

# Proposed Changes

May 19, 2014

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## TG-7: Renovations and Additions

### Chapter 3: 305 Green Remodeling

Proposal ID TBD	LogID 5156	305.3.1 Applicability (Whole-building rating criteria)
<b>Submitter:</b>	Brett VanAkkeren, USEPA	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	The Provisions of Section 305.3 shall apply to remodeling of existing buildings. In addition to the foundation, at least one major structural system ( <del>such as walls</del> ) of the existing building shall remain in place after the remodel for the building to be eligible for compliance under Section 305.3. <u>This one major structural system must be applied as part of over 50% of the surface area of the wall, floor, ceiling, or roof assemblies.</u>	
<b>Reason:</b>	A definition of the term "major structural system" is not provided. Considering that there are various structural systems, the extent of what needs to be preserved for section 305.3 to apply, could vary. For example, structural systems might be roof trusses or shear structures limited to cores of multilevel buildings, and neither of those would be that extensive. Other structural systems, such as complete structural floors, would constitute far greater portions of buildings. Therefore, setting target that the system must be applied as part of over 50% of the surface area of the wall, floor, ceiling or roof assemblies helps clarify what needs to be preserved for section 305.3 to be applicable.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 5149	305.3.5 Energy efficiency
<b>Submitter:</b>	Carl Seville, Seville Consulting	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	A third alternate compliance path is to achieve a minimum air leakage improvement in lieu of energy consumption reduction.	
<b>Reason:</b>	The requirement for either before or after HERS ratings or full year of before and after utility data is excessive and I believe it will discourage projects from seeking certification under the standard. A suitable alternate would be to require blower door test at completion and a requirement that the house meet a certain ACH50 or ELR, or a minimum % improvement from a before blower door test. Points could be provided for increased air leakage improvements.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD		LogID 5262	305.3.5 Energy efficiency
<b>Submitter:</b>	Neil Leslie, Gas Technology Institute		
<b>Requested Action:</b>	Revise as follows		
<b>Proposed Change:</b>	305.3.5.1 Energy Consumption Reduction. The reduction in energy consumption resultin from the remodeling shall be based on the estimated energy cost savings or <u>source energy savings</u> as determined by a third-party energy audit and analysis or utility consumption data. <u>The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.</u> The reduction shall be the percentage difference between the consumption per square foot before and after the remodel calculated as follows:		
<b>Reason:</b>	Aligns provision with IECC Section R405.3.		
<b>TG Recommendation (AS or AM or D):</b>			
<b>Modification of Proposed Change:</b>			
<b>TG Reason:</b>			
<b>TG Vote:</b>			

Chapter 11: Remodeling

Proposal ID TBD	LogID 5182	11.1001.1 Building owner's manual is provided
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	<b>(5)</b> Information on local recycling <u>and composting</u> programs.	
Reason:	11.1001.1 states that information be included in the owner's manual as available and applicable. Information on composting programs should be referenced in part (5).	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5103	11.1001.1 Building owner's manual is provided
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	<i><u>(23) Documentation and OEM manuals as required in QI-5 2010</u></i>	
Reason:	QI-5 2010 designates documentation and owner training based on the type of equipment installed. Relisting every combination in this standard would be duplicative. By adding the QI-5 requirement all HVAC system types would be covered.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5104	11.1002.1 Training of building owners (1- and 2-family dwellings)
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	<i><u>(10) Owner training requirements as required in QI-5 2010</u></i>	
Reason:	QI-5 2010 designates information that is needed by owners with regards to maintenance. Relisting every combination in this standard would be duplicative. By adding the QI-5 requirement all HVAC system types would be covered.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5183	11.1002.1 Training of building owners (1- and 2-family dwellings)
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	(7) recycling <u>and composting</u> practices	
Reason:	Training on composting practices should be included in the training dealing with recycling and waste management.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5184	11.1003.1 Building construction manual
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Add new as follows	
Proposed Change:	(9) <u>A Disassembly Plan with as-built drawings and the chemical and mechanical inventory yielding information about the method of disassembly of building systems and the properties of major materials and components.</u>	
