



## Industry Advisory Group Annual Meeting Meeting Transcript

Virtual – Washington, D.C.

September 17, 2021 9:00 AM – 1:30 PM EST

BUREAU OF OVERSEAS BUILDINGS OPERATIONS



[00:00:03.66] MS. CHRISTY FOUSHEE: Thank you, but welcome. Again, I'm Christy Foushee. We are so excited to host you all for the IAG today. We have a really great agenda lined up, talking about really important issues pressing in the built environment. Our OBO leadership and our Industry Advisory Group are ready to get engaged.

[00:00:22.48] I wanted to give you guys a few little tips for information. We are using Webex Event, so if you're joining us and you're not a panelist, your mic is muted and your video is off to ensure the integrity of the presentation for everyone. The chat function is being monitored, so if you're having any issues or need some attention, you can just chat us, and the folks that are moderating it will definitely try to troubleshoot for you.

[00:00:54.35] We've got some information-- we've got some information on the welcome screen here. If you have any problems, you can do a screenshot of it. All of our materials for the event are posted on the web link included here.

[00:01:09.97] We are also using Slido for questions. We hope to have a lively discussion with you, so Slido is the best option for us to be able to interact and get a lot of questions going. So, please, the QR code here, or there's a link in the chat function to Slido as well, if you tee that up, you'll be set to ask us questions or make comments. Please do that throughout the session. We do have dedicated times for Q&A. But we are hoping to be able to get all those teed up, so as you have questions, just go ahead and plug them in.

[00:01:44.58] We are-- we are, again, in a Webex Event situation that is being recorded. So this will be posted along with all of the materials later today on our website. And there was a joke-- sorry, I was trying to turn my volume down. [INAUDIBLE] a lot, not just on virtual meetings. [CHUCKLES] Oh, I have to do it manually. And I'm not even doing it right, so sorry if I'm so loud.

[00:02:10.45] But when we were talking about how to open with technical issues, we also figured out a way to turn everybody's video on at the same time, so-- but we're not going to enable that. But we can. We can turn your mics on, and we can turn your video on.

[00:02:25.09] The only other comment I will make is that as we get into the Q&A, if you do want to raise your hand or make a comment, that function is right by your name on the panelist link. You can just enable Raise Your Hand, and we'll be able to call on you, on that time. OK. So, Henry, I'm just going to turn it over to you to get us started.

[00:02:44.28] MR. HENRY JARDINE: Hey, Christy, thank you very much. Hopefully, my microphone is OK for everybody out there. Again, you know, welcome to our IAG members, our panelists, OBO leadership, and the many participants who are, I see, rolling in very quickly. So it's exciting to see significant numbers of folks coming to this event virtually.

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[00:03:04.09] Before we start it, though, we did want to do our introductions and go ahead and have the IAG members, OBO leadership, our academic advisors, and speakers introduce themselves briefly. To facilitate that, we will have a slide with the names highlighted for each of the individuals at that time to go ahead and introduce themselves briefly and then it'll highlight the next name in sequence. So it should do it iteratively and hopefully, everybody will have an opportunity just to quickly introduce themselves, talk a little bit about their work, and everybody will have a chance to see who's going to be our panelists today.

[00:03:39.34] So with that, I think we'll go ahead and move into the introductions very quickly. It looks like we have Dr. Anderson who will kick us off. Some individuals may have issues with their microphones.

[00:04:02.56] MS. FOUSHEE: Yeah, I think we'll just go-- we can go right down to Christian next.

[00:04:05.98] MR. JARDINE: OK, great.

[00:04:07.35] MR. CHRISTIAN BAILEY: Hey, good morning, everybody. My name is Christian Bailey with ODA in New York City.

[00:04:17.84] MR. JARDINE: Think we've got Sandra. Yes, go ahead.

[00:04:28.02] MS. SANDRA BROCK: Oops, I'm sorry. I was muted. This is Sandy Brock with Nitsch Engineering. We're out of Boston.

[00:04:34.73] MR. JARDINE: OK. I think Christopher-- not sure if he's muted. OK. Guess I'll go [INAUDIBLE].

[00:05:01.46] MS. ANNE MARIE DUVALL DECKER: Hi, this is Anne Marie Duvall Decker, a Duvall Decker in Jackson, Mississippi.

[00:05:10.38] MS. MAUREEN EHRENBERG: Hello, this is Maureen Ehrenberg. I'm with Blue Skyre out of Chicago.

[00:05:19.60] MR. BRYANT FARLAND: Hi, this is Bryant Farland with Skanska.

[00:05:27.00] MS. CHRISTINA HUDSON: Good morning. Christina Hudson, calling from Washington, DC, a climate adaptation and resilience specialty.

[00:05:36.57] MR. NICO KIENZL: Hello, this is Nico Kienzl from Atelier Ten, a sustainability consultancy.

[00:05:43.37] MS. CARA LANIGAN: Good morning. This is Cara Lanigan with Clark Construction here in Bethesda, Maryland.

[00:05:50.49] MS. DEBRA LEHMAN-SMITH: Good morning. This is Debra Lehman-Smith with LSM Studios in Washington, DC, and New York.

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[00:05:59.38] MS. KATIE L. MCGIMPSEY: Good morning. This is Katie McGimpsey with Affiliated Engineers located in Rockville, Maryland.

[00:06:08.31] MR. JONATHAN MOODY: Yes, good morning. Jonathan Moody with Moody Nolan.

[00:06:30.14] MR. ALAN ORGANSCHI: Hi, this is Alan Organschi. Hello, everyone. I'm with Gray Organschi Architecture, and I teach at the Yale School of Architecture. And I'm currently the director of the Innovations Lab at the Bauhaus Earth in Potsdam, Germany.

[00:07:01.93] MS. FOUSHEE: [INAUDIBLE]

[00:07:07.58] MR. FRANK SCIAME: Hi, I'm Frank Sciame, Sciame Construction.

[00:07:12.46] MR. DARRELL ROUNDS: I'm sorry. Greetings. This is Darrell Rounds from the lovely state of Michigan representing General Motors.

[00:07:26.11] MR. DANIEL SESIL: Yeah, hi. This is Dan Sesil from LERA Structural with offices in New York, Mumbai, Shanghai, Hong Kong, and Seoul.

[00:07:35.88] MS. STACY SMEDLEY: Hello, everyone. My name is Stacy Smedley. I'm the executive director of a Seattle-based nonprofit called Building Transparency focused on reducing embodied carbon emissions of construction.

[00:07:49.67] MS. JANE SMITH: Hi, this is Jane Smith. I'm partner of Spacesmith architects, interior designers in New York City and upstate New York.

[00:08:20.21] MR. GREGORY STARR: Good morning. This is Greg Starr. I'm a security consultant formerly with Diplomatic Security.

[00:08:26.36] MR. ROBERT SVEDBERG: Good morning. This is Rob Svedberg with TVS in Atlanta, Georgia.

[00:08:32.39] MR. JEREMIAH WATTS: Good morning. This is Jeremiah Watts with D|Watts Construction located in Northern Virginia.

[00:08:42.64] MS. MARION WEISS: Good morning. I'm Marion Weiss, Weiss/Manfredi, architecture, landscape, urbanism in New York City and Graham Chair professor of practice at the University of Pennsylvania.

[00:08:56.75] MS. CLAIRE WEISZ: Good morning. I'm Claire Weisz, architecture and planning office in New York and DC.

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[00:09:08.48] MS. ELIZABETH WHITTAKER: Good morning. I'm Elizabeth Whittaker from Merge Architects out of Boston. Also professor in architecture, Harvard University's Graduate School of Design. Good morning.

[00:09:21.06] MR. JARDINE: OK, I'll now ask our leadership team to go ahead and introduce themselves.

[00:09:26.36] MS. VICTORIA HARTKE: Good morning, everyone. Victoria Hartke. I'm the acting principal deputy director for OBO.

[00:09:37.07] MR. JEFF REBA: Good morning. I am Jeff Reba, OBO's comptroller. That means I'm the bureau's chief financial officer with responsibility also for our policy and our relations with Congress, GAO, and the department's Inspector General.

[00:09:53.73] MR. ANGEL A. DIZON III: Good morning, everybody. My name is Angel Dizon. I'm the managing director for program development. That includes project management, special project management, cost management, and design management.

[00:10:09.33] MS. TRACY THOMAS: Good morning. I'm Tracy Thomas, managing director for construction, facilities, security management. Our directorate oversees operations and maintenance of the global portfolio valued at \$90 billion and also the Capital Security Construction Program valued at \$10 billion. We're implementing those programs supported by strong data analytics and models for collaboration and risk mitigation. Thank you.

[00:10:37.97] MR. ADAM LAMOREAUX: Good morning. I'm Adam Lamoureux, the managing director for operations. Our directorate includes six offices-- the office of fire protection; safety, health, and environmental management; the office of art and embassies; and the office of cultural heritage; the office of residential design and furnishings; and lastly, the office of area management, which plays a coordinating role for OBO both internally and with our overseas posts. Thank you.

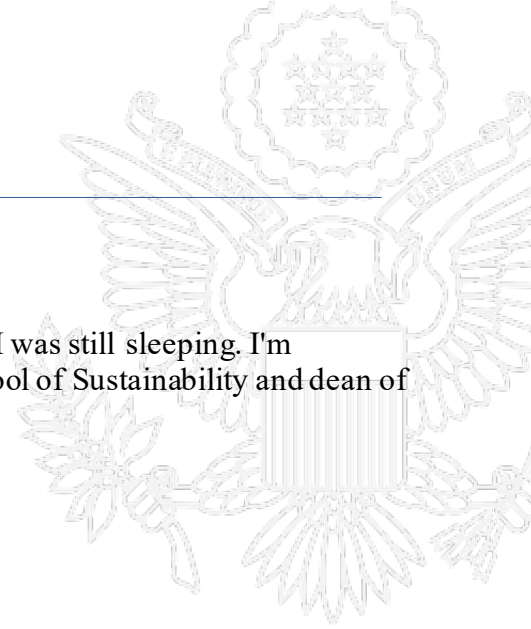
[00:11:08.93] MR. GARY SEIBERT: Good morning, folks. My name is Gary Seibert. I'm currently acting as the managing director for planning and real estate. When I'm not doing that, my regular job is as the director of the office of strategic planning. Good to be here.

[00:11:24.60] MR. JARDINE: OK, and I'll ask our academic advisors to briefly introduce themselves as well.

[00:11:40.41] MR. MARK ROBBINS: Hi, I'm Mark Robbins. I'm the president of the American Academy in Rome and speaking to you from Rome.

[00:11:48.95] MR. JARDINE: Great.

[00:11:51.55] MS. KIMBERLY GRAY: I guess my other academic colleagues must be teaching. My name is Kimberly Gray. I'm a professor of environmental engineering and the chair of civil and environmental engineering at Northwestern University, and I'll be talking to you about the Embassy 2050 study later on this morning. Thank you.



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[00:12:11.04] MR. JARDINE: Great. Thank you.

[00:12:12.33] MR. CHRISTOPHER BOONE: Kimberly, this is Chris. I wish I was still sleeping. I'm watching the sun come up here in Tempe, Arizona. I'm a professor in the School of Sustainability and dean of the College of Global Futures. Good morning, everyone.

[00:12:24.06] MR. JARDINE: Good morning. Thank you.

[00:12:25.04] MS. GRAY: Chris, I said teaching. I thought I said teaching.

[00:12:28.16] MR. BOONE: Oh, I somehow heard sleeping.

[00:12:29.89] MR. JARDINE: Sleeping. [CHUCKLES]

[00:12:33.90] MR. ROBBINS: It sounds like our students.

[00:12:37.12] MR. JARDINE: Great. I'll also ask, then, our speakers for today, invited speakers, to introduce themselves briefly.

[00:12:43.14] MR. RICK SULLIVAN: Good morning. I'm Rick Sullivan, the director of design and engineering here at OBO.

[00:12:49.31] MR. CURTIS CLAY: Good morning. My name is Curtis Clay. I'm the director of architecture for OBO. I lead a team of 35 architects and landscape architects in the department who are responsible for ensuring the overall architectural representation and design engineering coordination for all of our facilities abroad meet our rigorous design standards.

[00:13:11.66] MR. JASON DALLARA: So I'm Jason Dallara. I'm the director of real estate acquisitions and disposals at the State Department. So that's all of our buying and selling in real estate around the world. And one of those areas that we're going to talk about today is buying sites for our new embassies. And I also have a nine-year-old daughter. And luckily, she's in school, or she'd probably be on video with me right now.

[00:13:36.89] MR. JARDINE: Thank you, Jason.

[00:13:38.85] MR. JAMIE COOK: Good morning. My name is Jamie Cook. I'm a partner at Krueck Sexton Partners in Chicago.

[00:13:45.65] MR. JARDINE: Great. Thank you very much, Jamie. And, again, I'm glad we had a chance to introduce everybody. I think that also gave more folks an opportunity to dial in. So I see where our numbers continue to increase.

[00:13:55.82] Again, I'm very happy, very privileged, to be kicking off this new iteration of our Industry Advisory Group, this annual meeting. I would like to welcome our new members and also thank our returning members for their continued support to the Department of State and the Bureau of Overseas Buildings



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Operations. I'm very excited about our present IAG as it's the most diverse to date in terms of our skills, backgrounds, and experience. You all have expertise touching across all aspects of the work that OBO does. And, as they say, it does take a village, and I think we do have a veritable village here of experts to help us with our work.

[00:14:33.63] And I think in today's program, we'll have an opportunity to see how we've been fortunate in having such expertise. Initially, we'll have the Peer Review Readout, giving a summary of the range of projects and designs we've initiated over the course of the year and how those projects have been shaped by the input and feedback from our advisors. Then the discussion will shift to how we're looking more strategically in the longer-term nature of our work, approaches to innovation, and understanding how we ultimately operate in a broader context, influencing the environment and the community in which we work, in which we build and operate our facilities.

[00:15:09.40] In addition, we'll be looking at what may be the greatest impact on our future work-- climate change. Again, I should note that our efforts on all these fronts have occurred during a very dynamic and challenging period over this past year. I have to thank our IAG members, the entire OBO team, for their outstanding efforts during the very dramatic disruptions of COVID. And it's a testament, I think, to your dedication and professionalism that we've been able to accomplish so much in the past year.

[00:15:39.33] And I should note also the significant efforts include such, I think, you know, very noteworthy data points. In the course of our work, we were successful in vaccinating over 90% of our workers overseas, about 13,000 workers working on various projects this past year overseas. So, again, a great effort even with the daunting challenge of COVID.

[00:16:02.73] And also, I have to thank, you know, our broader participants. Many of the participants who are dialing in today and watching this have been close partners for us and have been working with us in very challenging environments, most noteworthy, just recently in Afghanistan. And I have to thank them for their commitment and dedication for remaining with us to the very end in Afghanistan. So thank you for that.

[00:16:24.91] Again, as I mentioned, we were very successful in having many projects, and I'll just go through some of the projects' highlights that we've had this past year very quickly. And we have some slides. For instance, you can see that we were able to complete what's a beautiful, really stunning embassy in Mozambique, in Maputo.

[00:16:44.23] In addition, we were also able to complete this year an embassy in Niamey, Niger. Again, I think, as you see, just the designs are-- and appearances-- these are stunning. And I know that the people on the ground have been very appreciative of the great work and the quality of the construction.

[00:17:05.60] In addition, we were also able to complete a new embassy facility in Reykjavik, Iceland. I think, what you can also note from the range of these projects, just the extremes, going from Niamey, a very dry, hot environment, to Reykjavik, very cold. And, again, I think it just reflects on the-- really, just the skill and talents of all the people that we work with that were able to do this kind of work in such dramatically different environments.

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[00:17:34.14] In addition to completing projects, we've been initiating projects. And, you know, you can see here that we've done a number of design awards over the past year, including here in Bangui as well as-- as you'll see here in Beijing. This the Chief of Mission Residence in Beijing, China, as well in a very another challenging location in Juba, South Sudan. Yeah, I think what's what's telling about all these designs is just how innovative, striking, and impressive they are.

[00:18:19.67] Here in Kathmandu, the Chief of Mission Residence design. And the design for the U.S. Embassy Moscow Office Annex. Again, in Nairobi, Kenya, with the Chief of Mission Residence. Here's a design award for a new embassy in Port Louis, Mauritius.

[00:18:49.91] So from designs, we went on to construction awards and most recently, just the last week, we were able to award a construction award for our embassy in Doha in Qatar. And we are in the process of finalizing awards for other projects. And again, these were projects initially we were hoping to award in 2020 but now we're awarding in 2021 because I think we've been able to successfully work with our many partners, adapt, and take on new innovative approaches to the contracting process so that we could do these awards.

[00:19:34.34] And we can't do our projects without the sites, and, you know, real estate is always very challenging. We're looking at properties that will be platforms for us, that will be in locations that will project the U.S. government well and be located well for people to access and be able to provide the services that we need on the ground. So it's a really challenging effort. But, again, we've been very fortunate given just the professionalism, effort, and dedication of our teams in accomplishing a number of really challenging acquisitions over this past year.

[00:20:16.47] So with that, you know I think what I hope everybody was able to see from this is that, really, under some very difficult conditions over the past year, we were able to be very successful across many fronts, from acquisitions to design to construction to completion. And, again, I have to thank all our advisors, all those contractor-partners that we've worked with over the past year who made that possible. And again, in today's discussion, we'll be looking at some of the key factors that influences our designs, our approaches, our processes.

[00:20:55.28] But I do want to note that in the coming year, we will continue to have dialogue, collaboration with our IAG members. And we'll look to draw on the old cross-section of expertise that the members bring, looking at our portfolio holistically from acquisitions, real estate to construction, lifecycle management, facilities operations. So I look forward to more specific conversations on all those different aspects of our work, essentially from soup to nuts.

[00:21:23.56] And finally, in a personal note, I want to thank the IAG members for their support for OBO, our organization, the Department of State in general. And I want to thank the entire OBO team. This is likely my last IAG meeting.

[00:21:35.41] It's a very sad moment for me, but I hopefully can dial in in future events as I prepare for my next assignment in the coming month when I transition over to be the director for the department's career development and assignment office. So I'm essentially going from buildings to people. But I will still stay in close touch with everybody here in OBO and our partners.

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[00:21:57.70] I'm pleased to note that our new OBO director, again, who should be starting in the coming month has been identified, and he's very familiar for many of you. He was my predecessor as principal deputy director, Ambassador William Moser, and he'll be returning from Kazakhstan and again serving in OBO as our future director. So I know that he's very excited about the prospect of re-engaging with everybody here in OBO and with all our partners and with the IAG members and again continuing this dialogue, conversation, and collaboration. So with that, thank you all very much for the opportunity to kick this off. I'll go ahead and pass it off to Christy, and we'll go into the meat of our program today. Thank you.

[00:22:36.07] MS. FOUSHEE: Thanks so much, Henry, and hopefully, my mic volume has fixed. I was going for Barry White in the opening, so I hope that came across appropriately. I'm glad to know all of you have my phone number because I might have shut down the phone systems. My favorite message was, it sounds like you have a subwoofer in your throat. That was good. [CHUCKLES] So hopefully it's better.

[00:23:00.91] We are really excited to welcome Debra Lehman-Smith and Christian Bailey as our peer review chairs for the readout this year. For those of you that haven't been a part of our annual meetings before, we have this great opportunity for you guys to see the peer activity over the course of the year from the last meeting to this meeting, the projects, and the programs that we asked them to look at. This is their opportunity to talk to you about the ways that they made recommendations and helped us improve our approach to both projects and initiatives within the organization. So I am going to kick it off-- I'm going to kick it over to Debra and Christian.

[00:23:46.29] MR. BAILEY: Well, thank you. Thank you, Christy. Thank you, Henry, for the introductions.

[00:23:51.77] OK, so, Debra and I'll take you all through the next eight Industry Advisory Group reviews that have taken place over the last year, very interesting projects, diverse in terms of seven are buildings. One's a roundtable. There's also an ambassador's residence as well. And I think it'll show that each has a unique story that tells about the role that architecture and landscape plays in the language of diplomacy and the communities that it impacts.

[00:24:24.56] And so we'll get started with the U.S. Embassy in Riyadh in Saudi Arabia. This was designed by Morphosis. It's a design-build contract to be scheduled for the year 2022. And this had three advisory reviews with Mark Robbins of the American Academy of Rome, Susannah Drake of DLANDstudio, Craig Schwitter of Buro Happold.

[00:24:50.51] And just a quick summary before I hand it over to Mark for his review. Both the existing U.S. embassy as well as the site for the future new embassy compound will be located in that Diplomatic Quarter. The general organization of the Diplomatic Quarter is based on the two central boulevards that connect the two entrances to DQ, and the majority of the foreign embassy plots are arranged along those boulevards. And branching off those boulevards are a series of residential clusters.

[00:25:24.56] I think one of the goals of the designer Morphosis is design an embassy that's an inspiring, positive workplace; balance fusion of traditional and contemporary styles, cultures, and activities. My understanding was a pretty spirited dialogue with the IAG members and the architects and the team. So, Mark, I'll hand it over to you. Mark Robbins, are you able--



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[00:25:59.50] MR. ROBBINS: Yeah, oh, am I unmuted?

[00:26:03.64] MR. BAILEY: Yes, we can hear you.

[00:26:04.94] MR. ROBBINS: OK, great. Well, I just wanted to thank my partners in the review, Susannah Drake of DLANDstudios and Craig Schwitter of Buro Happold. We had several meetings with Morphosis, which was the sort of typical review schedule. And after the second review, we had requested another meeting to further develop the scheme. The scheme originated with a series of courtyards that were linked along a more public street called Main Street, and this seemed fairly clear as a diagram.

[00:26:59.30] The site itself sits on a high and very dry mesa, but it is surrounded by waddies, a beautiful, kind of irrigated plain. So I think after the first review, people were heartened by the circulation and a desire to make these series of oases throughout the site. After the second review, the panel felt that the landscape strategy needed to be commensurate with the ideas about the building, and there was a de-emphasis on the Main Street, both given its nomenclature as well as its formal relationship to the scheme.

[00:27:59.51] And this then became-- the operative metaphor really had to do with tributaries and made reference to the surrounding waddy. The upshot of having this extra meeting was, I think, our ability to see a greater development on the facade with brise soleil as well as the plantings of the courtyard and kind of the level of articulation that we had seen in The Residence, which is built into the side of the building complex and that was then carried out throughout the parts of the building we were able to see.

[00:28:55.35] MR. BAILEY: Thanks, Mark.

[00:28:56.58] MR. ROBBINS: Sure. Yeah, so this is one of the interior courtyards, and there was a great attention on the part of Morphosis to make a great transparency throughout the building. And certainly from the main circulation spine externally, you can see into these interior courtyards, and the interior courtyards allow you to see the exterior space. And at the edges, you have space that's used by the wider community, by families as well as diplomats and visiting guests.

[00:29:45.81] MS. LEHMAN-SMITH: I'm pleased to announce the second project embassy that we're reviewing is the U.S. Embassy in Hanoi. And as Henry had said, this actually-- the site was awarded-- actually acquired this year. And the architect is EYP. And the site consists of two office towers, north and south; a Marine quarters; and a series of annex buildings.

[00:30:13.97] And there were two different Industry Advisory reviews. And they were headed by Marion Weiss from Weiss/Manfredi; Jim Richard, Richard Kennedy; and Jay Taylor from Magnusson Klemencic. And the challenges we went through this project this week really was that, how do you create this really beautiful campus within this ever-changing, rapidly growing city of Hanoi? And within the second peer review, there was really a focus of how does the team really make sure that their mission of the U.S. diplomatic status in Hanoi is met? So with that, I'm going to leave-- introduce Marion who's going to lead the effort for this to really discuss what happened during these two reviews. Marion?

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[00:31:07.77] MS. WEISS: Thank you, Debra. And I want to also thank the peers that we were working together with, Richard and Jay Taylor, who never mentioned we had the opportunity twice to review this project. And what was very interesting is initially, there was enormous challenge, actually, on this site with a city being invented around it to balance the potential relationship of the landscape and very robustly scale buildings with the smaller collection of buildings that you see on the left-hand side of your slide in the support area.

[00:31:41.51] EYP presented three strategies-- tranquility, harmony, and flow, each drawing from traditions that were found either in the Hanoian courtyard organization with a red palette color as an initial idea. Another one motivated by the idea of its adjacency to Cau Giay Park which, again, had cross-axial circulation. And the last one called flow which was inspired with spaces which would be forming community spaces with the primary tall building closest to the edge of the city and the office building and adjacent smaller buildings heading into a cascade towards the park.

[00:32:22.60] In our discussions, what we realized is that each of these concepts, in many ways, had aspects that were compelling. We didn't choose one versus another but talked about drawing the strengths of abstraction that came through one and others that actually could draw the landscape language together so that there could be some unifying elements that operated like strata or datums from a plinth that could be a terrace, which you can see on this building that's facing the park even with the MSGR lower and then in unifying datum around the edge of the city where all the support structures were.

[00:32:59.63] And so it was an idea of simplification but also amplifying the collecting of water both in the expression on the facade and in the landscape so that this overall concept would create a reciprocity between the buildings and the landscape. What was most compelling, I think, to all of us, though, was this incredible opportunity to create a diplomatic presence in the city that was both expressive of the urbanity of the tall buildings around but also embracing the landscape that is so compelling to the park. And if there's any additional comments from Jim Richard or Jay Taylor, I just wanted to do a call-out and see if they wanted to add. You can see the invention of the city and the site coming together in this last image. Right. So, by the way, Debra, just on that last slide there, it is pretty amazing that the site has been acquired, and the momentum is underway so quickly.

[00:34:01.04] MS. LEHMAN-SMITH: I agree. Thank you.

