

**Portland Planning and Sustainability Commission**  
**January 24, 2017**  
**5:00 p.m.**  
**Meeting Minutes**

**Commissioners Present:** Jeff Bachrach, Andre' Baugh, Mike Houck, Katie Larsell (left at 8:15 p.m.), Gary Oxman, Michelle Rudd, Katherine Schultz, Chris Smith, Eli Spevak, Teresa St Martin, Maggie Tallmadge

**Staff Presenting:** Susan Anderson, Joe Zehnder, Sallie Edmunds, Rachael Hoy, Mark Raggett, Tyler Bump; Dave Helzer, Henry Stevens, Tim Kurtz, Marie Walkiewicz, BES; Ian Carlton, EcoNW.

*Chair Schultz* called the meeting to order at 5:00 p.m. and gave an overview of the agenda.

**Documents and Presentations for today's meeting**

**Items of Interest from Commissioners**

- *Commissioner Rudd* mentioned the Lents project she's been involved with that includes participants from different City bureaus, state agencies and others, that is working to provide relief to property owners with high and increasing flood insurance rates, better utilize industrial land that is underutilized and working to provide environmental benefits as well. We had a tour where we stopped at Zenger Farms to hear about their partnerships with the City and with OHSU linking healthy food with people with dietary health related issues; Bridgetown Foods, whose warehouse is about 140,000 square feet with 300 employees; and 100 acres of freeway lands, about 65 of which are on the flood plain with about the same density of workforce currently as Bridgetown foods.
- *Commissioner Smith* has been keeping the PSC apprised about Vision Zero. On the roads, we had 44 fatalities in 2016, the highest since 2003. The largest group of fatalities were people in motor vehicles, but the number also includes 5 cyclists, the second highest ever since we've been tracking.
- *Commissioner Houck* noted a Nature of Cities Project with a symposium in Portland April 25-27 to start planning an international conference. On April 26 is a summit allowing the 20 experts who will be here from around the world to interact and talk about building green cities. I'll send a notice out to PSC members.
- *Chair Schultz:* The DOZA Subcommittee (Gary, Teresa, Mike, Eli) met last week with staff. Thank you for your attendance. We have a number of issues and topics to discuss, and we'll be pulling together a letter that outlines what took place. In addition, I will be meeting with David Roark (Design Commission [DZ] Chair) to share our comments together. There will be a joint Subcommittee/DZ session next month. The consultants' report will go to Council, and each commission will have an opportunity to share its thoughts about the report.

**Director's Report**

Susan Anderson

- Our budget is due on Monday. We need to put in a 5 percent cut, but we're hopeful that won't have to be taken. I'll review the full submission with PSC officers. We have a housing package request that includes the Residential Infill Project, community design standards, multi-dwelling housing code and SW Corridor housing strategy. BDS has agreed that it's appropriate to use land use fees for some of these projects as well as RICAP. Likely in February/March we'll be asking the PSC for a letter of support to Council. *Commissioner St Martin* commented that BPS has put together a good budget submission. I think supporting implementation and code writing is what

we need to push for in this fiscal year because that is what the community has been requesting.

## **Consent Agenda**

Consideration of Minutes from January 10, 2017 PSC meeting.

*Commissioner Smith* moved to approve the Consent Agenda. *Commissioner Baugh* seconded.

The Consent Agenda was approved with an aye vote.

(Y11 – Bachrach, Baugh, Houck, Larsell, Oxman, Rudd, Schultz, Smith, Spevak, St Martin, Tallmadge)

## **Central City 2035 Plan**

Work Session

Sallie introduced today's work session topics. There are a few additional topics that commissioners have asked to discuss that weren't on the original agenda.

### **Green Building**

Memo E3, Memo E5 (with attachments), Decision Table E

Rachael introduced the Bird-Safe Glazing topic. There are BES staff with us today should we need additional information or responses from them.

