

**CITY OF NEWARK
DELAWARE**

**PLANNING COMMISSION
GREEN BUILDING CODE WORK GROUP
MEETING MINUTES**

August 27, 2019

3:30 p.m.

Present at the 3:30 p.m. meeting:

Chairman: Will Hurd

Members Present: Jeremy Firestone
Tim Poole
Ben Prettyman
Reid Rowlands

Members Absent: George Irvine
Rob Jadick
Stacy McNatt
Vacancy (Conservation Advisory Commission)

Staff Present: None

1. INTRODUCTIONS

Mr. Will Hurd: Welcome, gentlemen. We'll do the quick go-round so that Michelle knows who is who. I'm Will.

Mr. Tim Poole: Tim Poole.

Mr. Jeremy Firestone: Jeremy Firestone.

Mr. Reid Rowlands: And Reid Rowlands.

2. CHAIR'S REMARKS

Mr. Hurd: Okay, so quick remarks, so what you are seeing in front of your is essentially a complete rewrite of the text to create verifiable criteria to kind of standardize the credit titles and to kind of categorize them. Hey, Ben.

Mr. Ben Prettyman: Hey.

Mr. Hurd: Good to see you. I wasn't sure we'd see you with all the . . .

Mr. Prettyman: I'm here.

Mr. Rowlands: A busy week.

Mr. Hurd: Try to kind of figure out sort of a grouping of top sort of measures like air barrier performances, these things are HVAC energy performances and these things are under it. So, sort of categories, sub-categories, I guess. Obviously, there is still a little bit of formatting, like the actual sequence of the credits is different between the residential and the commercial list, so we'll want to get that into similar order so that you're always seeing, you know, it's envelope first, then air barrier, then HVAC, or whatever. But that's minor. I did notice as I was going

through this that there's a bunch of site credits in commercial that we've spent a lot of time on that I did pull into the residential. So, we can talk about that when we get there. But there's like four or five that were worth coming in since the residential code is what subdivisions are going to be under on those townhome developments. So, that's what we want to make sure, that we capture that.

So, our goal today, hopefully not too ambitious, is to basically go through the two checklists and come to an agreement on the language of the credits. And, probably as a last check, credits that we want to see or not see. There are some that got sort of added in as I was going through and expanding, especially the residential, which was still in sort of an outline form. There were some credits that it's sort of like, oh, I see that the National Building Standard had this sort of group of things that makes a lot of sense to bring that chunk of stuff in. So, there is some new stuff that we'll want to look at. But what I'd love to do is come out of here with basically approval, you know, with edits, of the two lists themselves. And then next month we can kind of beat up on the points and have the long conversations about minimum number of points, points per category, and points per credit, and that give and take. The goal for, then, in October to kind of develop what we need to do for the public workshop that Mary Ellen recommended that we hold, which would probably be in either October or November, to see when the schedule looks good, as a way to basically put this in front of the public for one last kind of walkthrough. It gives us a chance to kind of explain it to people and sort of, you know, take that feedback. If we can do it early enough, we can do sort of the November meeting could be folding that feedback in and seeing if there's anything that we feel we should adjust. And then we present it to Planning, and Planning figures out what they're doing about when it goes to Council. I think that's also probably in connection with Code Enforcement and Planning staff getting the ordinance together.

Mr. Poole: Yeah, once we get done with it, there will probably be a couple of months' worth of wordsmithing on the ordinance.

Mr. Hurd: Okay. So, I think I want to get this to the Planning Commission and just say, this is what we're proposing to basically hand back to staff and say work this in. And then let the Planning Commission beat it up a little bit and then hopefully they'll say great . . .

Mr. Poole: This is the criteria, I'm going to write an ordinance.

Mr. Hurd: Right.

Mr. Rowlands: And then the ordinance has to go back to Planning, or . . .

Mr. Poole: Yes. The ordinance will most likely go back to Planning, to the Planning Commission. I can't imagine based on the little bit of interaction I've had with the Planning Commission that they will give us free license to take the concepts and write an ordinance without their review at all.

Mr. Hurd: And you would be right.

Mr. Rowlands: Okay, cool.

Mr. Hurd: So, that's my hope, that by the end of the year, we're done, effectively. Sound good?

Mr. Poole: It's a great, ambitious plan.

Mr. Hurd: I always have ambitious plans and I am always hopelessly naïve about how long it takes to do things.

3. MINUTES OF THE MAY 21, 2019 AND JUNE 25, 2019 GREEN BUILDING CODE WORK GROUP MEETINGS

[Secretary's Note: Approval of minutes for the May 21, 2019 and June 25, 2019 Green Building Code Work Group meetings occurred at 5:23 p.m. after completion of the review of criteria for commercial projects.]

4. REVIEW OF CHECKLIST FOR RESIDENTIAL PROJECTS

Mr. Hurd: Alright, well residential is on the top, so let's start with . . . actually, no. Let's back up. Let's start with commercial because it's got the, it's always been the one that we started with, so let's go with, it's got sort of the fuller . . .

Mr. Poole: Yeah, it's closer.

Mr. Hurd: It's closer to being final and there are things from here that show up in the residential.

5. REVIEW OF POINTS AND CRITERIA FOR COMMERCIAL PROJECTS

Mr. Hurd: Alright, starting from the top. Fenestration performance.

Mr. Rowlands: Well, your top is your stretch . . .

Mr. Hurd: The stretch code.

Mr. Rowlands: That's the opt-out?

Mr. Hurd: That's the . . .

Mr. Poole: That's the opt-out of the energy portion.

Mr. Rowlands: Oh, just the energy portion. There isn't an opt-out out of everything?

Mr. Hurd: No.

Mr. Poole: Well, we have discussed that, and we have been talking about allowing if it's LEED certified or if it's Green Globes or Passive House or something like that, but we haven't really . . .

Mr. Hurd: I think on the commercial side, I don't think that we've ever come to an agreement of an appropriate rating system that's going to cover the areas that we want to cover effectively in a commercial building.

Mr. Rowlands: Or residential. If you do Passive only as an opt-out, you're not getting any materials or reuse or anything. It's just pure energy.

Mr. Hurd: Right. And for the residential, I think we do have the opt-out basically for the energy. Oh, no, for the residential an established rating system gets you out of the whole thing. And that's Passive House, we currently have basically anything that shows like LEED Silver showing a reduction of energy usage, Passive House, Green Construction, National Green Building Standard Silver, so . . .

Mr. Rowlands: So, at this point there is an opt-out for meeting one of these certifications and in commercial there is not.

Mr. Hurd: For the entire thing.

Mr. Rowlands: Okay.

Mr. Firestone: Why is the minimum required 24 and the stretch code . . .

Mr. Hurd: So, we're not talking about the points. You were here for that, weren't you? I think the idea was because if you go the certified process, it's an additional cost to the developer or the builder, with the additional engineering. And it's essentially a validated reduction in energy. If you do all those performance ones, there is an expectation of reduction in energy but there's no guarantee that this is going to hit 20% reduction. It's going to be better but it's not the same thing as saying I designed it, I ran it, I had it tested by a guy and validated, and it's actually running 20% below Code. So, there was some sense of supporting that pathway.

Mr. Firestone: Well, we'll talk about that later.

Mr. Hurd: Yeah, so fenestration performance. I was going to cross out calculated so that the language matched up and just say area-weighted average U-value for fenestration. And then add a second line for a 20% better option.

Mr. Rowlands: Say this again now. You have calculated area . . .

Mr. Hurd: So, the language that I have in the residential, we say area-weighted average U-value for windows and doors is 15% lower than maximum allowed U-value in Code. And I just wanted to say the same thing in commercial. Just say area-weighted average, so we take out the calculated.

Mr. Rowlands: But the only way to get a weighted average is to calculate it.

Mr. Poole: Yeah.

Mr. Firestone: Yes, so it's redundant.

Mr. Hurd: It's redundant. Here's my area-weighted average.

Mr. Poole: Although in here and in a few other places, you have in Code . . .

Mr. Hurd: Oh, yeah.

Mr. Poole: I would go . . .

Mr. Hurd: You want to make sure we're saying IECC?

Mr. Poole: IECC table C402.4.

Mr. Hurd: I capitalized the C and that's usually good enough.

Mr. Poole: Unless you're dealing with somebody from across the country or . . .

Mr. Hurd: Right. And that's fine. I really do want to capture all the edits. Are we okay with the 15% and the 20% as the two thresholds?

Mr. Poole: Well, again, 15% and then 20% isn't that much better. I mean, do we want to push it, to get more points, do we want to push to 25%?

Mr. Hurd: I honestly don't know what the window . . .

Mr. Rowlands: You know, I would . . .

Mr. Hurd: Sorry, go ahead. I don't know what window performance is out there.

Mr. Rowlands: Exactly. I want to go look at a couple of windows and see how much does it cost to get that and does that get you 50% better or only 5%?

Mr. Hurd: The 15% came from . . .

Mr. Rowlands: But I can do some research on the windows.

Mr. Hurd: I think I got the 15% and 20% from looking at recommended U-values that were like in the, I don't think it was the Green Construction Code. It may have been LEED or it may have been on something else that actually had a table. So, I looked at that number and I looked at the IECC and I said, okay, that's about a 20% improvement. So, that sort of seems to be, you know, some sort of threshold.

Mr. Rowlands: Well, if I come back with a couple of windows and here's the average-weighted U-value, then we can just throw the number in what we want.

Mr. Poole: Right. And we'll look at the number and the points when we get back to it.

Mr. Hurd: Reduced solar heat gain exterior projections. So, this one got a little edited so that we're not, we've got a threshold of the percentage of openings and we're having, basically, again, it's an area-weighted average, so some could be a little big or some could be a little smaller, but we're aiming for the 0.5, so it's a 2:1 over a majority, a strong majority, I should say most of the openings. Does that work for people?

Mr. Rowlands: Yes.

Mr. Hurd: Okay. Automatic shades. So, you were kind of right, Reid. The original text in the thing, they did talk about exterior or interior automatic shading devices, not just interior. So, I put that back in.

Mr. Rowlands: Yeah, but I would actually [inaudible]. We should almost give, you're giving 1 point if you have interior shades . . .

Mr. Hurd: Again, it's not about the points.

Mr. Rowlands: Okay.

Mr. Hurd: I just want to make sure that this is . . .

Mr. Rowlands: Then I'll talk about the paragraph. For interior and exterior, it would be nice to be divided out because it costs a lot more to do exterior than interior.

Mr. Hurd: Okay, that's fine.

Mr. Rowlands: So, points but maybe more points for exterior automated versus interior.

Mr. Hurd: That's fine. We can certainly, we do that other places.

