

Talking Sustainability & Government Initiatives with GSA's Don Horn

Introduction ([00:02](#)):

Welcome to Green Building Matters. The podcast that matters for green building professionals. Learn insight in green buildings as we interview today's experts in LEED and WELL. We'll learn from their career paths, war stories and all things green because Green Building Matters and now our host and yes, he has every LEED and WELL credential. Here's Charlie Cichetti.

Charlie ([00:33](#)):

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Charlie ([01:01](#)):

Hey everybody. Welcome to the next episode of the Green Building Matters Podcast. I can't believe it. We're over 150 interviews. I've been doing this for over three years now, and I've got another green building guru here and I've invited Don Horn. He's actually outside of the Cleveland, Ohio area and he's with the GSA. For those that don't know, and we've got some international listeners, the general service administration, the GSA handles all the real estate for the federal government. We're going to get into that a little bit, but Don, thanks for being with us today. Thank you. Thanks for inviting me. Your title, Deputy Director Office of Federal High Performance Buildings. I can't wait a little bit to talk about high performance, green buildings, healthy buildings, and how we navigate that here in the US. I always like to ask my guests, take us back down. Where'd you grow up and where'd you go to school?

Don ([01:48](#)):

I'm from the Shenandoah Valley of Virginia and I went to University of Virginia for undergraduate architecture. I actually started in landscape architecture, but then after a couple of years taking plant materials classes

and things like that. The first two years were the same for architecture or landscape. When it came to the point to make a decision, it was kind of recommended, go ahead and get your undergraduate in architecture. If you still want to do landscape architecture, do that as a graduate degree. So that's what I did and just stuck with architecture ever since. I've always been interested in landscape, but really got into architecture. I went to Georgia Tech for masters of architecture, but that wasn't until a number of years later. In between there, I did some work camps and an Arcosanti workshop in Arizona and some volunteer service in Colorado for a year. I was ready to go back to school. With my jobs, I was working for architects in the private sector and started out there in Chateaux Valley and just got closer and closer and closer to DC, but never actually moved in. I eventually got the job with GSA and started working in DC. As I say, the rest is history.

Charlie ([03:10](#)):

The Shenandoah Valley, I'm here in Georgia and my dad's family is from New York. We would always drive interstate 81 and we'd always go there for Thanksgiving or some holidays. We got to drive that beautiful countryside in Virginia. I've always loved that part of the US there. I'm sure growing up there and even going to school in Virginia had some early sustainability influence. Help us understand you got out and you did some really cool workshops. I hadn't really seen it like that, but probably some rammed earth stuff in Arizona and all kinds of sustainability. How did that influence you to say, "Oh, I'm going to go to Georgia Tech?" Which Don, by the way, is my Alma mater so you're already getting brownie points. How'd you know landscape architecture and architecture? What changed for you?

Don ([03:56](#)):

I've always enjoyed making things, putting things together. I was always in all kinds of crafts and when it came to choosing a major for school, I hadn't really thought much about it before that. I was interested in music and math and art and science and just about everything. Architecture was the one discipline that kind of pulled all this together. In terms of sustainability, I have to really credit it to summer farm life. We had a farm and actually moved out to the farm my sophomore year in high school, but I always worked there every summer. We actually had an environmental awareness camp that we ran on the farm for 17 years. I worked at the camp every summer, but that

just really strengthened this real understanding, appreciation of art and nature. We did a lot of backpacking and camping and canoeing and learning to identify trees and birds and just understanding our place in the world and that had the biggest impact on me.

Charlie ([05:12](#)):

Wow. That's really cool. It sounds like a really great upbringing. I'm sure you'd like to get back to where you grew up, that's amazing. Who else as you transitioned into the building world, maybe had some influence? Who would you call a mentor?

Don ([05:22](#)):

One of the first people that would come to mind in undergraduate architecture at UVA was this professor Robert Vickery. He had a class for first-year architecture students called, Concepts in Architecture. It was really this recurring question that he would ask, "What does it mean to make a mark upon the land" and that was so influential to me. When I think about now with sustainable design and where I am with my career is it's the same thing. What does it mean to make a mark upon the land? You're scared of the earth? You are using materials and resources. What are you creating? What is the value that you're putting there? It's just been a tremendous influence. Some others back in the seventies, I read the Passive Solar Energy book of Ed Mazria and was looking forward to building a solar greenhouse on our farm.