Mark highlighted Portland's bird-safe history, including Council's 2013 resolution. Research has shown that up to 1 billion birds die annually as a result of window strikes in the US alone. This puts window collisions as one of the top mortality factors, second only to habitat destruction. The areas that pose the highest risk of strikes on a building are the first 60 feet. This is because of the reflection of street trees and other vegetation.

The proposal applies:

- New development and major remodels that alter at least 75 percent of the building's facade.
- At least 90 percent of windows on the first 60 feet of a building.
- Windows located directly adjacent to an eco-roof.
- Glazed portions on balcony railings, sky bridges, atria and glass walls.

Proposed amendments:

1. Add a glazing percentage threshold: If a building facade has 30 percent or more glazing, the bird-safe standard will be applied to that facade.
  - According to a BES literature review, 30 percent falls within the acceptable range of glazing.
  - 30 percent glazing threshold will capture the main offenders, e.g. the predominately glazed condominiums while exempting traditional industrial and affordable housing projects.
  - Portland Housing Bureau has stated that affordable housing projects generally do not exceed 30 percent glazing cumulatively. This is partially due to PHB wanting to forgo a state-required energy modelling analysis, which is costly.
  - According to Oregon Energy Code, 30-40 percent range is the difference between a project going through a prescriptive path vs. a required energy analysis to demonstrate that a building envelope is properly insulated.
  - *Commissioner Spevak*: Regarding affordable housing, if we do an exemption, it would be difficult to define it, particularly with Inclusionary Housing (IH) coming.
2. The second proposed amendment is to add drawings to the standard to show required spacing and patterns.

- A specification sheet for glass and window films can be provided by vendors upon request and can be part of the applicant's permit requirement.
3. Glazing Treatments for the Ground Floor: Provide the ground floor with a more limited material menu of more transparent glazing options to help meet City goals for active ground floor use, while concurrently adhering to the bird safe standard.

The net cost for bird safe design for a project can range from cost-neutral to just around 1 percent if you apply the following:

- Have bird safe building design in mind from the start of the project.
- Seek opportunities to meet multiple project goals such as using the treatments to meet energy reduction goals and provide occupant comfort from solar glare and additionally privacy.

The standard is explicitly intended and designed to meet multiple objectives:

- Support bird safety and development goals, including ground floor uses and active streetscapes.
- Prevent barriers to affordable housing and industrial development.
- Promote synergy between bird safe glazing and energy efficiency.

The revised proposal reflects close collaboration with BDS and BES. Both bureaus are in support of the revised proposal.

*Commissioner St Martin:* In terms of threshold, there were recommendations between 20 and 30 percent. Why did we choose the high level at 30 percent?

- Dave Helzer, BES: I conducted some of the research via peer-reviewed literature. As a starting point, the City's green building policy is 10 percent, but I found compelling information at below 30 percent. You have a recommendation of 20 percent from another expert. But BPS had a policy reason, based on the affordable housing, to go to 30 percent. We are trying to best address the risk. We were trying to address the risk across the landscape, which is how we landed on 30 percent.
- Rachael: We saw within the range a couple specific studies that it really is many cities in the range, but above 30 percent had dramatically more bird strikes.

*Commissioner Houck* would have preferred 20 percent, but this was clearly a compromise. I hope we do research over time to evaluate the efficacy of this proposed percentage and adjust it if necessary.

*Commissioner Bachrach:* What cities have adopted bird-safety regulations? How far out in front would Portland be in adopting this?

- Dave: There are mandatory regulations in San Francisco, Toronto, Oakland and Cook County (Chicago).
  - Rachael: SF has a mandatory mapped area, and we modeled ours after some of what they did, but we decided not to go with the mapping aspect. We wanted to apply it across the city here.
- Commissioner Houck:* At least Chicago has a lights-out program as well, which is something we should be dealing with. I think we pride ourselves on being out in front of other cities, and this is a case where we're following and can be leading.

*Commissioner Bachrach:* Have we been successful with voluntary bird-safe designs on the buildings you've shown?