Mr. Rowlands: Right. And it's more important to do exterior.

Mr. Hurd: Right, so we'll do automatic shades exterior, automatic shades interior. The opaque assemblies. Now, and this is something we can start to talk about the two together. The residential, I don't know if it was just because sort of how it was, but the commercial, it had been broken out roof, walls, and floors as three separate credits, basically. Whereas for the residential, it was a single number. It was like the insulation of the house is 20% better, or 15% and then 20%. Or 10% and 20%. Do we still want to break them out in three separate chunks for commercial? The main reason I think about that is that commercial buildings are more likely to have large roof areas, large floor areas, or long walls. And so, on that kind of building,

you might say, yeah, I'm going to beef up the insulation in the roof, but not everywhere else and just improve that barrier.

Mr. Poole: I wouldn't mind separating it out in residential, as well.

Mr. Rowlands: I agree.

Mr. Hurd: Okay.

Mr. Rowlands: You can then pick to do more on the roof, which is better. If I do a quick count on that 10%, you've got an R19 wall, 10% is R2?

Mr. Hurd: So, R22 is the minimum now. No, 25.

Mr. Rowlands: Let's just use 20.

Mr. Poole: Twenty.

Mr. Rowlands: So, a 10% is an R2.

Mr. Hurd: Twenty-two, yeah.

Mr. Rowlands: That's a half-inch or something, at the most. I mean, it's just as easy to go 20%.

Mr. Hurd: Okay, well we can take away the 10% and just say 20%. Or we can say 20% is the base and then 30% or 40% . . .

Mr. Prettyman: I mean, on a commercial building that would be quite large, I mean it might just be that little bit of insulation, but you can be talking \$30,000 on spray foam. You can be talking \$50,000 if it's 7-stories high. You can be talking, you know, \$100,000 . . .

Mr. Poole: Ten percent is 10%. Ten percent, if you're looking at efficiency gains, 10% is 10%, whether it's a little bit or a lot. It's still 10%.

Mr. Hurd: Right.

Mr. Rowlands: As far as your dollar amounts, if you're building a small house, it's still per square foot, the cost. If you're building a 50,000 square foot, it's going to be less per square foot.

Mr. Poole: And the big thing is we don't want to be too ambitious where we're discouraging development. But, again, we're making a flexible checklist that they can pick which battles they want to fight.

Mr. Hurd: And I don't remember if we've had long conversations about 10% versus 20% versus whatever.

Mr. Rowlands: To me, 10% doesn't save much.

Mr. Hurd: It doesn't but it's still, I mean . . .

Mr. Rowlands: And this, we're not talking . . .

Mr. Poole: So, 10% of your energy loss isn't much?

Mr. Rowlands: We're not talking external insulation. They could be packing these walls fatter.

Mr. Hurd: Yes.

Mr. Rowlands: Is there anywhere, I know in the residential I saw some external. Is there some external here?

Mr. Hurd: There's air-tightness. I mean, so you obviously could do both. You could put on extra insulation and get your air-tightness but we don't have external insulation as a specific credit.

Mr. Poole: Are you talking about continuous . . .

Mr. Rowlands: That's external, to me.

Mr. Hurd: Yeah, we don't have that as a separate credit.

Mr. Rowlands: In residential it is? I thought I saw it somewhere.

Mr. Poole: I don't think so.

Mr. Rowlands: We don't mention external continuous insulation anywhere?

Mr. Hurd: Not as a specific credit, no.

Mr. Rowlands: Well, let's get that in there.

Mr. Hurd: That's why we're having this discussion.

Mr. Poole: I mean, we do address thermal bridging.

Mr. Rowlands: Which is what we're talking about here.

Mr. Poole: Well, we address thermal bridging, but we don't specifically address continuous insulation . . .

Mr. Poole: As a way to limit . . .

Mr. Rowlands: Yeah.

Mr. Poole: And continuous insulation, you typically have a much lower R-value requirement, as well.

Mr. Rowlands: Oh, yeah. You're only talking 1, 2, whatever inches. Sure, absolutely. But that's where I was going with the 10%. I have to think about how to get continuous in here.

Mr. Hurd: Okay, but back to the question at-hand. What should our baseline insulation improvement percentage be? And I'd rather come to some sort of agreement rather than vote because when we vote on things . . .

Mr. Rowlands: Maybe we just leave it at the 10% and 20% for now, and when we come back to points, we start to see, okay, how important is this, and we can readjust that 10% and 20% at that time.

Mr. Hurd: Right, we could say the 10% is a little, at 20% you get a lot more.

Mr. Poole: We could go 1 and 3 points, or something like that. So, we're pushing them.

Mr. Hurd: To bump it, yeah.

Mr. Rowlands: Okay, then let's just leave it at that.

Mr. Poole: But points are another day.

Mr. Hurd: Roof, walls, floors. What I wasn't sure here on the floor was whether we needed a separate credit or whether we just needed to write this credit a little closer so it would be floors and slabs, and/or slabs. Slab edges or under slab insulation.

Mr. Rowlands: We are talking thermal boundary, whether it's a slab or a floor, so I think you're safe leaving it where it is.

Mr. Hurd: Okay. There are always a few places in a building where there's a floor over an unconditioned space, so we'll just make sure that we're talking about the bottom.

Mr. Rowlands: But this guy could put more insulation in between the second and third floors and get a point?

Mr. Hurd: Probably not.

Mr. Rowlands: Probably not.

Mr. Hurd: We haven't, obviously, talked about compliance and I only did a little bit of research, but it might be possible to use something like COMcheck, if you plus this in, run the number, and say envelope performs better than Code, COMcheck theoretically is taking into account local environmental conditions and Code requirements . . .

Mr. Rowlands: Okay.

Mr. Hurd: So, I see that as one way for people to satisfy this beside putting it on the drawings. They can run a COMcheck and go, there you go. And in that case, an insulated floor between two conditioned spaces . . .

Mr. Poole: Most of the time we're getting a COMcheck anyway.

Mr. Hurd: Right. Just to show compliance, so this would just show up there.

Mr. Poole: Right, because we usually find one or two problematic assemblies. They just can't make that work.

Mr. Hurd: We're not looking at you, Ben.

Mr. Prettyman: I've had a couple.

Mr. Hurd: I'm sure. Alright, minimize thermal bridges. This is a really wordy one.

Mr. Rowlands: Yeah.

Mr. Hurd: Effectively, it means instead of ignoring thermal bridging elements of greater than a percentage of the area of the assembly, you calculate their effect on the assembly. I guess what we haven't really phrased in here is to say that you have to include those elements and still have the assembly meet Code, so that if you're trying to get an R20 effective, you have to calculate for the thermal bridging and still make an R20 effective wall.

Mr. Rowlands: And what's the Code as far as calculating that thermal bridge? How small?

Mr. Hurd: Well, Code doesn't have . . .

Mr. Rowlands: So, who gets to decide . . .

Mr. Hurd: I don't think COMcheck has a spot for it.

Mr. Poole: I don't think it does. I've never seen anything.

Mr. Rowlands: Right, so you've got steel penetrating and there's nobody saying that's what you have to calculate versus a nail. You wouldn't calculate it. It's not how you verify something like this.

Mr. Poole: Well, it's all about the design of the building and showing that there's thermal breaks. If they don't show the thermal breaks and they have penetrating items, it's not about calculating what percentage, it's about eliminating the issue. Either you've eliminated the issue of the thermal breaks or you haven't.

Mr. Rowlands: Okay, but what falls in this category? A nail does not fall in this category.

Mr. Hurd: No.

Mr. Poole: No.

Mr. Rowlands: Unless you're Passive House, and then it does.

Mr. Hurd: So, I took this straight from I guess it was the stretch energy code document. This is their language to say, exclude structural elements in the exterior assemblies that comprise a direct uninsulated path to the building exterior . . .

Mr. Rowlands: So, structural.

Mr. Hurd: Yeah. And have a surface area that exceeds 1% of the area of the envelope assembly. As discrete building area. So that, I think this needs to be written better or clearer for the person presenting it because basically it means anything of that that meets that 1%, now you have to basically remove that area from your wall assembly and call it like a zero or whatever it effectively is, and still have the building comply.

Mr. Rowlands: So, 1% and it's structural. You can get 3 points if you take all those out.

Mr. Hurd: If you basically include their presence in the calculations.

Mr. Rowlands: You eliminate the thermal bridge.

Mr. Hurd: Right. Instead of saying . . .

Mr. Rowlands: Okay, yeah, yeah. Now it's just how to do you word it less wordy.

Mr. Hurd: I will . . .

Mr. Rowlands: But I get the 1% and I get the structural, and that's fine . . .

Mr. Poole: One percent seems so low. It's seems so, you know, so high.

Mr. Rowlands: Maybe.

Mr. Hurd: Well, so I think it's . . .

Mr. Poole: Because, again, if you're talking about a 10x10 wall, you can have one square foot of thermal bridging.

Mr. Rowlands: Yeah, right.

Mr. Hurd: Which means, so instead of saying here's my 10x10 with its insulation and I've got a thermal bridge but it's 1% so I'm not going to calculate it, you're removing it and you're saying I have 99 square feet that are 20 and 1%, one square foot, that is not.

Mr. Rowlands: I take it as each item that is 1% has to come off.

Mr. Hurd: I mean maybe it's individual elements.

Mr. Rowlands: And maybe we don't need the 1%, just structural.

Mr. Poole: Right. That's what I'm saying. The 1% seems like a huge number.

Mr. Rowlands: Yeah, yeah.

Mr. Hurd: Okay.

Mr. Poole: Because, I mean, okay that's a 10x10 wall. You're allowed a chunk of metal sticking out of the building that's a square foot . . .

Mr. Rowlands: Right.

Mr. Poole: On a 10x10 wall. Okay, now what are we looking at on a 30x60 wall?

Mr. Rowlands: Right, that has one entrance canopy coming out. You don't have to meet that. That's less than 1% even though it's a concrete slab coming out maybe. So just anything structural.

Mr. Hurd: Structural elements that comprise a direct uninsulated path to the building exterior.

Mr. Rowlands: Yeah, yeah.

Mr. Poole: Lose the 1%.

Mr. Hurd: Sure. And then I will figure out how to word that last part about the calculation.

Mr. Poole: And if you want to put a minimum size on there, whether it's one square inch, four square inches, 16 square inches, something like that so we're not worried about nails.

Mr. Rowlands: Yeah.

Mr. Poole: Or screws.

Mr. Hurd: Or screws, right. Something that is suitable.

Mr. Rowlands: Well, those aren't structural anyway, so maybe we're okay with structural.

