can at least educate them, capture the way they're doing it. And then at least understand what's the reality is to hopefully then be able to either improve a live project or feed into future projects. And the design decisions that are made on those future projects are influenced by that.

Chris: Yeah. We want to keep that, as I say, that's the benefit of being a vertically integrated developer. We have that constant loop. Design, construction, delivery, operations, back into design, development, that loop keeps on going and keeps on going, you've got to keep putting in the lessons learned back into it.

An example of that, so we also put occupancy sensors within the amenity spaces, so it can count how many residents go into certain spaces and whether they're coming in or going out at any particular moment. And as I say, we put in cinema rooms within all of our schemes. Generally, and those cinema spaces are quite large.

They can often seat 20 people, maybe more. But what the data has been telling us when we look at it is, it's rarely ever used by the maximum capacity. And when you actually look at how many people are in there, it's usually about three to five at a time using that space. So, when you consider that you're not really designing the space for those three to five people.

Because if you were to split it in two, have two rooms of ten or even less, you could then cater for two different groups at the same time. Yeah. So, it's little things like that we're always tweaking and always trying to maximize, but yeah, it feeds back into ESG as well. And I mean, it's in place, such an important part of health and wellbeing.

Ben: And do you think that gives Moda that competitive edge over other build to rent developers or other developers in the industry being able to have that unique position in the market?

Chris: Yeah,

Ben: absolutely. Yeah, absolutely. I suppose what I want to talk about now is what do you think is coming next? As you said, it's constantly evolving this whole part of the industry.

So, what or how do you see ESG strategies within the residential development moving forward as we look to future projects?

Chris: I think there's going to be a much bigger focus on health and wellbeing. So, I think we have been doing that more, more and more, but I think there's going to be a huge focus on it, which is, as I say, it's an integral part of ESG.

It's an integral part of that social piece. So if you think, as we talked about Gen Z moving forwards, I read that a teenager at the moment downloads 80 gigabytes of data in, as in not physical data, but their mind, Has the equivalent or downloads the equivalent every day of 80 gigabytes of data through watching TV, watching screens, scrolling, and it's massively contributing to depression, social anxiety, all these other issues that modern society is having at the moment.

So, I could see us regressing a little bit from where we are now and really concentrating back onto the fundamentals of health & wellbeing and simplifying. Our lives and the way that BTR can react to that is how we provide our Communities, ensuring that it's not about gimmicks. It's not about necessarily about putting a golf simulator in or other sort of things that could be construed as gimmicks.

It's all about just getting back to good quality spaces, external amenities, really good quality, external amenity, spaces that can help you come together as a community, flexibility within those spaces, really good quality light. So, looking what grade A office schemes do in terms of floor to floor heights and ensuring that you get maximum daylighting into the spaces.

The acoustics are right. As I said before, biophilia, so you can see green spaces, you can get that psychological effect of seeing trees, seeing plants. You can also bring them inside of the spaces. So yeah, I think a massive focus on health and wellbeing. Secondly, work from home. So, more flexibility post-COVID for those co working spaces.

And not necessarily just open office spaces for people to work in. It's got to be much more crafted, much more for the specific needs of those residents. And then thirdly, just pulling back to carbon, I see, I don't know, within the next 10, 20 years, we might start regulating embodied carbon. And that will be the real catalyst of change in the industry.

I think it'd be a challenge to meet now because of viability issues, but in the future, or in the near future, I can see them regulating embodied carbon, just like operational carbon is regulated within London or embodied carbon is regulated within publicly procured instruction.

Ben: Okay. Any tips? You spoke about the idea of PBSA and co living are two things that Moda are moving into as well as Build-to-Rent.

So, is there, do you see consistencies you see differences in those other sectors of the wider residential sector and construction between them and what you've learned in Build-to-Rent?

Chris: Yeah, well, I think there's a massive crossover between them, between PBSA, BTR and CoLiving. It's all on that life cycle, all on that lineage of capturing a resident and providing for a resident in a neighbourhood throughout their life.

I think, yeah, there's a massive crossover through what we provide in, within our amenity spaces, the front of house offering. In terms of the connection that the residents have with the Moda staff that first on a first name basis, checking it on them, basically parts of a part of a community and friends.

So, there's a massive crossover between them. The change is a density layout amount of private space. But yeah, I see them as all being part of that same family.

Ben: So, I suppose the residents in the build-to-rent, what if you're build-to-rent developments or whether they're a resident in a PBS apartment that they're still looking for those same things, aren't there that nice space that

Chris: yeah, the same priorities, the same

Ben: priorities are being applied and he can apply, you know, can sort of take the elements that you've learned through the build-to-rent development you've delivered and apply them to those other areas as well. The other thing I just wanted to touch on was about technology and whether there's any thoughts in your future plans about how technology can start to be used in some of the analysis of the data that you've talked about, and whether we can touch on AI and whether there's a way that can help you.

