

Webinar

The Materials Movement: Creating Value with Better Building Materials

Date: December 01, 2023

00:00:11 --> 00:00:13: Hi everyone, Welcome. 00:00:14 --> 00:00:16: It looks like people are trickling in from the waiting 00:00:16 --> 00:00:16: room. 00:00:18 --> 00:00:19: We'll get started in a couple of minutes. 00:00:20 --> 00:00:22: While we're waiting, feel free to introduce yourself in the 00:00:22 --> 00:00:24: chat and tell us where you're joining us from. 00:00:27 --> 00:00:28: Thanks for being here. 00:00:49 --> 00:00:49: All right. 00:00:50 --> 00:00:51: Well, go ahead and get started. 00:00:51 --> 00:00:52: So welcome. 00:00:52 --> 00:00:55: My name is Victoria Ostreich and I'm Senior Manager with 00:00:55 --> 00:00:58: the Urban Land Institute's Randall Lewis Center for Sustainability in 00:00:58 --> 00:00:59: Real Estate. 00:01:00 --> 00:01:02: I'm really excited to have you here and tell you 00:01:02 --> 00:01:05: a little bit about the materials movement. 00:01:05 --> 00:01:08: We've assembled an amazing panel of experts who are going 00:01:08 --> 00:01:11: to share their perspectives on the real estate industries movement 00:01:11 --> 00:01:13: towards healthy and sustainable building materials. 00:01:14 --> 00:01:16: We'll talk about why material choices are important for the environment, for future tenants and for communities. 00:01:16 --> 00:01:19: 00:01:20 --> 00:01:23: We'll also talk about how professionals across the value chain 00:01:23 --> 00:01:26: are successfully making more informed choices to integrate better materials 00:01:26 --> 00:01:28: that are good for people on the planet. 00:01:29 --> 00:01:31: We're really glad to have you with us, so let's 00:01:31 --> 00:01:31: get started.

00:01:33> 00:01:35:	I'm excited to introduce you to today's speakers.
00:01:36> 00:01:39:	Sydney Mainster is the Vice President of Sustainability and Design
00:01:39> 00:01:42:	Management for the Durst Organization, one of the oldest family
00:01:42> 00:01:45:	run commercial and residential real estate companies in New York
00:01:45> 00:01:45:	City.
00:01:46> 00:01:49:	Suzanne Fallander is the Vice President of Global ESG for
00:01:49> 00:01:52:	Prologis, which acquires, develops and maintains the largest collection of
00:01:53> 00:01:55:	high quality logistics real estate in the world.
00:01:56> 00:01:59:	Heidi Creighton is the Vice President of Sustainability for Skanska
00:01:59> 00:02:00:	USA Commercial Development.
00:02:01> 00:02:04:	Skanska is a 135 year old development and construction company
00:02:04> 00:02:07:	that began in Sweden and operates globally.
00:02:09> 00:02:12:	Today's webinar was organized through the Uli Randall Lewis Center
00:02:12> 00:02:15:	for Sustainability in Real Estate, which leads the industry in
00:02:15> 00:02:19:	creating places and buildings where people and the environment thrive.
00:02:23> 00:02:24:	Here's our agenda for today.
00:02:25> 00:02:27:	First, we're going to do a quick poll to better
00:02:27> 00:02:29:	understand who's in the audience.
00:02:29> 00:02:32:	Then I'm going to provide a brief overview of the
00:02:32> 00:02:33:	Materials Movement report.
00:02:34> 00:02:37:	Later, our panelists will present their firm's approach to sustainable
00:02:37> 00:02:40:	building materials and highlight example projects that are leading this
00:02:40> 00:02:41:	movement.
00:02:42> 00:02:45:	Following the presentations, we'll move to a panel discussion and
00:02:45> 00:02:47:	then open it up for panelists to answer your questions.
00:02:48> 00:02:50:	So as you're listening in, please enter your questions in
00:02:50> 00:02:51:	the Q&A box.
00:02:51> 00:02:54:	You can also use the upvote feature to elevate questions
00:02:54> 00:02:55:	that you like.
00:02:56> 00:02:58:	And finally, I want to flag that this webinar is
00:02:58> 00:03:01:	being recorded and we'll share a recording with all the
00:03:01> 00:03:04:	participants and publish it on UL Eyes Knowledge Finder website.
00:03:06> 00:03:08:	It looks like folks are introducing themselves in the chat.

00:03:09 → 00:03:10: Welcome. 00:03:11 → 00:03:14: So we're going to go ahead and launch our poll. 00:03:14 → 00:03:17: We this is a three question anonymous poll for you to answer. 00:03:18 → 00:03:22: We're just hoping to get a better sense of who's in the virtual room and what you already know about embodied carbon and material health. 00:03:25 → 00:03:26: Don't worry, it's not a test. 00:03:26 → 00:03:28: We're just hoping to learn a little bit more about you. 00:03:28 → 00:03:31: And if you've never heard of these terms, don't worry, sith sith ight. 00:03:31 → 00:03:31: We'll we'll define them for you in just a minute. 00:03:34 → 00:03:31: We'll we'll define them for you in just a minute. 00:03:34 → 00:03:31: So we'll give this about 30 seconds or so for people to respond. 00:03:54 → 00:03:54: Looks like we have almost everyone responding. 00:04:30 → 00:04:30: Great. 00:04:30 → 00:04:30: Great. 00:04:30 → 00:04:31: We'll go ahead and end the poll. 00:04:30 → 00:04:32: We'll go ahead and end the poll. 00:04:30 → 00:04:36: It looks like we have a diverse group and we have mixed levels of knowledge of these topics, which is really great. 00:04:40 → 00:04:40: on:04:40: on:04:41: So I do want to just provide a couple of quick definitions to make sure that we're all on the same page. 00:04:59 → 00:04:55: Embodied carbon is the greenhouse gas emissions that arise from the production, transportation, installation, and disposal of building materials. 00:05:02 → 00:05:05: 50% of a building's total carbon emissions over its lifetime. 00:05:09 → 00:05:12: larger share of a building's total carbon footprint. 00:05:16 → 00:05:12: larger share of a building's total carbon footprint. 00:05:16 → 00:05:21: like embodied carbon, this encompasses the health impacts that can	00:03:08> 00:03:09:	Thanks for doing that.
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00:05:21> 00:05:24:	occur across the entire life cycle of a product, so
00:05:24> 00:05:27:	this includes people who are exposed to that product while
00:05:27> 00:05:30:	it's being extracted or manufactured, recycled, or put into a
00:05:30> 00:05:30:	landfill.
00:05:31> 00:05:34:	This graphic from the Carbon Leadership Forum shows the different
00:05:34> 00:05:35:	stages of a product's life cycle.
00:05:36> 00:05:39:	This is obviously for embodied carbon, but it's a useful
00:05:39> 00:05:41:	frame for thinking about material health impacts as well.
00:05:46> 00:05:49:	So diving into the drivers of this movement towards better
00:05:49> 00:05:51:	materials, the first driver is regulation.
00:05:51> 00:05:54:	It seems like almost every day there are new regulations
00:05:54> 00:05:57:	and financial disclosures that are asking companies to report on
00:05:57> 00:05:58:	the embodied carbon of their buildings.
00:05:59> 00:06:00:	And it's not just regulation.
00:06:00> 00:06:03:	In the embodied carbon space, we're also seeing increased scrutiny
00:06:03> 00:06:06:	of certain classes of chemicals that are commonly used in
00:06:06> 00:06:07:	building products.
00:06:07> 00:06:09:	One class you might have heard of is P Foss,
00:06:09> 00:06:12:	which is known more commonly as Forever Chemicals.
00:06:13> 00:06:16:	Green building certifications are also motivating a shift in the
00:06:16> 00:06:16:	industry.
00:06:17> 00:06:20:	More and more, these certifications are demanding that real estate
00:06:20> 00:06:23:	meet certain criteria for low embodied carbon materials, healthy materials
00:06:24> 00:06:25:	or improved air quality.
00:06:26> 00:06:29:	The next driver that we're seeing is demand from occupiers
00:06:29> 00:06:30:	in tenant spaces.
00:06:30> 00:06:33:	Building materials can be an important expression of a company's
00:06:34> 00:06:37:	brand, and many large space users such as Google, Salesforce,
00:06:37> 00:06:40:	Meta and Kaiser Permanente are leading the charge and demanding
00:06:40> 00:06:44:	these better materials because they know that healthy materials create
00:06:44> 00:06:48:	healthy spaces leading to greater employee health, Wellness and productivity.
00:06:49> 00:06:52:	As a result of this demand, there's also financial benefit.
00:06:52> 00:06:56:	Buildings that are sustainable and healthy, especially those with certifications,

00:06:56> 00:06:58: 00:07:00> 00:07:03:	are transacting higher rent premiums and attracting tenants. And finally, ESG investing is another key driver towards
	better
00:07:03> 00:07:04:	materials.
00:07:04> 00:07:08:	Investors are increasingly demanding ESG performance, and so many companies
00:07:08> 00:07:12:	are formally integrating embodied carbon and material health in their
00:07:12> 00:07:13:	ESG frameworks.
00:07:14> 00:07:17:	Net 0 carbon targets often include ambitions for reducing Scope
00:07:17> 00:07:21:	3 emissions, which encompass all of the indirect emissions that
00:07:21> 00:07:24:	occur both upstream and downstream of a company's activities in
00:07:25> 00:07:25:	real estate.
00:07:25> 00:07:28:	That includes the emissions from construction materials.
00:07:30> 00:07:32:	So how do our material choices affect humans in the
00:07:32> 00:07:32:	environment?
00:07:33> 00:07:35:	There are five key impact categories.
00:07:35> 00:07:38:	These categories were initially created by the AIA Architecture and
00:07:38> 00:07:41:	Design Materials Pledge and are starting to form the basis
00:07:41> 00:07:45:	of many conversations and initiatives for reducing material impacts in
00:07:45> 00:07:48:	the industry, including the Mindful Materials Common Materials Framework.
00:07:49> 00:07:51:	The first category of impact is climate.
00:07:52> 00:07:56:	Around 11% of global carbon emissions are from the manufacturer,
00:07:56> 00:07:58:	transportation and disposal of building materials.
00:08:00> 00:08:01:	The second category is human health.
00:08:02> 00:08:05:	We all spend about 90% of our lives inside buildings
00:08:05> 00:08:07:	and are exposed to chemicals and other substances on a
00:08:07> 00:08:08:	daily basis.
00:08:09> 00:08:12:	The choices that development teams make about building materials directly
00:08:12> 00:08:16:	affect the health of future tenants, workers and communities.
00:08:17> 00:08:20:	There are also equity implications of our material choices.
00:08:21> 00:08:24:	People of colour and those with low incomes are disproportionately
00:08:24> 00:08:25:	impacted by toxic chemicals.
00:08:26> 00:08:29:	They're more likely to have industrial manufacturing facilities sited in
00:08:29> 00:08:31:	their neighbourhoods and face air pollution as a result.