Don ([06:16](#)):

Bob Berkebile, when he first started the environmental resource guide for the AIA and then the committee on the environment. I had heard about him, but hadn't met him. And so years later then I met him and it's just a tremendous influence. Ray Anderson, I'd have to mention as well. He did this global village presentation at one of the US GBC membership summits. It's such an experience going through kind of the history of the earth and our place on it. With the global community now having people stand representing different resources and abilities and how things are distributed. And it was just as a whole different perspective, which had a big influence on me.

Charlie ([07:01](#)):

Thank you for taking us there. To those listening, think back, who's already had influence over you, or you might call a mentor, make sure they know that, if they're still with us. Ray Anderson, of course, Georgia Tech ties here in the South and interfaced. Bob Berkebile, believe it or not out of 150 interviews, probably at least 10 or 12 have said he's had some influence so that's pretty cool to hear yet again, Don. Connect the dots. Tell us a little about your role at the GSA and how it's really evolved over the years from high performance buildings, energy efficiency. Maybe you can also update us on what are some of the boat mandates if we're going to build a new building. How are you looking at real estate here for the US?

Don ([07:42](#)):

That's a lot packed into that.

Charlie ([07:45](#)):

How has your role evolved since you've been in the GSA? Let's start there.

Don ([07:51](#)):

Okay. I started in GSA in historic preservation and worked with preservation for eight years. In 1999, there was an executive order, a series of executive orders on greening the government under Clinton. One of them called for agencies, particularly GSA along with some others to develop principles of sustainable design. To identify these and then to apply them to projects. I said, "That's something I'm interested in. I would love to work with sustainable design." GSA wanted an architect that could kind of get the program started. I volunteered and jumped in and from then on, it's just been the biggest, don't know, just aligning with all my interests and everything. It's just been fantastic. From the beginning it was just me and then we eventually hired some other people, developed advocates in each region, and did a lot of training around the country trying to explain what this meant. How do we implement this into our projects?

Don ([08:57](#)):

From that the program just grew and then all the federal requirements were changing laws and executive orders, the energy independence security act came along in 2007 and called for GSA to create an office of federal high-performance green buildings. At first that was just within PBS, within

the public building service a GSA. I was part of that with Kevin Hampshire, the director of the office. It wasn't until we actually got some funding through the Recovery Act that we were able to really set up the office and hire additional people and kinda be the sustainable design expert. Under Kevin, I've become the Deputy Director of the office. So that's my current role.

Charlie ([09:44](#)):

You're a LEED Fellow and FAIA. And that's amazing how that's evolved and I guess it's part of the job. Every four to eight years, things can change and some might be a little more proactive towards this and some might not. You've been there for a long time. You've seen a lot of it. Help us understand, is it important, I guess, to get an inventory of the whole portfolio? What do we have? Do we benchmark? Are we focused on energy savings first? How do you really approach such a large portfolio of buildings? What were some of those early initiatives?

Don ([10:17](#)):

There has been energy legislation for quite some time. We have the energy performance of every building in GSA invented since 1987, I think. We have so much data that we can go look back on. Now it's all weather adjusted and all the different fuel types. With advanced meters, now it's even finer data, but can really see which buildings use the most energy and target those for improvements. But then now seeing what systems and innovative approaches are working and stuff too, but really for me, it's the broader perspective of sustainability. It's water, energy and environmental quality, materials, siding all of this together and kind of balancing that. We have an energy division, energy group that works specifically on that. They do energy and water.

Don ([11:15](#)):

We have procurement that does a lot of our federal procurement regulations for different bio-based recycled content and other things like that that are federal requirements. I think within the office of Federal High Performance green buildings, we are really thinking about innovation and how to push GSA to do better and more. It's not just GSA. We work government wide public building service of GSA is just one of our customers or people that we work with since we're in the same agency, we have a little more influence on

them maybe, but we also use them kind of as a pilot for pilot projects, experimenting with new ideas, implementing some of the research that we're doing. We're outside of public building service outside of GSA as inventory, but yet we're thinking how to advance that plus throughout with other agencies as well.

