Owner's Roundtable #1: Deciding To Do It - How Owners Choose Passive House

Insights from the virtual conference

Passive House 2020: Choose Your Future



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Introduction

A climate emergency, global pandemic and social crises ask: How will you change? What will you choose to do? #PH2020, embraced these tough fundamental questions and provided participants with actionable answers. A goal of the conference was for attendees to achieve clarity about the role of Passive House, in conversation with building developers who've done it, through a series of owner roundtable discussions. Industry leaders shared the inside story and discussed important themes such as opportunities to leverage changing public policies, consumer awareness, and industry competence, to make built environments that support the business and life goals most meaningful to all of us. Owners shared how they think about Passive House, what's involved in the process of taking on something like Passive House, and then what choices and decisions they made along the way.

This is the first of a series of three eBooks which will provide you with highlights of the Owner's Roundtable Sessions.

The formula is simple: put together a group of experts and ask them to share their insights and experiences bringing their projects from concept to implementation. Panels are moderated by Beth Eckenrode, Co-founder of Auros Group, and consist of guests with diverse backgrounds, perspectives and experiences in Passive House.

During this first session, Owner's Roundtable #1: Deciding To Do It - How Owners Choose Passive House, five panelists explored how owners decide to pursue the Passive House Standard and the role that certification plays in team clarity and decision making. What are the benefits? In this conversation, building developers lay out their criteria and process, while the audience chimed in to share their own experiences and perspectives.



Subsequently, in Owner's Roundtable #2: How Owners' Do it. Making Passive House Good Business, the roundtable explores how owners go from concept to implementation and talks about the process of going through design, construction, and commissioning on a Passive House project.

In Owner's Roundtable #3: Owner's Feedback Loop: Occupancy, Measurement, and Management, panelists explore what owners and developers should consider when it comes to operations.

Together the three roundtables and eBooks provide a full picture of the challenges, opportunities and decisions made by owners, in their own words.

How the eBook was made

During the multiple-day live event, crucial thoughts and ideas bubbled up through the speakers' conversation, the attendee chat and the popup questions. Through carefully curating and reflecting on the subsequent transcripts and popup data, the information was organized to render the essential



intellectual output of the sessions accessible to anyone who browses this eBook!



Owner's Roundtable #1 Speakers

The attendees' conversations were set in motion by the following speakers who generously gave us their time, thoughts, and themes of discussion. Thank you!



Beth Eckenrode, RESET AP - ModeratorCo-Founder
Auros Group
Pittsburgh, PA



Ben Ohebshalom, BS Urban Planning & DevelopmentPresident
Sky Management Corp.
New York, NY



Derrick Tillman, B.S. Information Science President & CEO Bridging the Gap Development, LLC Pittsburgh, PA



Francis Coen, MBA
Managing Director
Clark Realty Capital, L.L.C.
Monterey, CA



Kathleen MacNeil, Leed AP, Massachusetts Licensed Construction Supervisor Principal MP Boston/Millennium Partners Boston. MA



Nikole Brugnoli SheafferChief Innovation and Outreach Officer
The Environmental Charter School
Pittsburgh, PA



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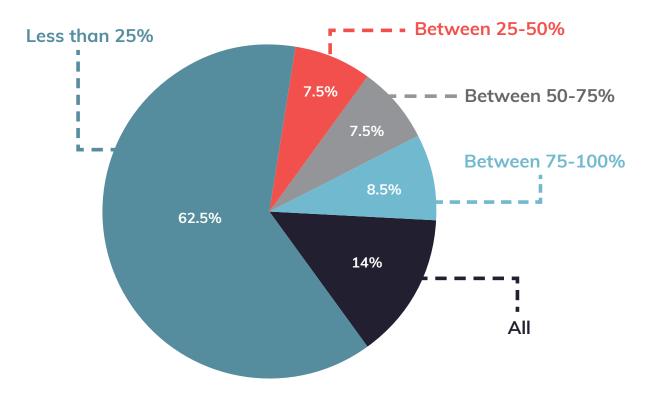




