Comment #4

Page Number: 3 Paragraph / Figure / Table / Note: Definitions Comment Intent: Not an Objection Comment Type: General

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers

from New Jersey to Maine.

We recommend modifying the language of the definition of Condtioned Floor Area to increase clarity and simplicity.

Proposed Change:

Conditioned Floor Area (CFA)^[1] – The floor area of the Conditioned Space Volume within a building or Dwelling Unit, not including the floor area of attics <u>or</u>, crawlspaces, and basements below air sealed and insulated floors. The following specific spaces are addressed to ensure consistent application of this definition:

• The floor area of <u>the full width of a wall assembly that is adjacent to Conditioned</u> Space Volume shall be included. The floor area, including the full width of a wall assembly that is within Conditioned Space Volume shall be included

Exception: If the volume of one of the spaces horizontally adjacent to a wall assembly is a Dwelling Unit other than the subject Dwelling Unit, then the floor area of the full width of that wall assembly shall be evenly divided between both adjacent Dwelling Units. Exception: If the volume of one of the Dwelling Unit spaces shares a common or demising wall, then the full width of the floor area shall be taken at the centerline or midpoint of the demising wall.

 The floor area of a basement shall <u>only</u> be included if <u>it is contiguous with and</u> <u>dedicated[2] to the subject Dwelling Unit and</u> the party conducting the <u>evaluations</u> has either : The floor area of a basement shall only be included if it is contiguous with, and dedicated[1] to the subject Dwelling Unit and the party conducting the evaluations has either:

- Obtained an ACCA Manual J, S, and either B or D report and verified that both the heating and cooling equipment and distribution system are designed to offset the entire design load of the volume; or

- Verified through visual inspection that both the heating and cooling equipment and distribution system serve the volume and, in the judgment of the party conducting evaluations, are capable of maintaining <u>space conditions at 78°F (26°C) for cooling and 68°F (20°C) for heating the heating and</u> cooling temperatures specified by the Thermostat section in the Building Component column of Table 4.2.2(1) of ANSI/RESNET/ICC 301.

- The floor area of a garage shall be excluded even when it is conditioned.
- The floor area of a thermally isolated sunroom shall be excluded.
- The floor area of an attic shall be excluded even when it is Conditioned Space Volume[3].
- The floor area of a crawlspace shall be excluded even when it is Conditioned Space Volume.

Comment #5 Page Number: 4 Paragraph / Figure / Table / Note: Definitions **Comment Intent:** Not an Objection **Comment Type:** General

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers from New Jersey to Maine.

We recommend revising the definition of Conditioned Space Volume for clarity and simplicity. **Proposed Change:**

Conditioned Space Volume^[1] – The volume within a building or Dwelling Unit serviced by a space heating or cooling system designed to maintain space conditions at 78°F (26°C) for cooling and 68°F (20°C) for heating. The following specific spaces are addressed to ensure consistent application of this definition: If the volume both above and below a floor assembly meets this definition and is part of the subject Dwelling Unit, then the volume of the <u>full depth of the</u> floor assembly shall

also be included. Otherwise, the volume of the <u>full depth of the</u> floor assembly shall be excluded.

Exception: The wall height <u>of the volume</u> shall extend from the finished floor to the bottom side of the floor decking above the subject Dwelling Unit for non-top floor level Dwelling Units and to the exterior enclosure air barrier for top floor level Dwelling Units. <u>Exception:</u> The wall height used to determine the volume shall extend from the top surface of finished floor to the bottom surface of the floor decking above the subject Dwelling Unit for all floors other than the top floor level. For top floor level Dwelling Units this dimension shall end at the exterior surface of the enclosure air barrier.

• If the volume of at least one of the spaces horizontally adjacent to a wall assembly meets this definition and that volume is part of the subject Dwelling Unit, then the volume of the <u>full width of the</u> wall assembly shall also be included. Otherwise, the volume of the <u>full width of the</u> wall assembly shall be excluded.

Exception: If the volume of one of the spaces horizontally adjacent to a wall assembly is a Dwelling Unit other than the subject Dwelling Unit, then the volume of <u>the full width of</u> that wall assembly shall be evenly divided between both adjacent Dwelling Units. Exception: If the volume of one of the Dwelling Unit spaces shares a common or demising wall, then the full width of the floor area shall be taken at the centerline or midpoint of the demising wall.

