

Minutes

GBI Consensus Body Meeting #32

BSR/GBI 01-2016

Webinar

Monday, July 10th, 2017, from 12:00 Noon ET to 4:00 PM ET

Attendance:

No	Name	Organization(s)	5-17-17	5-18-17	5-19-17	7-10-17		
1	Gregg Bergmiller	S/L/A/M Collaborative	X	X	Absent	X		
2	Paul Bertram	PRB Connect	X	X (by proxy)	X (by proxy)	X		
3	Allan Bilka	International Code Council	X	X	X	X		
4	Jeff Bradley	American Wood Council	X	X	X (by proxy last 2 hours)	X		
5	William Carroll	American Chemistry Council	X	X	Absent	X		
6	John Cross	American Institute of Steel Construction	X	X	X	X		
7	Mike Cudahy	Plastic Pipe and Fittings, Association	X	X	X	X		
8	Chris Dixon	NBBJ (rep. self)	X	X (by Proxy)	X (by Proxy)	X		
9	Nicole Dovel-Moore	CTA Architects Engineers	X	X	X	X		
10	David Eldridge	Grumman/Butkus Assoc.	X	X	X	X		
11	William Freeman	Resilient Floor Covering Institute	X	X	X	X		
12	Susan Gitlin	U.S. EPA	X	X (partial proxy)	X (partial proxy)	X		
13	Don Horn	GSA	X	X	X	X		
14	Josh Jacobs	UL Environment	X	X	X	X		
15	Greg Johnson	Johnson Consulting Services,	X	X	X	X		

		Greenscape Alliance						
16	Karen Joslin	Joslin Consulting	X	X	X	X		
17	Malee Kaolawanich	NIH (rep. self)	Absent	Absent	Absent	Absent		
18	Rachel Minnery	AIA	X	X (partial proxy)	X (partial proxy)	X (by proxy)		
19	Charles Kibert	University of Florida	X (Chair)	X	X (Chair for part of the meeting)	X		
20	Gary Keclik	Keclik Associates	X	X	X	X		
21	Thomas Pape	Alliance for Water Efficiency	X	X	Absent	X		
22	Tien Peng	National Ready Mix Concrete Assn.	X	X	X	X		
23	Jane Rohde	JSR Assoc. Inc., Vinyl Institute	X (by Proxy)	X (by Proxy)	X (by Proxy)	X		
24	Gord Shymko	G.F. Shymko & Associates, Inc.	X	X	X	X		
25	Kent Sovocool	Southern Nevada Water Authority	X	X	X	X		
26	Steve Strawn	JELD-WEN	Absent	Absent	Absent	Absent		
27	George Thompson	Chemical Compliance Systems, Inc.	X (by Proxy)	X (by Proxy)	X (by Proxy)	X		
28	Angela Tin	American Lung Assn.	X	X	X	Absent		
29	Douglas Tucker	Misubishi Electric Cooling & Heating	X	X	X	X		
Voting Alternates								
	Abby Brokaw	American Lung Assn. (voting Alternate for Angela Tin)						
	Paul Karrer	AIA (Alternate for Rachel Minnery)						

	Bill Hoffman	UL Environment (Voting Alternate for Josh Jacobs)						
	Lance Davis	GSA (Voting Alternate for Don Horn)						
	D'Lane Wisner	D'Lane Wisner (Voting Alternate for William Carroll)						
TOTALS			27/29	27/29	23/29	26/29		
	Visitors							
	Martha VanGeem	Self (Principal Engineer)	X	X	X	X		
	Ric Doedens	Logison			X			
	Richard Willis	NAPA	X	X				
	Kyle Thompson	IAPMO	X			X		
	Niklas Moeller	LogiSon			X			
	David Panning	BIFMA				X		
	Allison Kinn Bennet	U.S. EPA				X		
	Staff/Consultants							
	Michael Lehman	Chair	Absent	X	X	X		
	Vicki Worden	Executive Director, GBI				X		
	Emily Randolph	Secretariat Asst., GBI	X	X	X	X		
	Micah Thomas	Staff, GBI	X	X	X	X		
	Maria Woodbury	Secretariat, GBI	X	X	X	X		
	Kim Goldsworthy	Roberts-Rules Consulting	X	X	X	X		

Monday, July 10th, 2017

Welcome & Roll Call

Secretariat, Maria Woodbury welcomed participants and conducted roll call to establish quorum. The anti-trust statement and code of conduct were reviewed and participants were requested to comply with both fully.

Woodbury reminded members that all are welcome to participate in the discussion provided participants raise their hands or verbally request to be added to the queue to speak. Hands will be called on first come-first serve. In-person participants were asked to restate their name before speaking each time to make it easier for remote participants to follow along.

At this meeting, no members voted using voting alternates and one member voted using a proxy (Tien Peng for Rachel Minnery).

Administrative Items

Chair Michael Lehman made his opening comments, thanking everyone for their time and expertise. Lehman provided an overview of the agenda for the day.

Lehman called for a motion to approve the minutes from Meeting #31.

Objections were made to approving the Minutes.

Discussion took place on the Minutes:

- A concern was raised that minutes don't reflect the discussion held around the approval of the minutes from Meeting #30 and that there is confusion in the Meeting #31 minutes regarding which Points Task Group the language is referring to.
- It was requested that staff add more detail to reflect that discussion on the previous meeting Minutes. Staff will revise the Minutes per the discussion. The revised Minutes for Meeting #30 and #31 will be brought to the Consensus Body for approval at Meeting #33 of the Consensus Body.

Schedule/Timeline Review

- Woodbury presented the Schedule/Timeline for the process moving forward. In September, this Consensus Body will have been working on this process for 3 years (started September 2014)
- GBI will launch a pilot while the revision process is concluding, this will allow GBI to keep the Standard reflective of the market.
 - By contrast, further delay will just mean that the Standard will continue to misalign with changes in the market
- Potentially one additional CB Meeting Doodle Poll will be sent ASAP
- Preparing changes to the Second Comment Draft for public comment. (either 30 or 45 days)
- Letter ballots as needed
 - Non-persuasive ballot (15 days)
 - Re-circulation ballot (15 days)
- Secretariat staff are preparing for ANSI audits.
- When this revision is done, GBI will immediately file its procedures to continue review of the standard under Continuous Maintenance – this means another revision can occur within 18 to 24 months instead of waiting 5 years for the next periodic maintenance review cycle.

