Sara Neff:

I think sustainability is a good proxy for overall management quality. Because the folks that care about sustainability have long term vision for their companies. A lot of what sustainability is, they can see where the market is going, they know that it adds value. They're not seduced by what is the upfront cost, they're willing to get into the financial modeling, they're willing to get into tenant experience and comps and what they're hearing and listen to their brokers. And make the commitments and have the leeway and the integrity to make those commitments.

Matt Slepin:

Hi, this is Matt Slepin and welcome to Leading Voices in Real Estate. Today's episode is a conversation with Sara Neff, who's the head of sustainability for Lendlease business in the Americas. I heard Sarah speak at the ULI San Francisco's recent Housing the Bay Conference, and was blown away by her intelligence, her tip of the tongue command of the carbon issue for our industry and her energy and speaking. I do not usually harp on this, but energy and charisma in the case of work on climate change really matters since there's a hugely important need for the ability to inspire and communicate on this topic, which needs its resonators. And Sara clearly has that skill.

Last year, I dedicated both leading voices episodes in August to climate change, which always feels particularly urgent in August at my home office in hot and dry Sonoma County. This year we have this conversation with Sarah and in two weeks, a conversation that I'm planning to record live in Copenhagen with Mikael Colville-Andersen, the author of the book, Copenhagen Eyes and the host of the podcast series called, The Life Size City. I've been trying to find a guest to talk about the impact and opportunity of bike share and bike lanes on our urban environments. Which as you know, is a passion for me as a cyclist. And this is finally it.

Do check out last August's Two Leading Voices podcast on climate. One was with Greg Smithies from Fifth Wall, and the other was a conversation with Marta Schantz from the ULI's Greenprint Center for Building Performance, and Elena Alschuler, head of America's Sustainability for LaSalle. And you'll note a lot of discussion around climate on our most recent episode with Doug Bibby and Ed Walter. As well as a [inaudible 00:02:21] on the interview with Owen Thomas from Boston Properties, who's been a leader at his company in tackling carbon. And who also just made a huge gift to fund utilize net zero decarbonization initiative.

As with every episode on Leading Voices, this one is a conversation, both for leaders in the business to get inspired on topics. And on this case, to get on board and raising the bar in their companies on decarbonization. It's also a conversation to inspire young people planning a career in sustainability to join us in the real estate sector. There is huge work to be done in our business and I think an amazing opportunity to move the needle on carbon through careers in real estate. We are looking forward at CRG where we have the ability to work across industries on topics like decarbonization to bring innovation and best practices and sustainability to real estate companies. Call me if we could be helpful.

I hope that you're enjoying the show. As always, please follow or subscribe so that you do not miss an episode. We release on the first and third Mondays of every month. Please share this and other episodes, especially our series on sustainability with your friends and colleagues. And if you have comments, feedback, or guest ideas, please contact me at mslepin@crgpartners.com. I hope that you enjoy the conversation with Sara Neff.

Sara Neff, welcome to Leading Voices in Real Estate. Although we're recording this in early July, this conversation is my second annual, got to do it in hot August, climate change, leading voices

interview series. We did it last summer and I interviewed Elena Alschuler from LaSalle and Marta Schantz from Utilized Greenprint Center. And Greg Smithies from the Climate Tech Group at Fifth Wall. And so we're doing it again this summer because I live in hot Sonoma County, hot fiery Sonoma County. So I'm a little obsessed with climate change and you are the climate person at Lendlease for North America, so I want to talk about that. And I'm going to shut up and let you introduce yourself, Sara, to our audience so we can get started.

Sara Neff:

Thank you so much. I'm so excited to be here. I am Sara Neff, I'm the Head of Sustainability for Lendlease in the Americas. For those who aren't familiar with Lendlease, Lendlease is a global company with Australian heritage. And in the United States, our businesses include pure construction business, investment, management and development. As well as a large standalone business unit with Google, building a 15 million square foot project in Silicon Valley with them. And we are also the largest operators of military housing with 40,000 homes and all of the military's hotels. And I get to run sustainability across all of those business units.

Matt Slepin:

And that sustainability includes the existing assets, so the long term hold assets are those 40,000 homes and others.

Sara Neff:

Yes, there are the 40,000 homes plus the existing assets in the investment management business.

Matt Slepin:

Right. In North America, so this is a global company. And so you'll have some perspective on global approaches to this. One question is, are we behind? Are we ahead when you think globally in the Lendlease platform? Or globally in the real estate world?

Sara Neff:

So while we have a lot of bright spots, I have always looked to actually Australia for leadership in sustainability, for a variety of reasons. I have found throughout my career that the fastest way to figure out what we would be working on in America in three to five years time is to go to a conference and listen carefully for an Australian accent, and then ask that person what they're working on. And time and time again, it's whatever we'll be tackling in the next few years. So that's where beginnings of buildings in health came from, TCFD, science based targets, embodied carbon. All of those were concepts that I heard about from somebody in Australian real estate first.

I will also say that I look a lot to my counterparts in Europe, where there's a lot more regulation and disclosure about all things sustainability, not just real estate. And also where at least for our British business, they have a lot more access universally to a hundred percent green power through renewable energy tariffs through their utilities. So in a way that I don't universally have the ability to flip a switch and get a hundred percent renewable power, I can in some of my markets, just not all. That seems a lot more easily available in Europe. So lots of great things happening.

I will also say the other major difference is just how jobs get bid. So for big development projects, there is a requirement around a big social focus in Australia and Europe. We're seeing the

beginnings of that here, but it's not quite so business as usual to have a big social engagement as part of a [inaudible 00:06:58] project.

Matt Slepin:

It's interesting when you say Australia, I think of companies with colder climates would be the leaders, not countries with warm climates. And Australia obviously has a warm climate, but they're leaders in sustainability. Maybe it's an island, I don't know.

Sara Neff:

Well, having a really hot climate, I mean, Australia is prone to a whole lot of extreme weather. I'm hailing in from Los Angeles and I've certainly looked to my counterparts in Australia on how you deal with fire, extreme heat. A lot of the climate resilience stuff that we deal with in California, they deal with in a very large way in Australia. I have a lot of mutual understanding of climate resilience. And then they also have drought issues. So buildings have had to adapt to drought for a very long time. Many of the most forward thinking buildings in Sydney have done black water recycling for a really long time. You don't see that in any big city in America. And that is as a result of understanding climate impacts.