Charlie ([12:09](#)):

That helps because as I understand it, Don, let's say there's a federal mandate for energy savings. You have to practice what you preach or practice what you mandate. It really hits the government buildings first. So it's now part of, it's not just, are we going to require others to do this and certain federal situations, but our buildings we gotta do better first. So that's on the existing building side, help clear up a new construction. I remember it's evolved from a LEED silver mandate to a LEED gold or equal. If we were to build a federal building today, what mandates are in place?

Don ([12:43](#)):

The LEED requirement within GSA, I actually got that started back in 2001. We made the decision in 2001, but it was effective for buildings from 2003 on. In the beginning it was like, "Oh, well, we should be able to do certification. We can do better than that." So they said silver, and it has evolved. It's now gold. Even with version four, 4.1 it's still gold which is a great stretch and great challenge for our project teams. But that is not a government wide mandate. That is only something that GSA has adopted. We don't use LEED as a design standard or anything like that LEED as a measure of our accomplishments in sustainable design. The federal requirements are for energy efficiency, water or energy reduction in water reduction and different purchasing requirements.

Don ([13:40](#)):

As I mentioned, the requirements for leasing, they're all kind of varied here and there. LEED is a kind of a catch all and a measure for showing how we have actually accomplished these objectives. We also have the guiding principles for sustainable federal buildings and guiding principles have been around since 2006 and that is kind of our version of LEED. It's a set of six principles with criteria underneath, and those are what we measure sustainable federal buildings by, and we report those to OMB and others. So

that's what agencies are working towards and LEED or other green building rating systems are just one way of meeting that.

Charlie ([14:30](#)):

Yeah. Way back worked on the social security building in Birmingham and that was when it was named silver, I believe. So cool that you had such a big hand in the LEED requirement. LEED building started in 2000, really 2001. You're starting to write this up and guiding principles shortly after. It's really exciting. I don't know if you know this, but on a LEED Green Associate Exam, the entry-level LEED exam, there's a question, "What is the GSA mandate" and its LEED gold. There you go. Let's look back a little bit. What's on the highlight reel professionally or even personally? When you look back, what are a few highlights for you? The humbling question Don, but we'll take you there. What's on the highlight reel, any cool projects or maybe writing some of these initiatives, these mandates, or LEED fellow.

Don ([15:18](#)):

I think with GSA, seeing GSA sustainable design awareness grow from the beginnings in 99 to where it is now. Now every employee, every project manager and even procurement. As I say, in all the different areas, they know what sustainability is, what it's about. They don't always implement it in the best ways, but there's a level of awareness and even within our programs and expectations. So that has been really exciting for me, really humbling that I helped get that started. Now it's such a widespread thing within the agency then that leads to a lot of these exemplary projects that we have in the past. I always said, "Well, this building is really good at energy efficiency. This one did a lot with water. This one has really good recycled content or regional materials," but we didn't really have many examples that pulled it all together.

Don ([16:20](#)):

As we come along here, more and more recently, there's more and more examples. One of my favorite buildings, the Edith Green Window Wyatt Federal Building in Portland really pulled everything together. It was just this really integrated design process where the project manager stopped the team at one point and said, "Okay, let's, re-examine everything we're doing. Do we have the best solutions? Are we really squeezing out the best energy

efficiency we can and creating the best work environment?" And then they moved forward. It just made such a difference on the project. It's a really great example. The Federal Center South in Seattle, those were both recovery projects, but more recently I've found out about one that to me, encompasses everything, the Columbus New Mexico Land Port of Entry by Richter architects. It's a beautiful building, it fits the landscape so well. The function of it and the use of daylighting. The way it welcomes people and pedestrians from one side of the border to the other is just fantastic buildings. I would hold that up as one of our finest examples. I mentioned the guiding principles and you reinforced them, but I've been involved with writing those as well from day one. So that was like from 2002 up through now, we just did the latest revision last December and I've been involved every step of those. Seeing that become ubiquitous for federal buildings and projects is really amazing. I don't know if you know that I'm on the standard 189.1, the ASHRAE standard 189.1 standard for the design of high-performance green buildings, which is now the technical content for the international green construction code. But since I've been on that committee, I have been advocating for GSA to adopt this and to really start following that because it puts these requirements in code enforceable, mandatory language, rather than nice to do type type things. It has some exceptions for the climate zones or places where it's not applicable. It's really a great set of requirements for high-performance buildings. And so we have gotten that into the facility standards. It's not a hundred percent adopted, but there it references throughout plus this latest version of the guiding principles has optional compliance paths for the IGCC. So that's a really great accomplishment that I'm proud of.