[00:34:12.70] MR. BAILEY: OK. Thank you. Moving on to the Curacao, which is the mission to the Dutch Caribbean, this is a new U.S. consulate campus. This was designed by Kieran Timberlake and his team. The design-build contract is scheduled for the year '22. And this-- again, this had two advisory reviews-- Frank Sciamè with Sciamè Construction, Nat Oppenheimer of Silman Structural, and myself.

[00:34:48.48] This was unique in that the new compound involved an expansion on top of it and as well as a new consulate with the acquired land. It involved a new office building; support annex; utility building; and a combined main and consulate-compound access control, which was part of the discussions as well; service-compound access; and a pedestrian-compound access, which was a little unique as well; and space for the vehicles and staff parking. This existing historic site was a former Roosevelt house and so that was addressed as part of this project as well.

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[00:35:40.29] You know, when they presented it, they had three very interesting schemes. And it's a very challenging site. It's an L-shaped site that's on a hill overlooking the town from one angle and then its right facing the highway on the other. So the way that they addressed each area and view was important and part of the dialogue that we had with the team in those Industry Advisory reviews.

[00:36:12.75] The other thing that was important that we discussed was the connection between the two new office buildings and how to pronounce that as a main entrance point in terms of the procession from the main-- from the combined main [INAUDIBLE]. And so that was part of how some of our comments about-- just bring clarity that making the visitor entrance and procession a little bit clear. And then also besides that was the context with the colors, a very vibrant island with the context, and so how does that play into it.

[00:37:04.74] With the team that was on it, hand it over to Frank-- just a note on Frank and Nat, I mean, they were-- they're structural, they're construction, but I think they have a gift for landscape design and as well as architectural design. They're very supportive in that. So, Frank, you want to speak about the reason--

[00:37:26.67] MR. SCIAME: I'm sorry. I can't get my camera going. Could you hear me?

[00:37:29.72] MR. BAILEY: Yep.

[00:37:30.23] MR. SCIAME: OK, great. Yeah, well, as you mentioned, it was very important in terms of the landscaping, the terraces move up the hillside and the overall character and length of the walls required that the walls and the building had a very close dialogue. That was one of the things that the group had commented on. We also thought that the curtain wall was important because of the things we were concerned about how it would perform. And I thought it might be good to talk to some qualified curtain-wall contractors to get some design-assist information.

[00:38:07.97] And one thing that I really felt strongly about was finishing out the shell space because it's the most cost-effective way to do it. You avoid the cost of remobilization, escalation, et cetera. But I thought it was a good review, and I really want to thank Nat and Christian for all their input. It was a good experience.

[00:38:32.78] MR. BAILEY: Well, thank you, Frank. And I think that, in summary, I think the design team listened very well and then came back with a lot of great ideas during our second review. And we think that it beautifully fits in with the site and the context, and it's something that the U.S. and the host countries can be very proud of. So thank you for that.

[00:39:02.80] MS. LEHMAN-SMITH: The next project is the U.S. embassy located in Kinshasa, which is in the Democratic Republic of Congo. And the design architect is EA Architecture, SHoP Architects, and this was a design-build contract that is scheduled to be awarded in 2022. The project consists of a campus, which is an embassy office building, diplomatic apartments, security guard quarters, pool and cabana, and several annex and adjacent buildings.

[00:39:38.40] And, really, there were two peer reviews for this. And the peer IAG team was Jim Burnett of OJB Landscape and Nico Kienzler from Atelier Ten and Claire Weisz from WXY Studio. And it looks-- I mean, obviously, this is a really beautifully designed building, but there were many challenges and constraints

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within the site. And the size of the site limited access while at the same time focusing on the scale, massing, and urban canopy, also contributing to the local culture and bringing that through the project. So with that, I would like to have Claire Weisz do the readout from their two IAG reviews and tell you more about this project.

[00:40:29.62] MS. WEISZ: Debra, thank you. And I'm going to try and represent us three-- Jim, Nico, myself. But, Nico, surprise you, I'm going to make you do a couple of closing statements.

[00:40:43.66] A lot of the themes that others have spoken about-- about the, really, challenges of these sites being acquired and really using every inch not only in planning what is going to be the design-build project in this case but future expansion ended up being a lot of kind of how we-- well, you know, how we melded our way through these three schemes. So I want to just describe a little bit that the three strategies SHoP brought to OBO and to the review. [INAUDIBLE] edges, which is really like they were trying to minimize the footprint and create as much flexibility for this expansion as possible and, in a way, make the circulation prominent. And then urban canopy which, I think, the roots of what you're seeing in the end scheme really work based there, which is looking at the climate issues and the landscape and horizontal issues as being really important. And then finally, they tried a kind of vertical-- they call it a vertical city scheme, which kind of put more of the massing in a compact place.

[00:42:02.96] And I think what was really important is the challenges of the site were there wasn't even developed roads all the way around. So between the first and second review, what was really wonderful about the discussion was we were able to move from a kind of site discussion about how this really is a new embassy with people living there with all of the components, of the Marines being on site and everything, being able to understand this is a community and, as a walkable community, that kind of inspired an ability, on the second review, to really focus on materiality because then, you could discuss how the climate issues and the facade issues in choosing terracotta could connect the fact that this, no matter what the architects did, was going to be larger in scale than what was there today.

[00:43:04.39] But ultimately-- and, you know, I still think this relates to heat island effect-- Nico, I'm kind of giving you a chance to talk about why, in the next slide, you spent so much time talking about the interior. You go on to the next one. That would be great. Yes, why actually the interior life of these buildings and how they related to the ability to maybe live and work under these canopied spaces and what the feeling of the interior was and how the circulation and, really, the sides of the buildings worked together, worked as an extension of the site plan.

[00:43:47.63] So I think there was a lot of admiration on our side for the integration of outside and inside, knowing the restrictions for security reasons of how challenging this is for architects that SHoP was able to in, I believe, you know, they're in the final review, to really create, and we hoped even in the more accessory buildings, even in the buildings that were not NOB, a sense of this language of terracotta and of kind of that play of light and shadow and the wood carving which related to the heritage in Kinshasa of craft, how that all pulled everything together. So in my last 30 seconds, Nico, is there anything I missed that you thought was critical to our discussion?



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[00:44:38.08] MR. KIENZL: No, I think this was a really engaged and very positive discussion. I think SHoP responded very well to the comments that we were able to give them. I think what was really-- it is a really difficult program on that site because it needed to be both representative and private because it has a residential component. It has a significant transportation footprint because of the way the transportation also works are on the site. So I think they've done-- they've managed this very well.

[00:45:06.85] And, as you said, there was a lot of discussion about how do you create comfort in this climate, comfort both in when it's hot and sunny but also when there's significant rain, for how people move between the building components efficiently and comfortably. And I think that the facade expression, they did a really great job of creating kind of like a family of languages or family of components from the language that were differently scaled for the kind of, like, residential components and the NOB. They were really appropriate. And I really commend them to not do a glass box, but something that is very thoughtful in the amount of openness and framed views and shading and how it integrated to have a really great climate response that, at the same time, creates wonderful architecture. I hope that's what you wanted me to say, Claire.

[00:46:03.63] MS. WEISZ: You know, that was great. Thank you.

[00:46:06.53] MS. LEHMAN-SMITH: And I thank you both. Excellent.

[00:46:10.38] MR. BAILEY: Thanks, guys. OK, moving on to the U.S. embassy in Port Louis, Mauritius. This is an island, if you're not familiar, in the Indian Ocean, I guess, near Madagascar. And this was an interesting project. So new U.S. embassy there designed by Richard Kennedy Architects with a design-build contract which is scheduled for the year 2022. And this had two advisory reviews with Nat Oppenheimer of Silman, David Rubin of Land Collective-- unfortunately, he won't be here today, but he was very insightful, especially with the landscape-- and myself.

[00:46:57.37] The executive summary-- the new U.S. embassy project in Port Louis is being designed as part of a newly acquired 11.77-acre site in Mauritius, and it's part of the Moka Smart City, which is an initiative that the country is doing. And so the architects tied into that and was part of the innovative approach that they took in terms of climate and culture and landscape, which were huge components of this project. The project also included a new office building, warehouse, support annex, and a centralized recreation facility. And then there also was consideration and design for the future Phase Two for the Marine Security Guard Residence and annex building that was part of the design and the master planning of the project.

[00:47:58.89] On the design part, the Richard+Bauer came to the presentation with three pretty amazing and different schemes-- tessellated bar, the caldera court, and the spine and pedal. And it's a very interesting discussion because we sort of left the first meeting-- I think there was-- it wasn't fully unanimous, but there was a leaning towards-- a strong leaning towards the spine and pedal, which is an interesting way of organizing the project. And I think it was when Richard, at the end of it, said that what makes that innovative in his mind and his team's mind was just the configuration of these clusters around the spine, creating these intimate courtyards. And I think the whole team thought that was pretty innovative and unique for an embassy compound and the way it's organized in the processional. The views, they took a deep dive into the geography, the topography, the climate, and that informed a lot of the architecture.



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[00:49:12.30] So I think Olin was on the landscape. They did an amazing precedent study that informed how this fits in with the site and the mountains. I commend them as well as Richard Kennedy that did an amazing job. And then I'll hand it over to Nat to discuss the other aspects of the project. Nat?

[00:49:39.58] MR. NAT OPPENHEIMER: Yeah, I'll be very brief, and I really appreciate-- first of all, I appreciate Christy and Laura invited me to both Curacao and Mauritius although we didn't get to do site visits, unfortunately. But it was quite a tropical set of peer reviews.

[00:49:53.82] Yeah, as Christian mentioned, I think it was a really great review and especially rewarding, I think, for all sides of the review as the team came back in the second review with a lot of real refinements, and it seemed to really be a good dialogue back and forth. And I think the primary point that I would make, pull out of what Christian said is the original discussion of the spine and pedal felt almost a little inefficient in the way the buildings operated. But I think as we dove deeper with the team, it became very clear that it was the right approach for this project in many ways. And while I love to focus on architecture and landscape in these peer reviews, I think there's a real opportunity as well structurally in that the pedals each offered really strong support for the spine, which could become this real floating element with very little structure involved and really stitch the buildings together in a wonderful way.

[00:50:51.27] The peer review was, as many of these are in my experience, was wonderful in that it-- David was incredible and Christian. And there was a real great discussion of the sort of macro processional through the site. And we even got down into the refinement of this sort of entry and lobby and the materiality around that and how it was almost too refined in certain ways.

[00:51:13.30] So there were great discussions both of the entire site and how that felt and how you feel entering the building and the playing up of the lightness of the spine a little more than was originally depicted. So all around, just a really great effort. The architects were fantastic and the discussion, great as always. Thank you, Christian.

[00:51:36.35] MR. BAILEY: Yeah Thanks, Nat. And just to add one last thing with the pedals, that was such an important part. Those are the clusters. Those were inspired by the outcrop forms of the nature and the rock.

[00:51:49.57] And so that was one thing we did kind of push them to-- if that is what they wanted, you know, maybe work on a little bit of variety in the height and articulation and how that's seen from the highway instead of just a continuous-- what seemed to be a continuous wall, but to really explore those volumes and pronounce them. And I think they did a really good job coming back and presenting that. So, again, thank you, guys.

[00:52:19.34] MS. LEHMAN-SMITH: And I'd like to introduce the new U.S. embassy in Juba, South Sudan. And to me, this really represents the best of the OBO. Juba is the newest capital city in the world we are doing. It has Miller Hull as a design architect. It was a design-build contract and is supposed to be awarded in 2022.

[00:52:46.97] And you can see that, if we go to a building-- now that you all know where Juba is, it's actually on the White Nile, which is quite wonderful. It was really a challenging and constrained site. Not really

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constrained because there's really nothing there, a lack of infrastructure, and really, really a new city to create something new and very, very different.

[00:53:07.46] There were two peer reviews on this project. And the peer advisor group was Robert Svedberg from tvsdesign, Julie Snow from Snow [INAUDIBLE] and Patrick Crosby from the Crosby Group. And as we've been discussing this, beyond this project being incredibly symbolic, is how do you really do a really wonderful site, something that is really unique and special with really a lack of any infrastructure and a lack of context within that? So, Julie, if you could take this for us and really continue the discussion that I know were very, very interesting and a lot of different comments that happened through them.

[00:53:53.83] MS. JULIE SNOW: Thanks, Debra. One of the astounding sort of pieces of reviewing projects for several years is every project seems so incredibly unique. And Juba was probably an extreme of that experience because there were so many challenges on this site. As you can see, the context is quite basic-- one- and two-story buildings, very small buildings. And the question is, how do you insert a new embassy compound into this context without seeming, you know, incredibly monumental?

[00:54:41.23] And I think the other major question here is, how to create a resilient embassy in a space in a city-- if you want to use that term, that you'd have to use it rather loosely for Juba that has no basic infrastructure. I mean, there is no water, sewer, power, anything going on here. So that all needed to be addressed in the design. And finally, how do you represent democratic principles in this challenging sort of climate, political context, and economic context?

[00:55:29.27] So the first peer review really focused on site organization. And I think we were very compelled by the scheme that developed a very nice, sort of landscaped area based on some rock outcroppings that really organized the site into the sort of support structures and then the embassy office building and residences. So that was important.

[00:56:03.27] And then the idea of using a courtyard scheme, which was a way of not only creating energy with solar panels but also creating a varied group of social spaces on the site. And I think every of our design reviews really began with the question of how to create a sustainable design. And so there was a great deal of attention placed on power production on the site and, obviously, a reduction of consumption of power.

[00:56:44.63] And then water was obviously a huge defining principle of how to filter water and how to really reduce consumption. So these themes were really critical as we began to look at the project. And so I guess I would say, you know, the major question after the first review began with how to adhere to their stated themes of simplicity and humility in this South Sudan context and how to give spaces a human scale, air movement, light, and material quality.

[00:57:28.44] In the second peer review, we saw a more developed design based on the themes that were begun in the courtyard scheme. So here-- oh here, you're seeing that sort of landscape space with the rock outcroppings. So here we were really looking at a more developed material strategy, and we encouraged the team to consider reducing the building height in whatever way they could and to look at more articulated facade apertures, referring back to the rich studies that they had done of projects in Africa and by African

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architects such as, I think, Francis Kerry. So I'd like to ask Rob Svedberg if he has any comments that he would like to tag on here.

[00:58:19.47] MR. SVEDBERG: Sure. Thanks, Julie. I think this was an extraordinary context for a building both economically and politically and socially. And one of the unique things about this project was that all the folks that are going to work in this campus actually live on this campus, so it's a residential campus. So the building in front of you is actually part of the residential part of the campus. And so that kind of adds a completely different dynamic to how this entire site works.

[00:58:52.60] You know, the landscape was extraordinarily related to some rock outcroppings and kind of builds on the three options' ability to take advantage of the topography and these kind of natural rock outcroppings as a design feature. And, you know, also due to the extraordinary nature of the siting in this location, there is a lot of discussions about constructability. How do you bring materials in, how do you construct it, and, really, the nature of how this building gets built in this challenging context. How you get things to the site really became an important driver in the overall discussion.

[00:59:31.34] MS. SNOW: Thanks, Rob. It was really a great discussion, and we're looking forward to seeing what happens next in Juba.

[00:59:40.39] MS. LEHMAN-SMITH: As we are. Thank you, Julie and Rob.

[00:59:45.11] MR. BAILEY: OK. Thank you, guys. And moving on, we're kind of running out of time, so I'll try to speed this up a little bit. For the Chief of Mission Residence in Beijing, this is a project designed by Richard Kennedy with a contract award for the year '22. This had one advisory review, and it's unique because it's an embassy residence almost treated as a hotel, very interesting aspects and functions. And this had the panel comprised of Greg Reaves of Lehman Smith McLeish, Dan Sesil of LERA, and Susan Drake of DLANDstudio. Greg, do you want to take us through that one?

[01:00:27.39] MR. GREG REAVES: Sure, Christian. Thanks a lot. I was really pleased to be able to join this review with Susannah and Dan. And I think, as you mentioned, it's a really interesting and important program, the Chief of Mission Residence, because not only is it sort of a private and secure residence for the ambassador and their family and some guest suites for sort of high-level visitors to the country, but it also serves a really important diplomatic function separate from the embassy. And all of those functions are kind of taking place in this series of representational rooms that include kind of a reception hall, an important dining hall, large salon, and then smaller spaces as well like a library or a parlor where smaller conversations, kind of more intimate conversations, can take place.

[01:01:20.11] And the other thing is that the adaptability and kind of scale of the events that take place here is really important, and so we're happy to learn about that in a little bit more detail. The team told us that there could be hundreds of events a year taking place, sometimes multiple events per day. So I think the serviceability, adaptability of the spaces is really important. And Jim and the Richard Kennedy team really paid a lot of attention to that as well.

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[01:01:48.43] If we just go back one, the site is also really constrained. There's a lot of security, obviously, setbacks. And it's already a small site, pretty small within this kind of parklike embassy district in Beijing, just to the east of the Forbidden City. It's important to note that this residence is actually separate and apart from the U.S. embassy, so it really stands alone as its own kind of diplomatic presence, like, pretty much right in the heart of the capital. So that's really an important consideration as well.

[01:02:22.37] And we really appreciated that Jim and the team thought through that fact, that this really stands alone as a more intimate kind of diplomatic facility where you can provide more intimate conversations in the combination of bigger and smaller spaces where there could be sort of breakout conversations and negotiations going on. And if you think about the embassy as something that's more formal, where there might be a more formal ceremonial signing of an agreement taking place at the embassy, at the residence it's more about the nitty-gritty, sort of one-on-one conversations, really kind of the hard work of diplomacy. And so providing the spaces and kind of fostering those conversations was really important.

[01:03:06.11] If we look at the site organization, all of the schemes, we looked at three different-- I would call them architectural planning schemes-- all of them followed the same overall site strategy, which made a lot of sense, with the public entry coming in from the south into the representational spaces that were gathered into the center of the site; more private, residential functions and the guest quarters to the west where it's a little bit more private over there; and then all the service, which is super important in this case, on the east side, served from an east side side room, basically.

[01:03:43.51] We looked at three schemes. The first is this so-called terrace scheme, which really follows the logic, as Jim was explaining, of a traditional representational home with the representational kind of function spaces, public spaces on the ground floor, high ceilings, with opening to the outdoor space. And I should say all of the schemes, there was a real priority about connecting the indoor space, indoor functionality, with outdoor function areas. But in the terrace scheme, actually, all that functional space was on the ground floor and then the private spaces were segregated to the upper floors, sort of on a piano nobile.

[01:04:21.37] Then there was the so-called second scheme, the so-called yin-yang scheme, which was based on a series of intersecting courtyards. That's the image we're looking at right now. It's sort of organized the functional spaces from the more public spaces from the private spaces. So this, I think, is the entry courtyard, which then tied in through the functional representational spaces to a back sort of functional kind of-- yeah, here you go-- sort of the representational garden, you could say, that ties into all those representational spaces. And then these also interlocked with some smaller courtyards, one for the private, residential function and one that was almost like a service court for the service areas.

[01:05:05.17] This particular site plan actually really leveraged some accessory buildings. There's a pool cabana. There's actually a pool for the ambassador, which is quite nice.

[01:05:16.78] There is the security offices. Some things like that that can happen outside of the secured zone in the center. But the team really used that kind of framed views and framed courtyards to expand the space of the site, and we thought that that really maximized the usage of the site, which made a lot of sense.

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[01:05:35.99] And then the third scheme is this pavilion scheme which really prioritized the prominence of the pavilion and those representational spaces and then put the private-- more private residential to the east, flanking to the west-- I'm sorry-- and then the service spaces to the east. And the group really thought that this one kind of had a really strong sense of presence, clarity of form. We had some, I think, productive discussion around what is the architectural expression of the pavilion.

[01:06:10.48] Dan's on. Dan Sesil has also joined. He's here today. He might talk about the structural opportunities here.

[01:06:16.18] But we kind of thought in terms of the organization of the site and the architectural planning, this was heading in the right direction. We thought we could also learn, though, from some of the site planning of the other schemes. Dan, I think you are on board here. If you have a moment, wanted to add anything.

[01:06:36.18] MR. SESIL: Yeah. Excuse me. Thank you, Greg. We talked a little bit about shape finding, and the expression of this particular piece.

[01:06:50.30] The site is an interesting one because there's a lot of program on a relatively small site, so Jim and his team have some really sort of interesting challenges there. And they really, really are rising up to meet it as it related to sort of more general structural questions that we focused on, and admittedly, we've had only one meeting with Jim and his team. So we've had the first review, and we really look forward to seeing how it evolves.

[01:07:17.75] But we definitely spent some time with them discussing strategies for reducing carbon emissions as they're associated with the making of the building. And on that score, we are hopeful that they can find ways to integrate the architecture and the structure in a way that creates, hopefully, some repetition, some potential for modular design. And, you know, we're just excited to see how it comes together.

[01:07:48.78] MR. BAILEY: Thank you, guys. Very thorough.

[01:07:55.34] MS. LEHMAN-SMITH: Hey. The last Industry Advisory review really focuses on something unique and different. These discussions were started in 2020, and they really deal with the impact of COVID globally on the real estate commercial and residential market and how that would impact the portfolio. So the team here-- team was Greg Cannito from Corvias, Maureen Ehrenberg from Blue Skyre, Michael Norton from JPMorgan Chase, and Barry Scribner from JLL.

[01:08:33.50] So what I really would like to do is have this-- hand this over to Maureen to really talk about it since she's much more knowledgeable than I about all the different things that have happened in the last two years and how that affects the portfolio. Maureen?

[01:08:48.72] MS. EHREBERG: Yeah. Debra, thank you very much. Yes, all of my fellow roundtable panelists share a global real estate and facilities perspective, and it really helped to drive the discussion. Our focus was on global operating standards, operational excellence, innovation in a very rapidly changing real estate and facilities industry.



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[01:09:13.17] If you look at the portfolio at hand, it is just really an incredible portfolio of buildings and properties. And we looked at a holistic portfolio management approach, talking about the-- first, the capital equipment maintenance, the lifecycle planning, the importance of that resiliency. Stakeholder experience has come to the forefront whether they are visitors, occupants, staff. The OPS teams and even the local community is very important as we consider the experience that we're curating at the sites.

[01:09:47.57] Leading industry trends in facilities in the property markets and workplace are all kind of converging together to drive this kind of new normal for commercial real estate. The return to office was also a big impact, and what we looked at with return to office was also the really strong, propelled dynamics that were accelerated with ESG. And so whether it was the environment, social impact, or what is going on in the local community, and the governance aspects, that all drives how we look at preparedness but then also operational excellence moving forward.

[01:10:25.74] So from a preparedness perspective, we did look at industry best standards for safety, health and wellness, HVAC or H-V-A-C, cleanliness, indoor air quality, and sustainability and how all of that really has to be considered when looking at the maintenance programs, looking at the operational programs and the procedures. The industry is digitizing. It's going from a very static industry to a very dynamic industry. And that's where the conversation around smart buildings, smart workplace, smart systems, digitized workflows came in, particularly around R&M, repairs and maintenance.

[01:11:06.30] We also looked at what the transformation requires as far as consistency. So in the end, in addition to renewable energy and conservation, user experience, more flexible use of space, and then also just really understanding how the operations really impact any of the human experience from the stakeholders we discussed, we then also moved into the industry-- the real estate markets because, of course, if you think about all of the areas we just discussed, it is driving valuation. And so when we look at the properties around the world, what we've been looking at is how the pandemic has impacted property values, lease rates in the various markets. And while the different markets are responding differently, the values have been depressed, and they're starting to come back.

[01:11:54.41] Concessions from landlords continue to be pretty strong. And while different global markets are recovering differently, the one trend that we have seen across the board is that facilities trends are all very consistent. And so the importance of training and a new approach to how we operate for the next five years is going to be very important.

[01:12:12.97] AUDIENCE: [MULTIPLE THANK YOUS]

[01:12:14.13] MS. LEHMAN-SMITH: Thank you, Maureen, and we all look forward to the next five years and the outcome of all of this.

[01:12:23.06] MS. FOUSHEE: Thanks to Debra and Christian for that really great session on readout. We're going to make up that time. And Angel's up next, so I'm just going to cut that in half.

[01:12:38.08] No, but honestly, what the readout that you guys just gave and the projects that you talked about, I mean, it's really why so many of us are tuned in and want to know. This is the whole meaning of it.

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So we're really thankful for all of you guys taking the time to look back and reflect on the year and your contributions, which I know, for those of you that don't attend the peer reviews, we usually open up with while you're looking at this one project, we'll talk specifically about what's happening here. The effect of those conversations really reverberates throughout the organization and our approach. So thank you for that really great summary.

[01:13:16.56] [INTERPOSING VOICES]

[01:13:17.99] MS. FOUSHEE: Thank you. OK, next up is our Embassy Effect and Embassy 2050, Innovating the Foundation of American Diplomacy session. This is moderated by Angel Dizon, our managing director for program development, coordination, and support, and he'll be joined by a few speakers. Embassy Effect-- we've got Curtis Clay, our director of architecture, and Jason Dallara, our director of real estate acquisitions and disposals.

[01:13:44.38] And then Embassy 2050, we're really excited to welcome Rick Sullivan, our director of design and engineering along with Jamie Cook who is a partner at Cook and Sexton as well as Kimberly Gray, one of our academic advisors on Embassy 2050 from Northwestern University. So, Angel, without further ado, since I'm cutting your time in half, I'm going to just turn it right over to you.

[01:14:06.42] MR. DIZON: Thanks, Christy, both for the introduction and the cutting of the time for something that I think is super crazy important. But, you know, over the last couple of years, OBO has been developing and introducing to you all the Embassy Effect and Embassy 2050. Today we'll go a little bit deeper, so you get to get a sense of what's going on behind the scenes, some of the folks that are involved that are helping us to achieve our mission and helping to influence our business so that we can start to be the best in government.

