

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

Re: Request that Commission Object to North Carolina Building Code Council Proposed Rules to Amend the 2018 North Carolina Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4

Dear Ms. Reeder and Rules Review Commission,

I am concerned about the disregard for proper procedure and open process in the adoption of amendments to the 2018 NC Energy Conservation Code (NCECC, Tables R402.1.2 and R402.1.4) and the NC Residential Code (NCRC, Tables N1102.1.2 and N1102.1.4). This proposal was improperly submitted, modified, noticed, and reported to the Rules Review Commission (RRC). I urge the RRC to object to this change.

The proponent, Mr. Robert Privott, representing the NC Home Builders Association, improperly submitted an incomplete “B item” proposal at the June 2017 Building Code Council (BCC) meeting. It is assumed that this proposal intended to roll back the modest improvements to residential energy efficiency in the 2018 codes, which would be adopted later in the meeting. The original 2018 table values were compromises agreed upon by the Energy Ad Hoc Committee, in which Mr. Privott participated. The proposal appeared to be an end-run around the formal process, which led to staff being instructed to help fix the proposal and the problem we now have.

I agree with Ms. Reeder’s recommendation to object to the X.X.4 tables in accordance with 150B-21.2(c)(1), so no further argument will be made regarding those sections. Understand, however, that most of the arguments against approval of the X.X.2 tables also apply to the X.X.4 tables.

The process began with B-13/C-13 (referred to as C-13, to prevent confusion with a later version) in the appendix of this letter. Note the unclear markup, including a stricken, nonexistent footnote “n” in the wood walls column. **C-13 was the proposal made available to the public for comment.** Among arguments against the changes for technical and economic reasons, objections also were raised over the presentation and incompleteness of the proposal.

The December agenda version of D-13 was the same as C-13. At this point everything appears normal – it’s a technically unjustifiable change (which might violate 150B-19.1(a)(5), (6)) considering the 2018 NCECC fiscal analysis and incomplete proposal, but it was otherwise transparent.

The Energy Standing Committee met the day prior to the full Council December meeting. At the Energy meeting Mr. Privott produced revisions to D-13 (D-13R). This revision added the X.X.4 tables and other changes (ex. R19 not R15 for Wood Frame Walls in Zone 5; footnote content and citations). **The Energy Standing Committee moved and approved modification to D-13.** During discussion prior to the vote they were made aware that this was a violation of process. After the vote the Energy Chairman questioned

staff about procedure and was advised that the RRC likely would object. Staff was asked to smooth it over with the RRC.

At the full BCC meeting the Energy Chair introduced D-13R, which was moved and approved. Like the previous day, the full BCC was made aware of the process violation prior to the vote, and had a similar discussion, instructing staff to explain the change to the RRC.

In the December minutes TWO versions of the proposal were presented as D-13: C-13 with D-13R attached. Neither of these versions match B-13, as presented to the RRC.

To be clear: D-13R was the language adopted by the BCC at the December meeting, but not what was provided to the RRC (as B-13) for approval.

Please follow the timeline and document changes, imagining how frustrating it is for the public. If the RRC allows even just the X.X.2 table changes, what are the climate zone 5 R-value requirements for wood-framed walls? I request that the RRC object to the entirety of B-13 (or D-13, or D-13R... or whatever it is).

Gratefully,



Ben Edwards

Spindale, NC.

Appendix

B-13/C-13 Page 11 September agenda; identical to June minutes, December agenda and half of minutes.
http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Agendas/2017%2009~September%2012,%202017_.pdf

Item C – 13 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2018 Residential Code, Table N1102.1.2 and the 2018 Energy Conservation Code, Table R402.1.2 as follows:

