

Decision Table E. Green Building Standards

Comments on the Low Carbon Building Requirement, EV charging facilities and Bird Safe Glazing Standards are grouped into this packet. An additional memo provides more context about the Low Carbon Building Standard.

Contents of Decision Packet E: Green Building Standards

- Decision Table E
- Memo on the Low Carbon Building Standard

Ref #	Comment #	Commenter(s)	Topic	Proposed draft	Request(s)	Staff recommendation	Staff rationale	Discuss?	PSC decision
E1 and Memo	20183, 20320, 20324, 20407, 20409, 20410, 20663, 20698, 20896, 20910, 20914, 20995	Sandra McDonough -- Portland Business Alliance, Paul Grove --Homebuilders Association, Staci Monroe-- Bureau of Development Services, Shaina Weinstein—Green Building Initiative Tim Atkinson Timm Locke Greg Goodman-- Downtown Development Group, Jonathan Malsin Eric Cress-- Urban Development Partners, Shaina Weinstein Jeremy Rogers-- Oregon Business Council, Jeff Frost--SERA Architects	Low carbon buildings	Standard requires LEED registration. Reference: Volume 2A: Part 1: Central City Plan District, 33.510.244, page 157	1. Add more program options 2. Make this an incentive for FAR 3. Recognize wood as a method to reduce carbon 4. Add lifecycle assessment requirement 5. Concerns and support raised about Green Globes as an option	Proposed Amendment: Expand the list of third party programs and corresponding certification levels. See attached Memo for full list.	Staff recognizes that there are other programs serving the marketplace that incorporate comprehensive green building practices.	<input checked="" type="checkbox"/>	<input type="checkbox"/> Support staff rec. <input type="checkbox"/> Other
E2	20838	Robert Wright	EV charging facilities	Policy 6.14 f in the Central City wide policies, Health and Environment section pertains to infrastructure for electric vehicles: • 6.14 f. Low-carbon transportation. Reduce carbon emissions from transportation systems, including supporting electric vehicle infrastructure. • The following action is in the plan: Action # TR66: Install electric vehicle charging stations in the Lloyd District. References: Volume 1: page 84; Volume 5: page 132	Require minimum parking for electric vehicles and electric power capacity wiring to support it in new multi-dwelling residential buildings in Goose Hollow, Pearl and West End subdistricts.	• Staff proposes to retain the Citywide policy which pertains to infrastructure for electric vehicles and the action in the Lloyd district. Proposed Amendment • Add an on-going, Central City wide action: Pursue new regulatory tools that would encourage or require large multi-family and commercial development projects to include EV-ready wiring and electrical capacity for electric vehicles when parking is provided.	BPS is currently developing an Electric Vehicle Strategy that will likely include actions to incent or require EV-ready wiring in certain situations. This is an important and fast changing issue, and a requirement for EV-ready wiring will entail working with BDS to develop building code provisions that will be submitted to the state for approval. BPS and PBOT do not support requiring a minimum number of parking spaces for electric vehicles because the Central City does not have a parking minimum requirement. However, where parking is provided, the EV Strategy will propose an approach to ensure that a certain allocation of these spaces have access to EV chargers.	<input type="checkbox"/>	<input type="checkbox"/> Support staff rec. <input type="checkbox"/> Other

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E3	20324, 20481, 20688, 21004, 21005, 21014	Staci Monroe-- Bureau of Development Services, Jeanne E Galick Bob Sallinger—Audubon Society of Portland Karina Adams Alan Armstrong Mary Coolidge- Audubon Society of Portland	Bird Safe Glazing standard	Standard requires bird safe glazing in the areas shown on Map 510-22. Ninety percent of windows on first four floors must be treated. A list of options for fritting, UV coating, films and screens are provided. References: Volume 2A, Part 1: Central City Plan District, Pages 142-144 and Map 510-22, Page 397-399.	<ol style="list-style-type: none"> 1. Expand area where standard applies to entire Central City for ease of implementation. Current map and rationale for selecting areas of high tree canopy makes for a very complicated map. 2. Consider adding a drawing to the code to show types of patterns and dimension to eliminate some of the complex measurement language. 3. Consider limiting the types of glazing that could be applied on ground floor for transparency purposes – such as UV, light fritting patterns. 4. Prohibit highly reflective/ mirrored glass 	<p>Proposed Amendment:</p> <ol style="list-style-type: none"> 1. Apply standard to the entire Central City. This removes the need for a map in the zoning code. Add an exemption for any building with less than 50% of exterior glazing on the first 4 floors, except all non-residential uses in the CX, EX and RX must comply with the standard on the ground floor and floor adjacent to a vegetated roof. 2. Add a drawing to the standard to show the minimum required spacing and types of patterns 3. Identify several patterns that may be used on the ground floor to ensure transparency including UV coated and lighter fritting pattern. 4. Create an Admin Rule to add the list of available bird safe glazings. This is a quickly changing technology and it may be a good idea to have the ability to update the list on a regular basis. 5. More research is needed on prohibiting highly reflective glass. Staff needs to discuss this with building code staff to determine if there is a reflectivity range that is permitted. Staff also will look at what other cities have done. 	<p>Staff understands BDS's concern that the current map is complex and may be challenging to implement. Staff proposes to apply the standard city wide, but add to the exemptions.</p> <p>Staff is recommending 50% exemption based on exemptions set by other cities such as San Francisco and Toronto that have a bird safe glazing requirement. Portland's green building policy also sets an exemption for less than 50% glazing except on the ground floor and floor adjacent to a vegetated roof.</p> <p>Staff proposes to limit the types of glass available for use on the ground floor to ensure that new development will adhere to the Central City proposed urban design condition, which calls for active ground floor edges that will encourage a vibrant pedestrian experience.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Support staff rec. <input type="checkbox"/> Other



Bureau of Planning and Sustainability

Innovation. Collaboration. Practical Solutions.