[01:14:33.97] So the first topic that we're going to talk about is the embassy effect. And, you know, I've talked a whole bunch to you all about how important our work is and that providing a diplomatic platform is a very purposeful mission in and of itself. The reality is the embassy effect adds another level of importance and impact that makes our work really unique and drives people to really want to be a part of it. So the team has put together a video about the embassy effect that I'd like to have them share with you now.

[01:15:11.59] [VIDEO PLAYBACK]

[01:15:12.08] [MUSIC PLAYING]

[01:15:13.53] - The Bureau of Overseas Buildings Operations directs the worldwide overseas building program for the U.S. Department of State and the U.S. government serving under chief of mission authority around the world. As one of the world's largest, most experienced real estate developers, we build and operate American embassies and consulates as well as housing and support facilities worldwide. Our facilities are spaces for diplomacy, building relationships in support of common group community engagement. OBO develops state-of-the-art facilities that are secure, resilient, technologically innovative, and sustainable, produced by the best in American design, architecture, construction, and management.

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[01:16:04.53] We have a portfolio valued over \$71 billion with 290 locations worldwide. Currently, we have more than 25,000 real estate assets around the world. Since 1999, following support for capital construction program, we have built 167 new diplomatic facilities and currently have over 50 active major construction projects valued at over \$18 billion.

[01:16:40.01] - For a new U.S. embassy like the one in Brasilia, it's really presenting this opportunity for the American and the host nation's design community, including engineers and contractor teams to collaborate and really translate an urban space into a civic campus. In this way, an embassy has this potential to really enrich an already interesting neighborhood and context by adding to it, serving as almost like an anchor and making a positive example.

[01:17:11.08] - The consulate in Milan, which we began with OBO a few years ago, has been a unique experience. In fact, it is a heritage site. It's got a history to it that is first, uniquely Milan, historic structures, a place where the public came together. As you move through these buildings and through these landscapes, as you approach the consulate, you really take in the history of what was there and what is coming towards the future.

[01:17:43.99] - OBO is more than the buildings themselves. We create an ongoing positive effect on the local communities. This positive effect, or embassy effect, can be seen in 3 distinct areas-- economic impact, environmental impact, and social impact.

[01:18:06.00] The newly constructed U.S. embassy in London contributed significantly to the local redevelopment effort in the Nine Elms neighborhood through the inclusion of public amenities such as a plaza, a park, bicycle path, and a new pedestrian greenway connecting the embassy to the nearest public transport station.

[01:18:27.71] - The new embassy in London, through design work and through extensive collaboration with the city's government, adjacent developers, neighbors, and community organization, connects the landscape of the river's edge to the new linear park that was proposed to run from Vauxhall to Battersea is over 18,000 new units of residential development. In creating the new embassy, we provide an actual landscape of public park that's open to all the citizens to enjoy.

[01:19:01.02] - The United States is currently investing over \$1 billion in construction in Mexico and \$1 billion in construction in Saudi Arabia with new embassies in Mexico City and Riyadh and many new consulates in both countries. These projects have included a commitment to improving site conditions on an industrial site, encourage nearby development of hotels, food, schools, and residential and recreational complexes, and provided an upgrade in security for the entire neighborhood.

[01:19:36.66] A significant aspect of our work is to create a positive impact on the environment. OBO develops facilities with sustainable features designed to reduce local resource consumption and generate renewable energy with consideration of local climate and environmental conditions. For example, at the new U.S. embassy in Jakarta where we redeveloped on a prominent site next to the vice presidential palace, innovative methods are utilized to harness and conserve energy. Exterior sunshades reduce the demand for air

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conditioning, and covered walkways are topped with solar panels that generate power. Wastewater is treated on site and recycled into irrigation systems, lessening the burden on local utilities.

[01:20:26.76] Through our energy program, OBO is committed to reducing consumption, minimizing reliance on local resources, and maximizing renewable energies to drive towards net zero. Our sustainability accomplishments include achievement of over 50 LEED certifications to date, including two prestigious platinum certifications, 18 gold and 32 silver or LEED-certified facilities.

[01:20:55.35] OBO creates a positive social impact through stewardship of culturally significant sites and by fostering cross-cultural dialogue through the arts. At our Jakarta embassy site, we restored a heritage building which had a significant role in Indonesia's path to independence and struggle for democracy. The U.S. Art in Embassies program commissions new work, develops exhibitions, and manages public events and programming, working alongside artists, museums, galleries, universities, and private collectors. Art in Embassies facilitates community engagement, artist exchanges, and collaborations with local artists in host countries, showing how art can transcend national borders and build connections among peoples.

[01:21:48.48] - I've worked with Art in Embassies over many years and have firsthand seen their commitment to American and international artists in showcasing their work in embassies and consulates around the world. What's always impressed me is the process they utilize to select the works for the host countries. There are works that touch on common threads and create dialogues within these countries. And the works themselves become the public face of these buildings. They humanize the embassies to the host countries.

[01:22:20.72] - OBO aligns with thought leaders, academics, and innovators through our Embassy 2050 initiative. Embassy 2050 provides R&D opportunities to develop future-focused standards for our global portfolio.

[01:22:37.32] - So at Northwestern, we've been thinking a lot about the path of change. What is the pathway by which technology will evolve from where it is today to where it could be in 2050? The future is a future in which we're going to have very locally tailored design and in designing embassies, that means we're going to learn from host countries. We're not just going to take United States technologies, and export them. We're looking for the development of new technologies and approaches that can be very adaptive and resilient to what I consider to be the major threat of the game changer of climate change.

[01:23:20.95] - Ultimately, our work is about connection. Architecture is a language of diplomacy. Embassies communicate who we are as a culture and represent our values. Our projects are about bringing communities together and building stronger relationships.

[01:23:41.32] - Hi, I'm Nick Jacoby. I'm the deputy chief of mission at the U.S. embassy in Pristina Kosovo. And I'm Phil Kosnett. I'm the U.S. Ambassador to the Republic of Kosovo.

[01:23:50.18] - So we've been in this building now for about two years. What do you think has been the impact of this program?

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[01:23:55.79] - Well, Nick, I think this embassy is just tremendous. It is, first of all, a physical manifestation of America's commitment to partnership with the people of Kosovo. Our old embassy did not have a full service consular section, which meant that if people wanted to apply for visas to the United States, they often had to drive to a neighboring country. Those days are over so we can provide much better customer service to the citizens of Kosovo.

[01:24:20.99] - Uh-huh. It's the only LEED-certified building in all of Kosovo. As the American Ambassador to Kosovo, I'm proud of the investment that the American people are making in the relationship between these two great countries.

[01:24:34.83] - At OBO, we provide spaces for living, working, and meeting together. We continue to look toward the future to push the boundary of what is possible through ingenuity, innovation, and collaboration. Thank you to all our host communities around the world who we continue to foster positive diplomatic relationships with and positively impact through the effect of OBO projects.

[01:25:03.60] [MUSIC PLAYING]

[01:25:10.52] [END PLAYBACK]

[01:25:17.43] MR. DALLARA: So we started talking about embassy effect probably about 10 years ago when we first wrote the word. And we initially focused kind of on this economic analysis, the first item there, so this impact of rising property values spurring economic development. And then several years later, we kind of expanded on this idea, and this was actually Mr. Dizon's contribution to the effort. And to add things like this social political component, Art in Embassies, and the connection that that makes with the community and that impact. And then also the environmental piece, everything we're doing around sustainability.

[01:26:00.30] And this really kind of talks about our organizational maturity, right? We have ideas, and we build on them, and make them better, continuously improve. And lots of people, actually, across the organization have contributed to this idea of embassy effect, and you kind of see it play out in this kind of robust work, this video that fleshes out the idea.

[01:26:21.92] But probably the key thing when we think about embassy effect is how we use it, right? This isn't merely an academic analysis for us, right? We're in the business of building new embassies, so that's how we use it, right? We use it to sell our program, right, to sell it locally, to sell it around the world, to talk about the contributions our buildings make everywhere we go. And that's kind of the discussion that we recently had in Bratislava, and we're going to talk about that in a couple of slides.

[01:26:51.35] As we move into these more developed markets, it's going to require more selling, right? It's kind of a new challenge. So with that, let me pass to Curtis. He'll talk about a couple of examples of contributions that our buildings have made in some of these other developed markets and then we'll touch on kind of our case study of Bratislava.

[01:27:11.16] MR. CURTIS CLAY: Thanks, Jason. So speaking of the economic, environmental, and social aspects the USMC brings to cities across the globe, I want to start with the newest embassy in London. It



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really serves as the anchor of an emerging commercial and residential district in London's central activity zone.

[01:27:32.61] Approximately, I'd say, 10 years after planning permission was granted for the new embassy, an entirely new housing and commercial district has really emerged in the Nine Elms neighborhood. And now there's a park that runs from the Vauxhall Bridge to the renovated Battersea Power Station, which has really become the sustainable green centerpiece for this newly revitalized district in London. Now surrounding the building, they have all types of USA cafes and other businesses that are named after the United States that have emerged throughout the neighborhood. And while the economic impact on some of the second cities we build those in is immediately evident, it's often overlooked how even in major global cities, the U.S. government has the ability to instigate a huge economic impact on the neighborhood. Next slide.

[01:28:18.47] So it was necessary for, I'd say, the architecture to be integrated seamlessly into the Nine Elms neighborhood while fully adhering to the required security setbacks. So working with OLIN landscape architects, Karen Timberlake were able to, I believe, successfully address the requirements of an open public park that connects the campus to the neighborhood through the integration of a range of sustainable technologies, technology strategies, including the pond you see here. And it's integral to the site's stormwater management strategy.

[01:28:49.43] And you know, beyond the economic impacts, the environmental impact here is also worth highlighting with sustainable initiatives, including brownfield redevelopment; natural habitat creation; healthy, responsibly sourced building materials. The embassy harnesses these renewable energy sources, including the solar energy from photovoltaic cells you see on the roof, and the geothermal energy that we generate through a ground source heat pump. Actually, we harness this energy to actually feed heat into the neighboring buildings in the neighborhood through an agreement with the city. Next slide.

[01:29:27.08] And then there's the social and cultural exchange that occurs between the artists in the host country, and ours is, I believe, very robust and meaningful. Here in London, we have about a \$1 million public art program that allows for artists from each country to engage with each other in the production of collaborative pieces that are installed in our buildings. This piece here in the upper right, it's a site-specific frieze by Rachel Whiteread who's a British artist and the first female to lead an exhibit at the Tate Modern. This work, which is entitled U.S. Embassy Flat pack house, is a concrete cast of a typical American suburban home from the 1950s extrapolated onto the wall there. Next slide.

[01:30:10.05] So the designer of the U.S. Consulate General in Milan, the SHoP, who was featured in the video, really celebrates the materiality, I believe, of Italian architecture with this mix of modern and historic methods and materials. And the facade is this intricate framework of digitally processed and fabricated stone panels in this warm pink color recalling the buildings at the historic center in the piazzas of Milan. This new office building, which is centered on this principal access, really initiates a constant visual dialogue between the past and the present design elements to complete that promenade. Really has a respectful, reflective walk through the site's history while also preserving the necessary security.

[01:30:52.77] The Liberty building, which you see here in the two columns in the foreground, establishes this principal access to its portico and decorative steel gate. So and perpendicular to it, the new building and the

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pavilion, is the nearby embankment. It really creates this access that visitors can follow from the nearby piazza to the water features, really successfully integrating the campus seamlessly into the neighborhood. Next slide.

[01:31:20.46] So there's a series of gateways, pavilions, and gardens along the way that really humanize the scale of the spaces and offer moments to enjoy the landscape. And from an environmental standpoint, you know, this careful interplay of design engineering and the geothermal system, almost zero heating energy is going to be required. So the ground source heat system supplements these heating and cooling services. And this geothermal system coupled with photovoltaic cells, we believe will save about 43% of annual energy costs, which is exceeding our local energy efficiency requirements.

[01:31:55.39] And working in collaboration with the city of Milan, the result is a design that not only lowers energy costs and reduces greenhouse gas emissions but also has resiliency strategies that advance the shared goals of the United States and Italy to really augment those renewable energy usage. I believe the overall effect is timeless, presenting a functional, efficient face that references the classical elements around it, and these are the kinds of discussions we had with the city of Bratislava about why us moving into their city is going to be a good collaboration between the two of us. Next slide.

[01:32:31.09] And the last example I want to show here quickly, Hyderabad, India. Here's another example of a close collaboration with the city that not only ensure the public spaces in front of our building meet our security needs but are also very inviting and welcoming. There's also a series of sacred stones on our site that we couldn't touch, so the design solution by Richard Kennedy here weaves around those stones.

[01:32:54.64] The project also incorporates local woods, the jaali screen pattern that's found in Indian textiles, onto the facade, as a sustainable sunscreen element to reduce heat gain on that facade. Next slide. Jason?

[01:33:11.10] MR. DALLARA: All right, so this is our case study in Bratislava. We'll talk about it for a second. Curtis and I were in Bratislava last week along with Kevin Rice of DS&R, and the ambassador asked us to come to meet with the mayor because frankly, the mayor had some concerns and objections to our NEC. Our embassy effect pitch meeting went pretty well, right. It's a compelling story.

[01:33:39.33] But candidly, you know, the mayor quickly gets to the point, right. He goes, I understand you're going to build a great building. But ultimately, I want more than that, right. I mean, what is this building going to look like on the edge, right. How are people going to interact with it? How is this thing going to fit in my city?

[01:33:58.35] And it's important because the mayor has the ability to block this, right? I mean, mayors control zoning. They control planning approvals. They control building permits. We ultimately have to work with these cities to have success.

[01:34:12.06] So our message was simple, you know. Let us partner with you. We have a world-class team of architects, engineers. You know, we can come up with a way to meet our goals and your goals.

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[01:34:25.97] And the interesting thing about Bratislava is it's really a glimpse into the future of our program, right. We're going to start moving into more and more developed markets. And we're going to have more and more of these conversations kind of as we go forward. So next slide.

[01:34:45.59] So this is a world map slide. I mean, we use world maps all the time, and we put dots on them, you know, to talk about some of the things that we're doing. This one is interesting because it talks a little bit about this future trend in our program.

[01:35:01.04] So you might think about our program in kind of three groups, right-- the work that we've done, the work that we're doing now, and then this third wave, right, this next group of work that we're going to be doing. And if you look at the map, what it shows, there are 28 dots here, right. This shows the next places that we're going to start looking for sites. And if you look at it, you realize there's this enormous cluster in Europe, Japan, Australia, Canada. In fact, I think it's 75% of it or in these kinds of markets.

[01:35:34.12] And we actually have another group of places we're likely to build new embassies. And guess what, right. They're all clustered in the same locations. So this is really-- you know, as we talk about Bratislava, you know, this is really the beginning of what we're going to see, right, this wave of developed markets and how we might need to adjust our program to continue to be successful.

[01:35:56.83] So some of the things you'll see-- one is smaller sites, right. It's going to be very, very difficult to get the kind of site sizes we've been able to achieve in these developed markets. And if you have any doubt, right, just look at aerial photography of Madrid or Buenos Aires or any number of places in an entire city block. You know, even if we were able to achieve that, might not be big enough to do the things that we've traditionally done, right. And we've looked at all 30 of these markets, so it's going to be challenging.

[01:36:28.45] You know, one of the other things is, things, like, are going to be more expensive. We're going to have more active community groups. We're going to have tougher approvals. And we're going to have more conversations with mayors in cities like we did in Bratislava.

[01:36:43.63] Now we can be successful in these markets. We have been in London and in Milan. But it's going to require close collaboration and, you know, coming up with new approaches to be successful. So next slide.

[01:36:57.61] So let's jump right into it. This is our site in Bratislava. You can kind of see it wedged right between the traditional city and all of this contemporary development. It's a perfect location. I honestly can't imagine us achieving a better location for the department that's going to serve us well for 50-plus years. So next slide.

[01:37:24.25] So in this slide, you kind of see it even better, right. You see the traditional European urban core on the left, all these red roofs. On the right, you see all of this commercial development.

[01:37:37.20] To the right of our site, you know, we have a new national theater. To the south of our site, you have the Eurovea mall, which is just beautiful, right. You know, you have fountains, great public spaces, you know, walkway along the river, restaurants, and very similar to kind of the DC-- you know, the Wharf in DC.

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[01:37:57.20] But you take a look at our site. I mean, it's right in the center between these two things, and you can kind of understand the mayor's concerns. I mean, it's right in the center of his city.

[01:38:08.63] And let me talk about the colors for a second, right, because there's really two messages to make with respect to all of these colors on the site. One of them is, this is not one parcel, right. I mean, you're not going to find five acres in the center of a European city with a RE/MAX sign on it. I mean, that just doesn't happen, right.

[01:38:30.84] I mean, this has been five years of work. It's six parcels, five sellers, thousands of hours to get ourselves in this position to be able to potentially acquire this site. And that's what getting great sites in Europe and other developed markets is going to be about. And we just have to kind of adjust our thinking about what the site phase is going to feel like and what it's going to require as we kind of move forward.

[01:38:57.46] And then the second thing, really, to the point in Bratislava is, guess who owns one of those colors? Well, the city of Bratislava does, right? So there we are back again talking about the city and the mayor. We need to acquire his parcel to make this whole thing work, right? We need to get his consent to move forward.

[01:39:17.66] So before-- I'm going to pass Curtis. Just one last thing. You know, in the end, we're not really presenting the answer to how we're going to interface with these cities or necessarily be successful in Bratislava.

[01:39:31.02] But we are starting to frame the issue, right. This is something that we have to work together to achieve, right-- our partners in Diplomatic Security, our partners in industry. And I'm fully confident, you know, we're going to come up with the answer. I mean, this is really the legacy of our program, right?

[01:39:47.91] We've been smart. We've overcome every challenge. We've built a hundred buildings over 20 years. So let me pass to Curtis, and maybe he'll talk a little more precisely about what the mayor was pressing us on.

[01:40:01.69] MR. CLAY: Thanks, Jason. Go to the next slide. So the mayor of Bratislava is an architect, and he has written a large document, a plan, in Bratislava about the future urban planning of the city. And when we met with him, we spoke to him about how we handled security in urban centers like in London without our facility looking like a fortress, which was his concern. We talked about how we provided public space like in Milan on our property as a way to help activate streets that were previously overlooked.

[01:40:30.50] If you look at this diagram, you know, when we walked the site, we said there's-- what's missing right at this point is green space. There's a very active waterfront along the edge-- that's water off to the south of the photo-- with restaurants and drinking and bars all along the waterfront. Then there's this mall with very active internal shopping activity.

[01:40:51.32] You sort of explain to him that everything around there, they're really backs of buildings facing our site. We thought it was a bunch of-- we have four fronts to our site? We actually have the backs of all

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these buildings around us, facing our site. We talked about the Zaha Hadid towers to the northeast, how that is all about park space. What's really needed on this space is public space. Next slide.

[01:41:13.74] So when we showed this diagram about how we actually believed we could still meet all of our requirements, meet our security requirements, and give back to the public, his whole approach of, this should be an active retail urban storefront with shopping up to the streets, his tune changed a little bit. And that really was the thing that tipped us over the edge, I think, to continue these conversations about them selling us this piece of property, right. Next slide.

[01:41:42.71] So when we showed them our idea of how we felt like this, what the site needs is active park space and public engagement because this is really a place where people are passing through on their way to this retail shopping that's very internal and to the water, which is where all the activity is actually happening, that the likelihood of there being really an active retail presence on our street is really not as feasible as maybe he perceived with the active highway street to the north, the tram system, and the parking garage entrances on the south, that, really, park space is really what's needed, which was helpful to him to understand that we've walked the streets, we understood how the urban context worked, and we believed that we have a-- were set up for success in terms of future dialogue with the mayor and the city.

[01:42:32.69] And we couldn't have done this without Diller Scofidio+ Renfro who really was instrumental. And it's not really showing that we had a partner with us that is going-- that has a breadth of experience in dealing with how to reactivate streets, with showing of projects like the High Line, the Shed, and the Lincoln Center Plaza. But that really-- we were going to be partners with them that we brought them all the way to Bratislava to show that we're ready to start this dialogue.

[01:43:01.52] MR. DIZON: Thanks, Curtis. Thanks, Jason. What's really wonderful about what they've done here is really start to connect our efforts with that of a city. And, as humble as Jason is, he's described their efforts in Bratislava as game changing. So we're really hopeful that this discussion that they had with the city is going to move us forward in the right direction for that. And then another thing, a little fun fact about Jason. 10 years ago, he was the one that came up with the idea of the embassy effect, so I don't think a lot of people know that he should get credit for that.

[01:43:30.70] So let's go ahead and move to Embassy 2050. What you've been seeing at the beginning of our discussion with the industry advisors was a lot of the way the buildings look. And what Curtis and Jason were starting to describe is a lot of way the buildings are to function technologically. And the reality is that these buildings are very performative, technologically advanced, and hyperflexible to adapt to a variety of programmatic features.

[01:43:56.93] And so the reality is the world is in a constant state of change and for OBO's success to be successful and for the diplomatic platform to be resilient, there's a need for us to be prepared for that change and to understand all the global drivers that are going to be impacting the built environment in the future. So the team has put together another video for you all. So we'll have them turn that on now.

[01:44:35.45] [VIDEO PLAYBACK]



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[01:44:35.96] - So what are the global drivers? The global drivers are population, urbanization, resources, climate, and then technology. And then the question after that is, you know, why are they important?

[01:44:54.00] - The five global drivers are really impacting the way that OBO is approaching our portfolio, our strategies, and the way that we do business.

[01:45:04.26] - We are either planning to build or are currently building in 18 of the top 20 global megacities where population is at the forefront of change. Take a city like Lagos, for example, where the city is so populated and flooding has become rampant that now they're actually building out into the ocean. So there's a new 10-square-mile development on where they're dredging sand out to the ocean and using Dutch engineers to develop a new part of the city, and that's where this is going to go.

[01:45:37.13] - The population rules are changing drastically and growing exponentially. Today, we're trying to build a 50-year building out there. What's the population going to be looking like 50 years from now in these cities?

[01:45:50.07] - And as those cities start to grow, it's going to change the kinds of demands that they have on the platform. And so the expectation is about 75% of that population is going to be in a city. They're going to be a city near us.

[01:46:04.43] - And how and why and where people choose to migrate is going to continue to impact the global drivers of population and urbanization and ultimately shape the way that we do diplomacy.

[01:46:16.60] [MUSIC PLAYING]

[01:46:25.47] - So why is resources going to be a concern for us? Well, as we start to grow in the amount of people that we have on the planet, then those people start to migrate to cities, we're going to start wearing thin the resources for those particular folks, right?

[01:46:40.84] - So how do we, as an organization, help? You know, what can we do? And a lot of the materials that we use are fairly intensive in terms of the energy they require to make.

[01:46:54.29] - Concrete's going to be a primary driver in the structure of our buildings, so maybe how can we look at other materials such as timber? We've looked at possibly nanoparticle technology for concrete. Try to think about different ways that we can deliver our projects in a more efficient [INAUDIBLE] and, yes, sustainable way.

[01:47:15.66] - So being able to produce more and use less is critical to our ability to maintain operations in the harshest environments and also allow this opportunity to really [INAUDIBLE] on the resources of that particular country so that we can demonstrate to others what it means to be thoughtful and careful and wise about the resources [INAUDIBLE].

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[01:47:40.39] - We have to think about beyond [INAUDIBLE] that we're looking at and really thinking about [INAUDIBLE] buying in the context of higher risk and how to work with impact for climate, urbanization, or population growth.

[01:48:01.98] - The pace of change today has continued to accelerate, and technology is a global driver because it's completely transforming the way that we work and the way that we do business all around the world.

[01:48:14.76] - One thing that we're doing in our climate security and resilience program is trying to leverage that technology as best we can towards this objective of having data-driven strategies that help us to adapt our facility [INAUDIBLE]

[01:48:30.92] - [INAUDIBLE] and robotics and automation technologies drive a whole new world of off-site manufacturing capabilities. And this impacts our projects because there's a potential to reduce overall construction timelines and improve sustainable sourcing for our portfolio.

[01:48:48.65] [MUSIC PLAYING]

[01:49:04.83] - The future of OBO is going to be quite a bit different from its present.

[01:49:08.17] - We're seated in a really unique position as the federal government and with the breadth of our portfolio to be able to make significant changes towards addressing solutions for these five global drivers.

[01:49:20.95] [END VIDEO PLAYBACK]

[01:49:35.68] MR. SULLIVAN: I'm going to go ahead and jump on. I wasn't sure if Angel was going to come back on. Anyway, very excited about this Embassy 2050 effort. And, Angel, if you want to jump right in, please do. I thought you were going to say something.

[01:49:48.17] MR. DIZON: Yeah, I'm on. Can you not hear me?

[01:49:50.15] MR. SULLIVAN: Now we can.

[01:49:50.97] MR. DIZON: Oh, OK. What I was going to say was that I wanted to provide a little background to my portions of the video, and that was that the camera adds 10 pounds and that Kelly Dowd put three cameras on me. That's what I wanted to say, and then you jumped all over me on that one. So let me just do a quick little story about how we got to 2050 as an idea. And frankly, it came with the conversation with Jamie and Kim, Kimberly.

[01:50:18.36] You know, a couple of years back and Kimberly flat out asked, you know, what does an embassy look like in 2050? And for an organization that had a six-year plan, we certainly didn't have a 30-year plan. So sorry about the camera.

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[01:50:31.80] So that's kind of what was the impetus for this Embassy 2050 conversation, and, you know, had conversations with Rick about what we need to do to start preparing ourselves. And, Rick, I'll turn it over to you just to outline kind of where we are and what we've been doing.

[01:50:46.32] MR. SULLIVAN: Now, thank you, Angel. As Angel said, very, very excited about this program. As you guys can see from the presentation of the talks earlier today, our program is quite large in breadth and the amount of work we do in projects. And we always kind of had our heads down working on projects, which is important. This program actually gives us a chance to kind of lift our heads up and look at what the world is becoming and how much has changed and is going to change.

