



BUILDING BETTER HOMES

~ THE ENERGY DESIGNED TOP TEN ~

(From the *ABCs of Energy Efficiency*, an OBBS approved course for Architects, Builders, and Code Officials)



1. INSULATE - THE ENTIRE SHELL, ATTIC TO FOOTER!

- a. Keep insulation adjacent to warm surface – face staple fiberglass
- b. Keep dry – Allow to dry
 - i. Develop effective air barrier and vapor retarder systems
 - ii. Eliminate interior and exterior *vapor barrier* systems
- c. Protect from air wash
 - i. Block floor joist cavities open to kneewall attics
 - ii. Glue drywall at top plate adjacent to cold space

2. VENTILATE RIGHT - MECHANICALLY!

- a. Test air tightness before prescribing an “add more air” ventilation strategy
- b. Use simple exhaust only ventilator unless testing demands more air exchange

3. MAKE AIRTIGHT - REDUCE RANDOM AIR LEAKAGE!

- a. Random leakage cannot be controlled
- b. Understand air flow dynamics; houses generally **ARE NOT TOO TIGHT.**

4. RIGHT SIZE - MECHANICAL SYSTEMS!

- a. 50% oversized is equivalent to about a 5 AFUE reduction in performance (90 AFUEs becomes 85)
- b. Bigger is not better; proper runtime is important for temperature and humidity control

5. MANAGE WATER - KEEP IT OUT AND LET IT OUT!

- a. Develop drain planes, gutters, grade, air barriers, and vapor retarder systems
- b. Design wall assemblies to dry to both the inside and the outside.

6. ADD MASS - DAMPEN DAILY TEMPERATURE SWINGS!

- a. Insulating the foundation on the outside brings it into the thermal envelope and keeps it warm.
- b. Warm walls don't condense moisture.

7. ASK ... ALWAYS ASK ... DOES IT WORK?

- a. We've been doing so many things “this way” for so many years; we sometimes forget why.

8. TEST ... TO BE SURE!

- a. How can we prescribe the remedy without knowing the ailment?

9. LOOK for ENERGY STAR® Certified Homes!

- a. ENERGY STAR® or HERS Raters are properly trained and certified in house diagnostics.

10. BECOME an ENERGY DESIGNED HOMESSM Partner!

- a. ENERGY DESIGNED HOMESSM is at the forefront of Ohio's new construction, improved building performance initiatives. Partner with Ohio trained energy experts.