TABLES N1102.1.2 and R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION b, j U-FACTOR	SKYLIGHT b U-FACTOR	GLAZED FENESTRATION SHGC b, e, k	CEILING R-VALUE m	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE l	FLOOR R-VALUE e	BASEMENT c, e WALL R-VALUE	SLAB d R-VALUE & DEPTH	CRAWL SPACE c WALL R-VALUE
3	0.35	0.55 0.65	0.30	38 or 30 e i 30	15 or 13+2.5 ^h 13	5/13 or 5/10 e l 5/10	19	5/13 ^f 10/13 ^f	0	5/13
4	0.35	0.55 0.60	0.30	38 or 30 cont j	15 or 13+2.5 ^h n	5/13 or 5/10 e l 5/10	19	10/45 13	10 ^d	10/45 13
5	0.35	0.55 0.60	NR	38 or 30 cont j	19 ⁿ or 15, 13+5 ^h or 15+3 ^{e, h}	13/17 or 13/2, 5 ^l	30 ^e	10/45 13	10 ^d	10/40 13

For SI: 1 foot = 304.8 mm.

- a. R-values are minimums. U-factors and SHGC are maximums.
- b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall or crawl space wall.
- d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 18 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix O) R-5 shall be added to the required slab edge R-values for heated slabs.
- e. R-19 fiberglass batts compressed and installed in a nominal 2 x 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2 x 4 wall is not deemed to comply.
- f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.2(4) and (2) N1101.7 and Table N1101.2-N1101.7
- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. 15+3 means R-15 cavity insulation plus R-3 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2. 13+2.5 means R-13 cavity insulation plus R-2.5 sheathing.
- i. For Mass Walls, the second R-value applies when more than half the insulation is on the interior of the mass wall.
- j. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.
- k. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.

D-13R Unpublished handout, scanned, truncated. Possibly reproduced as second half of D-13 in December minutes.

Item D-13 suggested proposed language revision:

R402.1.2 Insulation and fenestration criteria.

The *building thermal envelope* shall meet the requirements of Table R402.1.2, based on the climate zone specified in Chapter 3.

**TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^{b, j}	SKYLIGHT U-FACTOR ^b	GLAZED FENESTRATION SHGC ^{b, k}	CEILING R-VALUE ^m	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT WALL R-VALUE ^{c, o}	SLAB R-VALUE & DEPTH ^d	CRAWL SPACE WALL R-VALUE ^c
3	0.35	0.65 0.65	0.30	30 28 ^{ef} 30 ^{cl}	13 45 ^{ef} h 13+2.5	6-13 ^{ef} 5/40 ^{ei} 5/10	19	10 5/13 ^f	0	5/13
4	0.35	0.65 0.60	0.30	38 or 30 ^{cl}	15 or h 13+2.5	6-13 ^{ef} 5/40 ^{ei} 5/10	19	10 /13 45	10 ^e	10/13 45
5	0.35	0.65 0.60	NR	38 or 30 ^{cl}	19 ⁿ or h 13+5 Or h 15+3	13/17 or 13/42.5 ^{cl}	30 ^g	10/13 45	10 ^e	10 /13 49

For SI: 1 foot = 304.8 mm.

- a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.
- b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. "10/45-13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-45 13 cavity insulation at the interior of the basement wall or crawl space wall.
- d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 24 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix 2) R-5 shall be added to the required slab edge R-values for heated slabs
- e. Deleted.
- f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.
- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- i. The second R-value applies when more than half the insulation is on the interior of the mass wall.
- j. In addition to the exemption in Section R402.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

- k. In addition to the exemption in Section R402.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.
- l. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.
- m. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.
- n. R-19 fiberglass batts compressed and installed in a nominal 2 x 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2x4 wall is not deemed to comply.
- o. Basement wall meeting the minimum mass wall specific heat content requirement may use the mass wall R-value as the minimum requirement.

**TABLE R402.1.4
EQUIVALENT U-FACTORS^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^d	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
3	0.35	0.55 0.65	0.030 0.035	0.077 0.082	0.141	0.047	0.059 ^c 0.091 ^e	0.136
4	0.35	0.55 0.60	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.55 0.60	0.030	0.061	0.082	0.033	0.059	0.065

- a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.
- b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.07 in Climate Zone 3, 0.07 in Climate Zone 4, and 0.054 in Climate Zone 5.
- c. Basement wall U-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.
- d. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

Note: This revision made the same changes to N1102.1.2 and N1102.1.4. 4 pages total.