- GBI has already had Continuous Maintenance procedures approved by ANSI but was later informed because of not being able to complete the CM process within 5 years (2010-2015) the Standard would be revised under periodic maintenance
- GBI will gain approval for use of CM immediately after completing this version of the Standard

Discussion took place on the Schedule/Timeline

- The question was raised about whether the Pilot will be conducted on the draft Standard or the Green Globes Rating System. In addition, it was asked if there will be a new Rating System created or if the Standard will replace the need for a Rating System.
 - GBI Executive Director, Vicki Worden explained that the Pilot will be conducted in parallel to the finalization of the draft Standard. Worden explained that the Standard will be incorporated into the Green Globes Rating System. GBI is still exploring how the revised Standard will be incorporated into the current online tool.
- The question was raised about what the Pilot will consist of.
 - Worden stated that it has always been GBI's intent to conduct a full Pilot of the Standard. While the Pilot is running, the current version of Green Globes would still be available to project teams wishing to pursue Green Globes certification. Any projects that earn certification in accordance with the Pilot would earn Green Globes certification. Worden stated that GBI is still working on the branding for the new Rating System, but stated that GBI wants to ensure, through the Pilot, that the Standard actually works as a Rating System. GBI wants to get as much feedback from users before making the new version the only available version of Green Globes. The plan at the moment is to ensure that any changes that need to be made as a result of the Pilot can be addressed during the continuous maintenance process, allowing for more timely changes to the Standard. The Pilot is an attempt to meld the business side of delivering the Standard through an online tool and making sure we use the ANSI process to make necessary changes based on what's happening in the market.
- Further clarification was requested about what a "Pilot of the Standard" entails. The question was raised if the Pilot will be conducted on the draft that the Consensus Body is currently working on.
 - Staff clarified that the Pilot will be conducted on the current draft Standard provided no further substantive changes are made following the Third Public Comment Period. GBI will issue a call to the marketplace before making the Standard available online. The Projects would go through the certification process using the draft Standard. GBI will then be able to use those projects to provide feedback to the Consensus Body for any changes that need to be made after the Standard has been finalized (e.g., product certification that's been expanded, language that needs to be clarified).
- The question was raised regarding how long the Pilot will take.
 - Worden clarified that the Standard will be piloted for as long as necessary for projects to provide the necessary feedback. It was stated that there will be other tasks being conducted simultaneously to finalize the Standard. This includes the ANSI audits and filing continuous maintenance procedures. Several processes will be run in parallel so this Standard will be able to be overseen by a Consensus Body which can respond to market changes more quickly.
- Clarification was requested regarding how making changes to the Standard will be handled.

- Worden clarified that any substantive changes made to the Standard must follow GBI's ANSI-approved procedures. During continuous maintenance, comments with proposed changes can be submitted during a designated time of the year and responses will be provided. Worden stated that Continuous Maintenance will be a much faster review process at 18-24 months in comparison to the Periodic Maintenance Procedures we've been following.
- The previous inquirer emphasized their desire to know if the feedback would be directed to the Consensus Body before any changes are made to the Standard.
 - It was stated that yes, the Consensus Body would approve any changes.

Project Management:

Presented by Subcommittee Chair Karen Joslin

22 – 8. Substantive. 6.1.3:

- **Comment:** Points for the assessment seem to be very low for the level of effort that is needed particularly if the protocol user is not a long term asset holder.
- **Reason:** Clarify that likely the owner is the best team to address the acute aspects of this perhaps even the chronic climate related risks as well.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and changes have been implemented in the Standard. Points under 6.1.3 have been increased from 4 to 11 by taking 2 points from 6.2.1.1, 2 points from 6.4.1.1, and 3 points from 6.5.1.1.
- **Subcommittee Vote:** 4 in favor, none opposed, none abstained.

MOTION: The Motion was made and seconded to accept the proposed response from the Subcommittee.

Discussion took place on the Motion:

- It was clarified that in 6.4.1.1. the Subcommittee realized the points were aimed at doing something with the design analysis as opposed to rewarding project teams for doing the design analysis. They were reduced from 4 and 4 to 3 and 3 but it's simply for the analysis, not actually doing something with the design, which matches the criteria language.
- The question was raised about why it was changed to "and/or" in 6.4.1.1 instead of "and". It was clarified that both options can be analyzed or either could be analyzed and the Subcommittee wanted the language in the points to reflect that separation. The opinion was raised that it should be "and" not including "or". It was stated that the left-hand column holds the requirement and the right holds the points; the right-hand column was revised to reflect the left-hand criteria.
- The question was raised if "spaces of added moisture" is a defined term. It was stated that the Subcommittee discussed this at length and that it is a term used in other Standards It was confirmed that someone performing this analysis would be familiar with the term. Concern was raised whether the users of the Standard (i.e. Project Teams) would know what it means.
- The question of who is qualified to perform this analysis was raised. In addition, the speaker questioned how it is determined that the person was qualified. It was stated that typically it's been mechanical engineers and building envelope specialist who perform these types of analyses.
- It was stated that not all of these elements will necessarily be present in every project. The Project Management Subcommittee wants to encourage people to do both and decided to split them apart so project teams can choose what most benefits their project. The Consensus Body was reminded that this language has been through four iterations.

- The discussion returned to the question around whether “spaces of added moisture” should be defined. One participant looked up the language used in ASHRAE 90.1 and discovered that the language in that document is more complex and potentially confusing than the language the Project Management Subcommittee has suggested. It was stated that “spaces of added moisture” was preferable to the alternative.
- The Consensus Body was reminded that the issue under discussion is the points allocation. The discussion of “and” vs “and/or” can be returned to at the appropriate time. It was stated that this was a solution to get the points fixed and pull two points to add to the above response.