Mr. Hurd: Okay.

Mr. Rowlands: Another big thing would be canopies or awnings.

Mr. Hurd: Projecting balconies they call out particularly.

Mr. Poole: Projecting balconies are one of the worst instances.

Mr. Rowlands: No, balconies I understand. But you've got aluminum awnings that they're just adhering right to the, and then putting insulation out there. That's a structural thing.

Mr. Hurd: Or anything cantilevered where they just extend the structure out.

Mr. Rowlands: Alright.

Mr. Hurd: So, okay, air-tightness.

Mr. Rowlands: Is there any desire to move over to what I think will become more the standard of X amount of CFMs at 50 per square feet of gross envelope area instead of volume?

Mr. Hurd: I don't know.

Mr. Rowlands: If you have a building that's 10x10x10 feet tall, you can do that. But you could configure that to have twice as much wall space with the same amount of volume and there's your leakage. I know Passive House has moved over to, well it's actually 0.05 CFMs gross envelope square footage.

Mr. Poole: That's like saying meeting three air changes per hour is a lot more difficult on a 1,000 square foot house than a 4,000 square foot house.

Mr. Rowlands: That's right. Exactly. We eliminated that by doing the envelope.

Mr. Hurd: Yeah.

Mr. Rowlands: And calculated down.

Mr. Hurd: Right, because what we're really looking for is there is a minimum amount of leak per square footage of area.

Mr. Rowlands: Of envelope.

Mr. Hurd: Or a consistent threshold. I would be okay with that.

Mr. Rowlands: So, now I have to get out my lesson book and calculate . . .

Mr. Hurd: So, we'd want to say . . .

Mr. Poole: That's what it says now.

Mr. Hurd: So actually, it says for square feet of the building . . .

Mr. Poole: Thermal envelope.

Mr. Rowlands: No, that's fine but right now we 0.04 . . .

Mr. Poole: At 75 pascals.

Mr. Rowlands: Well, that's commercial. But, yes, we need to calculate that, do that conversion, to convert it so you're not just throwing a number out. You can't use 0.04 if you're doing, this is CFM per square foot of the building. Oh, this already has it. Residential doesn't have it.

Mr. Hurd: No.

Mr. Poole: Right.

Mr. Hurd: So, residential we can . . .

Mr. Rowlands: We can convert this to the residential one.

Mr. Hurd: Okay.

Mr. Rowlands: I looked through the residential, not the commercial one.

Mr. Hurd: Yeah, residential is air changes, which we probably want to do. Okay, demonstrate efficiency requiring commissioning of the HVAC systems. I tried to write that in a way, because there isn't sort of an existing commission and standard. And the language that people use to like all the things that you want to include in the commission report is too huge to put into this. So . . .

Mr. Poole: I would say certification by manufacturer has completed the commissioning process or something along those lines.

Mr. Hurd: Well, usually commissioning is a third-party.

Mr. Poole: I thought it was talking about the manufacturer mostly.

Mr. Hurd: Well, I always heard of it being a third-party.

Mr. Rowlands: I've heard third-party.

Mr. Hurd: Basically, you get all the systems up and running, you're checking all the . . .

Mr. Poole: Right.

Mr. Hurd: There's a number of things that are involved in a commissioned report that they can then put on your desk and say, here. And you would go, okay. Which is why I punted that it also would be acceptable to Code Enforcement.

Mr. Poole: Certified by the commissioning agency.

Mr. Hurd: Okay.

Mr. Rowlands; Yeah, that's fine.

Mr. Poole: That way we've got somebody who does commissioning for a living saying we taught these people how to operate their building.

Mr. Hurd: And the equipment is performing as specified. Okay. High-efficiency HVAC equipment.

Mr. Poole: Yeah, are we going to provide model stretch code provisions?

Mr. Hurd: Probably not. So, we could just go the IGCC.

Mr. Poole: Yes.

Mr. Hurd: Okay, that's perfect. And that's partly because there's a lot of different types of equipment in that table, as I recall, and I didn't want to have to recreate that. High-efficient cooling towers, high-efficiency boilers, HVAC fans, flow rates . . . just shout out if you have something you want to see changed.

Mr. Rowlands: These are all above my pay grade.

Mr. Hurd: Oh, I did have a note back on the previous page. When we talked about air tightness, we do this in the residential and I didn't have it in the commercial about providing an ERV or HRV as part of the HVAC system.

Mr. Poole: Yeah, you do.

Mr. Rowlands: It's in the residential.

Mr. Hurd: But as a part of the air tightness . . .

Mr. Poole: Oh.

Mr. Hurd: That is to say, you made the building tight, which means you provided an ERV . . .

Mr. Poole: If we give them separate credit for that, are we going to take the credit away in the mechanicals?

Mr. Hurd: I guess my thought when I was looking this over is to say if they're going to tighten up the building, then they really should have . . .

Mr. Poole: I don't disagree but we're either going to take it away from people who only do that, or we're going to give it to those folks twice.

Mr. Rowlands: Once you get a building passive-tight, isn't it Code that you have to have an ERV or HRV?

Mr. Hurd: Well, I guess in residential you probably do, but . . .

Mr. Poole: Residential, no, and ERVs are only required on HVAC systems with 2,000 CFM or greater. So, if you've got a whole bunch of smaller units, it's not required.

Mr. Rowland: If I had a building that tight, I wouldn't want to be in there without one.

Mr. Hurd: But that was why I was trying, I was thinking to merge those two together. But then you're right, if they just provide an ERV but they didn't make the building super tight, you want to give them a credit for that as well.

Mr. Poole: Right.

Mr. Hurd: But you would be double dipping because you'd say I made it tight with an ERV, so I get that point and I get that point.

Mr. Poole: Right, so if they're going to get the credit for the ERV, they'll get the credit for the ERV. And if they're smart about their energy efficiency to the point where they made their building that tight, then they're probably going to get that credit, as well. In all likelihood, they've already addressed that.

Mr. Rowlands: To me, if they're going to get the building that tight, it should be required to have an ERV. How do you put it without points or something, I don't know?

Mr. Hurd: I don't know if there's a, I mean we could write in the Code that the ERV counts here or there, but not both.

Mr. Poole: Again, are we going to chain a whole bunch of stuff together?

Mr. Hurd: That was the only one, I think that's the strongest of the ones that I was connecting. And that was, again, just because we've talked about that. Just sort of like once you get to a certain tightness, you've got to . . .

Mr. Poole: You've got to bring in fresh air once you get to a certain tightness. And, of course, on a larger building, the likelihood is that you're going to be required to have that because of the volume of air you're moving, unless you have a bunch of small systems. And, again, the tighter you get that envelope, the smaller your systems get. Because the building is just plain more efficient, so you don't have the huge heat load.

Mr. Hurd: So, you might get to a point where the equipment is small, and you're not required to put in an ERV.

Mr. Poole: Right.

Mr. Hurd: So, you're doing the ventilation and you're just throwing it away.

Mr. Poole: Right.

Mr. Firestone: So, you need a smaller building. One thing, and this is more of a general point, is that the language really differs between, in the three descriptions . . .

Mr. Hurd: Okay.

Mr. Firestone: And they should be more, I think a little more consistency is . . .

Mr. Hurd: Well, that was my intent, but I . . .

Mr. Firestone: But just in general, that's more of a sort of go through and edit, and so there's a number of them that say provide this and the other ones say this shall be X. For each of them, we need the exact same . . .

Mr. Poole: Shall is me.

Mr. Hurd: Anywhere it says shall . . .

Mr. Firestone: So, I'm big on shall. Anyway, we should have a standard format. So, I don't know that we need to do this as a group, but once we get these, someone should go through, you know . . .

Mr. Hurd: Yeah.

Mr. Rowlands: It probably needs two months of wordsmithing.

Mr. Firestone: Someone on staff should go through and standardize all the language so that we don't have disputes . . .

Mr. Poole: This is how it's going to be.

Mr. Hurd: Right, so when I was going through and editing . . .

Mr. Firestone: Tim should do it.

Mr. Hurd: I was the one who wrote things like provide or document or demonstrate. I was putting those as sort of the action verb of do a thing, you know, give Tim a report, give Tim the COMcheck, you know, here's the report . . .

Mr. Poole: And again, the important thing is, is that it's strong Code language. That it's clear this is what the requirement is. Not we'd like if you would . . .

Mr. Hurd: Right.

Mr. Firestone: Well, we should have a sentence [inaudible] too.

Mr. Poole: A what?

Mr. Firestone: I mean there should be an intro sentence. When this gets into Code, there should be an intro sentence that says you shall meet each criteria, you know, so you're sort of doubly protected.

Mr. Hurd: When I was writing this, I was trying to write it in a way that could be basically checked off easily. That said, you know . . .

Mr. Poole: They've met that, check.

Mr. Hurd: You know, provide an ERV with an HVAC system sized, okay, here's my cut sheet on the ERV system, right, boom, check.

Mr. Firestone: But like HVAC equipment options says any open, it doesn't say provide, it says this shall have. So, it's in the shall format versus the provide format.

Mr. Hurd: Okay, I see what you mean.

Mr. Firestone: And I understand that you have different sort of words to describe but anyway . . .

Mr. Hurd: I missed those two.

Mr. Firestone: Anyway, it's more of a proofreading and copy-editing task.

Mr. Hurd: Okay. Let's see, oh, we might need to look and see if those flow rates can be, if there's a Code-defined flow rate that we're doing a percentage of or something.

Mr. Rowlands: This is under the water distribution?

Mr. Hurd: This is under fan power. High-efficiency HVAC fans. Again, the, right now I've got a watts per CFM and I don't know, that's the kind of thing if we get locked into that and technology improves, it's like, oh, .8, we've got a bunch of those. We want to make sure that the definition is kind of incremented as Code requirements or things . . .

Mr. Poole: We'll have to look at that in the . . .

Mr. Hurd: I realize that's not a shared Code rate, that's just a power to . . .

Mr. Rowlands: Technology.

Mr. Hurd: That may not be something we can tie to it. No continuous fan operation. Demonstrate that fans are controlled based on actual loads or occupancy schedule, which is always a good thing. Provide an ERV. Is ERV the correct term? Do we want to say ERV/HRV or . . .?

Mr. Rowlands: You should say both. In this climate zone, it's almost always an ERV but . . .

Mr. Hurd: Gotcha. Reduce heating and cooling of unoccupied spaces. There this special one for hotels which, you know, theoretically, if they'd do it, they'd save a lot of money. Okay, water heating. For that maximum flow rates, what I wanted to check was to see if there is, I know there's Water Sense I think is only for residential, or is that universal?