B-13 Page 21 from the technical change request to RRC from the BCC.

<http://www.ncoah.com/rules/rrc/meetings/Agendas/February%202018/Building%20Code%20Council.pdf>

B-13. Request by Robert Privott, NCHBA to amend the 2018 NC Residential Code, Table N1102.1.2 (and the 2018 NC Energy Conservation Code, Table R402.1.2) as follows:

TABLES N1102.1.2 and R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION U-FACTOR ^{b, j}	SKYLIGHT U-FACTOR ^b	GLAZED FENESTRATION SHGC ^{b, e, k}	CEILING R-VALUE ^m	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT WALL R-VALUE ^{c, o}	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE WALL VALUE ^c R-
3	0.35	0.55 0.65	0.30	38 or 30 30 ^{e, h}	15 or 13+2.5 13 ^h	5/13 or 6/10 5/10 ^{ci}	19	5/13 ^f 10/13 ^f	0	5/13
4	0.35	0.55 0.60	0.30	38 or 30 ^{cont, j}	15 or 13+2.5 ^h	5/13 or 5/10 5/10 ^{ci}	19	10/15 13	10 ^d	10/15 13
5	0.35	0.55 0.60	NR	38 or 30 ^{cont, j}	15 or 13+5 ^h or 15+3 ^{e, h}	13/17 or 13/2.5 ^{ci}	30 ^g	10/15 13	10 ^d	10/15 13

For SI: 1 foot = 304.8 mm.

a. R-values are minimums. U-factors and SHGC are maximums.

b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

c. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall or crawl space wall.

d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 18 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix O) R-5 shall be added to the required slab edge R-values for heated slabs.

e. R-19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2 × 4 wall is not deemed to comply.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure ~~N1101.2(1) and (2)~~ N1101.7 and Table ~~N1101.2~~ N1101.7.

- g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
- h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. 15+3 means R-15 cavity insulation plus R-3 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2. 13+2.5 means R-13 cavity insulation plus R-2.5 sheathing.
- i. For Mass Walls, the second R-value applies when more than half the insulation is on the interior of the mass wall.
- j. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.
- k. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.

Motion/Second/Approved – The request was granted. The proposed effective date of this rule is March 1, 2018 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2019).

Reason Given – This purpose of this proposal is to retain the 2012 NC insulation requirements.

Fiscal Statement – This rule is anticipated to provide equivalent compliance with no net decrease/increase in cost. This rule is not expected to either have a substantial economic impact or increase local and state funds. A fiscal note has not been prepared.

Reeder, Amanda J

From: David Neal <dneal@selcnc.org>
Sent: Thursday, February 08, 2018 4:03 PM
To: rrc.comments
Cc: Gupton, Barry; Reeder, Amanda J
Subject: [External] Please object to D-13 Item from Dec. 12, 2017 NC Building Code Council Meeting

Follow Up Flag: Follow up
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To Whom it May Concern:

By this email, the Southern Environmental Law Center and the N.C. Justice Center respectfully request that the Rules Review Commission reject the changes to the insulation and fenestration requirements of the 2018 North Carolina Energy Conservation Code (“NC ECC”) adopted by the Building Code Council (“BCC”) at its December 12, 2017 meeting. This change, identified as Item D-13 (on p. 27 of the [Minutes of the December 2017 meeting](#)), was made in violation of the Administrative Procedures Act because the public was not given adequate notice or an opportunity to provide comment on the actual proposal adopted by the BCC, which was substantially different than the incomplete and erroneous proposal that was made available for public comment at the BCC’s September 17, 2017 meeting (identified as Item C-13 on p. 13 of the [Minutes of the September 2017 meeting](#)). In addition, the BCC failed to prepare or request a fiscal note, as is required for changes that will have a substantial economic impact.