- The volume of an attic that is not both air sealed and insulated at the roof deck shall be excluded.
- The volume of a vented crawlspace shall be excluded.
- The volume of a garage shall be excluded even when it is conditioned.
- The volume of a thermally isolated sunroom shall be excluded.
- The volume of an attic that is both air sealed and insulated at the roof deck, the volume of an unvented crawlspace, and <u>or</u> the volume of a basement shall only be included if the volume <u>it</u> is contiguous with <u>and dedicated[1] to</u> the subject Dwelling Unit and the party conducting evaluations has either : <u>The volume of an attic, crawlspace, or basement shall</u> only be included if it is contiguous with and dedicated[1] to the subject Dwelling Unit and the party conducting evaluations has either:

- Obtained an ACCA Manual J, S, and either B or D report and verified that both the heating and cooling equipment and distribution system are designed to offset the entire design load of the volume; or

- Verified through visual inspection that both the heating and cooling equipment and distribution system serve the volume and, in the judgment of the party conducting evaluations, can maintain the heating and cooling temperatures specified by the Thermostat section in the Building Component

column of Table 4.2.2(1) of ANSI/RESNET/ICC 301.are capable of maintaining space conditions at 78°F (26°C) for cooling and 68°F (20°C) for heating.

The volume of an adjacent mechanical closet, regardless of access location, shall only be included if it that is contiguous with and dedicated to the subject Dwelling Unit, only includes equipment serving the subject Dwelling Unit, and the party conducting evaluations has either shall be included if : The volume of an adjacent mechanical closet, regardless of access location, shall only be included if it is within the thermal envelope and dedicated to the subject Dwelling unit, and the party conducting the subject to the subject Dwelling unit.

Exception: The wall height used to determine the volume shall extend from the top surface of finished floor to the bottom surface of the floor decking above the subject Dwelling Unit for all floors other than the top floor level. For top floor level Dwelling Units this dimension shall end at the exterior surface of the enclosure air barrier

Exception: If the volume of one of the Dwelling Unit spaces shares a common or demising wall, then the full width of the floor area shall be taken at the centerline or midpoint of the demising wall.

• The volume of an attic, crawlspace, or basement shall only be included if the volume it is contiguous with and dedicated[1] to the subject Dwelling Unit and the party conducting evaluations has either:

The volume of an adjacent mechanical closet, regardless of access location, shall only be included if it is within the thermal envelope and dedicated to the subject Dwelling unit, and the party conducting the evaluations has either:

- Obtained an ACCA Manual J, S, and either B or D report and verified that both the heating and cooling equipment and distribution system are designed to offset the entire design load of the volume; or

- <u>Verified through visual inspection that both the heating and cooling equipment and distribution</u> system serve the volume and, in the judgment of the party conducting evaluations, are capable of maintaining space conditions at 78°F (26°C) for cooling and 68°F (20°C) for heating.

It only includes equipment serving the subject Dwelling Unit; and

------The mechanical room is not intentionally air sealed from the subject Dwelling Unit.

Comment #6

Page Number: 9 Paragraph / Figure / Table / Note: 4.2.4 Comment Intent: Objection Comment Type: General

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers from New Jersey to Maine. Reference to the removal of the blower compartment panel should be removed from all sections relating to air tightness testing set-up, as the removal of the panel does not constitue "normal operating conditions".

Proposed Change:

<u>4.2.4. Attics. An attic shall only be included in the Infiltration Volume if it meets the conditions in</u> <u>Section 4.2.4.2 or 4.2.4.3.</u>

4.2.4.1. An attic shall be configured as follows, unless it meets the conditions in Section 4.2.4.2 or 4.2.4.3: any doors and hatches between the subject Dwelling Unit and the attic shall be closed; and any exterior attic access doors, hatches and vents shall be left in their as-found position. 4.2.4.2. If an attic is contiguous with and dedicated[1] to the subject Dwelling Unit and is Conditioned Space Volume, then any doors and hatches between the subject Dwelling Unit and the attic shall be opened; if none are present, then if a Forced-Air HVAC System is in the attic, the blower compartment panel shall be removed, if permitted to do so; and any exterior attic access doors, hatches and vents shall beclosed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space. 4.2.4.3. If an attic is contiguous with and dedicated¹⁴ to the subject Dwelling Unit, and is Unconditioned Space Volume, unvented, and its roof deck and exterior walls are both insulated and air-sealed, then any doors and hatches between the subject Dwelling Unit and the attic shall be opened; if none are present, then if a Forced-Air HVAC System is in the attic, the blower compartment panel shall be removed, if permitted to do so; and any exterior attic access doors, hatches and vents shall be closed to the extent possible.pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space.