00:08:32> 00:08:35:	And complex global supply chains can hide unethical working conditions
00:08:35> 00:08:37:	and even modern slavery.
00:08:38> 00:08:40:	The next category is ecosystems.
00:08:41> 00:08:45:	Ecosystems around the world are impacted by material
	extraction, manufacturer
00:08:45> 00:08:45:	and disposal.
00:08:46> 00:08:49:	Insufficient regulation in certain areas can allow invasive and unethical
00:08:49> 00:08:53:	extraction practices that deplete natural resource stocks before they can
00:08:53> 00:08:53:	regenerate.
00:08:55> 00:08:57:	And finally, circularity, which is just a fancy word for
00:08:57> 00:09:01:	a system that reuses products indefinitely without waste, currently in
00:09:01> 00:09:04:	the built environment, is one of the largest producers of
00:09:04> 00:09:06:	solid waste and only a very small fraction of those
00:09:06> 00:09:07:	materials are reused.
00:09:08> 00:09:12:	In addition, many recycling processes require energy and
	release carbon
00:09:12> 00:09:15:	to grind up, burn, or convert that material to different
00:09:15> 00:09:15:	products.
00:09:19> 00:09:21:	The good news is that there are many strategies that
00:09:21> 00:09:24:	teams can implement at every stage of the development process.
00:09:24> 00:09:26:	We won't have time to walk through every strategy, but
00:09:26> 00:09:28:	I do want to highlight a couple of key points.
00:09:29> 00:09:30:	The first one is to start early.
00:09:31> 00:09:33:	By starting to think about materials at the outset of
00:09:33> 00:09:37:	a project, you can consider alternative structural materials, engage manufacturers,
00:09:37> 00:09:39:	and potentially save cost down the line.
00:09:40> 00:09:42:	The second point is to reuse and repurpose as much
00:09:42> 00:09:43:	as possible.
00:09:43> 00:09:46:	The most sustainable building is one that already exists.
00:09:46> 00:09:49:	Of course, we're in real estate and not building is
00:09:49> 00:09:50:	not always an option.
00:09:50> 00:09:53:	So it's important to look for ways to use salvage
00:09:53> 00:09:56:	materials when possible and think about how to maximize efficiency
00:09:56> 00:09:57:	in the design.
00:09:57> 00:09:58:	To do more with less.
00:09:59> 00:10:02:	#3 is to build your requirements for embodied carbon and
00:10:02> 00:10:05:	material health into your specifications.

00:10:05> 00:10:07:	This signals to potential partners that you are serious about
00:10:07> 00:10:09:	choosing better materials.
00:10:09> 00:10:13:	Many organizations, including Building Transparency and
	others, offer example spec
00:10:14> 00:10:15:	language to help you do this.
00:10:16> 00:10:19:	And last, there are software programs and online resources, many
00:10:19> 00:10:22:	of which are free, to help teams make more informed
00:10:22> 00:10:22:	choices.
00:10:23> 00:10:26:	These products can help model the embodied carbon and chemicals
00:10:26> 00:10:27:	during project scoping.
00:10:27> 00:10:30:	They can identify and evaluate low carbon or healthy products,
00:10:30> 00:10:33:	and they can help teams report on its successes at
00:10:33> 00:10:34:	project completion.
00:10:34> 00:10:37:	This market is advancing rapidly and it's really exciting to
00:10:37> 00:10:38:	see.
00:10:39> 00:10:41:	There's obviously a lot more here, but in the interest
00:10:41> 00:10:43:	of time, I'm going to keep going.
00:10:43> 00:10:45:	So if you like this content and want to learn
00:10:46> 00:10:48:	more, keep an eye out for the materials movement report
00:10:48> 00:10:49:	coming out very soon.
00:10:49> 00:10:52:	The report highlights more details around the topics that I
00:10:52> 00:10:55:	just highlighted, including the market drivers that are inspiring a
00:10:55> 00:10:58:	shift in the industry, how materials impact human health in
00:10:58> 00:11:02:	the environment and strategies for incorporating better materials throughout the
00:11:02> 00:11:03:	development process.
00:11:03> 00:11:06:	It also shares 9 innovative projects that are leading the
00:11:06> 00:11:08:	way, a few of which will be featured in this
00:11:08> 00:11:09:	presentation.
00:11:10> 00:11:12:	So with that, I'm going to hand it over to
00:11:12> 00:11:13:	Sydney mainster Sydney.
00:11:16> 00:11:21:	Victoria, thank you so much for introducing this entire webinar,
00:11:21> 00:11:21:	man.
00:11:21> 00:11:24:	Can you can introduce every panel I'm on because that
00:11:25> 00:11:26:	was an amazing, amazing intro.
00:11:27> 00:11:29:	So hello everyone.
00:11:29> 00:11:30:	My name is Sydney Mainster.
00:11:30> 00:11:33:	I'm the Vice President of Sustainability and Design Management for

00:11:33> 00:11:34:	the Durst Organization.
00:11:35> 00:11:35:	Next slide please.
00:11:38> 00:11:41:	So today I've been asked to speak about Durst approach
00:11:41> 00:11:45:	to selecting and installing sustainable building products using Spen as
00:11:45> 00:11:46:	a case study.
00:11:46> 00:11:49:	So just a quick overview of this building, it's located
00:11:49> 00:11:50:	in Long Island City.
00:11:51> 00:11:55:	The architect was hand out Interiors done by Seldorf
	Architects.
00:11:55> 00:11:59:	978,000 square feet, 71 stories.
00:11:59> 00:12:03:	It's that tall building you see in the back there,
00:12:03> 00:12:08:	958 residential units total, of which 288 are affordable units.
00:12:10> 00:12:14:	That development also included the restoration of a historic 1927
00:12:14> 00:12:17:	Long Island City clock tower building.
00:12:17> 00:12:19:	You can see it right in front of the of
00:12:19> 00:12:23:	the building there, just next to the the elevated subway
00:12:23> 00:12:23:	line.
00:12:24> 00:12:27:	It opened in 2022 and it is the first building
00:12:27> 00:12:31:	in the world, excuse me, first multi family building in
00:12:31> 00:12:36:	the world to achieve lead before new construction platinum level
00:12:36> 00:12:37:	certification.
00:12:37> 00:12:38:	Next slide please.
00:12:40> 00:12:43:	So before I go into more detail about the Durst
00:12:43> 00:12:47:	approach at Spen, I think it's important to introduce Durst
00:12:47> 00:12:51:	as a company as Spen really exemplifies decades of commitment
00:12:51> 00:12:54:	to designing and constructing sustainable buildings.
00:12:55> 00:12:57:	So as you see on the slide here, the Durst
00:12:57> 00:13:00:	mission is to build, own and operate many of the
00:13:00> 00:13:02:	world's most innovative and efficient buildings.
00:13:03> 00:13:07:	We create value for our tenants by developing sustainable residential
00:13:07> 00:13:10:	and commercial properties in which people live, work and thrive.
00:13:11> 00:13:13:	There's that thrive word again, Victoria.
00:13:14> 00:13:18:	As you can see, sustainability is, is directly integrated into
00:13:18> 00:13:19:	that mission statement.
00:13:20> 00:13:20:	Next slide please.
00:13:23> 00:13:28:	As developers, owners and operators, we operate 13,000,000 square feet
00:13:28> 00:13:32:	of premier office space in Manhattan, including 151 which

	was
00:13:32> 00:13:36:	formerly known as Four Times Square, the world's first green
00:13:36> 00:13:41:	skyscraper, 1 Bryant Park, the first LEED Platinum
	skyscraper and
00:13:41> 00:13:45:	One World Trade Center, the tallest building designed to
00.42.45 > 00.42.40.	achieve LEED Gold certification in the US And so tall in
00:13:45> 00:13:49:	
00:13:49> 00:13:51:	fact that it actually goes off the slide.
00:13:51> 00:13:53:	And if I try to actually scale this slide, all
00:13:54> 00:13:55:	the other buildings become quite tiny.
00:13:56> 00:13:57:	Next slide please.
00:13:59> 00:14:03:	The nearest residential portfolio has 3400 units across 3,000,000 square
00:14:03> 00:14:06:	feet with several thousand more in the pipeline.
00:14:07> 00:14:10:	Spen is the most recently completed residential property.
00:14:11> 00:14:11:	Next slide please.
00:14:13> 00:14:16:	So all ground up development design decisions are made to
00:14:16> 00:14:21:	balance these four sustainability focused areas, water conservation and quality,
00:14:21> 00:14:26:	energy efficiency, material stream optimization and indoor Environmental Quality.
00:14:26> 00:14:30:	There is a relationship and trade-offs between selections made in
00:14:30> 00:14:34:	each of these categories and it's important to test out
00:14:34> 00:14:38:	and weigh out options when you're making design decisions of
00:14:38> 00:14:40:	how they impact each of these.
00:14:41> 00:14:41:	Next slide please.
00:14:43> 00:14:47:	So here's a very busy slide that I love to
00:14:47> 00:14:52:	show because it shows how how our values around choosing
00:14:53> 00:14:57:	materials play out in terms of decision making.
00:14:57> 00:14:59:	A decision making tree, let's call it.
00:14:59> 00:15:02:	The big take away from this slide is that when
00:15:02> 00:15:05:	you work with us on a project, the project selection
00:15:05> 00:15:08:	requires iterative review for many team members.
00:15:08> 00:15:12:	That could include design team members, operations team members, people
00:15:12> 00:15:16:	that are have used this before or even the manufacturer,
00:15:16> 00:15:21:	excuse me, definitely the manufacturers themselves, the
	design team members
00:15:21> 00:15:23:	will do initial product research.

material

Consider the their sustainability goals as integral to the

selection and really the ideal selection balances

00:15:23 --> 00:15:28:

00:15:28 --> 00:15:33:

	performance, sustainability, cost,
00:15:33> 00:15:37:	availability, appearance, maintenance, end of life reuse.
00:15:37> 00:15:41:	But really few perfect ideal products exist on the market.
00:15:42> 00:15:44:	One item to add is that I I created this
00:15:44> 00:15:48:	decision flow chart actually back in 2015 and it is
00:15:48> 00:15:51:	still how we assess and evaluate projects Excuse me which
00:15:51> 00:15:54:	products go into our projects today right please.
00:15:54> 00:15:58:	So at Spen and an all new Durst development projects,
00:15:58> 00:16:02:	building products are pre vetted during the design phase with
00:16:02> 00:16:07:	follow up confirmation of materials selected during
	construction administration.
00:16:08> 00:16:12:	We do not want procurement and or installation the installation
00:16:12> 00:16:15:	portion of the project to be delayed due to building
00:16:15> 00:16:19:	products not meeting health or sustainable design criteria
	and not
00:16:19> 00:16:23:	only being discovered through the submittal review process.
00:16:23> 00:16:27:	Subs and our construction managers should not be selecting
	the
00:16:27> 00:16:28:	building products.
00:16:28> 00:16:31:	We want that to be overseen by the design professionals.
00:16:31> 00:16:32:	I can't stress that enough.
00:16:33> 00:16:36:	That means listed products in our specs.
00:16:36> 00:16:39:	So when the submittals come through we are not seeing
00:16:39> 00:16:41:	something for the first time.
00:16:41> 00:16:43:	Is it 100% perfect?
00:16:43> 00:16:46:	No, but we try to minimize as many surprises coming
00:16:46> 00:16:49:	through or showing up on site as possible.
00:16:50> 00:16:54:	During Spen we created our own building product database and
00:16:54> 00:16:58:	workflow tool to enable the design team to better and
00:16:58> 00:17:01:	more efficiently be able to complete that vetting process of
00:17:01> 00:17:05:	material of building products and getting them listed into the
00:17:05> 00:17:06:	spec.
00:17:06> 00:17:09:	The slide you see shows a snapshot of the range
00:17:09> 00:17:11:	of products in our tool as well as vetting status
00:17:11> 00:17:13:	on those products of and as well as which are
00:17:13> 00:17:15:	included in our best in class.
00:17:15> 00:17:18:	So this is a number of product projects along the
00:17:18> 00:17:21:	bottom and their status in the vetting process.
00:17:22> 00:17:27:	Our residential project currently under construction 2030 Hollets Point has
00:17:27> 00:17:30:	over 1400 products listed in our database, which is about

00:17:30> 00:17:34:	the number we'll typically see in a high rise multifamily
00:17:34> 00:17:35:	project.
00:17:35> 00:17:38:	Again, we try to avoid to the greatest extent possible
00:17:38> 00:17:41:	leaving any spec section without a listed product option.
00:17:42> 00:17:43:	Next slide please.
00:17:44> 00:17:46:	So I'd like to talk a little bit about an
00:17:47> 00:17:49:	example of some of the criteria we use for our
00:17:49> 00:17:50:	building products.
00:17:51> 00:17:56:	We each product category has bespoke criteria that is associated
00:17:56> 00:18:01:	with either the installation or use or known health concerns
00:18:01> 00:18:03:	around that product.
00:18:03> 00:18:08:	I think this is well exemplified by our cabinetry criteria.
00:18:09> 00:18:13:	So specifically with cabinetry we have criteria around FSD certification.
00:18:13> 00:18:16:	We have criteria around formaldehyde content.
00:18:17> 00:18:20:	But the one of the most important criteria we have
00:18:20> 00:18:21:	is around emissions.
00:18:21> 00:18:27:	And because the cabinetry on our project is manufactured bespoke
00:18:27> 00:18:31:	for the project, we require that we do spot testing
00:18:31> 00:18:35:	of that cabinetry for emissions throughout the project.
00:18:36> 00:18:42:	So we require a CPH version 1.22017 residential scenario.
00:18:43> 00:18:45:	We need to see the full report as part of
00:18:45> 00:18:46:	this.
00:18:46> 00:18:49:	This happens first immediately after reward.
00:18:49> 00:18:52:	We require a mockup that gets sent for testing.
00:18:52> 00:18:56:	And then because we don't want surprises coming off the
00:18:56> 00:19:01:	full production line, we actually randomly pull select cabinets want
00:19:01> 00:19:05:	from each delivery that we actually send ourselves to spot
00:19:05> 00:19:08:	check and do emissions testing on to make sure that
00:19:08> 00:19:12:	what we tested right after the buy is exactly what
00:19:12> 00:19:13:	we're receiving.
00:19:14> 00:19:17:	And you can imagine that helps keep the fabricator on
00:19:17> 00:19:21:	their toes as they know that we are testing it.
00:19:21> 00:19:25:	It also helps to remind the the Subs and on
00:19:25> 00:19:29:	the trades that we take this quite seriously and that
00:19:30> 00:19:34:	we indeed are going to be doing this random testing.
00:19:34> 00:19:37:	We also conducted a full indoor air quality test at
00:19:37> 00:19:38:	the end of the project.
00:19:39> 00:19:41:	So it's as critical to the for those Subs to
00:19:41> 00:19:45:	understand that in order to pass that IAT test, they

00:19:45> 00:19:48:	need to make sure they're installing products that are listed
00:19:49> 00:19:52:	and tested and meet our criteria because that is the
00:19:52> 00:19:55:	ultimate confirmation that we've met our target.
00:19:55> 00:19:56:	Next slide please.
00:19:58> 00:20:02:	One of the other pieces that we included in Sven
00:20:02> 00:20:06:	was a post consumer glass in lieu of Portland cement
00:20:06> 00:20:07:	in our concrete.
00:20:07> 00:20:12:	This ground glass PUZZLIN or GGP was incorporated in a
00:20:12> 00:20:16:	slab circled here in orange as a test of viability,
00:20:16> 00:20:20:	poor ease of pouring and workability in a slab on
00:20:20> 00:20:21:	deck scenario.
00:20:21> 00:20:22:	Fairly low risk.
00:20:23> 00:20:25:	This pour as well as a pilot in another Durst
00:20:25> 00:20:29:	multifamily high rise project give us the confidence to incorporate
00:20:30> 00:20:33:	ground ground glass pazlin at a much larger scale on
00:20:33> 00:20:35:	our two multifamily towers currently underway.
00:20:36> 00:20:39:	We've been able to incorporate it in over 18,000 cubic
00:20:39> 00:20:43:	yards of concrete on the project as a partial replacement
00:20:43> 00:20:46:	for Portland cement in the mixes, right please.
00:20:48> 00:20:51:	And then finally as mentioned Sven is the the first
00:20:51> 00:20:54:	multi family building in the world to achieve lead before
00:20:54> 00:20:57:	new construction platinum certification.
00:20:57> 00:21:01:	Durst views lead certification as a reflection of our core
00:21:01> 00:21:06:	sustainability values and criteria and especially regards to materials, health
00:21:06> 00:21:07:	and indoor quality.
00:21:07> 00:21:10:	Indoor air quality, excuse me, but it's not the driver.
00:21:10> 00:21:14:	While the sustain why the sustainability criteria is actually placed
00:21:14> 00:21:18:	on building product selection without changes to our approach to
00:21:18> 00:21:21:	sustainable building product specification and use.
00:21:21> 00:21:25:	The project had over 100 contributing EP DS in the
00:21:25> 00:21:30:	environmental product declarations and health project declarations HPDS.
00:21:30> 00:21:34:	We also had fantastic success passing our IQ test which
00:21:34> 00:21:37:	we rewrote to reflect the lower than lead allowed values
00:21:37> 00:21:41:	we'd actually seen that we could accomplish on our other
00:21:41> 00:21:44:	existing multi family projects due to the stringency of our
00:21:44> 00:21:47:	health, our healthy building product criteria.
00:21:48> 00:21:51:	Our aim with spend as with all our projects is
00:21:51> 00:21:54:	not just to provide a place where residents can live

00:21:54> 00:21:57:	and thrive, but to demonstrate to the entire community that
00:21:57> 00:22:01:	this high standard is achievable with the right criteria, correct
00:22:01> 00:22:03:	processes and attention put into place.
00:22:06> 00:22:06:	Thank you very much.
00:22:09> 00:22:09:	Thank you, Sydney.
00:22:10> 00:22:10:	Wonderful.
00:22:11> 00:22:13:	So now we're going to transition to Suzanne.
00:22:15> 00:22:15:	Great.
00:22:15> 00:22:17:	Thank you and and great project Sydney.
00:22:17> 00:22:20:	Looking forward to hearing even more in the discussion about
00:22:20> 00:22:22:	that and and thank you everyone, really happy to be
00:22:22> 00:22:23:	here with you today.
00:22:23> 00:22:26:	I'm Suzanne Founder, I head up global ESG at Prologis.
00:22:26> 00:22:30:	And for those of you not as familiar with Prologis,
00:22:30> 00:22:34:	we're the global leader in logistics real estate and we've
00:22:34> 00:22:37:	got 1.2 billion square feet in 19 countries.
00:22:37> 00:22:41:	And our portfolio is really distribution centers, warehouses that we
00:22:41> 00:22:44:	develop and lease out to customers around the world.
00:22:44> 00:22:46:	This might be some of the largest global companies who
00:22:47> 00:22:49:	are a key part of their supply chain as well
00:22:49> 00:22:51:	as many small and medium sized businesses.
00:22:51> 00:22:55:	And so what's important though in our strategies, we're not
00:22:55> 00:22:59:	just providing the space and also helping them on kind
00:22:59> 00:23:03:	of looking at how to incorporate green aspects into development,
00:23:03> 00:23:08:	but we're also increasingly providing services related to renewable energy,
00:23:08> 00:23:11:	helping them with their EV trucks to transition to more
00:23:11> 00:23:16:	sustainable transportation as well as other sustainability services.
00:23:17> 00:23:20:	We also when you think about construction, every real estate
00:23:20> 00:23:22:	asset class is really different.
00:23:22> 00:23:24:	So the things that Sydney can innovate on and multi
00:23:24> 00:23:27:	family are different than what you could do at industrial.
00:23:27> 00:23:30:	If you think about a warehouse and the roof space
00:23:30> 00:23:33:	that we have, a big part of our strategy is
00:23:33> 00:23:34:	being able to scale solar.
00:23:35> 00:23:37:	And so we right now are #2 in the US
00:23:37> 00:23:40:	for on site solar and it's a big part of
00:23:40> 00:23:42:	our our strategy going forward.
00:23:43> 00:23:48:	Next slide, we think about that scale just for context,