The Changes Adopted to the 2018 Energy Conservation Code Were Not Properly Noticed or Made Available for Public Comment

The Building Code Council is subject to the procedural requirements of the Administrative Procedures Act (“APA”). N.C. Gen. Stat. § 143-138(a). The building codes that it adopts, including the Energy Conservation Code, are rules within the meaning of the APA. *Id.* “Before the adoption of...any part of the Code, the Council shall hold at least one public hearing. A notice of the public hearing shall be published in the North Carolina Register at least 15 days before the date of the hearing.” *Id.* The public notice for the proposal to roll-back the insulation and fenestration requirements of the 2018 NC ECC (Item C-13), was limited to one chart, Table R402.1.2. This proposal purported to bring the 2018 NC ECC insulation requirements back to the 2012 NC ECC requirements. [North Carolina Register, Vol. 32, Issue 3, p. 108 \(Aug. 1, 2017\)](#). But this chart instead proposed a *further* weakening of insulation requirements in North Carolina buildings, requiring less insulation than required in the 2012 NC ECC. For wood-frame houses in climate zone 5, the C-13 proposal would drop the insulation requirements down to R15, whereas the prior NC ECC required R19 (on p. 18 of the [2012 ECC](#)). At the public comment period for the C-13 proposal in September of 2017, about a dozen stakeholders spoke out against the proposal, which again, consisted of one, erroneous table for insulation values. Only the proponent of the weakening change, the NC Home Builders Association, supported the proposal.

In December, the C-13 proposal came before the BCC as the D-13 item, but it had been substantially transformed since it had been noticed for public comment. Now, instead of a single chart of revised insulation values, including

at least one substantive error, the BCC considered a new version of Table R402.1.2, now requiring R19 insulation in wood-frame houses in climate zone 5. This should not be construed as a minor change. The R-values in this table are the substantive requirements for residential buildings. In addition, the BCC considered and adopted a new Table R402.1.4, a new Table N1102.1.2, and a new Table N1102.1.4, none of which had been noticed for public review or comment prior to the December 12, 2017 meeting. No public comments are reflected in the minutes of the December BCC meeting.

The BCC cannot adopt a change to the 2018 ECC that substantially differs from the proposed change that was the subject of notice and comment. The changes adopted in December of 2017 are substantially different because the BCC changed three additional tables that were not the subject of the C-13 proposal and because the one table that was subject to notice and public comment had a materially different insulation value. In addition, “rules shall be based on sound, reasonably available scientific, technical, economic, and other relevant information.” N.C. Gen. Stat. § 150B-19.1(a)(5). There is no evidence in this record that the decision to roll back the insulation and fenestration requirements in the 2018 NC ECC were based on any such relevant information.

Because the BCC violated N.C. Gen. Stat. § 150B-21.2(a), (f) and (g), we respectfully ask the Rules Review Commission to reject the D-13 Item approved on December 12, 2017 in its entirety.

The Building Code Council Failed to Prepare or Request a Fiscal Note as Required by Law

The Building Code Council has already determined that changes to the Energy Conservation Code would have a substantial economic impact, and thus, it prepared a fiscal note for the approved changes to the 2018 NC ECC. A copy of that fiscal note is available on the website of the [Office of State Management and Budget](#). The proposed roll-back in insulation and fenestration requirements haphazardly and improperly adopted by the Building Code Council at its December 12, 2017 meeting would significantly reduce the projected savings to North Carolina residents as documented in the fiscal note and thus, carry a substantial economic impact. Before adopting the rollbacks in insulation and fenestration requirements in the 2018 ECC, the Building Code Council was required to prepare a fiscal note, or at the very least, request an update to the fiscal note prepared for the 2018 ECC to document the wasteful costs to North Carolinians that would come from these changes. N.C. Gen. Stat. § 143-138(a) (citing N.C. Gen. Stat. 150B-21.4(b1), defining a substantial economic impact as one that would impose at least one million dollars in costs). An updated fiscal note on these wasteful changes to insulation and fenestration requirements would likely take into account the proposed electricity rate increases currently pending before the North Carolina Utilities Commission by Duke Energy Progress and Duke Energy Carolinas, increases that will likely go beyond the conservative estimates for increased energy costs included in the prior fiscal note. Higher utility rates will result in even more costs to North Carolinians when the Energy Conservation Code is weakened.