[01:51:15.66] All of our challenge, which we firmly believe that the government needs to be and should be a leader in the industry on looking at technology and advancements and how to do work, we also know that we cannot and should not do it ourselves. We have to partner with industry. And this gives us a chance to partner with academia.

[01:51:32.28] But also industry always kind of gave us that, as Angel mentioned, that four- or five-, six- look ahead-- -year look-ahead. This really gives us a chance to look over that horizon. If you look back, 2050 is kind of midcentury, kind of a good target for us. But we built our buildings for a 50-year threshold, at least, and we'll probably be in those quite larger.

[01:51:51.45] You know we talked about safe, secure, functional, and resilient buildings. Well, resilient is one, robustness in withstanding some of these changes. But also flexibility in making sure we can adapt to changes, especially with technology advancing to help us there. I'm very excited where this may be.

[01:52:09.84] When we started looking at this, we talked to our industry partners and tried to understand what engagement they had with academics. A lot of our industry partners are also professors or have longstanding relationships with different universities. As you can see, we've reached out to several on our screen there. We're working with several more.

[01:52:28.53] Really, this [INAUDIBLE] right now, since it was Krueck and Sexton and Northwestern that kind of helped us imagine this program, they kind of have first shot to talk about it. And we actually have them working on a current study for us. We do think every university that we partner with on these, will probably bring their own skill set, their own innovation, their own research that they're working on. We're excited about that, so we're going to tailor each one to kind of their specific strengths. And with that, happy to introduce, you know, Jamie Cook from Krueck and Sexton and Professor Kimberly Gray from Northwestern, and we'll have a little discussion about what they're doing for us on this.

[01:53:12.77] MS. GRAY: Good morning. Thank you so much. And, Angel, I feel your pain about the added weight of the camera. So what I'm going to do is just provide you with a quick overview of our Embassy 2050 project. It starts with this question, how do we design and operate embassies to be safe, secure, functional, and resilient in a rapidly changing climate, one that's changing at a rate that far exceeds most predictions?

[01:53:40.98] So there's no simple answer to this and I, for one, think that everything needs to change. The climate crisis is but one example of a much larger set of environmental injuries. Mitigating and adapting to

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these environmental changes, combined with the course of technological disruption and progress and global demographic shifts, require that the planning, design, construction, and operations of the embassy tomorrow will look nothing like that of today.

[01:54:11.82] So over the last year, a team of 11 academic experts in the Department of Civil and Environmental Engineering at Northwestern, in collaboration with architects at KSP, have tackled how these drivers promote innovations on two timescales, near term and longer term and that longer term is midcentury 2050.

[01:54:32.81] So, first, we identified three key and linked characteristics that are common to all the systems we studied. The first is carbon management. To achieve rapid and deep decarbonization, this must be addressed in all embassy activities, not just with respect to construction materials or energy systems.

[01:54:52.34] Smart systems that integrate or couple systems are key to managing carbon and achieving massive efficiencies. Locally tailored designs are another important strategy to safe, secure, functional, resilient embassies that will be able to perform robustly in the face of a rapidly changing climate. In other words, local tailoring is a strategy for adaptive design. So our Embassy 2050 study digs into current standards of innovation and then reaches out to this possible 30-year vision in eight systems. And I'm just going to go through quickly what those eight systems are and try to point out how these key characteristics of decarbonization, smart system coupling, and local tailoring plays out.

[01:55:39.42] So the first section is sites select-- the first section is site selection and stability. This focuses on risk mitigation and natural hazards management. There is a revolution unfolding in how we monitor stability and safety of sites based on remote sensing and then new models to analyze those data. As we all know, the past is no longer a predictor of the future.

[01:56:06.14] Our second section is structural design, which discusses the necessity of moving from prescriptive to performance-based design, especially if we want to employ new materials and automated construction techniques. This illustrates that inherent coupling between structural design materials and construction, and Jamie Cook is going to elaborate more on this.

[01:56:27.98] Materials is the third section. Carbon management is becoming more and more important in material selection and development. The nanomodification of materials is a promising strategy for carbon management, allowing us to shift to more local materials that we can then make to meet or we can modify to meet performance criteria and reduce concrete use.

[01:56:50.63] The hefty carbon footprint of concrete is motivating all kinds of innovations to develop green concrete or timber concrete, hybrid construction. But it's important to think about going beyond simply reducing the carbon footprint of concrete because we could accelerate the carbonation process, which would allow us to make concrete carbon negative.

[01:57:15.83] The fourth section is automation and construction. A digital workflow is going to make design modifications nimble and efficient. We see lots of opportunities in robotics and large-scale 3D printing.

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Mobility, of course, is going to become electrified and part of the energy network for both generation and storage.

[01:57:35.48] Our sixth section is building physics, and this is where we're explaining how to achieve not only energy efficiency but human comfort and well-being. Buildings don't use energy, people do. So let's employ smart systems to tailor interior spaces for human productivity and comfort.

[01:57:56.69] The seventh chapter is energy and emissions efficiently. We need to rapidly and deeply decarbonize. No more diesel generators. The challenge here is not really harvesting energy from renewable sources but it's energy storage, the management of intermittent sources.

[01:58:14.63] Finally, our eighth section is one water, which explains the innovations around the circular economy of water, meeting water demands with stormwater and recycled water, using nature-based treatment strategies integrated into restorative ecological landscape design to treat water with cascading energy and aesthetic benefits, convert organic waste to energy, and/or energy storage, illustrating this coupling between water and energy cycles.

[01:58:46.51] The final section of our study is to address change adoption. Technological leaps alone are not going to inspire change. There has to be institutional readiness. Human behavior has to be nudged. Cultures have to accept.

[01:59:02.20] The changes' policy has to support them. Workforce has to be educated. There is an intricate network of connections that have to go into effect for the level of change we're describing to take place. So I'm going to turn it to Jamie now to discuss how these academic ideas about the future can be deployed and in the near term and then, of course, farther out. And as importantly, how do we communicate these ideas effectively to a really wide audience?

[01:59:36.84] MR. JAMIE COOK: Thank you, Kimberly. So, yes, we've had the great pleasure of working with Northwestern here over the last few months and getting a little peek into the state of the art when it comes to research for a lot of these topics. And two things that I wanted to point out. We really approached it from the perspective of a designer working with OBO, having a history with that, in terms of what are some of the key takeaways from a design perspective and how do we begin to think about these things relative to the work we're doing now and how that might evolve here in the near future.

[02:00:13.91] So one of the things that, as a recurring theme, that runs throughout a lot of these topics that Kimberly mentioned is the idea that we are really going to have to move fairly rapidly from a prescriptive to more of a performative-based design and engineering way of operating in terms of our codes, the requirements, all of that, for these projects. And I think a lot of us have already experienced some of the limitations even within the OBO work that we've done there. And they're rightly so. They're there for a very good reason.

[02:00:45.53] But things like FABR assemblies, anti-ram assemblies, blast setback, all of those things are quite prescriptive now. And in the future, those things are probably going to have to move more towards a performative-based way of looking at them in order to really effect change on the scale and on the timeline



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that we're talking about here. What we're really talking about is allowing projects to be more project and place specific and to kind of feed and allow for innovations to happen on a much quicker and more rapid basis there.

[02:01:24.49] These will include certain-- you know, looking at new materials, adopting new materials, things like advanced blast modeling, hybrid concrete, timber frame construction, 3D printing. All of that are things that are on the horizon, but it really is a question of how do we allow those things to be adopted at a different rate there. So those are things that we're looking at, we're focused on, and that we're interested in, coming from a design perspective there.

[02:01:55.94] The other thing is really design for human comfort instead of for uniform building performance. And so there was a particular section within the report that has really piqued our interest that have to do with coupled systems that are really focused on real-time feedback for individuals as well as combining those with building sensors. So the idea of comfort in a building is going to become very personalized and will really have a very direct kind of feedback loop into how buildings operate.

[02:02:28.81] And so this is going to be really reliant upon AI for predictions, for energy and comfort, and all that. And then also, they're likely to have to be pretty strong innovations when it comes to mechanical distribution systems. And it really could impact the overall size and performance of these mechanical systems there. So those are just two of a number of things that will have impacts here when it comes to how we design these buildings and what the outcome for those designs might be there in the future.

[02:03:05.63] The other part that we are really plugged into is how do you begin to communicate Embassy 2050, the report itself, but then even beyond that. And, you know, of course, we're very interested in sort of looking at how each one of these topics relate to and directly address issues of safety and security, functionality, resiliency, all of that. But we're also aware that the audience for this could be quite broad, from the Congressional level through to the general public and, obviously, the [INAUDIBLE] community in OBO as well.

[02:03:40.04] So the report itself, we've looked at. It's primarily graphics based, and it's really addressing many reading speeds and allowing people to kind of get into the data as deep as they need to or want to and yet still be able to really extract information that they need. It's shaping out to be a fairly decent-sized document, but we wanted to make it palatable and make sure that people are able to get into that and understand it on a particular level. So a lot of our effort has been working with Northwestern to figure out what is the best way to do that. How do we really translate what, in some cases, are quite complicated ideas and concepts, you know, into something that's digestible, that's easy to really understand there down the line.

[02:04:22.40] MR. DIZON: Hey, Jamie.

[02:04:23.47] MR. COOK: Yeah, go ahead.

[02:04:24.99] MR. DIZON: Ah, I saw Christy pop in. I think she's given us the hook, so--

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[02:04:30.17] MR. COOK: I'm ready to wrap it up here. This is the last big thing. So basically, the bottom line is what we're trying to do is really to lay the groundwork for additional-- potentially additional ways of adding on to this report down the line. And so that's really kind of where we're at on that end.

[02:04:48.04] MR. DIZON: Thanks, guys. I think Christy giving us the hook is she should've given the hook to the last guys. Those are the ones that ate up all the damn time.

[02:04:54.40] So I will say, you know, in closing of this section, I think what you're seeing is the impact of our work. And the future of the platform is really based on the collaboration of academics, industry professionals, and government, which is exactly the way it should be, all of us sort of working together. And what I'm hopeful for is that, you know, a lot of you guys that are in the audience can see yourselves in the work that we're doing and the work that we're going to do because that's what's going to take for us to be successful in the future. All right, Christy, you can take it over.

[02:05:27.19] MS. FOUSHEE: Thanks so much, Angel. And I also share the camera weight. But also, mine adds an 80-year-old, Marlboro Red lifelong smoker to mine, too, so.

[02:05:41.82] We are getting ready for our break. I did want to just mention the videos and the presentation that we had. I hope that all of you that are listening in and those that work at OBO felt a great sense of pride about those portfolio projects that we showed and the forward-leaning ideas and thoughts that Lauren Frank and John Pitts and Rick and Curtis and Angel shared in the video.

[02:06:05.17] Those projects are just amazing to see. And I know most of us don't even know half of what goes into the blood, sweat, and tears that you guys put together to have a presentation like that of-- We are so proud as an owner, and I hope that those of you that are on also felt some sense of pride regardless of how you're contributing to that. But--

[02:06:26.80] MR. DIZON: Christy? Can I have one comment about this?

[02:06:29.16] MS. FOUSHEE: What do you say?

[02:06:29.98] MR. DIZON: Just add one comment about this? You know-- oh, you know this, but maybe some of the others folks don't. Over the last 10 years, our buildings have been winning a whole bunch of architecture, engineering, and construction awards. I think the videos that you showed today suggest that we should be getting into film festivals pretty hard right now and seeing what we can do at [INAUDIBLE] or Sundance because I think we have a shot.

[02:06:51.52] MS. FOUSHEE: Maybe NYU will take us on for acting school so we could also apply the appropriate roles. So we are a little bit behind in the schedule. I do want to flag a few things.

[02:07:01.66] We're going to go on break. We're going to come back at 11:20. So it's it's about 11:08 now. So folks can go get a little bit of coffee or, in addition to the virtual backgrounds for IAG, Uber Eats will be delivered on behalf-- I'm just kidding. We can't do that.

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[02:07:17.53] But I hope you can grab something for yourself because we have a really great afternoon lined up. Exciting conversation about the executive order that President Biden has put out on climate change and what OBO is doing with their partners both on the academic side as well as in our professional-- with our professional contractors to do our part to do good for the environment. Anyway, I want to mention OBO trivia.

[02:07:43.93] So during break the External Affairs team put together some of our favorite trivia over the past few months. So if you want to know a little more about OBO, that'll be running during the break. We also have-- Slido is pretty active right now. We've got a lot of good questions on there. If you haven't checked it out, please do.

[02:08:02.53] Let us know your comments and your thoughts, and we'll be sure to address that in our public input section. So we will see you all back here in about seven minutes. All right.

[02:16:50.19] MS. FOUSHEE: Hey, everyone. Just a 2-minute warning before we're going to come back on and get started at about 11:20. So thanks, everyone, for playing trivia. It's a-- we've got a good little competition going on here. We'll announce the winner when we come back. But we'll be on in about-- exactly 11:20.

[02:19:14.51] MS. FOUSHEE: Yeah. Hey, guys. Welcome back. We are getting ready to get started for our afternoon session.

[02:19:22.60] Thanks again to everybody in the morning for participating. I know many of you were logging on Pacific Time at, like, 5:00 AM. Hopefully, you're awake now with your coffee and ready to go for a roundtable-- executive order, tackling the climate crisis at home and abroad.

[02:19:38.94] Before we get underway, I just want to also thank those that participated in the trivia during break. A few shout-outs to Kevin Anderson, Kurt Paterson, Graham Simm, Bruce Faudree, an old friend, Bruce McKinley, Whitney Voss-- how you doing, Whitney-- and Adam Hurley for being one of our-- on the top leaderboard of responses for trivia. So you win. You know OBO.

[02:20:07.38] Angel, I'm going to turn it over you to get us back on track with time and introduce our roundtable and executive order. This is actually the first time we are inviting our academic advisors to come join us with our peers. I think, you know, the topic obviously warrants significant conversation. And I think, as Henry mentioned in the morning, the Department right now is very focused on.

[02:20:32.31] Rick is going to talk a lot about our engagement with the Department in responding to the executive order. But we're in the process of looking at budgets for FY 2023, so this conversation is very timely and will-- and a lot of the contribution that you give us today will be a part of how we formulate our response and ask for the resources to do that. So I want to-- Angel Dizon, Rick, and Curtis are going to be the OBO moderators for this session. We're glad to have Claire, Dan, Nat, and Stacy Smedley as part of our IAG team. And academics are Anna Dyson from Yale, Christopher Boone from ASU, and Kimberly Gray from Northwestern. Angel, take it away.

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[02:21:16.63] MR. DIZON: Thanks, Christy. The executive order— I mean, Rick is going to walk us through the executive order. The reality is, we've been working towards these kinds of efforts for multiple years. And the executive orders really kind of provide some markers and also helps, we hope, to really push us towards more resources to help get some of the stuff done. So if we have the next slide, I want to have Rick sort of walk us through what he's seeing there. Rick?

[02:21:41.61] MR. SULLIVAN: Yeah, thank you, Angel. So as everybody knows, your new executive order came out this last spring talking about tackling the climate crisis at home and abroad. It's a very far-reaching order.

[02:21:56.22] I'm not going to go over all the details of it. I'm sure we have a smart audience here. I'm sure you guys have read it. If not, you can find it.

[02:22:02.31] But pretty aspirational goals for the government as a whole to achieve-- pushing towards net zero, new electric vehicle fleet, carbon-pollution savings. A lot to it. I'm going to talk a little bit about kind of behind the scenes, what that's meant for us in the Department.

[02:22:24.60] So as soon as the order came out, we set up some working groups throughout the Department. And certainly OBO is a big player in this with the overseas portfolio. But just so you guys realize, it's also our domestic bureaus. We have domestic facilities that OBO does not oversee, and we have-- we partnered with them along with Procurement, Contracting, Policy Development, Outreach for Overseas with our partners overseas, Diplomatic Security. Really, it was kind of far reaching across the Department.

[02:22:59.78] Our first task was really to create what we're calling the climate adaptation and resiliency plan. That's fully developed now. I'm not going to go to too many details. I don't preempt the Secretary because that's never a good thing to do. It's not published yet, but my understanding is it's going to be published very soon.

[02:23:16.95] But it's a wide-range, far-reaching plan across the Department talking about how we're going to develop an organization that can tackle this executive order and really kind of focused around issues like, you know, enhancing mobility in the workforce, emergency action planning for overseas posts and domestic facilities, supply chain management, improving local infrastructures with our partners, you know, host country partners. And then really kind of the OBO part mostly is providing climate-ready sites and facilities. So that plan is coming out, I believe, any day now. You can be publicly out there where everybody can read it and see what we're doing.

[02:24:00.09] Next steps on that was really to develop a sustainability plan. So that's in the works right now going through approvals. And that's really going to outline mitigating the impact of climate, setting goals and specific metrics on where we're going to go.

[02:24:18.93] As Angel said, in OBO, we're not caught flat-footed on this 'cause these are issues we've been talking about for quite some time, particularly on the energy and sustainability side. Anybody in the industry knows sustainability has been a hot topic. We've been working on that. Our buildings are meeting the standards for LEED and ASHRAE and past executive orders. So we're happy about that.



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[02:24:43.41] This new executive order, I think, will really help us push further into better savings, better resiliency, and doing it for reasons, not just because of the executive order but because it's the right thing to do. We need to safeguard taxpayer dollars, which is very important to us. These embassies are not cheap. We need to build them in the most effective way and the most efficient way. We also need to be good stewards of the local host country's resources. It's not a good look if we go in there and use up their water and use up their energy. So we need to be as efficient as we can there. And it's just the right thing to do.

[02:25:21.30] On the climate side, a couple of years ago, we talked about it before, but we started up our climate security resiliency program. And that's really kind of starting to collect data on these global drivers and all the climate changes out there so we can make better decisions going forward, not just in our building standards but talking to, you know, Jason Dallara and his team that are buying sites. Make sure we're buying sites that are in the best locations for a number of things, not just seismic, but, you know, flooding, localized flooding, tsunami, drought, air quality, many issues like that.

[02:25:55.70] So with that, I'll wrap it up and get into this discussion. I believe we got a robust discussion with our team here talking about carbon. I do want to mention carbon. That's one thing we have not really ever done in the Department, with OBO. I think this executive order is going to help us push towards that and help us get the resources to just do more because it's the right thing to do.

[02:26:15.87] MR. DIZON: Hey, Rick, let me just add a little context to what you're saying. You know our efforts on climate crisis is a security issue, right. So when we first started talking about it, what we recognized was that it's going to impact the way that we are able to operate and that if you guys know about Tyndall Air Force Base, they got hit by this hurricane, and it cost about \$3 or \$4 billion worth of damage. And the DoD said that was the most impactful thing to happen to their operations than any attack in the Mideast. So our efforts here do a whole bunch of different things. But one of the other things it does primarily is to ensure that we can maintain operations in really tough places under tough conditions. So let's go ahead and go to the next slide.

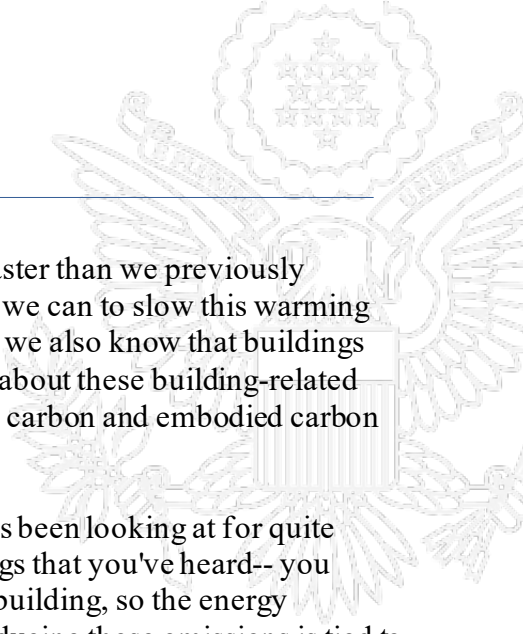
[02:27:08.42] So these are the areas of discussion that we're going to have with all the really smart people so Rick and I are going to sit back and see if we can understand what they're talking about. The first one is about the carbon footprint and then for those of you guys that can't get a good glimpse of Stacy Smedley, she's wearing a hat that says, ask me about carbon. So we are going to ask you about carbon, Stacy. Go ahead and kick us off about this conversation.

[02:27:33.32] MS. SMEDLEY: Great. Thanks, Angel. So I am going to do a little bit of a Carbon 101, maybe a 102. And I'm going to start with some science facts, so, really, starting with the IPCC report.

[02:27:45.32] The most recent report published by the Intergovernmental Panel on Climate Change, or IPCC, in August of this year states that atmospheric concentrations of carbon dioxide were higher in 2019 than at any other time in at least the past two million years. And it also tells us that even under their low greenhouse gas emission scenarios where we're on the right track in terms of emissions reductions, which we're trying to work toward, the best estimate of global temperature rise by 2041 to 2061, I think where many of us on the call will still be around to see it, is 1.6 to 1.7 degrees Celsius, which is above the preferred warming limit set in the Paris Climate Agreement.



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[02:28:23.93] So what this new data is telling us is that the Earth is warming faster than we previously anticipated and that the carbon emissions must be reduced urgently to do what we can to slow this warming down. It's important for all of us to have this in our minds on this call, because we also know that buildings account for at least 39% of global greenhouse gas emissions. So when we talk about these building-related emissions, that's 39% of the total. Breaks into two buckets. There's operational carbon and embodied carbon emissions.

[02:28:54.80] Operational carbon emissions are something that the industry has been looking at for quite some time now-- I would say decades-- I guess, into the energy efficiency things that you've heard-- you mentioned. These emissions include all emissions associated with operating a building, so the energy consumption of the lighting, mechanical systems, plug loads, et cetera. And reducing these emissions is tied to making all of those building systems as efficient as possible while responding to local climate and site conditions-- how you site the building to use less energy and maybe have more solar access, moving to cleaner sources of energy-- and that's really decarbonizing the energy grid-- the energy that we're consuming to come from clean sources, and then moving toward climate resiliency, which is looking at implementation of things like on-site renewable energy and battery storage, which has already been mentioned, I think, also. So that's what we talk about when we talk about operational carbon emissions. We have the solutions. I think that we need it's just implementing them and really doing that at scale.

[02:29:51.05] Embodied carbon emissions, which is what's on my hat, are something the building industry is just beginning to broadly understand. And that's really accounting for all of the emissions associated with the materials we use to construct buildings-- the extraction emissions of those raw ingredients, the transportation of those raw materials to a manufacturing facility and vehicles and trucks, and the manufacturing emissions of turning all of those raw materials into building products, things like concrete, steel, glazing assemblies, gypsum board, et cetera. These are called product-stage emissions for all those things I just mentioned and are typically the largest piece of embodied carbon emissions. In fact, cement, iron, and steel, just those three materials alone, account for 38% of global manufacturing emissions.

[02:30:33.81] So if you think about what we use to build our buildings, it's a big chunk of that pie. Embodied carbon also includes everything else beyond that, so the transportation of products to the construction site and vehicles, the installation emissions of the construction equipment used on site, the replacement of materials during a building's life, how many times are you replacing the carpet or the roof or the other materials in the project, and coming up with more emissions to replace them during a building's end of life. It's how we deconstruct the building and how we take those materials and what we do with them, so really thinking about how we can turn those materials that are being demolished into new materials and then minimize the need to go and manufacture or extract more raw ingredients. So that's the circular economy approach.

[02:31:19.08] So all of that's embodied carbon. Reducing these emissions is tied to a bunch of things during the design and construction phases. It's tied to prioritizing the reuse of buildings versus building new. If we can build less, we're reducing those embodied emissions of the product stage.

[02:31:34.82] We can optimize building design. Just use less materials in terms of our structure and enclosure and the high-impact components. We can decarbonize high-impact materials like cement and steel that gets

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into all of the innovation that's happening around, carbon capture at the cement kilns, or hydrogen steel facilities like the hydro facility in Europe. And that really ties to market demand and innovation.

[02:31:55.61] And then we also need to prioritize the use of alternative materials like mass timber and bio-based options that can actually sequester and store carbon in our buildings, making them carbon sinks. And then, again, regional materials have been mentioned. That also is going to reduce transportation emissions and really focus on the local economy.

[02:32:14.64] So all of that are-- all of those things are things that we need to do to look at both operational and embodied carbon. When we first started talking about this component of the presentation or panel, the subject line was operational versus embodied carbon. And we quickly changed that because in 2050, globally, each of these buckets a building emissions account for around half of the impacts. So it's really operational and embodied carbon together, and we must be looking at them both together. We have to work on addressing all building-related emissions together to truly reduce emissions and related climate impacts urgently.

[02:32:49.71] There's a role for all of us to play. I think owners are there, like OBO, to set the requirements and the targets and to kind of catalyze the action. Design and engineering firms and construction companies and specialty organizations like mine can do the work. And I think the members of the IAG represent that audience and that group of workers.

[02:33:08.43] And the good news is that we actually know where these emissions are today and all those wonky percentages in statistics I gave you. We have the data to actually do the work and the math and the expertise is building. So it's truly time to just dig in and make actionable progress. And I think we're about to dig in with the next set of speakers.

[02:33:27.10] MR. DIZON: Christopher, can you-- you know, we met you guys a while back to where we started having these initial conversations. Can you talk about the things that you're seeing in this field, too?

[02:33:36.49] MR. BOONE: Yeah, let me start off by saying that I'm surrounded every day by about 77,000 people from a particular demographic called Gen Z, and so those are people who are born after 1996. And when I talk to students from that generation, they are rightly concerned about their future, and they're rightly concerned about climate change. And this is backed up. You may have seen the recent Pew Research Center poll that came out. And for more than 70% of Gen Z students, climate change is one of their primary concerns.