<u>4.2.4.4.</u> The following shall be recorded: whether or not the attic is included in the Infiltration Volume; the position of the attic access doors and hatches, if present; and if a Forced-Air HVAC System is in the attic, whether or not the blower compartment panel was removed .

Comment #7

Page Number: 9 Paragraph / Figure / Table / Note: 4.2.5 Comment Intent: Objection Comment Type: General

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers from New Jersey to Maine.

Reference to the removal of the blower compartment panel should be removed from all sections relating to air tightness testing set-up, as the removal of the panel does not constitue "normal operating conditions".

Proposed Change:

<u>4.2.5.</u> Crawlspaces. <u>A crawlspace</u> Crawlspaces shall be configured as follows, and the position of the crawlspace access doors and hatches shall be recorded. When the access doors and hatches between Conditioned Space Volume and the crawlspace are closed due to requirements in Section 4.2.3.1 or Section 4.2.3.2.1, the crawlspace shall be excluded from Infiltration Volume and Conditioned Space Volume. and the full depth of its floor assembly above shall only be included in the Infiltration Volume if it meets the conditions in Section 4.2.5.2 or 4.2.5.3.

4.2.5.1. A crawlspace shall be configured as follows, unless it meets the conditions in

Section 4.2.5.2 or 4.2.5.3: any doors and hatches between the subject Dwelling Unit and the crawlspace shall be closed; and any exterior crawlspace access doors, hatches and vents shall be left in their as-found position.

4.2.5.2. If a crawlspace is contiguous with and dedicated¹⁴ to the subject Dwelling Unit and is Conditioned Space Volume, then any doors and hatches between the subject Dwelling Unit and the crawlspace shall be opened; if none are present, then if a Forced Air HVAC System is in the crawlspace, the blower compartment panel shall be removed, if permitted to do so; and any exterior crawlspace access doors, hatches and vents shall be closed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space.

4.2.5.3. If a crawlspace is contiguous with and dedicated¹⁴ to the subject Dwelling Unit, and is Unconditioned Space Volume, unvented, and its exterior walls are both insulated and air-sealed, then any doors and hatches between the subject Dwelling Unit and the crawlspace shall be opened; if none are present, then if a Forced Air HVAC System is in the crawlspace, the blower compartment panel shall be removed, if permitted to do so; and any exterior crawlspace access doors, hatches and vents shall be closed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space.

4.2.5.4. The following shall be recorded: whether or not the crawlspace is included in the Infiltration Volume; the position of the crawlspace access doors and hatches, if present; and if a Forced-Air HVAC System is in the crawlspace, whether or not the blower compartment panel was removed.

Comment #8

Page Number: 10 Paragraph / Figure / Table / Note: 4.2.6 Comment Intent: Not an Objection Comment Type: Technical

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers from New Jersey to Maine.

Reference to the removal of the blower compartment panel should be removed or modified in all sections relating to air tightness testing set-up, as the removal of the panel does not constitue "normal operating conditions". Instead, language should be changed to reflect the intent, which is to include zones that may otherwise be inaccessible.

Proposed Change:

<u>4.2.6.</u> Basements. <u>A basement and the full depth of its floor assembly above shall only be included in the Infiltration Volume if it meets the conditions in Section 4.2.6.2 or 4.2.6.3 Basements shall be configured as follows, and the position of the basement doors shall be recorded. When doors between the Conditioned Space Volume and the basement are closed, due to requirements in Section 4.2.5.1.1, the basement shall be excluded from Infiltration Volume and Conditioned Space Volume.</u>

4.2.6.1. A basement shall be configured as follows, unless it meets the conditions in

Section 4.2.6.2 or 4.2.6.3: any doors and hatches between the subject Dwelling Unit and the basement shall be closed; and any exterior basement access doors, hatches and vents shall be left in their as-found position.