- Mark: The amendment #1 slide shows buildings that are not yet adhering. The outreach was working with development professionals to develop the 2012 bird-safe guidelines that were voluntary. We haven't gotten the response we wanted with the volunteer option in the private sector.

*Commissioner Bachrach:* I think it's great that Portland is trying to be cutting edge, but I think we sometimes need to balance cost-benefit. Are there notable benefits? I understand we don't want birds crashing into buildings, but there are obviously costs. Help me quantify the problem. I don't think we know the scale in the Central City.

- Dave: Slide 13 shows an example of the highest cost treatment on the market. 125 collisions per year, mostly birds of conservation concern. 90-100 resulted in fatalities. Research has shown that the treatments have greater than 90 percent reduction in collision rate.

*Commissioner Rudd:* Does the developer get to decide what glazing they can use? Is this an issue where Design Review would have feedback on what types of glazing may be used at different levels?

- We will have an increasingly limited options closer to the ground floor. Design Review will have input on the treatment selected for the various floors and variation between the floors would be a consideration in design review.

*Commissioner Spevak:* It's disappointing the voluntary efforts didn't give better result. It doesn't seem like it would cost that much more for glazing, but that could be because those doing this are few right now. If people are buying special windows routinely, I would think the market would mature and costs would decrease per square foot with more producers and purchasers.

- Dave: Architects are pretty good at being creative. When you're designing a building with these issues up front, you can stack objectives to increase cost efficiencies.

*Commissioner Houck:* There are other examples. Years ago, native restoration projects were rejected by developers, but with this requirement, lots of jobs were created and costs went down. I believe this is similar to ecoroofs. I would say that, unlike other issues, we have haven't gone into this detail. I think today's presentation is a case study in doing a cost-benefits study.

*Commissioner Baugh:* We have gone in much more detail here on this topic than on many others, but if we're going to postpone this and bring it back, we know the cost side... but the benefits side is questionable. We should be able to hear from Audubon the cost of species and bird strikes if we go down this road.

*Commissioner Houck:* I move we adopt staff's recommendation. *Commissioner Spevak* seconded.

*Chair Schultz:* I suggest we have the discussion on cost analysis then come back to this discussion and ecoroof discussion and recommendation after that portion.

*Commissioner Houck* withdrew his motion. *Commissioner Spevak* withdrew his second.

### **Ecoroof Standards**

Rachael highlighted the proposed standard. We are not proposing to change the proposed standard, which is:

- To require a ecoroof on new buildings with a net building area of at least 20,000 square feet
- At least 60 percent of the buildings' rooftop must be covered by an ecoroof
- Rooftop area doesn't include mechanical equipment, solar panels, skylights or fire routes

We are proposing some minor changes to the purpose statement and to add stairwell enclosures to the list of exemptions.

Benefits of ecoroofs include:

- Ecoroofs are a tool for reducing stormwater runoff, especially in densely developed areas, ecoroofs are one of the most flexible, space-efficient approaches for meeting the City's stormwater requirements
- They allow more flexibility in building and site design and can serve as attractive outdoor areas for tenants and visitors

Along with the stormwater management benefits, ecoroofs also:

- Improve air quality
- Keep the Central City cooler
- Reduce building energy use
- Attract birds and pollinators
- Increase urban greenspaces

Staff is proposing to update the purpose statement of the provision to be more inclusive of some of these items to include urban heat island and improving air quality.

There were questions raised about allowing other types of rooftops, like white roofs.

- White roofs help manage urban heat island effects, but they do not address stormwater management, habitat, or provide amenities for building users.
- In addition, while white roofs are used in Portland, they may not always be effective in our Pacific Northwest climate because they quickly get covered in moss and alga growth. If not properly cared for, white roofs may not produce the desired results.
- In 2015 the green building policy for City owned facilities removed the requirement for white roofs because of differing accounts of their benefits and drawbacks when not maintained properly. The green building policy now just requires ecoroofs.