[02:34:11.73] So the reason I mention this is we need also to think about the human capital that's coming forward by 2050. So we have a new generation of people who are thinking of this not as a secondary or tertiary concern but something that they want to contribute to. They want to be part of the solution and not the problem. And I think Henry, in your new job at OBO, I think you're probably going to find that to attract and retain talent at OBO, demonstrating the leadership that OBO is taking in climate change, I think, is going to be really important to making sure that you've got that human capital in place in order to carry out all of the great ideas that we've heard about this morning.

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[02:34:52.50] The second thing I want to emphasize is that whether it's at an embassy or a university campus, is the opportunity to use these spaces as learning opportunities. And this can be formal or informal. So we achieved our carbon neutrality goals six years early, scope 1 and scope 2. One, because it's the right thing to do.

[02:35:15.38] But secondly, because we graduate 20,000 students every year. And when they come from an institution that demonstrates that they're willing to actually go through the activities that we talk about as being important, that makes it an authentic experience. Then we're creating a cadre, an army of people who are going to go out and have a multiplier effect on thinking through how to develop these strategies no matter what their career paths are.

[02:35:44.00] And I think with the embassies around the world, there's a great learning opportunity. Embassy effect, I love that term, by the way. With the embassy effect, there's an opportunity for informal learning for people who go into these spaces and understand the leadership position that OBO is taking.

[02:35:58.88] And certainly one of the things, given the 50-year timeline of buildings that we've heard about, is that we need to take into account that the climate that we're experiencing now, despite all the extremes that we're seeing, these could become more commonplace. So how do we make sure that OBO and partners are thinking about, one, how to adapt to that changing climate that's going to happen? But secondly, how do we put in place a series of mitigation strategies that includes not just the material components but the mindsets, the human behavior, and the willingness of new generations to actually do something about it, again, to be part of the solution and not the problem.

[02:36:41.43] So I'll give you one concrete example here at my own institution. We have a leader in carbon-capture technology named Professor Klaus Lackner. He created something. It's a passive carbon-capture technology, calls it a mechanical tree. You can capture carbon about a thousand times the rate of regular trees.

[02:36:59.96] So we actually are putting one of these on our campus next to a new building that's being created right now. It's going to capture a tiny, tiny proportion of atmospheric carbon dioxide. But tens of thousands, if not hundreds of thousands, of people are going to see that. And so OBO, in its designs, being able to demonstrate these kinds of technologies around the world can get people thinking about and hopefully have spillover effects that will have the kind of aggregated impact that that all of us need.

[02:37:31.60] MR. DIZON: You know, Chris, I'm going to volunteer today to come see that tree in December in Tempe because I think that might be the most appropriate thing for me. But you know, what you were talking about was that helping to, you know, just create this awareness. And our platforms are for the sort of regular, sort of diplomatic efforts. But they also have this opportunity for soft diplomacy where they are these sort of symbols and examples of the kinds of things that are important for the U.S. government and advancing these kinds of technologies and stuff like that.

[02:38:00.81] Anna, can you share a little bit about, you know, what you guys are doing at Yale, especially around awareness? Anna might be taking a pass right now, so-- ah, there we go.

[02:38:19.40] MS. ANNA DYSON: Yeah. Sorry.

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[02:38:21.25] MR. DIZON: That's all right. That mute [INAUDIBLE].

[02:38:23.29] MS. DYSON: [INAUDIBLE] video. I apologize. Yeah, well, so I think-- and thank you so much for having me here. I've been very inspired by the projects that were shown this morning and just the incredible exchange of knowledge, both of what we can do right now and what's on the forefront.

[02:38:41.09] I think, just to even reinforce what Stacy said about the interrelationships between, let's say, you know, with the multiple phases of the built environment process. You know, embodied energy really starts to happen right up here when we start to conceive of the buildings and not disassociating that, let's say, also with the operational phase in terms of decisions. And I think that what we're really looking at is, how can we build computational frameworks that really reveal, very excessively reveal to everybody exactly what's happening and the implications, the sort of fast forward or future implications, of decisions not just from the standpoint of existing technologies that are ready to go right now but how we can build our buildings to be more sort of evolutionary or another way that's been mentioned is adaptive reuse.

[02:39:35.63] So, clearly, a lot of the technologies that we have now today for so-called on-site net zero or energy storage or other things, were not really conceived with buildings in mind. And in buildings, we have to do so much more. For example, on a building envelope that just generate power, we've got to give views to the exterior. We've got to have a beautiful daylight. We've got to have cool, diffused daylight. There's many, many things we might have to do, and of course, there's the big security question.

[02:40:00.32] I believe that a lot of what we're doing in the academy of really moving towards sort of multifunctional materials that can do many, many things, many handles on the energy, et cetera, will allow us to, in a sense, satisfy a lot of the demands for, of course, sustainable, nontoxic material; embodied energy; abundant earth materials; biomaterials, of course. Alan Organschi in the chat, I think he reinforced what was so important about moving many of the building types that you've shown just now. If we're eliminating the security question for a moment, could be largely bio-based materials.

[02:40:40.58] And we can put, for example, security measures of having to use, let's say, concrete and steel. We can move it into the interior of the building where it, all of a sudden, moves from being a problem for maintenance energies at the exterior into possibly being a moderator and being something effective for lowering our energy consumption profile. So that's how, for example, even with existing building stock, we can adaptively reuse buildings that may not have-- may have used materials that are driving up maintenance energies, et cetera, and reshaping or adapting, evolving them with active surfaces that can do a lot with the energy.

[02:41:18.20] And I think I just want to end with a security question because I feel that the OBO is so well poised globally to set the agenda for this interrelationship between security and on-site resiliency. And not to think about it as an all-or-nothing thing that if we can have an exchange of energy with emerging materials that can guarantee at least the basic energy and water requirements, it doesn't have to be completely on set night-- sorry, on-site net zero in order to start to work with these materials. That partial, you know, partial contributions are really important. And if we're also really focusing on human beings rather than the, you know, and keeping their comfort rather than the building, we will drive dramatically down the energy consumption profile of our systems by sort of, in a sense, localizing and really working very-- coupling very



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tightly the requirement for the energy and the supply of the energy, something that we really don't yet do in buildings today.

[02:42:22.87] MR. DIZON: Yeah. You know, Kimberly, you had also talked about-- in the 2050 section, you talked about, you know, designing for humans. Can you give us a little bit more on that?

[02:42:34.42] MS. GRAY: So the human-centered design. Yeah, so this is the work of one of my colleagues, Georgia [INAUDIBLE]. And the point of this-- she's an expert in building physics-- is really to think about how we can design buildings more than just energy efficiency. So how can we-- because oftentimes, energy-efficient buildings are buildings that are uncomfortable for everyone who is in them.

[02:43:04.19] And so-- and that, I think, looking at your portfolio becomes even more true because, you know, we're using American standards in various parts of the world, and that climatic standard is just not shared. And just enormous technology that is out there that can allow us to customize individual space, optimize comfort, productivity, and operate the building in a much more efficient way. So there's that.

[02:43:35.63] And that's really all about smart systems, all right. And so-- but there's also all of these coupling of systems, you know. The energy system can't be thought of as independent from the water system or the building materials. And so, you know, that's going to be challenging. This massive coupling that is a kind of network design that we really have to do.

[02:44:02.47] MR. DIZON: I think what we're seeing, especially with the embassy effect and some of the things that you guys are talking about here, is that we are part of this larger system, right. And that there are these things that we do that cause these impacts all over the place. And they could be for good, right, which is kind of our goal. But if we're not focused on it, then, you know, we're going to be on the wrong path. And some of the things that you started to talk about are things I'd like to have Dan to start to kick off the sort of middle bit, this middle section that we had, which is about materials and methodologies. So, Dan, go ahead and get us kick-started on that conversation.

[02:44:35.02] MR. SESIL: Let me just start by saying that as a structural engineer, my team and I are focused on the symbiotic embodied carbon question primarily, of course, as opposed to the operational one. And, Stacy, wow. Well said. That was a great introduction.

[02:44:57.38] I would add one thing and that is that in addition to alternative materials, smart design, recycling, we think there's a role for larger organizations like OBO to incentivize builders to meet certain goals that we think could really make an impact. But let me return to the smart design question because a lot of what we focus on, and I think has a lot of promise, is in this shift from prescriptive designs into performance design. And some of these things can be pretty simple, and they can yield a whole lot in terms of reducing the materials used in a project.

[02:45:43.15] Let me take span for just a second. And then I'll say a few words about some material options. And we've all lived for at least a year and a half, more than that now, of working remotely, and our views of office spaces and how we use them is changing.



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[02:46:04.09] There has historically been kind of a strong move within organizations like OBO to have largely column-free spaces. I think that's the kind of simple criteria that could be evaluated that might yield real savings in materials in a building. If you think about changing sort of the way space planning and structure interact with one another and add a few columns, it'll definitely yield some savings.

[02:46:32.08] On the material end, we're really excited about wood. We're really excited about reuse of materials. And we're also excited about depositing carbons into our structures in ways that have harvested it from the environment and reducing material-- and the reduction of material end of things, especially if combined with this issue of potentially reducing spans.

[02:47:06.19] We think that the use of void forms is a way to replace concrete with air and post-tensioning as a way to significantly reduce the materials used in buildings. I would add one more thing. Steel, as produced today, especially in the United States, is a highly recycled product. And I think that steel could play a bigger role in State Department's portfolio of buildings than they've had to date. So with those few thoughts, I'll turn it over to the next person.

[02:47:43.79] MR. DIZON: Yes. So, you know, one of the things that you were talking about there was that we can be, because of how much work we do-- and we're doing \$2.5 billion every single year-- we can be in a position to, obviously, do what we're doing well but actually be a leader, right. And you know, setting a tone for what it means for government to be a part of these things and do things the right way, you know, in policy and those kinds of ways. Christopher, can you talk more about the other kinds of materials that you guys are looking at over in ASU?

[02:48:16.25] MR. BOONE: Yeah. And I actually want to go back to the point that Kimberly made on really taking a systems perspective because I think that's fundamental. Too often, we chunk these out into separate sectors. Water doesn't talk to energy doesn't talk to materials doesn't talk to-- I'm in my business, the education component, and I think in order for us to be really successful, we need to take an integrated systems perspective because, you know, we might be doing things with the very best of intentions-- excuse me-- in one sector, right, thinking that we've got the solution. But it could actually be undermining the ability of those other components to actually be successful.

[02:48:53.53] So one of the things that we're doing in both in research but also in the way that we educate our students, whether it's around lifecycle analysis or true cost accounting or the work that we're doing in carbon capture or looking at some of the adaptation strategies, is we continue to hammer the idea that we need to really-- and I would encourage OBO to do the same thing, and it sounds like you're moving in that direction-- is to always maintain that really strong systems perspective. And that's not just within the compound itself but back to the idea of spillover, how it integrates into the locations where you are that are culturally sensitive, politically sensitive, ecologically sensitive. And again, not just trying to do no harm but really trying to move the conversation to the solution space and how can we share those solutions. So I would say that maintaining that systems perspective is absolutely fundamental.

[02:49:48.02] MR. DIZON: Yeah, that's huge for us, too. We've been seeing a lot of value in making sure that we're just working better together. I think the way that a lot of people did work in the past-- and certainly we did, too-- was there's a lot of just handing stuff over at some point without it all kind of sort of touching

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together. We've done a much better job of connecting that sort of operation side at the end to the kinds of thoughts and thinking that we could do in the beginning. And I had seen sort of Stacy sort of nodding your head throughout your sort of systems approach things, so I wanted to get her thoughts on that, too.

[02:50:19.68] MS. SMEDLEY: I do a lot of head nodding. No, I think-- I think--

[02:50:24.03] MR. DIZON: It's mostly because I'm not understanding. So I'm, like, oh, god, I got [INAUDIBLE]

[02:50:26.90] MS. SMEDLEY: I'm agreeing. No, I think it's, you know, those of us who have been in this kind of sustainability and environment space for a while now-- because I have kind of seen these different aspects pop up and us get smarter and smarter on them. There's energy efficiency, there's water consumption, there's material health, there's embodied carbon. And there's kind of a past hangover of us all having expertise in each of those things and focusing on them and coming up with a million different ways to approach each one.

[02:50:54.69] And I think what's happening right now, what we're seeing, is this opening up, even when it comes to building owners talking to each other about the process for doing this stuff and wanting to share the same process and systems that they're approaching. And it's vitally necessary because if we don't kind of democratize all this data and expertise and bring it together, we may, again, have unintended consequences that we've heard about where doing a really efficient envelope with a bunch of triple glazing and all sorts of things is going to ratchet up your embodied carbon emissions, or some water system is going to have some other alternative impacts. So I'm in agreement that's where things are headed. I think we're waking up to that based on lessons learned as we've moved through learning about all these different things. And now it's just time, I think, to bring it all together and commit to that approach.

[02:51:44.12] MR. DIZON: The unmute bar. Yeah, it's the commitment piece, right. I think the first step is the conversation that we're having here. We got to start making OBO, but certainly our consultants and contractors, aware of the goals that we have.

[02:51:57.11] And there's a whole bunch of stuff that we're learning from a variety of y'all that is going to change the way that we do our work because it just can't be done the same way that it was before. For us to make a positive impact in the way that Christopher was talking, it's not enough not to do bad. We really do have to push to being a lot better and being a part of the group of people that are making a difference in a positive kind of way. Anna, any thoughts on this?

[02:52:26.10] MS. DYSON: Yeah. I mean, I just-- I do think that this issue of commitment is absolutely critical. And I think sometimes what happens-- so alluded to this all or nothing, sometimes the targets stymie us, you know, in commitments because they could be unrealistic, or they're one size fits all. I mean, obviously, you're working in vastly different climates with vastly different resources.

[02:52:53.89] In terms of being able to reach, let's say, on-site net zero or being able to procure local materials or biomaterials or whatever the goals might be for your life cycle and having a positive life cycle. And I just-- I feel that we should-- like, if there's one thing that we sort of leave with in terms of a difference between the

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way that we think of buildings now and the way that we need to start designing them is that we must think about them as part of an ongoing sort of adaptation towards climate. And I think that that's the thing is that we saw some really, really beautiful buildings today. And then the question is probably in five years, we might actually be presenting our buildings not just as the objects that they are, you know, when they're finished, but what is the sort of plan, moving forward, towards adaptation.

[02:53:46.63] So it's a major conceptual shift in also partnering maybe with research a little bit more fundamentally in the way that, you know, the built-environment sector has, unfortunately, in our country not been, you know, well funded, let's say, as a kind of research sector. And we couldn't even see it as a sliver in the Department of Energy pie chart at some point.

[02:54:10.75] And just, I think, that the fact that it's such a massive contributor towards these things means that we really need to start to think about it, like, as a kind of new space race. It's the Earth race. It's where we are on Earth. And we really have to think about our buildings on a continuum and not as fixed objects that we're delivering and then saying, great job.

[02:54:31.51] MR. DIZON: Yeah. I mean, we are definitely a part of a big system here. And Alan in the chat had put in a question about-- or a comment about, you know, reforestation, you know, if we're starting to use more wood in those kinds of things. We don't have an example of that specifically but, like, I happen to know in New Delhi, it's got some really terrible air there and everybody sort of mowing all that stuff down. And part of our commitment to being in the city was replanting a whole bunch of trees on site and off to help the city. Now that's a really kind of small, little thing, you know.

[02:55:06.80] One of the conversations we're going to have later on is really about how do we look at this at a sort of portfolio level versus a project level. So for that particular project, we will do some things. But if we can start to do these things-- we have 290 locations, right. So just about this particular topic, we can make a big difference across that program both in the way that we do our work but also in the way that we talk about the opportunities for those particular cities and those countries to contribute to the successful conversations that we're having about those specific kinds of things.

[02:55:37.91] What we're experiencing in OBO is that there is really big opportunities beyond just doing the building. The building now feels like a little, small effort compared to all the sort of broader opportunities that are available as to impact. And it's pretty amazing. It's folks like you all that are helping us to understand that and understand what our role really is in that system in the way that everybody's describing because we're not just doing buildings, right. We're doing or impacting all these other kinds of things, too.

[02:56:07.79] Kimberly, I wanted to turn it over to you. There are some things that you had highlighted in the section for Embassy 2050 that you were working towards. I just don't remember all eight. I'm sure one of these folks do, but I don't. Is one of those specific eight that are-- one of the ones that you think are probably more closely aligned to this conversation?

[02:56:27.00] MS. GRAY: Oh, absolutely. So I guess I want to follow up on just a couple of things that people said. Rapid and deep decarbonization is really the Holy Grail, OK? And so it doesn't just mean, you know, that we quit burning fossil fuels.

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[02:56:44.69] And when we talk about net zero, it's got to be that we reduce emissions. It isn't just that we buy offsets or we, you know, plant trees. And planting trees is really important. So I love when Chris gave that example of the mechanical tree that sucked in carbon because the real challenge, I think, now is going carbon negative, developing both behaviors and strategies and technologies that can remove carbon from the air.

[02:57:14.30] We need to remove 600 gigatons of carbon from the atmosphere. We need to quit putting it up there. We do know how to do that if we decided we wanted to. But we don't know exactly how we're going to remove the 600 gigatons that we need to remove if we want to try to keep warming to this what we think might be a manageable level of 1.5 degrees centigrade over pre-Industrial times.

[02:57:42.05] So if you look at concrete, you know, why is concrete the most used material around the world? Because it's flexible, and it's strong, and it's really cheap. And so we have to change that accounting. We need to attach a price to it that reflects its full cost.

[02:58:00.53] And there are just so many opportunities out there. And it is possible, at least from a chemistry point of view-- and since I'm a chemist I really embrace this-- to make concrete carbon negative. So we need to start-- I mean, we have to think about rapid and deep decarbonization.

[02:58:18.35] There's a huge portfolio of activities. But it's beyond net zero carbon. It needs to be negative carbon. And it's amazing the things we can do both in technologies and materials and behavior to be to achieve that. That, at least from an academic point of view, is the challenge of the future.

[02:58:40.21] MR. DIZON: I'm going to-- I'm going to reach out to Claire Weisz from WXY here. She recently won one of our support services' IDIQs, and it's these contracts that are set up to help us do exactly what we're talking about here. How do you take the kinds of things that we're learning from you all and start to figure out how to start to move the program in that kind of way? And so, Claire, I know that you're just getting into the program and then hearing a lot of things that we're aspiring to do, but I wanted to get your thoughts on, you know, what you're seeing WXY's contribution in this space will be.

[02:59:13.32] MS. WEISZ: Angel, thank you. It also was really exciting to be part of the panel to hear what Kimberly and all the other academics were up to because they're kind of talking about this synthetic way of looking at OBO as, in a way, a conductor of many systems. And so I always like music analogies.

[02:59:38.58] But, quite seriously, when we think about buildings, we have to think about how people move there. Like, how do you get there? How does everyone get there not only as static things, right?

[02:59:52.05] So another-- you know, I posted this on Slido, but it seems to so many people who are talking about new materials-- biophilic, how you grow it, that when you look at the potential of OBO to have district planning, country planning, the possibility of looking at sites differently, all of a sudden you go, yeah, transit. Transit is a system that actually could use rapid decarbonization but also has huge impacts on people's lives.

[03:00:28.77] For all of us, I think we know it's hard enough to change our own behavior in terms of how we design things, but I think it makes architects and planners especially sensitive to how hard it is to instigate



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change behavior, but that the built environment gives people a lot of clues. When you see buildings built out of different materials, you say to yourself, where do those materials come from?

[03:00:53.52] So I am also excited about this idea-- Angel, I know people have been talking to you about this-- about ethics. You know, ethical supply chains, of taking what's already happening in the federal government about looking at labor as part of resiliency, adaptability, and sustainability. But also most importantly, it's the decarbonization strategy. So I think that's where I would go with that.

[03:01:28.02] MR. DIZON: Claire, you're giving away a little secret of ours.

[03:01:30.24] MS. WEISZ: OK, yes. It's true.

[03:01:32.11] MR. DIZON: So Claire and I were in a meeting a couple of days ago with Grace Farms, and there's some real opportunities that's essentially what we've been talking about consistently. That we're part of a broader system. And that system includes not only the things that these folks are talking about but a whole variety of other things for which we need to be aware and need to make sure that we're taking action on them.

[03:01:51.72] And, Claire, what I really like that you kind of hit on, was the sort of planning aspect. So Jason Dallara and myself both used to run the planning office here and, you know, one of the things that have changed was the way that we look at the work. And it was initially very, very focused on post. What is that post doing and, you know, whatever.

[03:02:12.33] And then it was really kind of pulling that scale up a bit to understand how it's doing in the city and now, you know, how it's doing in the country. Like, how those missions kind of interact with each other in a country. And that was the sort of country planning thing that you were talking about.

[03:02:24.21] And it sort of moves us into this sort of conversation about how do we take the kinds of thinking that you've been doing here and sharing with us and start to consider it at that sort of project level and that portfolio level. So I'm going to turn it over to Nat just to kick off that portion of it before Christy gives us the hook.

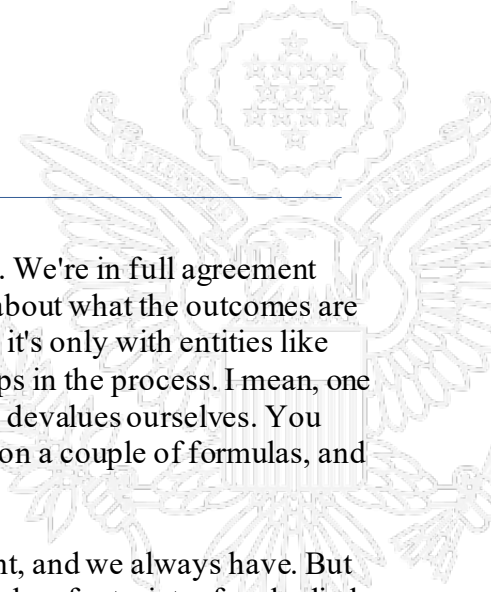
[03:02:42.06] MR. OPPENHEIMER: Yeah, I appreciate that, Angel. And, look, it's this exact-- I mean, I would start by that idea of the universality and OBO's role in all of this because it's actually especially gratifying that OBO invited two structural engineers to a sustainability and resiliency discussion, which rarely happens, but it shows the impact--

[03:03:02.31] MR. DIZON: Well, you guys were the only ones that said yes, so that's why you're here.

[03:03:05.52] MR. OPPENHEIMER: There you go. Dan and I often say yes. But I think, in all seriousness, you know, we all are committed to a lot of these things. But it's on a platform like this, to your point of a larger platform, where-- you know, Dan and I are very friendly competitors-- but all these different firms that might be at different sides of the table in the private industry are able to really come together and think about how we can improve processes through the larger lens of all the projects and processes that allow us to develop over the larger but then focus on the local when we get there.



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[03:03:39.09] So it's not about-- Dan brought up performance versus prescriptive. We're in full agreement there. And I think that idea of performance-based designs where we really think about what the outcomes are we want, but then we can marry them to very specific requirements on a site, and it's only with entities like OBO that we get that opportunity, I think, to really make big changes and big leaps in the process. I mean, one of the funny things we've often discussed-- I think the whole industry, in general, devalues ourselves. You know, there are quantitative analysts at hedge funds that make billions of dollars on a couple of formulas, and we celebrate if we can run a duck through a beam.

[03:04:20.13] So I believe that we have the smarts within our industry at this point, and we always have. But we have the tools now to do this sort of real-time integration and measuring of carbon footprint, of embodied energy that equals the operational energy in measurement of a building and really allow us to both, again, universally look at base studies and ideas of spans, as Dan brought up, and think about the way we build these buildings in general and then apply those on a building and project-by-project basis that comes back to benchmarks that are really, truly measured and no longer about general ideas or the thought that maybe we should reduce concrete a bit, but really measure what we're doing on the projects, project by project, and then feed back into a larger understanding of how successful we were.

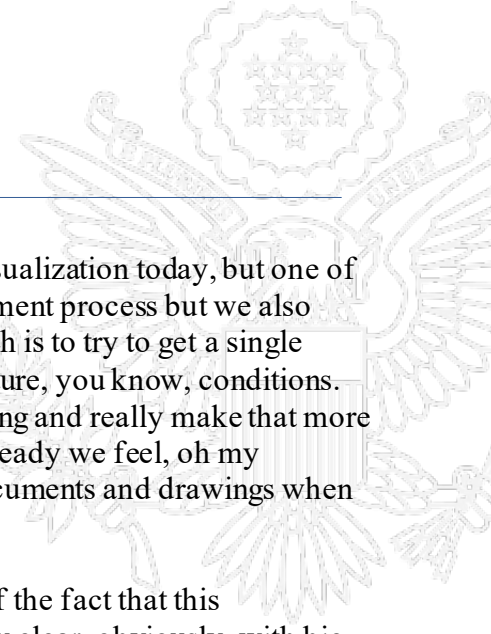
[03:05:13.49] And I would-- I mean, I would just end with a couple of thoughts is, I don't think this is-- I also want to say that I think that this is not simply a conversation because of a new administration, new initiative. This has continued to evolve in my lifetime of my career. And what I'm seeing now, among embodied energy in the area that we really are focused with along with Dan's firm and others, is that a common language is finally developing in a way that we can really speak to each other across academia and to practice and to industry, private and public, in ways that allow us to really think about things on one platform.

[03:05:49.19] Rather, it was, for a long time, I would pull one resource, Dan might pull another. We might have a different measuring stick. But what we're seeing now is just more and more sort of agreement and the ability to speak across both geographic boundaries and industry boundaries to really come to a common understanding of what we're after. So it is an incredibly exciting time not just because of certain initiatives but because of the tools we now have to focus in on local and pull back on global and really understand the impact.