Reason:	A disassembly plan should be provided to the owner to facilitate deconstruction and disassembly of the home to maximize reuse and salvaging of materials during renovation or at the end of the building's useful life.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5105	11.1003.3 Maintenance manual
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	<i>(10) OEM Maintenance requirements as required in QI-5 2010</i>	
Reason:	QI-5 2010 designates information that is needed by owners with regards to maintenance. Relisting every combination in this standard would be duplicative. By adding the QI-5 requirement all HVAC system types would be covered.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5267	11.1004.1 Reserved - To Be Determined
Submitter:	Matt Belcher, Verdatek Solutions	
Requested Action:	Add new as follows	
Proposed Change:	<p><b>11.1004 Innovative Practices</b></p> <p><b>11.1004.1 Resilience</b> Dwelling incorporates one or more of the following resilience options, as applicable. Points for items 1 through 4 shall be granted only where such products are not required per the applicable building code.</p> <ol style="list-style-type: none"> <li>1. <u>High-wind resistant or impact resistant entry doors or garage doors are installed</u></li> <li>2. <u>Impact resistant glazing is installed.</u></li> <li>3. <u>High-wind resistant or impact resistant wall claddings are installed.</u></li> <li>4. <u>High-wind resistant or impact resistant roof coverings are installed.</u></li> <li>5. <u>The building is constructed in accordance with an approved above-code mitigation program (e.g. IBHS Fortified, Resilience Star or My Safe Florida Home).</u></li> </ol> <p><u>Lot incorporates one or more of the following resilience options, as applicable.</u></p> <ol style="list-style-type: none"> <li>6. <u>The entire building is constructed using flood damage-resistant materials.</u></li> <li>7. <u>The building is constructed with its lowest floor at least one foot above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u></li> <li>8. <u>The building is constructed with its lowest floor at least two feet above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u></li> <li>9. <u>The building is constructed with its lowest floor at least three feet above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u></li> <li>10. <u>The building is located in Zone A and constructed on an open foundation system (pile foundations or isolated piers).</u></li> <li>11. <u>The building is constructed in accordance with an approved above-code flood mitigation program (e.g. IBHS Fortified, etc.).</u></li> </ol>	
Reason:	With the focus on future enhancement of the model codes to provide for enhanced "Resilient" construction, It is an opportunity to include reference in this "above code" standard to incentivise innovative practices and process that will demonstrate best practices for eventual application into the model codes.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5176	11.601.2 Material usage
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	(1) Minimum structural member or element sizes necessary for strength and stiffness in accordance with advanced framing techniques <u>that are in conformance with local building codes</u> or structural design standards are selected.	
Reason:	Even though advanced framing techniques have been proven effective, in some instances because of local conditions, such as wind or seismic potential, some of the techniques are not allowed by local codes. It would be vigilant to mention possible code restrictions and recommend consulting building codes for the selection of suitable advanced framing technique options.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD		LogID 5178	11.602.1.9 Flashing
<b>Submitter:</b>	Brett VanAkkeren, USEPA		
<b>Requested Action:</b>	Revise as follows		
<b>Proposed Change:</b>	Make part (6), "Through-wall flashing is installed at transitions between wall cladding materials or wall construction types," mandatory.		
<b>Reason:</b>	Transitions between materials are typically continuous and present a great opportunity to insert flashing to allow for water to drain out of the walls and prevent water damage. Providing through wall flashing at transitions between wall cladding materials is just good practice and should be mandatory.		
<b>TG Recommendation (AS or AM or D):</b>			
<b>Modification of Proposed Change:</b>			
<b>TG Reason:</b>			
<b>TG Vote:</b>			

Proposal ID TBD		LogID 5179	11.605.2 Construction waste management plan
<b>Submitter:</b>	Brett VanAkkeren, USEPA		
<b>Requested Action:</b>	Revise as follows		
<b>Proposed Change:</b>	A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of construction waste, <u>excluding land-clearing waste</u> .		
<b>Reason:</b>	Land-clearing waste should be excluded from the 50 percent calculation. Soil, vegetation, and rocks are heavy, bulky materials. When included in the total weight used to calculate the recycling rate, it can reduce the amount of higher-value materials, such as wood, concrete, and drywall, that is ultimately recycled.		