By this email, the Southern Environmental Law Center and the N.C. Justice Center make a written request for a fiscal note N.C. Gen. Stat. § 150B-21.9(a) in the event that D-13 Item from December 12, 2017 BCC is not objected to in its entirety.

Conclusion

Because the BCC failed to follow the requirements of the APA, the Rules Review Commission should object to the D-13 Item adopted during its December 12, 2017 meeting in its entirety and not allow the four revised tables to go into effect. N.C. Gen. Stat. § 150B-21.9(a)(4); § 150B-21.10.

Please do not hesitate to contact me if you have any questions. Thank you for your service to North Carolina.

Sincerely,
David Neal

David L. Neal
Senior Attorney
Southern Environmental Law Center
601 West Rosemary Street, Suite 220
Chapel Hill, North Carolina 27516-2356
Phone: (919) 967-1450
Fax: (919) 929-9421
SouthernEnvironment.org

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February 8, 2018

$$E = mc^2$$

Ms. Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

Re: Request that Commission Object to North Carolina Building Code Council Proposed Rules to Amend the 2018 North Carolina Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4

Dear Ms. Reeder:

I am writing to ask the Rules Review Commission (“Commission”) to object to the North Carolina Building Code Council’s (“Council”) Proposed Rules amending the 2018 NC Residential Building Code and the 2018 North Carolina Energy Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4 (“Proposed Rule”) on several grounds:

1. The Council did not comply with either the Administrative Procedure Act (“APA”) or its own code development process in enacting the rule;
2. The adoption of the most recent changes to these tables contradicts prior actions taken by the Commission and approved by the Council that were properly noticed and supported by the required and appropriate fiscal analysis; and
3. The Proposed Rule will result in unnecessary cost increases for North Carolina homeowners.

1. The Council did not comply with either the Administrative Procedure Act or its own development process in enacting the rule.

I support the recommendation of the Commission Staff that the Commission should object to the Proposed Rule Amending Tables N1102.1.4 and R402.1.4. These Tables were not properly noticed and contain a number of technical flaws. In addition, I believe that the Commission should object to all four tables amended by the Proposed Rule (Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4) because adopting these revisions would violate several requirements of the APA as well as the Building Code Council’s own procedures.

As I understand the APA, the Council is required to publish (a) an explanation of the proposed rule and (b) a reason for it. In its August 1, 2017 *Notice for the Proposed Rule* in the NC Register, the Council included only a brief statement: “*This purpose of this proposal is to retain the 2012 NC insulation requirements.*” This reason statement is inadequate for several reasons.

- First, the Proposed Rule does not provide any information about why retaining the 2012 insulation requirements is in the interest of North Carolina or its citizens.
- Second, because the 2018 NCECC and NCRC were already adopted, the Council’s abbreviated explanation misstates the problem as retaining the 2012 requirements when in

fact the changes make further revisions to the 2018 NCECC and NCRC adopted by the Council at the June 13, 2017 meeting.

- Finally, the Proposed Rule does not, in fact, adequately explain the proposed changes because the requirements in the Proposed Rule do not align with the 2012 NCECC or NCRC requirements.

For these reasons, the explanation provided with the Proposed Rule is inadequate and does not meet the requirements of the APA.