[03:06:22.16] MR. DIZON: I'm going to ask sort of Anna to jump in here, but when we were preparing for this conversation, all of these things, especially for laypeople, it seems kind of abstract. How is it-- why is this really kind of a big deal? And what you realize is all the work that we're doing, all the stuff in Embassy 2050, and all the things that are happening in the embassy effect are for people. It's all about how these things will impact us. And that's what's so great about it, that you can connect all these things to the ways that they'll really better serve us as people. But, Anna, I want to get your thoughts on what Nat had just opened with.

[03:06:59.63] MS. DYSON: Yeah, I think that Nat just brought up a really critical thing, which is literally measurement. And the fact even just we still have, for example, models where we could pull the same material, we can get different measurements from consultants, especially engineering-- energy modelers, et cetera. And then these sort of-- this data or the impact of our decisions is really still quite opaque in a lot of our models to so many of the stakeholders in the built-environment process.

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[03:07:32.43] And so, I think we haven't talked that much about data and data visualization today, but one of the most important things in our work is trying to build not just for built-environment process but we also work, for example, with UNEP on the World Environment Situation Room, which is to try to get a single portal for experts and nonexperts alike to be able to query data and impacts in future, you know, conditions. Maybe even just different, you know, the implications of different decision-making and really make that more accessible for multiple stakeholders. It sounds a little bit scary because I think already we feel, oh my goodness, there's too many cooks, and it's so complex. And we have so many documents and drawings when we come together to build something as complex as an embassy, for example.

[03:08:24.51] But at the same time, I think that sort of jig is up as well in terms of the fact that this information and the implications of our decisions are becoming more increasingly clear, obviously, with big mechanism processes and other ways of making data and interrelationships between systems and behaviors across the lifecycle. It's all becoming more and more accessible as time goes on. And I think there will be a Moore's Law in relationship to that. I think we'll have more and better data.

[03:08:54.40] But the most important thing that we need is not just the data but the meaning around the data, a way to discuss it, a way to explain it and talk about it. Actually, I think the pandemic was a perfect example of how important in this day and age, the complexity of decision-making that is very, very important that in real time, we have models for sharing data in understandable, digestible ways across different stakeholders but also ways for experts across all these different systems. I mean, it's fun to say, let's get materials and energy systems, everything across the lifecycle, and let's integrate it all. But that is really still a huge, huge research and development challenge.

[03:09:36.61] We must say that, like, we're getting there, and we're so much better than where we were, let's say, 20 years ago, but it's an ongoing process. And I think this issue of data and information and the massive sort of glut of misinformation, even in our field, really has to be kind of addressed and really-- It has to be brought to the forefront of what we're doing.

[03:09:56.63] MR. DIZON: Anna, I like what you're talking about there with data. And I'm not sure if it's data or data, so I will say data. Is that--

[03:10:03.28] MS. DYSON: I say data, and you say data.

[03:10:05.11] MR. DIZON: Yeah, exactly, but--

[03:10:07.06] MS. DYSON: Let's call the whole thing off.

[03:10:07.99] MR. DIZON: But even only a few years ago, if you look at all, we have-- OBO's got about 600 projects ongoing at any one time. And the common thing that you could measure across all of them-- actually the only thing you could measure across all of them was money. Just-- so how much you spent on it, but not-- almost everything else was, you know, some people did this, some people did that. And we're moving towards this.

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[03:10:30.00] I think you may have heard it a long time ago, some efforts that we're doing around data and a whole bunch of things and technology-wise, but it is the only way that we're going to be able to improve the work that we do is to measure things that are important to us. And if we're not measuring these kinds of things, then we're going to be missing the boat on a whole lot of opportunities because we just don't know. And I see-- actually, I was gonna close with you, Christopher, because I know that I'm getting the hook. I'm getting text left and right.

[03:10:54.75] MR. BOONE: I was gonna say very quickly, let's collect money and carbon. Let's put a tax on carbon, and then you'll start to see people do the right thing.

[03:11:02.04] MR. DIZON: This is a guy that has global futures in his title, by the way. So, Christy, I think we're right at our mark-ish? Anything else that you want us to make sure that we discuss?

[03:11:13.58] MS. FOUSHEE: Absolutely. We've got some questions that came in on-- We have a pool--

[03:11:18.72] MR. DIZON: Christy. Christy, real quick. I saw some of the questions that came in. I'm not prepared to answer those questions, but these guys are. So I'm glad--

[03:11:25.41] MS. FOUSHEE: That's why-- that's why we let you smile and moderate and then we have to answer the question.

[03:11:30.96] MR. DIZON: Thank you.

[03:11:31.56] MS. FOUSHEE: I don't think that's true. I think you can answer this question. OK, so I just want to say we have-- we've got a really lively conversation going in both in the chat and Slido, so we're, right now, just trying to pull all these together thematically.

[03:11:45.93] So I've got a couple of questions that we pulled out. We do have an entire 30 minutes for industry and public input. So a plug for those of you that are on that haven't got your question in, get those in now because we're organizing that time. But I did want to-- I did pull a few out that were really specific to what you guys are talking about right now.

[03:12:04.48] And I do want to invite Alan to come on with his camera because he's been putting some really insightful comments and thoughts, and I'm going to say them. But I think it might even be better if we hear them from him directly. So I'm going to put a few of them out there, but then those of you that respond I welcome you to have a conversation with Alan because he's got some really thoughtful both comments and questions. OK, so, Angel, the first one is, since over 50% of carbon emissions from buildings will come from embodied carbon in the next 10 years, what are your current efforts to make reductions in this sector of emissions?

[03:12:40.80] MR. DIZON: I thought you were going to answer--

[03:12:42.30] MS. FOUSHEE: When you say Rick, I think when [INAUDIBLE]

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[03:12:44.22] [INTERPOSING VOICES]

[03:12:44.76] MR. DIZON: Yeah, see, I've been giving these guys softballs, and you're giving me this one. I'll start off a little bit, and then I'll turn it over to Rick. But there is a recognition on our part is that there is-- [INAUDIBLE] thank you-- is that there's things that we can be doing to help out in this arena. And so we are, as part of our Embassy 2050 efforts to look beyond the way that we solve problems today, we are looking at a variety of different kinds of materials to help do that. And it ain't easy, right.

[03:13:12.59] So the government gets used to delivering a product in a certain kind of way, and we know that it works. It's hard for us to move off of that, but we're looking at mass timber and some other things. But part of what that process is is to really get our technical folks and our security folks acclimated to what the opportunity is. You talk mass timber to somebody that doesn't really understand what you're talking about. They're saying, you want to build a building on a wood?

[03:13:38.39] But, you know, you dive a little bit deeper and share a little bit more information, then there's an understanding of what the possibilities are, that DoD is really kind of investigating its blasts, its fire, and all sorts of stuff. And so there's a real potential for us. And it doesn't have to be this wholesale change, but they could be, like, a whole lot of things in our work, maybe a hybridized version of that kind of structural system.

[03:13:56.96] But I will turn it over to Rick and hopefully, he'll have more detail on that. And certainly, I'll open it up to the other folks on the panel because that's kind of what they were talking about. It was different kinds of materials that can help us in this situation. But Rick?

[03:14:09.56] MR. SULLIVAN: Yeah, Angel. That's a very good question. It's something we've been thinking about and looking at quite a bit. You know, as Angel mentioned, the cross-laminated timber, mass timber, rammed earth, certainly more steel we've talked about or thinking about. And a lot of these issues or ideas have come from our partners, our industry partners, in pushing us in the right way.

[03:14:30.86] Part of all these efforts is really to kind of point us in the right direction so we can start developing standards around it, as Angel mentioned. Security is why we do this, largely why we get our funding. We have to make sure Diplomatic Security is comfortable with what we're doing. And part of that is just that-- making sure they withstand blast pressures and forced-entry ballistic resistance.

[03:14:53.24] And then beyond that, it's not just a design effort. We have to work with our construction folks and make sure they can build in, our maintenance folks if it's a maintainability issue that we can maintain it down the road, and source the materials and all of those things. It's a big puzzle that we get to try to put together. And we've made a lot of starts on it. We still got a ways to go to really get where we need to be.

[03:15:13.40] [INTERPOSING VOICES]

[03:15:15.89] MR. SULLIVAN: Go ahead, Curtis.

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[03:15:17.17] MR. CLAY: Yeah, I was just going to say, one of the things about calculating reduction is you have to know what you're reducing from. And one of the first things we're trying to get a handle on is what is our baseline of carbon emissions. How many trees do we have in our portfolio across 220 sites around the globe right now? So trying to figure out how to and fun sort of gathering the data on-- data, not data-- on what the baseline is, first and foremost, is, I think, the first challenge. And once we have that, then we can start to calculate what the reductions actually are.

[03:15:49.73] MR. DIZON: Yeah, so I mean, a lot of what we're doing in this particular space is working with industry folks and academic folks to understand what those operatives are, studying them for its use outside of project schedules so that we really get a sense from both the OBO technical folks and the DS folks to understand our comfort level within it. And once we sort of certify that we're good with it, then we will start to move that in into projects and start to have these opportunities to pilot these things in a certain kind of way. So that's kind of what we're doing in that arena.

[03:16:24.07] MS. FOUSHEE: Thanks so much, Angel and Rick. I've got another one, I think really good. There's some really hard-hitting questions, so.

[03:16:31.34] MR. DIZON: Super.

[03:16:32.06] MS. FOUSHEE: OK. As a putative environmental exemplar of best practices in sustainable building that reflects, even guides, current climate policy, how does OBO design criteria, promote environmental impact reduction across the building lifecycle rather than just focusing on operational stage efficiencies?

[03:16:54.50] [INTERPOSING VOICES]

[03:16:54.86] MS. FOUSHEE: You guys got all the words right.

[03:16:56.18] MR. DIZON: Yeah, this is--

[03:16:57.23] PANELIST: Explain that one.

[03:16:58.67] MR. DIZON: Yeah, this is why I love having Rick around because I just-- Rick? And then he goes-- he does his thing, then he'll turn it over to Curtis. But I will say real quickly that that's actually what we're working on now is we're evolving our standards actually in the same ways that both Stacy and Kimberly started talking about it. Start to move this into sort of a performative approach in the way that we're developing our standards.

[03:17:19.88] And our standards have been around, or something like it have been around, since, like, the 60s. And so we're constantly evolving them so that they're more performative in nature. And part of what we are recognizing for ourselves today is that it's not about that single stage of doing the building, but it has this sort of whole lifecycle to it. So I'll turn it over to Rick to see if he can fumble a better answer.



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[03:17:40.85] MR. SULLIVAN: Yeah, I'll tap dance a little bit on this. That's a tough one. You know our program's grown and matured over the years, right? Angel and I talk about this a lot.

[03:17:53.73] We're continuing to get better. And we're not where we need to be on any of this. We're doing better on the energy side. Carbon, like I said, it's a brand-new thing for us to really try to do in a real way. Environmental impact reduction, like I said, we're just getting there.

[03:18:09.25] We got our Climate Secure Resiliency Program where we're really working on collecting the data. As Curtis mentioned, collecting the data is one thing that we've just never really done, and we need to do that so we can measure what we're doing and know that we're improving. We've got a ways to go, and that's why we're having these discussions.

[03:18:26.14] We're learning as we go. I think the industry is learning as we go. I think we do realize that with our program, the funding we get our program, the breadth of our program, and the worldwide footprint, we can make a big impact on this. And I think that's what we're trying to do. We're not there yet.

[03:18:43.17] MR. DIZON: Yeah, Rick, one of the things-- this is actually for Alan. Rick is the guy that actually produces the standard, so you and him are going to have a big, long conversation here after this meeting about what you're looking to do here. But I'm going to hit a little bit on what Curtis was saying which was starting to collect that data about what our expectations are.

[03:19:02.80] And so there are things that our facility group is actually working on-- these facility performance evaluations that we have these expectations based on our criteria that these buildings are going to meet these certain whatever it is, especially around performance and functionality. And then this effort is really to understand, you know, after commissioning, is this building performing the way that we think so that we can make adjustments to the standards later on if these buildings aren't doing what they're expected to do? But that's exactly kind of where we want to be in this.

[03:19:30.17] What you're hearing with all these conversations with the industry advisors and the academics is the beginnings of where we are heading. And so that's really kind of what's Rick's charges with all the architects and engineers is that we need to start moving the needle on the way that we talk about the work that we want to produce and the kinds of impacts we want to make.

[03:19:48.80] MR. SULLIVAN: Angel brought up a great point-- that feedback loop on what we do. We're unique also because we don't just buy the land and design and construct these buildings. We own them and maintain them, right? And our feedback loop on lessons learned and measuring what we built [INAUDIBLE] operate does not [INAUDIBLE] we got some programs to get there. Like I said, we're still working on it.

[03:20:13.68] MS. FOUSHEE: I think what I'm hearing is we need a roundtable on design criteria.

[03:20:17.15] MR. DIZON: I think we need to roundtable this afternoon is what it sounds like.

[03:20:20.37] MS. FOUSHEE: Yeah, I know. I think it's great.

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[03:20:21.78] MR. DIZON: I'll add one thing, Christy. You know our last facilities director had a really great change of the OBO acronym because OBO stands for Overseas Buildings Operations, and the way that he always described it was Owner Builder Operator. But it helps to reinforce what our real role is in the organization.

[03:20:40.20] I actually ask people that work for us, you know, I ask them what they do. And if they don't say, I'm responsible for providing a diplomatic platform, that's a fail, right? So a lot of folks will say, well I develop an RFP, or I do design reviews. I'm like, nope. Your one job here is to provide a platform, and what we'll start adding to that is that platform has to do da-da-da-da in terms of all these sort of performative metrics that we're asked to identify for ourselves.

[03:21:03.04] MS. FOUSHEE: Yeah. No, it's right. It's the full circle. All of us--

[03:21:07.70] MR. DIZON: We're all responsible for that. All of us, you know. And, obviously, it's definitely our charge, but we work with everybody that's on the call here to make sure that stuff happens.

[03:21:16.16] MS. FOUSHEE: Right.

[03:21:16.94] MR. CLAY: One of the things that we've done is get our facilities maintenance teams that are going to be maintaining these buildings actually making them participate in the design reviews during the design phase. And so that's been really helpful because when we start looking at different materialities and different considerations for how the sites organize, our facilities seems a way in really early to help influence the final output.

[03:21:37.88] MR. DIZON: That's a good point, Curtis.

[03:21:39.22] MS. FOUSHEE: All right. Are you ready for the next question?

[03:21:41.23] MR. DIZON: No.

[03:21:42.83] MS. FOUSHEE: Well, it's coming. So all right. How do the assessment of manufacturing, transport and other embodied emissions and energy consumption, the potential of biobased material assemblies for carbon storage, extraction impacts to ecosystems and regenerative management of source landscapes figure as design criteria beyond LEED?

[03:22:06.17] MR. DIZON: First off, I want to say I'm glad I'm not taking any of Alan's classes right now because I would not do well. I mean, I barely graduated college, and this question alone would set me back multiple years. I don't really have a wonderful answer for you on this very specific kind of thing, but I will tell you that LEED is just a marker, right? That there are a lot of things we want to put-- a lot of demands that we want to put on the building that aren't a part of LEED and what we've seen in the past. And that recently has been people chasing points.

[03:22:37.62] Rick, I'm gonna turn it over to you because I know that's near and dear to you. What's important for us is that these buildings perform in the way that we want. And part of what we're learning is that we

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might be a little too narrow minded in the way that we think about how these buildings should perform. And so these conversations that we're having are helping to flesh out what our expectations are for the building, but I'll turn it over to you, Rick.

[03:22:57.89] MR. SULLIVAN: Yeah, thanks, you know, Angel, for keep dumping these on me. I really want to thank Alan for these questions. I think he knows the answers before he asks them. And I think he's purposely putting us on the spot.

[03:23:08.73] You know, again, a lot of new stuff for this. We want to do the right thing. We're working towards doing the right thing. We've got a big program that's, unfortunately, bureaucratic at times. Change management is a big thing for us.

[03:23:25.32] We've got to get it right for a lot of stakeholders. It's not just, you know, it's not just State Department. We have other government agencies that have a say in how we do things.

[03:23:35.13] We've got to make sure we can design it, build it, and maintain it. And often, those are competing interests and in very difficult places. You've seen some of our portfolio. There's a question on here on Juba that kind of got skipped, I think. Maybe we'll come back to it, but, you know, perfect example.

[03:23:52.66] If people don't know anything about Juba, you know, we talked about it earlier. You know, we got a project going on there. One of the newest capitals in the world.

[03:24:00.39] It is--

[03:24:03.11] [INTERPOSING VOICES]

[03:24:03.57] --as you could get. There's no electrical grid to tie into. There's very, very limited water sources. We're going to be running on generators 24/7. We're going to offset that with as much PV as we can, but designing it has proven to be a huge challenge to try to meet all of our competing interests between security and environmental stewardship and cost and everything else.

[03:24:30.24] But then even more important, once we design this thing, we've got to build in a place that is very tough to get materials into and to maintain it in a place where the local labor markets are fairly nonexistent as far as any know-how on how to do things. The plan right now is, you know, we're going to be trucking in a lot of water and fuel and trucking away waste. We're trying to limit that with our design as best we can, but then bringing in design mitigations to limit that, right? So it's a very challenging portfolio. And I think questions like this is helping us develop a better path forward, but it's not happening overnight.

[03:25:09.34] MR. DIZON: Hey, Rick, you know Jeralee is going to come to our help here.

[03:25:14.98] MR. SULLIVAN: Good.

[03:25:15.55] MR. DIZON: She had-- she'd offered to help answer some of the questions. In fact, I think we're going start asking Alan to answer some of these questions for us, too, but Jeralee, your thoughts?

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[03:25:28.85] DR. JERALEE ANDERSON: I'm hoping that my audio is working now. Can you hear me OK? Awesome. Well, I'm Jerralee Anderson. I'm the CEO of Greenroads International.

[03:25:37.35] And I will mention that there are tons of opportunities in horizontal infrastructure in all of these areas. And there's a lot of overlap with that system-level thinking as well. So I think there's quite a few opportunities. I'm particularly excited about it as a brand-new IAG member. I am absolutely still learning on what that opportunity might look like for me personally, but I'd be more than happy to speak with folks about what those ideas will be and looking at rating systems in general as a way to incentivize thinking in the right direction for decarbonization for all sustainability, the water cycle, all of those things that will let us actually do a little bit better.

[03:26:22.11] But thinking holistically will definitely get us there. I heard a lot of things. This is my very first meeting, so I'm very excited to see sort of where I can add and help and make a contribution on that side of things as the token infrastructure junkie.

[03:26:38.97] MR. DIZON: You still have to sign up, Jeralee, for the roundtable that we're having this afternoon because she's right

[03:26:43.35] DR. ANDERSON: I will absolutely do that. Yes.

[03:26:45.25] MR. DIZON: And then, I just want to-- let me just jump in here quick. Let me ask Alan to give us his thoughts on, you know--

[03:26:51.99] MS. FOUSHEE: I have one more question from Alan there before you do that. I'm going to round out. I'm going to round out his submissions and then we're going to bring him on.

[03:26:58.17] MR. DIZON: OK, OK.

[03:26:58.80] MS. FOUSHEE: I do want to tell Rick we didn't skip Juba. We were just going to do Juba in the actual industry input. We were just selecting a few for this. So you answered it. So we're good.

[03:27:07.97] MR. SULLIVAN: We can do that again if we need to. That's a tough one.

[03:27:09.36] MS. FOUSHEE: Yeah. So Alan asked one more question that I was going to put out there, and then he should absolutely come on. Given the limited time frame for effective climate action, should production stage impacts become a focus?

[03:27:22.56] MR. DIZON: What I love about this question is it's a yes or no. And the answer is yes. So. No, it is. It's exactly where we need to be, right? And those are, you know, we're from folks like, y'all, there's like, OK, we got to start doing this differently. We got start thinking about this. And so we have to go back to the source and all these other kinds of places to really understand how these things are coming together, but you had a perspective when you were asking these kinds of questions. So I wanted to get your thoughts on them.

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[03:27:48.12] MR. ORGANSCHI: Yeah, I mean first of all, I want to thank you guys for a great meeting. You have brought up so many things and answered so many of the points that I was trying to raise.

[03:27:57.42] MR. DIZON: So we actually answered some questions for you?

[03:27:59.64] MR. ORGANSCHI: Sure. No, and you did a great job, too, and I'm giving you an A-plus.

[03:28:03.60] MR. DIZON: Yeah.

[03:28:05.26] MR. ORGANSCHI: No, but seriously, you know, those questions were all actually one big kind of question, which is something you guys have also answered, which is how does an institution like the OBO with a huge portfolio do things that a developer developing a single building or even a district or a homeowner can't really do, which is develop their own system of criteria for these sorts of assessments and measurements that Anna has raised, which are really, really important, systemic measurements that we can make of the benchmarks, from the benchmarks, to the new buildings that we're aspiring to make that will try to solve some of these huge environmental questions.

[03:28:44.58] And you guys have the power to do that. And so I, in a sense, I think the alphabet soup of all the different possible assessment and certification programs are really your way beyond that. You have-- we have the capacity to develop responsive measurement systems using the kind of tools that Anna is talking about and the thinking that she's describing in many of you are, Chris has.

[03:29:14.61] And what I just want to promote is the idea that, in addition to the building and buildings, we're taking something from some other place, as some of you have mentioned, and we can actually demonstrate those sort of entangled relationships with natural systems or, you know, theoretically natural systems, with the buildings that we make. And so that's kind of where I'm coming from. It's not exactly a beef. I know I sound like a pest. But it's really just trying to kind of understand that what the capacity of OBO with its great work, incredibly talented team, a bunch of great advisors, and a lot of projects, how they can be-- demonstrate real systems thinking, even if it's only experimental in a couple of places.

[03:30:02.89] So, Angel, your mention of the project where we're going to restore landscapes as well as building buildings-- and I think it was Delhi-- that's a great example. I think we should do that. And I think we should publicize it because it's really powerful messaging as well as good science and responsible building.

[03:30:19.35] MR. DIZON: It's part of that embassy effect, right, that we're doing more than just putting the buildings down. And what you're describing is exactly the conversations that Rick and I have been having is that we're-- our organization is maturing beyond the sort of certificates that are kind of out there and that because our stuff is unique and that's kind of how we think about it, especially in all the different kind of locations that we're in is we could start to set a baseline of what our expectations are for what those buildings will be that aren't connected to the ways that are traditionally being done. But because they're important to us in the sort of diplomatic realm that we want to make sure that we're hitting on these particular topics.

[03:30:57.44] So, you know, Christy, one thing I will put down as a marker for one of the roundtables is exactly what Alan and Anna were both describing is that is there a set of requirements from which we want to



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build, you know? What are those things that are important to us? And then how do we narrate that to our consultants and contractors?

[03:31:19.63] Because part of what we're going to have to do is we're have to start telling people, hey, we're moving down this path and you have to tell them the why, right, why is this important for us, why is it important for the State Department, and why is it important for the planet. And then start to implement these things in a way that's digestible and attainable by the folks that are building and maintaining it. So I think you're right on, Alan, this is exactly where we want to be, and the reason why we have these conversations. So the next one, Christy, not this afternoon, but it's really starting to talk about what are the kinds of things that we want to start baking into our requirements.

[03:31:54.06] MR. ORGANSCHI: Yeah, and if I could just say one more real quick thing about this idea of the kind of front-loaded carbon spike that this huge global building boom is going to produce through just embodied emissions at the first stage of building lifecycle. I think what Kimberly said is fundamental. Like, yes, we're building for people. Absolutely. And we want to make beautiful things that are effective.

[03:32:15.54] But we don't want to create a bunch of impact right at the beginning of what we build and then spend decades trying to pay off that impact through efficient operations. So we have to focus on decarbonization because without decarbonization, we don't really-- we aren't really, truly solving building problems for people. We're actually creating more.

[03:32:36.67] And so I just really want-- I want to highlight what she said-- this decarbonization problem. I don't mean to just harp on that. But that's the first step. Because we can't get that right, we're going to create a whole bunch of impacts. So that's my carbon spike question here, and I just wanted to clarify that.

[03:32:53.42] MS. WEISZ: Can I jump in and say two words for the 400 and something people and all of us and all the firms? So the magical thing, I think, about this discussion is that the only way that's going to happen is if a lot more people are trained and are meant to think this way, but also to have the ability to be part of this decarbonization. So it can't just be about, like, you know, things. But it really has to be about more people being able to answer these questions. And I think that's what's really exciting about this portfolio is it really touches so many people in the industry in all of these different countries.

[03:33:39.78] MR. DIZON: Yeah, you know what's funny is that for Alan, the reason why you're here is because we had read some stuff about the work that you were doing in Timber City. And we're, like, we got to talk to this guy, see what he's doing because I think it has a big impact on our portfolio. And that's kind of why you're here and why we want to have these conversations with everybody else that's on the panel. I think we have a really good shot of making a really big difference and leading, at least in thought if not in action, in all these different kinds of things and being an example to those different cities that we're going to be working.

[03:34:16.91] That's kind of one of the cool things about the work that we do is that they're all over the world. And I'll tell you that ambassadors, when they're doing ribbon cutting and certainly when they're inviting guests over to come to the embassy, they talk about our buildings. It's a way to open up the conversation.

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They're talking about the art. They're talking about the architecture. It's really what we're talking about there in the embassy.

[03:34:35.12] It's the beginnings of starting that dialogue that is diplomacy but based on the kinds of things that, obviously, are important to us, that are probably, could be impactful to them.

[03:34:44.27] MS. FOUSHEE: Yeah.

[03:34:45.26] MR. DIZON: Christy, [INAUDIBLE].

[03:34:46.89] MS. GRAY: May I just say one quick thing--

[03:34:48.36] MR. DIZON: Please.