<b>TG Recommendation (AS or AM or D):</b>			
<b>Modification of Proposed Change:</b>			
<b>TG Reason:</b>			
<b>TG Vote:</b>			



Proposal ID TBD	LogID 5205	11.605.2 Construction waste management plan
<b>Submitter:</b>	Wes Sullens, StopWaste of Alameda County	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of construction waste. <u>Land clearing debris and materials that are processed for recycling but are used as alternative daily cover at landfills shall be excluded from the 50 percent requirement.</u>	
<b>Reason:</b>	Materials that result from land clearing activity are often heavy and can skew results for other types of higher-value recycling and salvaging. Additionally, these materials are typically not landfilled because they are expensive to tip and robust markets are available to accept and recycled those land clearing materials. "Alternative Daily Cover" (ADC) is cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging. The ADC materials that result from building are byproducts of construction and demolition waste processing facilities, yet they are not actually recycled (they do not re-enter the materials cycle) and are essentially deposited in landfills and stay there forever. Therefore, ADC should not be considered recycling in green building standards. ASHRAE 189.1, GreenPoint Rated, and LEEDv4 have all disallowed ADC to count as recycling, and so should this standard. Achieving 50% recycling by not including ADC and land clearing debris is widely available with jobsite best practices (source separation of materials on-site and sending those materials to specific recycling facilities), and by sending the remaining mixed-waste loads to facilities that sort offsite.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 5180	11.605.4 Recycled construction materials
<b>Submitter:</b>	Brett VanAkkeren, USEPA	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	Construction materials (e.g., wood, cardboard, metals, drywall, plastic, asphalt roofing shingles, or concrete) <u>that cannot be salvaged and reused onsite</u> are recycled offsite.	
<b>Reason:</b>	Onsite salvage and reuse is preferred to offsite recycling because of reduced hauling and transportation impacts; it should be emphasized that reuse is a higher priority.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 5181	11.610.1.2.1 Product LCA
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	Add two new impact categories: <u>(e) Material Use</u> and <u>(f) Waste</u>	
Reason:	Industry-wide efforts to promote the management of materials and products on a life-cycle basis are current. These life-cycle efforts ensure that materials are used more efficiently and effectively. To that end, the analyses need to provide us with adequate measures that capture material use and recovery. Using less material and recovering more is crucial to our economic and environmental future. Material use and waste are two additional impact categories that should be included.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5074	11.611.2 Sustainable products
Submitter:	Josh Jacobs, UL	
Requested Action:	Revise as follows	
Proposed Change:	(5) 50% or more of the gypsum board installed (by square feet) is certified to <u>UL 100</u> <del>ULE ISR 100</del> . (6) 50% or more of the door leafs installed (by number of door leafs) is certified to <u>UL 102</u> <del>ULE ISR 102</del> .	
Reason:	This is an update to existing references. UL 100 and 102 were finalized and published shortly after final voting for the NAHB National Green Building Standard was completed.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5106	11.701.4.1.1 HVAC system sizing (Mandatory practices)
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	<b><u>701.4.1.X HVAC systems installation, and documentation. Space heating and cooling systems are to be installed documented in accordance with ACCA QI 5-2010</u></b>	
Reason:	Add a new Mandatory Requirement: Other places in the document the same requirements are either awarded points or are mandatory.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5107	11.701.4.1.1 HVAC system sizing (Mandatory practices)
Submitter:	Donald Prather, ACCA	
Requested Action:	Revise as follows	
Proposed Change:	Add wording: 11.701.4.1.X <b>Radiant and hydronic space heating</b> . Where installed as a primary heat source in the building, radiant or hydronic space heating system is designed, <i>installed, and documented</i> , using industry-approved guidelines and standards (e.g., ACCA Manual j, AHRI I=B=R, ACCA 5 QI-2010, or an accredited design professional's and manufacturer's recommendation.	