Matt Slepin:

Makes sense. So we have a lot to unpack in our conversation today and some of this is going to be a review from things that have been discussed on Leading Voices before. But let's start big picture and then start to come into what it is that you get to do at Lendlease. And so big picture, talk about this 40% number, if that's the right number, for real estate dealing with carbon.

Sara Neff:

So real estate represents 40% of climate emissions in the US. That depends a little bit, fluctuates depending on the city you're in. If you're a city like New York, where there's a lot more buildings and sort of fewer cars, than it's going to be a higher percentage. But overall yes, real estate represents 40% of the US climate emissions. I always like to say that our buildings are invisible. We spend 90% of our time indoors, and yet we just don't think of our buildings as something that impacts either our bodies or the environment. Particularly buildings are passive, you get used to them, they don't move, you're not putting gas in them like you do with your car. And so we don't really think about buildings as these large consumers of energy and large contributors to climate change. But yet they are, they also have major impacts in terms of the percentage of our landfills that are taken up by waste from buildings and the amount of water they use. The impact of real estate on climate change is very, very large.

Matt Slepin:

And there's double counting here because if the buildings are say 40% and the buildings are heated by plants that come from coal. Then the electrifying plants may also take credit for the same 40%, right?

Sara Neff:

What you're talking about is one of the reasons that real estate stays invisible. Because we think of, "Okay, we have to look at the utility. Oh, we have to look at the person who made the aluminum, the person who made the steel, the person who made the concrete." And because real estate is sort of farther down the supply chain, we don't think about it. But yet, energy efficiency, for example, is

critically important because there's losses along transmission lines. So you save one kilowatt at the building, and then that's equivalent to more than a kilowatt of savings at the utility plant.

Matt Slepin:

And how much of the 40% is the built environment? How much is the building environment?

Sara Neff:

Oh, I'm sorry, you're talking about new construction versus existing buildings, right? I think those numbers are about right. Something like 90% of the buildings that will exist in 2050 exist now. Though, a lot of the carbon emissions are related to what the existing buildings are doing. I will say that's very much true of worries about energy and whatnot. But new buildings use a whole lot of concrete and a whole lot of steel. And that is a giant, giant impact on climate change. Those materials are very, very climate change intensive. And so, yes, absolutely, we must always focus on existing buildings. But unless we're focused on building materials, we're not really going to hit our targets.

Matt Slepin:

Understood. And then how much of this, particularly the built environment, are buildings that we can get our hands on as a real estate industry versus buildings that are family homes?

Sara Neff:

Yeah, it's really difficult. I will say I see some green shoots out there, in terms of being able to reach class B and C. But I think the last numbers I looked at were that I think we've transformed the top 25% of buildings in the US, which leaves 75% of the buildings, more or less, untouched.

We've done well, there's market transformation there, certainly. In terms of code and new building and whatnot. But there's a large swath at the market. Like you said, the family owned, this one apartment building, that single family home, this mom and pop shop, this nail salon, that we're not doing a great job of touching. I do see improvements, there are companies that do know how to reach those class B and C properties. The nice thing about those properties is that their systems are simpler. And so retrofit, it can be a little more in a box as opposed to something that has to be custom designed by an engineer every single time. And so those who have figured out how to unlock value for the homeowner for the business owner, usually might not requiring anything upfront, but taking a percentage of value at sale, have had success in that market. And so I'm hopeful that we see more of that transformation.

Matt Slepin:

Yep. Thank you. But again, let me just drill in the same question-

Sara Neff:

Sure.

Matt Slepin:

Which is the amount of the problem. How much of the amount of the problem could kind of be addressed by institutional real estate owners when we say it's 40%? And then how much is the amount of the problem say individual homeowners? Just 50, 50, any sense of estimate of this?

Sara Neff:

I think it's probably generously 30% to 40% of the problem can be solved by institutional real estate. But this changes all the time. We have Blackstone re-raising $2 billion a month. So a lot more ... sort of real estate is becoming institutional than was in recent years. And that new real estate will get its own mandates and whatnot around sustainability environmentalism. But yeah, I think that we're probably looking at the top quarter of the market in terms of what institutional real estate is able to really touch.

Matt Slepin:

Okay. And then help me think psychologically, if that word is fair to you, as just another human being. But how do you deal with a problem that may seem insolvable or that you have to boil the ocean to get there? And we only have 10 or 15 years to do it because it's our Armageddon if we don't get there by then. How do we approach this and how do we approach all of the multiple things that have to happen at the same time to get there?

Sara Neff:

Absolutely. So I think about this problem a lot. But I think the important thing to realize is that in real estate, for the most part, and certainly a lot better than it is in other industries, I'm thinking here. Aluminum, concrete, steel, automotive, whatnot. The financial and the environmental are aligned. When you emit less carbon, you're paying less money in operating expenses almost universally. Now it gets that benefit, is it a landlord? Is it a tenant expense on the lease? Have you energy aligned leases and whatnot? But real estate has really great alignment between financing the environment and really the issue is having other people who make those financial decisions, see the benefit, be willing to wait for a payback and adding value to the assets.

So I'm really heartened in recent years. When I go to industry conferences, talking to capital markets people, they can now talk about sustainability without looking uncomfortable. They get their basic lingo, they know what it is they're asking for, they have some metrics, they know how to measure it. And so with that capital, it's going to become more and more companies who realize they have to get going on sustainability, because that is what their LPs or whoever else is holding their stocks or their debt is going to want. And so they have to step up for that and they are, some more than others.

So I get hopeful because I see the financial case being there, I see tenants wanting it, I see the investors wanting it, I see the ratings agencies also putting pressure on the real estate industry. So there's a lot of factors that weren't there when I started my career to really spur real estate companies to make change. And then where those market conditions don't make the change happen fast enough, we do see a proliferation of building codes that do. So we see all electric legislation popping up all over America, we see building disclosure ordinances, we've see performance mandates. Like we see in Boston and New York and Washington, DC. And that is what's going to bring up the rest of the market, including those smaller assets, depending on what they are, that we were talking about earlier. And those codes are fast and furious.

