Comment #21

Page Number: 24
Paragraph / Figure / Table / Note: Table 4.2.2(1)
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 24from New Jersey to Maine.

If semi-conditioned walls are to be considered separately from above grade walls to exterior conditions, the U-factor should reference the ASHRAE table values for semi-conditioned space as opposed to the same U-factor table applied to exterior walls.

Proposed Change:

Above-grade walls separating Conditioned Space Volume from Unconditioned Space Volume, Unrated Heated Space, Multifamily Buffer Boundary, or Non-Freezing Space	Type: wood frame Gross Area: same as Rated Home U-Factor: from ~~Table 4.2.2(2)~~ **ASHRAE 90.-2013 semi-conditioned space Table 5.5** Solar Absorptance = 0.75 Emittance = 0.90

Comment #22

Page Number: 26
Paragraph / Figure / Table / Note: Table 4.2.2(1)
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 clarifying the language regarding mechanical ventilation within the air exchange rate. As written, it may be misconstrued as the reference home having a balanced ventilation system.
Proposed Change:

Air exchange rate	Specific Leakage Area (SLA)[f] = 0.00036 assuming no energy recovery, supplemented as necessary with ~~balanced~~ mechanical	In accordance with Standard ANSI/RESNET/ICC 380, obtain airtightness test results for:

	ventilation, to achieve the required Dwelling Unit total air exchange rate (Qtot).[g, h]	· Building enclosure (for Detached Dwelling Units) · Compartmentalization Boundary (for Attached Dwelling Units). For Attached Dwelling Units with airtightness test results ≤ 0.30 cfm50 per ft^2 of Compartmentalization Boundary, the test results shall be multiplied by reduction factor A_{ext}^{i} to determine the Infiltration rate. For Attached Dwelling Units with airtightness test results > 0.30 cfm50 per ft^2 of Compartmentalization Boundary, the test results shall be modeled as the Infiltration rate. For residences without Dwelling Unit Mechanical Ventilation Systems, or without measured airflow, or where A_{ext}^{i} < 0.5 and the Mechanical Ventilation System is solely an Exhaust System, the Infiltration rate[j] shall be as determined above, but not less than 0.30 ACH. For residences with Dwelling Unit Mechanical Ventilation Systems, the total air exchange rate shall be the Infiltration rate[j] as determined above, in combination[h] with the time-averaged Dwelling Unit Mechanical Ventilation System rate,[g, k] which shall be the value measured in accordance with Standard ANSI/RESNET/ICC 380. ~~The Dwelling Unit Mechanical Ventilation System rate shall be increased as needed t~~To ensure that the total air exchange rate is no less than Qtot = 0.03 x CFA + 7.5 x (Nbr+1) cfm, the Dwelling Unit Mechanical Ventilation System runtime operation shall first be increased, if possible, followed by increasing the airflow rate as needed.

Comment #23

Page Number: 35
Paragraph / Figure / Table / Note: Table 4.2.2(1) Notes: m.
Comment Intent: Not an Objection
Comment Type: Editorial

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.

The use of OEM specifications in determining fan wattage should be the last resort, and HVI data should be noted as an option. We also recommend that direct measurement be the first option listed, as direct measurement is considered to be best practice.

Proposed Change:

m. Where Dwelling Unit Mechanical Ventilation Systems are specified but lack controls to either provide continuous or programmed operation, the system does not qualify as a Dwelling Unit Mechanical Ventilation System and the Rated Home shall be treated as a Dwelling Unit without a Dwelling Unit Mechanical Ventilation System. Where Dwelling Unit Mechanical Ventilation System controls have a standard On/Off switch to enable continuous ventilation, the controls shall only be treated as a Dwelling Unit Mechanical Ventilation System if the system is labeled clearly to identify the purpose of the switch and that the switch be set to "On" to enable Dwelling Unit Mechanical Ventilation. Dwelling Unit Mechanical Ventilation System fan watts shall be the value observed in the Rated Home for the highest airflow setting. Where not available, fan watts shall be based on Table 4.2.2(1a) for the given system. For systems other than Central Fan Integrated Supply (CFIS), where the airflow cannot be measured, the cfm used to determine fan watts shall be assumed to be equal to Qfan, as determined in accordance with Note g. of Table 4.2.2 (1), with a minimum of 15 cfm. For CFIS systems, the cfm used to determine fan watts shall be the larger of 400 cfm per 12 kBtu/h cooling capacity or 240 cfm per 12 kBtu/h heating capacity. For systems that consume energy beyond what is needed to operate the ventilation fan[1], fan watts shall be the value observed either per OEM specifications or through direct measurement in the Rated Home for the highest airflow setting in ventilation-only mode .