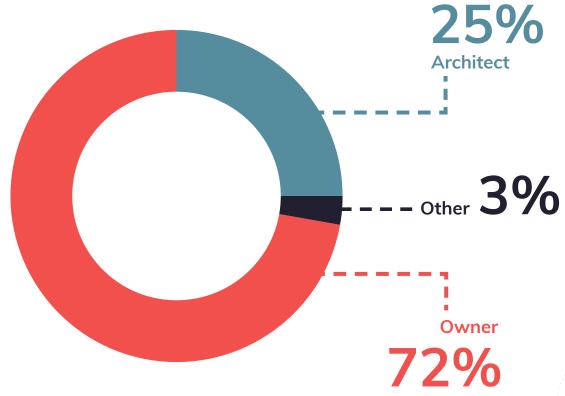
Data Visuals

The following visual representations were drawn from Passive House 2020 attendees!

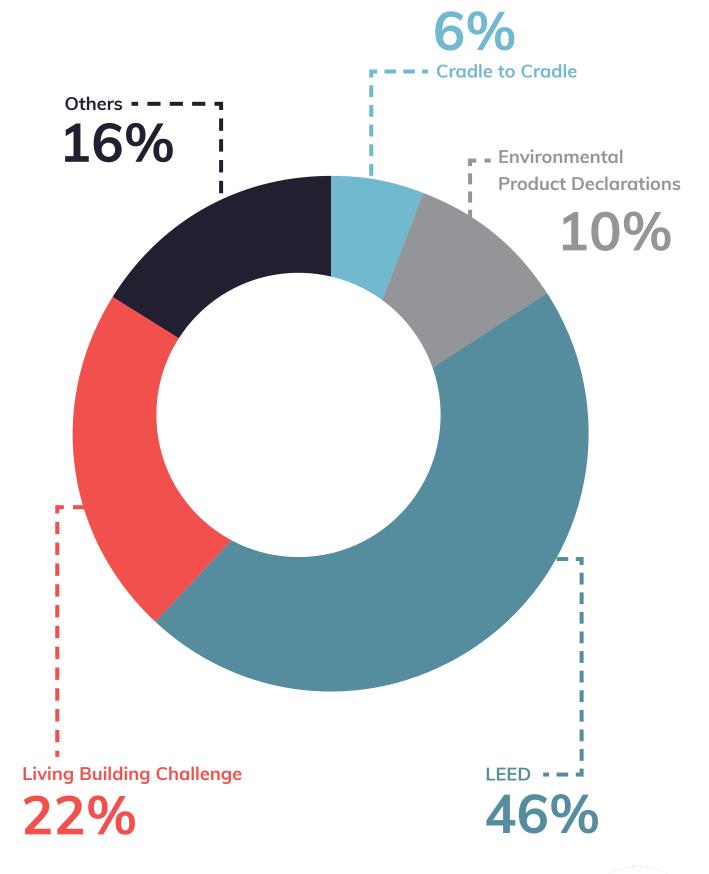
What percentage of your builds are passive house?



Who usually drives a passive house project?



Besides Passive House what additional sustainability standard are you most like to incorporate?





Conversation Highlights

During the first roundtable, Beth Eckenrode was joined by Francis Coen, Managing Director at Clark Realty Capital; Kathleen MacNeil, Principal at MP Boston/Millennium Partners; Derrick Tillman, President & CEO, Bridging the Gap Development; Ben Ohebshalom, President, Sky Management Corp. and Nikole Brugnoli Sheaffer, Chief Innovation and Outreach Officer at The Environmental Charter School.

The Switch to Passive House – It is a Better Home, It is a Better Value



With a mission to bridge gaps of opportunity and to bridge gaps in development, Bridging the Gap Development is always looking for ways to innovate and bring better value to their tenants. "I'm naturally an innovator looking for ways to disrupt and to really push the market to the next level. So when I started to learn about Passive House and see some other projects in other cities, it really intrigued me as an opportunity to bring that here and really disrupt and innovate here in our region. And specifically, we wanted to raise the bar on affordable housing.," says Derrick Tillman, President & CEO of Pittsburgh-based Bridging the Gap Development, a socially responsible, diversified real estate development firm. Currently, Tillman is pursuing Passive House certification at several projects simultaneously and one of their projects will be Pittsburgh's largest Passive House certified projects. "When my residents told me that their utility bill was \$50 —it's an all-electric building—this is both gas and light, so the \$50 includes both, I was like, wow. So that really let me know that we were doing the right thing," Tillman adds confidently.