Matt Slepin:

You mentioned a couple of these things, but the investors care in different ways. Local government cares, federal government cares, we'll talk about Supreme Court in a minute, and insurers care, maybe that's the stick, not the carrot. So talk about all of those aligned. And it used to be that everyone just wanted payback. Does it pay back quick enough to help my IRR every day? Versus there's a mandate I got to do it anyhow. So talk about each of those things.

Sara Neff:

I will say that I think sustainability folks and myself absolutely included did ourselves a disservice 10 years ago when we all started our careers, sort of my cohort of leaders, of sustainability, of various real estate companies. By teaching everybody we work with at every time we did anything, there was a payback. And then all of a sudden things got more complicated and we weren't just doing energy efficiency, retrofits. All of a sudden we needed to care about climate resilience analysis and building health and scope three emissions. And there wasn't a payback for everything and all of a sudden everybody's like, "But wait, there's no payback. Why are we doing this?"

And it's not like your investors says, "Well, what's the IRR in having a beautiful building versus an ugly building?" You don't make an Architect, be like, "Give me the payback, give me the financial model on your beautiful versus ugly." You want the beautiful building that people will lease. And so, we're moving away from that. So I'll start with investors. Sustainability has long been seen. There's been a lot of research showing that sustainability is a great proxy for overall management quality. Which is ultimately what you want as an investor, you want overall management quality. It's what you're trying to get at.

And performance on sustainability is a great predictor of overall management quality. And so the market has shifted. We saw the impact investing market triple in size between 2012 and 2018. And then during COVID, it added another $15 trillion and the ESG funds outperform the S&P during COVID. So the financial case is clear, even for those who don't have mandates from pensioners or whatnot. For values based reasons doing this, it's quite clear that this is what makes financial sense. So the investors are there some because they have mandates from their own LPs and whatnot. And also because the financial case is there.

For ratings agencies, we have this issue of climate risk. There are clear leases in the country where assets are riskier, where there have been multiple extreme weather events, and there will likely be more of them. And so ratings agencies, I've seen that as material and want to incorporate that into how they rate a company.

So for insurance, the insurance industry is in an interesting place. I haven't seen an insurer exit a market. I said, "I'm not going to insure in Houston anymore. I'm not going to insure on this shoreline or that shoreline." But it is something they are tracking quite heavily. It is certainly affecting premiums and everybody's feeling that pain. So the insurance industry is there, they haven't driven the conversation as much as maybe the investors have and the ratings agencies have. But it's certainly something that is impacting premiums across the market. And that's going to be really important.

And then tenants, on a variety of asset types, really care about sustainability. And obviously it depends. I'll say in my opinion, this is Sara's opinion only. I see a lot of alignment with sustainability and life science. The folks that go into the life science are mission driven, that's why they chose their career. Sustainability makes a lot of sense to them. I find life science tenants to be very forward thinking on sustainability. Office, especially big office and tech tenants, again, this is the alignment of their employee base. I guess, a little more inconsistent when you're talking about residential, because it's just individual preference and some are really invested in it and some aren't. And also we have our own arcane language around certifications and scores and whatnot, that are sort of hard for lay person to understand.

Industrial actually is doing well in sustainability for a variety of reasons. A lot of that is because they have so much room for solar on those big warehouse roots-

Matt Slepin:

Big roofs. Yep.

Sara Neff:

Yeah, big roof. So those tenants, they want to see the energy savings. A lot of them get to be mission driven, as well. And then retail can be more difficult on sustainability for a variety of reasons. The way the leases are typically written and whatnot, make it more difficult and electrifying food and beverage is hard. But we see the pressure from ... and then from government, from codes, from the media. And all of that has really, really driven change throughout the real estate market.

Matt Slepin:

So if we take all of those ... and then think about government for a second. One of the conversations I had with someone last week was if a city demands a certain level of carbon efficiency in all buildings, can they do it on a portfolio basis of all the buildings? Because some buildings just aren't going to be able to be retrofitted to that degree. Where other buildings could very easily be retrofitted. So it's not always cost effective, but if you look at the portfolio, it works. Any comments on that level of subtlety, particularly with government regulation?

Sara Neff:

Yeah. I mean, city of Ithaca, for example, recently to devoted to decarbonize. Which means electrify your assets and get to a hundred percent renewable power. I mean, the folks who created that legislation are full well aware that some buildings are going to be easier to do than others. But doesn't mean they're not getting started, doesn't mean that the modeling and software isn't in place. So I see cities ... some of them are able to do this on a portfolio level, some of them are just like, "We're going to write this law and we're going to enforce it and see what the innovation is and see what happens."

And so, yes, maybe some buildings will have a problem complying, but maybe those fines are paying for retrofits for other buildings that have a better shot at it. So I think cities are really where the innovation is coming in terms of code to make sustainability happen. So many of the big cities in America have passed some sort of legislation around making existing buildings more efficient, as well as making sure that new buildings are efficient. And so I think that's really, really where we're going to see a lot of the change to get accelerated is going to be on the city level.

Matt Slepin:

And what is the impact of the Supreme Court decision against the EPA on the ability, say for cities to do this? Or for the ability for the EPA to have a global best practices approach at a minimum.

Sara Neff:

I don't see the Supreme Court decision as reducing any momentum whatsoever in city's willingness to drive forward on climate change. One of the things that I learned as part of President Biden's policy committees in 2020 was that a lot of the ability for the federal government to influence buildings really happens through influence. Influence through the state energy program and into the cities and through model building codes and whatnot. The federal government certainly can regulate the GSA portfolio and they're the biggest landlords. That's very, very large.

But in terms of the government's ability to say, "You can build a building in Wichita like this and not like that." That's not really what our federal government does. They can have incentive programs and they can have accelerators and learning and proving grounds and whatnot. But those sort of levers, they

played. States have their own energy programs. And so the Supreme Court decision is really disheartening. Absolutely. But I think it's going to only spur more drive from the investor base, from the ratings agencies and potentially from insurance on all of the sort of headwinds I was talking about earlier. The EPA wasn't really regulating buildings to begin with. And this change while intensely disheartening, is something that I worry a lot about more in terms of how are you regulating big industry? What's going to happen with emissions from plants and utilities? Buildings were already doing their own thing in terms of decarbonizing, and that train has left the station.

