Revit and BIM Pioneer Marty Rozmanith | Transcript

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Charlie: Welcome to Green Building Matters, the original and most popular podcast focused on the Green Building Movement. Your host is Charlie Cichetti, one of the most credentialed experts in the green building industry and one of the few to be honored as a LEED Fellow. Each week, Charlie welcomes a green building professional from around the globe to share their war stories, career advice and unique insight into how sustainability is shaping the built environment. Settle in, grab a fresh cup of coffee and get ready to find out why green building matters.

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Charlie: Hi everybody. Welcome to the next episode of the Green Building Matters podcast. I'm your host, Charlie Cicheet. Every week I get an interview, a green building professional somewhere in the world. Sometimes we talk about what's next and technology. My guest today. He's a colleague and he's joined our group of green building and technology companies as our overall chief technology officer, Marty Rozmanith, with us. Marty is normally based in the Boston area, and I can't wait to unpack his story. Every time we get to hang out and I know we're building some amazing things, you inspire me, not just what you've done, but really your optimism towards sustainability and all things. There's just better ways to build all these buildings. You've got a lot of experience there. So take us back, Marty. Where did you grow up and go to school?

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Marty: I grew up outside Philadelphia, and then it's not a big town, Cherry Hill, New Jersey. And I went and got an architectural engineering degree at Penn State, a pretty well known program among architectural engineers. I did actual construction during the summer, I was on a carpentry crew while I was going to school during the summers. When I graduated it was a recession. I was looking for jobs out east but couldn't find any so I ended

up going to work for a small architecture firm in Newport Beach, California, straight out of school, which was great. I got the bike to work every day and live the sustainable dream.

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Charlie: So that's what got you to California. As I've gotten to know both the architecture and the engineering. And so kind of unpack that a little more. Did you know you wanted to be an architect or you kind of got into that a different way.

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Marty: I was going to school. You could choose architecture or architectural engineering. The way that I looked at the engineering side was learning all the math to be able to do the stuff you design as an architect. It was actually not uncommon for people who had that degree to get licensed in both fields. I was actually hired into my second job out of school by Penn State grads that were licensed in both, and they were working at a full service firm in San Francisco. I got out to California in a recession. The job market caught up about nine months later and I had to go and then find a second job about nine months later because the office ran out of work and then moved out to San Francisco and was there for years. So it was good that I actually was doing architecture down in Newport Beach. When I went up to San Francisco, I was doing structural engineering, so kind of right off the bat doing both.

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Charlie: I love it. It's great to see you practicing both. And so tell us about those early days in San Francisco. Programs like LEED didn't come until the year 2000. Here you are in the 1990s architecture, Northern California. What were you doing? Sustainability. What kind of projects were you working on?

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Marty: I was doing art for the first time. I started off in structural engineering up there. I was working on actually a lot of buildings that had been damaged in the earthquake that had happened just a few years earlier. I was doing a lot of structural engineering of multifamily, residential and commercial buildings, not huge ones, post offices, schools, that type of thing. And then while I was at that second job, I also then started to work on the architecture side. So they had me do structural engineering for a year. Then I went into the architecture studio and worked on some projects there. But a lot of what I was doing at the time was when I went into the design practices, they were just moving basically from drafting boards to CAD. Since I had run the CAD lab at Penn State, you know, a lot of pretty much I took on the role of running the computer aided design and basically moving projects into AutoCAD and setting up a lot of the best practices and things like that. To the point where after I had been at a couple of different architecture firms in San Francisco, I set up my own consulting company because there were a lot of San Francisco firms that needed that. I actually had a partnership with another guy who was doing that as a full time job, and we did that consulting company for a while, and that kind of launched me into where I ended up in software and technology.

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Charlie: No thanks for connecting those dots because. Let's talk about sustainability for a minute first. Did you have an Aha along the way or did you always appreciate the environment, sustainability, connect that out for us and then we'll talk technology.

