

Public Comments

May 15, 2015

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Chapter 2: Definitions

PC001 LogID 6146	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin	
Public Comment:	REUSE. To divert a <u>construction material</u> , product, component, module, or a building from the <u>C&D waste stream, <u>without processing the material</u>, in order to use it again <u>in its original form</u>.</u>	
Reason:	<p>We suggest clarifying that the definition of “Reuse” is intended to apply to construction materials, rather than just materials. Without the specificity, “material” could be understood to encompass resources such as water. Meanwhile, water reuse has a slightly different meaning than the construction-material reuse. (Water reuse is generally synonymous with both water recycling and water reclamation. Do note that if contrary to our understanding, the original intent was to include water, the definition of “recycle” would need to broaden as well.) The NGBS proposed definition of reuse does not fully capture the difference between recycling of construction materials and reuse of construction materials; the difference is that reuse does not include the material processing that is characteristic of recycling. Finally, referring to “waste stream” broadly appears potentially inclusive of types of wastes that are not necessarily non-hazardous. Our proposed solution is to specify that the definition applies to construction materials and not materials more broadly. Re-word the definition so that it is clear that “reuse” does not encompass processing of the construction material, but maintains the material in its original form. Specify that the waste stream from which materials are diverted is the non-hazardous, C&D, waste stream.</p>	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC002 LogID 6134	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin	
Public Comment:	<p>INVASIVE PLANTS. Plants for which the species are not native to the ecosystem under consideration and that cause, or are likely to cause, economic or environmental harm or harm to human, animal or plant health. Consideration for inclusion as invasive plants shall include at a minimum those plants identified on lists created or approved by governmental entities as applicable. <u>For the purposes of compliance with this standard, invasive plants are those that are included on local, state, or regional lists of plants determined to cause environmental harm and shall not be limited to those plants covered by law or regulation.</u></p>	
Reason:	<p>It is our understanding that the intent of this standard is to encourage home builders to encourage building practices that are beyond that which is already required by regulation. However, the proposed definition of “Invasive Plants” would effectively: a) Allow builders to gain many points in site and lot development by doing little to nothing that is not already addressed by regulation. This not only is inconsistent with the goals of the rating system, but also reduces the builders’ attention to, and incorporation of, other building practices that provide beyond-regulation benefits. See provisions 403.1(5), 403.1(6), 503.5(10), 503.5 (11), 11.503.5(10), and 11.503.5(11). Or b) Render meaningless some of the restrictions included the standard’s provisions. See 403.6(3), 403.6(5), 503.5(2), 503.5(3), 505.2(2), 11.503.5(2), 11.503.5(3), and 11.505.2(2). The proposed definition of “invasive plants” is as follows: “Plants for which the species are not native to the ecosystem under consideration and that cause, or are likely to cause, economic or environmental harm or harm to human, animal or plant health. Consideration for inclusion as invasive plants shall include at a minimum those plants identified on lists created or approved by governmental entities as applicable.” The first sentence is a definition. The second sentence attempts to clarify the definition. In doing so, however, it effectively tells the standard user that it is acceptable to limit the project’s consideration of invasive plants to those included on governmental lists. The builder may as a result refer only to lists of plants covered by regulation (which typically refer to invasive plants as “noxious weeds”). Fourteen different provisions</p>	

	refer to invasive or non-invasive plants. To ensure that the users of the standard are implementing these provisions in the intended fashion, it would be helpful to clarify to users that noxious weeds lists are insufficient as the bases for these provisions. It may also be helpful to provide examples of lists of plants that have been determined to cause environmental harm but are not regulated. Such lists exist all over the country and are applicable to the state or local ecoregion. Sometimes individual states or the regional branch of a Federal Agency posts such a list, and other times the local governments and public may rely on lists created by invasive plant councils. Such examples, however, however, may be more suitable for the NGBS Commentary. We therefore suggest that, for the purpose of the language in the standard itself, that the definition be revised as we propose below.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC003 LogID 6131	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin	
Public Comment:	ENVIRONMENTALLY SENSITIVE AREAS. 1. Areas within wetlands as defined by federal, state, or local regulations; 2. Areas of steep slopes; 3. "Prime Farmland" as defined by the U.S. Department of Agriculture; 4. Areas of "critical habitat" for any federal or state threatened or endangered species; 5. Areas defined by state or local jurisdiction as environmentally sensitive. <u>6. Shoreline buffers that have important environmental functions as identified by the state or local jurisdiction, e.g., shoreline stability, pollutant removal, streamside shading, ecological flow protection.</u>	
Reason:	The addition of "stream protection areas" to 403.12(1) as an example of an environmentally sensitive area is a good one, but it creates an inconsistency with the definition of "environmentally sensitive areas" in Section 202. A solution could be to add "Stream protection areas" to the list now included in the definition, but that would be less precise than other elements now listed there. We suggest here some language that is more consistent with those other elements, and we recommend revising the language in 403.12 to remove the redundancy with the definition.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC004 LogID 6160	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Todd Jones	
Public Comment:	Renewable Energy. Energy derived from renewable energy <u>sources</u> .	
Reason:	The definition of renewable energy is circular (self-referencing).	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC 005 LogID 6006	202 Definitions	Final Formal Action: TBD
Submitter:	Doug Johnson	
Public Comment:	Plants for which the species are not native to the ecosystem under consideration and that cause, or are likely to cause, economic or environmental harm or harm to human, animal or plant health. Consideration for inclusion as invasive plants shall include at a minimum those plants identified on lists created or approved by as applicable. This includes all invasive plants identified on lists created or approved by applicable governmental entities. Consideration for inclusion shall also include all invasive plants listed by non-governmental organizations which assess and list invasive plants for the geographical region of interest based on applicable standards from ASTM or other standards bodies.	
Reason:	The definition of “invasive plant” is a good start, but is not sufficient. The definition says, “Consideration for inclusion as invasive plants shall include at a minimum those plants identified on lists created or approved by governmental entities as applicable.” First, compliance with any governmentally-approved list should not be a consideration, it should be a requirement. Second, the completeness of lists created or approved by government entities is variable. While some states and municipal governments have made the attempt to address this issue in a thorough manner, many have not. Government lists, such as noxious weed lists, are developed for particular regulatory goals, often having to do with agriculture. In such cases, lists developed by state Invasive Plant Councils like ours (similar groups are active in 30 states) are more complete and relevant to the application of landscaping guidelines. Our lists are generated with broad expert input from academia and the range of agencies involved in land management. We focus on environmental impacts, which is of direct relevance to landscaping guidelines. (We do not at this point take into account economic impacts, either positive or negative.) Our lists already serve as de facto references for land managers. In some states, like California, they have also served as the basis for landscaping guidelines, like through the PlantRight program. In order strengthen building code use of our lists, we are pursuing an ASTM standard for assessing and listing invasive plants based on their environmental impact. This standard has been in development for two years, and could be complete as early as this spring.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC006 LogID 6007	202 Definitions	Final Formal Action: TBD
Submitter:	Read Porter	
Public Comment:	INVASIVEPLANTS: A p Plants for which the species are that is not native to the ecosystem under consideration and that causes, or are is likely to cause, economic or environmental harm or harm to human, animal or plant health. Consideration for inclusion as i nvasive plants shall include, at a minimum: (i) these <u>all plants identified on any lists of noxious, invasive, or harmful terrestrial or aquatic plants created or approved by a governmental entity with jurisdiction in a given location; and (ii) all plants included on any list of noxious, invasive, or harmful plants tha\t applies to the location and was created or approved by a third party through a credible process</u> ies as applicable.	
Reason:	The definition of invasive plants in this draft standard is poorly drafted and under-inclusive. It requires improvement to adequately cover the full range of invasive plants identified by the scientific community. We recognize that this definition is primarily based on the definition of invasive species as defined by the US federal government in Executive Order 13112, which is a reasonable basis for a definition. However, modifications to the draft as indicated here undermine the clarity of the definition. Proposed amendments to the definition as presented with this comment will remove unnecessary and confusing verbiage that may undermine application of the definition in practice. In particular, it is not clear what “plants for which the species are not native...” is intended to mean, or how it may differ from a simpler construction, e.g., “a plant that is not native...” We suggest amending this clause as indicated in our proposed revision. Second, we note that the minimum standards for plants qualifying as invasive are unnecessarily vague. It would seem to be common sense that any plant that is known to be harmful	

	<p>should be excluded from use in green buildings, so mere “consideration for inclusion” as invasive plants under this standard is not sufficient to achieve the goal of this standard. A less vague and more appropriate formulation, as offered in our proposed language, would simply delete “consideration for inclusion.” The reference in the definition to “the ecosystem under consideration” may require further clarification in the context of this standard. Users, and particularly those in highly disturbed urban areas, may view the ecosystem narrowly to mean the area directly surrounding a development. This understanding may be incompatible with scientific understanding of the movement of plants across a landscape (including spread from developed areas into natural areas) and of the diverse and important ecosystems and habitats that remain inside the urban fabric (e.g., parks). We recommend an additional definition of “ecosystem” or an explanatory note that clarifies the meaning of this term. We further note that the definition’s characterization of “lists created or approved by governmental entities” is under-inclusive. First, in many locations, government noxious weed lists are limited to plants that are agricultural weeds or poisonous to livestock—and they exclude many plants that are known to be harmful. Non-governmental and quasi-governmental entities, such as the state members of the National Association of Invasive Plant Councils, have created more comprehensive lists of invasive plants in particular areas. These groups commonly bring together state, conservation, and industry representatives to identify these problematic species. To ensure adequate coverage of invasive plants, the definition should require users to consider lists of invasive plants created by non-governmental or quasi-governmental entities and to apply such lists that are credible. The reference to government lists is not only under-inclusive, but also is vague. Government entities create multiple types of lists, including those covering noxious and invasive plants with differing degrees of current and potential future harm. The definition should be clear that a species included on any applicable list of invasive, noxious, or harmful terrestrial or aquatic plants is an invasive plant for the purposes of this definition, whether or not the listing results in legal restrictions on use.</p>
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC007 LogID 6008	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	David Gorchov	
Public Comment:	Consideration for inclusion as invasive plants shall include at a minimum those plants identified on lists created or approved by governmental entities state invasive species councils (IPCs) as applicable.	
Reason:	'Invasive Plants': Rather than focusing on government lists, the primary source of a list of invasive species should be the lists of the state Invasive Plant Council (IPC), where this is available. The reason is that many states list only those plant species that are regulated, e.g. sale is prohibited. These species could not be planted anyhow, regardless of whether a project seeks certification. IPC lists more completely cover invasive plant species, regardless of whether the state has decided to regulate.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC008 LogID 6010	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Sara Kuebbing	
Public Comment:	INVASIVE PLANTS: Plants for which the species are not native to the ecosystem under consideration and that cause, or are likely to cause, economic or environmental harm or harm to human, animal, or plant	

	health. Consideration for inclusion as an invasive plants shall include at a minimum those plants identified on lists created or approved by governmental entities <u>or lists developed by state-based members of the National Association of Invasive Plant Councils.</u>
Reason:	<p>I am writing to comment on the National Green Building Standard ANSI Standard Public Comment Draft, dated March 6, 2015. I am a plant ecologist who studies the impacts of nonnative plant species on native communities and ecosystems, and am currently working as a postdoctoral research scholar at the Yale School of Forestry and Environmental Studies. I am very encouraged to see that Home Innovation has incorporated definitions and credits to discourage the planting of nonnative, invasive plants in developments following the National Green Building Standard. As you may be aware, the intentional planting of nonnative species in landscaping has unfortunately been an important introduction pathway for many invasive plant species, which have spread far beyond their original planting sites in landscaped homes and gardens. For example, Professors Sarah Reichard and Clement Hamilton of University of Washington found that 82% of the woody invasive species found in the United States were widely planted and sold for landscaping and horticultural purposes¹. The inclusion of nonnative, invasive species in building industry standards such as this is a critical step in preventing the future spread and introduction of nonnative, invasive species. However, while I am pleased with the intention of the current draft standard, I think that the language falls short in clearly outlining and guiding the selection of nonnative species that developers should avoid: The reliance on lists created or approved by governmental entities is not sufficient for identifying and preventing the use of potential invasive plants in green building landscapes (“Invasive plants” definition, Chapter 2, Section 202 Definitions “Invasive Plants”). Government lists are notoriously conservative in their listing of invasive plant species, and therefore are not comprehensive enough to guide green building standards that aim to promote environmentally conscious development. For example, I served on the Board of Directors of the Tennessee Exotic Pest Plant Council (www.tneppc.org), a non-profit organization dedicated to raising public awareness and serving an educational and advisory role about nonnative, invasive plants in Tennessee. Part of the organization’s role is maintaining a list of nonnative, invasive plants within the state, and TN EPPC currently lists 136 nonnative, invasive plant species. The overlap between TN EPPC’s 136 invasive plant species and federal (US Department of Agriculture’s Noxious Weed List²) and state (Tennessee’s Department of Agriculture Pest Plant Rule³) invasive plant lists is only 15 plant species. There are a few reason for the stark differences between governmental lists and lists produced by organizations like TN EPPC. First, governmental lists tend to arise from Departments of Agriculture, which are institutionally and directorially more focused on problematic plants in agricultural or silvicultural settings, not in natural areas where invasive plants are also problematic. Second, the listing process for federal and state agencies can be very slow and therefore not reflect many plants that are known to already be causing substantial environmental harm.⁴ This phenomenon of mismatch between governmental and state plant-council is common and not just in Tennessee. Many states have organizations similar to TN EPPC that maintain more extensive lists for invasive plants in the state. These lists are credible, and more accurately represent the likelihood of invasion and future harm for nonnative species within that state. For the reasons stated above, I would encourage this body to adopt language that promotes lists created by state-based organizations that identify themselves as invasive plant councils, exotic pest plant councils, or exotic, invasive plant committees. The National Association of Invasive Plant Councils (http://www.naeppc.org/) maintains a list and clearinghouse for many (but not all) of these state-based invasive plant organizations, which may be good guidance for your standard.</p>
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC009 LogID 6021	202 Definitions	Final Formal Action: TBD
Submitter:	Roger L. LeBrun	

Public Comment:	Either revert to the prior definition, or change to: The inverse of the time rate of heat flow through a <u>continuous</u> building thermal envelope element <u>assembly</u> from one of its bounding surfaces to the other for a unit temperature difference between the two surfaces, under steady state conditions, per unit area ($h \times ft^2 \times ^\circ F/Btu$).
Reason:	R-VALUE definition was changed in a way that might be improperly applied to fenestration items. For a product that has variable thermal properties across its exposed surfaces, the R-Value is proven inaccurate as defined.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC010 LogID 6022	202 Definitions	Final Formal Action: TBD
Submitter:	Roger L. LeBrun	
Public Comment:	RENEWAL ENERGY. Energy derived from renewable energy sources <u>sources</u> .	
Reason:	RENEWAL ENERGY Replace the stricken word "sources" as shown. Otherwise the defined term is defined by itself only.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC011 LogID 6023	202 Definitions	Final Formal Action: TBD
Submitter:	Roger L. LeBrun	
Public Comment:	VAPOR RETARDER CLASS. A measure of the ability of a material or assembly to limit the amount of moisture that passes through that material or assembly. Vapor retarder class shall be, defined using the desiccant method, <u>with</u> Procedure A of ASTM E 96 as follows:	
Reason:	VAPOR RETARDER CLASS condense definitions to one sentence whenever possible.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC012 LogID 6074	202 Definitions	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	Energy derived from renewable energy, <u>produced by a renewable energy source.</u>	
Reason:	Renewable Energy - The term being defined should not be used to define it.	
Substantiating Documents:	False	

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC013 LogID 6084	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Chuck Arnold	
Public Comment:	A building erected prior to the date of adoption of the appropriate code, or one for which a legal building <u>occupancy</u> permit has been issued.	
Reason:	Clarification for Existing Building. An occupancy permit is different than a building permit	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC014 LogID 6198	202 Definitions	<i>Final Formal Action: TBD</i>
Submitter:	Craig Conner	
Public Comment:	CONDITIONED SPACE. An area, room or space that is enclosed within the building thermal envelope and that is <u>directly or</u> indirectly heated or cooled. Spaces are indirectly heated or cooled where they communicate thru openings with conditioned spaces, where they are separated from conditioned spaces by uninsulated walls, floors or ceilings or where they contain uninsulated ducts, piping or other sources of heating or cooling.	
Reason:	Conditioned space includes "directly" conditioned space.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 3: Compliance Method