[03:34:48.76] MS. GRAY: --Angel? Because I think Alan mentioned that he didn't mean to harp on rapid and deep decarbonization, but I do. I absolutely mean to harp on it because it's going to be really hard for us to do. And we keep kicking the can down the road, and that's what we have to stop.

[03:35:05.93] And I hope that's what OBO was going to, you know, is going to take this executive order-- and Biden has really embraced it-- and say, this is what we're going to do because it's going to be-- it's politically really difficult because it's-- the fossil fuel companies are not embracing this. So I will harp on it. I think it's what we have to do immediately, what we have to do yesterday, and it's really hard.

[03:35:31.94] MR. DIZON: It is hard. But if it was easy we would have done it a few years ago, right? So it's OK that it's hard. I think we get-- well, I don't think I do, but I think most of us get paid enough to do something that's really hard. So I think that's completely fine.

[03:35:42.92] And, you know, some of the things that we're doing it's-- some of the work that we're aspiring to do, especially around mass timber, isn't necessarily because of the things that you're talking about but because of the other things that it does, too, in terms of the things that we want to do. Like if we want to build faster, cheaper, with better quality and start to leverage off-site manufacturing in the work that we do, mass timber plays a really significant role in that. Imagine right now when we talk about the economic effect for embassy effect, 25% to 35% of the costs of construction go straight into those cities overseas because we're buying materials, we're buying labor.

[03:36:18.65] What if that percentage of money is going to places here in the United States because of the things that you guys are talking about, and we're doing it here? We could increase quality. If you're building stuff in a factory, we can make sure things are being done the right way, the kinds of inspections that we want to do from a security perspective. There's a lot of things. There's, a lot of benefits beyond the things that you're talking about on carbon that are really kind of extra added benefits to some of the approaches that you guys have raised today.

[03:36:44.23] MS. FOUSHEE: You know, I think these are all such great points. And I want to let Stacy Smedley come on. And she's had her hand raised for a little bit and--

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[03:36:53.18] [INTERPOSING VOICES]

[03:36:55.50] MS. FOUSHEE: --ask her about carbon. So I want to make sure she gets a word.

[03:36:59.96] MS. SMEDLEY: I just want to say, I think I want to make the point that it is true that OBO should and can be a leader in this. But there are private owners that have portfolios that are also global that are tackling this right now, putting together language to address this and really trying to come up with the right way to approach this for the design community. And the more we can align and harmonize that from private to public and make sure those same assets and requirements are harmonized, the faster we're going to make these impacts and the faster we're going to decarbonize because the market signal is going to be clear, and the message is going to be the same. So I just want to put that out there.

[03:37:35.44] The working group, please put me on it because we've got the connections with those private companies that also are working all over the world trying to address this. And I think there's a real power trying to bring all that together. So it's intergovernmental but also public and private when it comes to how we're proposing this language and the requirements.

[03:37:52.73] MS. FOUSHEE: Now and it's funny this conversation, and Angel and Curtis and I were just on a conversation with the group designed for freedom and talking about a different issue, but it's combating modern slavery through material purchases. And it's we kind of came to the same thing-- that it's maybe more expensive to do it the right way. It's maybe-- but we're at a point where, is that really even the point of the question?

[03:38:20.20] There is the right way to do it, and we just have to do it. And Glennon Doyle tells us we can do hard things. So we can take the time.

[03:38:29.64] We have a few more questions. We have about 10 minutes left or 10 or so minutes left in this session as we're focused on the carbon piece. I was going to-- Curtis, someone asked that-- they asked the question that you mentioned savings against a baseline but especially since performance targets were emphasized earlier, why is the carbon target not performance based? I thought maybe you guys could [INAUDIBLE].

[03:38:54.61] MR. CLAY: Well, it could be. It very well could be. And, yeah, I did see that question and measuring backwards from zero to where we are is the other way to do it. So I think that's definitely a feasible approach is looking at what our emissions are and then figure out how to get it down to zero. So rather than sort of here's where we are, what can we reduce it to, I was specifically purposely measuring the reduction. But, absolutely, they could be performance based.

[03:39:23.87] MR. SULLIVAN: I think there's two parts of this. You know our building program is one thing. Our existing facilities is another, right, or follow-on renovation type of projects. So there's multiple ways to look at this, and we'll get there.

[03:39:38.99] MS. FOUSHEE: And there's a couple of questions, I'm going to kind of group them together. But I think they're important to address because the reason we open these meetings and this conversation up to

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the public is so people have a sense of what the professional and the academic world is advising the government, what we're hearing, what we're listening, and how we're responding. And some of these questions are to the point of how are we capturing this information and what are we doing with it? So I did want to kind of throw those out add a little bit and then open it up to our folks to respond.

[03:40:06.87] But two of the questions are, can collaboration with industry slash academic partners add unstructured or detail to a portfolio of 167 facilities, many of which are existing conditions and benchmarks for LEED improvements? A learning and documenting process required to model existing portfolio to foster future OBO careers is one of the questions.

[03:40:29.32] And another one was, what is the process for engaging with industry and gathering feedback as the sustainability plan is developed based on these new goals and executive order? So I just wanted to take a moment to talk about what we do with this information following this session and how we keep the public apprised of this process. So these annual meetings that are open to the public, this conversation is recorded. We capture the recommendations ultimately that are made, and then we report annually on what we accept, what we're still reviewing, and what we have said we're not going to accept. Those are all tracked through a process done annually the GSA manages for all Federal Advisory committees.

[03:41:10.98] So for those of you that are on and you want to stay tuned with this, we also put reports out at the end of the year that talk more about what we're doing. In addition, like Angel mentioned, this roundtable we offered that we probably should do that on design criteria, we would open that up to the public so you could attend if you'd like. We also then do that readout. So that earlier session with the IAG were they kind of read out the projects and programs they talked about, that roundtable would be a part of that open session.

[03:41:39.27] So there is a formal process for organizing these conversations. So I did want to make sure that those listening that want to know more, that they can. And then I also just kind of wanted to open it up to you, Angel, if you wanted to comment on that.

[03:41:54.19] And I did want to add one other piece. This is more of a comment than it is a question. But I thought it was a really good one, and I wanted to make sure I left it with you guys. Is OBO positioned to be the spearhead of the U.S. AEC industry best practices for design and construction due to our broad stakeholders and extreme remote sites, constraints, and program? So I thought you would have a comment on that.

[03:42:17.76] MR. DIZON: The answer is, hell, yeah. You know we-- yeah, that being one of the things that--

[03:42:23.16] MS. FOUSHEE: Don't make us start bleeping you.

[03:42:24.99] MR. DIZON: No, I'm not going to-- I didn't do anything. I just said, hell, heck, yeah.

[03:42:29.54] You know, one of the things that sort of Christy had written in the notes prior to this was talking about being the best in government, which is a good goal but, I think, small in what we're trying to achieve. I want to really be working towards being the best in industry and that's kind of where, I think, we

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should be. We have a platform like not a lot of other people do. And that's why I think we can be a spearhead for this and be a bellwether for some of the things that we're talking about here.

[03:42:57.30] You know, Christy and I joke all the time that people answer our calls all the time. You call and say, it's the State Department, they'll pick up. If it's just me by myself, no one's answering that phone maybe because they think we're checking on their visa or their passport or something. But they always pick up the phone.

[03:43:11.15] And then we press a little bit about, you know, hey, we want to talk to you about this, we want to talk to you about that. And that's kind of how all these things have started. We've not been laser focused and going, OK, I know what I want to do, and let me go find the right people. It hasn't been that.

[03:43:24.89] It's been this sort of casual collaboration with a bunch of the folks that you're seeing on the call today, asking them questions that we don't have the answers to, and say, hey, do you think you can help us? And it's proven to be wildly successful. And what's cool-- and one of the things that we look for in our organization is we look for people that are passionate about our work. It makes your life so much easier people care about what you do the same way that you do.

[03:43:51.03] And when we start talking about some of the things that we're talking about today, you can hear from them. They are crazy passionate about the things that they're doing and are taking that passion sort of layer it in on the work that we do. So, yes, I think we are a leader, but we can be more of a leader in this. I think we have a stage that we need to start using more and that's kind of the conversations that Christy and I have not only domestically, but internationally.

[03:44:17.31] There's a lot of good things happening in the program. We're only recently starting to talk about it. Embassy 2050 is a small sliver of that.

[03:44:24.43] But we were having what Christy was talking about, making sure that the materials that we're using aren't a part of forced labor. There's a lot of things we're already doing in construction to raise the level of-- set to raise, you know, how we deal with people in that atmosphere. And, you know, and a lot of it has to do with making sure that no one's engaging in human trafficking, that there's a certain amount of caloric intake that's expected for all the workers, providing them specific amounts of rest to prepare.

[03:44:55.87] I'll tell you one of the things I'm super crazy proud of. We have about 13,000, 15,000 workers overseas. And, you know, construction workers overseas and our construction facilities and security management group has, in working with the State Department, have vaccinated 90% of them. That's huge. That's absolutely huge.

[03:45:16.02] And 90% is better than most states that we have, if not better than all the states. That's a huge number. Imagine what you're able to do to ensure that those people that are working on our projects not only are able to do our projects but continue to be able to provide a platform to make sure that their family is fed and whatever. So we're doing some really wonderful things here.



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[03:45:35.33] We need to talk about the border. We need to do more. It's not enough for us to do good projects. We need to be doing good in the world in the way that I think everybody has talked about today.

[03:45:45.71] MS. FOUSHEE: Thanks guys. The next question, I think it's a two-part one, and the second part is really important, I think, for a lot of folks. We're talking about a lot of great ideas, but how do they participate? How do they get contracts to do this work with us? And what will be the mechanisms for this to happen?

[03:46:00.43] So the first part of the question is, will we begin to now see more and more smaller projects utilizing photovoltaic green roofs, wind power, recycled materials, et cetera? And if so, will there be put in place an IDIQ contract for just these type of projects? And, Angel, maybe in addition to answering, maybe you guys can talk a little bit about the net zero potential for some of our smaller posts.

[03:46:23.55] MR. DIZON: Yeah, so I'm going to-- one quick little story. One of the things that we ask employees when they want to work here is, you know, why do you want to work here? It's a really simple question, but people mess it up. And so one of the things that we ask is, why do you want to work here? If they say, we love to travel, or I need to get a pay raise, that's an automatic no. And so your question is actually phrased the right way, right? So you're not asking about, hey, how do I make money? You're talking about, hey, how's this opportunity [INAUDIBLE] so--

[03:46:47.67] MS. FOUSHEE: Too bad it was anonymous. They don't get-- oh no, it's not. Good.

[03:46:50.34] MR. DIZON: Scott's got his name on there. He's put himself out there. So the first one about, you know, will there be more smaller projects? The answer is yes.

[03:46:58.89] Rick's team was actually working towards that. There's a whole thing called the energy program where we're starting to do a lot more of that. I'm going to turn that over to Rick. This is an easy one for you, Rick. It's called softball.

[03:47:06.24] MR. SULLIVAN: I could hit this one.

[03:47:07.32] MR. DIZON: Yeah, so go ahead and knock this one out of the park and tell them what we're doing and what we're moving towards.

[03:47:11.28] MR. SULLIVAN: I mean, largely, for us, it comes down to budget, right? One of the great things about the executive order and this current push with the administration is they specifically asked us to ask for what we needed in our budget to execute. Right now, you guys all probably understand the government budget process. It's long. And a lot of people could knock things down.

[03:47:36.39] Right now, or ask us still in the budget for 2023. It's not happening overnight just because of the process. But that's in staffing and money for the program, studies, and for projects. Long ways to go before we actually see that money, but right now, it's hopeful, and it looks good.

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[03:47:54.27] We've had an energy program that's done photovoltaic projects fairly consistently for the last 10 years plus. But we've only had funding for three, two, three, maybe for a year. When you talk a portfolio as large as ours, that's a small drop in the bucket for where we need to get to.

[03:48:15.06] Our capital projects have been doing these renewable energy for quite some time as well, which certainly helps. But we're hoping we can ramp that up significantly over the years. Don't have the money yet, so like I said, the history-- the government's, you know, kind of famous for unfunded mandates. They say you have to do something, but they don't fund it. So far, it's looking good for getting this funding through. Yet to be seen.

[03:48:40.89] MR. CLAY: In the last part of that, Rick, in the IDIQ contract for this, you have any comments on that part of it?

[03:48:47.47] MR. SULLIVAN: For IDIQ contracts, in the past, we did have a specific IDIQ contract for energy and sustainability. I think, for various reasons, you know, with our contracting office bureau that we deal with for a contract, that kind of fell off. I would love to have a specific IDIQ for this type of work because I think it's fairly specialized, especially the renovation type of work. Yet to be seen whether we'll do that, though. I think it's a good idea.

[03:49:18.74] MR. DIZON: Rick, the way that I would have answered this question is yes and yes. And the reason being is that what we're not, you know, when we talked about these different facets of sustainability and the kinds of things we're talking about, it's not only one thing, right? So it's not about-- I think what you're talking about here is, it's not about selling PV. It's about selling energy independence. And that's what people can get their head around.

[03:49:40.24] So when we were talking about sustainability in the past and trying to be a good neighbor, those kinds of things, what we've added to that conversation is that we can be in a position to make sure that we're not reliant on host government for energy. And there are some countries that, you can believe it or not, aren't big fans of ours. And so they do. They turn off the power. And we have to run diesel generators, and the trucks come in.

[03:49:58.65] So if you can be in a position where you're adding PV in a place that is like that and what you're selling is really kind of energy independence, that's huge for us. And I think that's what people will buy. So, like, at the project level, we're pushing our minimums in terms of scale of those PVs because we see the value in doing it.

[03:50:15.54] You know, Rick's team on this energy program has done some PV in the South Pacific and pretty small post with big land. And we're, I think, we're going to be at net zero when those projects are finished. That's exactly kind of where we want to be. And then in terms of an IDIQ, yes, that's where I want to be, too.

[03:50:33.33] I think you have to start building momentum on this and take advantage of the sort of situation that we're in. Build upon it so that in the future, it is something that we are doing. And it's hard to say it's not

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the right thing to make sure that we're independent of the sort of energy constraints that might be available in a particular country of ours. So I'd say yes, yes in a very fun kind of way. All right, Christy, go.

[03:50:57.66] MS. FOUSHEE: All right.

[03:50:58.52] MR. DIZON: Hey, by the way, it's 12:52 EST, and I'm starving. So I want to know what other questions we have.

[03:51:05.25] MS. FOUSHEE: Well, you got to hang around for the public and industry.

[03:51:06.99] MR. DIZON: I know this. And no sandwiches are here. I don't know what's going on.

[03:51:09.99] MS. FOUSHEE: All right. OK. I'm going to ask one more question before we close this out, and it's a question about our London embassy. And I did want to make sure that we got that answer out. Speaking of LEED, have other sustainable certifications been considered? For example, BREEAM? And they wanted to know if the London Embassy was going to be BREEAM certified, and I know it was. So I'm going to let Curtis or Rick confirm.

[03:51:33.20] MR. CLAY: Yeah, normally our, you know, our requirement is to meet the federal performance goals, and we use LEED universally as our way to meet those performance goals. We're not required to use LEED, but that's what we have as an organization decided to use. But we went out to bring certification, and we're actually considering some projects a WELL certification. So absolutely, we consider alternative certifications on our projects.

[03:51:58.75] MS. FOUSHEE: OK. And London was BREEAM, right? Wasn't it BREEAM outstanding?

[03:52:04.09] MR. SULLIVAN: BREEAM outstanding.

[03:52:05.02] MS. FOUSHEE: Outstanding, yeah. That's what I thought. OK, Great.

[03:52:07.15] MR. SULLIVAN: Like a performance review.

[03:52:11.74] MS. FOUSHEE: OK. So I did want to give Dean Boone an opportunity to come back on. I know his hand was raised. I don't know if that was from a little bit ago, but I did notice it, so I did want to see if anybody wants to have any last words. But I will open it up to him first.

[03:52:25.21] MR. BOONE: Yeah, just quickly, I wanted to comment on one of the questions about OBO careers, and I think we focus a lot, rightly, on thinking about a 50-year time horizon for the buildings and the campuses and so forth. But I think it's worth thinking about a 50-year time horizon for what the careers are there, that are going to be supported by that work, and what's necessary to make it successful.

[03:52:44.41] Again, I just want to reiterate, there's whole wave of people coming, who are really looking for these kinds of opportunities. So thanks.

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[03:52:51.25] MS. FOUSHEE: No, I'm actually-- it's funny. Angel and I met Dean Boone because we went out to say, hey, we want to talk to you about recruiting and programs. And one of the things that is really important to our front office has been, for a few years now, is this recruiting aspect, because with the understanding that we have to listen and make change and follow what you guys are doing, we're going to have to have people here to care and want to implement those important changes. And it's no small thing, as Kimberly said, on both sides of it.

[03:53:25.53] So we are actively recruiting. And actually, I'll put this out to the IG-- many of you are alumni, and some of you have kindly connected us to your career fairs or invited us to join you on a panel to talk about opportunities to work here. But we've got a really active social media campaign for recruiting. If any of you guys could share those jobs, we'd really appreciate it because I think it's a really great point that it's great for us to set all these standards, but we have to have people here in the seats to be able to execute them and care enough about them here to keep moving them. And I think we can all attest it's a great place to work.

[03:54:05.42] So join us, but I'm glad you mentioned that. Thank you.

[03:54:09.58] MR. DIZON: Christy, I would add one thing, it's a thing that sort of Kimberly mentioned during Embassy 2050. When we're talking about recruiting people, it's also about-- it's changing the culture of the way that we think about doing this job. And that's harder. And so I think part of it is recruiting the right kinds of people that have the right kinds of skills that move us forward, and the other one is to take our existing staff and make sure they understand the value of the work that they're doing and how they all kind of work in this broader system, in the way that sort of Anna described.

[03:54:40.64] So anyway, yeah, I think this is the marker for a whole lot of awesome things that are moving our way in the future.

[03:54:47.31] MS. FOUSHEE: Awesome. And actually, that's a great segue into our last session, which is the opportunity for us to put the questions from those that have been listening patiently and intently for the past couple of hours to get their feedback to you guys, to end back to them.

[03:55:06.54] So the first one that I'm going to put out, I'm going to ask Henry, and Victoria, Angel, Tracy, Adam, Jeff, if you guys want to contribute to this, and maybe we first turn over to Victoria or Henry. But the question was a really good one. It was "Is OBO exploring change management strategies within the organization? A lot of these ambitious ideas and systems have been present in design explorations, but there is often a hesitancy within OBO to do something new. Change is hard, so this must be a part of the implementation plan."

[03:55:37.67] I thought this was a great way for us to kind of kick off all these things we're going to talk about, so I'd like to turn it over to some of our leadership to comment on that. I know we're doing a lot of great things, and--

[03:55:48.10] MR. JARDINE: Christie, I'll just say a word to you, then pass it over to Victoria, if she's available. But you know, yes, change in a large organization, a large government bureau is quite hard. You know, I came on board in 2018, and the team here was already discussing about reimagining the organization

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and how we could try to adapt and bring change into what we do, improve our process, and innovate. And so there was an effort to try to look across, basically, five broad areas that we thought were priorities for us.

[03:56:21.55] And one area was the Embassy After Next, which, again, Angel and his team had been looking at and sort of using that approach, that idea of "how do we think longer term" and feeding that into and operationalizing it through the Embassy 2050 approach. We also looked at how we could enhance what we do with our residences. We talk a lot about the buildings, but we have something like 16,000 leased or owned properties, and a vast majority of that is our residences. And we focus a lot on these buildings where people work, but we also have to think about the conditions they're living in. And so we wanted to look at better approaches to managing that.

[03:57:06.16] The other aspect of what we realized we needed to adapt to was just, again, we focus a lot on the new facilities and trying to make them better. But we're in a lot of existing facilities. How do we maintain them more effectively? What are the approaches we should be taking for that? And then, as discussed, the idea about people and how do we think about the skills we have and the skills we should have and the people we want to try to open ourselves up to, get a cross-section of skills from people across the United States.

[03:57:38.56] And then yeah, the fundamental piece is also data. We talked a lot about data. So, you know, we looked at across all these five areas, and then working in various teams, trying to incorporate some of these ideas, new ideas, approaches that we could take. And it's a slow process. You know that is the challenge within government-- you operate within certain constraints, whether regulations, laws, or just the nature of how we change our staffing and personnel.

[03:58:07.74] So you know, there have been some constraints. But it is something that we're very aware of. We've tried to be very strategic about it, and I think we, over the last few years, have made some significant changes and strides in incorporating and adapting approaches to change.

[03:58:20.99] So just throw that over to Victoria, if she had any additional thoughts on it. Thanks.

[03:58:25.51] MS. HARTKE: Thanks, Henry. And I do think, when I hear the word "change management," and I think about how we're applying it in these instances that we've been talking about today-- mass timber, offsite manufacturing, climate-- that really just touches-- like, skims the top of what I think we're doing and the culture of change that we have at OBO. I really believe we are a learning organization. I believe that a lot of the efforts at the grassroots level, from planning, to looking at how we operate our facilities, to looking at transitions to commissioning, looking at ways to improve process-- obviously focusing on scope, schedule, and budget, that type of thing-- but all of the efforts that we've got going on behind the scenes really are evidence of a culture of change and a culture of continuous improvement.

[03:59:18.97] And something that we didn't talk about-- and it's probably a little bit too inside baseball for this group today-- but we have a series of Talent Management Advisory committees that are working to reinforce. So things like recruitment, retention, recognition, a lot, diversity, equity, inclusion, accessibility. All of these things that we're working on, that sort of support this environment of continual growth and continual change, really kind of are mutually reinforcing.



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[03:59:48.74] So you see it, it's bubbling up in some of these individual programs, where we're really trying to look at what industry is doing and how we can partner and learn from industry. But I think there's a sustained sort of culture of change that really exists in OBO we're really trying to capitalize, and I think you're seeing results already.

[04:00:13.35] MS. FOUSHEE: Thanks so much Henry, Victoria. Tracy or Angel, I don't know if you have anything that you want to add, or Adam. If not, we have a lot more questions.

[04:00:22.47] MR. DIZON: Victoria covered the thing that was important, the [INAUDIBLE], which is she gave you the breakdown of it. Yeah, we recognize it's important and we're working towards it in those efforts.

[04:00:33.09] MS. FOUSHEE: Great. OK. Our next question, it's switching gears a little bit, but I did want to give a shout out to Bob Castro, who is also, like many of you on here, a long time friend of OBO's, and thank him for staying so engaged with our program and always interested to connect us to the people that might be helping us move our mission forward. But he asked a really good question.

[04:00:56.04] "For rapidly changing cities-- for example, Hanoi-- or topographies-- climate, hydrology, or natural and built environments-- how can OBO site acquisition staff and architects/engineers supporting projects track evolving site conditions, pre and post-acquisition, that could impact constructibility or security?" So I feel like I could go Jason Dallara or Angel or--

[04:01:24.13] MR. DIZON: Go Jason Dallara. Let him do his thing for 35 minutes, and then we'll wrap up. I'm just kidding.

[04:01:30.48] MS. FOUSHEE: And we'll all be smarter.

[04:01:31.71] MR. DIZON: Yeah. Jason's on, isn't he?

[04:01:33.96] MR. JASON DALLARA: Yeah, no. My warm up is about 35, but I'll try to [INAUDIBLE] that.

[04:01:39.42] MR. DIZON: And you get [INAUDIBLE]

[04:01:40.60] MR. DALLARA: Yeah. So this is-- I mean, there are lots of parts to this. But I would say, for cities like Hanoi, they're incredibly challenging for us on the site acquisition side because they're so big and there's so many different parts of a city. It's kind of like a Washington, DC, for those of you from around here. I mean, there are lots of different parts of DC, lots of neighborhoods, lots of great places to live, right?

[04:02:01.95] But for us, when we think about sites, what we want to think about is connect back to the core mission of the Department of State. I mean, that's what we're all talking about here, right? What is our mission? It's diplomacy. And diplomacy is about people. It's about connecting with people, connecting with governments. So our sites have to be in those kinds of locations. You know, one of the bits, again, talking back again about Washington, DC. You know, you take a place like Tysons Corner or Reston or some of these places in the Metro DC area. I mean, they're great places to live, right?

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[04:02:36.88] You have great housing, great schools, great parks, office, residential. But you know what's not in those places? Embassies aren't in those places, right? And the reason is because it doesn't advance the core mission of embassies. So whatever we're doing, I mean, all of everything that we're talking about today is super important. Every piece of it is important. But we have to remember what the department's core mission is. It's about diplomacy.

[04:03:03.52] And part of that is being in a location that advances diplomacy. So that's about being in the city center, being where governments are, that we can connect with, being where people are, that we can connect with. So that's it, kind of, from the site acquisition side and what we're trying to do with locations.

[04:03:22.54] MR. DIZON: And one of the things that Victoria knows well is that even if we're charging towards a site in a particular city, some governments want to change their capital. That literally happens more than you'd think. And so we have to deal with those kinds of things. But I'll give you one example on understanding this sort of conditions.

[04:03:40.18] We have a-- we're set to make a pretty big investment in Manila. And Victoria's master planning folks are really trying to take a look at what the need was and all these kinds of things, and they engaged our climate security resilience folks, who was also working with DOD, NOAA, Nasa, these others, to find out what we could determine would be sort of sea level rise issues, tsunami kinds of things, at that particular location. And what we found is that in 2050, that where our embassy was was going to be completely underwater due to sea level rise. Our buildings weren't, because we could design our buildings to make sure that we were able to withstand these kinds of things, but everybody else around us was going to be underwater.

[04:04:22.20] So it's this information, I think, that what Jason described, about these sites evolving over 50, 80-year periods. You're not going to be able to-- hell, if I could predict that, I'd probably be working here-- but you have an initial understanding of what this is, try to gather information from technical folks to understand what that is, make sure the security folks are embedded to understand how things are evolving, and then we make the best decisions we can and then, like what you're saying, is you have to consistently start to track that stuff to make sure that we're still in the place that we need to in order to do our jobs or their jobs.