Mr. Poole: I think we should change that to reduced water usage and just do a number as the criteria. Where it says maximum flow rates, just put reduced water demand or something like that. And then go with a number of all fixtures that is 20%, that use 20% less water.

Mr. Hurd: Okay. Does the Code, does the Plumbing Code have maximum flow rates?

Mr. Poole: Yes. I was just looking at that earlier.

Mr. Hurd: Do you think 20% is doable?

Mr. Poole: Yeah. If you have private, it's going to be difficult on some fixtures and easy on others. Like private lavatories are allowed 2.2 gallons per minutes. Public lavatories are only allowed 0.5 gallons per minute. So, guess what? There are 0.5s out there.

Mr. Hurd: Right. And if we word this as basically all of the fixtures . . .

Mr. Poole: Right.

Mr. Hurd: You add up all of the fixtures and sort of divide it, that needs to be . . .

Mr. Poole: Right.

Mr. Hurd: So, you could have a couple of heavy and a couple light.

Mr. Poole: Right, I can't meet it because it's hard to get a lavatory that gets, well, I've seen 0.25 gallons per minute lavatories, but . . .

Mr. Hurd: Right, and we're really just looking at lavatories and showerheads.

Mr. Poole: Well, again, why not do all fixtures? Includes toilets and . . .

Mr. Hurd: Well, toilets are [inaudible].

Mr. Poole: I don't see any . . .

Mr. Hurd: Okay, so toilets . . .

Mr. Poole: And in essence, service water heating. Maybe that's in resource conservation and efficiency.

Mr. Hurd: Any maybe this needs to move . . .

Mr. Poole: Yeah, that's probably more like . . .

Mr. Hurd: Let's move this to resources.

Mr. Poole: If we don't already have something like that in there.

Mr. Hurd: So, toilets and sinks, basically. Because you have kitchen sinks and things. What I want to make sure is that we're not trying to include things like laboratory spaces which will have their own set of criteria about air flow and water flow.

Mr. Poole: Again, if they're building a laboratory space, it's likely in a much larger building so those few lavatory fixtures aren't necessarily going to be an issue.

Mr. Hurd: Possibly.

Mr. Rowlands: And you're getting everything together now on average. So, you're talking about taking the efficiency fixtures and dumping it down in to resources somewhere.

Mr. Poole: Yeah, resources and efficiency.

Mr. Hurd: I think it's here, I think it was here and hot water because of the lavatories and the showerhead flow. But it does make sense, as well, just in general to save the water.

Mr. Poole: If you're saving hot water, you're saving cold water too.

Mr. Hurd: Absolutely.

Mr. Poole: It's not like you're going to put in a new showerhead that only has the hot.

Mr. Hurd: One hot, one cold. Alright, I'll move that. High-efficiency hot water heaters. This one has a little more language because I'm trying to include, and formatting-wise, we might, I think it's formatted differently where essentially, we can break it apart better on separate lines, but basically we have gas pipes, storage, we have boilers, electric storage, and we have small and large, and that's . . .

Mr. Poole: Where's our tankless?

Mr. Hurd: They're under on-demand.

Mr. Poole: They're under resource efficiency, aren't they? Did it get lost? I know we had it in here at one point. I thought we did.

Mr. Hurd: We had them in . . .

Mr. Rowlands: They're in residential.

Mr. Hurd: Residential, for sure. So, we have them sort of under the on-demand hot water switch for hot water distribution. So, either point-of-use water heating or recirculation pump. But that's not the same as on-demand systems for a larger area. That's just at the lavatory you have a . . .

Mr. Poole: Right. So, let's put in a tankless option.

Mr. Rowlands: Your tankless would be point-of-use?

Mr. Poole: What?

Mr. Rowlands: Your tankless would be a point-of-use?

Mr. Hurd: But it could also feed a system. I mean you can have, again, depending on the size of the building, it can run off a single or it can run off a couple of them in zones. We have reducing water supply lengths. We have on-demand hot water switch. We have recover energy used to heat water using a waste heat recovery system. All good so far?

Mr. Rowlands: Yeah.

Mr. Hurd: We're going to get through all of this one.

Mr. Poole: Hopefully.

Mr. Hurd: Alright, lighting power density. So, this is I think bounced around a little bit but basically, we're saying that the installed lighting power density is 10% lower than the allowed in the IECC. And that's however you want to achieve that.

Mr. Rowlands: Sure.

Mr. Hurd: Daylight responsive . . .

Mr. Poole: But do we want that in parentheses either entire building or space-by-space method? Do we need to put that in there?

Mr. Hurd: I don't know if that refers to a particular calculation.

Mr. Poole: Again, as long as they calculate it and demonstrate it, why do we care what method they use?

Mr. Hurd: Okay. I don't know. We don't care, so I'll strike it. This is all for you, Tim.

Mr. Poole: Save words.

Mr. Hurd: So, we have the 35% of the conditioned space is within a daylight zone and controls to adjust the lighting output. Efficient lighting fixtures. Oops, that's like a duplicate.

Mr. Rowlands: Where did the 35% come from?

Mr. Hurd: Thirty-five percent of the building's conditioned floor area? Probably from LEED.

Mr. Poole: LEED.

Mr. Rowlands: Demonstrate that a minimum of 35% of the building's conditioned floor area . . .

Mr. Hurd: Is within a daylight zone.

Mr. Rowlands: Okay.

Mr. Hurd: That makes sure that you get, basically, the full perimeter. And then that let's you not have to mess around with conference rooms or interior offices or some of those things that are going to be harder. . . it jacks it up. Then we have exterior lighting fixtures, the same thing, lighting power density.

Mr. Firestone: You've got, between is and 30%, the word be.

Mr. Hurd: Thank you. And then coupled with the exterior lighting is automatic controls, which you'd think people would do but, I would think the Wendy's on Capitol Trail, it was like 5:30 or 6:00 and the parking lot lights were on. I'm like, can't you see . . .

Mr. Poole: When they did the Home Depot, they had to call to Georgia to get the lights turned on and off. It was all BAS and it was controlled in Georgia and there was nothing you were going to do at that building to turn those exterior lights on or off.

Mr. Hurd: So, they ran on Georgia's schedule for lighting.

Mr. Poole: They controlled every Home Depot in America from Georgia, whether the exterior lights are on or not.

Mr. Hurd: Oh, man. Plug loads, it says 50% of all receptacles in private offices, conference rooms, print and copy rooms, break rooms, classrooms, and individual workstations shall be control by time clock or occupancy sensor.

Mr. Poole: You have a shall have be.

Mr. Firestone: Workstation should be plural.

Mr. Hurd: It should have an S. Okay, I'm just circling all the shall be's. Energy Star certified equipment in the kitchens.

Mr. Poole: And that's aspplicable. The last word on the efficient kitchen.

Mr. Hurd: Wow, I was typing fast. I got a new keyboard like a week-and-a-half ago.

Mr. Poole: It's really efficient. It's throwing extra letters in there.

Mr. Hurd: It's the good kind. It's got extra words and letters. Onsite renewable energy, we have providing for future capacity, then we have the onsite renewable . . . now I need you to check this. Did we settle on 10 kilowatts?

Mr. Poole: I thought we had.

Mr. Hurd: I turn to the expert.

Mr. Firestone: I looked back and looked at what I found and . . .

Mr. Hurd: Yes, because I think we bounced different numbers around.

Mr. Firestone: The 25th percentile is 14-16, so I think we should have our minimum as 15, but I would propose that you get 2 points for every 15 kilowatts. The median is 45.

Mr. Hurd: So, three 15s is 6.

Mr. Firestone: That would be three 15s and then when you get up to the 75th, we're up to around 100. We won't get, necessarily, up to the 75th percentile but if we gave 2 points for every 15 . . .

Mr. Hurd: Right, it raises the base a little.

Mr. Firestone: Up to, and we can talk about the max . . .

Mr. Rowlands: The max is 6?

Mr. Hurd: That seems to make sense. And are we comfortable with the installed because there was one criterion that was using annual kilowatt hours generated and I don't know which is a better measure of . . .

Mr. Firestone: You can make an estimate of the number of kilowatt hours you're going to generate but you, obviously, wouldn't know. I mean that creates a whole . . .

Mr. Hurd: Right, that was part of my concern.

Mr. Firestone: So, the installed is pretty easy. You put it in, Tim can go look at it, see the paperwork. We put in 15 and we not going to have to argue about it so much.

Mr. Poole: Yeah, well it was a cloudy day when you were measuring that.

Mr. Hurd: And that's why I wanted to check because, of course, building usage is going to be in kilowatt hours but, you know, it would be lovely to say we're providing 50% of the building's energy usage but that means we'd need to know what the building usage is and work backwards.

Mr. Firestone: I would say you should do installed.

Mr. Rowlands: Yeah, keep it simple.

Mr. Hurd: That's a fine explanation for me. And then green power, which is just purchasing. I don't know how we'll have them tell us, when we say expected energy usage, I'm realizing that that's a little undefined.

Mr. Poole: Again, I don't . . .

Mr. Hurd: I mean, because we can do it by, again, we just say here's a unit of purchased power.

Mr. Poole: I think they need to agree, and, by the way, they're all going to be buying the power from us, so they have to sign up for 100% plan to buy renewable energy, not about expected, just the plan is 100% green power.

Mr. Hurd: So, that's sign up for the City green power plan?

Mr. Poole: I'll find out what that's called.

Mr. Rowlands: Do you know what the premium is for that?

Mr. Poole: No, but it's a little bit more than . . .

Mr. Rowlands: Obviously, it's a little bit . . .

Mr. Hurd: It's pennies.

Mr. Hurd: It's not much but meanwhile they're paying the little extra so then we're saving the environment.

Mr. Rowlands: Yeah, yeah. And they get X amount of points for two years . . .

Mr. Hurd: I had forgotten when I was looking at this that power is coming from the City.

Mr. Rowlands: And most everything else here is for the length of the building that we're looking at.

Mr. Hurd: There may be instances, I'm thinking like the Newark Charter building and the part that they just annexed in might still be getting its power from Delmarva.

Mr. Poole: Yes, until they demolish that building.

Mr. Hurd: So, I don't know, how do we reconcile that?

Mr. Poole: Then they show us the contract they signed with Delmarva to purchase green power . . .

Mr. Hurd: It says or sign up for the City green power. Because I was just thinking, wait, there are times that . . .

Mr. Poole: They're not keeping that building, I assure you.

Mr. Hurd: There are rumblings that it might be a, they might move the middle school or the intermediate might expand.

Mr. Poole: Yeah, but like I said, they're not going to reuse that building. They're going to demo that building.

Mr. Hurd: I haven't seen the building, so I don't know. Okay. That's energy.

