

Mean HVAC Wrightsoft Basic Manual J Review Checklist

Temperatures:

- Outdoor: *Show>Project Information* – ACCA or ASHRAE 1% and 99% unless local code requires otherwise.
- Indoor: *Show>Zone Information* – **ACCA: Heat 70°/30% Cool 75°/50%**. National Energy Code: Heat **72°/30%** Cool 75°/50%. Dry climate (latent loads consistently 0 or <5% of total) Cool 75°/**45%**. Changes allowed with permission of local authority. Mean HVAC recommends no lower than 72° cooling if you exercise this option. Be sure to make necessary adjustment to Manual S

Tightness:

- Infiltration: *Show>Right-J>Infiltration* – Note: “Average” typically meets or exceeds new construction code in Climate zones 1-3 **it is not necessarily the “most common”** especially with existing building stock.
- Optional: Blower Door: *Options>Infiltration Method>Blower Door*- Make sure to set test pressure difference to **50pa** unless test data indicates otherwise

Orientation:

- Actual (important): *Show>Right-Draw* – Double click the point on the compass that indicates where north is (NOT which way the front door faces).
- Front Door (unimportant): *Show>Project Information*- **Doesn't impact load.**

Building materials:

- High-level review: *File>Print review>"+Loads">Component Construction* Note: be sure to un-select other reports and all of the rooms. Only select the “entire house” for easier reading
If you see anything that shouldn't be there or that you don't recognize, adjust the drawing properties. When dealing with windows, focus on the U value and SHGC, not the description.
- Closer review/changes: Select all the rooms, windows, doors one floor at a time: *Right click on each sheet (on the right side of the drawing screen) and use the “select” option. Use the property sheet* to confirm materials **not** the default materials at the top of the page.
- Common mistakes (not a complete list of possible mistakes- obviously):

Basements: Below grade wall/floor not selected on basement sheet or depth not set (defaults to 2' below grade), below grade walls selected for all floors, walk-out wall not changed (use the wall icon tool).

Walls: **Attic knee wall** (any wall adjacent to the attic) not identified as knee wall (use the wall drawing icon). Frame walls supporting lower areas are often insulated differently.

Windows: Missing overhang and internal shade (MJ min: Blinds, 45°, medium).

Doors: **Glass doors** not drawn as windows. For doors with SOME glass use the 50/50 rule if it's 50%+ glass use a French door (window) if it <50% glass use a door and ignore the glass.

Ceilings: Don't use the ceiling partition material, just draw the floors on top of each other. Attics insulated- often with foam- at the roof, not the ceiling are not “unvented” they're “**encapsulated.**”

Vaulted ceiling materials, when used, are often overlooked.

Floors: Don't use the floor partition material, just draw the floors on top of each other. Floors over garage.

Other items:

- General room properties: See above for “select all” procedure. **Duct location and quality** (most common mistake with potentially huge consequences), **Internal gains**, ceiling height (include space between conditioned floors)
- Ventilation (when appropriate): *Show>Zone Information*. Select the central vent type and select the ventilation method (ASHRAE 62 20XX) or enter the ventilation CFM (using F8 to override).