Cost impacts:

- Initial costs are more for an ecoroof than a standard roof, but over the life cycle the costs are nearly the same as for a conventional roof.
- There is a wide range of cost. An ecoroof can be simply functional and meet the stormwater requirements or it can be more attractive and provide other amenities like walkways and seating areas.
- CC2035 standard could come close to meeting all stormwater requirements in the Stormwater Management Manual. BES is evaluating this now.
- *Commissioner Houck* initially thought we should be requiring 90 percent. But I see the advantage of the 40/60 percent to provide people access to these areas in the Central City.

*Commissioner Tallmadge*: Is it possible to overlay a deck over an ecoroof with the same benefits?

- This has been done, for example, walkways over ecoroofs, so the sunlight and rain still penetrate. If the ecoroof is functional and meets the Stormwater Manual requirements, that could be considered in the ecoroof percentage.

Henry provided a cost-benefit example based on median cost of an ecoroof and is based on our requirement of 60 percent ecoroofs coverage.

- Construction costs (includes design): Ecoroof scenario is 28 percent more than the conventional roof, on average; this is approximately \$5 per square foot.
- Life cycle costs: The differential is narrowing, meaning the costs are getting closer, because a conventional roof must be replaced over 40 years and an ecoroofs does not.
- Net Present Value over 40 years (including environmental benefits like building heating/cooling, air cooling): the two roof scenarios are similar with the ecoroof.

*Commissioner Houck*: There is a huge range in costs for an ecoroof. Does the \$23 represent the mid-range?

- The middle 50 percent is quite a range, from \$7 to \$20 per square foot.

*Chair Schultz*: Do the variations in ecoroofs have an effect on stormwater management?

- There is variability. Depth and materials are the primary factors in how they perform. We require a 4 inch ecoroof, so that's standard.

*Commissioner Rudd*: The slide shows that the cost recovery point is 40 years. Is the idea that someone will probably own a property for 40 years, or that they'll be able to sell at a higher cost within the 40 years?

- We didn't consider.
- *Chair Schultz*: If we're analyzing different systems, a 40-year payback isn't typically considered a good option.

*Commissioner Spevak:* To the extent that benefits flow to BES, might the incentive cover a portion of these costs be brought back?

- Tim: The question about incentives and requirements is exactly the conversation. Normally incentives are to bring in new ideas.
- Marie: We have a Stormwater Management Manual, so the ecoroof provision here isn't substituting for that. We believe that technology and expertise has evolved so that incentive isn't needed.

*Commissioner Bachrach:* 100 percent of stormwater needs to be managed on-site. Are you getting more or better management with ecoroofs versus other systems?

- Tim: Flow-reduction is similar. In the form of retaining stormwater, ecoroofs do substantially better than other options such as planters. Roughly about twice as much water is removed with an ecoroof, so we're saving capacity in the system.

*Commissioner Bachrach:* If an ecoroof cuts in half the amount of stormwater you have to manage, I think that would justify some sort of SDC credit.

- Tim: While the overall runoff volume is lower, the conveyance capacity needed to carry larger storm events from the building roof is still needed. The SDC charges are for that conveyance infrastructure.

Instead of mandating ecoroofs, if stormwater management is done via other options, a policy decision could be considered for those options.

*Commissioner Spevak:* It seems the discussion of incentives could be parsed out. The performance of an ecoroof system is above and beyond the stormwater requirement.

- Staff at BES is not in a position to say yes we can or can't commit to doing this incentive.

*Chair Schultz:* I have a couple technical and quick questions. On a parking garage without roof, would this now mean they required to have an ecoroof?

- You'd have to meet the stormwater management requirement, but we'd have to look at the provision.

*Chair Schultz:* Certain types of buildings make getting access to an ecoroof difficult (e.g. condos). There is a complexity here that needs to be thought through. Added structural costs should be considered. I need some more backup for your numbers since I'm hearing different numbers, and things don't seem to be aligning.