Chris: Yeah, we're keeping a keen eye on it at the moment. As I say, there's a mass, there's a huge overwhelming amount of data that you can now pull out of developments throughout the design and operational phases. So, I think AI is going to be able to assist in that. We just need to be careful in the way that we do it and ensure that you've still got that human element to it. Because essentially, you're dealing with neighbourhoods and communities of people.

So yeah, we have to do it in the right manner and use it in the right way. But I think there is an opportunity for AI to push through all that data and create outputs. So, a lot of the, so say the multi-sensor information that's being pulled out of apartments at the moment, for us to action any of that, for us to advise a resident or inform a resident that they're using far more water than the RIBA target suggests. So, that 100 or 110 litres per person per day target. If you spot that you need a person to read through the data to then go and engage with the resident to try and encourage them to reduce their potable water usage. We haven't got to the stage of doing that yet, but yeah, a human, a person needs to do that and that takes a lot of resource, and it takes a lot of time.

So I think in the future, there might be an opportunity to have AI work through that and could probably connect multiple data points together so it could consider, as I say, if the space is overheating, it could know that the windows are closed because of the CO2 levels it's detecting and because of the light levels it's detecting, it knows that the blinds are fully open.

So, it could then push out a suggestion via the app, say, to the resident saying if you want to make the best, if you want to purge the space to reduce the temperature, you've just got to open your vent panel, open your window and close your blind. So, it's, yeah, it's informing and it's dealing with the human element when it comes to building performance.

Ben: Yeah, we're a little bit away from having robots knocking on residents' doors to tell them to, uh, to turn off stuff.

Chris: Yeah, exactly.

Ben: I don't think anybody would want that. And nobody would want that. Nobody would want that. Yeah. You spoke earlier about the, obviously the Mercian of which as RPS, we're very familiar with.

We've worked on that, and it's been open for about two years now, I think coming up to two years. So, can we just talk about that a little bit in terms of sort of the challenges you faced with that building, which was delivered on Broad Street in Birmingham, and how they were overcome?

Chris: Yeah, of course.

It's already a challenging project in terms of Carbon because it's well, it's the tallest residential tower in Birmingham, 42 stories, fairly challenging site on Broad Street. Yeah, the way it was approached, and actually it sits as quite a benchmark for Moda and for the industry. It's quite a simple tower in terms of mass.

It comes back to that form factor, fabric first approach. So, get a simple mass. It's a tall, slanted tower and it has a podium element. So, the design team, the contractor, structural engineer in particular, worked very hard to reduce the cement content of the building. So, if you think the biggest contributor to carbon in the construction industry is generally concrete use to structural, and that's the frame and the substructure.

The design team worked very hard to minimise the amount, so reduce more than anything. So, each of the floor slabs was as thin as possible post tension. So, they got it down to as thin as they could, because of its height and its repetition, the columns that continue up reduce in size as you go up, again, reducing the amount of concrete, the amount of cement within those columns.

The form of the building, because of the form of the building, there isn't a basement. So, it's got a clear front and back to the building, so you can have a service entrance to the rear. What they did was they had two stories of parking on that floor. So, the parking and the plant was put at ground floor, and it was pushed up to first.

So, it reduced the need for a basement. And typically, a basement can be 10-15 percent of the overall embodied carbon value of that scheme. So, they avoided that. The remaining concrete use that was in it. To further reduce the cement content, they introduced cement replacement and recycled aggregates, so they got the percentage of cement replacement, which is GGBS, ground granulated blast slag, they got that percentage very high, as high as they could, to reduce that cement content down.

They did simple things very, very well with the scheme, and it, for us, it sat as a benchmark of how we should be designing. Because it's still one of the tallest towers within Birmingham, but it managed to get an embodied carbon value in terms of upfront of, I think it was around 325, 350 kilograms of CO2 per meter squared.

And to put that in comparison, that's, approaching the LETI target for 2030, which I think is 300 per meter squared for upfront embodied carbon. So yeah, performing really, really well.

Ben: And I suppose that was an achievement. You spoke, obviously, from a structural engineer's perspective and the rest of the design team, but that goes back to you as the client, giving them that little bit of scope to push what was achievable.

Well, that project was finished two years ago, but it was delivered over the, you know, the prior five. So being able to, from the consultant's point of view, having that direction from the client to push what's achievable and be innovative in the designs that they're delivering for you.

Chris: Yeah, absolutely.

Giving enough flexibility and empowerment to really drive down those elements. And it wasn't necessarily, thinking back, it wasn't necessarily something that came from the investor side. So, you know, a lot of what we're doing that's good now is reacting to what our investors need. But in the situation of the Mercian, I think it's all down to the really great work of Sisk and the design team, as well as RPS, obviously, performing really highly.

Ben: Good. So obviously the Mercian is a project that's live and occupied. So, another project I'm heavily involved with from an RPS perspective is Great Charles Street. It's also located in Birmingham, can we just talk about that and how that neighbourhood is currently being delivered over towards Snow Hill in the city centre?