PC015 LogID 6091	302.1 Site design and development (Green subdivisions)	Final Formal Action: TBD
Submitter:	Michelle Desiderio	
Public Comment:	Site design and development (Green subdivisions communities)	
Reason:	I propose an editorial change to use the term "green Community" as opposed to "Green Subdivision." Subdivision is an industry term-of-art that is not widely used outside the industry and has a pejorative connotation.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC016 LogID 6101	303.1 Green buildings	Final Formal Action: TBD																																																																			
Submitter:	aaron gary																																																																				
Public Comment:	<p style="text-align: center;">Table 303</p> <p style="text-align: center;">Threshold Point Ratings for Green Buildings</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" rowspan="2">Green Building Categories</th> <th colspan="4">Rating Level Points ⁽¹⁾ ⁽²⁾</th> </tr> <tr> <th>BRONZE</th> <th>SILVER</th> <th>GOLD</th> <th>EMERALD</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Chapter 5</td> <td>Lot Design, Preparation, and Development</td> <td>50</td> <td>64</td> <td>93</td> <td>121</td> </tr> <tr> <td>2.</td> <td>Chapter 6</td> <td>Resource Efficiency</td> <td>43</td> <td>59</td> <td>89</td> <td>119</td> </tr> <tr> <td>3.</td> <td>Chapter 7</td> <td>Energy Efficiency</td> <td>30</td> <td>6045</td> <td>8060</td> <td>10070</td> </tr> <tr> <td>4.</td> <td>Chapter 8</td> <td>Water Efficiency</td> <td>25</td> <td>39</td> <td>67</td> <td>92</td> </tr> <tr> <td>5.</td> <td>Chapter 9</td> <td>Indoor Environmental Quality</td> <td>25</td> <td>42</td> <td>69</td> <td>97</td> </tr> <tr> <td>6.</td> <td>Chapter 10</td> <td>Operation, Maintenance, and Building Owner Education</td> <td>8</td> <td>10</td> <td>11</td> <td>12</td> </tr> <tr> <td>7.</td> <td></td> <td>Additional Points from Any Category</td> <td>50</td> <td>75</td> <td>100</td> <td>100</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total Points:</td> <td>231</td> <td>349334</td> <td>509489</td> <td>641611</td> </tr> </tbody> </table> <p>(1) In addition to the threshold number of points in each category, all mandatory provisions of each category shall be implemented.</p>		Green Building Categories			Rating Level Points ⁽¹⁾ ⁽²⁾				BRONZE	SILVER	GOLD	EMERALD	1.	Chapter 5	Lot Design, Preparation, and Development	50	64	93	121	2.	Chapter 6	Resource Efficiency	43	59	89	119	3.	Chapter 7	Energy Efficiency	30	60 45	80 60	100 70	4.	Chapter 8	Water Efficiency	25	39	67	92	5.	Chapter 9	Indoor Environmental Quality	25	42	69	97	6.	Chapter 10	Operation, Maintenance, and Building Owner Education	8	10	11	12	7.		Additional Points from Any Category	50	75	100	100	Total Points:			231	349334	509489	641611
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	(2) For dwelling units greater than 4,000 square feet (372 m ²), the number of points in Category 7 (Additional Points from Any Category) shall be increased in accordance with Section 601.1. The "Total Points" shall be increased by the same number of points.
Reason:	Chapter 7 point thresholds do not align with new point values within the chapter.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC017 LogID 6102	304.1 Multi-unit buildings	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	304.1 Multi-unit buildings. All residential portions of a building shall meet the requirements of this Standard. Partial compliance shall not be allowed. Unless otherwise noted, all units and residential common areas within a multi-unit building shall: 1) meet all mandatory requirements; and 2) achieve the point threshold required for the chosen environmental rating level in accordance with Table 303; and 3) achieve the same environmental rating level. <u>Residential common areas shall: 1) meet all mandatory requirements; and 2) achieve the same practices as the units, as applicable.</u> Points for the green building practices that apply to multiple units shall be credited once for the entire building. Where points are credited, including where a weighted average is used, practices shall be implemented in all units, as applicable. Where application of a prescribed practice allows for a different number of points for different units in a multi-unit building, the fewer number of points shall be awarded, unless noted that a weighted average is used.	
Reason:	For multi-unit buildings that have shared common space it may not be possible for some spaces to achieve the required point threshold in a chapter because there are not applicable point available given the use, even though they are built to the same standards. For example a lobby of an NGBS Silver building that has no water fixtures will not be able to achieve 39 points.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC018 LogID 6092	304.1 Multi-unit buildings	Final Formal Action: TBD
Submitter:	Michelle Desiderio	
Public Comment:	304.1 Multi-unit <u>Multifamily</u> buildings All subsequent uses of multi-unit would be revised to multifamily	
Reason:	Wholesale change from the term multi-unit to multifamily with no change to the definition. Multi-unit is used within the industry but not without the industry and is not as relevant a term to most people. For the NGBS to be successful broadly we need to use terms that are more commonly used and have more meaning outside the residential construction industry.	
Substantiating Documents:	False	
Task Group Recommendation:		

Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC019 LogID 6144	305.3.1 Applicability (Whole-building rating criteria)	Final Formal Action: TBD
Submitter:	Keith Dennis	
Public Comment:	The reduction in energy consumption resulting from the remodel shall be based on the estimated annual energy cost savings or source energy savings as determined by a third-party energy audit and analysis or utility consumption data. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.	
Reason:	The source energy metric suggested in this section is deeply flawed. Assuming that electricity is 3.16 times less efficient than on-site fossil fuel combustion is based on a methodology that treats non-carbon emitting sources like solar, wind, biomass, hydro and nuclear as if they are extremely inefficient coal power plants. Using a source energy value of 3.16 and related methodologies means that any renewable energy on the grid will be treated as if it is more than 3X less efficient than fossil fuel combustion of site. Among the serious flaws in this approach is that even if the grid were 100% powered by renewable energy, consumers would be directed to burn fossil fuel in order to meet “green” codes. This is a in direct opposition to the intent of this code. Source values for other fuels suggested are also inaccurate. For a more detailed study on this issue prepared by Power Systems Engineering, see: http://www.nreca.coop/wp-content/uploads/2015/04/sourcesite_ratios_final_022015.pdf	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC020 LogID 6085	305.3.5 Energy efficiency	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	[(consumption per square foot before remodel – consumption per square foot after remodel)/consumption per square foot before remodel]*100%	
Reason:	Formula needs editing to eliminate the percent sign.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC021 LogID 6051	305.3.5 Energy efficiency	Final Formal Action: TBD
Submitter:	Steven Rosenstock	
Public Comment:	<p>305.3.5.1 Energy consumption reduction.</p> <p>The reduction in energy consumption resulting from the remodel shall be based on the estimated annual energy cost savings or source energy savings as determined by a third-party energy audit and analysis or utility consumption data. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.</p>	

Reason:	The source energy language is not consistent with previous versions of the NGBS. The values are not correct and not consistent with many other published estimates. For example, different fossil fuels have significantly different estimates. For electricity, the estimates vary widely by region of the country or the world. In addition, this will penalize customers that purchase renewable electricity from the grid.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

Chapter 4: Site Design and Development

PC022 LogID 6034	403.1 Natural resources	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<div style="border: 1px solid black; padding: 5px;"> <p>(6) Developer has a plan for removal or containment of invasive plants, as identified by a qualified professional, on the undisturbed areas of the site.</p> </div>	6
	Why duplicated? Missing a percentage?	
Reason:	Item 5 and 6 in natural resources are identical but have different values.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC023 LogID 6133	403.1 Natural resources	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	<p>Section 403.12: Environmentally sensitive areas including steep slopes, prime farmland, critical habitats, stream protection areas, and wetlands are avoided as follows: ...</p>	
Reason:	The addition of "stream protection areas" to 403.12(1) as an example of an environmentally sensitive area is a good one, but it creates an inconsistency with the definition of "environmentally sensitive areas" in Section 202. We have submitted a separate comment to amend the definition. Here we recommend revising the language in 403.12 to remove the redundancy with the definition.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC024 LogID 6093	403.1 Natural resources	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:		
Reason:	Clarify 403.1(6), what's the different requirement for (5) and (6)?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC025 LogID 6147	403.11 Demolition of existing building	Final Formal Action: TBD
Submitter:	Susan Gitlin	

Public Comment:	(One additional point awarded for every 10 percent of <u>nonhazardous</u> demolition waste recycled and/or salvaged beyond 50 percent).
Reason:	The first paragraph specifically states that the demolition waste should be nonhazardous. For clarity reasons, the “nonhazardous” condition should be included in the parenthetical note about additional points. It also is not clear if the “3” and “2” that have been added in the points column are referring to Section 403.10 or 403.11. Solution: Add the word “nonhazardous” to the parenthetical note about additional points. Clarify the intended number of points for this section.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC026 LogID 6038	403.11 Demolition of existing building	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<p>403.11 Demolition of existing building. A demolition waste management plan is developed, posted at the jobsite, and implemented to recycle and/or salvage with a goal of recycling or salvaging for reuse a minimum of 50 percent of the nonhazardous demolition waste.</p> <p>(One additional point awarded for every 10 percent of demolition waste recycled and/or salvaged beyond 50 percent).</p>	
Reason:	Do we simply want a goal, or actually recycling and salvaging?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC027 LogID 6035	403.5 Stormwater management	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<p>(2) A hydrologic analysis is conducted that results in the design <u>and installation</u> of a stormwater management system that maintains the predevelopment (stable, natural) runoff hydrology of the site through the development or redevelopment process. Ensure that post construction runoff rate, volume and duration do not exceed predevelopment rates, volume and duration.</p>	10
Reason:	Is this JUST design or design AND construction/implementation? I read this to read “no run-off” period.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC028 LogID 6036	403.5 Stormwater management	Final Formal Action: TBD
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Submitter:	David S. Collins, FAIA
Public Comment:	Green infrastructure stormwater management <u>Low impact development</u> practices to promote infiltration and evapotranspiration such as, but not limited to, vegetated swales, bio-retention cells, vegetated tree boxes and planters, green roofs, rain gardens, wetlands, french drains, drywells, or permeable pavements are used to manage rainfall on the lot and prevent the off-lot discharge of runoff from all storms up to and including the volume of following storm events:
Reason:	No! Stormwater management is only one of several aspects of LID
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC029 LogID 6011	403.5 Stormwater management	Final Formal Action: TBD
Submitter:	Greg Johnson	
Public Comment:	Low Impact Development/Green infrastructure stormwater management practices to promote infiltration and evapotranspiration such as, but not limited to, vegetated swales, bio-retention cells, vegetated tree boxes and planters, green roofs, rain gardens, wetlands, french drains, drywells, <u>lawns</u> or permeable pavements are used to manage rainfall on the lot and prevent the off-lot discharge of runoff from all storms up to and including the volume of following storm events	
Reason:	The list of Low Impact Development/Green infrastructure stormwater management practices to promote infiltration and evapotranspiration should include lawns. Grassed areas provide considerable infiltration capacity on low-sloped, level, and sunken sites. Even on higher sloped sites grass provides sheet flow control, slowing run-off and allowing it to infiltrate.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC030 LogID 6094	403.5 Stormwater management	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:	suggest 5 -10 points depending on the % of stormwater to be treated.	
Reason:	Any points for projects installing detention pond or vault to pre-treat the stormwater?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC031 LogID 6119	403.5 Stormwater management	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:	a detention pond or vault is designed and built on-site to the standards that 80% of TSS is be removed for 90% of the storm event. <u>10 points.</u>	
Reason:	Suggest points for projects installing detention pond or vault to pre-treat the stormwater?	

Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC032 LogID 6122	403.6 Landscape plan	<i>Final Formal Action: TBD</i>
Submitter:	Anthony Floyd	
Public Comment:	(2) 6 Mandatory (3) 7 Mandatory	
Reason:	Items 2 and 3 should be mandatory for all green building projects. All native plants and regionally appropriate plants should be conserved, maintained and reused to the greatest extent possible which is a reasonable expectation for all landscape designs (whether part of a green building project or not). Selecting native or regionally appropriate plants is a fundamental landscape design practice and should always be a prerequisite for sites associated with green buildings.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC033 LogID 6124	403.6 Landscape plan	<i>Final Formal Action: TBD</i>
Submitter:	Blaine Wilkins	
Public Comment:	(5) Turfgrass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height.	
Reason:	The fifth item seems incompatible with this document. This is a design standard, but this proposed credit requires long-term care and maintenance for it to have any environmental benefit. I know of few homeowners who would maintain such a lawn as is described here. In my experience, a homeowner will apply -- or ask a landscaping service to apply -- weed killer to short flowering plants in their lawn. And how many homeowners who invest in a brand new home will let their lawns grow to 6" before mowing it? This is an unrealistic expectation. This practice may be workable if a homeowner elects to do it himself, but I do not know many who would do so. It certainly will have little beneficial impact if it is installed by a developer or builder unless it is designed to a particular homeowners's specifications. The points are easy, and the benefit is nil. Delete it.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC034 LogID 6009	403.6 Landscape plan	<i>Final Formal Action: TBD</i>
Submitter:	David Gorchov	
Public Comment:	Turfgrass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height.	

Reason:	Part 5 should be deleted. Many homeowners will view these plants as weed and apply herbicide to their lawns, with the potential for effects on non-target species, including pets, and potentially contaminating drinking water supplies. If the intention is enhance the sources of nectar and pollen for native pollinators, then plantings of appropriate native plants should be done in sites that are not lawns. The same concern applies to 503.5 item 3. and 11.503.5 item 3
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC035 LogID 6037	403.6 Landscape plan	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected giving consideration to <u>to create</u> biodiversity and <u>limit</u> water use and specified on the lot plan. Non-invasive vegetation is selected.	
Reason:	How is "giving consideration" measured? There are no criteria to measure.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC036 LogID 6015	403.6 Landscape plan	Final Formal Action: TBD
Submitter:	Greg Johnson	
Public Comment:	(3) Turf grass species, other vegetation, and trees Non-invasive vegetation that are <u>is</u> native or regionally appropriate for local growing conditions are <u>is</u> selected giving consideration to biodiversity and water use and specified on the lot plan. Non-invasive vegetation is selected.	
Reason:	Section 403.6 says that a landscape plan is developed, in part, to limit water use. Nothing is gained in item 5 by requiring further consideration of water use. Water use should be stricken from item 5. Item 5's requirements for specification on the landscape plan is similarly duplicative. The charging section of 403.6 addresses it -the whole section is about the plan. Requiring additional plan specificity is poor formatting of the standard. Bio-diversity in the landscape is already addressed by Sec. 403.7 which awards habitat supporting initiatives (automatically biodiverse) additional points. Finally, turfgrass and trees are vegetation and do not need to singled out in this item of the section. The proposed change to non-invasive vegetation is editorial.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC037 LogID 6017	403.6 Landscape plan	Final Formal Action: TBD
Submitter:	Brent Mecham	
Public Comment:	(1013) Plans for the common area landscape watering system include a weather-based or <u>soil</u> moisture-based controller. Required irrigation systems are designed in accordance with the Irrigation	

	Association's 2014 Landscape Irrigation Best Management Practices. Turf and Landscape Best Management Practices.
Reason:	Add clarification that it is a soil moisture based controller The reference to the BMP document should be updated to the current version that was published in 2014.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC038 LogID 6177	403.6 Landscape plan	Final Formal Action: TBD																
Submitter:	Kent Sovocool																	
Public Comment:	<p>403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following:</p> <table border="1"> <tr> <td>(1) A plan is formulated to restore or enhance natural vegetation that is cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated.</td> <td>6</td> </tr> <tr> <td>(2) On-site native or regionally appropriate trees and shrubs are conserved, maintained, and reused for landscaping to the greatest extent possible.</td> <td>6</td> </tr> <tr> <td>(3) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected <u>giving consideration to biodiversity and water use</u> and specified on the lot plan. <u>Non-invasive</u></td> <td>5 3</td> </tr> <tr> <td>(4) <u>The EPA WaterSense Water Budget Tool may be used when determining the maximum percentage of turf areas. For landscapeable areas, the percentage of all turf areas is:</u> The percentage of all turf areas are limited as part of the landscaping.</td> <td></td> </tr> <tr> <td><u>(a) 0 percent.</u></td> <td>1 0</td> </tr> <tr> <td><u>(b) Greater than 0 percent to less than 20 percent</u></td> <td>8</td> </tr> <tr> <td><u>(c) 20 percent to less than 40 percent</u></td> <td>6</td> </tr> <tr> <td><u>(d) 40 percent to 60 percent</u></td> <td>4</td> </tr> </table>		(1) A plan is formulated to restore or enhance natural vegetation that is cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated.	6	(2) On-site native or regionally appropriate trees and shrubs are conserved, maintained, and reused for landscaping to the greatest extent possible.	6	(3) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected <u>giving consideration to biodiversity and water use</u> and specified on the lot plan. <u>Non-invasive</u>	5 3	(4) <u>The EPA WaterSense Water Budget Tool may be used when determining the maximum percentage of turf areas. For landscapeable areas, the percentage of all turf areas is:</u> The percentage of all turf areas are limited as part of the landscaping.		<u>(a) 0 percent.</u>	1 0	<u>(b) Greater than 0 percent to less than 20 percent</u>	8	<u>(c) 20 percent to less than 40 percent</u>	6	<u>(d) 40 percent to 60 percent</u>	4
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(3) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected <u>giving consideration to biodiversity and water use</u> and specified on the lot plan. <u>Non-invasive</u>	5 3																	
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<u>(c) 20 percent to less than 40 percent</u>	6																	
<u>(d) 40 percent to 60 percent</u>	4																	
Reason:	<p>There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). The gravest impacts are to section 403.6 (4). This is where OPEI has lobbied for the diminishment of turf limitations as an option for reducing outdoor water demands. In the early stages of drought in 2003, my agency worked closely with a number of stakeholders including the Southern Nevada Home Builders Association (SNHBA) to implement a policy that limited the use of turfgrass for ornamental purposes. Why turfgrass? Our research has shown that lawns receive four times as much water as other water-efficient landscapes that may include trees, shrubs, flowers, vines and other adapted plants. Research in a variety of geographic settings has demonstrated that significant savings are realized where plantings other than turfgrass are used. Locally, these policies not only mitigated water demand, they quelled calls for a moratorium on growth and new construction. These policies have had no impact on quality of life and a positive impact on economic productivity. Both builders and homebuyers are free to plant some turfgrass and to select from a palette of more than 500 other plants for their landscapes. These landscape provisions, more than any other initiative, allowed us to reduce our use by almost 29 billion gallons between 2002 and 2012 while allowing homebuilders to create housing for nearly 500,000 new</p>																	

	<p>residents that have located in Southern Nevada since the policy went into effect. Appropriately used, turfgrass can provide benefits, but at a cost. Numerous studies have shown that better adapted plants can provide most or all of the functions of turfgrass with lower demand for water, fertilizer, fuel and maintenance. In many utilities, the benefits of turfgrass carbon sequestration are overwhelmed by the embedded electric energy in just a few inches of irrigation water. The NGBS has thus far provided for the earning of points with landscape plans that have turf limitations. These have been optional and allowed for regional diversification. They have worked successfully in conjunction with turf limits to provide for appropriate reward in water-scarce regions such as ours. While SNWA certainly is supportive of the WaterSense program and our proposed change continues to highlight it, in regions where there is already policy to limit the use of turfgrass, using the NGBS would necessitate a special set of calculations and assessments at each home being built, yet not change the outcome due to the regulatory environment. This additional difficulty may be a disincentive that results in builders shunning the NGBS in regions where water-scarcity has become a driving force. Our included background material demonstrates that these may occur at local municipal code levels as in southern Nevada well as state levels (California). The NGBS should allow regional flexibility by allowing builders to use such already requisite approaches while highlighting the WaterSense Water Budget Tool. It should appropriately incentivize and reward builders for doing so. And just doing the calculation is insufficient. This was obviously not the intent as per the original language. We want to assure that the work is actually done, something that may have unknowingly occurred in the standard development process. Our proposal addresses both these deficiencies. Finally, a number of point modifications have occurred that significantly reduce the emphasis on water efficiency in landscape design that SNWA’s proposal counters. Good landscape design is crucial to water efficiency and it does involve real on the ground enhancements. It should rank highly in points-based systems thus the reallocation of points back to 403.6 (4).</p>
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC039 LogID 6184	403.6 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	<p>(5) Turfgrass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height.</p> <p><u>To improve pollinator habitat, at least 10% of planted areas are composed of non-invasive flowering and nectar producing plant species.</u></p>	
Reason:	<p>There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these is the introduction of a new concept which the proponent informally refers to as the “bee lawn” which draws upon research that has found that while a lawn composed of turfgrass provides only detrimental impacts to bee colonies, a lawn infested with flowering herbaceous plants can provide more benefits (though not at the levels of native vegetation). To this end OPEI suggests rewarding intentionally enhancing lawns in this way. But that is misleading as, in order to get the points, the major negative, putting in a monoculture composed of turfgrass, has to also happen. Again, the lawn itself is only detrimental to bees. Furthermore, a careful review shows only certain species can be facilitated by the limited plantings that can be maintained in a lawn, especially given most people mow their lawns to 4 inches or less. Research by the University of Kentucky has demonstrated that diversity of bee species declines precipitously where turfgrass is present and indeed there are even programs devoted to converting turfgrass areas to pollinator habitat. It is counterintuitive and highly strategic on OPEI’s part to attempt to promote a “bee lawn” as part of a sustainability initiative and it would be terrible to see the committee endorse the concept even as modified in prior deliberation. What we need are more</p>	

	flowering and nectar producing plants. SNWA's proposal presents a way to do this with alternative plantings in no greater amounts that OPEI's proposal but that is scientifically justifiable.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC040 LogID 6185	405.1 Driveways and parking areas	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	<p>(4) Vegetative paving systems Water permeable surfaces are utilized to reduce the footprint of surface driveways, fire lanes, streets or parking areas.</p> <p>(a) 10 % to less than 25%</p> <p>(b) 25% to 75%</p> <p>(c) greater than 75%</p>	<p>1</p> <p>2</p> <p>3</p>
Reason:	There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these would promote vegetative paving systems for driveways, fire-lanes, streets, and parking areas. Any permeable shaded area though can provide similar benefits without the enormous costs in terms of water resources for irrigation of such areas. This is obviously an inappropriate measure for arid areas. SNWA's change will allow builders in such areas to provide for the infiltration benefits without the potential resource challenges that would otherwise make this item unobtainable in some areas.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC041 LogID 6095	405.4 Planning	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:	Suggest provide a 5% of lot size option or smaller projects. change it to 1/6 acre of 5% of lot, whichever is smaller.	
Reason:	405.4 (3) 1/6 acre might not be realistic for small projects.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC042 LogID 6120	405.4 Zoning	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:	1/6 acre 1/6 acre of 5% of lot, whichever is smaller.	