MEMO

DATE: September 20, 2016

TO: Portland’s Planning and Sustainability Commission

FROM: Alisa Kane, Green Building Manager

CC: Susan Anderson, Director

SUBJECT: Low Carbon Building Standard in the Central City 2035 plan

The goal of the Central City’s standard in section **33.510.244 Low-Carbon Buildings** is to encourage the continued use of third-party green building certifications that reduce emissions, conserve natural resources, save money and protect the health of occupants. In the first draft of the Central City 2035 Plan, the Low Carbon Building standard referenced only one green building certification, the US Green Building Council’s Leadership in Energy and Environmental Design (LEED) standards. After considering verbal and written testimony, the Bureau of Planning and Sustainability (BPS) recommends expanding the list of third-party programs and corresponding certification levels to those outlined in the table below and creating administrative rules so BPS can update the list of acceptable certifications over time.

Table 1: Proposed third-party green building certifications

Certification program	Level required	About the certification	Required Compliance submittals to BPS
LEED	Gold	The U.S. Green Building Council’s LEED certification program requires projects to satisfy prerequisites and earn credits related to site and transportation, energy and water efficiency, healthy indoor air, materials selection and waste management.	Copy of registration form and points spreadsheet from early design meetings.
Earth Advantage	Gold	Earth Advantage is a non-profit that certifies residential and commercial	Signed agreement and points worksheet from

		projects that demonstrate energy and water efficiency, durable material selection, healthy indoor air quality and sustainable site practices.	early design meetings.
Green Globes	Four Globes	The Green Building Initiative (GBI) administers Green Globes, an online assessment protocol and rating system for green building design, operation and management. It assesses projects on performance related to project management; energy, water and material usage; indoor air quality and polluting emissions.	Proof of registration and a copy of the project's preliminary score survey.
Living Building Challenge	Living Building Certification	The Living Building Challenge is a program of the International Living Future Institute (ILFI). The Challenge includes seven performance categories called Petals: Place, Water, Energy, Health & Happiness, Materials, Equity and Beauty.	Copy of confirmation email from ILFI that proves the project is registered for Living Building Certification and is intending to earn all seven petals.

The process to demonstrate compliance with this section will be the same for all projects. Permit applicants will submit evidence to BPS that the project is registered and intending to certify for at least one of the accepted third-party programs. After review, BPS will provide the applicant a letter confirming the project meets the Low Carbon Building Standard. The applicant will submit this to BDS with their permit application.

BPS recognizes that there are other certification programs serving the marketplace that are not on this list. At this point, BPS is only considering programs that incorporate comprehensive green building practices including energy and water conservation, stormwater management, healthy indoor air quality, waste reduction and low impact development practices. The list of accepted programs will be established through administrative rules and reviewed periodically.

Revisions to the commentary and standard in section **33.510.244 Low-Carbon Buildings** are attached to this memo. BPS staff look forward to discussing these recommendations further.

Commentary

33.510.244 Low-Carbon Buildings. Buildings are the largest source of carbon emissions in the City of Portland. Constructing and operating buildings consumes natural resources, generates waste and releases pollutants that can harm people and the environment. Green building certifications reduce the harmful impacts of development by achieving higher average performance than buildings constructed to meet code minimums. Since 2001, most of the new construction in the Central City has pursued certification under at least one green building program. An intended outcome of the Low-Carbon Buildings Standard is to maintain a high level of green building certification in the Central City.

Acceptable green building standards and certification levels will be determined by Administrative Rules and reviewed periodically to ensure the list reflects current industry practices. Standards and certification levels may include LEED Gold, Earth Advantage Gold, Four Green Globes and Living Building Certification. Qualifying standards may be added or eliminated over time. This new standard requires evidence of registration and submittal of the project's point checklist to BPS. After confirming registration and reviewing the checklist, the Bureau of Planning and Sustainability will provide the applicant and Bureau of Development Services a letter for submittal with the building permit to satisfy this standard. The proposed standard does not require full certification because state law restricts local jurisdictions' ability to require better performance than the state building code; however, by requiring registration, BPS expects a large percentage of new construction throughout the Central City to pursue full certification.

Proposed Updated Standard:

33.510.244 Low-Carbon Buildings

A. Purpose. The Low-Carbon Buildings standard ~~ensures~~ encourages ~~that new buildings and development~~ and additions to existing ~~buildings are~~ developments be designed and constructed to meet ~~the US Green Building Council's Leadership in Energy and Environment Design (LEED) standards at the gold level~~ green building certification programs that the Bureau of Planning and Sustainability deems acceptable. The benefits of meeting ~~LEED standards~~ one of these programs include improving energy efficiency, preserving natural resources, and protecting the health of occupants.

B. Low-carbon building standard. New ~~buildings~~ development with a net building area of at least 50,000 square feet, and alterations to existing ~~buildings~~ development that increase net building area by at least 50,000 square feet must provide a letter from the Bureau of Planning and Sustainability that verifies that the project has registered ~~to earn LEED gold level certification and prepared a preliminary LEED project checklist showing which LEED credits will be pursued for the building.~~ for a green building certification program, approved by the Bureau of Planning and Sustainability and has prepared a preliminary

description of how the building can achieve the certification. The Bureau of Planning and Sustainability has the authority to create an administrative rule listing which green building certifications are approvable.