Reason:	This section does not have hydronic systems listed. Other places in the document the same requirements are either awarded points or are mandatory.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5099	11.701.4.1.1 HVAC system sizing (Mandatory practices)
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	<i><b>11.701.4.1.X HVAC systems installation, and documentation. Space heating and cooling systems are to be installed and documented in accordance with ACCA QI 5-2010</b></i>	
Reason:	Add a new Mandatory Requirement: Other places in the document the same requirements are either awarded points or are mandatory. ACCA recommends making them mandatory and awarding points for verification.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5225	11.701.4.1.1 HVAC system sizing (Mandatory practices)
Submitter:	Eric Lacey, RECA	
Requested Action:	Add new as follows	
Proposed Change:	<p><b>11.701.4.0 Minimum Energy Efficiency Requirements.</b> Additions, alterations, renovations, or repairs to an existing building, building system or portion thereof comply with the provisions of the International Energy Conservation Code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. An addition complies with the IECC if the addition complies or if the existing building and addition comply with the IECC as a single building.</p>	<b>Mandatory</b>
Reason:	<p>This proposal clarifies that additions, alterations, renovations, or repairs must meet the same requirements of the IECC that apply to new buildings, to the extent that the requirements are applicable. The language is based on Section R101.4.3 of the IECC so that there is consistency between the scope of the IECC and the scope of ICC-700 with respect to additions, alterations, renovations and repairs. Sections 11.701 and 12.701 both contain many of the IECC requirements as “mandatory” requirements for all projects, and seem to imply that these projects should meet the IECC, but there is no specific requirement that outlines the scope of the requirements. As with the IECC, portions of the building that are not altered by a renovation, addition, alteration, or repair will not be required to meet the IECC.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5227	11.701.4.1.1 HVAC system sizing (Mandatory practices)
Submitter:	Eric Lacey, RECA	
Requested Action:	Add new as follows	
Proposed Change:	<p><b>11.701.4.X Fenestration Specifications.</b> The NFRC-certified (or equivalent) U-factor and SHGC of newly installed windows, exterior doors, skylights, and tubular daylighting devices (TDDs) do not exceed the values in Table 703.1.6.1.</p>	<b>Mandatory</b>
	<p><b>11.701.4.X Replacement Fenestration.</b> Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the NFRC-certified (or equivalent) U-factor and SHGC of the replacement fenestration unit do not exceed the values in Table 703.1.6.1.</p>	<b>Mandatory</b>
Reason:	<p>This proposal improves the consistency of Chapter 11 by requiring fenestration to meet the same level of efficiency, whether it is installed as part of new construction, a renovation or repair, or a simple fenestration replacement. These new sections simply reference the baseline fenestration requirements that currently apply to the prescriptive compliance option. The language is modeled after existing language in ICC-700 and the IECC. In fact, the replacement fenestration requirement has been in the residential chapter of every edition of the IECC since 2000. Neither of these sections requires a code user to replace a window in a given project. However, if an addition, window replacement or a renovation is planned that will involve replacing an entire fenestration unit, these sections would simply require that window, door, or skylight to meet the prescriptive requirements specified in Chapter 7.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD      LogID 5270      11.901.1.4 Gas fireplaces and direct heating equipment vented outdoors	
<b>Submitter:</b>	Ted A. Williams, American Gas Association
<b>Requested Action:</b>	Revise as follows
<b>Proposed Change:</b>	<p><b>11.901.1.4</b> Newly installed gas fired fireplaces and direct heating equipment is listed and is installed in accordance with the NFPA 54, ICC IFGC, or the applicable local gas appliance installation code. <del>Gas-fired fireplaces and direct heating equipment are vented to the outdoors.</del></p> <p>[a duplicative proposed change on <b>901.1.4</b> is submitted.]</p>
<b>Reason:</b>	<p>Banning unvented or "vent-free" fireplaces and direct heating equipment, the net effect of this "mandatory" requirement, has never been justified in terms of environmental criteria consistent with a "green" standard. During deliberations on the 2012 Edition, air pollutant emissions associated with use of such products were not documented or referenced in terms of concentrations or specific effects on the indoor environment or human health. Likewise, the ban does not address positive environmental benefits associated with virtual 100% thermal efficiency of heating in the installed space and reduced need for central heating from spot heating afforded by unvented combustion heating appliances, in terms of environmental criteria consistent with a "green" standard. Air pollutant emissions associated with use of such products have not been documented or referenced in terms of concentrations or specific effects on the indoor environment or human health. Likewise, the ban does not address positive environmental benefits associated with virtual 