Mr. Firestone: One thing that we're going to have to decide about the green power and the, the green power you're talking about purchasing energy. The green component is actually the renewable energy credits. And if you sell your renewable energy credits and put in panels but you're socializing the cost, so we're going to have to decide how we're going to handle for both of those.

Mr. Hurd: Okay.

Mr. Firestone: So, the utilities are required to hold a certain percentage of renewable energy credits.

Mr. Hurd: Okay.

Mr. Firestone: So, if you put solar on your house or your building and you sell your renewable energy credits to Delmarva or to DEMEC, to a certain extent you're not increasing renewable energy, in general, over and above what it would be anyway, if you understand what I'm saying. So, technically, when you sell your renewable energy credits, you no longer have green energy. You have, you own the panels, but the green energy component is then being sold to Delmarva and then those costs are being passed on to a bunch of rate payers. So, we have to decide whether we're going to require, so on the green power, you could require someone to purchase and hold renewable energy credits.

Mr. Hurd: Okay.

Mr. Poole: I don't know how realistic it is that we're going to be able to follow up on that. What documentation would we have and what requirement could we impose that they could never sell those credits?

Mr. Firestone: Well, I guess we're saying is they'd probably have to have, well, that they wouldn't resell the credits? I mean, you probably can't.

Mr. Poole: That's unenforceable.

Mr. Firestone: Agreed. But to, I mean you potentially could enter into a contract to buy the solar energy and they would split the renewable energy credit. The developer could sell the renewable energy credit to Delmarva.

Mr. Hurd: Most of it's going to go, I mean, it's, any new building that is built in the City will be purchasing energy from the City, period. It's only buildings that get moved, or buildings that get annexed that are existing buildings that . . .

Mr. Firestone: Then they're going to have to purchase, if they're not, probably they're purchasing, then, renewable energy credits. And then they have to retire those. There probably, and I can look into it, there probably are places where they can effectively retire renewable energy credits. But it just . . .

Mr. Hurd: I'm fully confused but I'm . . .

Mr. Firestone: Okay, there are, whenever you're a developer, there are actually three things that you get when you build an energy project. You get payments for the electricity, you get payments that are called capacity payments for just being there because there are times when demand is really high and so you get a payment just for being alive.

Mr. Poole: Well, just for having the capability to provide X amount of energy, yes.

Mr. Firestone: Yes. And then the third, if you're renewable, you get these certificates for every megawatt hour you produce. And you can either just keep those yourself if you're like a homeowner or you can sell them, people sell them to aggregators who then sell them to Delmarva and to DEMEC because they're required under law to hold a certain percentage . . .

Mr. Hurd: Okay. Does holding the credit yourself have a tax implication?

Mr. Firestone: No, you just, it doesn't have any tax implications at all.

Mr. Hurd: Okay, so it's more that DEMEC would have to go get those credits from . . .

Mr. Firestone: From somebody else.

Mr. Hurd: To maintain their percentage. Okay.

Mr. Firestone: Right. So, to a certain extent it's a zero gain, so it's just a question of how to handle that question. So, I mean, on the first one, on the PV panels, maybe the City just wants PV in the City. There's some resilience benefits and some other benefits to having generation within the City limits. So, maybe that's sufficient. And then the business or the homeowner could still sell the renewable energy credits.

Mr. Hurd: Right.

Mr. Firestone: It's just something that needs to be resolved. So, like the, you know, it was not well advertised but the PV farm that the City built and then they sold it and people like me bought it. And then the City went and sold the renewable energy credits and so I didn't actually buy the green energy I thought I was buying because the City sold the green energy portion. I thought I was helping them to retire it.

Mr. Hurd: Okay. I guess, for me, the question here is what's the behavior or effect that we're trying to achieve? I think one of them is putting more solar panels on more buildings because I know that's been a thing of yours. So, one is just getting more panels on buildings. Is there an actual benefit to buying green power? Does that help support the development or the construction of renewable energy?

Mr. Firestone: Yes. I mean, well, when prices were quite high on solar, it was pretty critical because otherwise you were paying a really large premium and so you really needed to do that to socialize the cost . . .

Mr. Hurd: Okay.

Mr. Firestone: In order to make it feasible. Less so now because the prices have come down so much.

Mr. Poole: The equipment has become more commonplace and a lot more inexpensive.

Mr. Firestone: Well, it's not just that. The technology has gotten a lot cheaper. The install time went from like two days to one-half day. You know, the panels, they just slap them in. Obviously, on a new building it's even cheaper because you've got your roofer there, you've got your electrician. You've got all these people already there for doing other things and then they can do that. Obviously, if you put a bigger array in, too, there are economies of scale . . .

Mr. Hurd: Sure.

Mr. Firestone: That you get from a commercial scale that you wouldn't get if you put in, you know, if you put in 60 kilowatts versus putting in 5.

Mr. Rowlands: What bugs me on this is they're getting 2 points for two years' worth of commitment.

Mr. Poole: I'd be fine to up that to a five-year commitment.

Mr. Hurd: We're hear to tweak the language.

Mr. Poole: Like I said, if we want to make that a five-year commitment, I have no problem with that. Because this is something, again, we're contrasting it to the lifetime of the building. Which five years in the lifetime of the building is a drop in the bucket.

Mr. Firestone: But if you're saying . . .

Mr. Prettyman: Or your first five could be your crucial five.

Mr. Firestone: But if you're saying they're purchasing all their electricity from the City, it's not clear that the City, I mean, that would be only a contract with the City.

Mr. Hurd: Well, the City has a green power plan that you can basically opt-in to.

Mr. Firestone: You can opt-in to.

Mr. Poole: Yes, that you can opt-in to.

Mr. Rowlands: And that's basically what you're talking about here.

Mr. Poole: And that's what I'm talking about.

Mr. Hurd: Because, as we know, this isn't special electricity just from the wind farm. We all know that that's not, it's that you're purchasing, essentially, you're spending money so that they're developing wind farms, so that's part of the whole grid.

Mr. Poole: If they're agreeing to a term commitment to paying a premium to purchase green energy, whether it's a small premium by percentage or a higher premium by percentage, still they've committed to subsidizing green energy.

Mr. Firestone: But if the renewable energy credits are going elsewhere, the City isn't making progress towards being carbon-neutral. They're putting in panels but they're not making progress towards being carbon-neutral.

Mr. Hurd: Ah, so that's sort of key.

Mr. Firestone: If . . .

Mr. Hurd: Well . . .

Mr. Rowlands: That's not necessarily the goal of what this Code is.

Mr. Firestone: Right, no, I'm just saying we . . .

Mr. Hurd: It's the goal of other groups, too, and whether that fits into this spot, I don't know.

Mr. Poole: That's a consideration that should be made with the Council on their electricity and their generating and handling of green energy credits, not necessarily something for this.

Mr. Hurd: Unless, and maybe this is a homework assignment for Jeremy, if there's a way to write the green power thing to say I'm either purchasing green power through a contract thing or, you know, if there's a trail, I'm retiring the renewable energy credits that I gained from the photovoltaic system that I had installed. And if you didn't install a photovoltaic system, you don't have those credits, so you have to go purchase green power. You know, if you can find good language . . .

Mr. Firestone: Okay, I'll . . .

Mr. Hurd: Because that seems like what you're saying. It's like we either, I'm either buying someone else's credits because they took those credits and sold them into this system and now I'm sort of purchasing them back, or I gained those credits and held them, which has some benefit that I'm not fully understanding but it has to do with . . .

Mr. Poole: Right, and the two options that we have now are that we're either providing the capability to produce that energy or we're committing to an agreement to subsidize producing that energy.

Mr. Hurd: And it's an and/or, too.

Mr. Firestone: Yeah, I'm just saying we just, not necessarily with this group, but at some point the Planning Commission and City Council need to decide what are they interested in giving credits for and, like I said, it may be that they think it's good enough from a resilience standpoint to have this extra power in the City. But it may be something, as well, that you'd want to phase out over time as the prices continue to drop that, you know, for the first five years you get to sell renewable energy credits and they can retire them, or something like that.

Mr. Hurd: Right. Do you think that's something that you could look into and see if there's . . . ?

Mr. Firestone: I'll do some research.

Mr. Hurd: If you could find some example Code language, that's like even better.

Mr. Poole: And really the issue is, again, being mindful of this is a document that once they have met these criteria, we give them a certificate of occupancy and we're never going to take that back.

Mr. Firestone: No, I understand but there may be a way for them to . . .

Mr. Poole: Permanently . . .

Mr. Firestone: Have a document that shows that they've permanently retired renewable energy credits.

Mr. Hurd: I think, really, our thing is to sort of say you either take that credit and you sold it off or you retired it. I don't know that you could sell it for a period of time and then retire it and still get a credit because that's, as you said, five years down the road and there's no way to enforce that.

Mr. Firestone: Well, if you sit and you don't sell it, they become valueless, eventually.

Mr. Hurd: Okay. Which is good. Alright. Conservation, efficiency and features. Alright, so we're into the material. So, we have demolition waste.

Mr. Poole: It says be weight, not by weight.

Mr. Hurd: It does. Blame it on the keyboard. I printed this, this is really small, too, so it's hard to see.

Mr. Poole: It could be auto-correct.

Mr. Rowlands: And is 50% easy to do? You do it all the time or is it worthwhile to . . .

Mr. Prettyman: I think those are probably fair numbers.

Mr. Rowlands: Okay.

Mr. Prettyman: Yeah, because it's super easy to throw it in a dumpster. It's actually . . .

Mr. Rowlands: Yeah, right. You pay more but it's just easy.

Mr. Prettyman: In some instances, it could be a pain to divert everything.

Mr. Rowlands: Okay.

Mr. Hurd: We have the documentation of donations. It's sort of a little vague but we're trying to make sure that it's going to organizations that will do something with the materials or uses the materials to provide housing.

Mr. Poole: I may have to leave in a few minutes.

Mr. Hurd: Okay. And so, then we based it on the first \$1,000 and then additional \$5,000s. Building material reuse. This is one I . . .

Mr. Rowlands: Wait a minute, who values that \$5,000?

Mr. Hurd: The charity.

Mr. Hurd: The charity does. And that's why I put in there the first \$1,000 gets you 1 point and then sort of a you have to donate a lot to get the \$5,000 credit.

Mr. Rowlands: But it's not like Goodwill where you go in and say, yeah, this is \$5,000 worth of stuff and they say okay and sign off.

Mr. Poole: I don't know, I've never done it.

Mr. Hurd: I mean, the restore, they may do a valuation or something

Mr. Poole: And they may fudge it but they're not going to fudge it \$5,000 and \$10,000 worth.