00:23:48> 00:23:53: 00:23:53> 00:23:57: 00:23:57> 00:24:00:	but 2.8% of the world's GDP goes through a Prologis building in a year and so and 1.1 million people work under a Prologis roof.
00:24:00> 00:24:03:	So we think about that and and take that scale
00:24:03> 00:24:07:	really we see that comes with great responsibility but also
00:24:07> 00:24:09:	we see that as an opportunity for how do we
00:24:09> 00:24:13:	enable all those customers and and really help Dr.
00:24:13> 00:24:15:	sustainability not just for us but kind of more more
00:24:15> 00:24:16:	broadly.
00:24:16> 00:24:20:	If you go to the next slide, one back, we
00:24:20> 00:24:26:	have been setting public goals for many years.
00:24:26> 00:24:31:	We have sustainability goals related to building certifications.
00:24:31> 00:24:34:	Every new development is either LEED certified or one of
00:24:34> 00:24:37:	the other certifications in the countries where we operate.
00:24:37> 00:24:42:	We also have a number of well certified buildings going
00:24:42> 00:24:46:	on to the Wellness piece, but last year we levelled
00:24:46> 00:24:50:	our upper ambition to drive a new net zero strategy.
00:24:50> 00:24:53:	We'd already had an approved science based target, but we
00:24:53> 00:24:57:	aligned with the science based targets initiative net 0 standard
00:24:57> 00:25:00:	to drive net zero across our full value chain.
00:25:00> 00:25:04:	So not only Prologis's own operations but also across our
00:25:04> 00:25:07:	full portfolio and value chain by 2040.
00:25:08> 00:25:10:	We have a number of interim targets that help us
00:25:10> 00:25:13:	to get there including getting to one GW of solar.
00:25:13> 00:25:18:	We're around 500 megawatts right now, but we're and we'll
00:25:18> 00:25:22:	get to for own operations sooner than 2040 by 20-30.
00:25:22> 00:25:25:	If you go to the next slide, one of the
00:25:25> 00:25:29:	things put this in context and and Victoria did a
00:25:29> 00:25:33:	great job kind of talking about different types of emissions
00:25:33> 00:25:37:	and and what level of control you have over it,
00:25:37> 00:25:41:	99, .9% of Prologis's emissions are indirect, they're scope 3
00:25:41> 00:25:44:	and of that 75% is the energy use of our
00:25:44> 00:25:46:	customers in our buildings.
00:25:47> 00:25:50:	So for that we're working with them to drive energy
00:25:50> 00:25:54:	efficient design and also helping them to reduce their, their
00:25:54> 00:25:58:	energy needs, but also we're helping with renewable energy.
00:25:58> 00:26:01:	So whatever energy they do use, they can use green
00:26:01> 00:26:01:	power.
00:26:02> 00:26:04:	The 25% is really what we're going to talk about
00:26:04> 00:26:06:	in the case study today, which is related to construction
00:26:06> 00:26:08:	and development and embodied carbon.

00:26:08> 00:26:12:	And when you think about construction of an industrial building,
00:26:12> 00:26:15:	we don't have as many different products as Sydney.
00:26:15> 00:26:18:	We don't have lots of very special beautiful cabinets and
00:26:18> 00:26:21:	different things, but we have a lot of concrete, we
00:26:21> 00:26:25:	have roof materials, steel and then a number of other
00:26:25> 00:26:27:	things that we're we're looking at.
00:26:27> 00:26:29:	And so a lot of our strategy has been how
00:26:29> 00:26:32:	do we Sidney has done with her company, what are
00:26:32> 00:26:35:	the standards we have to do in our specs and
00:26:35> 00:26:37:	then what are the ways we can innovate.
00:26:38> 00:26:41:	So next slide, so one of the first things we
00:26:41> 00:26:45:	did after launching the net zero goal was to put
00:26:45> 00:26:49:	in place new specs for our our new construction.
00:26:49> 00:26:53:	And so this also is you know focused on making
00:26:53> 00:26:56:	sure every building is solar and EV ready, you know
00:26:56> 00:27:00:	making sure you have a roof life that can support
00:27:00> 00:27:04:	solar for the long term, also high efficiency HVAC materials
00:27:04> 00:27:08:	and also completing a life cycle assessment for every new
00:27:08> 00:27:12:	building that helps us to really get that embodied carbon
00:27:12> 00:27:13:	piece.
00:27:14> 00:27:16:	The other thing we did is we had standards for
00:27:16> 00:27:17:	retrofit.
00:27:17> 00:27:19:	So going back to some of Victoria said at the
00:27:19> 00:27:22:	start, we want to make sure everything is ready in
00:27:22> 00:27:25:	our new buildings, but also how are we looking at
00:27:25> 00:27:28:	our existing portfolio and making the right investments and upgrades
00:27:28> 00:27:31:	as we have new tenants coming in or as we
00:27:31> 00:27:32:	need to replace equipment.
00:27:33> 00:27:39:	So next slide, so we have within piloting and testing
00:27:39> 00:27:42:	different types of materials.
00:27:42> 00:27:44:	Some of these I think Sydney had had covered in
00:27:44> 00:27:45:	hers as well.
00:27:45> 00:27:48:	And really the the key comes down to making sure
00:27:48> 00:27:51:	because the buildings need to last for a long time
00:27:51> 00:27:54:	and because of the industrial usage of the building, we
00:27:54> 00:27:57:	need to make sure they still meet all of our
00:27:57> 00:27:59:	long term quality needs, durability.
00:27:59> 00:28:02:	But we, we do really approach this from an innovation
00:28:02> 00:28:05:	perspective because we have in 19 countries, we have very
00:28:05> 00:28:09:	different environmental climates, different weather and so some things that

00:28:10> 00:28:12:	might work in one location or with one type of
00:28:12> 00:28:14:	build might not work in another.
00:28:14> 00:28:18:	So we've really worked with our our local teams also
00:28:18> 00:28:19:	to innovate.
00:28:19> 00:28:22:	We go to the next slide.
00:28:23> 00:28:25:	So this brings to me to the case study we'll
00:28:25> 00:28:26:	talk about today.
00:28:26> 00:28:28:	This is Prologis Evergreen.
00:28:28> 00:28:30:	I'm really excited about this project.
00:28:30> 00:28:33:	It's a project in Brampton ON Canada and it was
00:28:33> 00:28:36:	a project that as the team was kicking off said,
00:28:36> 00:28:40:	you know, there's lots of different things we could test
00:28:40> 00:28:43:	and we could test mass timber or we could test
00:28:43> 00:28:45:	you know, different things.
00:28:45> 00:28:49:	And they had come across the supplier in Canada that
00:28:49> 00:28:54:	creates a low carbon alternative to the concrete panels and
00:28:54> 00:28:57:	they're called Nexi, Nexi panels.
00:28:57> 00:29:01:	And what they they have a lower embodied carbon around
00:29:01> 00:29:06:	in this project, 17% lower embodied carbon than a traditional
00:29:06> 00:29:08:	concrete panel.
00:29:08> 00:29:10:	And then they also have a lot of other benefits.
00:29:10> 00:29:13:	And so we decided not just to test one or
00:29:13> 00:29:15:	the other, but test those two things together.
00:29:15> 00:29:18:	And I think that's one of the key learnings as
00:29:18> 00:29:20:	we go through our, our testing and piloting is, is
00:29:21> 00:29:24:	really understanding what we can accomplish when we're looking at
00:29:24> 00:29:27:	the the whole design and the building and the different
00:29:27> 00:29:28:	things we can test together.
00:29:29> 00:29:32:	So you know when we think about Nexi panels, it's
00:29:32> 00:29:36:	the lower embodied carbon but also some of the life
00:29:36> 00:29:39:	cycle pieces it low uses less water kind of in
00:29:39> 00:29:40:	construction.
00:29:40> 00:29:43:	There are benefits in terms of the time to put
00:29:44> 00:29:47:	that in place because it's pre poured and and we're
00:29:47> 00:29:49:	able to pull that together quicker.
00:29:51> 00:29:54:	You know from mast timber, everything we're using for mast
00:29:55> 00:29:59:	timber is FSC certified, so for stewardship Council certified.
00:30:00> 00:30:04:	And mass timber also allows you to really address that
00:30:04> 00:30:08:	steel component which is the the second largest contributor
00:30:09> 00:30:13:	to embodied carbon in one of our buildings and that results

00:30:13> 00:30:17:	in a 62% decrease in embodied carbon than a traditional
00:30:17> 00:30:18:	steel skeleton.
00:30:20> 00:30:23:	Again, a lot of this is very data-driven for us
00:30:23> 00:30:23:	as well.
00:30:23> 00:30:27:	So having a third party do the life cycle analysis
00:30:27> 00:30:30:	on a building on a project that's when you have
00:30:30> 00:30:34:	the different pieces coming together is helping then to drive
00:30:34> 00:30:37:	that design back with our other teams and looking at
00:30:37> 00:30:41:	where we can use this in other locations as well.
00:30:44> 00:30:48:	So with next slide, so just a few other kind
00:30:48> 00:30:49:	of details on here.
00:30:49> 00:30:52:	On the other piece on terms of learn, well this
00:30:52> 00:30:55:	will also have lead certification, but we're also looking at
00:30:55> 00:30:58:	some other features, you know, cool roof LED lighting as
00:30:58> 00:31:01:	a standard in all of our new buildings as well.
00:31:01> 00:31:04:	So all these things to help drive the energy use
00:31:04> 00:31:07:	down in addition to the lower embodied carbon.
00:31:09> 00:31:11:	So I'll stop there and hand it back, but happy
00:31:11> 00:31:13:	to discuss more when we get into discussion.
00:31:14> 00:31:15:	Thank you so much, Suzanne.
00:31:16> 00:31:18:	We're going to pass it over to Heidi.
00:31:18> 00:31:21:	And just as a friendly reminder to the audience, please
00:31:21> 00:31:23:	feel free to enter your questions in the Q&A box
00:31:24> 00:31:26:	and we'll get back, we'll get to them after Heidi's
00:31:26> 00:31:27:	presentation.
00:31:27> 00:31:28:	So thank you.
00:31:28> 00:31:29:	Take it away, Heidi.
00:31:29> 00:31:30:	Thank you.
00:31:31> 00:31:33:	Thanks everybody for joining us this morning.
00:31:33> 00:31:34:	Happy December, everybody.
00:31:35> 00:31:39:	Again, Heidi Creighton, I'm with Skanska Commercial Development, VP of
00:31:39> 00:31:40:	Sustainability.
00:31:40> 00:31:45:	So really overseeing Skanska sustainability initiatives across our US portfolio
00:31:45> 00:31:48:	and just making sure that we're making the most sustainable,
00:31:48> 00:31:52:	healthy, circular, resilient and impactful projects in in all of
00:31:52> 00:31:53:	our markets.
00:31:53> 00:31:57:	Next slide and as Victoria said at the beginning, we're
00:31:57> 00:32:02:	an international construction and development firm, 135 years old and
00:32:02> 00:32:05:	we're, we're headquartered in Stockholm and Sweden.
00:32:06> 00:32:08:	And here in the US we have three different business