Charlie ([18:55](#)):

That's a huge accomplishment. Let's educate the listeners here, Don for a minute about ASHRAE 189. I mean, we know ASHRAE 62.1 is our ventilation standard and ASHRAE 90.1 in most parts of the United States is our energy code, which year, depending on Georgia versus other States, but essentially 189, as I understand it and what's added to it is it really is going to allow, most building codes start at the international and then it's up to the local municipalities. If they want to adopt that, but you're encouraging the GSA to go ahead and say, "Look 189 needs to become that standard." LEED again as a measuring tool, but I think 189, if I'm hearing you correct, you're saying,

"Hey, we got to bake it into the codes even more than we already do." So tell us a little more about 189.

Don ([19:43](#)):

It's a design standard and our facility standards for GSA, the facility standards for the public building service, otherwise known as the P100, that's our set of design standards. All of our buildings are supposed to be high performance buildings according to law and some of these other regulations. 189 helps us get there. They're kind of the same objectives. 189 references all these other ASHRAE standards, but it's going beyond those. It is kind of like the next step of where 90.1 is headed. Ideas get tried out and in 189.1, when we first developed the standard, it actually was 30% better than 90.1, the performance, energy performance. Over the years, as 90.1 has increased the kind of the real things you can put into code. The technical requirements for efficiency kind of gets smaller and smaller. I think the difference is only more like, I don't know, 10 or 12% better, but it's still an improvement over 90.1 and ideas that first go into 189, eventually get adopted into 90.1. There are references to the ventilation, thermal comfort standards and other things like that. Again, it's following these same basic categories, sustainable sites, energy efficiency, water efficiency, materials, and resources, indoor environmental quality. We have another section on plans for construction and operation because it's a design standard. You can't say or dictate how it's going to be operated in the future, but you can set up plans for operations. So that's, that's our section 10 within the standard.

Charlie ([21:32](#)):

If you were to predict the future because that's my next question. If you have this crystal ball do you really see this as very important? It sounds like we've got to get these design standards. We've got to improve our codes on more of a large scale. California might be going all electric buildings. The DC area might be pushing towards some of that and New York City might have some mandates, but even more towards existing building retrofits. It's kind of mixed mixed bag. I think something like 189, what I'm hearing is it's going to level everybody a lot faster. If you had that crystal ball, what's it going to take to really advance the green building movement. What's next?

Don ([22:08](#)):

I think one of the big things that's growing and we actually put it into 189 in the materials section. With ASHRAE standards frequently, you'll have mandatory requirements and then you'll have to do mandatory things. And then you have a choice between prescriptive requirements for a performance path for energy, you have prescriptive energy requirements where you have the performance path, which is energy modeling to show that you have met the same level of performance, but with different parameters. In the materials section, we were trying to figure in the beginning, how could we do this? In the prescriptive we have recycled content, regional materials and bio-based, and multi-attribute certifications and things like that. What would be an equivalent performance path? The ultimate thing for material selection would be to do a whole building LCA and show that you have an improved performance with the materials in the building.

Don ([23:06](#)):

So that's what we've had since the very beginning of 189.1. Back then everyone said, "Oh that's not feasible. It's too expensive, too complicated. It'll never happen." Again, that learning curve is just coming up and up. I think that is really where things are headed next. As Brendan Owens says, "That whole building. LCA is really where energy modeling was years ago, people thought it was expensive and complicated, but now there are tools and resources and everybody does it on every project basically." I think something that has a big impact on the buildings.