*Chair Schultz:* There is energy efficiency with ecoroofs, but we can make some extremely energy-efficient buildings without ecoroofs. So there are ways to tackle the energy benefits. I think ecoroofs are one option. There are a number of buildings in town that have green roofs, not officially ecoroofs. Are ecoroofs as a mandate the only way to go to achieve stormwater, habitat and energy goals?

*Commissioner Houck:* The fee-in-lieu bothers me because that money will go out of the Central City. And I do have a more of a philosophical comment about this: the whole is greater than the sum of its parts in terms when we're talking about ecoroofs. They are like Swiss army knives, lots of tools in one compact option, and we have nothing equivalent to that. This is a fundamental concept of sustainability.

*Commissioner Tallmadge:* Just a note that France mandates either a green roof or solar. Are there parallel requirements outside the Central City or will there be?

- There is an incentive being considered in Mixed Use Zones.

*Commissioner St Martin:* It seems that fossil fuel-intensive materials are used in making ecoroofs.

- Most materials for any type of roof are fuel-intensive. There are costs to mine and haul material, but the major components are similar to other roofs in general.

*Commissioner Oxman:* How much land area are we talking about with ecoroofs in the Central City, in comparison to existing impervious surface area that's already there?

- We would expect that about 55 percent of the roof area would become ecoroofs. This is a significant increase from current totals.
- About 40 percent in Central City is streets. Building footprint is a third of the rest.

*Commissioner Spevak:* Would an applicant be able to propose an adjustment to meet these goals?

- Yes.

*Commissioner Houck:* Solar and ecoroofs are quite compatible. Some research shows solar can be more efficient with solar overlaid.

*Commissioner Smith:* As I listen to this debate, it seems like this comes down to having a package of benefits we're trying to achieve. The hypothesis of ecoroof proponents is that they are a 3- or 4-for. What I'm looking for, if we're getting more data, is how do we quantify that effect so I can vote for it over a set of performance measure alternatives?

*Commissioner Rudd* is leaning toward performance standards to give people the ability to be creative to get there.

*Commissioner Larsell:* Are we still driving market transformation with ecoroofs, or has it already happened for ecoroofs?

- The thought is that they will become less expensive, as costs have come down during the incentive period, and we expect that will continue to occur.

*Chair Schultz:* We have seen technology advancing and improving with costs going down as well. We haven't seen ecoroofs in the latest boom is because we've seen lots of wood-frame buildings versus high-rises. If we're going to require it, perhaps it's about what type of building we're requiring them on.

*Commissioner Baugh:* When you look at the costs, differentiating between 5-over-1 wood versus a steel building is a big difference. As we look at the standard options, I want to see examples of how a developer would be able to prove benefits that an ecoroof provides if they choose to do other options instead.

Susan: If you want to have a standard, it wouldn't be part of this project right now. And, it would be BES changing the Stormwater Manual to have a higher standard for the stormwater portion. Do you (BES) have a regular update coming?

- There was an administrative update this year, so the next scheduled one wouldn't be until 2019.

*Chair Schultz:* If you can quantify ecoroof benefits above and beyond stormwater management, you could prescribe what the alternate approach and performance criteria would have to meet.

Susan: If we're talking about consistency and implementation for BDS staff at the counter, this would be difficult to be consistent with.

*Chair Schultz:* Let's get to the cost analysis discussion then come back to these items to see if we want to make a recommendation this evening.

## **Cost Analysis**

Memo O, EcoNW Attachment

Joe walked through the assessment of the cumulative impact that new policy requirements could have on the cost and feasibility of Central City development:

- Low Carbon Buildings
- Ecoroof
- Bird safe glazing
- Parks SDC fee schedule changes
- Construction excise tax
- Inclusionary housing (with offsets)

What CC2035 Plan would require:

- Low Carbon buildings: Buildings over 50,000 square feet in net building area are required to register with a third party program.
- Ecoroofs: Buildings over 20,000 square feet in net building area are required to have an ecoroof that covers 60 percent of the roof area (minus mechanical equipment and other exempt elements).
- Bird-Safe glazing: All new development or major remodels are required to use bird-safe glazing: films, etching, UV coatings, etc on the first 4 floors of building facades with greater than 30 percent glazing.