VOTE: The Motion carried with 21 in favor, none opposed, and 1 abstained

Opposed: None

Abstained: Thomas Pape

6.4.1 – Revised language to reconcile the points column with the criterion:

<p>6.4.1.1 A moisture control design analysis is performed on <u>walls and ceilings adjacent to spaces of added moisture above-grade portions of the building envelope</u> AND/OR on <u>walls and ceilings adjacent to spaces of added moisture in accordance with ASHRAE 160-2009 above-grade portions of the building envelope in accordance with ASHRAE 160-2009</u> or a steady-state water vapor transmission analysis for the purpose of predicting, mitigating, or reducing moisture damage to the <i>building envelope</i>, materials, components, systems, and <i>furnishings</i>.</p> <p>Informational Reference(s):</p> <ul style="list-style-type: none"> • ASHRAE 160-2009 	<p>Maximum = 86 points</p> <ul style="list-style-type: none"> • <u>Three points are earned when a moisture control design analysis is performed on walls and ceilings adjacent to spaces of added moisture.</u> <ul style="list-style-type: none"> ○ <u>Not applicable where there are no spaces of added moisture.</u> • <u>Three points are earned when a moisture control design analysis is performed on above-grade portions of the building envelope.</u> • <u>Four points are earned when wall and ceiling assemblies are designed in accordance with moisture-control design criteria.</u> • <u>Four points are earned when roof assemblies are designed in accordance with moisture-control design criteria.</u>
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MOTION: The Motion was made and seconded to accept the proposed changes to the language and points language under 6.4.1.1.

Discussion took place on the Motion:

- It was stated that the left-hand side should have “and” not “or” since the Standard is designed to allow for partial points, eliminating the need for “and/or”.
- The question was raised if the sub-section would be divided into two criteria. It was stated that that would address the issue. Concern was raised that both analyses should be conducted on all projects and the speaker expressed moderate opposition to dividing the criterion. It was reiterated by another speaker that the language should be “and/or” so that it is clear to project teams that both don’t need to be done.
- One participant asked the assessors on the call if dividing the criteria would be a problem from an assessment point of view. One assessor replied that it would be fine, but also stated that keeping the criterion as-is would be appropriate. Another assessor stated that these are entirely different spaces and that they were in favor of separating them out.
- It was confirmed that there are multiple places in the Standard that use “and/or” and it therefore not inconsistent with the style of the rest of the Standard.

VOTE: The Motion carried with 19 in favor, 1 opposed, and 5 abstained.

Opposed: Don Horn

Abstained: Kent Sovocool, Gregg Bergmiller, Susan Gitlin, Thomas Pape, George Thompson

16-3. Substantive. 11.5.2.2 or Moeller1 or 11.5.2.4 of Moeller2:

- **Comment:** Verification of Commissioning of Sound Masking System
 - The system is tested in the unoccupied but occupancy-ready facility using a calibrated ANSI Type 1 analyzer and results are reported in writing, including:
 - o Documentation of the test procedure and locations
 - o Minimum 15-second Leq results for each 1000 sqft in open areas
 - o Minimum 15-second Leq results for each closed room
 - Explanation for deviations exceeding specified tolerances
- **Reason:** - In order to ensure that projects are not being rewarded for implementing ineffective masking systems, verification of commissioned results is essential.
 - There is no existing standard to reference which outlines an acceptable testing and verification process. Thus, this credit itself must establish a clear and legitimate process.
 - This section outlines the equipment, procedure, and reporting required to validate that the masking system conforms to the specifications and tolerances identified in the Green Globes credit.
 - The verification process should be awarded a second point, which we believe is consistent with other credits.
 - Moeller3 includes the verification process within the body of the credit, either Moeller1 or Moeller2. If it is more correctly located in the commissioning document, the please refer to Moeller4.
- **Recommended Response (From Project Management Subcommittee):** Thank you for your comment. Your comment has been accepted with modification by adding commissioning of sound masking under 6.5 of the Project Management Assessment Area.

MOTION: The Motion was made and seconded to accept the proposed response.

Discussion took place on the Motion:

- It was explained that points aren't being reallocated to Sound Masking Systems, but rather Sound Masking is being incorporated into the points for communications systems.
- The question was raised if the commissioning of sound masking systems is something more than the manufacturer's check of the system. The speaker asked who will be conducting the commissioning and if it will be a contract with the manufacturer and builder. It was stated that sound masking systems are commissioned in the same way that lighting control systems are commissioned. It was stated that the person performing the commissioning needs to know how to tune it and spot check it for functionality and may need to be trained; this is fairly common.
- The question was raised if there is a non-applicable provided for projects that don't utilize sound masking and it was confirmed that there is an N/A.

VOTE: The Motion carried with 22 in favor, none opposed, and 1 abstained.

Opposed: None

Abstained: Don Horn

Site

Presented by Subcommittee Chair Gregg Bergmiller

22 – 33. Substantive. 7.1.2.4

- **Comment:** Left column:
7.1.2.4 No construction or site disturbance takes place in the 100-year floodplain.
Alternatively:
Buildings and additions in the floodplain are elevated 3 ft. (.9 m) above the 100-year floodplain or are built to allow water to flow through or under the lowest floor.
And
Buildings and structures assigned a risk category of III or IV in Table 1604.5 of the 2012 International Building Code will not be located within a 500-year floodplain.
- **Reason:** Doesn't follow the format of the rest of the standard. Points and statements for non-applicability are incorrectly included in the left column. Move references to points to the right column.
The "alternatively" statement belongs to the first requirement, not the second or both.
- **Recommended Response:** Thank you for your comment. Your comment has been accepted as modified and changes have been implemented in the draft Standard to clarify the requirements of the criterion.
- **Subcommittee Vote:** 9 in favor, none opposed, none abstained

MOTION: The Motion was made and seconded to accept the recommendation from the Subcommittee.

VOTE: The Motion carried with 23 in favor, none opposed, and 1 abstained.