4.2.6.2. If a basement is contiguous with and dedicated¹⁴ to the subject Dwelling Unit and is Conditioned Space Volume, then any doors and hatches between the subject Dwelling Unit and the basement shall be opened; if none are present, then if a Forced-Air HVAC System is in the basement, the blower compartment panel shall be removed, if permitted to do so; and any exterior basement access doors, hatches and vents shall be closed to the extent possible, pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space.

4.2.6.3. If a basement is contiguous with and dedicated¹⁴ to the subject Dwelling Unit, and is Unconditioned Space Volume, unvented, and its exterior walls are both insulated and air-sealed, then any doors and hatches between the subject Dwelling Unit and the basement shall be opened; if none are present, then if a Forced Air HVAC System is in the basement, the blower compartment panel shall be removed, if permitted to do so; and any exterior basement access doors, hatches and vents shall be closed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space.

4.2.5.1.4.2.6.4. The following shall be recorded: whether or not the basement is included in the Infiltration Volume; the position of the basement access doors and hatches, if present; and if a Forced-Air HVAC System is in the basement, whether or not the blower compartment panel

was removed All doors between the Conditioned Space Volume and basement shall be opened. Exterior basement access doors, vents and hatches shall be closed to the extent possible.

4.2.5.1.1. Exception: When the floor above the basement is air sealed and insulated, doors between the basement and Conditioned Space Volume shall be closed. Exterior basement access doors, hatches and vents shall be left in their as found position.

Comment #9

Page Number: 11 Paragraph / Figure / Table / Note: 4.2.7 Comment Intent: Not an Objection Comment Type: Technical

Comment:

This comment is being issued on behalf of the Standards Committee of the North East Home Energy Rating Alliance, which represents more than 175 Raters and 9 Providers from New Jersey to Maine.

Reference to the removal of the blower compartment panel should be removed or modified in all sections relating to air tightness testing set-up, as the removal of the panel does not constitue "normal

operating conditions". Instead, language should be changed to reflect the intent, which is to include zones that may otherwise be inaccessible.

Proposed Change:

<u>4.2.7. Adjacent mechanical closets. An adjacent mechanical closet and the full width of the wall</u> assembly between it and the subject Dwelling Unit shall only be included in the Infiltration Volume if it meets the conditions in Section 4.2.7.2 or 4.2.7.3.

4.2.7.1. An adjacent mechanical closet shall be configured as follows, unless it meets the conditions in Section 4.2.7.2 or 4.2.7.3: any doors and hatches between the subject Dwelling Unit and the mechanical closet shall be closed; and any exterior mechanical closet access doors, hatches and vents shall be left in their as-found position.

4.2.7.2. If an adjacent mechanical closet is contiguous with and dedicated¹⁴ to the subject Dwelling Unit, only includes equipment serving the subject Dwelling Unit, and is Conditioned Space Volume, then any doors and hatches between the subject Dwelling Unit and the mechanical closet shall be opened; if none are present, then if a Forced-Air HVAC System is in the mechanical closet, the blower compartment panel shall be removed, if permitted to do so; and any exterior mechanical closet access doors, hatches and vents shall be closed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space. 4.2.7.3. If an adjacent mechanical closet is contiguous with and dedicated¹⁴ to the subject Dwelling Unit, only includes equipment serving the subject Dwelling Unit, and is Unconditioned Space Volume, unvented, and the wall assembly between it and the subject Dwelling Unit is not air sealed, then any doors and hatches between the subject Dwelling Unit and the mechanical closet shall be opened; if none are present, then if a Forced-Air HVAC System is in the mechanical closet, the blower compartment panel shall be removed, if permitted to do so; and any exterior mechanical closet access doors, hatches and vents shall be closed to the extent possible. pressure shall be measured within 10% of Conditioned Space Volume test pressure. Where adjacent infiltration volume is not accessible within CSV, methods may include: blower compartment panel removal, pressure hose to space, jump duct to space. 4.2.7.4. The following shall be recorded: whether or not the adjacent mechanical closet is included in the Infiltration Volume; the position of the mechanical closet access doors and hatches, if present; and if a Forced-Air HVAC System is in the mechanical closet, whether or not the blower compartment panel was removed.