For Francis Coen, Managing Director at Clark Realty Capital, some concerns about life health safety issues in housing led his organization to learn more about Passive House. "Our thought was, if we go all electric, we avoid carbon monoxide risks, carbon monoxide detector issues and open flames in housing, so that was another benefit of going all electric," he explains with enthusiasm. "We had made that decision and I got invited to an open house hosted by a member of, I think the California division of the Passive House Network, a gentleman by the name of Rob Nicely. He was building a house inland in Carmel Valley. I went for a tour and saw this house under construction and learned about the Passive House concept, and that's what got me here," adds Coen, who focuses on Army and Navy bases in California and whose employer builds, develops, and owns privatized military housing on military bases across the country.

Passive House Goes Way Beyond LEED

Kathleen MacNeil's Millennium Partners has been developing in downtown Boston for the last 20 years. "When Winthrop Center became available and it was an RFP with the city of Boston, Millennium really wanted to go beyond what we had done in the past, and we always use our past projects to see how we could do better. When we started to understand the components of Passive House – it really went beyond LEED and it went beyond sustainability – it pushed toward carbon neutrality and supported the idea of healthy buildings and extra fresh air," MacNeil's says of their bold decision to undertake a significant project in Passive House.





A chance encounter led Ben Ohebshalom, President of Sky Management Corp, to Passive House and he has never looked back. "We try to build for the future and we always look for the best quality. About five years ago, we were starting a large ground up project on 74th street, a 20-storey building, so we decided to go for a new project manager. I met Ben who had just completed a Passive House in Brooklyn," he explains. "In Manhattan, there's always noise outside. With triple pane glass and 18-inch thick walls, you don't hear anything. And I loved the idea that everything was airtight with the blower door tests. You never want anyone else's bugs or smells to come through cracks or crevices. You don't have to worry about bed bugs ever. Your place is your place. It's sealed and clean, and that's why I like it," highlighting what makes his building different – and more desirable—than most buildings in New York.

Benefits for Multiple Stakeholders

"Anybody can build a box and put kids in it, and I have always said that you can educate kids anywhere. But what about the opportunities to educate with your building as the third tool, a teaching tool for not only the students, but for the citizenry in your spaces?," questions Nikole Sheaffer, Chief Innovation and Outreach Officer for The Environmental Charter School, in Pittsburgh. "Think about schools, again, as places where we can learn and drive markets to do the right thing at a cost that is both reasonable and influential for the health and wellness of our citizenry." This is particularly important in a city like Pittsburgh, which often has issues with air quality and pollution. "I also deal with some of our most vulnerable population, children. We, in Pittsburgh, have spaces where people don't have access to clean air," she adds with a bit of frustration and hope. "It is about using taxpayer dollars to invest in a space that provides high quality air on our worst days, not only for our children in the city, but also for vulnerable populations that need a space, a respite. We can create spaces, specifically on a taxpayer dollar, that allow for multi-use and become protectionary umbrellas for when our legislation or our policies aren't pushing the corporations to do the types of policy shifts that clean our air, specifically in our city," she explains. "It became a not why did we jump in, but of course we would because we have the opportunity to shift tides in our city and provide access to high quality air on our worst days," she concludes with a sense of mission and pride.



What About Certifications?

"I think some wise person told me that certifications are giant boxes that you can check to feel good about your project, but do they really do or deliver what you intend them to deliver?," argues Sheaffer. "I work with humans. If you listen to what their needs are, what their wants are, we heard that we wanted to take care of our most vulnerable population. We wanted to design for climate change. And we wanted to create spaces that are beautiful, worthy of our children, and that able to exist in moving toward net zero load over the next 100 years. When you look at all of the opportunities, then and the certifications. Passive seemed like a better fit for our values as an organization," she says convincingly.