Mr. Rowlands: I've seen too many places where you just go fill out your own form and the guy dumping it just signs it and you walk away.

Mr. Hurd: If we think there's a better way to tighten it up . . .

Mr. Rowlands: I don't know.

Mr. Hurd: Building and material reuse. This one I rewrote, and this is kind of based off LEED's version 4, so we can blame it on there. And this one is a little different than residential, so we can decide which one we like better. The building reuse had always been a little weird because it's like, well, exterior walls and interior walls and structural elements, and sort of broke everything down. This simplifies things a little bit by just saying I've preserved a minimum of 25% of the buildings surface area as either building or materials within the building.

Mr. Rowlands: Building surface area? Floor, walls . . .

Mr. Hurd: Everything. So, it's a big number in that way.

Mr. Prettyman: But why would you do that? New construction you probably wouldn't do that.

Mr. Hurd: No. And we can come back, we can just sort of say is building reuse even a feasible credit to be pursuing.

Mr. Rowlands: This almost seems like it's one of those free ones. They're either going to tear the thing down and build, or they're going to reuse because that's their intent. So, why give them points if they're . . .

Mr. Hurd: I'm open to either. My experience of what I'm seeing is that most of the time they're going to tear down what is there and build something else, especially in commercial, because they're trying to maximize their lot, they're trying to maximize the thing, they need to

get the parking in, you have to do a number of things that don't work well with existing building.

Mr. Prettyman: Well, I think also we're trying to get energy efficiency and, you know . . .

Mr. Rowlands: It's hard to do that when you're reusing . . .

Mr. Prettyman: Yeah, old stuff.

Mr. Hurd: Right, I had that conversation . . .

Mr. Rowlands: So, I also see it, are these 2 points, or whatever points you put to it, is that going to sway someone's decision to tear down or reuse? It's really the site that's going to determine that.

Mr. Prettyman: They're going to come to you with their plan . . .

Mr. Rowlands: Right, so I would eliminate it, to be honest.

Mr. Hurd: And I'm okay with that if we're in agreement.

Mr. Poole: I don't have a problem with eliminating it. It's more of a pain in the neck . . .

Mr. Hurd: It's a complicated thing to calculate, for sure. To try to quantify . . .

Mr. Rowlands: I just don't think it's changing anybody's mind.

Mr. Hurd: Okay.

Mr. Poole: I don't know that the criteria should be are we going to sway them to do that.

Mr. Rowlands: You don't think it should be that?

Mr. Poole: No. I think that they have to meet a certain number of points and they get to pick whichever ones they want. And I don't know that we should be swaying them to do any one thing over any other thing. I think we should value each thing as what we feel its value is toward this Code. And whether they pick this one or that one, they have to get 50.

Mr. Rowlands: Okay, that method is fine, but I still say this isn't going to do anything but add 2 points if they do it.

Mr. Poole: And I'm fine with losing this. I'm just saying that, in general . . .

Mr. Hurd: I think, in addition to that, I often look at the credit and go does achieving this credit achieve our overall goal of reduce energy, reduce carbon, reduce . . . and yes, it does, but a lot, a little, some? I think . . .

Mr. Rowlands: It sounds like it's out.

Mr. Hurd: Yeah, I think diverting materials is probably a bigger thing that we want to be sure . . .

Mr. Rowlands: Yeah, that's a bigger one.

Mr. Hurd: Deconstructing, I think, is a more valuable thing. Recycled content. This one, I went round and round on this trying to get the language to actually be quantifiable in the sense of like how do you measure the thing.

Mr. Poole: Is there a certification for materials?

Mr. Hurd: I didn't see one but what I did see was a criteria that LEED and also the Green Building Standard say that basically it meets the recycled content criteria if it's a minimum of 25% post-consumer or 50% pre-consumer recycled content. So, now we have a percentage that you can then evaluate the label against. And now what we're saying is basically percentage of installed elements have to meet that criteria. So, 75% of all carpeting and flooring, 90% of all decking, all sheathing, 90% of siding, 90% of roofing. And the 90% is, of course, so you can have feature pieces.

Mr. Poole: Definitely going to need some spellcheck.

Mr. Rowlands: I'm sort of torn with all of this here. Not all, but portions of it. Specifically, a deck. I mean for global warming and climate change, my opinion is you're better off cutting wood and putting a wood deck down than firing up the furnaces and taking tires or plastic bags and turning them into decking.

Mr. Hurd: There's the treatment of the wood that's an issue, too.

Mr. Rowlands: Well, you could thermally modify it. That's a different story. But, yeah, so I'm torn. Just throwing let's go recycled is not always the best.

Mr. Hurd: Not always better, no.

Mr. Rowlands: Because I could do wool carpeting and that's good.

Mr. Hurd: It's a renewable source, yeah.

Mr. Rowlands: But recycling and your indoor air quality on a recycled content carpeting . . .

Mr. Hurd: I hear you. I mean, I will say that almost every standard out there is talking about recycled content as a piece of it in the sense that you're trying to reduce the amount of virgin materials extracted and such. Whether that achieves the end goal and what that end goal is, that's where it gets a little vague.

Mr. Rowlands: I mean, I'm not totally opposed to it by any means. I'm just, I have this issue with it. I wouldn't do carpet, I would do hardwood floors. That kind of a . . .

Mr. Hurd: Yeah, what you choose is a separate thing. Reid's issues and concerns aside . . .

Mr. Poole: I think this looks good.

Mr. Hurd: Does it look good? I mean it's the same percentages pretty much that we were using before.

Mr. Rowlands: Yeah.

Mr. Hurd: Are we still good with sort of the 1 point for everything?

Mr. Poole: Yeah.

Mr. Rowlands: I thought we weren't talking points.

Mr. Hurd: Well, I know but that's one of those credits where you kind of lump it together and say if you do five or more, you've met the intention of this thing and we're done. Or is it just every single time you meet that criteria . . .

Mr. Poole: You meet the criteria, you get a point. That way if they only did four, is there no value?

Mr. Hurd: No, but like low VOCs we had kind of lumped it and sort of gone, you know, if you do a bunch of them . . . regional materials.

Mr. Poole: Where did you get the 100 miles? All I've ever seen was 300 and 500.

Mr. Rowlands: Five, yeah.

Mr. Hurd: Okay, I saw that in somewhere.

Mr. Rowlands: I actually kind of like the 100 in the sense . . .

Mr. Hurd: But that's a very tight . . .

Mr. Rowlands: That I can bring windows in from Europe with a smaller carbon footprint than I can buying them from 500 miles away because ocean containers are very low. Or a train. You could put a . . .

Mr. Hurd: Yeah, or very close to . . .

Mr. Rowlands: It's more complicated than just . . . that all came from LEED 20 years or 10 years ago.

Mr. Poole: And it's only 1 point.

Mr. Hurd: So, 300?

Mr. Poole: I think 300 is reasonable. What's in LEED? What's the standard? I don't want to confuse people who are making our standard different than . . .

Mr. Hurd: That's the thing I thought I got this from.

Mr. Rowlands: Oh, I don't think LEED has 100.

Mr. Poole: I thought it was 500 in LEED.

Mr. Rowlands: That's what I thought.

Mr. Poole: And, again, if that's the standard, then I don't want to confuse people.

Mr. Hurd: Alright, I will edit that to be the LEED or others thing. But then again, this is one of those credits where it's like if you do 10% you get something, if you do 20% you get a little more. Rapidly renewables. So, that's . . . and you'll see that most of these are percentage of total cost, with wood being a percentage of total wood products. Material efficient framing. This is where things got broken out a little bit because it had been kind of lumped together. So, we've got the advanced framing principles sort of and/or pre-cut or pre-assembled wall assemblies or panelized assemblies. For floor assemblies, you know, if you're going to use a truss, then you get some credit for that. And also then roof. So, I broke it out sort of into assemblies to look at that. Engineered lumber, I know we've been back and forth about the value of engineered lumber. I bumped this a little. I think in previous meetings we've been talking about 6. I just said anything over 8 inches nominal.

Mr. Poole: That seems reasonable.

Mr. Hurd: Okay? Okay. And then outdoor water use, so this is probably where the indoor water use would come to. So, no irrigation or the native plants or a design, showing a zone

system to match up with the different plants with a smart controller. Gray water reuse. Efficient HVAC use.

Mr. Poole: The efficient HVAC water use, other than a chiller, what's that applicable to?

Mr. Hurd: Chiller, cooling towers, that's about it. But it's just making sure you're not using potable water.

Mr. Poole: Okay.

Mr. Hurd: If you're going to use potable, you're recirculating it or doing it some other way to, you're not just washing it.

Mr. Poole: Can we lose HVAC system and say chillers and cooling towers? Because guess what, my forced air heating system does not use that, so I want that point. Right?

Mr. Hurd: Yeah, the way it's currently written, yes. You get a lot of people with that stuff come through, don't you?

Mr. Poole: It happens.

Mr. Hurd: And then site selection. So, we've got building far away from a flood zone is what we're talking about here because you can't build in a flood zone. Protecting and restoring native plants. Creating a certified wildlife habitat.

Mr. Rowlands: Back up to the first one, document on the site plan there will be no disturbance lower than 5 feet in elevation of the 100-year flood. Is this a freebie for most people?

Mr. Hurd: -ish. And that's a good question because I think we've talked about . . .

Mr. Poole: Well, again, that last sentence makes a difference. If you're site has floodplain, the likelihood that the whole site is, or a great portion of the site is, more than five feet above that flood plain, probably not real big.

Mr. Rowlands: I mean, I know but does that fall into much of where the City is?

Mr. Poole: Yeah. Anything anywhere near a stream, you know, if you back up to a stream, you have floodplain on your site. So . . .

Mr. Hurd: And not a lot of people have five feet of drop-off.

Mr. Poole: Right.

Mr. Rowlands: So, a lot of downtown developers are going to get this point for free.

Mr. Poole: No, because they're not in a floodplain.

Mr. Rowlands: Oh, if you're in the floodplain? Okay. My bad.

Mr. Poole: If part of your site is in the floodplain, you have to build five feet above or you don't get that credit.

Mr. Hurd: I'll make sure that includes floodplain bolded.

Mr. Poole: It doesn't have to be.

Mr. Rowlands: No, it doesn't. My bad. Moving on.

Mr. Hurd: Alright, increasing the tree cover, maximizing the open space, which is basically just saying greater than Code and, you know, one-quarter of it has to be actual vegetation and not just grass because grass is not as good for maintaining. Access to quality transit. This is kind of picking up, this is the newer version of this credit in LEED, where they have, they're counting the number of trips provided by the transit in the area around the project. So, it's not just there's a bus stop or there's a train station, but there's a bus stop that has so many trips per day aggregate. So, it's making it a little more challenging.