Reason:	405.4 (3) 1/6 acre might not be realistic for small projects.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC043 LogID 6039	405.4 Zoning	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	Provide common or public spaces of a minimum of 1/6 acre that are within ¼ mile walk to 80 percent of planned and existing units and entrances to non- residential buildings. <u>Both existing and newly constructed</u> squares, parks, paseos, plazas, and similar uses qualify under this criterion.	
Reason:	Clarify: NEW construction (of common or public space) only? What if a park already exists?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC044 LogID 6040	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<p>(a) Create a <u>network grid</u> of sidewalks and paths that provide a minimum level of connectivity of at least 90 bikeway or pathway intersections per square mile.</p> <hr/> <p>(b) Create a <u>network grid</u> of sidewalks and paths that provide a minimum level of connectivity of at least 140 bikeway or pathway intersections per square mile.</p>	
Reason:	This appears to be an unusual measure that encourages intersections? Suggest renaming “grid” to “network” – we don’t need to dictate a geometry.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC045 LogID 6041	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	Dedicated bicycle parking and racks are indicated on the site plan and constructed for, <u>buildings serving a residential use multi-family buildings</u> , and/or each developed common area.	
Reason:	Is it implied that a mixed-use building is also a multi-family building? If not, then reject the change. Change “multi-family buildings” to “buildings serving a residential use”	
Substantiating Documents:	False	
Task Group Recommendation:		

Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC046 LogID 6061	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	405.6.3a)b) add "and /or " ie ...at least 140 bikeway AND / or pathway.....	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC047 LogID 6062	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	when will 405.6 (4) points be determined? suggest a= 2pts b= 4pts c = 6 pts	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC048 LogID 6043	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<p>(4) Dedicated bicycle parking and racks are indicated on the site plan and constructed for, multi-family buildings, and/or each developed common area.</p> <p>(a) Minimum of 1 bicycle parking space per 3 residential units- <u>bedrooms</u></p> <p>(b) Minimum of 1 bicycle parking space per 2 residential units- <u>bedrooms</u></p> <p>(c) Minimum of 1 bicycle parking space per 1 residential units- <u>bedrooms</u></p>	
Reason:	Suggest revising this metric to relate to quantity of bedrooms, not units. These could be 4 or 5-bedroom "units"	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC049 LogID 6065	405.6 Multi-modal transportation	Final Formal Action: TBD
Submitter:	Don Whyte	

Public Comment:	(4) Dedicated bicycle parking and racks are indicated on the site plan and <u>a minimum of six spaces</u> are constructed for, multi-family buildings, and/or each developed common area.	<u>6</u>
	(a) Minimum of 1 bicycle parking space per 3 residential units.	<u>2</u>
	(b) Minimum of 1 bicycle parking space per 2 residential units.	<u>4</u>
	(c) Minimum of 1 bicycle parking space per 1 residential unit.	<u>6</u>
Reason:	Task Group 2 would like to change the language below to ensure that an applicant is not doubling up on points in chapters four and five for bicycle parking.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC050 LogID 6086	405.8 Mixed-use development	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	80% of the units should be within ½ mile walk of 5 non-residential uses <u>community resources</u> and where a system of walkways, bikeways, street crossings and pathways is designed to promote connectivity to those uses <u>resources</u> .	
Reason:	Clarification of the 5 non-residential uses.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC051 LogID 6063	405.8 Mixed-use development	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	where is the 1/2 mile measured from? any main entrance ?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC052 LogID 6042	405.8 Mixed-use development	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	405.8Mixed-use development. (1) Mixed-use development is incorporated, or (2) for single-use sites 20 acres or less in size, 80% of the units should be within ½ mile walk of 5 <u>commercial (non-residential)</u>	

	uses and where a system of walkways, bikeways, street crossings and pathways is designed to promote connectivity to those uses.
Reason:	To clarify:
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC053 LogID 6044	405.9 Open space	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<p>405.9 Open space. A portion of the gross area of the community is set aside as open space.</p> <p>(Points awarded for every 10 percent of the community set aside</p>	5
Reason:	Duplicates the provisions in 405.4.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC054 LogID 6207	Chapter 4 Points	Final Formal Action: TBD
Submitter:	TG 2	
Public Comment:	All proposed updates to the point assignments for Chapter 4 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 2 review of the point assignments for Chapter 4 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 5: Lot Design, Preparation, and Development

PC055	LogID 6045	501.1 Lot (Lot selection)	<i>Final Formal Action: TBD</i>	
Submitter:	David S. Collins, FAIA			
Public Comment:	An infill lot is selected that is a greyfield. 10 <u>12</u>			
Reason:	Why is the weight of item 2 the same as one?			
Substantiating Documents:	False			
Task Group Recommendation:				
Modification of Public Comment:				
Task Group Reason:				
Task Group Vote:				

PC056	LogID 6066	501.2 Multi-modal transportation	<i>Final Formal Action: TBD</i>							
Submitter:	Don Whyte									
Public Comment:	<p>(6) Dedicated bicycle parking and racks are indicated on the site plan and constructed for mixed-use <u>and</u>, multi-family buildings, and/or common areas:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding-left: 20px;">(a) Minimum of 1 bicycle parking space per 3 residential units</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="padding-left: 20px;">(b) Minimum of 1 bicycle parking space per 2 residential units</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="padding-left: 20px;">(c) Minimum of 1 bicycle parking space per 1 residential unit.</td> <td style="text-align: center;">6</td> </tr> </tbody> </table>		(a) Minimum of 1 bicycle parking space per 3 residential units	2	(b) Minimum of 1 bicycle parking space per 2 residential units	4	(c) Minimum of 1 bicycle parking space per 1 residential unit.	6		
(a) Minimum of 1 bicycle parking space per 3 residential units	2									
(b) Minimum of 1 bicycle parking space per 2 residential units	4									
(c) Minimum of 1 bicycle parking space per 1 residential unit.	6									
Reason:	Task Group 2 would like to change the language below to ensure that an applicant is not doubling up on points in chapters four and five for bicycle parking.									
Substantiating Documents:	False									
Task Group Recommendation:										
Modification of Public Comment:										
Task Group Reason:										
Task Group Vote:										

PC057	LogID 6082	501.2 Multi-modal transportation	<i>Final Formal Action: TBD</i>	
Submitter:	Chuck Arnold			
Public Comment:	No more than two each of the following use category can be counted toward the total: Recreation, Retail, Civic, and <u>other</u> Services.			
Reason:	Revision of the new wording for clarification.			
Substantiating Documents:	False			
Task Group Recommendation:				
Modification of Public Comment:				
Task Group Reason:				
Task Group Vote:				

PC058	LogID 6137	501.2 Multi-modal transportation	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	A lot is selected within one-half mile (805 m) of six or more community resources (e.g., recreational facilities (such as pools, tennis courts, basketball courts), parks, grocery store, post office, place of worship, community center, daycare center, bank, school, restaurant, medical/dental office, Laundromat/dry cleaner)]. No more than two each of the following use category can be counted toward the total: Recreation, Retail, Civic, and Services. <u>Examples of resources in each category are:</u> <u>Recreation: recreational facilities (such as pools, tennis courts, basketball courts), parks.</u> <u>Retail: grocery store, restaurant, retail store.</u> <u>Civic: post office, place of worship, community center.</u> <u>Services: bank, daycare center, school, medical/dental office, Laundromat/dry cleaners.</u>		
Reason:	501.2 (4) is confusing as to what the community resource categories are. Are their 4 categories (Recreation, Retail, Civic, and Services) OR 12 categories (recreational facilities, parks, grocery store, post office, place of worship, community center, daycare center, bank, school, restaurant, medical/dental office, Laundromat/dry cleaner) in which to count the 6 required.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC059	LogID 6046	503.2 Slope disturbance	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA		
Public Comment:	503.2 Slope disturbance. Slope disturbance is minimized by one or more of the following:		-
	(2)	Hydrological/soil stability study is completed and used to guide the design of all buildings on the site.	45
	(3)	All or a percentage of roads are aligned with natural topography to reduce cut and fill.	-
	(a)	10 percent to 25 percent	31
	(b)	25 percent to 75 percent	4
	(c)	greater than 75 percent	6
	(4)	Long-term erosion effects are reduced by the use of clustering, terracing, retaining walls, landscaping, and restabilization techniques.	56
Reason:	How is the minimizing disturbance measures? Does this duplicate #4, which is better worded?		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC060	LogID 6012	503.4 Stormwater management	Final Formal Action: TBD
Submitter:	Greg Johnson		
Public Comment:	(3) Low Impact Development/Green infrastructure stormwater management practices to promote infiltration and evapotranspiration such as, but not limited to, vegetated swales, bio-retention cells, vegetated tree boxes and planters, green roofs, <u>lawns</u> , and permeable pavements are used to manage rainfall on the lot and prevent the off-lot discharge of runoff from all storms up to and including the volume of following storm events:		
Reason:	Grassed areas provide considerable infiltration capacity on low-sloped, level, and sunken sites. Even on higher sloped sites grass provides sheet flow control, slowing run-off and allowing it to infiltrate.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC061	LogID 6014	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Greg Johnson		
Public Comment:	(2) Turf grass species, other vegetation, and trees <u>Non-invasive vegetation</u> that are is native or regionally appropriate for local growing conditions are is selected giving consideration to biodiversity and water use and specified on the lot plan. Non invasive vegetation is selected.		
Reason:	Section 503.5 says that a landscape plan is developed, in part, to limit water use. Nothing is gained in item 2 by requiring further consideration of water use. Water use should be stricken from item 2. Item 2's requirements for specification on the landscape plan is similarly duplicative. The charging section of 503.5 addresses it -the whole section is about the plan. Requiring additional plan specificity is poor formatting of the standard. Bio-diversity in the landscape is already addressed by Sec. 503.6 which awards habitat supporting initiatives (automatically biodiverse) additional points. Finally, turfgrass and trees are vegetation and do not need to singled out in this item of the section. The proposed change to non-invasive vegetation is editorial.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC062	LogID 6047	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA		
Public Comment:	<p>503.5 Landscape plan. A plan for the lot is developed to limit water and energy use while preserving or enhancing the natural environment.</p> <p>(Where "front" only or "rear" only plan is implemented, only half of the points (rounding down to a whole number) are awarded for Items (1)-(6)</p> <p>(1) A plan is formulated <u>and implemented that</u> to protect_s, restore_s, or enhance_s natural vegetation on the lot.</p>		
Reason:	It isn't enough to simply develop such a plan it has to do something.		
Substantiating Documents:	False		

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC063 LogID 6125	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Blaine Wilkins	
Public Comment:	(3) Turf grass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height.	
Reason:	The third item seems incompatible with this document. This is a design standard, but this proposed credit requires long-term care and maintenance for it to have any environmental benefit. I know of few homeowners who would maintain such a lawn as is described here. In my experience, a homeowner will apply -- or ask a landscaping service to apply -- weed killer to short flowering plants in their lawn. And how many homeowners who invest in a brand new home will let their lawns grow to 6" before mowing it? This is an unrealistic expectation. This practice may be workable if a homeowner elects to do it himself, but I do not know many who would do so. It certainly will have little beneficial impact if it is installed by a developer or builder unless it is designed to a particular homeowners's specifications. The points are easy, and the benefit is nil. Delete it.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC064 LogID 6123	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Anthony Floyd	
Public Comment:	(1) Mandatory (2) Mandatory	
Reason:	Items 1 and 2 should be mandatory for all green building projects. All native plants and regionally appropriate plants should be conserved, maintained and reused to the greatest extent possible which is a reasonable expectation for all landscape designs (whether part of a green building project or not). Selecting native or regionally appropriate plants for local growing conditions is a fundamental landscape design practice and should always be a prerequisite for sites associated with green buildings.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC065 LogID 6127	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Anthony Floyd	
Public Comment:	(10) An invasive plant removal and containment Developer has a plan for removal or containment of invasive plants from the shall be prepared where invasive plants are located on disturbed areas of the site that will be disturbed during construction.	
	3) Mandatory	

Reason:	Item 10 should be mandatory for disturbed portions of sites associated with green building projects. Existing invasive plants should be removed or contained based on a plan prepared by a qualified landscape professional. The removal of invasive plants and selection of native or regionally appropriate plants for local conditions is a fundamental practice of good landscape design and should be a prerequisite for all green building sites.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC066 LogID 6128	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Anthony Floyd	
Public Comment:	(11) An invasive plant removal and containment Developer has a plan for removal or containment of invasive plants on the <u>is prepared for invasive plants located on undisturbed areas of the site that will be undisturbed during construction.</u>	
	6 <u>3</u>	
Reason:	The language of item 11 is revised for consistency with item 10 proposed language revision except that item 11 pertains to undisturbed areas. 'Developer' is not mentioned in any of the other landscape checklist items, so why should 'developer' be mentioned in items 10 and 11. Finally, the points are reduced from 6 to 3 since item 10 is proposed to be mandatory.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC067 LogID 6186	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	<p>(2) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected <u>giving consideration to biodiversity and water use</u> and specified on the lot plan. <u>Non-invasive vegetation is selected.</u></p> <p>The EPA WaterSense Water Budget Tool may be <u>used when determining the maximum percentage of turf areas.</u> For landscapeable areas, the percentage of all turf areas is: <u>The percentage of all turf areas are limited as part of the landscaping.</u></p> <p>(a) <u>0 percent.</u></p> <p>(b) <u>Greater than 0 percent to less than 20 percent</u></p> <p>(c) <u>20 percent to less than 40 percent</u></p> <p>(d) <u>40 percent to 60 percent</u></p> <p>(4) EPA WaterSense Water Budget Tool is used to determine the maximum percentage of turf areas.</p>	
Reason:	There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their	