Matt Slepin:

Cool. So let me go back to your disheartening comment and the buildings. So the Supreme Court does ... because what I might have heard here is that the Supreme Court decision doesn't matter. But it doesn't matter as much to our industry, but other industries which we care about equally, because we live in the same earth. Those industries may have less regulation around them on this stuff, given the Supreme Court decision.

Sara Neff:

That's correct. Those industries will probably have less regulation. We'll definitely have less regulation as a result of this and that will make it harder for us to decarbonize in our supply chains, for example. If I make it harder for me to get a hundred percent renewable power or low carbon steel or whatever it is, absolutely. I am deeply saddened by the decision that has been made. But I also think that there is intense market pressure around sustainability. Now that's not going away. It's what the customer base wants.

So you have, for example, we're part of an organization called Responsible Steel whose [inaudible 00:24:16] is called Steel Zero about getting to 50% when using carbon steel. That is a consortium of buyers across many, many industries. The steel industry has message. Net neutral steel is available on the market now. They didn't have to get regulated to get there. They got there because that's what the customer wanted and that's working for them. We're seeing the same thing in concrete. Yes, certainly the Supreme Court decision is not going to make things easier. But we at Lendlease hope that the pressure for voluntary commitments and hitting those targets is going to become even more important from all those other market players. And the companies are going to step up and make the choice because it makes financial sense [inaudible 00:24:54].

Matt Slepin:

Cool. I have this concept and I know it's going to be the case that this super majority in the Supreme Court's there for 30 years or 25 years. And climate change is going to be even more obvious in 10 years. And I think they're going to say what my kid says when they spill something, which is, "Oops." And they'll find ways to make decisions that have to be made work at a point into the future.

What I do want to talk about is what you're able to do at Lendlease. So now that we have context for what these issues are, what these issues are in the built environment and the environment in context in which we're working, doing our work. Talk about what you get to do at Lendlease and let's break it down into different areas of your work so that we can see that you're able to make progress. And start wherever you want.

Sara Neff:

Absolutely. Well, I'll just start with my favorite stuff. So when we do our analysis of all of our carbon emissions, what becomes clear to us is Lendlease again, does pure construction and does a lot of development. And yes, we have these 40,000 military homes and we're always renovating them and there are emissions there. But most of our emissions are in the embodied carbon of our assets, of our construction materials, the concrete, the steel, the aluminum, the glass, the gypsum, the whatever. And so we are ... my favorite work that I do here is rapidly decarbonizing those materials.

And what we're finding is that it's not universally easy everywhere we go, but you can on a cost neutral basis from a baseline of, what is the average carbon intensity of a particular product in that particular region? You can cut 10% to 20% or more out just keeping cost neutral just by asking all the suppliers to provide you with the environmental product information before you do the buy. And keeping performance and cost neutral, picking the lowest carbon material without changing the design of the project and without impacting the cost.

Matt Slepin:

So on typical concrete, are there variations of concrete? Talk about that.

Sara Neff:

So there's a tool out there called EC3, the environmental carbon and construction calculator that basically easily allow ... and it's a free tool, anybody can download it. That'll easily allows anybody to compare the environmental impact of a variety of materials, concrete being one. So there are documents called environmental product declarations, concrete companies have these, they're in the tool. Then the tool can say, "Okay, here are all the concretes that would meet your requirements and you can pick the lowest carbon one." And that really enables that kind of choice.

And so at Lendlease, we're really good before we buy a job of calling up all the concrete suppliers and all the steel suppliers and saying, "Okay, what are our options?" And sometimes when we're building for a third party, often we have to keep cost neutral. "Okay, here's the best you can do for the cost you have." But sometimes we have clients that say, "I want the lower carbon stuff. I'm willing to pay a little more for it. And thank you for bringing this option to my attention." And we're able to do it that way.

So we are really good, A, at understanding our supply chain. B, at bringing this proactively to our clients. And now we're in the really fun stuff where we're actually trying to influence the supply chain itself. So what am I talking about? So for example, we just signed our first non-binding letter of interest for a zero carbon Portland cement replacement company to say, "Okay, if you can keep price performance schedule neutral. Yep, we want to buy your product in this region." And that's going to enable them to go get financing and scale up. Because really where we are with materials is we have a lot of really cool ideas out there for low carbon materials, but we need to get them to market faster. We don't have 10 years to wait.

And so that's where I see Lendlease really playing a big role here is ... I mean, there's other stuff that I can't yet talk about in that space, as well. But how do we signal to the market? Yes. If you have a good product and it's passed all of its testing, scale it up, we want it. I don't want one batch. I don't want one little ton of concrete here. I want it enough for a building, for a portfolio buildings. And so I'm really excited about that, we're going to actually changing the materials that are available. Measuring all the stuff is complete nightmare, but we are navigating all of that. There's not a standard, there's many different what are called life cycle assessment, LCA tools. They all do it fairly differently, you can fill with

the baselines. So these things are a little tricky in their execution, but we are seeing just really, really rapid success.

If you'd asked me 12 months ago when I started at Lendlease, "Sara, when do you think net neutral steel will be available on the market?" I would've said, "I don't know, 2030?" But it's available now. There's a company that figured out how to electrify all its arc furnaces, has a contract for a hundred percent renewable power to power them and has a hundred percent recycled scrap. Like that's net neutral steel.

Matt Slepin:

And I ask a dumb question because ... talk about embodied carbon in either concrete or steel, once it's been delivered and it's sitting in a high rise, how do you actually do a calculation that looks at the life cycle of that to know what it was and then how does it get better?

Sara Neff:

Right. So to provide some framing, steel represents 8% of global climate emissions, concrete represents something like 6%. So these are big, big contributors to global climate change.

Matt Slepin:

Steel is what percent? I'm sorry.

Sara Neff:

Eight.

Matt Slepin:

Okay. Eight and concrete six.

Sara Neff:

Yeah.

Matt Slepin:

Okay.

Sara Neff:

So the two is 14%. I mean, it's just enormous. There is a robust and maturing field of life cycle assessments for exactly what you're talking about. So again, the field evolves, but there's many tools out there that do exactly what it is that we're talking about. You give it all the environmental ... what are called the environmental product declarations for all the materials you use and how much of them you use. And the calculator will spit out, here's the embodied carbon per square foot.