100% thermal efficiency of heating in the installed space and reduced need for central heating from spot heating afforded by unvented combustion heating appliances, both of which reduce overall energy demand and externalities (including total air emissions) associated with less efficient heating approaches. These positive effects should be evaluated on balance with hypothesized negative effects associated with altered indoor air concentrations of the identified contaminants. No effort is made or documented to assess this balance. While points are proposed for use of these products, their banning from green building represents unbalanced and non-technical consideration of the net effects of their installation and use. The ban appears to appeal to simplistic views of environmental acceptability based on an "additive" impact on indoor air quality from operation of unvented combustion appliances. It ignores important design and product standardization considerations. For example, appliance sizing and, most directly, heat gain beyond tolerable limits in tight buildings impose a fundamental limit on the generation of combustion products. The tighter the installation location, the lower the firing rate and duration the appliance can be operated while avoiding intolerable temperatures. This principle has been applied to gas-fired residential cooking appliances since 1921 (ANSI Standard Z21.1), which associated combustion product loadings with the tightness of kitchens, emission factors from the appliances, and heat rise tolerances for occupants. A technical review in 1994, reviewed by U. S Consumer Product Safety Commission and considering modern air change rates, combustion product exposure criteria, and ASHRAE thermal comfort requirements confirmed the continued efficacy of this approach. Unvented fireplaces are design certified in the same manner. If unvented combustion appliances represent a public health or safety hazard, they should be prohibited from all occupancies (not just "green" buildings) because to do less would imply a toleration of unequal treatment of occupants with respect to health and safety. Standards development for "green" buildings would be better conducted on technically justified grounds and not focus on banning products based on heuristic arguments. It should be noted that proposed Addendum be to ASHRAE Standard 189.1, "Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings" would have imposed a similar ban of unvented fireplaces, but the Addendum has been returned to the 189.1 Standard Project Committee following public review and receipt of negative comments.</p>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 5101	11.902.2.1 Whole building ventilation system
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	(3) Heat-recovery ventilator <i>(HRV)</i> (4) Energy- recovery ventilator <i>(ERV)</i>  <i>(5) HRV or ERV is used as exhaust fan for one or more bathrooms or for a kitchen application</i>	
Reason:	This should be provided as a 9 or 10 point option because it saves up to 45% on the energy losses caused by simple negative air pressure exhaust only outside air /make up air designs.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5102	11.904.2 Kitchen exhaust
Submitter:	Donald Prather, ACCA	
Requested Action:	Add new as follows	
Proposed Change:	11.904.2 <b>Kitchen Exhaust.</b> A kitchen exhaust unit(s) that equals or exceeds 400cfm (189 l/s) is installed and makeup air is provided  <i>(1) ERV or HRV is installed to temper the outside air being brought in.</i>	
Reason:	Recommend making the makeup air requirement mandatory and awarding the 2 points for making it economical.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5155	Other for Chapter 11 (include section number and title below)
<b>Submitter:</b>	Stephen J Holzer, eM8s, LLC	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>11.505.6 Building Information Modeling (BIM).</b> Project Team uses BIM planning, design, remodeling and simulating operation in order to reduce material waste and optimize performance.	
<b>Reason:</b>	Building Information Modeling (BIM) is a computer generated model based process that simulates planning, design, construction and operations for buildings. It is a single repository for both three-dimensional, two-dimensional, and material properties information that allows data interoperability of all stakeholders to better inform design and construction decisions with the goal of producing the best product possible. This information technology will increase design and construction efficiencies and decrease costs for builders and end users. BIM may also facilitate better communication, collaboration and coordination among building industry professionals and trades working on the same project. Credit should be given to Builders utilizing the open industry standards as defined in the National Building Information Modeling Standard.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 5177	Other for Chapter 11 (include section number and title below)
<b>Submitter:</b>	Brett VanAkkeren, USEPA	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>11.601.9 Design for Disassembly.</b> Incorporate in the design interior elements, such as non-load-bearing walls, partitions, lighting and electric systems, suspended ceilings, raised floors and interior air distribution systems that can be disassembled, re-configured, and reused. Utilize connections that allow disassembly, such as reversible connections (e.g. screws, bolts, nails, clips).	