Opposed: None

Abstained: Allan Bilka

22 – 40. Substantive. 7.7:

- **Comment:** Delete entire section.
- **Reason:** A green building standard should not reward someone for building in a wildland-urban interface. Providing points, even for designing according to the code, encourages development in such areas. It is likely that the wildland-urban interface code would be required by the jurisdiction if they are making the determination that there is a wildland-urban interface hazard. The project should not be rewarded for this.
- **Recommended Response (From):** Thank you for your comment. Your comment has been rejected for the following reason: The purpose of Section 7.7 is not to encourage building in a wildland-urban interface (WUI); rather it is to offer an incentive to mitigate environmental hazards when the owner has already chosen to build there. There are negative environmental impacts associated with the spread of fire between buildings and wildland fuels. Section 7.7 does not award points for code compliance because it is not applicable where the code has been adopted. It is only applicable where the environmental hazard exists but it is not regulated by code.
- **Subcommittee Vote:** 6 in favor, 3 opposed, none abstained.

MOTION: The Motion was made and seconded to accept the recommendation.

Discussion took place on the Motion:

- Concern was raised that despite the intention, this criterion encourages building in a wildland-urban interface area. The speaker was against the motion.

AMENDMENT: The Amendment was made and seconded to delete the following sentence from the response: "The purpose of Section 7.7 is not to encourage building in a wildland-urban interface (WUI); rather it is to offer an incentive to mitigate environmental hazards when the owner has already chosen to build there."

There were Objections to the Amendment.

Discussion took place on the Amendment:

- It was stated that the intent is not to incentivize building in the wildland-urban interface, but rather to mitigate the potential damage when that construction occurs.

FRIENDLY AMENDMENT: The suggestion was made to change the sentence to read: “The purpose of Section 7.7 is to mitigate environmental hazards when the owner has already chosen to build there.”

This was accepted as a Friendly Amendment and there were no Objections.

VOTE: The Amendment carried with 21 in favor, none opposed, and 5 abstained.

Opposed: None.

Abstained: Chris Dixon, George Thompson, Jeff Bradley, Don Horn, David Eldridge.

VOTE: The Amended Motion carried with 21 in favor, 4 opposed, and none abstained.

Opposed: Rachel Minnery, Don Horn, Susan Gitlin, Chris Dixon.

Abstained: None.

Aff. Dixon. 7.7:

- **Reason or Comment:** This section evidently awards projects for complying with code requirements. Green Globes is not meant to parrot required code requirements or to award projects for complying with code requirements. No points should be awarded for complying with code. • This section is contrary to the spirit of Section 7.1.2 which awards points for NOT building on sites that are known for potential hazards (flood plain).
- **Revision Requested:** Delete this section in its entirety.
- **Recommended Response (From):** Thank you for your comment. Your comment has been rejected for the following reason: Section 7.7 does not award points for code compliance because it is not applicable where the code has been adopted. It is only applicable where the environmental hazard exists but it is not regulated by code. Section 7.1.2.3 addresses locations where the code has been adopted and creates an incentive to avoid the known environmental hazard. These two sections were designed to work together; Sec. 7.1.2.3 for hazard avoidance and Sec. 7.7 for hazard mitigation where it cannot be avoided.
- **Subcommittee Vote:** 6 in favor, 3 opposed, none abstained

MOTION: The Motion was made and seconded to use the Subcommittee’s recommendation.

Discussion took place on the Motion:

- Concern was raised that it is unclear that if a fire marshal certifies a wildlife-urban interface, then it is declared. It was stated that this sounds like a code-compliance issue. It was clarified that it’s the authority having jurisdiction who determines a wildland-urban interface, but the if the owners can retain a certified fire marshal or fire protection engineer to evaluate if the site fits the criteria of a hazardous site under the wildland-urban interface. It was stated that there are locations where the government hasn’t declared it a hazard, but a physical hazard exists as determined by the qualified professional.

VOTE: The Motion carried with 19 in favor, 4 opposed, and 2 abstained.

Opposed: Chris Dixon, Susan Gitlin, Don Horn, Rachel Minnery

Abstained: Kent Sovocool, Gord Shymko

Aff. Minnery. 7.7.1.1:

- **Reason or Comment:** Extreme hazards should not be permitted
- **Revision Requested:** Revise points text as follows: Not applicable where the authority having jurisdiction or legislative body has formally declared a wildland-urban interface area, nor is the site exposed to “extreme” hazards.

- **Recommended Response (From):** Thank you for your comment. Your comment has been rejected for the following reason: Section 7.7 addresses sites where the AHJ has not declared a WUI area, but a qualified professional determines that a hazard exists. The standard cannot prevent an owner from building on a site that would be determined to represent an 'extreme' hazard, but it can create an incentive to mitigate the hazard to the environment created by fire spread between buildings and wildland fuels.
- **Subcommittee Vote:** 5 in favor, 2 opposed, 2 abstained

MOTION: The Motion was made and seconded to accept the Subcommittee's response.

Discussion took place on the Motion:

- One participant spoke against the motion stating that developing on a hazardous site should be prohibited. Another echoed this sentiment, stating that the language takes things too far.
- The question was raised if this comment should be responded to in the same manner as comment #22-40.
- One participant who is also a member of the Site Subcommittee explained this issue was discussed extensively. It was stated that the project has to be really close to something else near the site. It was further clarified that in the western states, these are clearly defined and if a project team is going to build in one of these areas, the project needs to comply with these codes.
- It was stated that it is important to understand that three points are awarded for compliance on this Section. If the Consensus Body disallows the points, there will be no incentive to mitigate the hazard. There is no prohibited building list so the Consensus Body can't require that the project team choose the site responsibly, but the Consensus Body can incentivize mitigating risk if a project is developed in one of these areas.
- One participant stated their belief that the interface code hasn't been looked at extensively enough and be could be incorporated in other Sections. A speaker against the motion stated that this criterion offers points for doing the wrong thing then making it a little bit better.
- It was stated that if this Section was removed, buildings aren't affected. Three points is not going to stop developers from building.

VOTE: The Motion carried with 14 in favor, 6 opposed, and 4 abstained.