	<p>genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). The gravest impacts are to section 403.6 (4). This is where OPEI has lobbied for the diminishment of turf limitations as an option for reducing outdoor water demands. In the early stages of drought in 2003, my agency worked closely with a number of stakeholders including the Southern Nevada Home Builders Association (SNHBA) to implement a policy that limited the use of turfgrass for ornamental purposes. Why turfgrass? Our research has shown that lawns receive four times as much water as other water-efficient landscapes that may include trees, shrubs, flowers, vines and other adapted plants. Research in a variety of geographic settings has demonstrated that significant savings are realized where plantings other than turfgrass are used. Locally, these policies not only mitigated water demand, they quelled calls for a moratorium on growth and new construction. These policies have had no impact on quality of life and a positive impact on economic productivity. Both builders and homebuyers are free to plant some turfgrass and to select from a palette of more than 500 other plants for their landscapes. These landscape provisions, more than any other initiative, allowed us to reduce our use by almost 29 billion gallons between 2002 and 2012 while allowing homebuilders to create housing for nearly 500,000 new residents that have located in Southern Nevada since the policy went into effect. Appropriately used, turfgrass can provide benefits, but at a cost. Numerous studies have shown that better adapted plants can provide most or all of the functions of turfgrass with lower demand for water, fertilizer, fuel and maintenance. In many utilities, the benefits of turfgrass carbon sequestration are overwhelmed by the embedded electric energy in just a few inches of irrigation water. The NGBS has thus far provided for the earning of points with landscape plans that have turf limitations. These have been optional and allowed for regional diversification. They have worked successfully in conjunction with turf limits to provide for appropriate reward in water-scarce regions such as ours. While SNWA certainly is supportive of the WaterSense program and our proposed change continues to highlight it, in regions where there is already policy to limit the use of turfgrass, using the NGBS would necessitate a special set of calculations and assessments at each home being built, yet not change the outcome due to the regulatory environment. This additional difficulty may be a disincentive that results in builders shunning the NGBS in regions where water-scarcity has become a driving force. Our included background material demonstrates that these may occur at local municipal code levels as in southern Nevada well as state levels (California). The NGBS should allow regional flexibility by allowing builders to use such already requisite approaches while highlighting the WaterSense Water Budget Tool. It should appropriately incentivize and reward builders for doing so. And just doing the calculation is insufficient. This was obviously not the intent as per the original language. We want to assure that the work is actually done, something that may have unknowingly occurred in the standard development process. Our proposal addresses both these deficiencies. Finally, a number of point modifications have occurred that significantly reduce the emphasis on water efficiency in landscape design that SNWA's proposal counters. Good landscape design is crucial to water efficiency and it does involve real on the ground enhancements. It should rank highly in points-based systems thus the reallocation of points to 403.6 (4).</p>
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC068 LogID 6187	503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	(3) Turfgrass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height. To improve pollinator habitat, at least 10% of planted areas are composed of non-invasive flowering and nectar producing plant species.	
Reason:	There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these is the introduction of a new concept which the proponent informally refers to as the "bee lawn" which draws	

	upon research that has found that while a lawn composed of turfgrass provides only detrimental impacts to bee colonies, a lawn infested with flowering herbaceous plants can provide more benefits (though not at the levels of native vegetation). To this end OPEI suggests rewarding intentionally enhancing lawns in this way. But that is misleading as, in order to get the points, the major negative, putting in a monoculture composed of turfgrass, has to also happen. Again, the lawn itself is only detrimental to bees. Furthermore, a careful review shows only certain species can be facilitated by the limited plantings that can be maintained in a lawn, especially given most people mow their lawns to 4 inches or less. Research by the University of Kentucky has demonstrated that diversity of bee species declines precipitously where turfgrass is present and indeed there are even programs devoted to converting turfgrass areas to pollinator habitat. It is counterintuitive and highly strategic on OPEI's part to attempt to promote a "bee lawn" as part of a sustainability initiative and it would be terrible to see the committee endorse the concept even as modified in prior deliberation. What we need are more flowering and nectar producing plants. SNWA's proposal presents a way to do this with alternative plantings in no greater amounts than OPEI's proposal but that is scientifically justifiable.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC069 LogID 6048	503.6 Wildlife habitat	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	(11) Developer has implements a plan for removal or containment of invasive plants on the undisturbed areas of the site.	
Reason:	Having a plan doesn't do anything.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC070 LogID 6049	503.7 Environmentally sensitive areas	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	(2) On lots with environmentally sensitive areas, mitigation and/or restoration is conducted to preserve ecosystem functions lost through development and construction activities.	
Reason:	What is the method of measurement for achieving this/	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC071	LogID 6148	503.8 Demolition of existing building	Final Formal Action: TBD
Submitter:	Susan Gitlin		
Public Comment:	(One additional point awarded for every 10percent of <u>nonhazardous</u> demolition waste recycled and/or salvaged beyond50 percent).		
Reason:	The first paragraph specifically states that the demolition waste should be nonhazardous. For clarity reasons, the “nonhazardous” condition should be included in the parenthetical note about additional points. It also appears that no point values have been assigned to this section. Solution: Include the word “nonhazardous” in the parenthetical note about additional points. Include the intended number of available points for this section.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC072	LogID 6188	505.1 Driveways and parking areas	Final Formal Action: TBD						
Submitter:	Kent Sovocool								
Public Comment:	<p>Vegetative paving systems <u>Water permeable surfaces are utilized to reduce the footprint of surface driveways, fire lanes, streets or parking areas.</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">(a)</td> <td style="text-align: center;"><u>10 % to less than 25%</u></td> </tr> <tr> <td style="text-align: center;">(b)</td> <td style="text-align: center;"><u>25% to 75%</u></td> </tr> <tr> <td style="text-align: center;">(c)</td> <td style="text-align: center;"><u>greater than 75%</u></td> </tr> </table>			(a)	<u>10 % to less than 25%</u>	(b)	<u>25% to 75%</u>	(c)	<u>greater than 75%</u>
(a)	<u>10 % to less than 25%</u>								
(b)	<u>25% to 75%</u>								
(c)	<u>greater than 75%</u>								
Reason:	There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these would promote vegetative paving systems for driveways, fire-lanes, streets, and parking areas. Any permeable shaded area though can provide similar benefits without the enormous costs in terms of water resources for irrigation of such areas. This is obviously an inappropriate measure for arid areas. SNWA’s change will allow builders in such areas to provide for the infiltration benefits without the potential resource challenges that would otherwise make this item unobtainable.								
Substantiating Documents:	False								
Task Group Recommendation:									
Modification of Public Comment:									
Task Group Reason:									
Task Group Vote:									

PC073	LogID 6189	505.2 Heat island mitigation	Final Formal Action: TBD
Submitter:	Kent Sovocool		
Public Comment:	<p>Roofs: Not less than 75 percent of the exposed surface of the roof is vegetated. Invasive plant species are not permitted. <u>is in accordance with one or a combination of the following methods.</u></p> <p>(a) <u>Minimum initial SRI of 78 for a low-sloped roof (a slope less than or equal to 2:12) and a minimum initial SRI of 29 for a steep-sloped roof (a slope of more than 2:12). The SRI is calculated in accordance with ASTM E1980. Roof products are certified and labeled.</u></p>		

	(b) Roof is vegetated using technology capable of withstanding the climate conditions of the jurisdiction and the microclimate conditions of the building lot. Invasive plant species are not permitted.
Reason:	Roof Heat island mitigation by the use of vegetation is not appropriate nor is it generally practical in the arid southwest. The irrigation requirements are enormous and the heat on roof materials is so intense that the few experiments with this have commonly failed over the long-term. It would be better to bring back the non-vegetative option in such circumstances. We recommend rejecting the modification to only allow vegetative roofs.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC074 LogID 6050	505.2 Heat island mitigation	Final Formal Action: TBD
Submitter:	David S. Collins, FAIA	
Public Comment:	<u>Minimum initial SRI of 78 for low-sloped roof (a slope less than or equal to 2:12) and a minimum initial SRI of 29 for a steep-sloped roof (a slope of more than 2:12). The SRI is calculated in accordance with ASTM E1980. Roof products are certified and labeled.</u>	
Reason:	Why is the cool roof criteria eliminated?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC075 LogID 6135	505.3 Density	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:		
Reason:	EPA agrees that the greater levels of density should be rewarded with greater points. However, we are concerned about the very high number of points now being proposed for the new density levels. Whereas previously 11 points were rewarded for the highest density levels, 17 points are now available. Compact development (i.e., density) is beneficial in that it minimizes the need to develop greenfields and prime agricultural land. However, its ability to lead to other types of environmental benefits, particularly the reduction of greenhouse gas emissions due to transportation, are highly dependent on other factors in its neighborhood, including whether public transportation is available nearby, whether there are shops and services for people to walk to, and other factors. The number of points currently proposed misrepresents the environmental benefits that density provides in and of itself. To be sure, it should be well-rewarded, but not with so many points that the builder has reduced incentive to implement those building practices that combined with density create sustainability “synergies.” We propose that the points be reconsidered, leaving 11 points as the maximum possible, and be allocated from lowest density to highest density as follows: 5, 6, 7, 9, 11 . Also, we would like to point out that there is a similar provision in 405.7 for which no changes have been proposed. We recommend that 405.7 be revised to be consistent with 505.3.	
Substantiating Documents:	False	
Task Group Recommendation:		

Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC076 LogID 6078	505.6 Multi-unit plug-in vehicle charging	<i>Final Formal Action: TBD</i>
Submitter:	Chuck Arnold	
Public Comment:	Plug-in electric vehicle charging capability is provided for <u>at least</u> 1 percent of parking stalls.	
Reason:	Clarification on the % of charging capability.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC077 LogID 6208	Chapter 5 Points	<i>Final Formal Action: TBD</i>
Submitter:	Task Group 2	
Public Comment:	All proposed updates to the point assignments for Chapter 5 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 2 review of the point assignments for Chapter 5 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 6: Resource Efficiency

PC078	LogID 6064	601.7 Prefinished materials	Final Formal Action: TBD
Submitter:	Paul Gay		
Public Comment:			
Reason:	add back "pre finished hard flooring", this will encourage their use		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC079	LogID 6142	601.7 Prefinished materials	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	<p>601.7 Prefinished materials.</p> <p>(e) exterior wall coverings or systems, floor system, and/or ceiling systems not requiring paint or stain or other type of finishing application</p>		
Reason:	What is an exterior floor system or an exterior ceiling system?		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC080	LogID 6206	602.1.5 Termite barrier	Final Formal Action: TBD
Submitter:	Chuck Arnold		
Public Comment:	<p>In geographic areas that have a moderate to heavy or very heavy infestation potential <u>in accordance with figure 6(3)</u>, a continuous physical barrier used with a low toxicity bait and kill termite treatment plan is selected and implemented.</p>		
Reason:	The charging language states that you must use a continuous physical foundation termite barrier but option 3 contradicts that by stating that you can use a low toxicity bait and kill termite treatment plan.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC081	LogID 6068	602.1.7.3 Moisture control based on hygrothermal simulation or field study analysis	Final Formal Action: TBD
Submitter:	Paul Gay		
Public Comment:			
Reason:	clarification needed. does the term" building envelope assembly" include the exterior air/moisture barrier insulation, studs and interior air barrier? or are we focused on just the exterior air/moisture barrier? is the information required easily available (eg on a web site) or will this incur additional costs?		

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC082 LogID 6069	604.1 Recycled content	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	award points "per 2" as originally written. this encourages the purchase of products that have recycled content	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC083 LogID 6067	605.1 Construction waste management plan	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	<p>605.1 Construction waste management plan. A construction waste management plan is developed, posted at the jobsite, and implemented diverting, through reuse, salvage or recycling, a minimum of 50 percent (by weight) of nonhazardous construction and demolition waste from disposal. For this practice, land clearing debris is not considered construction waste. Materials used as alternative daily cover are considered construction waste and do not count toward recycling or salvaging. <u>Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations.</u></p> <p>For remodeling projects or demolition of an existing facility, the waste management plan includes the recycling of 95 percent of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security control boards) by an EPA certified E-Waste recycling facility.</p> <p>Exceptions:</p> <p>Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations.</p> <p>A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.</p>	
Reason:	The inclusion of "exceptions" for this non-mandatory practice seems inappropriate. Item (1) should not be identified as an "exception"; it is simply clarifying text about how the practice is achieved. As the practice itself does not specifically mention material receipt documentation, the inclusion of exception (2) raises questions about implementation/verification of the practice. The pathway for a home/building not located within 50 miles of a recycling center to achieve points is unclear. I recommend allowing the Adopting Entities to determine verification method, such as material receipt documentation	

	requirements, and the appropriate allowances for jobsites not located within 50 miles of a recycling center.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC084 LogID 6150	605.1 Construction waste management plan	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	<p>605.1 Construction waste management plan. ...diverting, through <u>methods such as reuse, salvage, or recycling or manufacturer reclamation</u>, a minimum of 50 percent (by weight) of nonhazardous construction and demolition <u>waste materials</u> from disposal <u>in landfills and combustion, excluding energy and material recovery</u>. For this practice, land clearing debris is not considered construction waste. Materials used as alternative daily cover are considered construction waste and do not count toward recycling or salvaging.</p> <p>For remodeling projects or demolition of an existing facility, the waste management plan includes the recycling of 95 percent of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security control boards) by an <u>EPA third-party certified E-Waste recycling facility</u>.</p> <p>Exceptions: 1) Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations. A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.</p>	
Reason:	<p>The section is instructing stakeholders to divert construction and demolition materials from disposal. Commonly, such language would clarify that the materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. (note that we are referring to “combustion” rather than “incineration;” although frequently misunderstood, combustion is a broader activity that does include energy and material recovery, but incineration is done so as to treat or resize waste for the purpose of disposal and does not include energy or material recovery; because of the common misunderstanding, we do recommend acknowledging energy recovery, but including it under the broader, correct activity, i.e., combustion.) Further, the list of methods that count toward the diversion practice is very limited. Other types of diversion, such as through manufacturer reclamation, are feasible and often practiced. That said, even with the addition of manufacturer reclamation, the list of diversion methods would not be complete and should be presented as such. The C&D debris that gets diverted is a resource (material) and not waste and should be referred to accordingly. It is unclear what is intended by an “EPA-certified” e-waste recycling facility; EPA does not “certify” e-waste recycling facilities. Currently, the Responsible Recycling Standard (R2) and the e-Stewards standard are the two available e-waste certification programs to which facilities may be certified. See: http://www.sustainableelectronics.org/ and http://e-stewards.org/ Finally, if the intent of the “Exceptions” section is to indicate specific circumstances when the practice does not apply, or to acknowledge situations when it cannot be met by the person seeking the points, then it is unclear why the first item is listed. How is stating “Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations,” an Exception? (We would argue this is an exclusion from the calculation, not an exception to the practice.) The second item in the Exceptions, “A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite,” implies that a recycling facility not available within 50 miles would preclude the person from achieving the points available through the practice. Solution: Introduce that materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. Broaden the list of diversion methods indicating that the list is not all-inclusive. Refer</p>	

	to construction and demolition materials and not waste. Replace "EPA-certified" e-waste recycling facility with "third-party certified" e-waste recycling facility. Delete the first item listed under Exceptions.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC085 LogID 6070	606.2 Wood-based products	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	is the term "component" defined anywhere?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC086 LogID 6151	610.1 Life cycle assessment	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	<p>610.1.1 Whole-building life cycle assessment. A whole-building LCA is performed in conformance with ASTM E-2921 using SO14044 compliant life cycle assessment and data compliant with ISO 14044 or other recognized standards.</p> <p>Execute LCA at the whole-building level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E-2921. The assessment criteria includes the following environmental impact categories:</p> <ul style="list-style-type: none"> a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. <u>Material Use</u> h. <u>Waste</u> <p>Execute LCA on regulated loads throughout the building operations life cycle stage. Conduct simulated energy performance analyses in accordance with Section 702.2.1 ICC IECC analysis (IECC Section 405) in establishing the comparative performance of final versus reference building designs. Primary energy use savings and global warming potential avoidance from simulation analyses results are determined using EPA NERC electricity generation and other fuels energy conversion factors and electricity generation and other fuels emission rates for the Sub-Region in which the building is located.</p> <p>3. Execute full LCA, including use <u>and end-of-life phases</u>, For the use phase, calculate through calculation of operating energy impacts (c) – (f) using EPA NERC regional emissions factors [provide full reference to NERC document or provide factor tables]. <u>For the use phase, also include impacts associated with material replacements.</u></p>	

Reason:	Using less material and recovering more is crucial to our economic and environmental future. Whether less material is used and more recovered over the life cycle of the designed building should be evaluated against a reference building. To that end, material use and waste impact categories should be included in life-cycle assessments. In addition, the “full” life cycle assessment should include all life cycle phases, including use and end-of-life phases. While the NGBS-proposed language emphasizes that the assessment should include the use phase, it omits mentioning the end-of-life phase. Finally, the language for the use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts associated with the replacement of materials. Solution: Add the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the end-of-life phase. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC087 LogID 6162	610.1.1 Whole-building life cycle assessment	Final Formal Action: TBD
Submitter:	Todd Jones	
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>	
Reason:	(1)(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the building to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions. We suggest clarifying this.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC088 LogID 6071	610.1.1 Whole-building life cycle assessment	Final Formal Action: TBD
Submitter:	Paul Gay	
Public Comment:		
Reason:	raise the point threshold. 15 points for a whole building assessment doesn't seem to adequately award the work needed to meet the credit, especially if a product LCA is worth 10 points.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC089 LogID 6052	610.1.1 Whole-building life cycle assessment	Final Formal Action: TBD
Submitter:	Steven Rosenstock	

Public Comment:	(2)	Execute LCA on regulated loads throughout the building operations life cycle stage. Conduct simulated energy performance analyses in accordance with Section 702.2.1 ICC IECC analysis (IECC Section 405) in establishing the comparative performance of final versus reference building designs. Primary energy use savings and global warming potential avoidance from simulation analyses results are determined using <u>energy supplier, utility, or EPA NERC</u> electricity generation and other fuels energy conversion factors and electricity generation and other fuels emission rates for the <u>locality or Sub-Region</u> in which the building is located	5
	(3)	Execute full LCA, including use-phase, through calculation of operating energy impacts (c) – (f) using <u>energy supplier, utility, or EPA NERC local or regional emissions factors</u> {provide full reference to NERC document or provide factor tables} .	
Reason:	This will clarify the language in the section, to look at all forms of energy supplied to the building, and to refer to the most appropriate sources for estimates being used.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC090	LogID 6163	610.1.2.1 Product LCA	Final Formal Action: TBD
Submitter:	Todd Jones		
Public Comment:	Product LCA. A product with improved environmental impact measures compared to another product(s) intended for the same use is selected. The environmental impact measures used in the assessment are selected from <u>include</u> the following: (b) Global warming potential <u>Direct and indirect greenhouse gas emissions (associated with product manufacturing and delivery)</u>		
Reason:	“Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the product to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions associated with the product’s manufacturing and delivery. We suggest clarifying this.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC091	LogID 6164	610.1.2.2 Building assembly LCA	Final Formal Action: TBD
Submitter:	Todd Jones		
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>		
Reason:	(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the building assembly to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions associated with the building assembly. We suggest clarifying this.		