m. Where Dwelling Unit Mechanical Ventilation Systems are specified but lack controls to either provide continuous or programmed operation, the system does not qualify as a Dwelling Unit Mechanical Ventilation System and the Rated Home shall be treated as a Dwelling Unit without a Dwelling Unit Mechanical Ventilation System. Where Dwelling Unit Mechanical Ventilation System controls have a standard On/Off switch to enable continuous ventilation, the controls shall only be treated as a Dwelling Unit Mechanical Ventilation System if the system is labeled clearly to identify the purpose of the switch and that the switch be set to "On" to enable Dwelling Unit Mechanical Ventilation. Dwelling Unit Mechanical Ventilation System fan watts shall be the value observed in the Rated Home for the highest airflow setting. Where not available, fan watts shall be based on Table 4.2.2(1a) for the given system. For systems other than Central Fan Integrated Supply (CFIS), where the airflow cannot be measured, the cfm used to determine fan watts shall be assumed to be equal to Qfan, as determined in accordance with Note g. of Table 4.2.2 (1), with a minimum of 15 cfm. For CFIS systems, the cfm used to determine fan watts shall be the larger of 400 cfm per 12 kBtu/h cooling capacity or 240 cfm per 12 kBtu/h heating capacity. For systems that consume energy beyond what is needed to operate the ventilation fan[1], fan watts shall be determined through direct measurement in the Rated Home for the highest airflow setting in ventilation-only mode, the value observed through HVI specifications or the value observed through~~either per~~ OEM specifications ~~or through direct measurement in the Rated Home for the highest airflow setting in ventilation-only mode~~.

Comment #24

Page Number: 38
Paragraph / Figure / Table / Note: Table 4.2.2(1) Notes: x.
Comment Intent: Not an Objection
Comment Type: Editorial

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 Provider
from New Jersey to Maine.

For clarity, we recommend adjusting the format of the final paragraph in note x, as two different items are being addressed with the new language.

Proposed Change:

x. When both of the following conditions are met and documented, duct leakage testing is not required.
1. At a pre-drywall stage of construction, 100 percent of the ductwork and airhandler shall be visible and visually verified to be contained inside the Conditioned Space Volume. At a final stage of construction, ductwork that is visible and the air handler shall be verified again to be contained in the Conditioned Space Volume.
2. At a pre-drywall stage of construction, the ductwork shall be visually verified to be 100 percent fully ducted with no building cavities used as supply or return ducts.

To calculate the energy impacts on the Rated Home, a DSE of 0.88 shall be applied to both the heating and cooling system efficiencies. A DSE of 1.0 may be applied if the total supply duct length of the system, including all supply trunks and branches, is ≤ 10 ft. A duct leakage to outside value of 4 cfm per 100 square feet of Conditioned Floor Area may be modeled for duct leakage to outside if no ductwork is contained within envelope assemblies adjacent to the exterior or Unconditioned Space Volumes

Proposed:

x. When both of the following conditions are met and documented, duct leakage testing is not required.
1. At a pre-drywall stage of construction, 100 percent of the ductwork and airhandler shall be visible and visually verified to be contained inside the Conditioned Space Volume. At a final stage of construction, ductwork that is visible and the air handler shall be verified again to be contained in the Conditioned Space Volume.
2. At a pre-drywall stage of construction, the ductwork shall be visually verified to be 100 percent fully ducted with no building cavities used as supply or return ducts.

To calculate the energy impacts on the Rated Home, a DSE of 0.88 shall be applied to both the heating and cooling system efficiencies. Alternatively:

- A DSE of 1.0 may be applied if the total supply duct length of the system, including all supply trunks and branches, is ≤ 10 ft.
- A duct leakage to outside value of 4 cfm per 100 square feet of Conditioned Floor Area may be modeled for duct leakage to outside if no ductwork is contained within envelope assemblies adjacent to the exterior or Unconditioned Space Volumes