Opposed: Chris Dixon, Susan Gitlin, Thomas Pape, Don Horn, Tien Peng, Rachel Minnery

Abstained: Jane Rohde, William Freeman, Gord Shymko, Paul Bertram

Aff. Minnery. 7.7.1.1:

- **Reason or Comment:** GBI should not inadvertently encourage and incentivize construction in extreme fire hazard areas.
- **Revision Requested:** Revise: There is a determination by a fire protection engineer or certified fire marshal that the site is exposed to a wildland-urban interface hazard ~~is moderate, high or extreme;~~
- **Recommended Response (From):** Thank you for your comment. Your comment has been rejected for the following reason: The International Wildland-Urban Interface Code (IWUIC) uses a defined formula to calculate whether a site meets the criteria of moderate, high, or extreme hazard. Changing to the word "exposed" instead of using the IWUIC categories will not change the application of Section 7.7 to those categories of sites, but it may confuse the application to include sites that are not significantly hazarded and are therefore undeserving of points.
- **Subcommittee Vote:** 5 in favor, 2 opposed, 2 abstained.

MOTION: The motion was made and seconded to accept the Subcommittee's recommendation.

VOTE: The Motion carried with 17 in favor, 5 opposed, and 2 abstained.

Opposed: Chris Dixon, Kent Sovocool, Don Horn, Tien Peng, Rachel Minnery
Abstained: Susan Gitlin, Gord Shymko

Objections and Negative Reasons on the Letter Ballot:

52 – 19. Substantive. 7.3.4

Comment: The roof and wall are shaded by either:

- Existing, non-invasive trees that are retained, provided the trees are non-invasive or
 - Newly planted non-invasive trees that will shade the requisite area within 15 years.
- For invasive plants, add this informational resource:

Invasive Plant Atlas of the United States
<http://www.invasiveplantatlas.org/>

Reason: 5 points This credit was added to be consistent with credit 7.3.4.3. Credit should be provided if trees are retained or planted that shade the structure and reduce urban heat island impacts and thermal gain.

Response Sent: Thank you for your comment. Your comment was accepted with modification. Language was added to incorporate other heat island mitigation methods.

Objection: Parts of the comment were not addressed.

Action or Inaction at Issue: We appreciate that some of the content was added to the Standard. However, the new language omits any emphasis that trees be non-invasive. Moreover, the proposed reference was not included. The CB's response does not indicate why these parts of the comment were not accepted. We believe that this was merely an oversight.

Remedial Action That Would Satisfy: Add language to 7.3.4 that emphasizes that the trees are non-invasive and add a reference or references regarding non-invasive plants.

Action Taken: In a series of votes, the Subcommittee revised 7.3.4.1 to incorporate language specifying that new and existing trees and plants be non-invasive and to include two of the informational reference(s) found in 7.5.1.2:

7.3.4.1 Roof: The building has a *vegetated roof*, is shaded during summer months, and/or has a roof with a high Solar Reflectance Index (SRI) as prescribed based on the slope of the roof.

Where used to comply, shading trees **are to may** be existing, **non-invasive** plants that are retained on site or newly planted, **non-invasive** trees that will provide shade with **in 15 10** years.

- For a *roof* slope less than or equal to 2:12, a minimum initial SRI of 78 or greater or a three-year aged SRI of 60 or greater;
- For a *roof* slope greater than ~~2~~ 2:12, a minimum initial SRI of 29 or greater or a three-year-aged SRI of 25 or greater.

Informational Reference(s):

- ~~BSR/GBI-01 201X, 6.4.1, Moisture Control Analysis~~
- Cool Roof Rating Council (www.coolroofs.org)
- ~~College, state or local university, or agency landscape reference guide~~

USDA National Invasive Species Information Center: <http://www.invasivespeciesinfo.gov/plants/main.shtml>

Status: The commenter verbally confirmed that if these changes are accepted by the Consensus body, their objection will be resolved pending written confirmation of resolution.

MOTION: The Motion was made and seconded to accept the recommendation to reword the language.

Discussion took place on the Motion:

- The question was raised regarding why the language doesn't say plants "must" be existing. Staff replied that GBI's legal advisors have warned against the use of mandatory language such as "must" or "shall" within the Standard.
- Concern was raised about uniformly shortening the timeframe to 10 years from 15.
- It was stated that this language does not say projects must remove existing invasive trees, but the specification means that projects that don't remove invasive trees/plants won't earn the points..
- Staff clarified for the Consensus Body that the Motion currently under discussion is for the addition of "non-invasive" prior to "plants" and "trees". It was stated that the question of changing 15 years to 10 years will be discussed at a later time in the agenda and are not currently part of the present discussion.

VOTE: The Motion carried with 22 in favor, none opposed, and 2 abstained.

Opposed: None

Abstained: Thomas Pape, Chris Dixon

Points

Site Subcommittee Chair Gregg Bergmiller reported on the status of the points discussion within the Site Assessment Area, stating that three members of the Subcommittee provided recommendations for the point reallocation. The Subcommittee reviewed the recommendations and tried to reach a compromise between the recommendations. Bergmiller reported that the reallocation is not yet completely resolved at the Subcommittee level.

Discussion took place on the Report:

- One participant asked if the Consensus Body needs to act on Points today in order to maintain the publication schedule. Staff replied that the Energy Subcommittee also plans to ask for more time and that there will be another Consensus Body meeting regardless.

New Business

The Site Subcommittee recommends changing multi-user path to shared use path and adding the following definition with a reference for the 1999 AASHTO Guide for the Development of Bicycle Facilities.

shared use [multi-user] path: a form of infrastructure that supports multiple non-motorized transportation opportunities, such as walking, bicycling and inline skating. A multi-use path is physically separated from motor vehicular traffic with an open space or barrier.

Subcommittee Vote: 11 in favor, none opposed, and none abstained.

MOTION: The Motion was made and seconded to move forward with this recommendation.

VOTE: The Motion carried with 22 in favor, none opposed, and none abstained

Opposed: None

Abstained: None

To Address an inconsistency, the Site Subcommittee voted to change 15 years to 10 years under 7.3.4.1, necessitating a change to the response to Comment 22-36.