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Marty: I grew up I was about 40 minutes from the beach and I always loved going to the beach, especially when I was a teenager. I was at the beach all the time and it's such a sensitive border between two different environments that any time anything upsets, you know, you can really see the impact. I think that was just the first thing that got me thinking about the environment and sustainability and taking care of the planet. My wife

actually was big into the environmental movement, and had written her thesis on it at Penn State. So it was just a topic that was on our minds all the time. Part of the design courses that you would take when you were in architectural engineering was passive solar design from an engineering standpoint. One of the things about passive solar design is that you can completely change the design of a structure by just thinking about roof angles to thermally store versus thermally shed. As part of the training and all the different disciplines of engineering. Got you thinking about sustainable approaches to the way buildings are designed and how all the different systems interact to reinforce one another or can possibly take them. Though overall, if you start trying to do too many things at one time in a building design.

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Charlie: I always like to ask about those influences. It's pretty neat. Your wife's project there had some influence. Let's talk more about that career timeline. San Francisco, obviously, you really were all in on CAD. You had even the consulting firm you had worked for with a couple of firms. And then you made this shift to really go all in on technology. Tell us about how you end up at Autodesk? How did you get pulled away from Autodesk to be the director of product for Revit? Tell us about that time.

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Marty: I'm pretty fortunate that every time I thought about making a change in direction, I had a mentor that I could ask and talk to about just understanding what are the differences in the choices of the two paths, and find out whether somebody more experienced than me thought it was a good idea. In those early days in San Francisco, Patrick Mayes was one of the things that he recognized, and this is really how I got to know him, was that I had been in construction. I had been on a framing crew and he had been a general contractor, and we were both in charge of technology deployment at our architecture firm. We had that in common. Since Patrick was older than me and had a lot more experience in the business, I could

just ask him questions. He recognized the talent that I had in applying best practices to the design practice and just production and being a job captain and that sort of stuff. Patrick had actually started a group called the ACS that was the technology leaders of all the firms. It started out just in Northern California, but then it spreads nationally. Patrick was really the mentor that taught me the value of networking and the design professions are a great place because there is a willingness to share what you're doing and listen to what other people are doing. Being willing to have those conversations is really the best way to learn anything. I learned a lot of how networks of design professionals operate from talking to Patrick, being in the group. Another mentor of mine at one of the design firms got me involved in the American Institute of Architects. I was one of the co-chairs of the computer forum at San Francisco. AA We would run a graphic design competition every year. I don't know if they still do that or not. I ran it for, I think two years in the early one of them, 1994 was, I think unless somebody else knows different. I think it was the first VR competition in architecture ever at the San Francisco AA, where it was so wheeled in this refrigerator sized Silicon Graphics computer to be able to look at the Dubai airport at like one and one half frames a second or something. There was a lot of experimentation and it was just a good network of people to understand. Buddy was doing what was working, what wasn't working. And then because I was running that competition, I got Autodesk to sponsor it. That's how I met all the Autodesk marketing people. Then they were starting to think about developing architectural products that were specific versions of AutoCAD, and they called me up and said, "We want to interview you to be a product manager." So that's how I got hired out of my own consulting. By Autodesk to go build the product that actually was the number one product in the market before Revit, which was architectural desktop. And that move moved me to New England. So that team was part of an acquisition that they made in New Hampshire. I actually went from downtown San Francisco to rural New Hampshire to go work with those guys, and that was quite a transition, but it was great. You kind of know me

personally, so you know that my wife and I are skiers so moving to New England was great because then we got to try out another love of ours.

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Charlie It's great to have those mentors. You've called a couple out by name and Patrick there. I know you guys have stayed connected in your careers to anyone else that maybe had some influence or you looked up to there that helped you as you were navigating your career.

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Marty: I was fortunate to have a lot of mentors, especially when I made a change. One of the founders of Revit really taught me a lot. I learned how software companies run by working at Autodesk, but I really learned a lot of the mechanics of R&D and software development from Leonhard and the team at Revit, and they were doing basically Agile and DevOps before anybody knew who Agile and DevOps were. All of the buzzwords have come on later, but you could point to the difference in cycle times that the team had versus the type of waterfall stuff that was going on at the time. I learned a lot about software just from mentors like that. After that experience of Revit getting acquired and leaving a few years after the acquisition, I went and got an MBA, started working on my own companies doing a bunch of interesting things, some of which were successful, some not. Once I started running my companies I became the mentor. I was teaching other people about the business and how to apply technology and helping them develop their careers. But I still had a mentor when I was running my business that I met through my church, and his name was John Sawyer. When we started talking, it was because we both had a passion for affordable housing and we had both been impacted by going volunteer on the Katrina cleanup in New Orleans. We just started talking about the problems that we saw in rebuilding the housing on the Gulf Coast. I described my career to John as the intersection of construction and technology, and he described his as the intersection of real estate and politics. The two of us had a complementary skill set, but he really