The selling point is a bit different for commercial buildings. "For Winthrop Center, it was really about attracting high-quality tenants and making sure that their workers were in a building that was healthy and strong, which really plays out amazingly in today's environment because we're way ahead of the COVID- safe, healthy buildings. I don't know that anyone appreciated how much Passive House dovetails into WELL. However, being a spec office developer, we do need to check all the boxes. We must be LEED Platinum, and we are going after WELL building certification, Passive House certification. All of those attributes and all of those report guides are very important when you're out in the marketplace because you don't know what your corporate tenants need to comply with," explains MacNeil, whose company works primarily with commercial tenants.



Unlike MacNeil, Ohebshalom's company wasn't looking to check off boxes of LEED, so they did not see real benefits to pursue the certification. However, with the Passive House, they did see results with the marketing benefit. "Getting the full Passive House certification was something we discussed toward the end of our design phase. It wasn't necessary to push for that. The extra cost wasn't that much more. We had the Passive House Institute in Germany involved, and we feel that it will be nice to be able to put that on our building," the developer explains.

Words of Wisdom & Parting Thoughts

All panelists agree that if one looks at the real benefits, Passive House sells itself, so it is about raising awareness and educating every stakeholder, from funders to tenants and the teams working in the construction. In closing, they all left participants with important words of advice and encouragement.

Kathleen MacNeil: Take a serious look and involve your team early on

"As you think about embarking on Passive House, make sure you touch base with all your team members because you're going to find out that you get a lot of mileage for the dollars that you invest. The cost is coming down as more products are developed to satisfy Passive House. As more contractors understand the concept, as architects learn how to detail it, we will not have such a barrier to enter. I definitely encourage people to look into it and give it a good shot."

Derrick Tillman: Invest in People and Education

"Start early, look at this not as an added alternate, but as a full integration. And with that, you want to start with building a team foundationally. A good sustainability consultant is critical. And so is having the buy in from an owner, the right consultant, then try to build your team with folks who have some experience or that are very interested in this type of thing, I think will go a long way to making this happen. The engagement of the right team on the front end is essential because it really requires that early investment in time, cost, et cetera, to ensure that you can move other costs around that ends up being cost neutral, as opposed to an actual increase. You also want to incorporate training for the end-user because what we found out is that some residents don't know how to actually work the system. Educating them on how the system works is an important component."



Ben Ohebshalom: Team Development and Training are Essential for Success

"Getting people that are interested. When you put the teams together, everybody is taking the same training, I did it myself, and you really understand how all the components come together to make sure it's built well. This is really building for the future. If this is going to be long-term, if you are going to live there yourself, if you're going to keep this in your portfolio, the quality blows away non-Passive House."

Francis Coen: Commit to Passive House Early On

"You need to make the decision to go Passive House at the very start of the project, not when you're three-quarters of the way through design, so start early. For single family housing, it affects your site plan too. Orientation of the building matters, and so if a site plan was developed without having Passive Housing in mind, so you can't change that."

Nikole Sheaffer: Focus on Your Values and Build with Empathy

"Push your team to make design decisions based on your values and the overall equity of the project. And I would constantly ask my team when we would come together, would you live there? Would you send your child there? Would you send your grandmother to work there? And if you can't answer that or your design team can't answer it in a way that feels consistent with the values that you started the project with, whether it be Passive or another certification project, then shift your team and get them on the right page."

As the world looks for ways to make living spaces cleaner, healthier and more comfortable, Passive House has a unique opportunity to show the value it brings. As our panelists have demonstrated, more than a set of guidelines or a brand name, Passive House is a construction concept that can be successfully applied by anyone interested in a building standard that is energy-efficient, versatile, affordable and ecological at the same time.



Q&A - from Popups

For the entire duration of the virtual event, an attendee chat function allows all stakeholders to interact and develop the conversation in whatever organic direction it takes. For the specific, designed questions that we want to ask all virtual attendees, we have pop-ups! The following question appeared to the entire audience and we collected our favourite responses.