22 – 36. Substantive. 7.3.4.1:

- **Comment:** . . . Where used to comply, shading trees may be existing plants that are retained on site or newly planted trees that will provide shade within 15-10 years.
- **Reason:** Change tree shade requirement from 15 to 10 years to be consistent with section 7.3.4.2. 15 years is too long to provide the needed shade. Increasing drought may keep trees from reaching historic growth rates.
- **Recommended Response: (From Subcommittee):** Thank you for your comment. Your comment has been accepted with modification. The Consensus Body will make the editorial change from “with” to “within”, but will not change from 15 years to 10 years. The 10 years encourages fast-growth trees that may be invasive and no give proper long-term shading and sustainable planting. 15 years provides more flexibility for a variety of eco regions where tree growth may be slower.
- **Subcommittee Vote:** 9 in favor, 1 opposed, none abstained.
- **Note:** A previous motion to accept the comment failed with 1 in favor, 9 opposed, and none abstained.
- **Consensus Body Vote (5/17/17):** 23 in favor, 1 opposed, 1 abstained
- **Note:** As discussion progressed, it was noticed that 10 years is used in 7.3.4.2 and 15 years was used in 7.3.4.1. There was talk about looking at making this consistent, but nothing was done at the CB level. The subcommittee took another look on June 20th and voted 7 to 4 to change to 10 years in 7.3.4.1 and keep as 10 years 7.3.4.2.
- **NEW Recommendation (From Staff):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **NEW Subcommittee Vote:** The motion carried with 6 in favor, 2 opposed, and 3 abstained.

MOTION: The Motion was made and seconded to proceed with the Subcommittee’s recommendation.

Discussion took place on the Motion:

- It was stated that this shouldn’t be a universal requirement (i.e. can’t get there in desert areas within ten years as there isn’t enough rain). The speaker felt that this change should be voted down and have it returned to the Subcommittee to be worked on further.
- There was a question posed about whether there is a definition of shade. It was stated that the definition has been part of the challenge of this discussion.
It was stated that the Landscape Architect Sustainable Sites Initiative uses 10 years. It was stated that the ASSI is not talking about roofs. The concern of ten years is that it encourages the use of fast-growing trees which are often invasive and are disruptive in the local ecosystems. Additionally, it was stated that fast growth correlates to brittle branches which is a concern when it’s near a roof.
- It was stated that there is room for additional wording changes that would make this more understandable and definable (i.e. 15 years in a certain environment and 10 years in others). It was stated that this should be tabled for further discussion in the Subcommittee. Concern was raised that sending this back to the Subcommittee is not going to achieve the desired results.
- A project can earn points in this category without ever planting a tree. The criterion doesn’t force a project team to plant trees that are inappropriate to the site. It was stated that these points can be earned with a vegetative roof, shade, or SRI. Options are provided for all climate zones in the US. The time frame should be shorter to address areas that need a shorter time period.
- Concern was raised that this discussion has been exhausted.
- Concern was raised that fake trees could be used as an alternative to fit this credit which isn’t sufficient.

- Speaking against the motion, it was stated that some trees are slow growing but are the best trees for wildlife (i.e. oak trees are the best tree from a shade and wildlife standpoint).

VOTE: The Motion carried with 13 in favor, 3 opposed, and 4 abstained.

Opposed: Kent Sovocool, Gary Keclik, Thomas Pape

Abstained: Karen Joslin, David Eldridge, Doug Tucker, Paul Bertram

Energy

Presented by Subcommittee Chair David Eldridge

New Business

Recommendation: Replace the existing definition of Renewable Energy Certificates as follows:

Renewable Energy Certificates (RECs): Renewable energy certificates (RECs), also known as renewable energy credits, green certificates, green tags, or tradable renewable certificates, represent the environmental attributes of the power produced from renewable energy projects and are sold separate from commodity electricity. Customers can buy green certificates whether or not they have access to green power through their local utility or a competitive electricity marketer and they can purchase RECs without having to switch electricity suppliers.

Source: <http://apps3.eere.energy.gov/greenpower/markets/certificates.shtml?page=1>

US Department of Energy Green Power Markets

Subcommittee Vote: 7 in favor, none opposed, none abstained

MOTION: The Motion was made and seconded to accept the Subcommittee recommendation to change the definition of RECs.

VOTE: The Motion carried with 21 in favor, none opposed, and none abstained

Opposed: None

Abstained: None

Points

The Energy Subcommittee met to discuss the results of an analysis of the 3 Energy Paths. They agreed on the following strategy to ensure points are allocated appropriately.

- Affirm 2010 baseline for performance
- Align Three Paths:
 - Shorten Path A scale by an amount to be determined
 - 90.1-2010 items in prescriptive path will be made zero points or removed
 - Extend scales in individual prescriptive items from 90.1-2013 and beyond, in some cases possibly referring to 2016
 - Probable reduction in prescriptive points available
 - Review anchor point for earning credit in Carbon Equivalent Path
- Informative note to carbon equivalent path that some building types may be more applicable for this approach than others.

Discussion took place on the Plan:

- Energy Subcommittee Chair David Eldridge explained that the next Energy Subcommittee meeting is being scheduled and action items have been assigned to individual Subcommittee members. Eldridge encouraged interested Consensus Body members to reach out if they want to be involved in the next Subcommittee call.

Water Efficiency

Presented by Subcommittee Chair Kent Sovocool

Points

Subcommittee Recommendation: Strike 9.3.1.1.1 as redundant and streamline points so that the breakdown is equal to the maximum:

<p>9.3.1.1 Boilers and/or water heaters have the following features:</p> <ul style="list-style-type: none">9.3.1.1.1: Boilers and water heating systems of 50 boiler horsepower (BHP) and above have a boiler feed makeup meter.9.3.1.1.2: Boiler systems with over 50 BHP have condensate return systems;9.3.1.1.3: Non steam boilers have conductivity controllers; and/or9.3.1.1.4: Steam boilers have conductivity meters.	<p>Maximum = 3 points or N/A</p> <ul style="list-style-type: none">One point is earned where boilers and water heating systems of 50 BHP and above have a boiler feed makeup meter.Two points are earned where boiler systems with over 50 BHP have condensate return systems.<ul style="list-style-type: none">Not applicable where there will be no steam boilers or where steam boilers are less than 200 BHP.One point is earned where non-steam boilers have conductivity controllers.<ul style="list-style-type: none">Not applicable where there are no boilers are less than 50 BHP.One point is earned where steam boilers have conductivity meters.<ul style="list-style-type: none">Not applicable where there will be no steam boilers or where steam boilers are less than 200 BHP.
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MOTION: The Motion was made and seconded to modify 9.3.1.1 as it appears above.