<b>Reason:</b>	The intent of 11.601 is to utilize design and construction practices that minimize the environmental impact of the building materials and to incorporate environmentally efficient building systems and materials. Employing design elements that can be disassembled, re-configured and reused, and utilizing connections that are reversible are important green building practices to ensuring buildings systems are environmentally efficient.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

## Chapter 12: Remodeling of Functional Areas

Proposal ID TBD	LogID 5148	12.0 Intent (Remodeling of Functional Areas)
Submitter:	Robert Hill, Home Innovation Research Labs	
Requested Action:	Revise as follows	
Proposed Change:	<b>12.0Intent.</b> This chapter sets forth the mandatory green building practices for remodeling functional areas of buildings. The intent of Chapter 12 is to address the most common remodeling projects: complete kitchen, full bathroom, complete basement, or an addition <del>under 400 square feet</del> less than 50% of the original conditioned floor area. <u>An attic conversion may be considered an addition.</u> Chapter12 is not intended to be used for rating minor alterations.	
Reason:	The limitation of under 400 ft <sup>2</sup> is too limiting. The limit should be established such that major additions force the building to use chapter 11 but only adding a 20' x 30' room would not likely be certifiable via chapter 11 but is outside the existing scope. Also, converting an unfinished attic is a very green thing to do but it is not obviously within the scope of the current practice.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5185	12.1(A) Product or material selection
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Add new as follows	
Proposed Change:	<b>12.1 (A).605.1 Construction waste management plan.</b> <u>A construction waste management plan that includes targets for diversion is developed, posted at the jobsite, and implemented.</u>	
Reason:	Although renovation of functional areas may result in less waste generated, it is still prudent to develop a construction waste management plan that contains target rates for diversion of the waste from landfill.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5075	12.1(A).611.2 Sustainable products
Submitter:	Josh Jacobs, UL	
Requested Action:	Revise as follows	
Proposed Change:	(5) 50% or more of the gypsum board installed (by square feet) is certified to <u>UL 100</u> <del>ULE-ISR-100</del> . (6) 50% or more of the door leafs installed (by number of door leafs) is certified to <u>UL 102</u> <del>ULE-ISR-102</del> .	
Reason:	This is an update to existing references. UL 100 and 102 were finalized and published shortly after final voting for the NAHB National Green Building Standard was completed.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		



Proposal ID TBD	LogID 5228	12.1.701.4.1.1 HVAC system sizing
Submitter:	Eric Lacey, RECA	
Requested Action:	Add new as follows	
Proposed Change:	<p><b>12.1.701.4.X Fenestration Specifications.</b> <u>The NFRC-certified (or equivalent) U-factor and SHGC of newly installed windows, exterior doors, skylights, and tubular daylighting devices (TDDs) do not exceed the values in Table 703.1.6.1.</u></p> <p><b>12.1.701.4.X Replacement Fenestration.</b> <u>Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the NFRC-certified (or equivalent) U-factor and SHGC of the replacement fenestration unit do not exceed the values in Table 703.1.6.1.</u></p>	
Reason:	<p>This proposal improves the consistency of Chapter 12 by requiring fenestration to meet the same level of efficiency, whether it is installed as part of new construction, a renovation or repair, or a simple fenestration replacement. These new sections simply reference the baseline fenestration requirements that currently apply to the prescriptive compliance option. The language is modeled after existing language in ICC-700 and the IECC. In fact, the replacement fenestration requirement has been in the residential chapter of every edition of the IECC since 2000. Neither of these sections requires a code user to replace a window in a given project. However, if an addition, window replacement or a renovation is planned that will involve replacing an entire fenestration unit, these sections would simply require that window, door, or skylight to meet the prescriptive requirements specified in Chapter 7.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5226	12.1.701.4.1.1 HVAC system sizing
Submitter:	Eric Lacey, RECA	
Requested Action:	Add new as follows	
Proposed Change:	<p><b>12.701.4.0 Minimum Energy Efficiency Requirements.</b> <u>Additions, alterations, renovations, or repairs to an existing building, building system or portion thereof comply with the provisions of the International Energy Conservation Code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. An addition complies with the IECC if the addition complies or if the existing building and addition comply with the IECC as a single building.</u></p>	
