The Cost of Healthy Building
Part 1

Andy: Welcome back to Non Toxic Environments. Jay, it's good to be with you this week.

Jay: It is indeed Andy as always. We're recording on Friday today, folks. So yeah, you don't have to leave that in and he can cut that out.

Andy: I'm going to leave it in because I believe it's important to tell everybody that as much as we absolutely love doing this show and we love our listeners and we're grateful for them, both Jay and I have actual 9-5 jobs.

Jay: Is it just nine to five? I don't know. I, you may be cutting it short Andy and it may be a little longer than what I call it nine to five.

Andy: All right. Okay. It's more like a 7:30 - 7:30. Okay. And this week has been a rough one. It's just been really busy. Construction season in the United States has historically been from mid to late April through the end of September, and then it kind of slows up. Well, this year it didn't slow up as September started coming to a close and now the beginning of October… it's just as busy now as it was in June.

Jay: And the other thing that we know this happens to people, especially as we get closer to holiday season, all of a sudden jobs pop up that people want to do a little bit of late decorating right around the holidays because they've got family coming in and we make sure everything looks great for the, you know, for grandma, grandpa, whoever's coming over. So that gives us a little push back there too. So, today I think we were gonna talk a little bit as we have in some previous casts about the cost of building a healthy home.

Andy: Right. And, and this really is apropos because of what's going on right now across the country in the construction industry. We've gotten a lot of feedback from our clients and listeners all around the country. Unfortunately some bad feedback that construction costs are staggeringly high. I know we've talked about this because we mentioned the reason for that is two fold. The cost to build with the materials fluctuating, and probably more so the cost of

labor because of an extreme labor shortage especially for skilled labor within the construction industry. When we used to have thousands of people in an area who could install flooring or install cabinetry… back in the late 2000s, early 10s, in that last big recession we lost a majority of that workforce. And now that the industry is as busy as it was back then, the labor is not there. So that's really the biggest reason why we're seeing construction costs on the rise across the country. But what we wanna really talk about today is I think this, this concept that goes back from to the beginning of the green building era, which is green building costs more and more specifically for you and Jay its healthy building costs more, right?

Jay: That's correct. Okay. That's correct. I think when, when you're talking about the cost of building a healthy home, there's two facets there. There are all your material expenses and then there's a labor expense. So one of the things that I've thought about over the years is how people think about the cost of things, especially in on our side of the equation, which is the coating side. It's always in a square foot number. And so I started thinking, well, why can't we appropriate that in a little different ways? So my example here folks is, take a $55 or $60 gallon of paint and that's pretty much what you're going to expect to pay for a good quality, healthy, nontoxic coating. So when you hear $60 a gallon, most people immediately referenced whatever their familiarity is with the cost of paint. And of course the cost of paint has gone up significantly over the years. But usually people have a kind of an idea of what a car, a gallon of paint should cost, right? Right. So they hear a number like $55 or 60 and they go, Oh my God, it's so expensive. So I thought, well that's just what it costs. But maybe there's another way to reference it. And I think this makes a sense across the only paint and coatings, but also across other categories. But why don't we just break everything down into a square foot number? The simple formula folks, for any coating, every coating, any coating, you've guys gonna on the back going to say coverage and it's going to say 350, 450, 550 whatever it says. So what you do was really simply as you take the cost of that product, let's say it's $60 a gallon and you divide it by that coverage number, that's going to give you some some cents.

Not dollars, but usually it's going to be cents with coatings. It's going to be sent so when you hear that it's going to only cost you 35 cents a square foot for the material versus $60 a gallon, you see there's a subtle change there in terms of the perception. It's the same thing, but just the way we talk about and the way you think about it can make it a little bit of a difference in terms of your psyche and your emotional response. The other thing too is when you have all

your square foot numbers together from flooring and paint coatings, whatever you're doing, then you have a square foot per square foot number for it for your materials, which then you can butt up against the square foot number for the construction or labor. And that labor charges Andy alluded to is going to, it's going to vary from place to place here on the west coast it's more, some places in the country it's less. And Andy of course alluded to the idea that there's a workforce, a change in the workforce going on right now. People are coming into the workforce and things are costing more. There's a learning curve involved with new contractors and learning new skills and learning new products that can all add up to more costs on the labor side. So there's just a way for me to think about it in a different mode so people have a different reference point.