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC092 LogID 6072	611.4 Product declarations	<i>Final Formal Action: TBD</i>
Submitter:	Paul Gay	
Public Comment:		
Reason:	is declaring a minimum of 10 different products a realistic target?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC093 LogID 6209	Chapter 6 Points	<i>Final Formal Action: TBD</i>
Submitter:	Task Group 3	
Public Comment:	All proposed updates to the point assignments for Chapter 6 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 3 review of the point assignments for Chapter 6 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 7: Energy Efficiency

PC094 LogID 6202	701.1 Mandatory requirements (Energy Efficiency)	<i>Final Formal Action: TBD</i>
Submitter:	Craig Conner	
Public Comment:	701.1 Mandatory Requirements. <u>Unless otherwise noted, buildings in the Tropical Climate Zone shall comply with Climate Zone 1 requirements.</u>	
Reason:	Some might be confused by the Tropical Climate Zone, which is really a subset of Zone 1. Sometimes the Climate Zone 1 requirements work for the tropics, sometime they do not.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC095 LogID 6178	701.1 Mandatory requirements (Energy Efficiency)	<i>Final Formal Action: TBD</i>
Submitter:	Jeff Inks	
Public Comment:		
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. Points for Chapter 7 – Energy Efficiency must still be updated by the NGBS Committee as a result of the approved changes that have been implemented throughout the chapter. In addition points need to be determined for the new tropical zone as well as for the Threshold Point Ratings, including what % above the 2015 IECC is needed for the Silver, Gold & Emerald tiers.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC096 LogID 6118	701.1.2 Minimum Prescriptive Path requirements	<i>Final Formal Action: TBD</i>
Submitter:	aaron gary	
Public Comment:	701.1.2 Minimum Prescriptive Path requirements. A building complying with Section 703 shall obtain a minimum of 30 points from Section 703 and shall include a minimum of two practices from Section 705. <u>Multi-unit buildings are not eligible for achieving a rating using this path.</u>	
Reason:	Point totals for Prescriptive measures (based on % of improvement for the measure) do not correlate between single family homes and multi-unit buildings. The prescriptive points therefore should not apply to multi-unit.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC097 LogID 6132	701.1.2 Minimum Prescriptive Path requirements	<i>Final Formal Action: TBD</i>
Submitter:	aaron gary	

Public Comment:	701.1.2 Minimum Prescriptive Path requirements. A <u>building single family home</u> complying with Section 703 shall obtain a minimum of 30 points from Section 703 and shall include a minimum of two practices from Section 705. <u>A multi-unit building complying with Section 703 shall obtain a minimum of XX points from Section 703 and shall include a minimum of two practices from Section 705.</u> <u>New point assignment needed for each 703 credit.</u>
Reason:	The percentage of improvement calculations used to develop the points associated with specific measures in the Prescriptive path were based on a single family house and do not accurately reflect multi-unit buildings. A multi-unit building will need different point allocations on each credit and potentially a different total point for certification.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC098 LogID 6117	701.1.4 Alternative bronze level compliance	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	701.1.43 Alternative bronze and silver level compliance. As an alternative, any building that qualifies as an ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 203 building achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an ENERGY STAR Version 3.1 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 203 (with the baseline at ASHRAE 90.1-2010) building achieves the silver level for Chapter 7. The buildings achieving compliance under Section 701.1.4 are not eligible for achieving a rating level above bronze silver	
Reason:	Update references to current version of ENERGY STAR.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC099 LogID 6096	701.1.4 Alternative bronze level compliance	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:		
Reason:	possibility of adding 2015 IECC code as alternative compliance path?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC100 LogID 6196	701.1.4 Alternative bronze level compliance	Final Formal Action: TBD
Submitter:	Craig Conner & Howard Wiig	
Public Comment:	Add as the next to last sentence:	

	As an alternative in the Tropical Climate Zone, any building that meets the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7.
Reason:	The IECC requirements in Section R401.2.1 (Tropical Zone) include: -- no heating -- no more than 1/2 the occupied space is cooled -- provision for using tropical breezes for cooling -- 90% solar water heating. These requirements would meet or exceed the silver level for Chapter 7.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC101 LogID 6194	701.4.3.2 Air sealing and insulation	Final Formal Action: TBD
Submitter:	Annette Rosenblum	
Public Comment:	Proposed resolution: 701.4.3.2 Air sealing and insulation. Grade 2 and 3... with a Table showing no points awarded for Grade 2.	
Reason:	The information provided in the comments by Randall Melvin support the use of Grade 2 insulation. The Maryland Building Industry Association agrees that Grade 2 use should be allowed. While grade 2 insulation installation is not perfect and will receive no points, it is still a relatively decent installation. It should be allowed by the NGBS as it adds critical practicality and flexibility to the Standard. Code Sections R101.3 Intent and R102.1 General support flexibility in the code and the use of any material or insulating system that meets the intent of the code, respectively.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC102 LogID 6103	701.4.3.3 Multi-unit air leakage alternative	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	701.4.3.3 Multi-unit air leakage alternative. Multi-unit buildings in compliance with IECC section C402.5 (Air leakage-thermal envelope), <u>as applicable</u> , are deemed to comply with Sections 701.4.3.1 and 701.4.3.2.	
Reason:	Exception should only apply to multi-unit buildings that already fall under the the Commercial sections of the IECC.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC103 LogID 6104	701.4.4 High-efficacy lighting	Final Formal Action: TBD
Submitter:	aaron gary	

Public Comment:	701.4.4 High-efficacy lighting. Lighting efficacy in <u>dwelling units</u> is in accordance with one of the following:...
Reason:	The lighting power density of 1.1 watts/square foot cited as a mandatory is only relevant to dwelling units. Residential associated spaces within multi-unit buildings will have different targets based on use (per the 2015 IECC).
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC104 LogID 6097	701.4.4 High-efficacy lighting	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:		
Reason:	clarify the applicability for multifamily buildings. In-unit lighting or this is in-unit+common spaces + exterior?	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC105 LogID 6145	702.2.1 ICC IECC analysis	Final Formal Action: TBD
Submitter:	Keith Dennis	
Public Comment:	Energy efficiency features are implemented to achieve energy cost or source energy performance that meets the ICC IECC. A documented analysis using software in accordance with ICC IECC, Section R405, or ICC IECC Section 506C407.2 through 506C407.5, applied as defined in the ICC IECC, is required.	
Reason:	The source energy metric suggested in this section is deeply flawed. This methodology treats non-carbon emitting sources like solar, wind, biomass, hydro and nuclear as if they are extremely inefficient coal power plants. Using a source energy metric and related methodologies as proposed means that any renewable energy on the grid will be treated as if it is more than 3X less efficient than fossil fuel combustion of site. Among the serious flaws in this approach is that even if the grid were 100% powered by renewable energy, consumers would be directed to burn fossil fuel in order to meet "green" codes. This is in direct opposition to the intent of this code. Source values for other fuels suggested are also inaccurate. For a more detailed study on this issue prepared by Power Systems Engineering, see: http://www.nreca.coop/wp-content/uploads/2015/04/sourcesite_ratios_final_022015.pdf	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC106 LogID 6053	702.2.1 ICC IECC analysis	Final Formal Action: TBD
Submitter:	Steven Rosenstock	

Public Comment:	702.2 Energy <u>cost</u> cost performance levels.
Reason:	The proposed change will make this standard consistent with the previous versions of the standard, which reached a consensus to use energy cost performance.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC107 LogID 6054	702.2.1 ICC IECC analysis	<i>Final Formal Action: TBD</i>
Submitter:	Steven Rosenstock	
Public Comment:	<p>702.2.1 ICC IECC analysis.</p> <p>Energy efficiency features are implemented to achieve energy cost or source energy performance that meets the ICC IECC. A documented analysis using software in accordance with ICC IECC, Section R405, or ICC IECC Section 506C407.2 through 506C407.5, applied as defined in the ICC IECC, is required.</p>	
Reason:	The proposed change is not consistent with previous versions of the standard, and will not be consistent with other consensus standards (such as ASHRAE 90.1, ASHRAE 189.1, etc), which have achieved significant energy savings by using energy cost as the primary metric. Task Group 7 rejected the use of source energy in several votes.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC108 LogID 6055	702.2.2 Energy performance analysis	<i>Final Formal Action: TBD</i>
Submitter:	Steven Rosenstock	
Public Comment:	<p>702.2.2 Energy <u>cost</u> performance analysis.</p> <p>Energy <u>cost</u> savings levels above the ICC IECC are determined through an analysis that includes improvements in building envelope, air infiltration, heating system efficiencies, cooling system efficiencies, duct sealing, water heating system efficiencies, lighting, and appliances. Points are assigned using the following formula:</p>	
Reason:	Reinsert the word "cost" to be consistent with the previous versions of the standard.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC109	LogID 6098	702.2.2 Energy performance analysis	Final Formal Action: TBD
Submitter:	Siying Zhang		
Public Comment:			
Reason:	Add a formula for projects using 90.1 models with ASHRAE 90.1-2010 as baseline.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC110	LogID 6179	703.1 Mandatory practices	Final Formal Action: TBD
Submitter:	Jeff Inks		
Public Comment:			
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. TG-5 is recommending that 30 points be assigned for meeting the mandatory practices of section 703. TG-5 is recommending that 30 points be assigned to be consistent with the previous editions of the NGBS for meeting the minimum requirements for achieving a bronze level rating.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC111	LogID 6025	703.1.1 UA compliance	Final Formal Action: TBD
Submitter:	Roger L. LeBrun		
Public Comment:	<p>703.1.1 UA Compliance.</p> <p>The building <u>thermal envelope</u> is in compliance with Section 703.1.1.1 or 703.1.1.2.</p> <p>...</p> <p>703.1.1.2 Prescriptive R-values and Fenestration Requirements.</p> <p>The building <u>thermal envelope</u> is in accordance with the insulation and fenestration requirements of 2015 IECC Table R402.1.1 or Tables C402.1.3 and C402.4. The SHGC is in accordance with the 2015 IECC requirements.</p>		
Reason:	UA only relates to the thermal envelope, so that phrase is needed in two places.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			

Task Group Vote:	
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PC112 LogID 6087	703.1.3 Duct testing	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	<u>Exception: Section 703.1.3 is not required for Tropical Climate Zone.</u>	
Reason:	Need to add the same exception for tropical climate zones as listed for the rest of 703.1	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC113 LogID 6180	703.2 Building envelope	Final Formal Action: TBD
Submitter:	Jeff Inks	
Public Comment:		
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. Delete entire section 703.2.2 without replacement and move all of Section 703.2.2 to new Section 701.4.3.2.1. Given only Grade 1 insulation installation is permitted, there is no longer the need for the provisions in Section 703.2.2. As such, Grade 1 insulation installation is a minimum energy efficiency requirement in the NGBS and therefore is better located in Section 701, under Section 701.4.3 – Insulation and air sealing.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC114 LogID 6195	703.2.2 Insulation installation	Final Formal Action: TBD
Submitter:	Craig Conner	
Public Comment:	Section 703.2.2 Grade 3 insulation installation is not permitted. Grade 2 installation is permitted only for bronze level buildings. text not shown in unchanged.	
Reason:	Section 703.2.2.1 was changed to allow only Grade 1 insulation. A coordinating change was not made with Section 703.2.2, as it makes no sense to mention Grade 2 or Grade 3 insulation any more.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC115 LogID 6090	703.2.2 Insulation installation	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	The insulation installation is graded by a third party and is in accordance with Sections 703.12.2.1, 703.12.2.2, and/or 703.12.2.3 as applicable. Grade <u>2 & 3</u> insulation installation is not permitted. Grade 2 installation is permitted only for bronze level buildings.	

	Table 703.2.2 needs to be modified as well.
Reason:	Grade 2 Insulation installation is not permitted per 701.4.3.2
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC116	LogID 6204	703.2.6.1 Fenestration Specifications	Final Formal Action: TBD
Submitter:	Craig Conner & Howard Wiig		
Public Comment:	For both Section 703.2.6.1 and 703.2.6.2 <u>Exception: Windows and doors in the Tropical Climate Zone shaded by a projection factor of 0.30 or more.</u>		
Reason:	The tropical sun is overhead and does not get low in the sky. Where there are large shading devices or overhangs, the SHGC is not of much importance. For example large outdoor/indoor areas that are lanais can include substantial shading overhead.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC117	LogID 6026	703.2.6.2 Enhanced Fenestration Specifications	Final Formal Action: TBD
Submitter:	Roger L. LeBrun		
Public Comment:	Change C24 SHGC for Windows & Exterior Doors to 0.35 Change C24 SHGC for Skylights and TDDs to 0.30 Change C24 U-Factor for Skylights and TDDs to 0.45 Change C25 U-Factor for Skylights and TDDs to 0.42		
Reason:	In Table 703.2.6.2(c): 1. The SHGC values for Climate Zone 4 need to be lower than for Table (b) 2. The skylight U-Factors are in the triple pane range, and should be higher. The increase in stringency from Table (b) should be similar to that used for window U-Factor.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC118	LogID 6056	703.3.3 Heat pump heating efficiency	Final Formal Action: TBD	
Submitter:	Steven Rosenstock			
Public Comment:	<table border="1" style="width: 100%;"> <tr> <td> Table 703.3.3(2) Gas Engine-Driven Heat Pump Heating </td> </tr> </table>			Table 703.3.3(2) Gas Engine-Driven Heat Pump Heating
Table 703.3.3(2) Gas Engine-Driven Heat Pump Heating				

	6-8 <u>b</u> b. Equipment designed to operate in cold climates is recommended to have a condensing furnace (at least 90 AFUE) as a backup system when installing a gas-fired heat pump in Zones 5-8.
Reason:	The modifications shown below will improve the table. There are no minimum federal efficiency standards for gas-fired heat pumps, so the backup system could have very low efficiency. Points for higher efficiency electric heating systems should be higher than for gas heat pump systems in all climate zones.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC119 LogID 6057	703.3.4 Cooling efficiency	Final Formal Action: TBD
Submitter:	Steven Rosenstock	
Public Comment:	<p>Table 703.3.4(2) Gas Engine-Driven Heat Pump Cooling Efficiency Climate Zone</p> <p>1 2 3 4 5 6-8</p> <p>POINTS >1.2 COP at 95°F</p> <p>7 <u>2</u> 5 <u>1</u> 2 <u>0</u> 1 <u>0</u> 1 <u>0</u> <u>0</u></p>	
Reason:	Gas cooling technology uses much more energy than electric cooling technology. For example, a 12.5 EER electric system is equivalent to 3.66 COP, compared to a 1.2 COP gas cooling system. Points for gas equipment should always be much less than for electric cooling equipment of any EER value shown, since they are using so much more energy.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC120 LogID 6197	703.3.4 Cooling efficiency	Final Formal Action: TBD
Submitter:	Craig Conner & Howard Wiig	
Public Comment:	Add a footnote to Table 703.3.4(1) <u>For the Tropical Climate Zone:</u>	

	<u>not air conditioning half the occupied space is 20 points.</u> <u>not air conditioning any occupied space is 40 points.</u>
Reason:	One important energy saving strategy in the Tropical Climate Zone is not to air condition part or all of the home. IECC Section R401.2.1 (Tropical Zone option) requires half the occupied space to be un-air conditioned. Obviously no air conditioning saves more energy than a high SEER. This is shown as a footnote to Table 703.3.4(1), but it also could be a sentence in the section.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC121 LogID 6181	703.3.9 In multi-unit buildings, energy data available to occupants	Final Formal Action: TBD
Submitter:	Jeff Inks	
Public Comment:		
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. Move entire Section 703.3.9 to Section 705 – Additional Practices, under Section 705.4 accordingly and maintain one point award for the practice. TG-5 believes credit for this practice should be earned as an additional practice rather than earned as an option included under Section 703.3.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC122 LogID 6105	703.4.4 Duct Leakage	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	703.4.4 Duct Leakage. The entire central HVAC duct system, including air handlers and registerboots, is tested by a third party for total leakage at a pressure differential of 0.1 inches w.g. (25 Pa)and maximum air leakage is equal to or less than <u>6 percent of the system design flow rate</u> <u>3 cubic feet per minutes per 100 square feet of conditioned floor area.</u>	
Reason:	Align with 2015 IECC	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC123 LogID 6182	703.6.2 Recessed luminaires	Final Formal Action: TBD
Submitter:	Jeff Inks	
Public Comment:		
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. Move entire Section 703.6.2 to Section 705 – Additional Practices, under Section 705.2 accordingly and award one point for the practice. Renumber remaining 703.6 accordingly. TG-5 believes credit for this practice should be earned as an additional practice rather than earned as an option included under Section 703.6.	

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC124 LogID 6183	703.6.4 Induction cooktop	Final Formal Action: TBD
Submitter:	Jeff Inks	
Public Comment:		
Reason:	This comment is submitted on behalf of TG-5 – Energy Efficiency. Move entire Section 703.6.4 to Section 705 – Additional Practices, as new Section 705.3 and renumber remaining Section 703.6 and Section 705 accordingly. Maintain one point award for the practice. TG-5 believes credit for this practice should be earned as an additional practice rather than earned as an option included under Section 703.6.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC125 LogID 6099	704.1 HERS index target compliance	Final Formal Action: TBD
Submitter:	Siyang Zhang	
Public Comment:		
Reason:	Clarify the version of Energy Star protocol	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC126 LogID 6106	705.1 Application of additional practice points	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	705.1 Application of additional practice points. Points from Section 705704 can be added to points earned in Section 702 (Performance Path), Section 703 (Prescriptive Path), Section704 (HERS Index Target Path), or Section 701.1.34(alternative bronze and silver level compliance).	
Reason:	clean up section references	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC127 LogID 6088	705.1 Application of additional practice points	Final Formal Action: TBD
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Submitter:	Chuck Arnold
Public Comment:	Application of additional practice points. Points from Section 705704 can be added to points earned in Section 702 (Performance Path), Section 703 (Prescriptive Path), Section 704 (HERS Index Target Path), or Section 701.1.34 (alternative bronze and silver level compliance).
Reason:	Needs to be reworded so it matches changes made to 701.1.4
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC128 LogID 6073	705.2.1 Lighting controls	<i>Final Formal Action: TBD</i>
Submitter:	Chuck Arnold	
Public Comment:	25-49 percent 50-74 percent 75 percent <u>or more</u>	
Reason:	The percentages listed should provide a specific range and not list a specific percentage. This should be done for each of the subsections - interior, exterior, and multi-unit common areas.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC129 LogID 6205	705.2.1 Lighting controls	<i>Final Formal Action: TBD</i>
Submitter:	Craig Conner	
Public Comment:		
Reason:	The terms "vacancy sensor" and "occupancy sensor" overlap and should be combined. Sensor is something that is used outside of lighting, so the terms should not specify lighting. See Sections 705.2.1.1 and 705.2.1.3. Some parts of NGBS use just "occupancy sensor" those can remain as is.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC130 LogID 6107	705.3 Return ducts and transfer grilles	<i>Final Formal Action: TBD</i>
Submitter:	aaron gary	
Public Comment:	705.3 Return ducts and transfer grilles. Return ducts or transfer grilles are installed in every room with a door. Return ducts or transfer grilles are not required for bathrooms, kitchens, closets, pantries, and laundry rooms.52 (points)	
Reason:	Point value of this credit is overvalued in comparison to others that provide more measurable energy performance improvement given revised point threshold for Chapter 7.	
Substantiating Documents:	False	