Charlie ([23:43](#)):

Just to echo that is this the whole move from operating carbon. Efficiencies to embody carbon and the materials. The materials we're using more timber frame structures were applicable, but the LCAs I think more and more you're right. Are getting skilled on how to do those models and how to pick better materials. I'm really happy to hear that.

Don ([24:04](#)):

I was gonna say, if I could say one more thing about it. One of my main things I've been pushing. The whole environmental product declaration is transparency. It tells you what's there. But the other thing about it the EPDs really are taking LCA information and distilling it down to about five or six

primary main components or standard categories that people report on. You've got the acidification, eutrophication, smog, formation, global warming potential and all that, but it leaves out two things that I think are critical. We have it in 189, but it's still controversial. Those are habitat destruction or land use and human health and toxicity. The reason they're not included now is that there is not as much data and different ways of collecting the data and reporting the data.

Don ([25:01](#)):

So there's not a lot of consistency. Most people's solution to that is just leave it out. But to me, they're so critical as to where the building, where the materials are coming from and the impacts that you're having, not just on the ecosystem, but on people and the ecosystem in terms of habitat. I'm advocating to include those as well, but I do recognize the advantage of moving forward with data that we do have in terms of EPD or some of the programs that are able to calculate these now based on EPD data. I think eventually we have to include those categories as well.

Charlie ([25:38](#)):

It sounds like a very comprehensive well-rounded approach and I'm happy to hear that from a government side, you really are advocating for these things. It's important. You're gonna look at it, you're going to check it. It's not just we did it just because. It's like, "We know that this is what it needs to be like." I've got to ask the question. At the time we're recording this podcast and then launching it we've got a new administration here. We definitely hear a lot about some energy efficiency, retrofit projects on existing buildings, maybe some other new green projects in general. How's this going to affect some of the work you do? What can we look forward to from a green building perspective under or by the administration?

Don ([26:20](#)):

Everything is new now. It's just really exciting. I'm glad we rescheduled this talk because I would not have been very optimistic previously, but with these latest executive orders, it's really rethinking and repositioning sustainability in the federal government. It's not just business as usual continuing on. We're still, well, it's just a buzz every day, trying to figure out how to implement this and bringing people up to speed. There's a big push

on integration and not working at different issues in silo. There are other executive orders on the made in America and other things including environmental justice and all that. Part of sustainability as well now, so it's just a real comprehensive view. The measures, the targets that we've had actually they'd been gone for the last four years, but instead of just bringing back what we had before, what should they be, Is there something new that we should be doing? These new executive orders, two of them that we're having to work through and figuring out the implications for us one is protecting public health and the environment, another tackling the climate crisis at home and abroad. So they're really quite comprehensive talking about, "Are we thinking about infrastructure and how we're impacting climate change with all the actions, procurement actions and everything that we do." It's really a tremendously exciting time, but I don't have any specific answers at this point.

Charlie ([28:03](#)):

You're right. Very new, but encouraging. It sounds like. I can tell you're excited. I'm sure your team's excited. It's, "We've got some cool projects that are going to roll out." I can't wait to track that with you. Let's talk a little more about you and we've learned about your green building journey here, but what would you say is your specialty or your gift?

Don ([28:25](#)):

In the past, I've always kind of been an in the weeds person with details and whatever, but through the years I have drawn back more and more to larger concepts and issues. I think I'm more of a conceptual thinker and an integrator. How to take these sustainability concepts and figure out how to implement them. That's what I've been doing basically for GSA for quite some time. Again, as I say, with these new executive orders, kind of leaving things open-ended just trying to help figure out what's going to have the best impact? What can we be doing in practical terms to move towards those end goals that we have?

Charlie ([29:07](#)):

Sometimes we do need to get in the weeds. I'm a fan of a bucket list. Could you share one or two items, maybe on your bucket list, maybe some travel

and that's a good thing to do again, some adventure, maybe one to write a book. I'm not sure what's on the bucket list.