What would make your clients more interested in certifying their projects?

- Clients need to understand the low relative investment to do so, and that it
 enforces the commitment to the goal we like to express that this goal is an
 actual performance metric; not just a gold star for effort. So this goal maximizes
 their commitment to that investment
- Some form of proven marketing / sales benefits most large scale developers don't care enough to pay just to get a plaque on the wall - we need buyers / renters to care and demand a PH, that demand will give the developer the incentive
- Seeing actual data on how much better certified projects perform over noncertified projects (if that's actually the case).
- Underwriting the savings showing how it is cost effective. Having more built examples. Showing them that everyone else who is really paying attention is doing it."
- Financial analysis of the benefits of certification and demonstration that the additional costs are NOT significant to achieve PH certification and standards.
- Greater market acceptance by the commercial users, companies, etc. The way some companies will not occupy space that is not LEED (Leadership in Energy and Environmental Design) certified.



Q&A Within the Chat

As the event sessions played, the attendee chat came to life with questions and comments about topics being touched upon. Here are a few exchanges between event participants:

So I am learning here that innovative, well informed and well educated owners chose Passive House and are ready to jump into the deep end for it. I am interested in folks' experience with the resistant and resilient owners who do not want to change their paradigms. What are the main arguments to pull them along?

If the owner/tenant is value-driven by dollars, find the path from passive to economics. The other stuff will come along the way, as all the connections happen, and you have the chance to educate!

We have shown owners countless times that the life cycle cost benefit is overwhelmingly positive and that so many other benefits come essentially "for free". However, they still subscribe to "business as usual" as they perceive the risk too high, the upfront cost too high, and therefore remain insulated from good information and pedigree, which PH has.

How do you feel about affordable multifamily buildings?

The term passive house never deterred my commitment. When I first started to learn about it, I did think it was only for single-family home projects so for new owners and architects, a name change may help on the educational side. In regards to my team, it is not a problem with them because me and my team are able to answer their questions from the beginning. Sometimes this question comes up if it's a newer consultant that hasn't done a passive house project but we are there to explain and answer their questions from the beginning.



UK purchasers' willingness to pay 10-15% premium is impressive. Which benefit do they benefit most?

We charge about 10-15% more for Passivhaus even for our social housing. our rent arrears are still negligible even at a higher level as it is mitigated by little or no heating costs (60% of our tenants in PH homes haven't needed to switch their heating on - for some over 12 years)!

The community around your schools have a great deal of "ownership" over your buildings and are very strong in their opinions. How did you "find the door" to convince the community that your choices were the right choices?

The door for many of our constituents was public health. We have high asthma rates in our neighborhoods, and we need "air quality safe havens" to protect people on the worst air quality days of the year

How have you been marketing the Passive House spaces to tenants and potential renters? Brokers? Do you frame it as 'better interior environment' or 'saving energy costs over time' or 'saving the planet'?

Yes, we are able to market these projects as more energy efficient, lower utility bills/operating costs and a more comfortable environment than traditional construction projects.

In the US, people love to have schools look and feel the same as they "did when they went to school" down to how kids move throughout the day and how they eat lunch. It takes breaking with traditional ways of "doing school" to reinvent spaces for students to learn and to engage



I've heard that the Fed also would like us to be able to have a distributed energy grid, for safety, so having lower energy use buildings would help this goal tremendously - is this what you are seeing?

There was much greater interest in renewable energy, energy security, and microgrids with the prior White House administration. Hoping that interest levels there will return eventually.

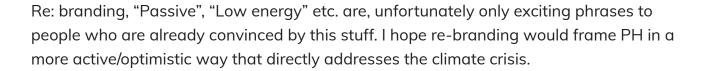


Community Takeaways

As the pre-recorded session played, an attendee chat allowed all stakeholders to interact and develop the conversation in whatever organic direction it took. We invite you to enjoy the selected questions, comments, stories, ideas and resources shared below.