00:32:09> 00:32:09:	units.
00:32:09> 00:32:11:	We have our civil group, we have our construction group
00:32:11> 00:32:14:	and we have commercial development and commercial
	development is where
00:32:14> 00:32:14:	I sit.
00:32:15> 00:32:19:	You know slightly different from Durston, Sydney, we we also
00:32:19> 00:32:22:	do all new construction but we don't hold on to
00:32:22> 00:32:23:	our properties.
00:32:23> 00:32:26:	We we get them leased and then we divest and
00:32:26> 00:32:27:	sell to investors.
00:32:28> 00:32:31:	So a little bit different model there, but this gives
00:32:31> 00:32:33:	you a pretty good snapshot of when we opened up
00:32:33> 00:32:37:	our offices here in the US for commercial development, how
00:32:37> 00:32:40:	many projects we finished and how many we have we
00:32:40> 00:32:40:	have underway.
00:32:41> 00:32:44:	But you know we're a self funded business model and
00:32:44> 00:32:45:	which is really exciting.
00:32:45> 00:32:48:	It gives us really great opportunity to kind of take
00:32:48> 00:32:52:	some risks and really invest in sustainability and an innovation
00:32:52> 00:32:56:	and have aggressive sustainability goals somewhere to to Prologis and
00:32:56> 00:32:57:	Durst.
00:32:58> 00:33:01:	And we're really motivated to kind of do do that
00:33:01> 00:33:05:	innovation and leading edge technologies and investment
00.22.05 > 00.22.00.	and really share
00:33:05> 00:33:08:	that with with the broader industry and share with all
00:33:08> 00:33:10:	of you and venues like this.
00:33:11> 00:33:15:	But yeah, it's you know working for a Swedish company
00:33:15> 00:33:20:	really prioritizing sustainability is is extremely ingrained in all of
00:33:20> 00:33:24:	Skanska's values and and decisions that we make and then
00:33:24> 00:33:27:	it's actually extremely helpful, right.
00:33:27> 00:33:29:	We've got great partners with our construction arm.
00:33:30> 00:33:33:	It gives us just so much more control and visibility
00:33:33> 00:33:35:	over what we do, gives us a ton more accountability,
00:33:35> 00:33:36:	right.
00:33:36> 00:33:38:	We have the same governance, we have the same values,
00:33:38> 00:33:40:	we have the same climate targets that we're reaching for.
00:33:40> 00:33:44:	So it really helps us have much more collaborative and
00:33:44> 00:33:47:	long term conversations and and decisions that we make on
00:33:47> 00:33:48:	our projects.
00:33:49> 00:33:52:	And it's been really fantastic working for a company that's

00:33:52> 00:33:54:	been doing sustainability for so long.
00:33:54> 00:33:59:	We actually created our first sustainability report in 1996 and
00:34:00> 00:34:04:	it was one of the industry's first environmental reports and
00:34:05> 00:34:09:	you know like Suzanne and Sydney shared too, we also
00:34:09> 00:34:12:	are really you know and do a lot of third
00:34:12> 00:34:14:	party certifications.
00:34:14> 00:34:17:	We think that's really important to have that that third
00:34:17> 00:34:18:	party verification.
00:34:18> 00:34:22:	And so 100% of our commercial development USA portfolio
	is
00:34:22> 00:34:27:	the certified or pursuing certifications and many of those projects
00:34:27> 00:34:31:	also pursue well or fit well and other certifications on
00:34:31> 00:34:32:	top of that.
00:34:32> 00:34:35:	But proud to say we've got 4.7 million square feet
00:34:35> 00:34:39:	of LEED Platinum certified space to date and we've got
00:34:39> 00:34:43:	another million and a half targeting Platinum in our pipeline
00:34:43> 00:34:43:	right now.
00:34:43> 00:34:45:	Next slide.
00:34:47> 00:34:51:	So this graphic is really showing our sustainability target, so
00:34:51> 00:34:54:	0 emissions by 2045 and then we've got some interim
00:34:55> 00:34:57:	goals listed there on the slide for 2030.
00:34:58> 00:35:01:	So yeah, we've got a lot of work to do
00:35:01> 00:35:04:	and and as you can imagine the decisions that we're
00:35:04> 00:35:07:	making today are going to be really impacting our emissions
00:35:07> 00:35:08:	in in 2030.
00:35:08> 00:35:10:	So we need to be really proactive on top of
00:35:10> 00:35:13:	this and be really strategic about the decisions we're making
00:35:13> 00:35:15:	in what we're investing in.
00:35:16> 00:35:21:	And our you know our targets are are science based
00:35:21> 00:35:27:	targets which means that they're in line with Paris 1.5??C
00:35:27> 00:35:31:	capping our emissions at at that EC3 tool.
00:35:32> 00:35:34:	Hopefully many of you have heard of this hopefully many
00:35:34> 00:35:36:	of you are using this tool.
00:35:36> 00:35:38:	The the link is right there.
00:35:38> 00:35:41:	It's a free tool to use, but it's called it's
00:35:41> 00:35:45:	embodied Carbon and construction calculator, that's the EC3.
00:35:47> 00:35:50:	So Skanska Co created this tool with Microsoft years ago
00:35:50> 00:35:53:	and it's we use it in all of our design
00:35:53> 00:35:57:	and construction projects and it's basically kind of like you
00:35:57> 00:36:00:	know, Sydney was talking about the EP DS.
00:36:00> 00:36:03:	So it's a database of a huge you know hundreds

00:36:03> 00:36:07:	of thousands of environmental product declarations which are basically like
00:36:07> 00:36:10:	a a nutrition level of embodied carbon.
00:36:11> 00:36:13:	So there's lots of tools out there.
00:36:14> 00:36:18:	You know, there's there's some other tools that probably more
00:36:18> 00:36:21:	teams might use during design to really inform, well, do
00:36:21> 00:36:23:	we want to do a concrete or steel or a
00:36:23> 00:36:27:	mask timber scheme and really selecting the best structural scheme
00:36:27> 00:36:28:	for the project.
00:36:29> 00:36:31:	EC3 tool can be used for some of that early
00:36:31> 00:36:35:	modeling, but really it's best for helping make those procurement
00:36:35> 00:36:36:	decisions, right.
00:36:36> 00:36:40:	So you put the material quantities into the database at
00:36:40> 00:36:43:	your site location and then it will show you kind
00:36:43> 00:36:46:	of the best in class, best version of the materials
00:36:46> 00:36:49:	that you want to specify and procure for your project.
00:36:50> 00:36:52:	So please use it.
00:36:52> 00:36:55:	The more, the more people using it, the more kind
00:36:55> 00:36:58:	of you know demand across the subplay chain that we're
00:36:58> 00:37:01:	all asking for these EP DS, the more transparency and
00:37:02> 00:37:05:	the more information we'll have to make better and better
00:37:05> 00:37:08:	decisions as we are all driving down to to 0.
00:37:09> 00:37:13:	And just just really quickly you know we're finding that
00:37:13> 00:37:16:	on our projects we can easily see like a 10
00:37:16> 00:37:19:	to 30% reduction in body carbon by using a tool
00:37:19> 00:37:22:	like this with no, absolutely no cost impacts.
00:37:23> 00:37:25:	And then it's also really helpful.
00:37:26> 00:37:29:	You know there's still some markets where there aren't many
00:37:29> 00:37:29:	or any EP DS.
00:37:30> 00:37:33:	So you know asking these questions, having those conversations with
00:37:33> 00:37:36:	your suppliers is is super helpful and we've we've seen
00:37:36> 00:37:38:	good willingness to engage in those conversations.
00:37:40> 00:37:43:	Next slide, so I'm gonna get into the case study
00:37:43> 00:37:47:	that I'll be sharing with you today and that's 1550
00:37:47> 00:37:48:	on the green.
00:37:49> 00:37:50:	So that's the rendering of it right there.
00:37:51> 00:37:52:	The envelope is up.
00:37:52> 00:37:55:	So you know the photograph of that view, it looks
00:37:55> 00:37:59:	pretty much like the rendering you see there, but it's