understood raising capital and the hard finance side. He was trained as a lawyer. He had a I don't think he was trained as an architect, but he had a lot of understanding of the process of just developing real estate because he had done it professionally for so long. He was a really great mentor of mine because a lot of the things that I couldn't learn from my professional contacts that really dealt with the owner side of things and the finance side of things I learned from John. A really great resource to go and ask questions about that stuff. He's another great mentor I had late and later in my career. Obviously that was almost mission driven. That's what got us into it was the fact that we were seeing some societal problem that we wanted to try and fix and we tried to do this. His wife would say, do well by doing good. I think it was her term.

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Charlie That's what we're trying to do here, too. I love it. Let's finish out the timeline there. Thank you for giving a shout out to those mentors. YSome different entrepreneurial journeys in the middle but really the last ten years that so systems before you came over to our green building and technology portfolio of companies. Tell us about your time at DisSO.

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Marty: Well, so DSO is a really interesting company because they pioneered the mechanical and manufacturing space then and are really the go to company for not only 3D modeling, but all of the process management and manufacturing technology in the aerospace business and the automotive business and industrial equipment and consumer products. Dis So Systems has a huge footprint in every company that makes a product that you can buy basically. They produce the systems that those companies use to manage those products over their lifecycle and in fact start looking at sustainability of the materials going into those products and the whole Cradle to cradle concept applied to those products too. Ten years ago it was not a very well known name. In fact, I would say unless you knew Kittila which Frank Gehry used, you had never heard of.

DisoSystems. I just had the good fortune to speak at the digital build conference. We had booked that when I was still the sole employee. We were still talking about systems and products. We took a poll there and almost all the people in the room, three quarters of the people had heard about the systems, which I think over the course of the time I work there is that's a big change for a bunch of people at a technology conference in RSA to actually know who the SO systems is. It seems like we had an impact, but the one of the things about Revit was it was really designed as an instrument of service for architects and engineers to produce their drawings because that's the contract deliverable. The original team, I think we had thoughts about doing versions for construction and getting into means and methods, but that never got built. Most of the things that Autodesk has in the construction offering are web based apps that are on a different platform, and Revit is still operating out of files that you save locally. There was this untapped potential to take the data that was in all the Revit models that were being produced and put it on a data driven platform and improve the means and methods and delivery of construction, which, as we've said, I started out in construction and part of the reason of getting into this was trying to improve the construction process and make the delivery of the buildings more efficient because they produce so many negative impacts on waste and carbon footprint and all the other things. I joined the sub because I thought the sub would be really good having this kind of lifecycle platform for ingesting that data and doing those things. And to some extent that has been the case. I think we've evangelized the story a lot, but I think there's still a lot of opportunity for systems as a platform to help building product manufacturers, produce modules for for buildings that have a much wider impact and can move the industry from what I would call engineered to order, which is the way the industry has been for hundreds of years, to a more manufacturing like approach that that that that's called configure to order and that a whole building is going to be configured to order but that large chunks of it that are reused. In fact, this concept was called chunking and was written about in refabricating architecture over 20 years ago. A lot of that so systems could drive on the

building product manufacturers side and they actually have quite a large footprint in the building product manufacturer space with SolidWorks. I wanted to invest some time understanding how manufacturing could drive construction efficiency and sustainability. Part of the move over to GBAH is trying to accelerate that and move quickly to further be able to harvest all the rich data that is being produced by BIM tools now and connected into lifecycle management and better delivery of construction and operation.

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Charlie I'm excited. I know you're excited and I know that was a significant amount of time where you got to even travel the world and be with people, speak and just help to show there. It's just fascinating just all the information you've been able to receive. Marty, just what are some of your proudest accomplishments?