Mr. Rowlands: Am I right in assuming this is another free one? They're either going to get it or not if they're going to build there.

Mr. Hurd: We've had that conversation, too. I think there are some points that we're, I know that Tim especially feels strongly about, giving it to them because it's okay to give some points like that . . .

Mr. Rowlands: Why? It's written in there and they get it. Why?

Mr. Poole: Well, again, most of your . . .

Mr. Rowlands: For public awareness?

Mr. Poole: No. Most of your sites that are within that distance of a bus stop or a train station are higher cost. Now, will that higher cost affect whether or not a developer purchases that property or a different property? The cost is always a factor but they're more likely in the City to determine that based on proximity to campus or proximity to an employer. But is there value there? Yeah, there's value there. Is there 2 points of value there? Maybe. Is there 6 points of value there that you get in our current system? No.

Mr. Rowlands: I just see it as I've got a parcel, I already bought it or I've got a right to buy it. I'm coming in, I've got my ideas, oh, I get it or I guess I don't get it. It's just there. Now, if it's there for someone to read it and be promoting that use, fine.

Mr. Poole: And we'll talk about the point values later.

Mr. Rowlands: Okay.

Mr. Hurd: But we have been back and forth on this and I'm not sure that we are all fully convinced of whether it should stay or go.

Mr. Rowlands: Well, I think it should go.

Mr. Hurd: That's what I mean. We're not all fully convinced. Some are convinced one way and some convinced the other. Ben sits there quietly.

Mr. Rowlands: You want that point, don't you?

Mr. Prettyman: Every point helps.

Mr. Hurd: Yeah, and some of these are there so that when the site plan approval process is rolling, they have some ability to sort of tie into that. Alright. Bicycle facilities, providing storage and shower rooms in both commercial, residential, and retail spaces. Bicycle racks. I pulled that back to two times based on some previous comments and I have a note to myself to try to talk to whoever is in charge of bike racks to see about approving or if they'd ever be willing to approve things like a larger multi-bike rack kind of thing. Because I think that was your comment, Ben, that they only approve, I think, the single loops and so if I have to put in five and you're saying put in three times, I have to put in 15 of these individual things all over

and it gets messy. As opposed to putting in a five-bike rack but there isn't an approved City multi-bike rack as I understood it.

Mr. Poole: I think that's more of a means and methods things and City approval process.

Mr. Hurd: Yeah, the City has standard details and approvals for bike racks. So, you can put it one that the City doesn't approve.

Mr. Poole: I would agree with that statement. But I'm just saying that that's not necessarily a Code issue, that's an approval issue and a design issue that's a separate argument.

Mr. Hurd: Okay.

Mr. Poole: I mean from our standpoint, is there the value in the site selection to add additional bike racks? The means and methods of that is a whole other discussion.

Mr. Hurd: I guess I was thinking that if that's a barrier. If by going to three times the barrier is the City doesn't allow multi-bike . . .

Mr. Poole: I don't know that a larger bike rack is really going to reduce the amount of area that it takes to park five bikes.

Mr. Hurd: It sounded like you've been through this, Ben, so I didn't know if you . . .

Mr. Prettyman: I mean, the older bike racks you can definitely fit more in the same amount of space. Like if I space three of those U-shaped ones out according to the standard detail, I can get one of those old school ones where bikes can go on either side and you can probably get like 15 or more in.

Mr. Firestone: The old . . .

Mr. Rowlands: Is there a process for approval of a specific design of bike rack?

Mr. Poole: Yeah, submit it to Public Works. Right now, they have standard ones that they will approve and everything else they won't approve.

Mr. Rowlands: But you can go and say I have this idea and . . .

Mr. Poole: They may or may not add to their criteria.

Mr. Firestone: They just put some new kinds on Main Street, different from the old ones they used to have.

Mr. Poole: I don't pay much attention to them because I don't check them. They're either on the site plan and they're approved or they're not.

Mr. Firestone: I mean, the real old-fashioned ones, a lot of bikes you can't get the tires in, so they don't function that well. You know, with the small little slats.

Mr. Rowlands: They'll bend your wheel pretty good though.

Mr. Firestone: What?

Mr. Rowlands: They'll bend your rim pretty good.

Mr. Firestone: Yeah, so people won't . . . anyway, they don't function that well.

Mr. Hurd: I don't know that that's something we're going to . . .

Mr. Hurd: Well, should we stay with two as an incremental improvement?

Mr. Poole: Yeah, twice as many.

Mr. Rowlands: Yeah.

Mr. Hurd: Okay.

Mr. Poole: Because, again, some people think that the amount the City requires is ridiculous or that we require them on all sites as opposed to only sites that, I had somebody who argued when they were required to do that on their industrial site and, guess what? The put them in.

Mr. Hurd: Because, yeah, the other argument is that people aren't going to ride their bikes if there isn't a place to lock it when they get there. So, if they don't provide a bike rack, at least a semblance of a start of that, then no one is going to ride to work and then they'll always just be driving their cars.

Mr. Poole: Right.

Mr. Hurd: Electrical vehicle charging facilities. Stormwater site infiltration and site filtration. This may get expanded. I need to have a conversation with Stacy because she has some strong ideas about stormwater and what can be done better and what is sort of . . .

Mr. Prettyman: Can be done better? It already is better.

Mr. Hurd: It is.

Mr. Prettyman: And some of the stuff doesn't even make sense as it is with stormwater. You're just storing all the stuff. Like on Benny Street, we have to filter the water that hits the roof but there's no trees. And it goes into the stormtech chamber, which all the runoff from all the road goes into the stormtech chamber, so you just filtered all the water that's getting mixed with all your other road water . . .

Mr. Hurd: That doesn't make sense.

Mr. Prettyman: That it's going to store and then it goes out and goes into the City system. Some of the stuff just totally doesn't make sense.

Mr. Hurd: I think she especially has concerns about downstream capacity.

Mr. Prettyman: Yeah, but then, I mean I got stuff for days, but even around town, DeIDOT and stuff, they're improving all the drainage off the roads but if you go to get your blue card, their main thing is that the water is being dumped off too fast into the streams, which is why the streams are all overflowing and you get all that sediment and erosion. It's just kind of counteracting everything we're supposed to be doing.

Mr. Hurd: Alright. So, infiltration we're just saying either it's site infiltration or we're having a vegetated roof because I know we had been talking about green roofs off and on. Infiltration of the runoff . . .

Ms. Renee Bensley: Will?

Mr. Hurd: Yes?

Ms. Bensley: Do you guys still need the doors open?

Mr. Hurd: Probably not.

Ms. Bensley: Well, are you still meeting?

Mr. Hurd: We are.

Ms. Bensley: Then yes.

Mr. Hurd: Oh, okay.

Ms. Bensley: Okay.

Mr. Hurd: We have to be able to get out.

Ms. Bensley: Can you lock them before you leave?

Mr. Poole: Yeah, it's just flipping a toggle switch, right?

Ms. Bensley: Yeah, just switch the toggle.

Mr. Poole: Yeah, I'll do that.

Ms. Bensley: Okay.

Mr. Firestone: Last man standing.

Mr. Prettyman: Is it possible to get 100% infiltration or is that considered, I guess it depends on how deep you are, right?

Mr. Hurd: I mean it's basically it comes in and it goes . . .

Mr. Prettyman: We got our infiltration rates on Benny Street so good that Public Works said it was an injection well and they wouldn't let us do the system.

Mr. Poole: What? [inaudible]

Mr. Hurd: Put some of that bad dirt . . .

Mr. Prettyman: That's what we ended up doing. We couldn't win.

Mr. Poole: The stormwater regs right now are insane. And that's a good thing.

Mr. Hurd: It is. Heat island non-roof, we're talking about minimum solar reflective index for paving or permeable paving. And then roof either SRI or vegetated roof. Indoor air quality. This kind of jumps back and picks up some of the HVAC stuff talking about ventilation rates and flows, making sure that we've got spot exhausts. I tried to put a little more language in for the construction air quality management plan to just be a little clearer about sort of like what are the things we're looking, the basic things that we're looking for them to sort of address. SMACNA is sheet metal something construction something. So, that's going to be your ducts and things. Protecting absorptive materials, of course, so they don't pick up pollutants. Don't run the equipment until it's in place and don't smoke inside the building. And then there's . . .

Mr. Poole: The building flush before occupancy.

Mr. Hurd: That says either been but there's only one thing so I'm going to say has been flushed out.

Mr. Poole: You definitely need to go through with a spell check and grammar check.

Mr. Hurd: Yep, I was crunching this thing out to get it done. I got it done on Thursday so it's a little rough, but it's done.

Mr. Poole: And spell check is easy.

Mr. Hurd: So, now we have the low-emitting materials. This is one I had a question, I need to pull the data. Here we're using the International Green Construction Code reference for compliance. In the residential one, we're using like the California standard, which obviously I think we need to pick one or the other and just say that's our low VOC criteria.

Mr. Poole: Well, we have the Green Construction Code here.

Mr. Hurd: If that makes sense to you, then . . .

Mr. Poole: That's a document that we have on premises.

Mr. Hurd: Okay. Furniture is just by cost. Okay, lighting controls, thermal comfort, thermal comfort design, daylight and views. I wonder if that daylight and views daylight should move back over to the, no, we can keep it where it is. Direct line of site to the outdoors. And that's all of it. Are there credits that people are feeling shouldn't be on here?

Mr. Poole: We eliminated the one.

Mr. Hurd: Yeah, is there anything still that people are going that's either . . .

Mr. Poole: The only other one is the bus stop one.

Mr. Rowlands: I think that should go but that's me.

Mr. Hurd: I think that's the only one that's left where if you own the property you get this point because I took out brownfields because it's sort of like there's not really that many brownfield sites in general and it doesn't seem to be making much in the way of decisions.

Mr. Firestone: I'm going to suggest that we vote to approve the finished minutes.

Mr. Hurd: Oh yeah, I was going to . . .

Mr. Firestone: Since we have time, we can check those two things off. So, I . . .

Mr. Hurd: You're moving?

Mr. Firestone: I move that we approve the minutes of May 21 . . .

Mr. Hurd: Do we want to do both at the same time? Or do you want to do one at a time?

Mr. Firestone: And the minutes of June 25.

Mr. Hurd: Do I have a second?

Mr. Poole: I'll second.

Mr. Hurd: Okay. All in favor. Okay, great, beautiful.