Andy: Well, it certainly does help to break things down into familiar terms, into something that you can compare apples to apples. That's really what I always talk about is when you're trying to look at the cost of building the healthy home versus the cost of building a traditional. And let's not say even say traditional, let's say a typical American home. It's hard to compare apples to apples these days. And the reason for that is mainly when you're building a healthy home, I would say 9 out of 10 times this is going to be a custom home, right? Very rarely do we build a spec home, something where the builder builds 30 or 40 of the exact same floor plan every year. And just switches out the materials from from typical to healthy that happens every once in a while. I might have two jobs a year where this is happening and this is not necessarily truly chemical free, toxin-free healthy home. This is the best we can do with what we're faced with.

Jay: Well aren't more builders trying to work in some of these things now because they use them as a sales point. Right. And it's been mostly focused on the energy saving benefits.

Andy: That's exactly, yeah.

Jay: That's about as far as it goes. Right. It doesn't really go beyond that very much. And there's a lot more distance they could travel there. But right now that this is not happening yet.

Andy: I had one of the largest green home builders in the Midwest in my showroom a couple of years ago as I helped them build or work on a truly healthy home project that I was the consultant on. And after about three hours of the owner of this company being in my

showroom, he said, we don't build really don't build green homes, we build energy efficient homes. You understand green, you understand healthy. And he said, we do not do that on the regular. And he got it. Never changed the way he did things, of course, for the one project he did because he was under contract to do so, but didn't change their procedures and and products for the next 200 homes that built because they didn't need to. And that's the thing is, is that even to this day, builders are looking at the energy efficiency of a home in lieu of the health of the occupant of that home. Now there's nothing wrong with building energy efficiently. Of course not. I mean everybody wants to live in an energy efficient home.

Jay: Yes, yes.

Andy: Even if you say you don't care, you do care because it saves money.

Jay: Yeah. Because utility bills are going to keep going up folks. Of course here in San Diego we're getting an increase, I think starts next month. One that's not going to change. It's going to increase and increase and increase. Right. So yeah, energy efficiencies. Here we say those two words again, common sense, common sense, common sense.

Andy: So, when we're trying to compare apples to apples, we have to compare quality level to quality level. So, which means a healthy built custom home should not cost any more than a traditionally built, custom home. Right? Let's just use an example.

A project I've been working on lately, it's not a very large home. It's about 2,400 square feet. It's a custom sort of farmhouse looking project. Beautiful, beautiful design.

Jay: People are downscaling people are downscaling. So 2,400… some people are gonna think, man, that's a mansion. But go ahead.

Andy: Well, for a larger family, they had looked at a building, a home over 3000 square feet and they actually said, we don't need that much space. Let's bring it down. This house has pricing out at the $500-600,000 range to build. Here's the difficulty folks.

We're talking to people all over the world. A $500,000 home in Wisconsin is a really nice home. A $500,000 home in San Diego, you know is a shack.

Jay: The $500,000 home and Wisconsin is going to cost me close to 2 million.

Andy: Well there you go. There's a difference there. know it's hard over the air to talk about prices and this is another reason why it's incredibly difficult to answer that question. Is it more expensive to build a healthy home than a standard home? Because it's different.

Jay: I’ve got to interrupt you because I'm laughing at myself cause I'm thinking, I just revealed the difference and people in San Diego, man, we're moving to Wisconsin. We’re gonna get on that list for that $500,000 home in Wisconsin!

Andy: I’ll tell you what, anybody listening who lives in San Diego who wants to sell their $2 million home and build a half a million dollar home here in Wisconsin, I will personally work with you.