Discussion took place on the Motion:

- It was stated that this language contains no differentiation between hydronic systems and steam systems. Concern was raised that from an assessment point of view, it is unclear how these two areas are addressed if one has a hydronic boilers or heating system. Condensate return doesn't apply to these.
- One participant stated that as a non-engineer, it's clear that the goal is to reward boiler systems that have condensate returns and if they don't, no points are awarded.

VOTE: The Motion carried with 14 in favor, 3 opposed, and 8 abstained.

Opposed: Greg Johnson, Gord Shymko, Nicole Dovel-Moore

Abstained: Chris Dixon, Jane Rohde, Gregg Bergmiller, Bill Freeman, Jeff Bradley, Gary Keclik, Allan Bilka, Don Horn

Note from Secretariat: Criteria will be renumbered now that the first one has been struck.

Subcommittee Recommendation: Add in "OR"s to clarify that only 15 points can be earned under 9.6.2.1:

Maximum = 15 points or N/A

- Fifteen points are earned where alternate water source(s) are used for Cooling Towers;
or-OR
- Fifteen points are earned where alternate water source(s) are used for Irrigation.
 - Not applicable where the vegetative landscape is less than 25% of the site.

OR

- Five points are earned where alternate water source(s) are used for Water features.
- Five points are earned where alternate water source(s) are used for Wash Down/Surface Washing.
- Five points are earned where alternate water source(s) are used for Dust Control.
- Not Applicable where there is no irrigation or other outdoor demand.

MOTION: The motion was made and seconded to accept the recommended changes.

VOTE: The motion carried with 21 in favor, none opposed, and none abstained.

Opposed: None

Abstained: None

Materials

Presented by Subcommittee Chair, Charles Kibert

Dixon2. 10.6.3:

- **Reason or Comment:** There is no standard referenced to assess whether or not significant supply chain waste reduction was achieved. It appears to be completely self-reported, zero verification required. • This is an overly complicated credit that is directed not to the project design team, but to manufacturers, and is misplaced in a green building rating system. • Project teams will not have the means or the impetus to chase down the myriad requirements of this section for materials incorporated into the project.
 - Recommended documentation includes construction documents and manufacturer's specifications, neither of which document the requirements of this credit.
- **Revision Requested:** Remove this section in its entirety.
- **Recommended Response (Subcommittee):** Thank you for your comment. Your comment has been Accepted with Modification. Modifications were made to make the criterion less arbitrary and to recognize various waste streams. References were brought in from the information section and clarification on discarded materials was added
- **Subcommittee Vote:** 8 in favor, none opposed, 1 abstained

MOTION: The Motion was made and seconded to accept the Subcommittee's recommendation.

Discussion took place on the Motion

- Concern was raised about materials coming from recycling. It was stated metals could be extracted and paper and plastics could be burned off. The speaker was against the motion.
- It was stated that the purpose of this criterion is to recognize that there are industrial facilities that take in the waste stream and remove recyclable materials from it and the rest of the materials go out the back door, potentially for other use. It was stated that this doesn't pre-empt additional use of the waste stream, just that that part of the waste stream isn't part of the calculation.
- One speaker in favor of zero waste, stated that the Consensus Body should allow for places where one facility that manufactures one thing is adjacent to a facility that manufactures another and they should be able to use the other's waste.
- It was stated that the intention of the text modification was to explain what "gate-to-gate" was.
- The question was raised whether the Materials Subcommittee has considered federal programs that do this. It was stated that Waste Wise seems to be set up to achieve the same goal as this, but the framework has oversight that this criterion doesn't have due to its self-reporting nature. The question was raised about whether the EPA Waste Wise Program could be referenced in this criterion.
- It was stated that the language change doesn't address the concerns raised.

- A member responded stating that the references were pulled into the body of the language; it's not entirely true that this is self-reported, but it's also the mechanism for other parts in the Standard; the items being called out as "issues" here are no different than other parts of this Standard that are not problematic.
- Concern was raised that this criterion goes against the concept of zero-waste management. The question was asked if it's necessary to include the reference to UL2799. If not, the speaker was in favor of striking the reference. It was stated that striking the sentence essentially punished organizations that reuse recycled waste as a feedstock material for their product.

VOTE: The Motion carried with 15 in favor, 5 opposed, and 4 abstained

Opposed: Greg Johnson, Chris Dixon, Kent Sovocool, Jeff Bradley, Susan Gitlin

Abstained: Jane Rohde, Gord Shymko, Allan Bilka, Doug Tucker

Points

Materials Subcommittee Chair Charles Kibert stated that the Subcommittee reviewed the points in the Materials Assessment Area and has no changes to propose.

Indoor Environmental Quality:

Presented by Subcommittee Vice Chair Chris Dixon

Points

Recommendation:

Remove 1 point each from the following criteria:

11.2.1.3 (Staff Note: Need to confirm point breakdown)

11.3.1.1

11.3.1.2

11.3.2.1

11.4.1.1

11.4.2.1

Add 1 point each to:

11.5.2.1

11.5.2.2

11.5.2.3

MOTION: The Motion was made and seconded to accept the reallocation.

Discussion took place on the Motion:

- There was a request made for an explanation of where points were taken from and why. It was stated that three criteria were added under sound masking during the in-person Meeting #31 of the Consensus Body, so points were moved from other criteria to allocate the necessary points.
- Concern was raised that 11.5.2.1 has too many points as the language says it has 4 points when the summary of changes only adds up to 3. It was clarified that it was intended to be 3 points. Concern was raised that it should be 1 or 2 points for 11.5.2.1. It was stated that this is too points-heavy compared to other IEQ items that are only worth 1 point.
- Concern was raised that 150 points under Indoor Environmental Quality doesn't make sense since it's focused on human health not environmental sustainability. It was stated that human health is part of sustainability. This speaker was against reallocating points from 11.3.1.1.