The Council also failed to include a fiscal statement with the passage of the rule. I understand that the Council must provide a fiscal note with any notice of a proposed rule in the NC Register if it will create a substantial economic impact on the state. According to the Fiscal Note for the 2018 NCECC and NCRC, the incremental savings for North Carolina homeowners and businesses using the negotiated 2018 NCECC and NCRC are in the millions of dollars over the lifetime of buildings built under the new code. The Proposed Rule therefore reflects a material change from the tables that were approved at that time, and it may have a significant impact on the costs and estimated savings that result from the 2018 NCECC. Therefore, I believe that any change with a substantial economic impact should include a fiscal statement. Because the Council did not include one in its August 1, 2017 Notice in the NC Register, the Rules Review Commission should object to the Proposed Rule.

2. The adoption of the most recent changes to Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4 contradicts prior actions taken by the Commission and approved by the Council that were properly noticed and supported by appropriate fiscal analysis.

As part of its regular review of the International Codes, the Council established several working groups to review the provisions of the 2015 International Codes. The Energy Code Working Group, which was tasked with reviewing the energy provisions of the 2015 International Residential Code and the IECC, included home builders, energy raters, and several other stakeholders. This Working Group spent many months reviewing the IECC and negotiating a compromise package of amendments to the NCECC that struck a balance between the minimum efficiency requirements in the IECC and concerns expressed by the NC Home Builders Association representative (NCHBA).

Also, an extensive Fiscal Note prepared by Council Staff – based on a detailed Fiscal Analysis prepared by Appalachian State University – addressed specific concerns raised by the NCHBA. The Fiscal Note documented the energy savings and cost-effectiveness of the amendments that made up the 2018 NCECC. The 2018 NCECC then went through the regular notice and public comment process. The Commission approved the complete 2018 NCECC and NCRC, which included the full compromise achieved by the Energy Code Working Group, associated reason statements, and fiscal note, in June 2017. Those changes were reviewed and approved by the Rules Review Commission in September 2017.

By contrast, the Proposed Rule, which further alters Tables N1102.1.2 and R402.1.2 was first presented as a “B” Item at the June 13, 2017 Council meeting. Changes to these two tables were noticed in the August 1, 2017 edition of the NC Register, and the Council took public comments at its September 21, 2017 meeting. As far as I know, at no point in this process was a reason statement, analysis, or fiscal note attached to the proposals or made generally available to the public. To our knowledge, the companion U-factor tables (Tables N1102.1.4 and R402.1.4) were not provided to the public until after the Council held a vote on the Proposed Rule at its December 17, 2017 meeting.

Because the Council and Commission have already approved the 2018 NCECC and NCRC, the burden of justifying a departure from that rule falls squarely on the proponent of the Proposed Rule. While the Council can, and should, respond to stakeholder comments and proposals for amendments to the Code in between code cycles where appropriate, the Proposed Rule is simply a shortcut around the normal review and approval process the Commission and Council followed in evaluating the entire 2018 NCECC and NCRC. The Commission should therefore object to the rule because it circumvents the Council's normal processes and public disclosure obligations under the APA.

3. The Proposed Rule will result in unnecessary cost increases to North Carolina homeowners and businesses.

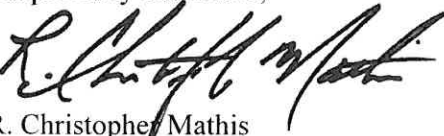
Finally, the Proposed Rule rolls back reasonable insulation requirements and increases costs for North Carolina homeowners. According to the Fiscal Note for the 2018 NCECC, North Carolina homeowners are expected to save \$1.9 million per year under the 2018 NCECC.

It is unclear exactly what impact that the changes to the four tables included in the Proposed Rule will have, because the Council did not provide a fiscal note when considering the proposed amendment. However, because the Proposed Rule would reverse many of the cost-effective efficiency improvements approved with the 2018 NCRC and NCECC, North Carolina homeowners could experience significantly higher energy costs over the useful lifetime of homes built to the new code. While the extent of the negative fiscal impact on North Carolina homeowners and business owners is not clear, it is reasonable to assume that a substantial amount of the documented savings will be negated by the Proposed Rule. At a minimum, such a risk warrants a careful reconsideration by the Council.

