

# Public Comments on 2024 National Green Building Standard Draft 3 with Task Group 1 Recommendations

December 6, 2024

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## Chapter 3: Compliance Method

<b>PC301</b>	<b>ID 8673</b>	<b>305.2 Whole-building rating criteria</b>	<b>Final Formal Action:</b>																	
<b>Submitter:</b>	Cindy Wasser																			
<b>Organization:</b>	Home Innovation Research Labs (NGBS Green)																			
<b>Comment:</b>	<p><i>Within Table 305.2.6:</i></p> <table border="1"> <thead> <tr> <th></th> <th>BRONZE</th> <th>SILVER</th> <th>GOLD</th> <th>EMERALD</th> </tr> </thead> <tbody> <tr> <td>Performance Path - Water Rating Index</td> <td><u>100-91</u></td> <td><u>61-70</u></td> <td><u>90-81</u></td> <td><u>51-60</u></td> </tr> <tr> <td></td> <td><u>50</u></td> <td><u>70 and below</u></td> <td><u>40 and below</u></td> <td><u>40 and below</u></td> </tr> </tbody> </table> <p><i>Within 11.804.2:</i></p> <p>11.804.2 Water efficiency rating levels. <del>In lieu of threshold levels for Chapter 11 in Table 303,</del> Rating levels for § 11.804.1 are in accordance with Table <del>305.2.6</del> <u>11.804.2</u>.</p> <p><del>Table 11.804.2-</del></p> <p><del>Maximum WRI Scores for NGBS Certification in Chapter 8</del> BRONZE SILVER GOLD EMERALD <del>70-100</del>  <del>60-90 50-80 40-70</del></p>						BRONZE	SILVER	GOLD	EMERALD	Performance Path - Water Rating Index	<u>100-91</u>	<u>61-70</u>	<u>90-81</u>	<u>51-60</u>		<u>50</u>	<u>70 and below</u>	<u>40 and below</u>	<u>40 and below</u>
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	<u>50</u>	<u>70 and below</u>	<u>40 and below</u>	<u>40 and below</u>																
<b>Reason:</b>	<p>Table 305.2.6 and Table 11.804.2 should show the same threshold values for water efficiency compliance. Unfortunately, during the last round of revisions, the Consensus Committee edited the threshold values within 11.804.2 but did not address 305.2.6. To eliminate the opportunity for misalignment in the future, I suggest including this information only in one location. Delete the table from 11.804.2 and update the values within 305.2.6. I suggest also deleting the language "in lieu of threshold levels for Chapter 11 in Table 303," since the reference is not applicable for Existing Buildings. Section 303 addresses new construction; Section 305 is the appropriate reference for Existing Buildings. No need to say "in lieu of" since Performance Path thresholds ARE included within Chapter 3.</p>																			
<b>TG Recommendation:</b>	Accept (6-0-1)																			
<b>TG Reason:</b>																				