Reason:	<p>This proposal clarifies that additions, alterations, renovations, or repairs must meet the same requirements of the IECC that apply to new buildings, to the extent that the requirements are applicable. The language is based on Section R101.4.3 of the IECC so that there is consistency between the scope of the IECC and the scope of ICC-700 with respect to additions, alterations, renovations and repairs. Sections 11.701 and 12.701 both contain many of the IECC requirements as “mandatory” requirements for all projects, and seem to imply that these projects should meet the IECC, but there is no specific requirement that outlines the scope of the requirements. As with the IECC, portions of the building that are not altered by a renovation, addition, alteration, or repair will not be required to meet the IECC.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5108	12.1.701.4.5 Boiler supply piping
Submitter:	Donald Prather, ACCA	
Requested Action:	Revise as follows	
Proposed Change:	12.1.701.4.5 <b>Boiler supply piping.</b> <i>Insulate all</i> Newly installed boiler supply piping in unconditioned space <del>that is accessible during the remodel is insulated</del>	
Reason:	New pipe will be accessible.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5186	12.2.607.1 Recycling
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	<b>12.2.607.1 Recycling and Composting.</b> <del>Recycling and composting is</del> <u>are</u> facilitated by one or more of the following methods:	
Reason:	Composting is not considered the same thing as recycling. Since the intent of the section is to facilitate composting as well as recycling, composting should be referenced by name in Section 12.2.607.1.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5187	12.3.801.5.1 Faucets
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	Newly installed lavatory faucets <u>are WaterSense labeled</u> and have a maximum...	
Reason:	We recommend referencing WaterSense labeled lavatory faucets.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5188	12.3.801.6 Water closets
Submitter:	Brett VanAkkeren, USEPA	
Requested Action:	Revise as follows	
Proposed Change:	All newly installed water closets have an effective flush volume of 1.28 gallons (4.85 L) or less when tested in accordance with ASME A112.19.2/CSA B45.1 or ASME A112.18.14 as applicable, and is <del>in accordance with EPA WaterSense labeled Tank-Type Toilets.</del>	
Reason:	Simplify language to ensure that products are certified as meeting the WaterSense specification. As currently drafted, it could suggest that a product that met the specification but had not been certified as doing so could earn the points.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 5268	Other for Chapter 12 (include section number and title below)
Submitter:	Matt Belcher, Verditek Solutions	
Requested Action:	Add new as follows	
Proposed Change:	<p><b><u>12.6 Innovative Practices</u></b></p> <p><b><u>12.6.1 Resilience</u></b> Functional areas incorporate one or more of the following resilience options, as applicable. Points for items 1 through 4 shall be granted only where such products are not required per the applicable building code.</p> <ul style="list-style-type: none"> <li>- <u>1. High-wind resistant or impact resistant entry doors or garage doors are installed.</u> <ul style="list-style-type: none"> <li><u>1. Impact resistant glazing is installed.</u></li> <li><u>2. High-wind resistant or impact resistant wall claddings are installed.</u></li> <li><u>3. High-wind resistant or impact resistant roof coverings are installed.</u></li> <li><u>4. The addition is constructed in accordance with an approved above-code mitigation program (e.g. IBHS Fortified, Resilience Star or My Safe Florida Home).</u></li> </ul> </li> <li>- <u>Addition incorporates one or more of the following resilience options, as applicable:.</u> <ul style="list-style-type: none"> <li><u>5. The addition building is constructed using flood damage-resistant materials.</u></li> <li><u>6. The addition is constructed with its lowest floor at least one foot above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u></li> <li><u>7. The addition is located in Zone A and constructed on an open foundation system (pile foundations or isolated piers).</u></li> </ul> </li> </ul>	
Reason:	An important component of sustainable building is mitigation of natural hazards. Integrating resilience into new construction or during remodeling of existing housing stock provides an extra layer of protection. However, building-in disaster resilience can be difficult and costly. Deciding how (and when) to improve a structure requires much thought, time and capital. With the focus on future enhancement of the model codes to provide for enhanced "Resilient" construction, It is an opportunity to include reference in this "above code" standard to incentivise innvotaive practices and process that will demonstrate best practices for eventual application into the model codes.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