00:37:59> 00:38:02:	a 28 story building and it's 387,000 square feet office
00:38:02> 00:38:05:	tower and it's on track to be one of the
00:38:05> 00:38:09:	most sustainable projects in the Houston area which we're really
00:38:09> 00:38:12:	thrilled about and it's located next to Discovery Green.
00:38:12> 00:38:15:	That's the point of view from that that photo there.
00:38:15> 00:38:18:	That's Discovery Green Park, which is a 12 acre park
00:38:18> 00:38:20:	in the heart of Houston Central Business District.
00:38:21> 00:38:24:	And this is the first phase of a three block
00:38:24> 00:38:28:	mixed-use development that that we own and we'll be developing
00:38:28> 00:38:31:	the next blocks over the next couple of years and
00:38:31> 00:38:32:	decades.
00:38:33> 00:38:36:	But there's retail at the base about about 7000 square
00:38:36> 00:38:40:	feet and then there's beautiful terraces on levels 1220 and
00:38:40> 00:38:41:	28.
00:38:41> 00:38:44:	You can see some of the trees popping up there
00:38:44> 00:38:47:	and just absolutely stunning views of Discovery Green and
	the
00:38:47> 00:38:48:	city.
00:38:48> 00:38:52:	The architect for this project is big, the Archangels group
00:38:52> 00:38:55:	and we're about to wrap up construction and we'll be
00:38:55> 00:38:58:	delivering the project in in early 2024.
00:38:59> 00:39:02:	And next slide, so you know in addition to to
00:39:02> 00:39:07:	Well and leave Putnam certification for the project, we're also
00:39:07> 00:39:10:	pursuing Wired Score and Fit Well certifications.
00:39:12> 00:39:14:	And you know we've been working closely with the city
00:39:14> 00:39:15:	and the Mayor of Houston.
00:39:16> 00:39:19:	So it's aligned with with the city's environmental goals.
00:39:20> 00:39:22:	We've got 30% more fresh air than a typical Class
00:39:22> 00:39:24:	A building in the project.
00:39:24> 00:39:28:	There's a listing of other sustainability features that I'll just
00:39:28> 00:39:31:	let you you scan through there on the slide.
00:39:31> 00:39:34:	But you know it's surrounded by greenery and that really
00:39:34> 00:39:37:	allows the tenants to experience the benefits of nature.
00:39:37> 00:39:40:	You know when they're working inside or outside the building,
00:39:41> 00:39:43:	we have floor to ceiling vision and glazing and so
00:39:43> 00:39:46:	really great natural light coming into the space.
00:39:46> 00:39:49:	And then we also have a unique side core design
00:39:49> 00:39:53:	and really open floor plates and that really allows for
00:39:53> 00:39:56:	our tenants that that have a very kind of airy
00:39:56> 00:39:59:	flexible office environment when they come to work in the

00:39:59> 00:40:00:	building.
00:40:01> 00:40:01:	OK.
00:40:01> 00:40:02:	Next slide.
00:40:04> 00:40:07:	So just wanted to dive in more specifically on the
00:40:07> 00:40:09:	embodied carbon for this project.
00:40:09> 00:40:11:	So we use the EC3 tool to track the, the
00:40:12> 00:40:16:	carbon intensive materials, right, like the carbon, sorry, the concrete,
00:40:16> 00:40:19:	the the rebar, the aluminum etcetera to really find out
00:40:20> 00:40:22:	where those key reductions could be made.
00:40:23> 00:40:26:	And we discovered really quickly and early in the process
00:40:26> 00:40:30:	that the local suppliers, especially the concrete suppliers, we didn't
00:40:30> 00:40:32:	have EP DS in place for their products and we're
00:40:33> 00:40:36:	just starting to become more transparent about embodied carbon.
00:40:36> 00:40:40:	And so for the manufacturers, as you've probably many of
00:40:40> 00:40:43:	you heard, that process can be pretty lengthy to get
00:40:43> 00:40:43:	EP DS.
00:40:43> 00:40:46:	So you know us having those early conversations and showing
00:40:47> 00:40:49:	the supply chain that we were going to be demanding,
00:40:49> 00:40:52:	this was really important to to prompt the market to
00:40:52> 00:40:55:	move forward and be more transparent and get those EP
00:40:55> 00:40:55:	DS.
00:40:56> 00:40:58:	But I'm really proud to say the numbers up there
00:40:59> 00:41:01:	on the slide, but we've we've achieved a 45% reduction
00:41:01> 00:41:03:	in embodied carbon from the baseline.
00:41:05> 00:41:08:	And so the scope of that is the foundations and
00:41:08> 00:41:13:	the basement construction, the superstructure, the enclosure, the roofing and
00:41:13> 00:41:17:	then some corn shell interior construction scope of work.
00:41:18> 00:41:22:	And so the materials that that had the most impact
00:41:22> 00:41:25:	are are listed in the box there, but it is
00:41:25> 00:41:30:	the concrete rebar, metal framing, aluminum fins, gypsum board, acoustic
00:41:30> 00:41:34:	ceiling tile acoustic ceilings and the carpet tiles as well.
00:41:35> 00:41:39:	And then specifically in the foundations, we were able to
00:41:39> 00:41:43:	replace 55% of the cement with a low carbon intensive
00:41:43> 00:41:46:	cement and just to to give you a reference point
00:41:46> 00:41:50:	that's similar to taking you know 2 million vehicle miles,
00:41:50> 00:41:53:	not driven just as a carbon equivalency.
00:41:53> 00:41:58:	So these decisions we're making are, are very powerful.

00:41:58> 00:42:01: 00:42:01> 00:42:03: 00:42:03> 00:42:04:	And then I think I just have one last slide if you'd like to learn more about the project. This is the development team.
00:42:04> 00:42:06:	So I just wanted to put their names and faces
00:42:06> 00:42:08:	up there, that's their LinkedIn profiles.
00:42:09> 00:42:12:	So if you or you know anyone who'd like to
00:42:12> 00:42:16:	to leave some really stunning office space that's also low
00:42:16> 00:42:19:	carbon and healthy, reach out to me Or or any
00:42:19> 00:42:21:	of these three fantastic people.
00:42:22> 00:42:23:	That's it for me, Vic.
00:42:25> 00:42:26:	Excellent.
00:42:26> 00:42:28:	Thank you so much to all three of you for
00:42:28> 00:42:30:	your wonderful presentations.
00:42:30> 00:42:32:	I'm going to go ahead and stop sharing my screen
00:42:33> 00:42:35:	and if you'd like to pull your videos on and
00:42:35> 00:42:37:	we can open it up for discussion.
00:42:38> 00:42:40:	I was watching the Q&A function throughout and it looks
00:42:40> 00:42:43:	like there's lots of good questions that are coming in
00:42:43> 00:42:44:	from the audience as well.
00:42:45> 00:42:48:	And I'll just plug another quick reminder, if you have
00:42:48> 00:42:51:	questions, please feel free to continue to enter them.
00:42:51> 00:42:54:	As we're chatting, I have a couple of first questions
00:42:54> 00:42:56:	that to direct to the panelists.
00:42:57> 00:43:00:	So first one being, you know as I was researching
00:43:00> 00:43:03:	for this materials report, one of the big discoveries for
00:43:03> 00:43:05:	me and maybe this is obvious to people who are
00:43:05> 00:43:08:	working in this space all the time, but supporting better
00:43:08> 00:43:11:	materials in many ways is more about the process changes
00:43:11> 00:43:14:	that you can make to the development process to incorporate
00:43:14> 00:43:16:	those better materials, better specs.
00:43:16> 00:43:20:	Talking to manufacturers and Sidney, you highlighted some of those
00:43:20> 00:43:21:	changes.
00:43:21> 00:43:23:	I wonder if you might just be able to elaborate
00:43:23> 00:43:25:	a little bit more on some of the things that
00:43:25> 00:43:28:	you found to be most successful and if there's any
00:43:28> 00:43:31:	low hanging fruit that people listening in can do right
00:43:31> 00:43:33:	now to start to incorporate better materials.
00:43:34> 00:43:34:	Yeah.
00:43:34> 00:43:39:	I think I can't emphasize enough that one of the
00:43:39> 00:43:44:	biggest pieces we really tried to change was leaving any
00:43:44> 00:43:49:	product or material selection in the CA space after

procurement 00:43:49 --> 00:43:55: and shifting the majority of those selections to the design 00:43:55 --> 00:44:00: process because you means that you have better ability to 00:44:00 --> 00:44:05: vet it early without running into possible delays or impacts 00:44:05 --> 00:44:09: to construction or submittal schedules. 00:44:09 --> 00:44:13: So really pulling, pulling that out of submittal review, which 00:44:13 --> 00:44:16: is where it kind of traditionally lived and really living 00:44:16 --> 00:44:19: with the Subs to make sure that all the criteria 00:44:19 --> 00:44:22: was met and placing it back on the design team 00:44:22 --> 00:44:25: to make sure that you're really careful about what you're 00:44:25 --> 00:44:28: putting in the specs to begin with. 00:44:29 --> 00:44:32: And I think the other piece as I mentioned, really 00:44:32 --> 00:44:35: improving A workflow around how to take what we learned 00:44:36 --> 00:44:39: on past projects and be able to give design teams 00:44:39 --> 00:44:40: a starting point. 00:44:40 --> 00:44:42: There was one of the questions actually in the chat. 00:44:42 --> 00:44:45: There was do we do we prescribe A spec from 00:44:45 --> 00:44:49: the beginning or do we ask designers to go and 00:44:49 --> 00:44:50: research this? 00:44:50 --> 00:44:53: And my answer is we really do both. 00:44:53 --> 00:44:56: But we wanted to make it as easy as possible 00:44:56 --> 00:45:00: for the designers to start with Stuff already vetted that 00:45:00 --> 00:45:03: we knew met are really intense criteria like drywall or 00:45:03 --> 00:45:07: sealants or fire stopping or which is something maybe you 00:45:07 --> 00:45:10: know you don't want to spend a lot of time 00:45:10 --> 00:45:13: researching, you want to do the designers want to do 00:45:13 --> 00:45:17: the fun stuff they want to do the finishes and 00:45:17 --> 00:45:18: the cool technology stuff. 00:45:19 --> 00:45:21: So if I can kind of shepherd them and and 00:45:21 --> 00:45:24: give them a great starting point for that kind of 00:45:24 --> 00:45:25: material. 00:45:25 --> 00:45:27: The behind the wall stuff that we've spent a lot 00:45:27 --> 00:45:30: of time with the manufacturers really refining like insulation for 00:45:30 --> 00:45:31: example.

00:45:30 --> 00:45:31: example.

00:45:31 --> 00:45:35: It lets them kind of focus and and do some

00:45:35 --> 00:45:39: fun questions with some of them maybe more innovative or

00:45:39 --> 00:45:44: or present materials in the project sort of visible materials.

00:45:45 --> 00:45:49: And then finally, I think the biggest thing is that

00:45:49 --> 00:45:53: we think it's important for everyone in the project to

00:45:53 --> 00:45:57: understand their role and how critical they are to meeting

00:45:57 --> 00:46:01: the sustainability and health expectations for the project.