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC131 LogID 6108	705.4.3 Air handler leakage	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	Remove 705.4.3 Air handler Leakage in its entirety.	
Reason:	This credit is mandatory code requirement of the 2015 IECC and should not be worth additional points.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC132 LogID 6109	705.5.1 Third-party inspections (Installation and performance verification)	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	705.5.1 Third-party on-site inspection is conducted to verify compliance with all of the following, as applicable. Minimum of two inspections are performed: one inspection after insulation is installed and prior to covering, and another inspection upon completion of the building. Where multiple buildings or dwelling units of the same model are built by the same builder, a representative sample inspection of a minimum of 15 percent of the buildings or dwelling units is permitted. 5 <u>3</u> (points)	
Reason:	This credit is overvalued in light of revised Chapter 7 thresholds.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC133 LogID 6110	705.5.2.1 Building envelope leakage testing	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	705.5.2.1 Building envelope leakage testing. Building envelope leakage testing is performed in accordance with the following:(Points awarded only for buildings where building envelope leakage testing is not required by 2015 IECC.) (1) A blower door test and a visual inspection are performed as described in 701.4.3.2 <u>IECC C402.5.5</u> TBD <u>3</u> (points) (2) Third-party verification is completed. 5 <u>TBD</u> (points)	
Reason:	Align target with 2015 IECC for Commercial Multifamily projects (which are the only projects eligible for this credit).	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		

Task Group Reason:	
Task Group Vote:	

PC134	LogID 6079	705.5.2.1 Building envelope leakage testing	Final Formal Action: TBD
Submitter:	Chuck Arnold		
Public Comment:	(Points awarded only for buildings where building envelope leakage testing is not required by 2015 IECC.)		
Reason:	The new language specifying points awarded only for buildings where building envelope leakage testing is not required by 2015 IECC results in points only being awarded for homes in a tropical zone. This restriction should be removed.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC135	LogID 6111	705.5.2.2 HVAC airflow testing	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	705.5.2.2 HVAC airflow testing. Balanced HVAC airflows are demonstrated by flow hood or other acceptable flow measurement tool by a third party. Test results are in accordance with both of the following:8 5 (points)		
Reason:	The points for this credit are overvalued given the revised Chapter 7 thresholds.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC136	LogID 6113	705.5.3 Insulating hot water pipes	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	705.5.3 Insulating hot water pipes. Insulation with a minimum thermal resistance (R-value)of at least R-3 is applied to the following, as applicable:1 (Points awarded only where these practices are not required by 2015 -IECC.)		
Reason:	Remove 2015 from text for consistency (alternatively add 2015 into text for all credits where the IECC is referenced.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC137	LogID 6112	705.5.2.3 HVAC duct leakage testing	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	705.5.2.3 HVAC duct leakage testing. One of the following is achieved:(Points awarded only for buildings where duct leakage testing is not required by 2015 IECC.)		

	(1) Duct leakage is in accordance with 2015 IECC R403.3.3 and R403.3.4. 3 (points) (2) Duct leakage is in accordance with 2015 IECC R403.3.3 and R403.3.4, and testing is conducted by an independent third-party. 5 (points)
Reason:	Remove 2015 reference for consistency (alternatively add 2015 into all credits where the "IECC" is referenced. Suggested points for each measure.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC138	LogID 6089	705.5.2.3 HVAC duct leakage testing	Final Formal Action: TBD
Submitter:	Chuck Arnold		
Public Comment:	(Points awarded only for buildings where duct leakage testing is not required by 2015 IECC.)		
Reason:	The new language specifying points awarded only for buildings where building envelope leakage testing is not required by 2015 IECC results in points only being awarded for homes in a tropical zone. This restriction should be removed.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC139	LogID 6100	706.3 Smart Appliances and Systems	Final Formal Action: TBD
Submitter:	Siyang Zhang		
Public Comment:			
Reason:	define smart appliances...		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC140	LogID 6114	706.5 On-site renewable energy system	Final Formal Action: TBD
Submitter:	aaron gary		
Public Comment:	706.5 On-site renewable energy system. An on-site renewable energy system(s) is installed on the property (Points awarded for every 100 W <u>1 kW</u> of system rating installed for every 2,000 square feet of total conditioned floor area of the building. Points shall not be awarded in this section for solar thermal or geothermal systems that provide space heating, space cooling, or water heating, Points for these systems are awarded in Section 703.)		
Reason:	Points are assigned for renewable energy are overvalued given the revised chapter 7 thresholds. For example a 5 KW PV system (which is now fairly affordable) is worth 50 points on a 2000 SF home. Under the revised Chapter 7 thresholds this now places a home that meets the minimum compliance thresholds + a 5 KW PV system into Emerald certification.		

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC141 LogID 6166	706.5 On-site renewable energy system	Final Formal Action: TBD
Submitter:	Todd Jones	
Public Comment:	An on-site renewable energy system(s) is installed on the property, <u>and the renewable energy certificates (RECs) are retained and retired on-site for the building's own consumption.</u>	
Reason:	If the intent of this requirement is that buildings use/consume the renewable electricity from an onsite system (as opposed to installing an onsite system and generating green power for other grid consumers, or which the utility could potentially use to meet a state requirement), then the building must retain and retire the renewable energy certificates (RECs) associated with the electricity generated onsite.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC142 LogID 6201	706.7 Grid-interactive electric thermal storage system	Final Formal Action: TBD
Submitter:	Craig Conner & Howard Wiig	
Public Comment:	<p>706.7 Grid-interactive electric thermal storage system. A grid-interactive electric thermal storage system is installed-</p> <p>(1) Grid-Interactive Water Heating System-</p> <p>(2) Grid-Interactive Space Heating System-</p> <p>GRID-INTERACTIVE ELECTRIC THERMAL STORAGE (GETS). An energy storage system that provides electric system grid operators such as utilities, independent system operators (ISOs) and regional transmission organizations (RTOs), with variable control of a building's space heating and service water heating end uses.</p> <p>706.9 Automatic demand response. Automatic demand response system is installed that curtails energy usage upon a signal from the utility or an energy service provider is installed.</p>	
Reason:	Smart Appliance (706.3), Automatic Demand Response (706.9), and Grid Interactive Electric Thermal Storage System (706.7) are overlapping and double or triple counting. A water heater could do all three, for example. Delete 706.7, which seems the most poorly defined and badly named; as well as incomplete (Grid-interactive Space Cooling System would be possible too). This change leaves the other two sections, one section for having the appliance and the other for connecting them to the utility. This also made an editorial change in Section 706.9.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		

Task Group Vote:	
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PC143 LogID 6213	Chapter 7 Points	<i>Final Formal Action: TBD</i>
Submitter:	Task Group 5	
Public Comment:	All proposed updates to the point assignments for Chapter 7 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 5 review of the point assignments for Chapter 7 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 8: Water Efficiency

PC144 LogID 6018	801.6.1 Multi-stream rotating nozzles (Irrigation systems) <i>Final Formal Action: TBD</i>
Submitter:	Brent Mecham
Public Comment:	801.6.1 Sprinkler Multi-stream, multi-trajectory rotating nozzles are installed in lieu of or spray head nozzles shall have a maximum precipitation rate of 1.20 inches per hour for turf or landscaping. Nozzle performance is tested by an accredited third party laboratory and results are posted on Smart Water Application Technologies website or similar.
Reason:	Simplify language to cover all sprinkler and nozzles that could be used including new technology that is being developed, but to limit the choices with the specified maximum precipitation rate. Establish a common location where nozzle performance can be posted such as Smart Water Application Technologies (SWAT) which has done this for a number of years for controller, soil moisture sensors etc. www.irrigation.org/SWAT is often referenced in many landscape/irrigation ordinances. When/If EPA WaterSense labels the nozzles, that would be a future reference.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC145 LogID 6149	801.6.2 Drip irrigation is installed <i>Final Formal Action: TBD</i>
Submitter:	Lauren Helixon
Public Comment:	
Reason:	This credit is too stringent and limited in scope. For part 1, this strategy assumes drip irrigation is the preferred method to irrigate landscape beds, but this is not always the case. For example, what if a landscape bed includes a tree or is comprised of only a tree with mulch? In this situation it might be more appropriate to install a bubbler feature so as to provide adequate amounts of water for the root system. How would this situation be handled by the standard? As it relates to part 2 of the credit, it is infeasible to expect all turf landscaping to utilize drip irrigation. Rather than an "all or nothing" strategy, why not provide a point threshold based upon a percentage of turf irrigated with drip irrigation?
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC146 LogID 6129	801.6.3 Irrigation plan and implementation <i>Final Formal Action: TBD</i>
Submitter:	Anthony Floyd
Public Comment:	801.6.3 Irrigation plan and implementation are executed by a professional certified by a WaterSense labeled program or equivalent <u>qualified professional</u> as approved by Adopting Entity. 5-Mandatory
Reason:	Any irrigation plan should be prepared by a qualified irrigation professional to ensure a water efficient design and installation based on landscape plant selection and placement. A WaterSense certified professional or equivalent qualified professional is crucial to designing any effective irrigation system and therefore should be mandatory, particularly for sites associated with green buildings. Adopting

	entities need qualified professionals preparing qualified plans. Otherwise, unqualified plans lead to substandard installations and unintended outcomes.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC147 LogID 6019	801.6.4 Irrigation system(s) smart controller or no irrigation is installed	Final Formal Action: TBD
Submitter:	Brent Mecham	
Public Comment:	(2) Irrigation controllers are <u>labeled by EPA in accordance with WaterSense program. Specification for Weather-Based Irrigation Controllers Version 1.0, 2011-</u>	
Reason:	Open the door for other types of controllers that could be labeled by the EPA WaterSense program besides just weather-based controller. EPA is looking at labeling other products. Changes would then keep this timeless and in case modifications to the listed specification are made. To earn the label, the products are tested by qualified labs and have to meet minimum performance specifications.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC148 LogID 6020	801.6.5 Irrigation zones with pressure regulation	Final Formal Action: TBD
Submitter:	Brent Mecham	
Public Comment:	801.6.5 All sprinkler irrigation zones utilize pressure regulation or pressure compensation so sprinklers <u>emission devices (sprinklers and drip emitters)</u> operate at manufacturer's recommended operating pressure.	
Reason:	All irrigation zones should have proper pressure regulation including the drip irrigation zones for the emission devices to have proper operating pressures. There is a slight difference between pressure regulation and pressure compensation, so both technologies should be included.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC149 LogID 6156	802.1 Reclaimed, gray, or recycled water (Innovative practices)	Final Formal Action: TBD
Submitter:	marie nisson	
Public Comment:	(Points awarded for either Section 802.56 or 802.1, not both.)	
Reason:	The numbering for the practice has changed due to additions included in the draft. This recommendation matches the intent of the statement with the new numbering	
Substantiating Documents:	False	

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC150 LogID 6016	802.2 Reclaimed water, greywater, or rainwater pre-piping <i>Final Formal Action: TBD</i>
Submitter:	Dana Bres
Public Comment:	802.2 Reclaimed water, graywater, or rainwater pre-piping. Reclaimed, graywater, or rainwater systems are rough plumbed (and permanently marked, tagged or labeled) into buildings for future use where service is not yet available or permitted by applicable codes or by the authority having jurisdiction.
Reason:	The property may be sold to a new owner before reclaimed, graywater or rainwater systems are permitted by the AHJ. Permanently marking the rough plumbing will prevent cross connects and assist the future homeowner
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC151 LogID 6032	802.2 Reclaimed water, greywater, or rainwater pre-piping <i>Final Formal Action: TBD</i>
Submitter:	Michael Cudahy
Public Comment:	802.2 Reclaimed water, graywater, or rainwater pre-piping. Reclaimed, graywater, or rainwater systems are rough plumbed into buildings for future use. where service is not yet available or permitted by applicable codes or by the authority having jurisdiction.
Reason:	The roughing in of piping for future water conserving systems should be encouraged beyond areas where it is not yet permitted. Designing a building for future use of these systems deserves some credit. In many cases, and especially in a slab on grade home, a retrofit is too costly and difficult.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC152 LogID 6210	Chapter 8 Points <i>Final Formal Action: TBD</i>
Submitter:	Task Group 4
Public Comment:	All proposed updates to the point assignments for Chapter 8 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.
Reason:	Based on Task Group 4 review of the point assignments for Chapter 8 in accordance with the established process.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	

Task Group Reason:	
Task Group Vote:	

Chapter 9: Indoor Environmental Quality

PC153 LogID 6158	901.1.4 Gas fireplaces and direct heating equipment vented outdoors <i>Final Formal Action: TBD</i>
Submitter:	Michelle Desiderio
Public Comment:	Mandatory <u>for fireplaces within dwelling units.</u>
Reason:	Continue to have the practice Mandatory for fireplaces within dwelling units but allow for unvented fireplaces in common areas, with the option to get points if they are vented. The NGBS mandates fireplaces must be vented to the outdoors because of concern for unvented fireplaces within SF homes and MF dwelling units. However, many multifamily buildings are installing one single fireplace in the lobby. This one fireplace, if it is not vented can render the entire MF building from being certified under the NGBS. While there is reasonable concern regarding the indoor environmental quality in apartments or homes with unvented fireplaces, there is not nearly the concern with one fireplace in the lobby area of a MF building. The proposal below would change the points for this practice to make it not mandatory to vent fireplaces that are in the lobby/common area of MF buildings but still require venting for fireplaces in SF homes or MF dwelling units.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC154 LogID 6130	901.12 Carbon monoxide alarms <i>Final Formal Action: TBD</i>
Submitter:	Anthony Floyd
Public Comment:	901.12 Carbon monoxide (CO) alarms. A carbon monoxide (CO) alarm is <u>provided in accordance with the IRC Section R315 installed in a central location of each sleeping area in the immediate vicinity of the bedrooms. The CO alarm(s) is located in accordance with NFPA 720 and is hardwired with a battery backup. The alarm device(s) is certified by a third party for conformance to either CSA 6.19 or UL 2034.</u> 4 <u>Mandatory</u>
Reason:	Carbon monoxide (CO) alarms are required by 2015 IRC when there is a fuel-fired appliance located in the house or where there is an attached garage with an opening into the dwelling. CO alarm locations are prescribed by the IRC and no longer NFPA 720. As a code requirement, CO alarms should be mandatory and not point-based. This eliminates "unfairness" of home fuel differences and the ability for a home to achieve NGBS points.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC155 LogID 6199	901.2.2 Solid fuel-burning appliances are not installed <i>Final Formal Action: TBD</i>
Submitter:	Joe Seymour
Public Comment:	Page 90, 901.2.2 Fireplaces, woodstoves, pellet stoves, or masonry heaters are not installed 7 Change: 7 to 7 and replace with 0
Reason:	"Remove Point Total for Section 901.2.2" Reason statement: Chapter 9, Indoor Environmental Quality, section 901.2.1, awards various point totals for code-compliant wood-burning stoves and heaters,

	whereas section 901.2.2 awards the highest total, seven points for non-installation of woodstoves, pellet stoves and masonry heaters. These adjoining sections, taken together, provide unclear guidance on installing clean, highly efficient wood-burning technologies. In fact, several wood-burning appliances achieve the highest efficiencies available for renewable heating. Furthermore, maintaining different point classes for installation and non-installation make no sense when taking in consideration widely-available, clean, wood-burning technologies that meet NGBS principles.
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC156 LogID 6136	901.7 Floor materials	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	"Points are awarded for every 10% of conditioned floor space using one of the below materials, <u>up to a maximum of 6 points:</u> "	
Reason:	The new language states: "Points are awarded for every 10% of conditioned floor space using one of the below materials:" yet the number of points available (6) indicates that no points are available past 60%. We feel that for this credit that it is appropriate to leave six as the maximum number of points available and suggest language to clarify this in the provision. There is a similar issue in Chapter 11, Section 11.901.7, which has parallel language for remodeling.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC157 LogID 6030	902.1.5 Fenestration cross-ventilation	Final Formal Action: TBD
Submitter:	Roger L. LeBrun	
Public Comment:	<p>902.1.5</p> <p>Fenestration in spaces other than those identified in 902.1.1 through 902.1.4 are designed for <u>stack effect</u> or cross-ventilation in accordance with all of the following:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Operable windows, <u>skylights</u> and sliding glass doors with a total area of at least 15 percent of the conditioned floor area are provided.</p> <p>(2)</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Insect screens are provided for all operable windows, <u>skylights</u> and sliding glass doors.</p> </div> <p>(3)</p> </div>	

	<p style="text-align: center;"><u>Wherever practical, An operable skylight is installed, and a minimum of two operable windows or sliding glass doors are placed in adjacent or opposite walls. If there is only one wall surface in that space exposed to the exterior, the minimum windows or sliding glass doors may be on the same wall.</u></p> <p>(1)</p>
Reason:	Stack effect natural ventilation is much more effective than cross-ventilation. It should be provided wherever cross-ventilation is not possible, and is preferable to cross-ventilation whenever practical.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC158 LogID 6077	902.2.2 Whole building ventilation airflow is tested	Final Formal Action: TBD
Submitter:	Chuck Arnold	
Public Comment:	<p>902.2.3 MERV filters 8 or greater <u>to 13</u> are installed on central forced air systems and are accessible. Designer or installer is to verify that the HVAC equipment is able to accommodate the greater pressure drop of MERV 8 <u>to 13</u> filters.</p> <p><u>902.2.4 MERV filters 14 or greater are installed on central forced air systems and are accessible. Designer or installer is to verify that the HVAC equipment is able to accommodate the greater pressure drop of the filter used.</u></p>	
Reason:	Additional language has been adopted for this section in Chapter 11. The Chapter 11 additions should be added in Chapter 9.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC159 LogID 6139	902.2.3 MERV 8 filters	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	<p>902.2.3 MERV filters 8 or greater <u>to 13</u> are installed on central forced air systems and are accessible. Designer or installer is to verify that the HVAC equipment is able to accommodate the greater pressure drop of MERV 8 <u>to 13</u> filters.</p>	
Reason:	To maintain consistency between the sections, incorporate the new language of 11.902.2.3 into Section 902.2.3.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC160	LogID 6076	904.1 Indoor air quality (IAQ) during construction	Final Formal Action: TBD
Submitter:	Chuck Arnold		
Public Comment:	...water damage (per ASTM D7338-10 section 7.4.3), and visible dust .		
Reason:	It is unreasonable to expect there will be no visible dust during construction.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC161	LogID 6075	904.2 Indoor air quality (IAQ) post completion	Final Formal Action: TBD
Submitter:	Chuck Arnold		
Public Comment:	Verify there are no moisture, mold, and dust issues per 602.1.7(3), 901.4-901.11, ASTM D7338 section 6.3 and ASTM D7338 section 7.4.3.		
Reason:	It is unclear from the wording what is to be checked.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC162	LogID 6157	Other for Chapter 7 (include section number and title below)	Final Formal Action: TBD
Submitter:	Michelle Desiderio		
Public Comment:	704.4.2 Performance of the heating and/or cooling system is verified <u>through commissioning</u> by the HVAC contractor		
Reason:	Editorial change to add the term "Commissioning" to the practice below (because that is the official term for the actions) and the NGBS is often compared unfavorably to LEED because there is not a specific practice for "commissioning."		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC163	LogID 6140	Other for Chapter 9 (include section number and title below)	Final Formal Action: TBD
Submitter:	Susan Gitlin		
Public Comment:	<u>902.2.4</u> <u>MERV filters</u> 14 or greater are installed on central forced air systems and are accessible. Designer or installer is to verify that the HVAC equipment is able to accommodate the greater pressure drop of the filter used.		
Reason:	To maintain consistency between the sections, incorporate the new language of 11.902.2.4 into a new Section 902.2.4.		