Jay: There you go.

Andy: And I'll help you make it perfectly healthy and you'll still have a nice nest egg

Jay: And he’ll teach you how to shovel snow in February as well.

Andy: Exactly. In any event, this is why it's really difficult to talk prices and it sounds like Jay and I are kind of speaking around and around here, but it really is tough because when somebody says, is it healthier to be more expensive to build healthy? There’s so many questions we have to ask before we can even get to the point of talking numbers and where are you located? What is your vision of what the home's going to look like and so forth. But I will say this, if you're comparing apples to apples quality level to quality level, there is no difference in building a healthy home. And I truly believe that.

Jay: Yeah, no, it's absolutely true. And I would just add to that folks, when you're thinking about building a healthy home, it's really important that you team up with someone who knows

the business like Andy Pace and there's other folks out there that do it. Andy does not quite as good as he does it, but there are folks that do it and that's what you want to do. You need some guidance here, need to have someone that knows what's going on. Who's been in the business a long time. To kind of walk you through it because there are ways to save money. We can build a really healthy house. So we just have to kind of look at the plan and decide where can we spend our money most effectively. There's ways we can maybe not spend a whole lot of money, maybe do something a little more traditional right there. But at the end of the day, we're going to have the healthiest home we can. But there's ways, once you get a consultant working with you to help you figure out those little nuances in the plan, we know we don't have to spend a ton of money right there. We can save some money because we're going to reappropriate that money that we saved in another place where we really want something top notch.

Andy: So that's a great, great point Jay. And thank you for the endorsement and obviously we're not looking at this to be an endorsement of any either one of us, but let me just say this: building a healthy home also comes down to making sure that the home is healthy for the individuals to their level. I'm working with a family right now who has a child who had a very, very rare form of cancer, and healthy now, but still it kind of puts the parents in a position of do everything possible to protect their child.

I'm working with other clients who are like, you know, here's what we'd like to do. We'd like to make it as healthy as possible and good enough is good enough sort of thing. We'd like to make sure that we are working at a price point of materials and services and so forth for the house that commensurate with what we're trying to achieve. And so it really comes down to having those conversations. Now let's look at some individual things in a home that can really seriously affect the overall price of the home. And this will not change from location to location. It's always going to be this way.

Jay: This is good. This is good stuff.

Andy: All right. For years I used to advocate insulated concrete form as the method for constructing the exterior shell of the home.

Now in a perfect world, I would still use insulated concrete form on all of the health houses that I get involved with. However…

Jay: Let me interrupt really quick just to… tell everyone what that is… ICF, real quick.

Andy: Insulated concrete farmer ICF is essentially putting the exterior walls together. They're almost like hollow Lego blocks made from typically an expanded polystyrene with either plastic or a galvanized metal reinforcement. And you pour concrete in between in the hollow spots. And it makes a for an incredibly durable, soundproof, hurricane proof home. I love the concept of it. I love the idea of it. But in the last couple of years we have seen the prices for these types of homes skyrocket and mainly because it's difficult to find contractors who price it properly because you really need it. Somebody who is a combination of concrete flat worker, an engineer, and a carpenter. And these people are really difficult to find and the price just goes up. A substitute for this would be to do traditional stick framing, which is just framing lumber and sheathing. But making sure we're choosing certain materials and methods that just make the home a healthier space.

I'm not going to go into great detail here because this will requires conversation with the client based upon the project. But what I can say is making that change from insulated concrete form to more traditional stick frame has reduced our construction costs for that home by close to 50 to $75 per square foot in the overall construction costs.

Jay: That’s huge. You know, I'm just having this thought, and this is going to be another podcast folks; you’re making me think about the great movement now in prefabricated homes. There’s a huge movement in prefab across many spectrums from a shipping container to having a healthy… as an example here in the west coast, there's a company called Living Homes. Steve Glenn is the owner of living homes and their whole ideas are building high-end prefab. Now people think prefab, you think trailers? No no folks. It's, it's much better than that now. So Andy, we've got to think about having a podcast devoted to prefab and talking about these same issues about prefabrication. So go on.