So it starts with the environmental product declaration. And then these things can get refined more and more. Now there are obvious nuances to this, are you covering a release during demolition or transportation to demolition? I mean, there's something like ... oh, don't quote me on this. But more than a dozen ways of thinking about the emissions related to building products, companies sort of need to set their own rules around what's in and what's out. It's probably not going to be everything. And then calculate from there. So it's still a little bit tricky to make sure everybody's comparing apples to

apples, but when the tools are out there, they're being used all the time and they're getting more sophisticated.

Matt Slepin:

So there's so many topics and so many drill downs on all these things that you're saying. But talk about ... let's switch for a second to obsolete buildings versus new buildings. And what's the cost of tearing something down versus the cost of retrofitting something obsolete? And it may be market obsolete, but it may also be climate obsolete. Like how do you figure that one out?

Sara Neff:

It's a difficult calculation. I mean, we, green building professionals, are taught the greenest brick is the one that's already in the building. So if you can save an old building, obviously you should. Here's some reasons why you might not want to do that. One is density. If it's a small building on a lot and you're building a large building on the same lot, you're going to able to get density, reduce transportation and all that good stuff. So, that would be an argument to not renovate.

But many, many arguments for renovations, one of my favorite projects that I worked on in my prior role were historic renovations. And especially when they can preserve some cultural heritage, that's absolutely wonderful. If they're able to be refit to [inaudible 00:32:18]. So really the question is, does the existing building have the bones to be refit to a current use? And if it does, there's probably a way to figure out how to do it. If it doesn't, if you have a one story, 2,000 square foot radio station, and you'd like to build a 600,000 square foot office building on the same lot, you're probably going to tear down the radio station. So, there's a cost benefit analysis here. Can the old building ... does it have the structure it needs to be able to adapt or not?

Matt Slepin:

Yeah, it's interesting given particularly our office supply and you worked at an office company last ... I'm trying to think about how that obsolete office supply that people don't want to go to. It's either just ugly or it has bad circulation or it can't be retrofitted well. And then that decision and is someone willing to tear it down and build something new? And there's just a lot of math.

Sara Neff:

If there's a lot of performance. I mean, right now, new construction is hard. I mean, the return on cost is rough calculation. Where things get really tricky is where the bones are good, but eventually we are going to need to remove a natural gas system from a building. The mixed fuel to all electric retrofit for an existing asset is it's not that it hasn't been done, but it's been done precious few times. And so to provide some context on that, we know that we need to get to, at Lendlease, a hundred percent electric buildings. At Lendlease we have what we call our mission zero goals, which E scope, one scope, two carbon neutral by 202,5 and then absolute zero across all three scopes, no offsets by 2040. Those are the most ambitious carbon goals in all of real estate. It is my pleasure to get to help us get on our way to that target.

And so one of the things we know we need to do is that if we're going to get to absolute zero, the natural gas grid infrastructure cannot get to a hundred percent renewables. There just isn't any projection that shows that's the case. The electric grid can get to a hundred percent renewable. So we know eventually, we have to have all of our buildings only use electricity and not use natural gas. That gets really, really hard to plan for, for an existing asset that you've acquired. Because replacing that

infrastructure is costly, it's hard to engineer. It's not a really a known retrofit quantity right now. But as more and more folks start working in the space, we're going to see more and more really positive case studies coming out of it.

Matt Slepin:

I read half of John Dower's book and John Dower's book has, "This sector does this and this sector does that. And the other sector does that. And if we all do it at the same time and we all do it together and we all do it to an 80% effectiveness, we're going to be okay." And so that gets to the issues of someone just bought a value add apartment building and their plan in the value add is not to electrify the building. They have natural gas lines in there for the stoves, it's just going to be there. And that may never get gotten. And the next buyer's going to buy it with that same dynamic in there and the investor's going to accept that purchase. And we have affordability issues, so we're balancing all those things. Lendlease may get to total zero, but Lendlease doesn't own that stuff. Although maybe you own that stuff in military housing. So how do you square those different dynamics at the same time?

Sara Neff:

Yeah, it's hard. I mean, Lendlease, we believe very strongly at our mission zero goals. And so we know that if we buy an existing asset, we're not a merchant build, we are going to be a longer term hold. And so we want that asset to be energy efficient. And we know that retrofit is going to have to go in there now. I'll say that we, if you look at our mission zero roadmaps, which are available publicly online. I don't see us starting that mixed field all electric retrofit work for a while. It doesn't pencil yet. It's just, that's not where it is.

But it's getting there and there's a bunch of smart people working on this issue. And so I have a lot of confidence that we will get there. We will get to the point where those retrofit are less sort of fundamental and traumatizing. Right now, they're not easy. And those that have been done have had special circumstances. I got a grant here, I had an historical heritage mandate there, whatnot. This is also becoming exacerbated because with climate change, you talked earlier about being from Sonoma, I'm in Los Angeles, where it gets hot. People are increasingly putting in air conditioning. And so now we have this sort of [inaudible 00:36:43] effect of the climate change, which causes the heat and the people with the air conditioning, which causes more climate change, which causes more heat and so on.

Matt Slepin:

So we're going to get back to real estate in a moment. But I'm wondering a cultural dynamic behavior that we might predict is going to be the case in 30 years. Years ago I went to Israel and in Israel people, when they go to work, wear shorts and a light shirt, and they don't wear a tie and they don't wear a jacket. Because that's normal in a work environment in a really hot country. And maybe in 20 years, probably already happened because of COVID, here in America. But those behaviors would have to be changed. Your thermostat's going to be four degrees less comfortable, according to what we've gotten used to here in the states. I bet that's inevitable.

Sara Neff:

I think that there are many passive strategies, especially for a home, that we just haven't had to exploit in America because our energy's been cheap and it's not so expensive to buy an air conditioning unit. But it's not that it's impossible. What America needs to do is get better at commissioning its building envelopes, which is still new, it's an optional point and lead, and nobody likes paying for it. We need better building envelopes.

And we also need some more education. It's not just to set it and forget it, that it was earlier. At certain times of the day, we're needing to open doors and windows to let fresh air in, let some heat out. We're shutting things up at night to try to heat up. There's other behavior components to this, but it's not impossible. And we find a certain percentage of our residents really, really enjoy this. They mention that the customer satisfaction surveys that sustainability is important to them. It is something that is deeply important to us.