00:46:02> 00:46:05:	So sitting with contractors making sure my face or one
00:46:05> 00:46:10:	of my team members face is there one-on-one talking
	through
00:46:10> 00:46:15:	exactly what the expectations are, educating them about material health,
00:46:15> 00:46:19:	making sure it's clear there are consequences if they do
00:46:19> 00:46:23:	not provide the documentation they're looking for or again that
00:46:23> 00:46:27:	we're going to go ahead and test the whole project.
00:46:27> 00:46:28:	So they better do their part.
00:46:30> 00:46:33:	I think just making sure that that everyone's got buy
00:46:33> 00:46:37:	in whether you're dragging them along or they're ready team
00:46:37> 00:46:40:	members is is super key to to getting success.
00:46:40> 00:46:42:	Oh, when you wanted low hanging fruit, sorry.
00:46:42> 00:46:45:	I think going back to the behind the wall stuff
00:46:45> 00:46:49:	like literally just hand over a drywall spec and an
00:46:49> 00:46:53:	insulation spec and a concrete sealer, like give the stuff
00:46:53> 00:46:57:	that like studs, you know, again like all the stuff
00:46:57> 00:46:59:	that duck sealant etcetera.
00:46:59> 00:47:00:	Like get that out of the way.
00:47:00> 00:47:03:	Make that your basis for all of your projects if
00:47:03> 00:47:06:	possible, so that you have a good list to start
00:47:06> 00:47:10:	from, and then make the bespoke kind of project finishes
00:47:10> 00:47:12:	or or pieces that are really visible.
00:47:13> 00:47:16:	You can make that, you'll make those changes over time,
00:47:16> 00:47:19:	but if you can start with like really good behind
00:47:19> 00:47:21:	the wall stuff as a firm or as a company,
00:47:21> 00:47:23:	I think you're already, you know, 50% of the way
00:47:23> 00:47:26:	there with hitting some sustainable, healthy targets.
00:47:28> 00:47:29:	Thank you so much.
00:47:29> 00:47:32:	So many good Nuggets in that you talked a little
00:47:32> 00:47:36:	bit about ensuring that everybody knows their role and
	having
00:47:36> 00:47:38:	those conversations, Heidi.
00:47:38> 00:47:40:	I know that was a big piece of 1550 on
00:47:40> 00:47:44:	the green and having those conversations early with manufacturers and
00:47:45> 00:47:48:	suppliers locally who at that point did not have environmental
00:47:48> 00:47:50:	product declarations in place.
00:47:50> 00:47:54:	But through those early conversations you were able to get
00:47:54> 00:47:55:	them, you know, pull them along.
00:47:56> 00:47:58:	So any additional thoughts that you wanted to add on
00:47:59> 00:47:59:	that topic?

00:48:00> 00:48:01:	Yeah, thanks.
00:48:02> 00:48:02:	Yeah.
00:48:02> 00:48:04:	And you know, I think if you're just really understanding
00:48:05> 00:48:07:	what's most material and where you could have the most
00:48:07> 00:48:10:	impact and focusing on that, right, don't let perfection get
00:48:10> 00:48:11:	in the way of great progress.
00:48:12> 00:48:15:	So yeah, we we proactively reached out to the key
00:48:15> 00:48:18:	Subs, you know prior to bidding really to inform them
00:48:19> 00:48:20:	of what our expectations were.
00:48:20> 00:48:23:	We wrote an advocacy letter, we had a bunch of
00:48:23> 00:48:27:	calls and basically told them that their ability to provide
00:48:27> 00:48:29:	us with specific EP DS would be part of the
00:48:30> 00:48:31:	selection and the word process.
00:48:31> 00:48:34:	So that signalling was really important.
00:48:35> 00:48:38:	And then you know as we reached out to suppliers
00:48:38> 00:48:41:	just making sure that the EP DS would be created
00:48:41> 00:48:45:	during the project since they weren't there at the beginning
00:48:45> 00:48:48:	because when we started 1550 on the green, there were
00:48:48> 00:48:51:	no concrete DP DS in the entire state of Texas.
00:48:51> 00:48:54:	And now now there are because because of of the
00:48:54> 00:48:56:	work that we did there and I'm sure other people
00:48:56> 00:48:58:	are are building off of the work that we've done.
00:48:58> 00:49:01:	But it's just so important to get everybody on board
00:49:01> 00:49:04:	and and really just signal to them that you
00:49:04> 00:49:06:	know this is going to be heavily weighted in our
00:49:07> 00:49:09:	decision making and you need to get on board.
00:49:11> 00:49:11:	Thanks for that, Heidi.
00:49:12> 00:49:14:	And Suzanne, I know you know going back to that
00:49:14> 00:49:18:	process piece, there's a couple of different things that Prologis
00:49:18> 00:49:21:	has done to incorporate better materials and embody carbon goals
00:49:21> 00:49:23:	into your processes.
00:49:23> 00:49:24:	Do you mind speaking to some of those?
00:49:25> 00:49:25:	Yeah.
00:49:25> 00:49:28:	So I think the first thing it starts, you know,
00:49:28> 00:49:29:	with our capital deployment process.
00:49:29> 00:49:32:	So again, I think I always think about ESG and
00:49:32> 00:49:35:	sustainability as making sure it's not a separate process, but
00:49:35> 00:49:37:	how do you build it into your processes like Sydney
00:49:37> 00:49:39:	and Heidi have talked through.
00:49:40> 00:49:43:	But the first thing is every investment committee memo,
	anytime

00:49:43> 00:49:46:	we're gonna build a new building, anytime we're gonna do
00:49:47> 00:49:50:	a major project, there are sections in that investment committee
00:49:50> 00:49:53:	memo that have our new net zero requirements.
00:49:53> 00:49:55:	So we can include the cost of the underwriting in
00:49:55> 00:49:56:	that project.
00:49:56> 00:49:59:	And then also it's an opportunity for teams when they
00:49:59> 00:50:02:	are able to do different innovations or requests to kind
00:50:02> 00:50:05:	of test things we're seeing that come through that process
00:50:05> 00:50:05:	too.
00:50:05> 00:50:07:	So it can really be discussed at the highest levels
00:50:07> 00:50:09:	of the company in terms of what the learnings are
00:50:09> 00:50:12:	and there's a learning section of what we've learned through
00:50:12> 00:50:13:	the projects as well.
00:50:13> 00:50:16:	So I think that has been a real key for
00:50:16> 00:50:18:	us and and moving this forward.
00:50:18> 00:50:21:	And then the other piece of that just from a
00:50:21> 00:50:24:	data and learning perspective, our global ESG team reviews every
00:50:24> 00:50:27:	investment committee memo that goes through to.
00:50:27> 00:50:29:	And then we have that discussion back and forth with
00:50:29> 00:50:32:	the teams when they have choices to make or when
00:50:32> 00:50:35:	they're trying to move to a higher certification level or
00:50:35> 00:50:38:	where they're trying to engage with our you know procurement
00:50:38> 00:50:41:	team on different types of materials to make sure they're
00:50:41> 00:50:42:	meeting our standards.
00:50:43> 00:50:47:	The other thing I'd say from kind of the integration,
00:50:47> 00:50:51:	we're lucky to have a Prologis Ventures arm that has
00:50:51> 00:50:55:	invested 180 million and 40 early in the growth stage
00:50:55> 00:50:56:	companies.
00:50:56> 00:51:00:	But we've been having good conversations with them about circularity
00:51:00> 00:51:04:	and you know basically the embodied carbon aspects and and
00:51:04> 00:51:08:	all the innovations they're seeing in the market related to
00:51:08> 00:51:10:	some of these new materials.
00:51:10> 00:51:12:	So that's another piece.
00:51:12> 00:51:14:	One new thing that they invested in last year related
00:51:14> 00:51:17:	to our solar business is a company called Solar Cycle.
00:51:17> 00:51:20:	So as we are scaling more solar installations, we're also
00:51:20> 00:51:25:	investing and partnering with organizations that are really thinking about

00.51.25> 00.51.27.	that hie cycle approach to those as well.
00:51:29> 00:51:31:	So I am happy to add more.
00:51:31> 00:51:33:	I know there's a bunch of questions in the in
00:51:33> 00:51:33:	the chat that I it's.
00:51:34> 00:51:34:	Perfect.
00:51:34> 00:51:36:	Yes, there are a bunch of questions in the chat.
00:51:36> 00:51:38:	I just have one more that I wanted to get
00:51:38> 00:51:38:	to.
00:51:38> 00:51:40:	Talking about measurements.
00:51:40> 00:51:43:	Obviously, there's some great tools on the market both to
00:51:43> 00:51:47:	measure embodied carbon and material health a little bit
	more,
00:51:47> 00:51:49:	a little easier for the embodied carbon piece.
00:51:49> 00:51:52:	Right now, material health is maybe a little bit less
00:51:52> 00:51:53:	tangible in some ways.
00:51:53> 00:51:58:	Obviously there's health, product declarations and other labels that can
00:51:58> 00:51:59:	help get us there.
00:52:00> 00:52:02:	Vinny, you could speak to a little bit about what
00:52:02> 00:52:05:	are you using to measure your success when it comes
00:52:05> 00:52:06:	to material health?
00:52:06> 00:52:08:	You talked a little bit about indoor air quality and
00:52:08> 00:52:09:	some of those other pieces.
00:52:09> 00:52:11:	I wonder if you could expand on that.
00:52:12> 00:52:13:	Yeah, it is.
00:52:13> 00:52:15:	I would say we honestly still also struggle with how
00:52:16> 00:52:18:	to communicate the success in this area effectively.
00:52:18> 00:52:22:	To your point, it's the the metric based idea of
00:52:22> 00:52:26:	communicating material health in a or visually or graphically or
00:52:26> 00:52:30:	even how do you put the the metrics together around
00:52:30> 00:52:33:	this is I I certainly do not have a great
00:52:33> 00:52:34:	solution off hand.
00:52:34> 00:52:39:	However I do think luckily we have healthy building network
00:52:39> 00:52:43:	which is working on a footprint tool which I think
00:52:43> 00:52:47:	is going to be I really like what they're trying
00:52:47> 00:52:47:	to do.
00:52:47> 00:52:50:	And I was even thinking as, as I think about
00:52:50> 00:52:53:	this question, that might be an opportunity for us to
00:52:53> 00:52:57:	kind of retroactively actually go back through a project and
00:52:57> 00:52:59:	and put it in there to sort of demonstrate a
00:52:59> 00:53:03:	starting point and against the baseline of how much better
00:53:03> 00:53:07:	our building is actually performed given the selections we've

00:51:25 --> 00:51:27: that life cycle approach to those as well.