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC164 LogID 6211	Chapter 9 Points	<i>Final Formal Action: TBD</i>
Submitter:	Task Group 3	
Public Comment:	All proposed updates to the point assignments for Chapter 9 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 3 review of the point assignments for Chapter 9 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 10: Operation, Maintenance, and Building Owner Education

PC165	LogID 6058	1001.1 Building owner's manual is provided	<i>Final Formal Action: TBD</i>
Submitter:	Steven Rosenstock		
Public Comment:	Detailed information about the National Green Building Standard, its requirements, and how NGBS compliance was determined, along with a A green building program certificate or completion document.		
Reason:	Detailed information about the NGBS is not needed by the homeowner to operate or maintain the green features of the home. How detailed is this supposed to be?		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC166	LogID 6167	1001.1 Building owner's manual is provided	<i>Final Formal Action: TBD</i>
Submitter:	Todd Jones		
Public Comment:	(6) Information on available local Green-ecertified (or equivalent) utility green power programs or renewable electricity products, as well as information on how to find other certified renewable energy products using the Green-e website utility programs that purchase a portion of energy from renewable energy providers.		
Reason:	(6) Many utilities will purchase a portion of energy of renewable energy providers. We recommend clarification of this requirement such that information is related to utility programs/products that deliver renewable electricity to customers. We also recommend strengthening this requirement by requiring that this be information about renewable energy products/options available to the building, either from the local utility (e.g. differentiated renewable electricity/green power products/options) or competitive electricity suppliers (if in a deregulated region), or REC products that are available nationally. The Green-e website can be used to find green power options in your area. We also recommend that information be provided specifically about Green-e certified utility green power programs/products, competitive electricity products, and stand-alone REC products.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

PC167	LogID 6059	1001.2 Training of homeowners	<i>Final Formal Action: TBD</i>
Submitter:	Steven Rosenstock		
Public Comment:	1001. 2 Training of <u>initial</u> homeowners. <u>Initial H</u> homeowners are familiarized with the role of occupants in achieving green goals. On-site training is provided to the responsible party(ies) regarding equipment operation and maintenance, control systems, and occupant actions that will improve the environmental performance of the building. These include:		
Reason:	The proposed change will make the requirement more reasonable. Otherwise, as written, the builder will be required to train every homeowner over the 50-100 year life of the home.		
Substantiating Documents:	False		
Task Group Recommendation:			

Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC168 LogID 6159	1001.2 Training of homeowners	Final Formal Action: TBD
Submitter:	Michelle Desiderio	
Public Comment:	On-site Training is provided to the responsible party(ies) regarding equipment operation and maintenance, control systems, and occupant actions that will improve the environmental performance of the building.	
Reason:	Remove the word "on-site" to allow for virtual or off-site training.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC169 LogID 6143	1003.3 Education	Final Formal Action: TBD
Submitter:	aaron gary	
Public Comment:	1003.3 Education. A URL for the National Green Building Standard is included on site signage <u>or builder website (or property website for multi-unit buildings)</u> , and marketing materials for homes certified under the National Green Building Standard.	
Reason:	Production builders and multifamily developers promote NGBS through their websites. An allowance for this promotion in lieu of a building sign should be allowed since the promotion and sharing of the URL is still achieved.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC170 LogID 6212	Chapter 10 Points	Final Formal Action: TBD
Submitter:	Task Group 1	
Public Comment:	All proposed updates to the point assignments for Chapter 10 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 1 review of the point assignments for Chapter 10 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 11: Remodeling

PC171 LogID 6190	11.503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	<p>The EPA WaterSense Water Budget Tool may be used when determining the maximum percentage of turf areas. For landscapeable areas, the percentage of all turf areas is: The percentage of all turf areas are limited as part of the landscaping.</p> <hr/> <p>(a) 0 percent.</p> <hr/> <p>(b) Greater than 0 percent to less than 20 percent</p> <hr/> <p>(c) 20 percent to less than 40 percent</p> <hr/> <p>(d) 40 percent to 60 percent</p>	<p></p> <hr/> <p>8</p> <hr/> <p>6</p> <hr/> <p>4</p> <hr/> <p>2</p>
Reason:	<p>There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). The gravest impacts are to section 403.6 (4). This is where OPEI has lobbied for the diminishment of turf limitations as an option for reducing outdoor water demands. In the early stages of drought in 2003, my agency worked closely with a number of stakeholders including the Southern Nevada Home Builders Association (SNHBA) to implement a policy that limited the use of turfgrass for ornamental purposes. Why turfgrass? Our research has shown that lawns receive four times as much water as other water-efficient landscapes that may include trees, shrubs, flowers, vines and other adapted plants. Research in a variety of geographic settings has demonstrated that significant savings are realized where plantings other than turfgrass are used. Locally, these policies not only mitigated water demand, they quelled calls for a moratorium on growth and new construction. These policies have had no impact on quality of life and a positive impact on economic productivity. Both builders and homebuyers are free to plant some turfgrass and to select from a palette of more than 500 other plants for their landscapes. These landscape provisions, more than any other initiative, allowed us to reduce our use by almost 29 billion gallons between 2002 and 2012 while allowing homebuilders to create housing for nearly 500,000 new residents that have located in Southern Nevada since the policy went into effect. Appropriately used, turfgrass can provide benefits, but at a cost. Numerous studies have shown that better adapted plants can provide most or all of the functions of turfgrass with lower demand for water, fertilizer, fuel and maintenance. In many utilities, the benefits of turfgrass carbon sequestration are overwhelmed by the embedded electric energy in just a few inches of irrigation water. The NGBS has thus far provided for the earning of points with landscape plans that have turf limitations. These have been optional and allowed for regional diversification. They have worked successfully in conjunction with turf limits to provide for appropriate reward in water-scarce regions such as ours. While SNWA certainly is supportive of the WaterSense program and our proposed change continues to highlight it, in regions where there is already policy to limit the use of turfgrass, using the NGBS would necessitate a special set of calculations and assessments at each home being built, yet not change the outcome due to the regulatory environment. This additional difficulty may be a disincentive that results in builders shunning the NGBS in regions where water-scarcity has become a driving force. Our included background material demonstrates that these may occur at local municipal code levels as in southern Nevada well as state levels (California). The NGBS should allow regional flexibility by allowing builders to use such already requisite approaches while highlighting the WaterSense Water Budget Tool. It should appropriately incentivize and reward builders for doing so. And just doing the calculation is insufficient. This was obviously not the intent as per the original language. We want to assure that the work is actually done, something that may have unknowingly occurred in the standard development process. Our proposal addresses both these deficiencies. Finally, a number of point modifications have occurred that significantly reduce the emphasis on water efficiency in landscape design that SNWA's proposal counters. Good landscape design is crucial to water efficiency and it does involve real on the ground enhancements. It should rank highly in points-based systems thus the reallocation of points to 403.6 (4).</p>	

Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC172 LogID 6191	11.503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	(3) Turfgrass is integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 10% of the groundcover. Plants should typically flower at less than 6 inches in height. To improve pollinator habitat, at least 10% of planted areas are composed of non-invasive flowering and nectar producing plant species.	
Reason:	<p>There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these is the introduction of a new concept which the proponent informally refers to as the “bee lawn” which draws upon research that has found that while a lawn composed of turfgrass provides only detrimental impacts to bee colonies, a lawn infested with flowering herbaceous plants can provide more benefits (though not at the levels of native vegetation). To this end OPEI suggests rewarding intentionally enhancing lawns in this way. But that is misleading as, in order to get the points, the major negative, putting in a monoculture composed of turfgrass, has to also happen. Again, the lawn itself is only detrimental to bees. Furthermore, a careful review shows only certain species can be facilitated by the limited plantings that can be maintained in a lawn, especially given most people mow their lawns to 4 inches or less. Research by the University of Kentucky has demonstrated that diversity of bee species declines precipitously where turfgrass is present and indeed there are even programs devoted to converting turfgrass areas to pollinator habitat. It is counterintuitive and highly strategic on OPEI’s part to attempt to promote a “bee lawn” as part of a sustainability initiative and it would be terrible to see the committee endorse the concept even as modified in prior deliberation. What we need are more flowering and nectar producing plants. SNWA’s proposal presents a way to do this with alternative plantings in no greater amounts than OPEI’s proposal but that is scientifically justifiable.</p>	
Substantiating Documents:	True	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC173 LogID 6192	11.503.5 Landscape plan	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	(4) — EPA WaterSense Water Budget Tool is used to determine the maximum percentage of turf areas.	
Reason:	<p>There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). The gravest impacts are to section 403.6 (4). This is where OPEI has lobbied for the diminishment of turf limitations as an option for reducing outdoor water demands. In the early stages of drought in 2003, my agency worked closely with a number of stakeholders including the Southern Nevada Home Builders Association (SNHBA) to implement a policy that limited the use of turfgrass for ornamental purposes. Why turfgrass? Our research has shown that lawns receive four times as much water as other water-efficient landscapes</p>	

	<p>that may include trees, shrubs, flowers, vines and other adapted plants. Research in a variety of geographic settings has demonstrated that significant savings are realized where plantings other than turfgrass are used. Locally, these policies not only mitigated water demand, they quelled calls for a moratorium on growth and new construction. These policies have had no impact on quality of life and a positive impact on economic productivity. Both builders and homebuyers are free to plant some turfgrass and to select from a palette of more than 500 other plants for their landscapes. These landscape provisions, more than any other initiative, allowed us to reduce our use by almost 29 billion gallons between 2002 and 2012 while allowing homebuilders to create housing for nearly 500,000 new residents that have located in Southern Nevada since the policy went into effect. Appropriately used, turfgrass can provide benefits, but at a cost. Numerous studies have shown that better adapted plants can provide most or all of the functions of turfgrass with lower demand for water, fertilizer, fuel and maintenance. In many utilities, the benefits of turfgrass carbon sequestration are overwhelmed by the embedded electric energy in just a few inches of irrigation water. The NGBS has thus far provided for the earning of points with landscape plans that have turf limitations. These have been optional and allowed for regional diversification. They have worked successfully in conjunction with turf limits to provide for appropriate reward in water-scarce regions such as ours. While SNWA certainly is supportive of the WaterSense program and our proposed change continues to highlight it, in regions where there is already policy to limit the use of turfgrass, using the NGBS would necessitate a special set of calculations and assessments at each home being built, yet not change the outcome due to the regulatory environment. This additional difficulty may be a disincentive that results in builders shunning the NGBS in regions where water-scarcity has become a driving force. Our included background material demonstrates that these may occur at local municipal code levels as in southern Nevada well as state levels (California). The NGBS should allow regional flexibility by allowing builders to use such already requisite approaches while highlighting the WaterSense Water Budget Tool. It should appropriately incentivize and reward builders for doing so. And just doing the calculation is insufficient. This was obviously not the intent as per the original language. We want to assure that the work is actually done, something that may have unknowingly occurred in the standard development process. Our proposal addresses both these deficiencies. Finally, a number of point modifications have occurred that significantly reduce the emphasis on water efficiency in landscape design that SNWA's proposal counters. Good landscape design is crucial to water efficiency and it does involve real on the ground enhancements. It should rank highly in points-based systems thus the reallocation of points to 403.6 (4).</p>
Substantiating Documents:	True
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC174 LogID 6126	11.503.5 Landscape plan	<i>Final Formal Action: TBD</i>
Submitter:	Blaine Wilkins	
Public Comment:		
Reason:	<p>The third item seems incompatible with this document. This is a design standard, but this proposed credit requires long-term care and maintenance for it to have any environmental benefit. I know of few homeowners who would maintain such a lawn as is described here. In my experience, a homeowner will apply -- or ask a landscaping service to apply -- weed killer to short flowering plants in their lawn. This practice may be workable if a homeowner elects to do it himself. I recommend either deleting this or adding language that makes these points only applicable if those who already or will live in the building specifically request it.</p>	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		

Task Group Reason:	
Task Group Vote:	

PC175 LogID 6193	11.505.1 Driveways and parking areas	Final Formal Action: TBD
Submitter:	Kent Sovocool	
Public Comment:	4) Vegetative paving systems Water permeable surfaces are utilized to reduce the footprint of surface driveways, fire_lanes, streets or parking areas.	
	(a)_10 % to less than 25%	1
	(b)_25% to 75%	2
	(c)_greater than 75%	3
	4) Vegetative paving systems Water permeable surfaces are utilized to reduce the footprint of surface driveways, fire_lanes, streets or parking areas.	
	(a)_10 % to less than 25%	1
	(b)_25% to 75%	2
	(c)_greater than 75%	3
Reason:	There are a number of proposed changes to Section 403.6 that are detrimental to the NGBS in terms of reducing the integrity of intent and the breadth of adoptability. Some of these apparently have their genesis from a proposal from the Outdoor Power Equipment Institute (OPEI). One of these would promote vegetative paving systems for driveways, fire-lanes, streets, and parking areas. Any permeable shaded area though can provide similar benefits without the enormous costs in terms of water resources for irrigation of such areas. This is obviously an inappropriate measure for arid areas. SNWA's change will allow builders in such areas to provide for the infiltration benefits without the potential resource challenges that would otherwise make this item unobtainable.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC176 LogID 6152	11.605.2 Construction waste management plan	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	11.605.2 Construction waste management plan. ...diverting, through <u>methods such as reuse, salvage, or recycling or manufacturer reclamation</u> , a minimum of 50 percent (by weight) of nonhazardous construction and demolition <u>waste materials</u> from disposal <u>in landfills and combustion, excluding energy and material recovery</u> . For this practice, land clearing debris is not considered construction waste. Materials used as alternative daily cover are considered construction waste and do not count toward recycling or salvaging.	
	For remodeling projects or demolition of an existing facility by a EPA certified E-Waste recycling facility , the waste management plan includes the recycling of 95%of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security control boards), <u>by a third-party certified E-Waste recycling facility.</u>	
	Exceptions:	
	Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations.	

	2) A recycling facility(traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.
Reason:	The section is instructing stakeholders to divert construction and demolition materials from disposal. Commonly, such language would clarify that the materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. (note that we are referring to “combustion” rather than “incineration;” although frequently misunderstood, combustion is a broader activity that does include energy and material recovery, but incineration is done so as to treat or resize waste for the purpose of disposal and does not include energy or material recovery; because of the common misunderstanding, we do recommend acknowledging energy recovery, but including it under the broader, correct activity, i.e., combustion.) Further, the list of methods that count toward the diversion practice is very limited. Other types of diversion, such as through manufacturer reclamation, are feasible and often practiced. That said, even with the addition of manufacturer reclamation, the list of diversion methods would not be complete and should be presented as such. The C&D debris that gets diverted is a resource (material) and not waste and should be referred to accordingly. There appears to be an error in the sentence structure for the paragraph dealing with e-waste; it is inconsistent with the language in Section 605.1; this should be corrected. It is also unclear what is intended by an “EPA-certified” e-waste recycling facility; EPA does not “certify” e-waste recycling facilities. Currently, the Responsible Recycling Standard (R2) and the e-Stewards standard are the two available e-waste certification programs to which facilities may be certified. See: http://www.sustainableelectronics.org/ and http://e-stewards.org/ Finally, if the intent of the “Exceptions” section is to indicate specific circumstances when the practice does not apply, or to acknowledge situations when it cannot be met by the person seeking the points, then it is unclear why the first item is listed. How is stating “Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations,” an Exception? (We would argue this is an exclusion from the calculation, not an exception to the practice.) The second item in the Exceptions, “A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite,” implies that a recycling facility not available within 50 miles would preclude the person from achieving the points available through the practice. Solution: Introduce that materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. Broaden the list of diversion methods indicating that the list is not all-inclusive. Refer to construction and demolition materials and not waste. Replace “EPA-certified” e-waste recycling facility with “third-party certified” e-waste recycling facility. Delete the first item listed under Exceptions.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC177 LogID 6170	11.610.1.1 Whole-building life cycle assessment	Final Formal Action: TBD
Submitter:	Todd Jones	
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>	
Reason:	(1)(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the building to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions. We suggest clarifying this.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		

Task Group Vote:	
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PC178 LogID 6153	11.610.1.1 Whole-building life cycle assessment	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	<p>11.610.1.1 Whole-building life cycle assessment. A whole-building LCA is performed in conformance with ASTM E-2921 using SO14044 compliant life cycle assessment and data compliant with ISO 14044 or other recognized standards.</p> <p>Execute LCA at the whole-building level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E-2921. The assessment criteria includes the following environmental impact categories:</p> <ul style="list-style-type: none"> a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. <u>Material Use</u> h. <u>Waste</u> <p>Execute LCA on regulated loads throughout the building operations life cycle stage. Conduct simulated energy performance analyses in accordance with Section 702.2.1 ICC IECC analysis (IECC Section 405) in establishing the comparative performance of final versus reference building designs. Primary energy use savings and global warming potential avoidance from simulation analyses results are determined using EPA NERC electricity generation and other fuels energy conversion factors and electricity generation and other fuels emission rates for the Sub-Region in which the building is located.</p> <p>Execute full LCA, including use and end-of-life phases. For the use phase, calculate through calculation of operating energy impacts (c) – (f) using EPA NERC regional emissions factors [provide full reference to NERC document or provide factor tables]. <u>For the use phase, also include impacts associated with material replacements.</u></p>	
Reason:	<p>Using less material and recovering more is crucial to our economic and environmental future. Whether less material is used and more recovered over the life cycle of the designed building should be evaluated against a reference building. To that end, material use and waste impact categories should be included in life-cycle assessments. In addition, the “full” life cycle assessment should include all life cycle phases, including use and end-of-life phases. While the NGBS-proposed language emphasizes that the assessment should include the use phase, it omits mentioning the end-of-life phase. Finally, the language for the use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts associated with the replacement of materials. Solution: Add the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the end-of-life phase. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials.</p>	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC179 LogID 6171	11.610.1.2.1 Product LCA	Final Formal Action: TBD
Submitter:	Todd Jones	