Cost Study Findings

- Under current conditions, the prototypes studied are not financially feasible.
  - Land costs, construction costs, tightening capital.
- Additional costs further reduce feasibility.
  - IH includes offsets, but other policies do not.
  - There are no IH offsets for commercial or industrial.
- This may result in:
  - Fewer sites where development occurs.
  - Less density in projects developed.
  - Greater need for public subsidy on PDC projects.

Joe showed the cost chart break-out for two examples

- Old Town 6-story, frame construction over parking.
- Central City office 14-story, concrete and steel.

Conclusions

- New policies add upfront costs without offsets:
  - About 1 percent of Total Costs.
  - Low carbon adds about \$2,500
  - Eco-roof adds up to .7 percent to Total Costs
  - Bird safe adds up to .3 percent to Total Costs
- Feasibility much more affected by construction costs, lease rates, land values and financial costs.
- The PSC already supported a low-carbon building certification policy.
- Additional costs of bird safe glazing seem acceptable for Central City projects.
- Questions remain about ecoroof cost impacts especially for frame construction buildings and/or industrial space.

The larger the building, you have more square feet to spread the cost of an ecoroof over. The buildings that costs had the most impact on were wood frame over podium buildings, particularly industrial multi-story buildings.

*Commissioner Smith:* You're looking at an individual project template model, but I'm trying to take that to the macro level. Development is infeasible before construction costs are high because demand for labor and materials has pushed up costs. Construction costs won't come down until the pipeline starts to clear.



- Under today's conditions, things need to adjust. When we get to the new normal, this was the attempt to show the costs.

*Commissioner Smith:* We want higher density to better leverage what we've already invested in. Can we set it up so higher density results in lower costs?

- The big difference is that you change construction type.

*Commissioner Smith:* Are our policy choices making that tipping point worse or better?

- IH is the biggest impact. The incentives are tilted for higher-density projects to acknowledge this impact.

*Commissioner Houck:* I wanted to push the envelope on the standard. Green building items are tiny additional cost comparatively speaking. The suggestion to send the ecoroof question back to BES through the Stormwater Manual doesn't cut it because the non-stormwater benefits won't be addressed. That is the PSC's and BPS' mission.

*Commissioner St Martin:* So right now, the "tariff" to build in our city is 7 percent?

- This is not the only thing we have in the cost of doing business.
- 3 percent is for IH and the reduction in the Green building registration reduces the number from the slide to an overall of approximately 3 percent for IH plus 1 percent for the other programs. Then the question is what an appropriate level for these added costs is. Each policy has merits on its own, but we need to look at the overall picture and implement what is most important to reach an overall acceptable level.

*Commissioner Bachrach:* I agree with *Commissioner Houck* about the Stormwater Manual question. On any given regulation, how do you balance the cost and make sure the cost makes sense? I don't have an answer. But I did try to quantify the numbers. For example, we're looking at \$27M for a 5-story building. For birds, .003 is \$81,000. For ecoroofs, .007 is \$189,000. So for that standard building, we're staying we're adding about \$270,000.

*Commissioner Larsell:* You note this is a policy impact calculator. Can you describe this a bit more?

- Ian: This is a simple spreadsheet, pencil-out pro forma. We replicated it many times. So what you see is a comparison between a base case prior to policies followed by the costs after-the-fact (future case).

*Commissioner Baugh:* 60 percent hard costs with \$270,000 is about 2 percent of the total. This is generally in the contingency for costs. If we looked at comparable cities that have policy desires (ecoroofs, IH, etc), do we have an idea of if these costs are similar?

- We have not seen this analysis particularly about these policies versus straight-up fees.

*Chair Schultz:* 2 percent of hard costs isn't much, but what do these relate to on hard costs?