done. 00:53:08 --> 00:53:11: I think mainly the piece that I used to talk 00:53:11 --> 00:53:16: about hitting success with healthy materials criteria is talking about 00:53:16 --> 00:53:20: the rigorous process we use to actually make the selections 00:53:20 --> 00:53:23: in the 1st place and ensure that what we've put 00:53:23 --> 00:53:27: in the design documents and we've selected actually makes it 00:53:27 --> 00:53:30: to the project and is what is installed. 00:53:30 --> 00:53:33: Because we don't just assume that what is in a 00:53:33 --> 00:53:35: set of documents is going to get there. 00:53:35 --> 00:53:39: There's a lot of checks and balances and oversight, and 00:53:39 --> 00:53:42: I think that is just as important to relay to 00:53:42 --> 00:53:46: somebody that we're serious about looking out for human 00:53:46 --> 00:53:51: environmental health by implementing these process and putting human resources 00:53:51 --> 00:53:54: on it to watch this as it is through the 00:53:54 --> 00:53:57: vetting process itself and the selection itself. 00:53:57 --> 00:53:59: So that's typically what I use to convey it. 00:53:59 --> 00:54:02: One day I'll have a beautiful graphic and it'll be 00:54:02 --> 00:54:05: amazing and easy to understand, but we're not quite there 00:54:05 --> 00:54:05: yet. 00:54:07 --> 00:54:09: Be excited to look forward to it. 00:54:10 --> 00:54:12: So let's shift to some of the questions that are 00:54:12 --> 00:54:13: in the chat. 00:54:13 --> 00:54:16: Thanks to everyone who has plugged their questions in. 00:54:16 --> 00:54:19: We have a couple of questions that have been highly 00:54:19 --> 00:54:19: voted. 00:54:20 --> 00:54:21: I like this one. 00:54:21 --> 00:54:24: What do the presenters think is the major roadblock for 00:54:24 --> 00:54:28: developers to implement more and healthier buildings building materials? 00:54:28 --> 00:54:32: Is it cost, performance, lack of information and that can 00:54:32 --> 00:54:33: go to anyone? 00:54:33 --> 00:54:33: Yeah. 00:54:34 --> 00:54:34: Yeah, I can start. 00:54:34 --> 00:54:36: I think I think it's a mixture of things and 00:54:36 --> 00:54:39: sometimes and there's a lot moving in the external environment 00:54:39 --> 00:54:40: that's shifting this too.

especially you know, I think there were some other questions

But I think cost is you know, still an issue,

00:54:40 --> 00:54:42:

00:54:42 --> 00:54:45:

00:54:45> 00:54:48:	in, in the chat around size, organization and what you're
00:54:48> 00:54:51:	able to do in one project versus scaling across multiple
00:54:51> 00:54:51:	ones.
00:54:52> 00:54:55:	And I think it's a time horizon thing as well.
00:54:55> 00:54:58:	Some of these, as they mature, I think the costs
00:54:58> 00:55:01:	are going to change and become you know more useful
00:55:01> 00:55:02:	as we go forward.
00:55:03> 00:55:06:	I think the other piece is just human nature, resistance
00:55:06> 00:55:08:	to change, you know what works, risk aversion of trying
00:55:08> 00:55:11:	something new that you might have to replace if it's
00:55:11> 00:55:13:	not durable enough or if there might be a risk.
00:55:13> 00:55:16:	And then the third part is regulation.
00:55:16> 00:55:18:	I think you had highlighted Victoria, some of the positive
00:55:18> 00:55:21:	regulation moving to some of these, but I think there
00:55:21> 00:55:24:	might be some of these more innovative materials that don't
00:55:24> 00:55:26:	they're they're the regulations haven't caught up to them in
00:55:26> 00:55:29:	certain jurisdictions and so you have to kind of balance
00:55:29> 00:55:30:	that timing as well.
00:55:30> 00:55:34:	So, but I think it's about changing your conversation internally
00:55:34> 00:55:37:	to you know make sure you have the right processes
00:55:37> 00:55:40:	and I like Sydney's never get surprised but also about
00:55:40> 00:55:43:	creating that space for innovation, that space for testing that
00:55:43> 00:55:46:	space for local teams to kind of identify local suppliers
00:55:46> 00:55:49:	that then could be really you know part of that
00:55:49> 00:55:52:	that project at that level and maybe scale across.
00:55:53> 00:55:55:	In Victoria, if I can just build off of that
00:55:55> 00:55:57:	too, there's there's just so many Co benefits when you
00:55:58> 00:55:59:	look at it holistically, right.
00:55:59> 00:56:02:	I mean and I forgot to mention at the beginning
00:56:02> 00:56:04:	that we do, we do office and multi family and
00:56:04> 00:56:05:	a couple of labs.
00:56:06> 00:56:09:	So for the residential we're you know we're doing the
00:56:09> 00:56:13:	interiors but for the office we're just doing corn shelf.
00:56:13> 00:56:16:	So we have opportunities with with both.
00:56:16> 00:56:18:	But you know I think we can really advocate for
00:56:18> 00:56:21:	our tenants moving into our office spaces too.
00:56:21> 00:56:25:	Like we've given them this really beautiful healthy, it's
	sustainable
00:56:25> 00:56:28:	corn shell building and really encourage them when they do
00:56:28> 00:56:30:	their fit outs to to do it with the
00:56:30> 00:56:31:	same mindset.
00:56:31> 00:56:34:	But you know I think when you focus on healthy

00:56:34> 00:56:38:	materials and when you focus on embodied carbon and and
00:56:38> 00:56:41:	maybe think about the entire supply chain and who's being
00:56:42> 00:56:45:	impacted by all of the work that we're doing, There's
00:56:45> 00:56:48:	just multiple benefits, right As we get off of petroleum
00:56:49> 00:56:53:	based products and we're healthy natural products, those products have
00:56:53> 00:56:55:	a lower embodied carbon.
00:56:55> 00:56:58:	So I think it's just that holistic look and you
00:56:58> 00:57:01:	know, you know, asking our teams to to to do,
00:57:01> 00:57:04:	to do the legwork and like Suzanne said, you know,
00:57:04> 00:57:07:	it's change or so it makes everybody a little bit
00:57:07> 00:57:11:	uneasy because they're not doing things the way they had
00:57:11> 00:57:12:	been doing it.
00:57:12> 00:57:15:	But that's everything we're doing in sustainability is always asking
00:57:15> 00:57:17:	people to change what they're doing today to to make
00:57:17> 00:57:18:	it even better for tomorrow.
00:57:19> 00:57:21:	And I love what you said high to about Co
00:57:21> 00:57:23:	benefits because I think there were some other kind of
00:57:23> 00:57:25:	questions in the chat about, you know what are some
00:57:25> 00:57:27:	of the health impacts of doing mass timber and and
00:57:27> 00:57:27:	other things.
00:57:27> 00:57:30:	And I think one thing we've learned through this project
00:57:30> 00:57:32:	is you know the the next site panels that we
00:57:32> 00:57:34:	used, they were the the, the wall units that they
00:57:34> 00:57:35:	had for us.
00:57:35> 00:57:37:	They were quicker to install.
00:57:37> 00:57:39:	There were other health benefits and things.
00:57:39> 00:57:43:	When you think about mass timber, there's you know, research
00:57:43> 00:57:46:	studies out there with satisfaction from laborers liking to work
00:57:46> 00:57:48:	there that's safer you know in terms of some of
00:57:48> 00:57:50:	these other pieces sometimes.
00:57:50> 00:57:53:	So I think really you might make a decision based
00:57:53> 00:57:56:	on sustainability and you find it helps your time to
00:57:56> 00:57:56:	build.
00:57:56> 00:57:58:	It helps on some of your other metrics as well.
00:57:59> 00:58:02:	I'm sorry to piggyback again, but then you just reminded
00:58:02> 00:58:05:	me of something that on 1550 on the green, because
00:58:05> 00:58:07:	we were so focused on the embodied carbon, we asked
00:58:07> 00:58:10:	our engineer well to be more to really kind of
00:58:10> 00:58:13:	find any opportunities to reduce and not oversize the
	structure.

00:58:13> 00:58:16:	And so they were able to shave off I think
00:58:17> 00:58:20:	3/8 of an inch on the floor system on every
00:58:20> 00:58:22:	single of those 28 floors.
00:58:22> 00:58:25:	And that was equivalent to 700 cubic yards of concrete
00:58:25> 00:58:28:	and 70 truckloads of concrete in and out of the
00:58:28> 00:58:29:	neighbourhood.
00:58:29> 00:58:32:	So even just thinking of all of the X, you
00:58:32> 00:58:35:	know, all of that noise and traffic and you know,
00:58:35> 00:58:39:	combustion from those trucks and the air quality impacts to
00:58:39> 00:58:41:	the neighbourhood, reducing that.
00:58:41> 00:58:43:	So 3/8 of an inch might not sound like a
00:58:43> 00:58:46:	lot, but it had significant positive impacts.
00:58:47> 00:58:49:	Amazing, wonderful.
00:58:49> 00:58:52:	We're coming right up against the top of the hour
00:58:52> 00:58:54:	and I'm so sorry that we weren't able to address
00:58:54> 00:58:56:	all of the wonderful questions that came in through the
00:58:56> 00:58:57:	chat.
00:58:57> 00:59:00:	I want to thank the panelists so much for joining
00:59:00> 00:59:04:	this conversation, for presenting and sharing about their impressive projects
00:59:04> 00:59:06:	and for engaging in this discussion.
00:59:06> 00:59:09:	We're so thrilled to be able to watch this change
00:59:09> 00:59:13:	happen in the industry towards a better sustainable and healthy
00:59:13> 00:59:17:	materials and we're glad that you were able to join
00:59:17> 00:59:18:	this webinar.
00:59:18> 00:59:18:	So thanks.
00:59:18> 00:59:21:	Thanks for joining us today, Audience.
00:59:22> 00:59:24:	We dropped a link for a short survey in the
00:59:24> 00:59:28:	chat and we'd be grateful for your feedback If you
00:59:28> 00:59:30:	might be able to share your thoughts.
00:59:31> 00:59:34:	And again, keep an eye out for the recording of
00:59:34> 00:59:36:	this webinar as well as a link to the Materials
00:59:37> 00:59:39:	movement report which is coming out very soon.
00:59:40> 00:59:42:	Thanks again and I hope you all have a wonderful
00:59:42> 00:59:42:	day.
00:59:43> 00:59:43:	Take care.
00:59:43> 00:59:43:	Thank.
00:59:45> 00:59:45:	You.

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