Humans have become an indoor species - designing, building and maintaining our buildings needs to reflect this

I believe if we can get public sector buildings to be costneutral examples, we are moving the needle



My first Passivhaus journey was a direct consequence of my desire to reverse snobbery and develop the very best homes for those who could never afford to buy - and those who could afford to buy were not eligible. Passivhaus is life changing for all particularly in context to affordable / social housing

For sure humans spend something like 90% of their lives indoors. We really do need to make indoor spaces healthier. Winthrop Center as part of its PH will deliver 30% more fresh air and also has an outdoor terrace for every office floor to encourage workers to get outdoors! We are also designed to be WELL Gold.

Don't forget the Passivhaus community make great buddies when you take to the water - reach out and grab a Passivhaus mentor

Site selection in a dense, urban environment is not a selection. You work with what you have and take advantage as best you can with views, light, etc.

I have also sold Passivhaus on the business case - it is a no-brainer.

The majority of Passive House Canada's revenue is from the training they deliver. The marketing budget came out of the training revenue.



Passive house affordable housing is essential as it will help residents with utility costs and provide a more comfortable space that is also much more environmentally friendly.

Really appreciate a great outlook in embarking into "new frontiers" of Passive House - we, as architects speaking to clients/building owners about Passive House and cost benefits, have found that with rigor of detailing, and creative design solutions, costs are quite neutral, if not even more economical! This has really helped promote passive house as the new norm. Affordable housing and Passive House are such BFF's $\ensuremath{\mathfrak{C}}$ - True social sustainability in addition to environmental sustainability.

The best people to sell Passivhaus are the occupants - they have the most compelling stories and they are so happy!

Design for your values. Get owners to get to their values!

If builders/developers/architects etc only offered Passive, we would start having more relevant discussions, rather than discussing whether or not to do the right thing;)



Resources

During the live chat, speakers and attendees alike chipped in with their suggestions for further reading, resources and recommendations.

The PH2020 Conference 'Owner's Manual': https://bit.ly/2G7KReC

Here you can find an overview of all crosswalks PHI did with other standards: https://bit.ly/3623dsA

Here is some info [on the US Army and Passive House]: https://bit.ly/3kKy1SF
From Link: "We are extremely honored to be the first U.S. Army garrison worldwide to have PHI certified Passive Houses within our community," Lawler said. "These homes are an effective contribution to help support the U.S. Army's goal to conserve energy and preserve essential resources."

And a little more here: https://bit.ly/33Voxxg

Passive House Building Database: https://bit.ly/3d8BojD

Passive House Institute: https://bit.ly/2FeaZok

Information on Certified Passive House Designer Training: https://bit.ly/2GxLM8W

There is also training for tradespeople available at: https://bit.ly/3hZN89b

Here's the info on the PH open days, the main annual event is in November: https://bit.ly/3jFgGdE



Conclusion

Given our ongoing environmental, health and social crises, Passive House 2020 embraced tough questions about how we can change business-as-usual. The owners participating in the Owner Roundtables are leading by example and providing answers. They've chosen Passive House because it can make a positive impact, and lower future risks as a result.

Watch the video of the roundtable discussion.

Complementary to the roundtable discussions, NAPHN produced an Owner's Manual for the PH2020 conference. It is full of useful articles to help building developers take action today.

Read the Owner's Manual.





This event is brought to you by:

The **North American Passive House Network** (NAPHN) is an independent national non-profit educational organization, and affiliated with the International Passive House Association (iPHA) and the Passive House Institute (PHI), located in Darmstadt, Germany.

NAPHN has chapters based in New Jersey (<u>www.njpassivehouse.com</u>), Washington DC (<u>www.naphnetwork.org</u>), the Rocky Mountain Region (<u>www.phrockymountains.com</u>), Minnesota (<u>www.passivehouseminnesota.org</u>), Western Pennsylvania (<u>www.passivehousewpa.com</u>), and a chapter for at-large members, Passive House America.

NAPHN supports the widespread adoption of the international Passive House design and construction standards, building science principles and protocols, as a critical response to our climate crisis - providing unparalleled effectiveness in mitigating climate disruptions and adapting to rapidly changing environmental conditions.

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