- Ian: Bird-safe is about .3 percent hard costs, which then has a soft cost implication. Ecoroof is about .2 percent hard costs with soft cost implications. CET includes both hard and soft costs.

*Commissioner Houck* highlighted the cost-benefit study. EcoNW is famous for Ed Whitelaw's "second paycheck" theory. When I look at this, I see burdens and costs but not benefits. What are the benefits to social and environmental to taking on these green building options?

- Joe: We were asked to evaluate the cost burden, in particular to PDC. So that's what show in this presentation. We did not carry out a broad economic impact evaluation.

*Chair Schultz:* Did PDC comment about how this would affect their go/no-go decision?

- Joe: They had concerns about certain product types, particularly the industrial office for the Central Eastside. They are concerned about Old Town/Chinatown model as well. This is why it gets a bit more complicated.

- Tyler: We've been focusing so much on housing. PDC is specifically concerned about job growth in the Central City. We don't have off-sets with commercial or industrial in the Central City.

*Commissioner Tallmadge* asked about these cumulative costs for the Old Town building example.

- On the 6-story building, the cost of policies would not actually be 4 percent. As you receive the off-sets, that lowers considerably.

### **Bird-Safe Glazing**

*Commissioner Houck* moved to accept the bird-safe glazing standard with the proposed amendments. *Commissioner Smith* seconded. [Item E3]

*Commissioner St Martin* highlighted the information that was provided in the memo about additional benefits of bird-safe glazing.

*Commissioner Bachrach*: It's important when we're imposing costs to have this big type of conversation. We should always look at costs and trade-offs together. I want to be sure we're receiving a real benefit. I would have liked to have seen a better explanation of the problem for this one.

- *Commissioner Tallmadge* agreed with wanting more information about costs and impacts.

*Commissioner Houck*: I do appreciate the questions that are raised. I heard a totally different presentation that provided a strong rationale and evidence from staff and Audubon.

*Commissioner Bachrach* asked about types of birds being affected by windows and if there are particular species that are more vulnerable.

- Dave: There is a disproportionate effect on a specific type of song birds, and as a group they are a high priority for conservation.

*Commissioner Oxman*: In the public health field, we go through how we monetize impacts. If we did this type of analysis, what would I be comfortable with? What's the price of a bird? I don't know the answer, but we have research that shows this intervention helps with bird safety.

*Commissioner Baugh*: I would like to keep in mind that we're looking at the analysis today. But because we're the PSC, another of other factors impact our recommendations. We can say no today, but do we put ourselves in a position of having to come back and put a different regulation on a more severe problem in the future? Don't we want to build in safe-guards for the future versus having to come back and fix problems?

Motion to accept the bird-safe glazing standard with the proposed amendments [Item E3].

(Y10 – Baugh, Houck, Larsell, Oxman, Rudd, Schultz, Smith, Spevak, St Martin, Tallmadge; N1 – Bachrach)

The motion passed.

### **Ecoroof Standard**

*Commissioner Houck* moved to approve the staff recommendation as written, including the proposed amendments. *Commissioner Baugh* seconded.

*Chair Schultz*: Would you consider having green roofs added towards ecoroofs? A part of this as a consideration, not a requirement. Many amenity roofs have areas that are planted but are not "official" ecoroof function counting.

- Tim commented on the difference between a roof garden and an ecoroof. They are treated differently in our Stormwater Manual. We've had internal conversation about changing this in the Stormwater Manual. It's not just vegetation, and we'd have to discuss lawns specifically

since they really don't provide the same benefits, but yes, in terms of the 60 percent coverage, we could consider green roofs.

*Commissioner Smith:* So my understanding is that the benefits beyond stormwater are also achieved by these green roofs including habitat, health benefits, etc.

- Yes.

*Commissioner Bachrach:* We can't amend stormwater code, but we can amend the language in Title 33 to incorporate the green roof option.