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Marty: would have to say Revit and the impact that I had to make a choice when I was doing the consulting company back in San Francisco, because when I was in the consulting company, I said, well, kind of low risk. It doesn't work out. I'll just go back to working for architecture firms. I always had that avenue where I could just go back and be a job captain and design buildings and go back to what I was trained for basically. But when Autodesk came calling, one of the things I had to make a decision on was how I could best impact building design and the construction process? Was it to remain in professional practice and design buildings or to get into software and try to change the software that people use? And I decided getting into software and trying to change the software they used was going to have more impact. And so looking back, Revit and the impact it's had, I mean, I've been all over the world, I've seen all the different languages of Revit on people's screens in the studios, not only in the US and Europe, but in Japan and everywhere. There's definitely a de facto standard out there, and there's definitely millions of models that right now are, I would say, underused. But the impact is definitely there. Whether you love it or hate it,

it's definitely had a big impact. I'd say the other achievement that I'm really proud of are some of the things that didn't actually work out. I'm really proud. Out of the company that John Sawyer and I worked on to rebuild the Gulf Coast called Environmental Building Systems. It was built around where there's still the press on. It is still in Google. It was built around this idea of a hurricane proof mold proof fireproof house, which a prototype actually got built in Mississippi and has gone through, maybe 18 hurricanes and it's still done a scratch on it. So that company didn't take off because largely politics, politics and the 2008 downturn kind of killed that company. I was pretty proud of the work that we put in because we had identified the problems and said here's how we could solve them and then actually solve them. But then politics got in the way and it wasn't we weren't able to roll it out. I'd say the last thing that I'm pretty proud of is the mission trips that I went on. So going down to New Orleans, doing the Katrina cleanup, getting in a Tyvek suit, that was the impetus by which I met John and started working on ABS. I've done a couple like that or I've gone and done work with Alabama Rural Ministry on some of the just like home repair ministries out there where people who can't afford to get a new bathroom, you go and you put in a new bathroom for them as a volunteer basically. And so that's those sorts of things. I actually went with a mission trip group. So once they found out that I could actually run a construction project, they gave me here, here's a dozen teenagers going and getting this job done this week. And so they would check in with you and say, So what are you doing today? What are you doing next? That was a lot of fun. I would like to do more of that at some point as well.

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Charlie Those stories. You're a good storyteller, Marty. And for those listening, though, just to make that connection on Revit, which led to them, I mean, that was a big deal for youtube there really helping direct that product. I think you've told me it took several years for BIM, maybe until the early to mid 2000 to really become the de facto way to do things. But I think the statistics today. We've got a lot of architects listening to this podcast, I

think over 90% of projects, \$5 million in value or higher are drawn probably in Revit or at least some form of them. It's mainstream now. You've seen it being used all over the world. I know you and I and our teams want to take that so much further, and that's what we talk about next. So just make that connection, though, here. Marty was so early there with Revit and look at it now. Here we are at Green Building Holdings or group of companies, CIG Consulting, Engineering Side and GB. Yes, our online education company, Blue Ocean and all things R&D and especially embodied carbon. And then we even have them really taking a look at digital twins there. What's exciting to you and what's keeping you busy today?

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Marty: What's keeping me busy is trying to understand the drivers to be able to scale the sustainability approaches. with SIG being a consulting firm and serving the architecture and owner population to answer those questions about building sustainability, I'm trying to understand how we could scale that so that we can make it central to the process. I started working with a large developer owner when I was at the so called Lendlease and most, most in North America. I would say Lendlease is a construction company because that's mostly what their operations are in North America. But Lendlease is actually a pretty interesting company. If you go look at how they're described in their annual reports because they've got development and investment branches that are so they produce their own pipeline. They really started talking about this switch to achieve sustainability targets, but also to achieve just efficiency targets because some of the bad practices that produce bad sustainability outcomes also produce just a lot of waste and a lot of excess cost. About 4 to 5 years ago, I started working with Lendlease in Australia to look at some of that. It's almost launched this entire new branch of software that I describe as Proptech, and I think of Proptech as a preprocessor for bim. Some proptech is designed for owners, some proptech is designed for architects. I think that space is still wide open and there's a lot of possibilities there. I think Proptech and some of these ideas around configuration of buildings

on sites and multiple sites and configurations that make units in a multifamily housing project into a building and use pre-made modules to make that building. Those are some great ideas that can be applied to a huge swath of construction projects today. And rather than shortcutting the design process, It can actually produce a communication vehicle between the owner and the design team to help improve the projects. And so that's what I'm excited about right these days and working sustainability because I believe in order to get to those outcomes, we're going to have to get into a more manufactured approach and we're going to be making choices not only on cost and quality, but also on sustainability measures. And so that's why the sustainability piece has to be central to the process. Seeing this kind of proptech and how it uses kind of data driven decision making to speed up the design process, I see that as the next sort of nexus where there's a lever to push on to improve the overall process for getting buildings built.