## Chapter 7: Energy Efficiency

PC302	ID 8678	702 PERFORMANCE PATH	Final Formal Action:						
<b>Submitter:</b>	Pranav Phatak								
<b>Organization:</b>	Home Innovation Research Labs (NGBS Green)								
<b>Comment:</b>	<p>Table 702.2.2.1: NGBS Reference Home Values (Single-Family &amp; Low-Rise Multifamily and Mixed-Use Modeling)</p> <table border="1"> <tr> <td><b>Lighting</b></td> <td>Default lighting and appliance values from ANSI/RESNET 301 <u>IECC R404.1</u></td> </tr> <tr> <td><b>Appliances</b></td> <td>Default lighting and appliance values from ANSI/RESNET 301 <u>10 CFR 430.32</u></td> </tr> <tr> <td><b>Additional Energy Efficiency</b></td> <td><u>IECC R401.2.5</u></td> </tr> </table> <p>10 CFR 430.32 effective date: January 1<sup>st</sup>, 2024.</p>			<b>Lighting</b>	Default lighting and appliance values from ANSI/RESNET 301 <u>IECC R404.1</u>	<b>Appliances</b>	Default lighting and appliance values from ANSI/RESNET 301 <u>10 CFR 430.32</u>	<b>Additional Energy Efficiency</b>	<u>IECC R401.2.5</u>
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<b>Appliances</b>	Default lighting and appliance values from ANSI/RESNET 301 <u>10 CFR 430.32</u>								
<b>Additional Energy Efficiency</b>	<u>IECC R401.2.5</u>								
<b>Reason:</b>	<p>I recommend updating Table 702.2.2.1 NGBS Reference Home Values as shown to align the NGBS reference home with IECC requirements for lighting and additional energy efficiency and with current federal minimum efficiencies for appliances. The current NGBS reference home includes significantly lower lighting and appliances efficiency limits and does not account for the IECC requirement for additional energy efficiency. This would falsely inflate the percentage energy savings and points for performance path. If these important changes are not made, the NGBS reference home will not be equivalent with the code baseline, and the 702 Performance Path analysis will be artificially high.</p>								
<b>TG Recommendation:</b>	Accept (6-0-1)								
<b>TG Reason:</b>									

PC303	ID 8675	703.2 Building envelope	Final Formal Action:
<b>Submitter:</b>	Amy Schmidt		
<b>Organization:</b>	Self		
<b>Comment:</b>	<p><i>Unstrike stricken table 703.2.1(a)</i></p> <p><i>Strike underlined table 703.2.1(a)</i></p> <p><i>All other language and table 703.2.1(b) remain unchanged.</i></p> <p><i>See attached document.</i></p>		
<b>Reason:</b>	<p>My comments are submitted on behalf of DuPont. The draft language creates unequal options and is deleting the table with the correct equivalent values. Mandatory compliance options in 703.1 are based on the 2021 IECC. The table 703.2.1(a) that is struck in this draft correctly shows the 2021 IECC U-factors for which points are awarded for going above and beyond the base requirements in 703.1. The draft adds a table that is mostly R-value based. This alone makes it incompatible with this section as it is U-factor based. Additionally, the added table is not appropriate since it has values that are less efficient than the base requirements in 703.1. It would make no sense to award points</p>		

	based on an envelope that is less efficient. The original (struck) table should be reinstated and then added (underlined) table should be deleted. No comment on or changes to table 703.2.1(b).
<b>Substantiating Documents:</b>	Yes
<b>TG Recommendation:</b>	Accept as Modified (6-0-1) <i>Make all changes in each location where table is referenced.</i> <i>In addition to the change above undo update of C402.1.4 to R402.1.2.</i>  <b>703.2.1 UA improvement.</b> The total building thermal envelope UA is less than or equal to the baseline total UA resulting from the U-factors provided in <b>Table 703.2.1(a)</b> or IECC Tables <del>C402.1.4</del> <del>R402.1.2</del> and C402.4, as applicable. Where insulation is used to achieve the UA improvement, the insulation installation is in accordance with Grade 1 complying with <b>§ 701.4.3.2.1</b> as verified by a third-party. Total UA is documented using a REScheck, COMcheck, or equivalent report to verify the baseline and the UA improvement.
<b>TG Reason:</b>	Correcting improper implementation of previous public comments and errors in the standard.

PC304 ID 8677	703.2 Building envelope	Final Formal Action:
<b>Submitter:</b>	Indya Rogers	
<b>Organization:</b>	ACC Plastics Division	
<b>Comment:</b>	For UA calculations this should be using the U-factor table from the IECC, not the R-value table. Second, since this is referencing the 2021 IECC in the reference section of the standard, the applicable table for UA calculations from the 2021 IECC is attached.  The IECC reference used in the sections 703.1.11 and 703.1.1.2 do not include the year of the IECC and indicate that whatever edition of IECC that is that the UA maximum must comply with R402.1.5, or the prescriptive R-values in Table R402.1.3. This as a mandatory requirement would seem to over-ride or conflict with the Table from 2012 IECC included on p.78.	
<b>Reason:</b>	There appears to be a mistake in the Table 703.2.1(a). The mandatory requirement for building thermal envelope per NGBS 703.1.1 is unclear	
<b>Substantiating Documents:</b>	Yes	
<b>TG Recommendation:</b>	Disapprove (6-0-1)	
<b>TG Reason:</b>	In favor of action on PC303, which corrects the same issue.	