Andy: So, Jay, there's so many different ways that you can do this. Traditionally we're looking at in a standard stick frame home, you are getting your best bang for the buck because this is

what the industry knows. In a perfect world with a with an unlimited budget, we would do things like, insulated concrete form or sips or even prefab as you talk about. I love that concept and that needs to be pushed hard in this industry or in this country. I think prefab homes are the wave of the future, but it's just not catching hold yet. Because there's not enough demand for it.

Getting back to the, the big costs of building healthy; another big cost of building healthy comes to your heating and ventilating system. Now again, when it comes to energy efficient and high performance homes, the industry is going to try to get you to look at things like solar, geothermal, all these amazingly efficient forms of heating and ventilation in your home. The downside is it's expensive. And I know there are some tax benefits for going with solar and so forth, but at the end of the day, if you're building a home and you have a lender that's going to be lending you money to do this, they're going to have to give an appraisal of what the build cost is. And if they look at it and say, well, you've got an $80,000 geothermal system tied into a bank of photovoltaic panels that that's going to heat just as well as a $25,000 forced air furnace. So we're going to give you the value of that $25,000 forced air furnace. You'll have to come up with the rest out of pocket.

Jay: No, that kills it right there.

Andy: So we have to look at those things. You can take an a standard forced air system and make sure that it has purified air, fresh air intake, so on and so forth. And keep those costs down to where it would be for any other home.

Jay: Another thought here and I'm just kind of being futuristic, but I'm thinking, boy, there's another podcast tucked in here about financing and who and we can do a little research on this folks and we'll come back later in the year and next year maybe talk about institutions that we think are a little more green building centric, are willing to work with you in that regard. So that'll be a little research job on my part, I'll take care of that and then we'll have a show around financing a healthy home.

Andy: Right, right. Finally, when it comes to other bigger ticket items, things like windows and, and you know… this is probably a show of its own at some point. Quick and easy folks, when it

comes to windows for your home, there are four main styles: vinyl, wood, fiberglass and aluminum. It's in that order of cost. It's in that order of health. If you build a custom home these days people want to use wood windows because you can do custom wood windows and it looks beautiful and so forth, but they're also very expensive. They're also full of pesticides because all the wood has to be spray with pesticides to be used in windows.

Jay: Right? And you've got to decorate them properly so that they don't degrade quickly over time. So there's a lot… Depending on where you are in the country, if you're in a four season area, those windows…. you've got to do some really good protection on it to make sure it doesn't fall apart too soon.

Andy: Well, that's it for part one of our discussion on the cost of healthy building. We actually had a stop it there because this is a somewhat live recording of this podcast and we had some technical issues due to weather here, but it was a good place to stop. Our episode next week will be part two of the cost of healthy building where we actually take a deep dive into the interior furnishings and finishes part of building a home. And while these big ticket items that we've talked about today, the construction methods and materials, windows, things like that, heating systems that are the big numbers, there are far more smaller numbers inside the home that add up quickly and can add up to be a real reason why healthy building seems to cost more. But if you do the comparison, it's actually pretty equal.

So that's it for this week's episode of Non Toxic Environments. Thanks again for listening. Folks please, either iTunes or wherever you listen to this podcast and hit the subscribe button. We'd appreciate that that way you get the new episodes directly to your listening device on a weekly basis. Also, we would very much appreciate it if you could share this with your family and friends. One of the things I hear is that people want to build healthier. People want to live in a healthy home, but their family and their friends discourage them from these ideas because they just don't understand what it means. And maybe this show would help them understand, and maybe this show would help you live that healthier a home life you're looking for. And so by having the support of your family and friends, you would make that much easier and much more obtainable. So please pass along our show. Feel free to leave a review on the show and even leave us a five star rating if you so inclined. We'd greatly appreciate that. That's it for this week's episode, folks. We'll talk to you again next week. Bye bye.