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Charlie: I'm excited you're here because you've got me thinking bigger as we lead these businesses. So thank you, Marty. So let's talk about a little more of what's next? You've heard me say I do believe there's going to come a time to get a building permit. You need a full carbon plan. Just how efficient is your building? But even the materiality, the embodied carbon, we're going all in on that. You take it all the way back to not just empowering the designers, but empowering the building product manufacturers. Could you paint a picture for our listeners of the Future Date to be determined? How is it going to flow when we maybe auto we have some site generators, different potential for building layouts. We've already thought about the carbon up front. Can you just paint a picture, pretend it's a sci-fi movie right now? How is it going to be in the near future?

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Marty: I think well, to cut to the chase, I think it's going to go a lot more to modular delivery. But when I say modular, I don't mean like 16 inch module, 48 inch module. I'm talking about chunks of buildings that are produced a lot more like products so that they're managed as product lines. The reason for that is to make the production of those chunks of buildings. Think of an apartment unit or think of a kitchen pod or something like that. Those chunks will be mass produced in a way that is just much more efficient than site build production. The general estimates that everybody has thrown around for the last point is that the engineered to order process with site built construction produces about 30% waste. I think it's common sense that no product that produces 30% waste is sustainable. It's not that we sustain it. The industry will accept a standard of care when the construction project goes late and goes over budget, people have been willing to pay for it because that's the way construction is and you can't fix it. Well, you can fix it. When you apply these modular and product design principles, you find that you get tremendous savings in time. One of the last projects I was working on at the SO system was data centers, because they're very time sensitive. The cycle times for getting a data center built are being squeezed by the data center operators because they have tremendous demand for data centers as all of the data moves to the cloud, and they have to build new data centers. And so they're one of the first building types that are going to be productized because the time to market is driving a huge shift with them as the owners. But I think as they LEAD a segment like that, you're going to see other building types that are good candidates for this type of modular product position. When you go to that type of approach as a general contractor, you'll typically see a pretty large reduction in the time it takes and the cost. What I think will happen is that contractors will see the structural cost advantage of doing that. It might take them a little while. Certainly the ones that are leading right now are doing that, but they're not talking about it much. But as they start to publicize it, it's going to be something that gets a lot of attention with people who aren't doing it because they're going to be losing all their bids. The ones that are especially in certain types of buildings like data centers and multifamily

housing things, things that can be modularized and productized. Those modules and products are not only going to be chosen based on quality and cost, but also on carbon score, not just embodied carbon, but everything involved in installing it in the site. If you have to run a lot of machinery to do site build construction, that's going to have a far worse sustainability impact than if you just get a module and it takes you half an hour to drop it in place with a crane. So your site impact is going to be a lot, lot better with this type of chunking approach that was described in re fabricating architecture. Although it's taken 20 years to get to the point where it's actually being done in the industry, I can tell you that it has been done in the industry. And there's lots of projects that are doing that now. As the players that have the strength to the capital start to make the shift to that, it's going to shift the construction ecosystem and reorient a lot of the value that right now is sitting with subcontractors and general contractors.

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Charlie: That's great thank you for some something that up and I think a lot of our listeners get that part of it. I'm all in not just on LEED for Kelsey buildings but you're right we can dice up carbon in several different ways. We've got a lot of work to do. Anything else you're looking forward to in the future? Maybe green buildings. Obviously you have a passion for affordable housing. Just anything else you're looking forward to with our industry?