Conclusion

The Rules Review Commission should ensure that the North Carolina Building Code Council's amendments to the 2018 NCECC and NCIRC were done in accordance with the APA and Council procedures. I respectfully request that the Commission object to the Proposed Rule amending the 2018 NC Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N11012.1.2, and N1102.1.4 for the reasons set forth above.

Respectfully submitted,



R. Christopher Mathis
President

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

Re: Request that Commission Object to North Carolina Building Code Council Proposed Rules to Amend the 2018 North Carolina Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4

Dear Ms. Reeder:

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- The Council did not comply with either the Administrative Procedure Act or its own code development process in enacting the rule. It did not contain an adequate reason statement or a fiscal note.
- The adoption of the most recent changes to these tables contradicts prior actions taken by the Commission and approved by the Council that were properly noticed and supported by appropriate fiscal analysis.
- The Proposed Rules will reverse cost-effective energy efficiency improvements, resulting in unnecessary cost increases for North Carolina homeowners.

Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,

Lauren Westmoreland
Director of Built Environment
Southeast Energy Efficiency Alliance
50 Hurt Plaza, Suite 1250
Atlanta, GA 30303
404-719-4890

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Sincerely,

Kelly S. Carnes
955 Brafford Drive
Concord, NC 28025

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Sincerely,



Leigha Dickens
Building Scientist

Deltec Homes, Inc and Deltec Building Company, Inc
Asheville NC

ldickens@deltechomes.com

828-253-0483

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,



Stephen D. Coggins

February 8, 2018

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North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Sincerely,

James B. Edwards
Rutherford County, NC

February 8, 2018

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Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,

Kimerly S. Edwards
1165 Coxe Road, P.O. Box 1413
Rutherfordton, NC 28139

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

Re: Request that Commission Object to North Carolina Building Code Council Proposed Rules to Amend the 2018 North Carolina Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4

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Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,

Nancy Thomas

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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- The Proposed Rules will reverse cost-effective energy efficiency improvements, resulting in unnecessary cost increases for North Carolina homeowners.

As a General Contractor, I believe that the Proposed Rules will negatively impact the quality and efficiency of residential buildings for generations to come, and therefore I believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,

John Ed McFadden, PhD.

John Ed McFadden, PhD.

NC Licensed General Contractor # 64533

2500 Henry River Trail

Morganton, NC 28655

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review.

Sincerely,

Leon Meyers

Partner | Operations Lead

BuildSense | Design + Construction

Now merged with L. E. Meyers Builders

502 Rigsbee Avenue Durham, NC 27701

919 403-1883 | 919 667 0404 o 919 422 5773 m

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

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- The Proposed Rules will reverse cost-effective energy efficiency improvements, resulting in unnecessary cost increases for North Carolina homeowners.

Because the Proposed Rules could negatively impact the quality and efficiency of residential buildings for generations to come, we believe these changes should be rejected, or at a minimum, subject to further review. As a residential builder, I am committed to the highest efficiency we can achieve.

Sincerely,

Pamela Fasse
Fasse Construction and Development, inc
P.O. Box 221
Wrightsville Beach, NC 28480

February 8, 2018

Amanda J. Reeder
Counsel to the Rules Review Commission
North Carolina Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6700

Re: Request that Commission Object to North Carolina Building Code Council Proposed Rules to Amend the 2018 North Carolina Residential Code and Energy Conservation Code Tables R402.1.2, R402.1.4, N1102.1.2, and N1102.1.4

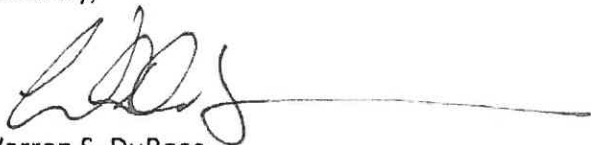
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Sincerely,

A handwritten signature in black ink, appearing to read 'Warren S. DuBose', with a long horizontal line extending to the right.

Warren S. DuBose

Evergreen Builder Solutions, LLC