Matt Slepin:

Fair deal. And there are behavioral changes that become normal. When I brush my teeth as a kid, I keep the water running for the entire cycle of the toothbrush. That changed years ago. But things like that or small changes that we all make. But again, we're talking about big stuff where we're talking about industry right now.

Let's come back to Lendlease and then we're going to change the subject. You guys have a big canvas and we're working with Lendlease and the Google ventures team on some of these giant district developments. These aren't building developments, these are community developments. And when you have that kind of canvas, you can afford to advertise the cost of a lot of things over a big platform. So, A, you're a big platform to begin with. And then, B, that you're painting on a big platform canvas. Talk about some of those opportunities and how you can really move the needle in those kind of projects.

Sara Neff:

Absolutely. I am so excited for the Google project because there's just so many great people working and so many really fun ideas happening. That embodied carbon piece that I was talking about earlier, I see that project making those kind of supply chain partnerships, and really helping to multiply and elevate around all of the hard scape that's going into the horizontal plane, as well as the buildings on those developments that Lendlease is controlling. So, there's a lot of opportunity there. A lot of opportunity to be really strategic around solar because there's so many assets. So, where are we putting a battery? Where are we using this piece of infrastructure? How is the solar going to work? Are we talk about solar over mechanical or just on the flat roof? There's a lot of options and really, really fun stuff there.

Super great big sustainability targets. They're going to be really energy efficient. They're all going to be lead golden platinum buildings. They're going to be connected to district energy systems. The whole thing will be all electric, including food and bev. So there's a lot of great stuff going out at GDV that we're really excited about. I'll use the food and beverage example. All electric is hard for food and beverage. Cooks are used to cooking with fire. And while every cook who has ever tried it, loves induction stoves very, very much. They love the control, they love the precision, they let how it heats, it's been safer. But getting them to that place is difficult. And so Google, which I really appreciate, has the mandate that said, "No, no. You said it was going to be all electric project, this is going to be an all electric project." Which means the new restaurants coming in, need to only use all electric cooking equipment. And we're seeing those changes happen now. And they'll only be replicated more. So, so much to be excited about at Google Development Ventures.

Matt Slepin:

Yeah. And it's interesting that you have a client who's on your side, we've talked about investors. But this is a different kind of client than would be investors or government. And it's one that has a self-interest in being forward thinking.

Sara Neff:

Yes.

Matt Slepin:

I want to think about the ripple effects of that self-interest in, once you prove out these components and you're able to take the risk with Google on this, then how does that come then back to the rest of the industry? So the rest of us could do it, that don't have the dollars to afford a person like you, as well as all the great work that you're doing here.

Sara Neff:

Yeah. So on the social side of things, there is a council of representatives from area nonprofits that are determining how that's going to work. And I think that's a great model to be replicate it. Like let's not have the real estate honor guests, what's going to be benefit the community? Let's take in the people who are currently helping the community, and ask what you can do for them. That's probably a better way to learn about what's going on. So, that is one way that we're going to be amplifying that story. And then this is going to be one of our first opportunities to build all of our renewables in a coherent strategy.

Matt Slepin:

Do you have technologies that you wind up investing in that can then ripple through the industry? Or are you just able to support a supplier to do something with enough scale so they could be successful?

Sara Neff:

Yeah, it's the latter. So we have the ability to make partnerships that I do with various technology providers, and then we're able to source all of those engagements. I will say that, there's so much expertise out there in sustainability right now. Especially if you're in any sort of large-ish city. Then there's no need to reinvent the wheel. We, green building folk, are very, very friendly and we love helping other people answer their problems on sustainability.

Matt Slepin:

Fair deal. Before we talk about your career and how you got here, so we can inspire other people to do what you're doing. Any examples of something that might blow the minds of our listeners who don't know some of the most innovative things that are being done out there, that be kind of interesting or cool?

Sara Neff:

Yes. So my favorite project right now actually comes out of my military housing business. We are going to be replacing the roofs off of ... we're constantly renovating the homes. The homes have to keep getting updated. And so one of the things that's sort of sad about that is that we're doing roof replacements on 3,000 roofs and that is a lot of roof tile. That all has to get land filled and we have to pay for it, and that's really hard. And so my director on that team, Megan Saunders, who deserves all the credit for this initiative, somehow got in contact with a mycologist, a mushroom scientist. And so they shipped the mycologist a tub full of the roof tiles that were ... one of the roofs that got ripped off, got that ground down. [inaudible 00:43:48] hauled it to the mycologist who seeded that sort of substrate with the mushrooms.

So they grouped for several weeks, results came out on June 20th, but other people are validating them. So I can't quite say what's happened, but so far it's looking pretty good. And then the

idea is then that byproduct is then going to get sent back to the roof manufacturer. And then try to use old roofs in new roofs. So that'll be great sort of a circular economy thing that we're working on that I really, really love. So, that's a fantastic project.

And then other things we're looking at in America is how do we procure a hundred percent renewable energy? Like where does that make sense onsite? Where does it make sense to do that offsite? How do we do that calculation?

Matt Slepin:

And any comments?

Sara Neff:

It varies a lot. And it really chases the utility incentives. So very different to do, for example, a big solar project in Hawaii, where you have 30 plus cents as your cost of power. Makes sense all day long, makes a little bit less sense for Southern Kentucky where power's about around six cents, I think the last I checked. And so, it's really hard to get a payback on a project like that. So it really just depends on where projects are and what the opportunity is. You have a warehouse, you have so much room for solar. You got a CBD office building or high rise residential, life gets harder.

Matt Slepin:

So back to the John Dower book that says all of these sectors have to do their job. Put real estate in context with that, we know it's 40% and we know where we can be leveraging, we've talked about that, particularly for the institutional owners. How are we doing against what he might write as a chapter on real estate?

Sara Neff:

I wish I knew whether or not our industry is doing enough. I feel that all of the right pieces are finally in place. Or the institutionally owned real estate to be making the right moves on climate change. It's only going to take codes and implementation of codes to move the rest of the industry. And I'm not sure if that's going to happen fast enough.