## Chapter 9: Indoor Environmental Quality

PC305	ID 8676	905.1 Sound barrier	Final Formal Action:
<b>Submitter:</b>	Steven Hedback		
<b>Organization:</b>	Self		
<b>Comment:</b>	<p>Hi,</p> <p>In reference to Chapter 9 Indoor Environmental Quality Section 905.1 Sound Barrier as well as the corresponding section 11.905.1 within the Chapter 11 Remodeling section within the 2022 Draft 3, we have the following comments.</p> <p>Currently the section calls to meet an STC 52 or higher rating between bedrooms and adjacent living spaces within the same dwelling unit or home. These levels are around the typical criteria for acoustical separation between residential units within multifamily construction which is a much more acoustically sensitive than within the same residential unit.</p> <p>Typical interior walls in single family construction perform at around an STC 30 (or 35 with insulation in the cavities), and interior doors are hollow core wood or fiberglass doors with significant undercuts and no seals which would further reduce the performance of the separation between units.</p> <p>Improving the performance of the interior walls within a dwelling unit would require switching to a staggered or double stud assembly (or an assembly with resilient channels) and replacing the door with an STC 52-55 rated door. This would add significant costs to single family projects.</p> <p>We recommend utilizing ICC G2-2010 (linked below) which provides criteria for noise transfer between multifamily units and is well written and researched.</p> <p><a href="https://codes.iccsafe.org/content/iccg22010/iccg2-2010-acoustics">https://codes.iccsafe.org/content/iccg22010/iccg2-2010-acoustics</a></p> <p>For interior walls within a dwelling unit, it's not typical but we have seen it. We could come up with something which would likely be inspired by Table 10-4 from HUD's "A guide to Airborne, Impact, and Structure Borne Noise Control in Multifamily Dwellings" which provides acoustical criteria for noise transfer between rooms within the same dwelling. (Table 10-3 is the criteria for between units.)</p> <p>However, for single family homes this would "Provide room-to-room privacy between bedrooms and adjacent living spaces within dwelling units or homes by including full depth insulation within the stud or joist bays, install an additional layer of drywall to the bedroom side of the wall, doors leading to bedrooms should be solid-core wood or hollow metal doors and be gasketed with rubberized seals and door bottoms, and transfer vents should be offset within a stud bay to prevent line of sight." (This would be about an STC 37 rating with a slightly lower performance at the adjacency with the door within the assembly.)</p> <p>We recommend switching from:</p> <p><del>905.1 Sound barrier. Provide room-to-room privacy between bedrooms and adjacent living spaces within dwelling units or homes by achieving an STC greater than 52 in accordance with the criteria below.</del></p>		

	<p><del>STC greater than 55 (NIC greater than 47) – Articulation Index 0 to 0.05</del></p> <p><del>STC 52 to 55 (NIC 44 to 47) – Articulation Index 0.05 to 0.15</del></p> <p>To something like this:</p> <p><u>905.1 Sound barrier for multi-family dwellings. For walls and floor-ceiling assemblies separating one unit from another adjacent unit, these should be designed to meet the criteria set forth in ICC G2-2010.</u></p> <p><u>Grade A Performance - 4 points</u> (Or whatever the maximum would be)</p> <p><u>Grade B Performance - 2 points</u> (Or whatever half the maximum would be)</p> <p>Please let me know if you have any questions or comments.</p> <p>Kind Regards,</p> <p>Steve Hedback</p>
<b>Reason:</b>	Unclear and Prohibitive
<b>TG Recommendation:</b>	Disapprove (5-0-2)
<b>TG Reason:</b>	Section 905.1 was not open for comment based upon changes shown in Draft 3.