Chris: Yeah, sure. So, it's a 2.6-acre brownfield site that we're transforming. So, it's going to become a dynamic new neighbourhood. It's on a surface car park that's been around for about 70 years, un.developed. Amazing piece of development that's happening at the city centre. At its highest it's 39 storeys and then it's got a very large podium element as well.

And it's delivering 722 homes. Again, a very challenging site, sits within the Jewellery Quarter Conservation Area. The tower elements very much city facing, temporary, modern tower, whereas the podium elements speak to the conservation area much closely. They relate to the local vernacular, so it incorporates a lot of traditional brickwork, deep reveals, really sort of detailed fenestrations.

So yeah, absolutely beautiful design. But it's also picking up on a lot of the cues and a lot of the efficiencies that we learned from the Mercian. And with that being delivered by CISC as well, and similar sort of design team, we're hoping it's going to perform, yeah, perform well in its own, within its own site constraints.

Ben: Yeah. And it is in that loop. It's in that, a unique location, isn't it? Within Birmingham city centre, as you say, it's one side is very much a nod to the financial district called Colmore Row and the city centre. And then it very much drops down and links with the jewellery quarter and that conservation area.

So, it's in a very unique spot.

Chris: Just to sort of go back to the social value. So, what was done on the Mercian, or started on the Mercian with Moda and Sisk, was part of the Employment Skills Hub. It's about training apprentices prior to construction, and then giving them the opportunity to be interviewed, to then gain a job for the construction of that site.

This is also, and that's in collaboration with Birmingham City Council as well. So that was done on The Mercian, and it was done really well, and the lessons learned from that and the benefits of that have now been taken and they're being done on Great Charles Street as well. So, on Great Charles Street, it's going to create 470 new jobs.

Which includes employment from the Skills Hub. And there's a massive aim on local employment. So, bringing in young apprentices, young men and women, trained to work on-site, and then with the opportunity to then be employed on that site. And then, again, with the situation of the Mercian, I hope that a number of those will then go on to, most of them will go on to other construction jobs, but hopefully we'll get a few of them to remain on throughout the operations.

Great Charles Street as well.

Ben: And then I suppose the other key scheme that you, or key project that you've got, which is slightly different from Great Charles Street, is the new Garden Square, that's a bit more incorporated in the master planning element. I know at the moment the delivery or in the process of handing over the first phase of that, but then there's future master plans that are coming forward.

So are you just able to talk about that?

Chris: Yeah, so we've got the New Garden Square development, which is also in Birmingham and Edgbaston. So, it's an 11-acre community, slightly different massing to what you see at Great Charles Street, but it's based around a linear park, so it's very much a green sort of space.

We haven't talked about biodiversity, but that's also another really important part of all Moda schemes. We always ensure we put in a really biodiverse, ground floor, landscaped areas, as well as on a number of schemes, upper floor, roof terraces with great biodiversity as well. So really a key part of the Moda experience and residence experience is that external green space.

But yeah, back to New Garden Square development. So, it's part of Edgbaston. It's got 1600 new homes; 6 million pounds of public realm being delivered. And it's a blend of different uses. So, there's commercial,

retail, F& B, community spaces. And as I say that one central park, the first phase of that, which was Loudon's Yard, which is New Garden Square phase one.

So that's 398 homes. That's nearing completion, isn't it Ben once went to PC on that?

Ben: Yeah. So, it's the end of this month, residents moving in July. And then there's a yeah, that runs through.

Chris: Yes. So that's the first phase of it. And then we're going to crack on with the remaining phases.

Ben: Yeah. So definitely an exciting project, multiple phases and something that's going to be a real great project in that part of the city. You touched on biodiversity and obviously said we haven't spoken about it. I think that is actually a topic of one of our other podcasts. That might be something we can pick up separately, but it's certainly something that we're seeing through the biodiversity net gain and the requirements, and the planning about, certainly on urban developments, how that can be achieved through the design process.

Yeah, that might be a topic for another day that we can talk about. I just really wanted to thank you for your, the time this afternoon. Is there anything that you think that we haven't picked up on that you wanted to talk about? I think it's been a really good conversation about something that's, I know is very much part of Moda's strategy moving forward, and it's certainly is at RPS as well.

I wanted to thank you for your time, and is there anything else you wanted to pick up or cover?

Chris: Just that ESG, and particularly Net Zero, it's constantly evolving. We've just got to stay on top of it. We've got to bring in all the stakeholders, whether that's the design team, the investors, the residents, the developers, but bring everyone together to push in the same direction as it, because it's a massive challenge to the whole industry.

Nobody knows how to do it perfectly. And yeah, Moda and our peers, we're all working towards it. You just got to keep evolving it. What we didn't touch on was the governance elements of ESG, but yeah, I think that's for another podcast.

Ben: Thank you to Chris for joining us on the first episode of our new season. Really insightful discussion about the future of ESG in the Built-To-Rent sector. Thank you for listening and please subscribe to the podcast and stay tuned for future episodes.

Thanks, Chris.

Chris: Thank you very much, Ben. Cheers. Cheers.

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