We have all of the tools that are needed. We're not waiting around for new technology, for the most part, to get invented. There is some exceptions, but mostly real estate is a world of the future is here, it's just not evenly distributed. I use an example, construction equipment. So in Scandinavia they have access to all electric construction equipment. So you don't have to use fuels to power your excavator or your crane or your backhoe loader or whatever it is. We just did a study with, let me stay with the University of Victoria, basically saying that all electric construction vehicles are not going to be universally available in the world by 2040. They're just not projected to get there. Well, that is a problem because that is certainly a lot of my emissions. So is that sector going to decarbonize fast enough for real estate to do what the book says? I don't know. We have the ability, those pieces of equipment already exist. It's a matter of getting them to where the work is.

Matt Slepin:

So I want to change subject and I want to know how you got here to do this job. And I know you were at Kilroy last, but talk about pre Kilroy. And then we'll talk about Kilroy and we don't have to talk about Lendlease because you already did. But how did he get into this? What was your training? What was your background?

Sara Neff:

I have a very meandering background. So I took a very winding path to my current career. I graduated from college, I'll just put it out there, in 2010. Which was not a great job market back then, everything was crashing. And I decided to move to England for a while, I wanted to travel, see the world. Moved to England for a while, came back, worked at a Shakespeare nonprofit, moved to India for a while and then landed myself in television. I had started dating my now husband, who was a TV writer. And so I spent some happy and more difficult years working in entertainment. And basically got to the point of, how many more shows about white people in New York am I going to work on before I die?

This is just not what I wanted to do with my one life on earth. And I've had somebody I respected a lot from undergrad, make the transition from Hollywood to business school, to do something around aligning financial and environmental interest. And I said, "That is what I need to be doing." So after spending a year working on my applications while working at Google, I went to business school to focus on what at Columbia is called social enterprise. And after that, really fell backwards into real estate. It was back in the day where nobody had a head of sustainability for real estate company, John Kilroy, who's a fantastic person. He's absolutely a visionary on a lot of things, not just sustainability. But really saw the sustainability, what was happening. And he wanted to be the leader and I was the right person in the right place at the right time. I got to start as the Director of Sustainability at Kilroy in 2010.

Matt Slepin:

And in 2010, you start a Kilroy Director of Sustainability, because he gets like an inexpensive young person to do this thing where they're going to be a leader because no one had a more expensive 10 year person, they didn't exist back then.

Sara Neff:

There's nobody with a whole lot of tenure, like one other person in Los Angeles. But for example, the Nareit, The National Association of Real Estate Investment Trusts, at our first gathering, how many of us were there? 20, 30? I mean, so few. And now that number is in the dozens and I think we're up to over a hundred of people for sustainability. So yes, it was young. The industry was really, really new. I mean, Kilroy wasn't the very, very first, but it was one of the very first. And because John gave me the leeway and the company had the right tenants and the right mix in the right cities. And we were able to create the most award-winning sustainability program in North America.

And so, I created that program and we did things like declared that we were going to be the first carbon mutually operating real estate investment trust in North America. We made that declaration that we'd get there by 2020, we declared that in 2018, got there in 2020. And then moved beyond that, science based targets, getting the offsite power purchase agreement signed, pharma disclosure project, a lot of success on [inaudible 00:50:01], great success on energy efficiency, onsite at officer renewables, water composting, all the rest, a lot of EV charging work and a lot of work on health, which became really important during COVID.

And so, yeah, I spent a very happy decade at Kilroy. As I previously stated, I would go to conferences and listen for an Australian accent to hear what I should be working on next. And so then when Lendlease needed a new Head of Sustainability for the America's region, it seemed like a great opportunity to learn about new sectors within real estate and push things on sustainability to a new and different level. And that's what I'm doing here.

Matt Slepin:

Go backwards for a minute. Talk about the meaning of the canvas within the Kilroy portfolio and the development it did. And then turbo charged that again, we don't have to go into details because we already did. But I'm just curious about the contrast between the two.

Sara Neff:

Absolutely. So Kilroy has had actually a remarkably stable portfolio size for a long time. It does a lot of really, really strategic and very smart capital recycling. So it's always been somewhere around a 14 million square foot ish portfolio. Sometimes a little more, sometimes a little less. And in that period of time of keeping that stable, stock prices tripled and whatnot. But as you get from lesser performing assets to higher performing assets. So I was really lucky to have about a hundred buildings as my sandbox to drive energy efficiency, water efficiency, waste EV charging, health onsite renewables. If you can think of it, I probably did it at some point.

But then we had a large development pipeline. And so I was able to drive sustainability and new development, as well, which evolved a lot. My first building that I got to work on, went into demolition the day I started at Kilroy. So I was like, "Hey, can you get this thing lead certified?" And you're like, "The CDs are already created, every contract is already signed. But let me see what I can do." We did get that ability to lead silver, that was a long, long time ago. I was very, very proud of it.

And then we were able to figure out a lot of things. How do you put in a gray water system when it's being encouraged, but the health department has not said yet that they'll allow you to operate it? Navigating that, navigating our first biomimicry inspired materials, navigating our first onsite solar. And so I cut my teeth in development there. I got to work at a lot of really, really exciting stuff. And basically what happened was every time we pushed the envelope on sustainability, the market rewarded it. A tenant wanted it at least quickly, and then it pushed us to do more. And so we would have a lead gold building and that was great. And then we're like, "Wait in this market, what happens if we go to platinum?" We go to platinum and that would get leased up really quickly. And so, that really created all this momentum around sustainability because ... and this was without investors, it was without regulation, this was without ratings agencies. This was just us and our tenants. And that drove so much change there.

Matt Slepin:

And how much of that dynamics ... because you're in California. So your assets are all west coast, west coast is more blue, it's more green at the same time. Would that be transferable? And moving over to Lendlease where you have a national platform in all kinds of markets, do you see more headwinds? Or is the acceptance of this equal elsewhere?

Sara Neff:

I'm happy to say it's very transferable. So Lendlease operates in gateway cities. And as I mentioned earlier, cities are really where the innovation is happening in terms of pushing real estate on the environment. So we operate in New York, Boston, Chicago, San Francisco, and Los Angeles as our major markets. And in all of those cities, in various flavors. But in all of those cities, we see dramatic pushes towards legislation around buildings and all of them have thriving, green building communities. And communities practice and innovation and tech and all the rest. So absolute transferable. I have to learn about this code versus that code and what thing do I dispose where, fine there's nuances. But the overall point is the same.