[04:04:55.67] MS. FOUSHEE: OK. We've got-- our next kind of grouping of questions, I think, are going to be interesting. We have a bunch of safety, health, environmental management folks, facility managers, and a lot of people interiors folks that understand the importance of well-being, and also, obviously, our design teams. But there are two questions that were kind of organized in that area. The first one is, "Has an emphasis on connection to nature come up in Embassy Effect or Embassy 2050 discussions as a method to help OBO bridge the gap between climate, diplomacy, community, and health/well-being goals?"

[04:05:33.10] And then the other one is about WELL-certified buildings, and it's, "The OBO programs significantly reach so many sustainable initiatives and human environmental considerations. Do you see WELL Building strategies and standards considered in future metrics?"

[04:05:50.17] MR. DIZON: Yeah. So the answer to both of those is yes. We're looking at them now. The Well Building strategies is something that our interior design group is actually looking at today to see what will be

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incorporated in our standards. And then the-- yeah, thanks, for people that need glasses, like me-- for the biophilic design stuff, yeah, we're looking at that too. There's a whole host of things that we think we should be introducing in the buildings to make sure that we can improve the quality of life for our occupants in the same way that Victoria's team is working on the quality of life for the residential side of the house. But yes, we are looking at both of those things.

[04:06:27.49] MR. SULLIVAN: Let me add real quick-- we do have several WELL and WELL-certified staff, and try to grow that as we go. We're looking at both programs. Whether we incorporate that as a certification that we go after or not is yet to be seen, but we will certainly incorporate the best practices of it at least, if not certification [INAUDIBLE] our standards.

[04:06:49.75] MR. JARDINE: Yeah. And if I could add also, within our organization, we also have a Safety Health Office that does the industrial health and safety issues. And this, in addition to just what we can control with our facilities, one of the challenges we do face is if you look at a lot of the developed countries that we talked about, where there's high concentrations, growing populations, high urban density, especially in Eastern Asia, air quality remains a consistent problem, air quality globally in those areas.

[04:07:19.52] And so we have tried to work with the regional bureaus that do our policy and how we can support them as they try to engage with those governments as well in addressing just air quality writ large. It impacts on the communities there, as well as our diplomatic communities. And so it is a big issue, within the building, around our compound, but then also in how we engage on a policy level with host governments on questions of air quality in general. So I think OBO has a role in so many different levels, when we look at these kinds of environmental issues. Thanks.

[04:07:55.70] MS. FOUSHEE: Thanks, everybody. And Rick, there was the one additional one that asked about the SRP, if you see a change in SRPs overall. I think you generally addressed that, but I don't know if you wanted to add anything to that.

[04:08:06.60] MR. SULLIVAN: Yeah. I think that goes with it. We've been making a lot of changes to our Space Requirements Program, these SRPS, over the years. A lot to create that flexibility that we've been talking about for our portfolio. The world's changing, staffing's changing. We're trying to be as flexible as we can, going forward, for programmatic reasons, but certainly looking at the health and wellness as part of that. We'll certainly be making future changes to that. It's a continuing to develop program for us, keeping them up.

[04:08:37.19] The pandemic kind of opened eyes to certain things, as we felt we were doing quite well in some things. Other things, we could certainly improve upon, and we're making changes consistently to that program to keep up with the best industry practice we can.

[04:08:51.47] MR. DIZON: And Rick, I'll also add that we are the client for a lot of you, but we also have our own clients and that's POST. And POST is made up of not only the State Department, but a whole bunch of other sort of tenants from across government. And so part of our Embassy 2050 effort is not only to understand the drivers that are going to impact the built environment, but to also understand how those drivers are going to impact the way that our tenants are going to be doing their work and the kinds of needs that they're going to have.

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[04:09:20.24] So part of our sort of Phase Two once we start to understand what's happening in the world, is to really talk to all these different kinds of tenants of ours and say, now that you understand that these are the things that are going to be happening in the world over the next 30 years, how is it going to change the way that you work and how does that impact what kinds of spaces that we provide to you in the future? So they're all kind of interconnected. We don't do these things all our own. We have partners in all these different agencies that are responsible for sort of talking to us about their needs.

[04:09:49.67] We standardize a lot of stuff because these buildings have to be flexible, but in many cases, we tune spaces for the particular tenants' requirements in a way that can be continually used and reused in different kinds of ways. So not only are we going to be making changes, but we're going to be talking to our tenants about the kinds of changes that they will need moving forward, especially around health and wellness.

[04:10:13.85] MS. FOUSHEE: Thanks, guys. OK, next group is focused on BIM, which is something we're obviously working on hard here too, and I know there are probably a lot of OBO folks in the audience that are going to be glad to hear this and the other ones that are coming in. This one is "Integrated Project Delivery through GIS-BIM-VDC integration reduces cost/time in design, construction, and maintenance. How are fees being shifted to address initial costs to provide a digital twin, exist conditions, or metrics that lead to more focused sustainable outcomes or solutions?"

[04:10:45.50] MR. DIZON: The fees are increasing. No, I'm just kidding. What they're describing here in this question is what we're moving towards now. So we're not in the neighborhood of digital twins yet, but we see real value in doing so and that's kind of what we're moving our program towards, is building that digital twin so that we can understand all the challenges of actually doing the construction digitally before we ever move it out in the field. So we're moving in that direction. We haven't gotten to a place where we're really understanding what the impacts of the fees are.

[04:11:20.36] Part of what we want to be doing is investing a lot earlier-- a lot of our resources earlier, especially our technical resources earlier to plan and design these things so that when we move it through construction, they're really focused on constructing what's been identified, as opposed to having to manage changes, either from OBO or other kinds of tenants. So we want to put construction in a place where they're going to be most successful in being able to create digital twins, that have all those requirements sort of really fleshed out, is really key for them to be able to just focus on knocking out constructions in these kind of tough environments.

[04:11:58.39] MS. FOUSHEE: OK. The next one is-- sorry. We have a lot of ones coming in. "When AEC vendors or global contractors choose specs or products, are their choices integrated by an OBO library of BIM objects which track material, cost, quantity stats, but also tracking sustainable attributes? Can data be accessed virtually by approved vendors or updated by on-site vendors?"

[04:12:27.14] MR. DIZON: Ricky, you might know more than I do on this one. I do know that we have these big models. I can't say that has sustainability attributes baked into it, but it does have the material cost and quantity information in it.

[04:12:42.06] MR. SULLIVAN: Yeah.



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[04:12:42.20] MR. DIZON: Do you any more on that, Rick?

[04:12:43.97] MR. SULLIVAN: , Yeah we're growing our BIM library as we speak. You're speaking about Embassy 2050 and kind of forward looking and keeping up with technology. BIM, for us, has been one of those great lessons learned for OBO. And the industry has been using this stuff for a long time, and OBO is woefully behind. We played a lot of catch up in the last couple of years to get our BIM standards up to where we need it.

[04:13:08.18] We're not there yet, but we've made a lot of strides on the design side. We're still working towards taking those designs and move it into the construction world, and then, ultimately, to the operational maintenance realm, because that's where it's hugely beneficial. So I think our library is still expanding. We haven't quite gotten to a lot of the equipment level yet, but certainly working towards that.

[04:13:31.35] MR. DIZON: And what I would expect too, is I think some of these questions that maybe we are fumbling to respond to, we would address in writing. I think, Christy's not [INAUDIBLE] sort of approach.

[04:13:40.49] MS. FOUSHEE: Yeah. We're just kind of organizing them by saying-- I think the next one we're going to go to is the REC Program. There was a request to provide an update on the REC Program-- current backlog of work, types of projects under the program, execution strategy, how many firms are currently supporting it, and what has been our experience of the benefits of this program for OBO and the outlook for continuing to use this resource.

[04:14:04.28] I know we have talked a lot, notionally, at a higher level, and I know we are still working on executing this. I don't think it's actually out, but I didn't know if you guys had any updates for the industry partners.

[04:14:15.65] MR. DIZON: Sure. REC is fairly new. It's an idea where we work with our industry partners to execute the work. So what you have to imagine is in the federal government, the Civil Service and all those people working directly in the building isn't growing. But Congress continues to give us money, and there's all these demands for smaller kinds of projects for POST. And so you have 290 missions. You can imagine the amount of workload that we have. And I mentioned before, there's like 600 ongoing projects at any one time, a variety of different scales.

[04:14:50.43] So the REC Program was this idea of reaching out to an IDIQ to actually develop the scope for the project and do the design and actually do the construction with a very, very light touch inside the building in terms of having to manage the effort. And so far, it's not been around for too long, so it's fairly loose. But we're seeing a lot of success in it. Maybe too much success in it. You know, it's actually going really, really well, so we're probably our own worst enemy, so now you have POST coming in, yeah, I want to be part of a REC Program. Like, slow down and wait a minute.

[04:15:24.03] So we've actually completed only three projects. We have another 10 ongoing, six projects kind of ready to go to award. You know, I think I saw the question about the backlog. There isn't really currently a backlog that I'm aware of, but I know there's a story going around like that, but I don't have it here. There's a



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little bit of a slowdown, but a slowdown because there's this thing called COVID, but nothing more than that really. So all those things are kind of moving forward.

[04:15:52.16] We have about seven active contractors today, and the outlook, really, is more about the opportunity of growing that kind of program. So right now, REC is very focused on I think what Rick and I would describe as sort of single discipline kind of projects. We have to kind of go in and sort of fix something, and so it's actually relatively straightforward. We think there's this opportunity of maintaining that, building more of an IDIQ presence for that scale of projects, and then maybe tearing these things up a little bit.

[04:16:22.08] And that's kind of what we're in conversations about now, is there's probably various scales of this kind of REC Program approach that might be beneficial to us, especially on the facility side. So we're just talking about it now. We really want to get a better sense of how this is working, the kinds of adjustments we need to make to the program so that we could deploy it at a bigger scale.

[04:16:44.21] MR. SULLIVAN: That's Rapid Engineering and Construction, for people who don't know what wreck is.

[04:16:47.42] MR. DIZON: Yeah, I didn't know what it meant, so thank you. I was, like, I just called it the REC Program.

[04:16:51.38] MS. FOUSHEE: Rick meant for you, Angel.

[04:16:53.37] MR. DIZON: I thought it was for recreation. I was like, oh, Recreation Program. That sounds fun.

[04:16:56.71] MR. SULLIVAN: No, Angel's right. It was really developed as a way to try to execute smaller projects that are kind of a singular scope-- equipment replacements, tool replacements, generator replacement, stuff like that, in a quicker manner, without the trying to use all the processes that we use for the larger projects. Just try to streamline it. I think it's been fairly successful. A lot of lessons learned over these first couple that we've done. It'll probably evolve a little bit as we go, but I think we see promise at least.

[04:17:28.41] MS. FOUSHEE: Great. Thanks, guys. Moving to our next grouping of FEBR. Everybody's favorite acronym, FEBR. We've got some questions, and the first one is, "Can you provide an update on the--" and for those that don't know, FEBR is the Forced Entry Ballistic Resistance material. So "Can you provide an update on the FEBR program, including engagement of recent 8a awardees, current backlog of FEBR projects, and any challenges experienced by OBO in executing this work."

[04:17:59.46] So I don't-- Tracy or, I don't know, Rick, Angel?

[04:18:06.45] MR. DIZON: Yeah, Tracy's best positioned to answer this, I think.

[04:18:08.61] MS. FOUSHEE: That's what I thought.

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[04:18:11.28] MS. THOMAS: Yeah, good afternoon Yeah, we've got three recent awardees who are 8a. I wouldn't necessarily say we have a backlog. We just survey the conditions and perform the work. So not sure what other kind of information I'm looking for in this question.

[04:18:28.71] MS. FOUSHEE: Right. And then the next question is "As Beijing CMR project shows the delicate balance of public and representational use, access, and private security considerations compared to chanceries, has OBO considered updating CMR--" which is Chief of Mission Residence-- "or DCR, or CGR design standards/utilization for FEBR to incorporate latest industry innovations for safe havens?"

[04:18:54.51] MR. DIZON: And the answer is yes. So all those acronyms are really about just representational housing for the ambassador. You know, we haven't done a lot of Chief of Mission Residences for a super crazy long time. And then all of a sudden, we started to get hit on them. Because what we're seeing is that the representational facility is less residents and much more of a functional building. And so they're obviously being incorporated into our new embassy compounds more and our new consulate compounds more.

[04:19:26.76] And then for Beijing specifically, well, we actually have a contractor that's in place now to actually look at the standards that you're asking about here. Because our standards are still relatively old, especially around these residences, we're beefing it up and so we're actually in the throes of developing more updated standards for those residences and the kinds of security features that are required for them. Because they function in a variety-- I mean, I'm telling you, these things, if you go to a lot of-- those of you that have been to Chief of Mission Resident, there's a small, little three bedroom, two bath thing that is the residence, and then there's this other 6,000-square foot thing that is really for a lot of other kind of public events.

[04:20:03.81] And so not too dissimilar from an embassy. There really needs to be a segregation of these different kinds of functions so that the residents are safe. So yeah, we are looking at the standards today and we're pre-developing. And one of the things that Rick's team has got is we have sort of regular kinds of building standards, and companions to that is, that they're working on, is the residential one and then they're also doing one for special projects. There's only two I know about, but Ricky might know more of the other ones.

[04:20:33.35] MR. SULLIVAN: No, you're absolutely right, Angel. And as far as new products, we try to keep up with industry. We fairly often have vendors reach out to us with new products for us to evaluate and get into our standards. On products like these, when you start talking FEBR, which is Forced Entry Ballistic Resistance, for those that don't know, it's not just a design engineering thing. We have to pull in our security experts. We have an Office of Security Management that helps with this.

[04:21:00.81] And then our partners over in Diplomatic Security, and make sure it meets their standards. And so quite often, there's a pretty robust testing that needs to be going on so our security partners are comfortable that it will meet the standards. And so a lot of this just takes a little bit of time to get through these processes. But once it does, we are more than happy to have a better product selection that might meet the need better.

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[04:21:24.51] These FEBR doors, especially, tend to be very heavy. Not always conducive to a representational type of space. And any time we can improve upon products and still meet our standards, we're all for it.

[04:21:37.34] MS. FOUSHEE: Great. OK. Next few questions-- and we're almost out of time, and I'm surprised. We gave at least 30-plus minutes on this and we still have unanswered questions. But we're going to try to close as many as we can in the last few minutes. This next one is "How much consideration is given when it comes to selecting materials and equipment? Are local label resources taken into consideration when designing a project? What are considered acceptable lead times for engineering, fabrication, and shipping in order to control the critical path?" So two very different questions, but maybe you guys can answer them in one amazing response.

[04:22:14.86] MR. DIZON: I think I'll start a little bit and turn it over to Tracy and Rick. But I could talk a little bit about a process that we have in place now that helps to determine these sort of selections. It's called the Project Development Survey. And essentially, what it does is its main thrust was really to identify how to do business in these particular countries. But what it's been evolving to is really how to execute construction and maintenance, in addition to that in those countries.

[04:22:40.58] And so we've been working with our construction folks and our facility folks to sort of flesh out the questions in there so that we can understand exactly what is being described here in the question, is what are the skills in that country? What are the kinds of resources that are available there? What are those kind of major construction approaches that are executed in that particular country, as well as one of the maintenance services and skill sets of the post,

[04:23:05.44] And so those things start to inform the kinds of decisions that we make here, because what we recognize-- and Tracy certainly does-- is that we're not building these things in the United States, and so we need to be making decisions here that we know are going to be executable in the future. But I'll turn it over to Rick first, and then turn it over to Tracy.

[04:23:26.10] MR. SULLIVAN: I think you hit it there, Angel. Like I said, we try to come up with this data with our Project Development Survey along with our facilities team. We do survey the facility manager out of post, when we're working on the initial designs. A lot of us toughing out. Some places, there just aren't any local labor resources or materials made in that place. Then we try to look regionally the best we can. We certainly have a challenge in that some of our secure areas of the building getting local material versus U.S. material. But it's certainly something we look to do. I'll let Tracy try to elaborate on that a little bit, but we're doing a lot better on that than we used to.

[04:24:12.43] And a part of it is our contracting rules. Like I said, the government, we have a federal acquisition regulations that we have to follow. But we're working on it.

[04:24:20.30] MR. DIZON: And Rick, one of the things that we've been adding to the design process are those constructive reviews, those maintenance reviews, obviously having those team members a part of design conversations super early in concept so that as it moves through the process, Tracy and her team have already

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been involved so that what they're picking up on the backend is already something that we know that is executable. Tracy.

[04:24:47.94] MS. THOMAS: Yeah, thanks guys. I'll take the answer in a couple of different directions, as well, to flesh out. Final selection of materials and equipment is proposed by our contracting partners, and so they have a voice in how it's selected. Something that we're trying to change on that is to add a performance measure related to which equipment is selected, can it be maintained? And so it can't just be, what's the performance of the equipment related to whatever, HVAC or electronic performance or whatnot?

[04:25:28.03] But for an elevator, for example, you have to select one that also, in the future, can be maintained. So what's the response time from a local supplier? So that's something we're trying to add around performance. I think as far as use of local materials, that, of course, is a huge lead benefit. But then you balance that, again, against what's available and that kind of thing.

[04:25:53.72] As far as this answer-- this question, engineering, fabrication, and shipping, the question is a little confusing to me. What's acceptable lead time? I mean, it is what's required. This is one of the biggest challenges working overseas, is understanding supply chain logistics management. And so when proposals come in, in a best value kind of scenario, we look for our contracting partners to understand those challenges and tell us what that's going to look like for their engineering, fabrication, and shipping.

[04:26:27.44] Regards to design, those designs that have bespoke elements take longer fabrication. Of course, that's going to have a longer impact to get it to the field. Hope that answers Jason's question.

[04:26:42.59] MR. DIZON: Yeah, Tracy, just to add. Like you said, we largely leave that up to our contracts. On the larger projects, we leave that to the contractors and they need to order the material soon enough, to deliver on site soon enough to not impact that critical path. Smaller projects, we have a little more plan that we have to understand what those lead times are. But largely, we kind of leave it up to the contractors, I believe.

[04:27:06.58] MS. THOMAS: And I'll add to that as well. Different contractors take a different approach on what do you include in early design package. And some of it is siteworks, but sometimes, it's better to get ready for the buyout for electrical/mechanical, so you want to make those selections in an early design package, so that you get to jump on the supply chain.

[04:27:29.79] MS. FOUSHEE: We're almost out of time. I'm going to close with-- we've got one more question on commissioning. And then Rick, there's a question on us adopting UN sustainable development goals in our standards. I'm going to ask that one last, but I'm giving you a heads up so you know it's coming to you. OK, Tracy, commissioning. I know it's one of your favorite topics, so I did want to miss it for you.

[04:27:53.62] MS. THOMAS: Thank you. "Safeguards in place." "Commissioning can suffer when it's not performed by a completely disinterested third party." Yeah, we've got a third party commissioning on our projects. It's not something that's tacked on to the end of a project. It's got to be considered from the day one of the design criteria, straight through to design development, mobilized to the field. The QC program has to

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be robust to make sure all the systems are in place on every functional test, and then you move in a performance test, and then you have a commissioned project. So it is third party.

[04:28:29.51] We've also added on, in recent years, tried to strengthen our warranty management programs, and we implemented a operation and maintenance transition coordinator so that when a project is commissioned and turned over to the operational maintenance staff, they've got oversight of someone that's been involved in construction in the last year and can carry it through to the opening part of operations.

[04:28:54.55] What language, controls, or oversight is in place to reduce the risk? Yeah, third party commissioning. That's what we're doing.

[04:29:01.93] MS. FOUSHEE: Great. OK. Next is-- Rick, you're the last one. "How much consideration is given when it comes to selecting material or--" No, no. Wrong one. You're the other one. I'll read it. "Has the OBO considered aligning and informing the development of the design standards and criteria with the UN Sustainable Development Goals, which is more broader than the other reference standards?"

[04:29:25.14] MR. SULLIVAN: We have not looked at that to date. Not saying that we won't.

[04:29:28.98] MS. FOUSHEE: Well, you got the call.

[04:29:30.93] MR. SULLIVAN: We do look at international standards at places. Some local municipalities enforce local standards sometimes. We see that in Europe, especially. We see that a lot with fire codes and sometimes electrical codes. Maybe not necessarily in our ability, but sometimes how we connect to local utilities. Certainly not opposed to looking at international standards, when it makes sense.

[04:29:57.06] MS. FOUSHEE: And Henry, we didn't have time for it, but there was a question on hiring and the age restriction at 59, and we should look into that. So I'm going to send that your way too. I'm really glad, because I think there isn't enough time for the public to push government the way that they should. So we're going to keep all your questions where, if we didn't get to answer them now, we're going to make sure that we do. We're so appreciative of you guys watching us and staying involved with our program. We are better because you're involved and engaged and push and ask us to do better things, and we work for you.

[04:30:31.57] So I just want to thank you all so much for your really thoughtful questions and for listening in to and being interested in what we do. If you want to know more or you want to work with us, there are a couple of opportunities. We host monthly capabilities conversations. It's a very weird name for something that's really awesome for you. It gives you a chance to come in and tell us about who you are, what you focus on, and how you might want to work with us. And then you get to interface with our leadership, many of the people who were on the meeting today, sit-in, and then talk to you about the things that they're focused on in your particular areas.

[04:31:10.50] Lauren Luckett from External Affairs runs that whole program. She does a great job, but she's very responsive. You could email her too if you have questions. She's going to be mad at me for saying that, but definitely get in touch with her if you're not getting what you need. But you can register your company, you can watch some presentations about us, and then sign up to attend the next available session.



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[04:31:30.48] We also have a pretty active social media presence. We try to keep you guys up to date on awards that are coming out or awards that are made, just big happenings. We recently are really proud that our new U.S. Consulate General in Matamoros was awarded the Chicago Athenaeum International Design Award. So we kind of let you know about all those things.

[04:31:53.22] And then we work with you in professional organizations as well. We take this show on the road and go talk about what we do there, so join us at one of your professional organizations. And then finally, keep us honest. So if we're getting you what you need, say it. If we're not, say it, and we'll keep trying to amend this and make it beneficial for you. I do want to, before I turn it over to Henry, thank an incredible team that comes together to put this on. Andrew West and Ashley Miller and Lauren Luckett, and all of the support team in EAA, Crystal Villanueva, Tamisha Thompson, Rachel Yates.

[04:32:35.49] They all work really hard to make sure that this is live, running, and the videos. I mostly want to thank Kelly Dowd for her incredible work on the global drivers video that she did, and all of the actors that you know, quit their day job for hour to be interviewed. So thanks, everybody. We look forward to doing this again for you shortly. We're going to try to do it more than once a year on the virtual platform. Henry talked about increased engagement. I think Will's going to keep us honest on that. And we already talked about a roundtable that we'll put together soon. So we won't be too long before we see you again.

[04:33:11.19] But Henry, I'm going to let you close this out.

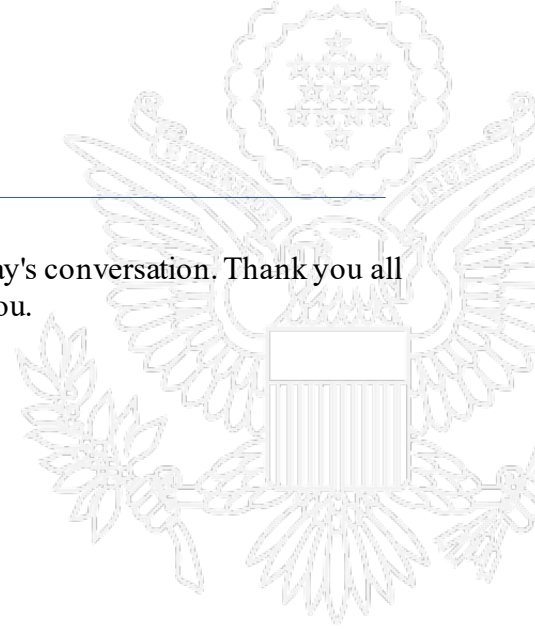
[04:33:14.47] MR. JARDINE: Christy, thank you very much. I won't be too long, because I know Angel wants to have his lunch. He wants to keep this healthy figure. But I hope our many participants today found the program very interesting, informative. It certainly was informative for me. OBO's such a large organization that it's always a learning experience just to understand the scope of what we're doing. And I think you were able to see just how expansive our portfolio is, how our impact is global. And I think you also had a chance, those who participated in the various reviews, but those others seeing just how those reviews and the other engagements, conversations we're having, just how much the IAG input and guidance means to us and how it shapes our projects in the work that we do.

[04:33:57.93] And I think you get a sense, too, just how multilayered and significant the impact is of the work that we're doing globally, and the impact that we have on so many different communities, and how much we're doing to adapt, innovate, and understand future challenges, especially in relation to climate change. As Christy was saying, I look forward to continue dynamic collaborations with the IAG in the coming year, and really drawing on the expertise of all of you because it's so extensive and so valuable for us to have that feedback.

[04:34:29.56] So in closing, I want to thank the IAG members again, our OBO leadership, our OBO team, the panelists and presenters. But most importantly, I would really want to thank our External Affairs Director, Christy Foushee. As you can see, she was really tireless in herding us cats and overcoming our learned helplessness when it comes to technology. So this would not have been possible without her and without her outstanding External Affairs team, which she also had highlighted.

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[04:34:59.53] So I really want to thank them. And again, I really enjoyed today's conversation. Thank you all very much for coming. And this concludes our annual IAG meeting. Thank you.



Certified as accurate in accordance with 41 C.F.R. § 102-3.165.

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Debra Lehman-Smith

X 10/26/2021  
Date