Public Comment:	Product LCA. A product with improved environmental impact measures compared to another product(s) intended for the same use is selected. The environmental impact measures used in the assessment are selected from <u>include</u> the following: (b) Global warming potential <u>Direct and indirect greenhouse gas emissions (associated with product manufacturing and delivery)</u>
Reason:	“Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the product to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions associated with the product’s manufacturing and delivery. We suggest clarifying this.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC180 LogID 6172	11.610.1.2.2 Building assembly LCA	Final Formal Action: TBD
Submitter:	Todd Jones	
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>	
Reason:	(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the building assembly to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions associated with the building assembly. We suggest clarifying this.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC181 LogID 6200	11.901.2.2 Solid fuel-burning appliances are not installed	Final Formal Action: TBD
Submitter:	Joe Seymour	
Public Comment:	Fireplaces, woodstoves, pellet stoves, or masonry heaters are not installed. 7 Change: 7 to 7 and replace with 0	
Reason:	"Remove Point Total for Section 11.901.2.2" Reason: Chapter 11, Remodeling, section 11.901.2.2 repeats this inconsistency from 901.2.2 in providing the highest number of points, 7 points, for the non-installation of woodstoves, pellet stoves and masonry heaters. To repeat, similar to 901.2.1, 11.901.2.1 awards various point totals for code-compliant wood-burning stoves and heaters, whereas section 11.901.2.2, like 901.2.2, awards the highest total, seven points for non-installation of woodstoves, pellet stoves and masonry heaters. These adjoining sections, taken together, provide unclear guidance on installing clean, highly efficient wood-burning technologies. As mentioned before, many wood-burning appliances achieve the highest efficiencies available for renewable heating. Furthermore, maintaining different point classes for installation and non-installation make no sense when taking in consideration widely-available, clean, wood-burning technologies that meet NGBS principles.	
Substantiating Documents:	True	

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC182 LogID 6138	11.901.7 Floor materials	Final Formal Action: TBD
Submitter:	Susan Gitlin	
Public Comment:	Points are awarded for every 10% of conditioned floor space using one of the below materials, <u>up to a maximum of 6 points</u> :	
Reason:	The new language states: "Points are awarded for every 10% of conditioned floor space using one of the below materials:" yet the number of points available (6) indicates that no points are available past 60%. We feel that for this credit that it is appropriate to leave six as the maximum number of points available and suggest language to clarify this in the provision.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC183 LogID 6031	11.902.1.5 Fenestration cross-ventilation	Final Formal Action: TBD
Submitter:	Roger L. LeBrun	
Public Comment:	11.902.1.5 [identical to ID 6030 for 902.1.5] Fenestration in spaces other than those identified in <u>11.902.1.1</u> through <u>11.902.1.4</u> are designed for <u>stack effect or cross-ventilation</u> in accordance with all of the following: (1) Operable windows, <u>skylights</u> and sliding glass doors with a total area of at least 15 percent of the conditioned floor area are provided. (2) Insect screens are provided for all operable windows, <u>skylights</u> and sliding glass doors. (3) <u>Wherever practical, A an operable skylight is installed, and a</u> minimum of two <u>operable</u> windows or sliding glass doors are placed in adjacent or opposite walls. If there is only one wall surface in that space exposed to the exterior, the minimum windows or sliding glass doors may be on the same wall.	
Reason:	Stack effect natural ventilation is much more effective than cross-ventilation. It should be provided wherever cross-ventilation is not possible, and is preferable to cross-ventilation whenever practical.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 12: Remodeling of Functional Areas

PC184 LogID 6154	12.1(A).605.1 Construction waste management plan <i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin
Public Comment:	<p>12.1(A).605.1 Construction waste management plan. A construction waste management plan that includes targets for diversion is developed, posted at the jobsite, and implemented- <u>Diverting, through methods such as reuse, salvage, recycling or manufacturer reclamation, a targeted amount (by weight) of nonhazardous construction and demolition materials from disposal in landfills and combustion, excluding energy and material recovery.</u></p> <p><u>For remodeling projects, the waste management plan includes the recycling of 95 percent of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security control boards) by a third-party certified E-Waste recycling facility.</u></p> <p><u>Exception:</u></p> <p><u>A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.</u></p>
Reason:	Construction waste management targets may be constrained in the remodeling of functional areas because of the sizes of projects. However, beyond the targeted diversion rate, it is not clear why parameters introduced in construction waste management practices in Chapters 6 and 11 would not apply in the case of functional areas. We suggest including those parameters.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC185 LogID 6155	12.1(A).610.1.1 Functional area life cycle assessment <i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin
Public Comment:	<p>12.1(A).610.1.1 Functional area life cycle assessment. An LCA is performed in conformance with ASTM E-2921 for an entire functional area using ISO14044 compliant a life cycle assessment.</p> <p>Execute LCA at the functional_area level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E-2921. The assessment criteria includes the following environmental impact categories:</p> <ol style="list-style-type: none"> a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. <u>Material Use</u> h. <u>Waste</u> <p>Execute LCA on regulated loads throughout the building operations life cycle stage. Conduct simulated energy performance analyses in accordance with Section 702.2.1 ICC IECC analysis (IECC Section 405) in establishing the comparative performance of final versus reference building designs. Primary energy use savings and global warming potential avoidance from simulation analyses results are determined using</p>

	EPA NERC electricity generation and other fuels energy conversion factors and electricity generation and other fuels emission rates for the Sub-Region in which the building is located. Execute full LCA, including use and end-of-life phases. For the use phase, calculate through calculation of operating energy impacts (c) – (f) using EPA NERC regional emissions factors [provide full reference to NERC document or provide factor tables]. For the use phase, also include impacts associated with material replacements.
Reason:	Using less material and recovering more is crucial to our economic and environmental future. Whether less material is used and more recovered over the life cycle of the designed building should be evaluated against a reference building. To that end, material use and waste impact categories should be included in life-cycle assessments. In addition, the “full” life cycle assessment should include all life cycle phases, including use and end-of-life phases. While the NGBS-proposed language emphasizes that the assessment should include the use phase, it omits mentioning the end-of-life phase. Finally, the language for the use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts associated with the replacement of materials. Solution: Add the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the end-of-life phase. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC186 LogID 6175	12.1(A).610.1.1 Functional area life cycle assessment <i>Final Formal Action: TBD</i>
Submitter:	Todd Jones
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>
Reason:	(1)(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the functional area to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions. We suggest clarifying this.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC187 LogID 6176	12.1(A).610.1.2 Life cycle assessment for a product or assembly <i>Final Formal Action: TBD</i>
Submitter:	Todd Jones
Public Comment:	(b) Global warming potential <u>Direct and indirect greenhouse gas emissions</u>
Reason:	12.1(A).610.1.2(1)(b) and 12.1(A).610.1.2(2)(b) “Global warming potential” is a commonly-used term referring to the heat-trapping capacity of a particular gas. However, it does not appear to have that meaning in this context, which may be confusing for users. In this context, it appears to mean the potential of the product or assembly to contribute to global warming, a metric of which could be direct and indirect GHG/CO2e emissions. We suggest clarifying this.
Substantiating Documents:	False

Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

PC188 LogID 6141	12.5.3 Bathroom	<i>Final Formal Action: TBD</i>
Submitter:	Susan Gitlin	
Public Comment:	When the space to be converted includes a bathroom, the remodel shall also comply with the practices in Section 12.3.	
Reason:	There is a typographical error in this section that is corrected in the proposed resolution below.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

Chapter 13: Referenced Documents

PC189 LogID 6115	1302 Referenced Documents	<i>Final Formal Action: TBD</i>
Submitter:	aaron gary	
Public Comment:	ENERGY STAR Certified Homes, Version 3(Rev. 0708) HERS Index Target Procedure for National Program Requirements	
Reason:	Update ENERGY STAR for Homes to current version, Version 3 (revision 8).	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC190 LogID 6116	1302 Referenced Documents	<i>Final Formal Action: TBD</i>
Submitter:	aaron gary	
Public Comment:	Insert reference for: <u>ENERGY STAR Multifamily Highrise, Version 1 (Rev 03).</u> - January 2015 - 701.1.3	
Reason:	The Standard awards credit for ENERGY STAR Multifamily High-rise certification in Section 701.1.4 but the appropriate documents are not referenced in Chapter 13.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC191 LogID 6214	Chapter 13 Referenced Documents	<i>Final Formal Action: TBD</i>
Submitter:	Task Groups	
Public Comment:	All proposed updates to the Referenced Documents for Chapter 13 as shown in Task Group Proposed Referenced Document Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group review of the Referenced Documents for Chapter 13 in accordance with the established process.	
Substantiating Documents:	False	
Task Group Recommendation:		
Modification of Public Comment:		
Task Group Reason:		
Task Group Vote:		

PC192 LogID 6215	Chapter 11 Points	<i>Final Formal Action: TBD</i>
Submitter:	Task Group 7	
Public Comment:	Points in Chapter 11 Remodeling are updated to be consistent with all proposed updates to the point assignments for Chapters 5-10 as shown in Task Group Proposed Point Changes to 2015 NGBS Draft Standard.	
Reason:	Based on Task Group 7 review of the point assignments for Chapter 11 in accordance with the established process.	

Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

Held Comments

Public Comments that proposed changes to a section or part of the Draft Standard that was not changed during the development of the 2015 NGBS shall be reported as Held. These comments are identified with a comment number prefix of "H". In addition, the scope, intent, purpose, and title of the standard are under the purview of the Executive Standards Council. Please refer to the Procedures for information on submitting changes to these sections. At the discretion of the submitter, a Held comment can be retained and be processed as a proposed change during the next revision of the standard. The submitter must inform Home Innovation Research Labs of this request or the comment is considered discharged.

H001	LogID 6033	400.0 Intent (Site Design and Development)	Final Formal Action: Held
Submitter:	David S. Collins, FAIA		
Public Comment:	<u>Sites located within 100-year floor plains shall not be permitted to use this rating system.</u>		
Reason:	What about eliminating eligibility of sites located within 100-year flood plains, ? Add the following text:		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H002	LogID 6161	606.3 Manufacturing energy	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	<u>Materials manufactured using renewable energy for a minimum of 33 percent of the primary manufacturing process energy. Non-electric energy used in manufacturing materials must be derived from (1) renewable sources, or (2) combustible waste sources, or (3) renewable energy credits (RECs) are used for major components of the building. Electricity used in manufacturing materials must be paired with renewable energy certificates (RECs), which must be retired. The building may purchase RECs on behalf of the building material supplier where the supplier has not purchased/used renewable electricity, with RECs, for manufacturing of building materials. Green-e certification (or equivalent) is required [or recommended] for renewable electricity purchases and materials manufactured using renewable electricity.</u>		
Reason:	This requirement refers to renewable energy use in manufacturing of building materials, and therefore may refer to use of both electricity and non-electric energy in manufacturing. Currently, the options 1-3 are not differentiated as applying to either electricity or non-electric energy use. However, since RECs are required to claim use of renewable electricity in all cases, including from on-site renewable generation equipment, we suggest differentiating between electricity used in manufacturing, in which case RECs are required, and non-electric energy used in manufacturing. It is also not clear that in option 3, RECs are being purchased by the building to be applied to the building materials, i.e. its supply chain, and not to the building's own electricity usage, and that RECs/RE may also be purchased or used by the supplier of the building materials. Finally, we recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H003	LogID 6024	701.4.3.4 Fenestration air leakage	Final Formal Action: Held
Submitter:	Roger L. LeBrun		

Public Comment:	Strike the last sentence: 701.4.3. 701.4.3.4 Fenestration air leakage. Windows, skylights and sliding glass doors have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m ²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m ²), when tested in accordance with NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled. This practice does not apply to site-built windows, skylights, and doors.
Reason:	A green code should not leave a gaping hole by exempting "site-built" windows, skylights and doors. Only rated products meeting the mandatory requirements are acceptable, no matter how they are built, otherwise what does mandatory really mean?
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	

H004	LogID 6203	701.4.3.4 Fenestration air leakage	Final Formal Action: Held
Submitter:	Craig Conner & Howard Wiig		
Public Comment:	701.4.3.4 Fenestration air leakage. add: <u>Jalousie windows shall have an air infiltration rate of no more than 1.3 cfm per square foot.</u>		
Reason:	Jalousie windows are tropical windows made to admit breezes. Sealing them tight is expensive and non-sensical.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H005	LogID 6027	703.7.3 Passive cooling design	Final Formal Action: Held
Submitter:	Roger L. LeBrun		
Public Comment:	703.7.3 (3) Windows and/or venting skylights are located to facilitate cross <u>and stack effect</u> ventilation.		
Reason:	The Standard should mention stack effect ventilation. It is more efficient than a whole house fan, particularly in two story dwellings.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			

Task Group Vote:	
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H006	LogID 6029	703.7.4 Passive solar heating design	Final Formal Action: Held
Submitter:	Roger L. LeBrun		
Public Comment:	Additional glazing, no greater than 12 percent, is permitted on the south wall. This additional glazing is in accordance with the requirements of Section 703.7.1. <u>For every square foot of roof glazing on the south-facing roof slope, three square feet of allowed wall glazing is omitted.</u>		
Reason:	Skylights are more efficient solar heaters than windows.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H007	LogID 6165	706.2 Renewable energy service plan	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	(1) Builder selects a renewable energy service plan provided by the local electrical utility for interim (temporary) electric service, <u>or purchases renewable energy certificates (RECs) to cover electricity used.</u> The builder's local administrative office has renewable energy service <u>or has otherwise been paired with RECs.</u> <u>Green-certification (or equivalent) is required [or recommended] for renewable electricity purchases.</u>		
Reason:	(1) Depending on the location of the building site, the local electric utility may not offer a renewable energy service product/option/plan, or may not offer one for interim (temporary) electric service. Therefore, we suggest allowing the builder to procure renewable energy certificates (RECs), which are available everywhere, to meet this requirement. We also recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified. Utility green power programs/products, competitive electricity products, and stand-alone REC products can all be Green-e certified.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H008	LogID 6168	1002.2 Operations manual	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	(4) Information on opportunities to purchase <u>Green-certified (or equivalent)</u> renewable energy from local utilities or national green power providers and information on utility and tax incentives for the installation on on-site renewable energy systems.		
Reason:	(4) We recommend that information be provided specifically about Green-e certified utility and national green power products, to ensure that they are high quality and independently verified. The Green-e website is a good resource for finding local and national green power options.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			

Task Group Vote:	
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H009	LogID 6173	11.1001.1 Homeowner's manual is provided	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	Information on available local <u>Green-ecertified (or equivalent) utility green power programs or renewable electricity products</u> , as well as information on how to find other certified renewable energy products using the <u>Green-e website</u> utility programs that purchase a portion of energy from renewable energy providers.		
Reason:	(6) Many utilities will purchase a portion of energy of renewable energy providers. We recommend clarification of this requirement such that information is related to utility programs/products that deliver renewable electricity to customers. We also recommend strengthening this requirement by requiring that this be information about renewable energy products/options available to the building, either from the local utility (e.g. differentiated renewable electricity/green power products/options) or competitive electricity suppliers (if in a deregulated region), or REC products that are available nationally. The Green-e website can be used to find green power options in your area. We also recommend that information be provided specifically about Green-e certified utility green power programs/products, competitive electricity products, and stand-alone REC products.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H010	LogID 6174	11.1002.2 Operations manual	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	Information on opportunities to purchase <u>Green-ecertified (or equivalent) renewable energy from local utilities or national green power providers</u> and information on utility and tax incentives for the installation on on-site renewable energy systems.		
Reason:	(4) We recommend that information be provided specifically about Green-e certified utility and national green power products, to ensure that they are high quality and independently verified. The Green-e website is a good resource for finding local and national green power options.		
Substantiating Documents:	False		
Task Group Recommendation:			
Modification of Public Comment:			
Task Group Reason:			
Task Group Vote:			

H011	LogID 6169	11.606.3 Manufacturing energy	Final Formal Action: Held
Submitter:	Todd Jones		
Public Comment:	Materials manufactured using <u>renewable energy for</u> a minimum of 33 percent of the primary manufacturing process energy. <u>Non-electric energy used in manufacturing materials must be derived from (1) renewable sources, or (2) combustible waste sources, or (3) renewable energy credits (RECs).</u> <u>Electricity used in manufacturing materials must be paired with renewable energy certificates (RECs), which must be retired. The building may purchase RECs on behalf of the building material supplier where the supplier has not purchased/used renewable electricity, with RECs, for manufacturing of building materials.</u> <u>Green-e certification (or equivalent) is required [or recommended] for renewable electricity purchases and materials manufactured using renewable electricity.</u>		

Reason:	This requirement refers to renewable energy use in manufacturing of building materials, and therefore may refer to use of both electricity and non-electric energy in manufacturing. Currently, the options 1-3 are not differentiated as applying to either electricity or non-electric energy use. However, since RECs are required to claim use of renewable electricity in all cases, including from on-site renewable generation equipment, we suggest differentiating between electricity used in manufacturing, in which case RECs are required, and non-electric energy used in manufacturing. It is also not clear that in option 3, RECs are being purchased by the building to be applied to the building materials, i.e. its supply chain, and not to the building's own electricity usage, and that RECs/RE may also be purchased or used by the supplier of the building materials. Finally, we recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified.
Substantiating Documents:	False
Task Group Recommendation:	
Modification of Public Comment:	
Task Group Reason:	
Task Group Vote:	