*Commissioner Smith:* If there is a definition of green roof in the Stormwater Manual we can use in Title 33, that would be what I'd suggest.

*Chair Schultz:* My amendment can just be direction and consideration for BES if we don't want to include it here tonight.

- Dave: It could be included in the workplan for our 2019 Stormwater Manual update.

*Commissioner Spevak:* I would support an alternative approach as an option in addition to the ecoroof standard. Don't touch stormwater with this. The other benefits need to be met too.

*Commissioner Houck:* I go back to the philosophy that the whole is more than the sum of its parts in this situation.

*Chair Schultz:* I would argue I could solve other areas with objectives other than ecoroofs.

Susan: If we have a criteria consideration instead of requiring ecoroofs, we'd have to agree on what the criteria are... carbon; marketing benefit; human health, etc. We could do that, but I'd want the PSC to agree on what those criteria are. We could vote on the amendment, and if it passes, we'd have to come back with a list of criteria.

*Chair Schultz:* Perhaps we vote on the option for including a green roof separately from the ecoroof requirement.

Susan: Either you vote on it as-is or you recommend that we come back with something that is an equivalent with criteria. But that wouldn't be part of this CC2035 Plan.

*Commissioner Houck:* This is my concern if we don't act on the current proposal now. We can then hold our feet to the fire to address the concerns that have been raised.

*Commissioner Baugh:* In 2012, Council passed the resolution to look at ecoroofs. If we take out this requirement, Council very well may put it back into the CC2035 Plan. I don't think we should pull it out.

*Chair Schultz:* I have two amendments to propose: (1) I'd like to remove the requirement for areas with an FAR percentage of under 5:1; and (2) exempt industrial buildings because the cost burden on those is so much greater. *Commissioner Bachrach* seconded.

*Commissioner Smith:* What percentage of Central City building activity do we expect to be inside/outside those additional criteria?

- 5:1 and under and industrial areas in the Central City are about 50 percent.

*Commissioner Baugh:* Are Central Eastside buildings going to be more remodel or new buildings?

- We're starting to see new construction be more prominent in the CES.

*Commissioner Spevak:* I think industrial buildings are where ecoroofs make the most sense. So it's murkier on the wood frame, but industrial buildings are expansive roof area.

*Commissioner Rudd:* The job issue, in terms of the industrial exemption, is why I'd support that amendment. We need the construction and industrial jobs. If PDC has a specific pot of money, there is a trade-off in costs for building more units.

*Commissioner Tallmadge:* For industrial buildings, could we have a different percentage to reduce the coverage requirement but still have some required?

*Chair Schultz:* I proposed we vote on the industrial exemption separate from wood-frame exemption. *Commissioner Bachrach* seconded.

Motion to exempt industrial buildings

(Y3 – Bachrach, Rudd, Schultz, N7 – Baugh, Houck, Oxman, Smith, Spevak, St Martin, Tallmadge)

The motion failed.

Motion to exempt development in areas that are zoned less than 5:1 FAR. This would not exclude industrial. Industrial office (3:1) would not be exempt under the proposal.

(Y4 – Bachrach, Rudd, Schultz, St Martin; N6 – Baugh, Houck, Oxman, Smith, Spevak, Tallmadge)

The motion failed.

Motion to accept the ecoroof standard with the proposed amendments to request that BES look at green roofs for future consideration [Item E5].

(Y8 – Baugh, Houck, Oxman, Schultz, Smith, Spevak, St Martin, Tallmadge; N2 – Bachrach, Rudd)

The motion passed.

### **Next Steps**

Items that were to be discussed today will be moved to future PSC CC2035 Plan work sessions:

- Policies & Related Actions (Items P1 and P7 for discussion)
- Actions (Item R36 for discussion)
- FAR (Item K11)
- Miscellaneous Code and Map Amendments (Items I4 and I5)
- Bonus and Transfers (Items Q6, Q3, Q9)

### **Adjourn**

*Chair Schultz* adjourned the meeting at 8:36 p.m.