MOTION BY FIRESTONE, SECOND BY POOLE THAT THE MINUTES OF THE MAY 21, 2019 AND JUNE 25, 2019 GREEN BUILDING CODE WORK GROUP MEETINGS BE APPROVED.

VOTE: 5-0

AYE: FIRESTONE, HURD, POOLE, PRETTYMAN, ROWLANDS
NAY: NONE
ABSENT: IRVINE, JADICK, MCNATT, VACANCY (CONSERVATION ADVISORY COMMISSION)

MOTION PASSED

Mr. Hurd: Are we comfortable in essentially approving the language of the commercial projects checklist or are there still enough outstanding questions that we need to come back?

Mr. Poole: I think with the edits that we have, I mean, we'll get one more . . .

Mr. Rowlands: Yeah.

Mr. Firestone: Yeah.

Mr. Poole: We'll get to review it again, but I don't think that there's going to be any real . . .

Mr. Hurd: Okay, so we'll hold on official approval . . .

Mr. Firestone: Yeah. I mean I think we'll approve it all at once, but I think we're all generally comfortable with where we are.

Mr. Poole: With the wording and the criteria, again, as amended today.

Mr. Hurd: Right.

Mr. Firestone: Should we next time deal with points on commercial? Because it seems like the numbers on the residential should be relatively simple, the words on the residential now that we've gone through . . .

Mr. Hurd: Yes, and I think that's a good point. I think if we iron out the points on the commercial, we'll get more clarity also about the philosophy of the points that will roll over the residential just as easily. If we're saying windows are this kind of importance, it's windows are that kind of importance.

Mr. Firestone: Right.

Mr. Poole: Have you had the discussion with Mary Ellen regarding the site plan approval?

Mr. Hurd: Yes. So, that's, I think I talked about that last time, but you weren't here. So, if you recall I think it was like two or three meetings ago, I had proposed bumping it up like to 75 points or something for site plan approval. And then we had a conversation about should it be tiered like one, two, and three levels, or something like that. I guess you recommended talking to Mary Ellen. So, I talked to Mary Ellen and I talked with Tom because he's been involved in the Green Code stuff since the beginning. In a nutshell, what they felt was we could say site plan approval is going to have, basically, you can raise the minimum a little bit, to like 60 kind of thing. But that's the starting point and then it would be up to the developer, or the applicant, I should say, to say what kind of relief am I seeking through the site plan approval process and therefore how many credits should I be trying to achieve to kind of balance that in terms of their proposal. And then the Planning Commission would then decide whether they had sort of met that. And staff would also encourage that if someone came in, and a good example is probably the apartment building on Haines Street, which I think in terms of site plan there's like a rear yard setback and, you know, there were a couple of things. It was not a big set of stuff. And then there are other ones where it's like I need all of my lots are 10 feet too narrow and all of my, you know, I need to go right up to the edges, and I've got boom, boom, boom, boom, boom. I've got 60-70% variance from the requirements. That kind of project, speaking as the

Planning Commission, we would be like you really need to show a lot of improvement in the energy and site points to balance that.

Mr. Poole: Well, the discussion then is also with site plan approval, they also look at other criteria . . .

Mr. Hurd: Right . . .

Mr. Poole: Such as design components and materials that they use and visual things that, again . . .

Mr. Hurd: And parking and open space and, yeah.

Mr. Poole: Yeah.

Mr. Hurd: So, energy performance is one of the criteria of evaluation.

Mr. Poole: Right.

Mr. Hurd: But what I was mostly trying to do is to cut the connection, because the site plan approval code says LEED certified or approved equivalent. I want to get LEED certified out of there and I want to just have it say, basically, complies with the amended energy code. And in the amended energy code, what I'm proposing is to say if you're coming through with some sort of site plan approval, we're going to start you at 60 points as a starting point . . .

Mr. Poole: Or do 60 points and then all the other stuff mixed in with it.

Mr. Hurd: Oh, it's not the only thing. It's just like one piece of it. You still have to sort of say, yes, I've got, but I think that goes to your concern about if you put a lot of money into the architecture, we're not also saying, and you also have to put big money into the energy. It's like you can balance it. You can say I have a nicely designed building, I'm doing some additional things on the site and for the building, but I'm not doing a lot because I'm not looking for a lot of relief.

Mr. Poole: Yeah, the big thing is the sliding scale.

Mr. Hurd: Right.

Mr. Poole: Having it on a sliding scale isn't really something that a designer can deal with because it's like once they get before the Planning Commission, they've got a lot of that stuff settled. And if then suddenly the Planning Commission goes back and says, well you're asking for a lot so let's make this 70 as opposed to, because then they may wind up in a wholesale redesign to get those and that's not really what we want. Again, if they're looking for more, then they start with 60 points for us on the site plan approval and then they have other criteria that the Planning Commission is going to impose beyond that.

Mr. Prettyman: And I think from a developer standpoint, if you're trying to squeeze a lot of stuff in somewhere, I think it's up to the applicant to decide, in some ways, to decide to show that he's going above and beyond.

Mr. Rowlands: If he's asking for a lot, he may want to. He should.

Mr. Prettyman: Right, so any applicant can decide they're going to go through site plan approval and any applicant can make a fight for why it's applicable for site plan approval. It's up to the discretion of the panel to decide if it, in fact, does. So, if somebody was going to try, if I was going to build my case for something that was going above and beyond, I'm going to make sure when I get in front of you, you know what's above and beyond about it.

Mr. Rowlands: Yeah.

Mr. Hurd: Okay. So, are we thinking maybe that we just don't have an elevated minimum for site plan approval projects?

Mr. Poole: No, I'm fine with the 60 points. I'm just saying that that should be out there that, okay, if you're going for site plan approval, you're going to get 60 points on the checklist. Meanwhile, if then because you're not asking for a variance here or a variance there, you know, you're looking at a whole lot of options and then the Planning Commission says, yeah, but we want better materials, we want this, we want that.

Mr. Hurd: We don't usually, right, I don't think we've ever sat down and said you really need to push it here, here, and here. I think mostly they'll say, you know, we're doing LEED certified and here's the checklist. And I've had to beat up, I can't remember their names, Alan because he comes in and he's like here's my checklist. It's like, great, you haven't adjusted for bedroom size so there's a problem and on the last one I think they took credit for being in a LEED neighborhood when they weren't. So, they were like, here's my 10 points for a LEED neighborhood plus stuff in the same category. It's like, no, it's one or the other and it's like, dude, get it right first before you show up. So, I'd like to get that noise out of the way and just be able to say, as you said, here's my checklist and here's what I'm doing that is above and beyond what's required on the checklist in consideration for . . .

Mr. Prettyman: Once the vibe is out, you know, if someone is looking to do something, they're watching all the meetings or they're getting the minutes from the meetings. So, you know, you go talk to anyone and they're going to know, you know, it's just like politics. You know what I mean? Everyone's stance on all this different stuff, so if you're going to go in with a plan, you kind of show its highlights, I guess. But some people will go for the site plan approval, I think, just because it's a, I don't want to say a faster route, and they might not actually need to. So, I don't want to necessarily hinder the tool because then people will start going back to . . . I mean people were going and getting variances for redevelopment projects from the get-go . . .

Mr. Hurd: Yeah.

Mr. Prettyman: And then, you know, site plan approval was a tool that was utilized and now is being exploited, which happens in all facets of industry and life so, you know, I'd hate to see it get hindered . . .

Mr. Hurd: Sure.

Mr. Prettyman: And then we, you know . . .

Mr. Hurd: No, I don't want to lose it. I think I'm seeing, or you're seeing . . .

Mr. Prettyman: Discretion is power in this position, I think.

Mr. Hurd: The challenges with the site plan approval process currently are that it's not written for redevelopment projects really. It's written for greenfield development projects. So, when you take a parcel that's already 75% paved or it doesn't have any trees, you know, and you say what preserving open space? Those criteria don't exist. And so, they have to make up stuff and be like, so half of it is open. It's also a parking lot, but it's open.

Mr. Poole: It's an open parking lot.

Mr. Hurd: Because we don't have a better way to evaluate it because we don't have, so that's partly what I was trying to do was to do things like addressing stormwater or heat island or bicycle parking. Some of those things that we, that aren't being addressed that could be sort of enhanced to say, you know what, if you put a green roof on this thing, if you put photovoltaics

on this thing, that makes it a better thing than what was there and now we're getting somewhere. And, certainly, it is a tool that you have a little more control about the approval process than you do, say, going for a variance. Because you don't have to demonstrate hardship, basically, for site plan approval. You just have to demonstrate that you're doing more and better and that kind of . . .

Mr. Poole: Like I said, I'm just saying that if we're going to have something for site plan approval, we should have the minimum number of points down for that and then the Planning Commission can have a discussion with the applicant about other ways . . .

Mr. Hurd: So, staff would basically have a conversation to say you're asking, you're pushing a lot of things here and you might want to consider getting more points or something. But that's all they can say is you might want to consider. And then it's up to you to say, yeah, but I'm doing some other things better, so I'm going to hit the minimum here, you know, that's your story and that's what you present and then there it is. I don't want the Planning Commission, either, going through this and going I want you to do this and this and that and this thing.

Mr. Poole: That's an unreasonable standard.

Mr. Hurd: Exactly, and I don't want that. I just want them, if anything, to say I don't feel that you're making this a more efficient building for what you're doing.

Mr. Rowlands: So, we leave it at 60, 80, 100, whatever it is.

Mr. Hurd: It's 20% more.

Mr. Rowlands: The building is X and the site is X more.

Mr. Hurd: Right, so it kind of falls into our 20% thing. It's like it's 20% more points as a baseline when you're going down that path.

Mr. Rowlands: I think the 50 and 60 are going to come once we've gone through each one and then start adding up.

Mr. Poole: Well, yeah, and if we had 180 points there . . .

Mr. Rowlands: Whatever it is.

Mr. Poole: To get 50, you got a lot of choices.

Mr. Hurd: Yeah.

Mr. Poole: I mean, that's the big thing. We want to give them options and then they pick what works for them. And some will be easy, and some will be hard.

Mr. Hurd: And some combine nicely together, and some don't. Okay, thank you, gentlemen. We are adjourned.

6. GENERAL PUBLIC COMMENT

[Secretary's Note: There was no general public comment at the August 27, 2019 Green Building Code Work Group meeting.]

7. ITEMS FOR NEXT MEETING

[Secretary's Note: There was no discussion of items for the next meeting.]

There being no further business, the Green Building Code Work Group meeting adjourned at 5:37 p.m.

Attachment

Exhibit A: [Green Building Code Concepts List for Residential Projects](#)

Exhibit B: [Green Building Code Concepts List for Commercial Projects](#)