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Marty: I'm running an experiment as an owner of an apartment building project. We've partnered with a nonprofit locally. We actually haven't officially signed the contract, but we've had the discussions to partner with this nonprofit that's been looking to get this done. I realized that for an entity like that you're raising money with donations. It takes a lot of time. You have to go and you have to hire design professionals to go and produce something that you can take to a city to get a permit so that you can then go and raise funds. There's just it's an iterative loop that takes a lot of time and requires a lot of energy in order to do the right thing. One of

the things and the reason we've talked about partnering with them now is that we see a way of using, say, an output from BIM to put a virtual version of multiple different schemes in the cloud and be able to go, say, to city officials with a pair of air glasses and say, which, you know, we would like to produce as much affordable housing as possible. Which version would you like? Put on the glasses and you can see each of the three schemes and walk around them as if they were already built. I see things going there because not only will we get better decision making for all the stakeholders, whether it's the owner, whether it's the government agency approving it, I think transparency is always good. Part of having this BIM information in a way that's easier for people to visualize and understand it'll give us that kind of transparency. As we add sustainability targets into that transparency, we're going to get much better outcomes. It's not just going to be the entity trying to make the most profit or build the cheapest building that wins. It's going to be a conversation among a lot of competing interests about what is going to produce the best overall outcome for this project. I think just besides modular and product innovation, I see this level of transparency being possible. How it ends up happening is going to be largely up to the initiative of the companies that are able to leverage the technology. There's a lot of business advantages to using it. Some of the other people that we've talked to that are important in our company feel the same way as well. And so as long as thought leaders, like I said, are very willing to have a conversation and try some things, those things will bubble to the top. And so I'm just excited about the idea that what would be very difficult for a nonprofit to just get done because it's got so much friction in the past because of the way the process set up becomes a lot easier and a lot of the things that we want to see happen, whether it's sustainable building or affordable housing or any of those things, become just a lot more possible because that friction is removed. And we had some role in the technology that helped remove that friction.

Charlie:What a great passion project. I look forward to supporting that. One more there in Worcester. So let's do some rapid fire here on the podcast. What's your specialty or gift?

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Marty: I've been told that I'm good at explaining complex things in a simple way, and I think that I think that's a pretty good gift. And I've used that both outbound in a kind of major account sales way where I go and talk to, say, sea levels at Lendlease to talk about the problem they're trying to solve or go and speak at events to raise the awareness on these paths forward. I've also used them on the inbound. So when I was doing product management for it, I would have to listen to pretty esoteric conversations with architects who wanted to do some pretty innovative things and have to boil it out for a bunch of software developers to go and be able to build. So just the ability to translate some complex stuff into simple speech is for me a huge gift. And I've used it my whole career. I call it solving the mere mortal problem. So there's lots of people who know how to do stuff, but not so many people can describe to a mere mortal how to do that stuff. And being able to describe it to a mere mortal is a gift. I think it can actually be learned if you work at it too.

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Charlie: That is a gift. I've seen that and I love the mere mortals. Well, do you have any good habits, routines, rituals?

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Marty: The ritual that I use every day, which is the way I start my day every day is I make myself a bowl of oatmeal. And while it's steeping, I say my prayers. I say my prayers every morning because I'm here to serve a higher power really is my belief. I was looking at bad cholesterol maybe eight, nine years ago. I started making oatmeal and my cholesterol numbers got cut in half. So I said, okay, oatmeal is a good start to the day and then I just worked the prayers into it. So that's something for years and

years and years I've done is I just make a bowl of oatmeal and say a prayer while sleeping. And that's the way I start my day.

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Charlie: That's fantastic, man. Thanks for giving us a peek into your world. And I love it. So, Marty, I'm a fan of the bucket list. What are a couple of things maybe on your bucket list?

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Marty: Yeah, I've been thinking about this because I knew you were going to ask it. And even more on the Atlanta Braves venue. I was at the point out that one of my bucket list items is to be in the stadium next time the Red Sox win the World Series.

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Charlie: I thought I'd get a spicy answer.

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Marty: Atlanta has had some good luck lately, so congratulations on that.

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Charlie" Some people try to discredit last year's legitimate World Series win, but next time you're down, I'll take you.

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Marty: I give him all the credit for that one. I watched all those games and they deserved it.

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Charlie: Good. Well, it's the league gold stadium. Maybe that's helped the Braves, but I'd love to go to Fenway and. Yeah, man, I know you spent a lot of time in Boston. You've traveled the world, fortunately, in part with your career. But is there a certain adventure or destination you still want to go to or get back to?

Marty: I don't put those things on my bucket list. I just try and knock off as many places as I can when it's convenient. The one thing I did put on a bucket list, so when I was graduating Penn State, you would have to put some kind of goal in the yearbook. In a way, being with a bunch of engineers, they would set career goals, like the structural engineers would say beat the Sears Tower or stuff like that. And mine was skiing 100 days a year, which I still haven't been able to do. I think I got out maybe two days last year. So that's still a bucket list thing to me when I'm going to be able to get to that. But that's still there on the bucket list.