Don ([29:22](#)):

Well, I've traveled a lot in the past and I always think about my carbon footprint there. So I should cut back on that. I was lucky once to have a flight all the way around the world, we had about five, six stops in between, but it was pretty amazing to actually fly around the entire planet. I wouldn't say travel, even though I enjoy that tremendously. One thing that I've always wanted to do, I mentioned my family farm, but I'd like to design or build my own house there that achieves the Living Building Challenge to have a really zero footprint building that I design and build. I'm so interested also in existing resources that I hesitate to build something. If there's already a house there, which there are a couple of different ones, then I would just as soon fix those up. Actually one example. One of the things I started two years ago, actually it was during the government shutdown. I started a bed and breakfast at a house I have there on the farm. I have a manager that lives there full-time and runs it, but I am basically running it all from here as well. One of my goals is really just to make that an absolutely stunning destination with fantastic gardens and trails through the woods. It's a beautiful place already with a log house, but make it even more so.

Charlie ([30:49](#)):

Sounds like you're quite the passionate project. I saw that on your LinkedIn profile and just, it sounds like you've got some sustainability there. I'd love to hear the nature trails, but what a cool thing to stay connected back there, where it had influence, you admitted earlier in this interview, that means a lot to you there. It's great you're letting other people enjoy that too. I'll definitely put a link to that. Any books you might recommend. Is there a book or two you'd recommend to the list?

Don ([31:15](#)):

Well, I actually, I hate to admit it, but I'm not a big reader. I read parts of books, but not a whole book, I guess, kind of in a funny way. I got my nephew, actually my great nephew for Christmas, the Lorax. Dr. Seuss' the Lorax. I had never read that it came out kind of after my childhood. I actually read it before I sent it to him for Christmas. So that was the last book I read.

Others sitting on my nightstand is sounds kind of dumb, but the complete guide to Facebook advertising with the movie, what is it, social media it's really evil thing, but it's also good if you have a business to target your specific audiences. It's kind of amazing. Maybe we should target audiences for education about sustainability, but I guess besides reading that I watch Netflix a lot. A lot of nature, documentaries and things, there's so many, and they're so inspirational and beautiful, but one recently that I just really loved a lot was David, Attenborough's life on our planet. I would highly recommend watching that.

Charlie ([32:25](#)):

Good documentary. We'll link to all of this in the podcast show notes and definitely the documentary, definitely the bed and breakfast. It is fascinating, sustainability, you can tell when you're answering questions there's sustainability baked in. You really, really, really believe in this stuff so that's encouraging. I appreciate that. Well, as we start to come to a close, I've got two final questions. The first one, is there anything you wish you'd known earlier in your career?

Don ([32:57](#)):

I think just meeting people that had the passion for the importance of the environment and ecosystems and our place in the world. I had big influence from that, from my family, through teachers and others, but in terms of making that part of your profession, I think that was missing when I was young. I wouldn't say that's the case anymore, but I would have liked to have gotten into that or seen that as a career path earlier.

Charlie ([33:28](#)):

That's a good one. Let's say there's someone listening right now and they really are thinking of making a career in green buildings. Do you have any words of encouragement for them?

Don ([33:36](#)):

Yeah. The whole concept of systems thinking that that is key to understanding that it's all about relationships and connections, so really to understand the issues and how they're interrelated. I mean, that's my thing with the whole building LCA, it's understanding the impacts and you find

some, but then it's a trade off and trying to find the best balance for optimal solutions. Even with this understanding of issues and how things are all interrelated, that gets into so many other aspects of today. The economic and social and other issues that we have. If you are understanding people's basic values and what drives them, what makes them happy then that's envisioning sustainability. It really does involve ethics and values and aspirations bringing this all together. When you can integrate that into the work that you're doing, I think that's just the best thing anyone could hope for what I would wish for people.

Charlie ([34:40](#)):

Some great encouragement. We've covered a lot from growing up in Virginia, getting that master's in architecture at Georgia Tech and just really seeing how early you and your team had a hand in writing some of these important mandates for federal agencies here that get their real estate, of course through the GSA on behalf of the government. So just exciting. I've been very encouraged by everything you've done. For every listing. We'll put a link even to Don's profile here, check out a little bit more of what we talked about. Don, thanks for your time today. Thank you.

Charlie ([35:16](#)):

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 to 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 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 actually 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 then on next week's episode.