- One speaker stated that they are in favor of comfortable indoor environment including acoustic comfort, but is unclear how these points were allocated. It was stated that 11.5.2.1 should be emphasized. The question was raised if this is an all-or-nothing criteria. It was stated that this is all-or-nothing but is pertinent to the particular building types. It was stated that schools would fall under “Other”. It was confirmed that depending on the building type a project could earn 4 points. It was also confirmed that Sound Masking had been 3 points previously and when it was voted back in it was with the expectation that the criterion would get 3 points plus an undetermined amount of additional points. It was stated that there shouldn’t be points added to 11.5.2.1 or 11.5.2.2.
- Concern was raised that the 11.5.2.1 wording is confusing and misleading and that amending the points could mean a point is returned to its original place. Additionally, 11.5.2.2 and 11.5.2.3 appeases the commenter’s concern that the sound masking implementation is actually effective.

AMENDMENT: The Amendment was made and seconded to amend the motion to accept the reallocation to a maximum of 4 points for 11.5.2.1, adding the word “building types” to each of the three sub-criteria. Moving the language in 11.5.2.2 and 11.5.2.3 into 11.5.2.1 and give the 2 points back [unspecified location].

There were Objections to the Amendment.

Discussion took place on the Motion:

- Concern was raised that developers could take advantage of all three of these for some buildings but many buildings wouldn’t qualify for all.
- Concern was raised for buildings that are mixed use. It was stated that from an assessment perspective, this is problematic if assigning points dependent on the type of building.
- Concern was raised that this language is too complicated. It was stated that this section should award points based on implementing sound-masking based on the appropriate decibel for the building type. Concern was raised that the Consensus Body should award points based on what ventilation is used based on the building, therefore the same principle needs to apply to this section.

REPLACEMENT AMENDMENT: The motion was made and seconded to amend the motion to accept the reallocation to a maximum of 4 points for 11.5.2.1, removing the subheadings “11.5.2.1.1, 11.5.2.1.2, and 11.5.2.1.3” using only the remaining bullet points for the spaces and eliminating the duplication of the bullet points. Moving the language in 11.5.2.2 and 11.5.2.3 into 11.5.2.1 and give the 2 points back [unspecified location].

There were Objections to the Replacement Amendment.

Discussion took place on the Replacement Amendment:

- The question was raised regarding whether the criterion is for building types or spaces. The question was raised whether there are other places projects could be putting the system that aren’t even listed. The question was raised about why different decibels are being specified. The Consensus Body was reminded that this is the language that was voted on and approved during the in-person meeting of the Consensus Body.
- Another speaker stated that the language is too complicated and that these are the only spaces where there are standards that have requirements in place. The speaker felt that the Project teams should only get the points if they have sound masking systems.
- The suggestion was made to make the editorial change to add the word “open” in front of offices.
- Another speaker agreed that 11.5.2.1 should not be changed. To address all the other points the speaker stated that this amendment doesn’t mean to take the word out “offices” and the speaker is against that. It was stated that the building types specifications need to be there.

- It was stated that there is a fundamental divide between those understanding this as a whole building or different spaces within a project. It's important to maintain the differences here now and see if public comments give pushback which the Consensus Body can address in the future.

VOTE: The Replacement Amendment carried with 10 in favor, 8 opposed, and 2 abstained.

Opposed: Greg Johnson, Jane Rohde, Bill Freeman, Jeff Bradley, John Cross, Gary Keclik, Thomas Pape, Don Horn

Abstained: Paul Bertram, Kent Sovocool

Discussion on the Amended Motion:

- It was stated that at this point, the Consensus Body needs to decide where to add the two points back in.

AMENDMENT: The Amendment was made and seconded to change the motion to accept the replacement amendment with a maximum of 4 points.

There were Objections to the Amendment.

Discussion took place on the Amendment:

- It was stated that this direction doesn't make sense. It was clarified that the amendment takes the issue back two steps and is essentially dividing the question.
- It was stated that this amendment does nothing extra. The two points should be added back to where they're originally taken from. Concern was raised that the problem with the original motion is the reallocation is more than just two points from several areas.
- Staff clarified with the Amendment maker that this amendment is amending the motion to accept the replacement amendment with the four points, thus eliminating the original motion. The amendment maker confirmed that this was the case.
- It was stated that a Consensus Body meeting is not the place to decide where those two points go back to. The speaker stated that this needs to be sent back to the Subcommittee.
- It was clarified that this is not taking out all of the rest of the replacement amendment language.

VOTE: The Amendment failed with 7 in favor, 10 opposed, and 4 abstained.

Opposed: Bill Freeman, Jeff Bradley, Karen Joslin, John Cross, Allan Bilka, Thomas Pape, Don Horn, Tien Peng, Rachel Minnery, Jane Rohde

Abstained: Nicole Dovel-Moore, Gregg Bergmiller, Kent Sovocool, Paul Bertram

AMENDMENT: The Amendment was made to amend the motion to include the replacement amendment, replacing the term unspecified location with "Subcommittee to determine the location."

There was no Second on the Amendment

MOTION: The Motion was made and seconded to Call the Question.

Discussion took place on the Motion:

- The question was raised about what will happen if the motion fails. It was clarified that the motion will be voted on that then further action will need to be specified.

VOTE: The Motion carried with 15 in favor, 2 opposed, and 2 abstained.

Opposed: Allan Bilka, Jane Rohde

Abstained: Greg Johnson, Gord Shymko

VOTE: The Amended Motion failed with 7 in favor, 9 opposed, and 3 abstained.

Opposed: John Cross, Jane Rohde, Greg Johnson, Kent Sovocool, Gary Keclik, Thomas Pape, Tien Peng, Rachel Minnery

Abstained: Doug Tucker, Mike Cudahy, Paul Bertram

At the end of the Thirty-Second meeting of the Consensus Body, three Subcommittees still need to complete their point reallocation. One additional Consensus Body Meeting will be scheduled to review that work.

The Motion was made, seconded, and carried to adjourn the meeting.

Meeting ended at 4:04 PM ET---