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Charlie: I think that's a good one. I love it. Thank you for sharing. Well, just a couple more here. How about books? Is there a book you'd recommend to our listeners? Doesn't have to be about buildings. It could be. But what's a good book you'd recommend?

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Marty: So this is also recently I've been completely addicted to Robert Jordan's Wheel of Time series. I started reading them maybe a year before Amazon Prime launched the whole Wheel of Time mini series thing. I never read the Game of Thrones books, but I guess there are people or the Lord of the Rings stuff. I never read fantasy books when I was a kid. And so this idea that I'm now totally into Robert Jordan's Wheel of Time is funny to me. But like anybody who's read those books and then sees the series or the movie, they'll say, Oh, the books are way better. And that's the case here. Like the book is great. i'm not as big a fan of the Amazon series, but I love the books, just the richness of the characters and the story. It's a really great thing and it has nothing to do with buildings or BIM or technology. It's a total escape. So I would recommend those Windows Escapes.

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Charlie: We'll put a link to that series in the podcast show notes. All right. As we come to a close to final questions, career advice, Marty, is there anything you wish you had known earlier in your career?

00:39:05

Marty: You know, this is a tough one. I've gone in a lot of different directions that seemingly you wouldn't anticipate. And I certainly wouldn't have said that this is where I would end up when I came out of Penn State with the degree that I got. So I think I just you know, my dad always said, like, what you do and be good at it. I think that's good advice. It's not you know, I did receive it because he obviously told it to me. But I would say the part that nobody did tell you was to be willing to try things that aren't the easiest thing. I mean, I always the philosophy I had was try don't be scared of what the hardest thing is because that's what you're going to learn the most from. So just because you've gone and gotten a degree in design doesn't mean you can't jump into software and do that. You just have to be willing to. Jump into the frying pan. So I guess, I don't know. I wasn't afraid of jumping into the frying pan. But I would say if you are. Don't be. That's it. That's the advice. I wish somebody would have told me I can anyway. But that's what that's the advice I'd give.

00:40:15

Charlie: That's a good nugget. I like that. Thank you. Well, last question. Let's say someone's listening to this podcast. They're getting inspired by your story. You know, they're maybe just now jumping into the green or we could even say green technology movement. Any words of encouragement for them?

00:40:31

Marty: Yeah, like I said, don't be afraid of trying something, even if it might turn out, in your view, to be hard as far as the green building movement and the technology supporting it, in my view, it's inevitable. We want to leave a better planet for our kids. As I talked about, the work I did with land

lease owners is driving it. Once the people with the money in construction decide that it's good business as well as a good outcome, it will happen. So like I said, I think it's inevitable if you are looking at jumping in to working on building technology or green building designs or anything to do with sustainable construction, I think it's a pretty good bet. This industry is a great industry because of its willingness to share and have a conversation. And I think this is starting to be the center of the conversation. So now's a good time.

00:41:26

Charlie: It's a great time. And I know we're excited. Marty, thanks for spending time with us today on the Green Building Matters podcast. Anyone listening to Marty on LinkedIn? He's our overall CTO at GBH here. Let him know what you thought of the podcast. Marty, this has been fantastic. I learned more about you. Thanks for spending some time with us.

00:41:45

Marty: It's been a lot of fun. Thanks, Charlie.

00:41:49

Charlie: I just want to say thank you to our loyal listeners. We actually are celebrating over one year here on the Green Building Matters podcast. Me and the entire team were stoked and just so glad you continue to listen every Wednesday morning to a new interview with a green building professional here in this industry, or just some pro tips that we want to make sure that you are getting straight from us, straight to you. Thank you for listening to this episode of the Green Building Matters podcast at GBES.com. Our mission is to advance the Green Building movement through best in class education and encouragement. Remember, you can go to GBES.com/podcast for any notes and links that we mentioned in today's episode. You can see the other episodes that have already been recorded with our amazing guests. Please tell your friends about this

podcast. Tell your colleagues and if you really enjoyed it, leave a positive review on iTunes. Thank you so much. And we'll see you in next week's episode.