And then you might be wondering, "Well, what about the military portfolio?" That's everywhere. You got stuff in Kentucky, you have stuff in Alaska, you have stuff i Carolina, in Texas. And the answer is the military housing portfolio, which I really, it is the deepest pleasure to work on that portfolio. We run in partnership with the Department of Defense. And the Department of Defense cares about saving operating money for taxpayers, it cares about the resident experience and it cares about resilience. And those things are all very much align with what I want to do in sustainability. And so we've had great success in that portfolio, no matter what sort of is happening with the legislation in that particular state or whatnot. Because it makes so much sense for the mission that the DOD is on with its military housing portfolio. And we're able to be great partners there.

Matt Slepin:

I'm going to pick up on a comment you made a long time ago in the conversation. It was an interesting one. You said that sustainability as a proxy for strong management, that investors have found that. And I'm wondering if it's a proxy or they are aligned. If someone's forward thinking, they're going to be a good manager and a good fiduciary. And they're probably thinking about sustainability, too. Is it deeper than that?

Sara Neff:

I think sustainability is a good proxy for overall management quality. Because the folks that care about sustainability have long term vision for their companies. A lot of what sustainability is, they can see where the market is going, they know that it adds value, they're not seduced by what is the upfront cost, they're willing to get into the financial modeling, they're willing to get into tenant experience and comps and what they're hearing and listen to their brokers. And make the commitments and have the leeway and the integrity to make those commitments. And that's why I think it's a great proxy for overall management quality.

Matt Slepin:

Fair deal. We're going to start to wrap up. Personal question, which is how do you deal with this stuff? So you're dealing with existential stuff. I've heard a whole bunch of podcasts about young people who aren't having kids. They're scared to have kids to think about the world that's coming. So how do you hold this stuff? And we kept talking about John Dower as another example and ministry the future and all these ... but I keep reading this stuff. But how do you hold this? And how do you maintain either optimism, pessimism, or we're just going to plow through it? Any comments?

Sara Neff:

Absolutely. I deal with the psychology of fighting climate change on a daily basis. How do I keep my team, my fantastic team of 12 motivated? And how do I keep all of Lendlease motivated? And there's a level at which we plow through, there is work to be done, so we do it. So that is certainly part of it.

But the other thing that's happening is I am seeing change happen so quickly. It has never been more fun to do my job. It has never been more exciting on a day to day basis to think about doing procurement contracts for zero carbon cement, and to be raising funds with sustainability mandates attached to them, and to be working on onsite solar and water recycling in a way that the technology has gotten so good that ... and the community practice within the trades is such that nobody even blinks or says, "What are you talking about?"

And the thing is, I really think that I'm making people like their jobs more. And so I think I help with the engagement. There are times like, certain Supreme Court rulings that can make things certainly a little bit harder. The other thing I will say about Lendlease is that the mission zero goals are not something we say out of lip service. This was something that was decided by the highest levels of the company. We're not kidding. We have such ambitious targets and it's really fun to work at a company where I keep being told, "Sara, you said, we agreed to zero. So how do we get to zero? What is the path to zero? Implement that. That's what you're hired to do, go do it." And having that kind of upper management buy-in is priceless. So that's why I really love my job and I enjoy going to work every day.

Matt Slepin:

It's extraordinary when you come to ... I think of good guys and bad guys and moral and amoral and self interested and not self interested. But once you have a goal, none of those things matter. There's no judgment around it. You have a goal, we're all going to get to the goal. We buy into the goal. So let's go forward, let's beat the goal, it's competition.

Sara Neff:

Absolutely. And I was lucky my entire career to have upper management buy-in. I mean, when I started at Kilroy, I'm not saying that everybody totally understood what sustainability was. But John Kilroy absolutely got it. And the board of directors absolutely got it. And we were able to really, with baby steps, make really, really big things happen there. Now really what's happening in real estate is that companies have to figure out some sort of meaningful path to zero, not just like, "Oh, I'm going to get there by 2070." Or something irrelevant. But actually set a meaningful target and then really have to start making progress and have to do it quite quickly. And so it's really fun time.

Matt Slepin:

Wonderful. So that pivots to the last question on Leading Voices, which is always the same, but a little bit modified for each guest. So the question is always, what's your advice for a young person getting into the real estate industry? But in this case, for a young person who wants to get into the climate change business and make a difference in climate change. What brings them to real estate? Help bring some of them over here.

Sara Neff:

Absolutely. It is the most fun time to be starting in sustainability right now because real estate is exploding on this. There's never been more jobs than there are right now. There's never been more fun project. I mean, the opportunity are crazy right now. This is just such a dynamic time. And so the great thing is, what we want to see is demonstrated interest in sustainability. And so it's okay if you don't have the background. I don't have an environmental degree, I didn't know ... sustainability didn't exist really when I was an undergrad. That's fine.

What I want is you to demonstrate the real interest, that you have this sort of psychological stamina to keep working on it. So have you joined your local USGBC chapter or your other green organization? Are you planning events? Are you dealing with advocacy? Like whatever it is, there's so many ways to demonstrate interest. So many jobs to match what your particular area of interest is to a role. The financial side and the environmental side have always been really, really well aligned. And now it's sort of our turn on the spotlight. And so I really encourage folks who are interested in sustainability to consider roles in real estate. We need you, we got a lot to decarbonize, there's a lot of work to be done. And the work's really fun.

Matt Slepin:

Cool. Hey Sara, thank you so much for being on the podcast. This was a great conversation. I need a promise for you to come back in two years and I want a report card, and I'm going to ask you all the same questions, but I'm going to drill down on how we're doing against all these goals.

Sara Neff:

I cannot wait to tell you how our mushrooms turned out.

Matt Slepin:

Boom, let's go get them. So Sara, thank you. This was really fun and I really appreciate it.

Sara Neff:

Thank you. Thank you so much for having me.

Matt Slepin:

Thank you for listening into Leading Voices. And I hope that you enjoyed today's episode. I have a request. If you enjoyed the episode and found it to be valuable, please share it with a friend or two. If their podcast wary, take their smartphone in your hand and subscribe for them and teach them to listen. You'll change their life. Seriously, thanks for listening and keep in touch. You know you can reach me at Matt@rTerraSearchPartners.com. See you next time.