



ThermaSteel - Commercial or Non-Residential Construction		
Building Code (Occupancy Type)	Compliant Zones	Additional R-Value to reach compliance
ASHRAE 90.1-2007 or 2010 (Non-Residential)	All	None
ASHRAE 90.1-2013 (Non-Residential)	1 - 5	Zones 6-7, R-1.5 Zone 8, R-8.0
IECC 2009 (Commercial)	All	None
IECC 2012 (Commercial)	1 - 7	Zone 8, R-3.3
IECC 2009 (Commercial – Group R)	1 - 6	Zone 7, R-0.3 Zone 8, R-8.0
IECC 2012 (Commercial – Group R)	1 - 6	Zone 7, R-0.3 Zone 8, R-3.3

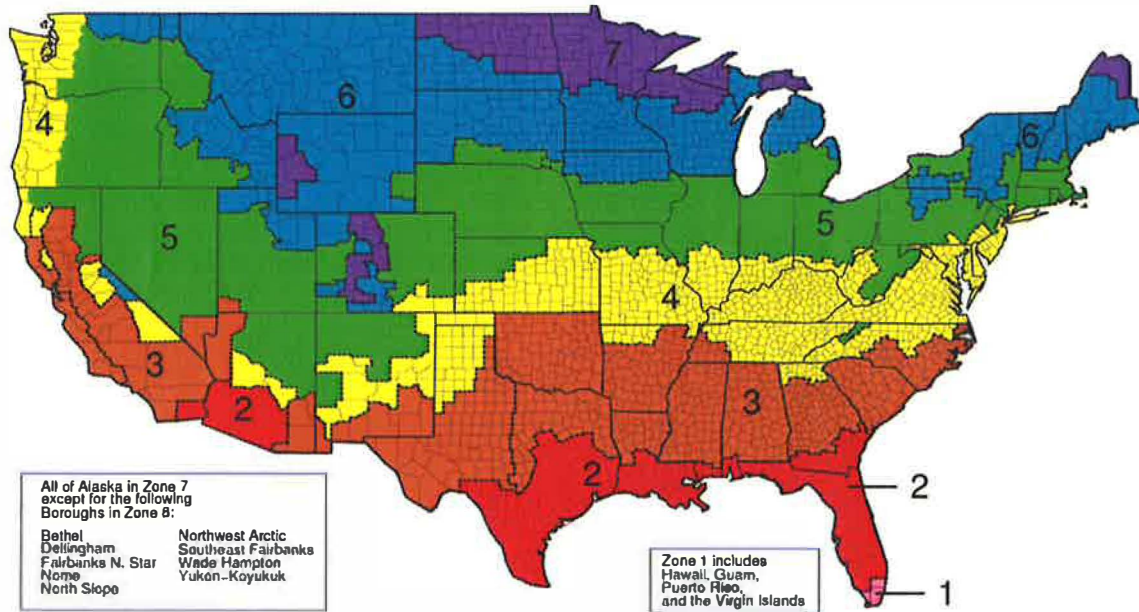
ThermaSteel - Residential Construction		
Building Code	Compliant Zones	Changes to reach compliance
ASHRAE 90.1-2007 or 2010	1 – 6	Zones 7-8, R-5.0
ASHRAE 90.1-2013	1 – 5	Zone 6, R-1.5 Zones 7-8, R-5.0
IECC 2009	All	None
IECC 2012	1 - 5	Zones 6-8, R-2.0

ThermaSteel - Semi-Heated Space		
Building Code	Compliant Zones	Changes to reach compliance
ASHRAE 90.1-2007, 2010, or 2013	All	None
<i>*IECC exempts semi-heated space from its requirements</i>		

Add R-0.3: This is accomplished as long as at least one sheet of 1/2” gypsum board (R = 0.45) is included in the final assembly.

- Add R-1.5: Add 1/2” gypsum board + 3/8” of insulation board (R = 1.1 Minimum)
- Add R-2.0: Add 1/2” gypsum board + 1/2” of insulation board (R = 1.6 Minimum)
- Add R-3.3: Add 1/2” gypsum board + 3/4” of insulation board (R = 2.9 Minimum)
- Add R-5.0: Add 1/2” gypsum board + 1” of insulation board (R = 4.6 Minimum)
- Add R-8.0: Add 1/2” gypsum board + 1-1/2” of insulation board (R = 7.5 Minimum)

For reference, all of the United States, except Alaska, portions of northern Maine, Wisconsin, Michigan, North Dakota and a few areas in Wyoming and Colorado are in Climate Zones 1 – 6. The image below shows the different climate zones as they are defined for both ASHRAE and IECC codes.



If there are any questions or concerns, please feel free to contact me at 717-764-770 or mthoman@archtest.com.

Sincerely,

Michael J. Thoman

Digitally Signed by: Michael J. Thoman

Michael J. Thoman, PE
Director – Thermal Testing and Simulations