Pre-drywall, Post-insulation

Pre-drywall, post-insulation

- Insulation installed properly

St. Louis 2018 IECC Energy Code - Comprehensive Field Inspection Checklist

Yes	No	N/A	
			Pre-Drywall, post-insulation (Insulation installed properly)
☐	☐	☐	1. Wall insulation installed in substantial contact and continuous alignment with the air barrier(s)
☐	☐	☐	2. Wall insulation neatly fills cavity (no voids, no insulation compression due to wiring & plumbing)
☐	☐	☐	3. Attic insulation prep properly performed • Dams and vent baffles extend over top plate of exterior walls • Dams installed at attic access and to adjacent uninsulated areas (porches & garages, etc.) • Insulation installed under elevated HVAC/appliance platforms in attics
☐	☐	☐	4. Attic pull-down stairs sealed into rough opening
☐	☐	☐	5. Cantilevered floors insulated properly (R-19)
☐	☐	☐	6. Rim/band areas insulated properly (R-20)
☐	☐	☐	7. Ducts insulated to R-8 in attics, R-6 in other unconditioned space. Visually check for sealant at seams and fittings
☐	☐	☐	8. Floor insulation supported and in full contact with subfloor sheathing
☐	☐	☐	9. Floor assembly end-dam barriers installed under attic knee walls (such as for bonus room floors above garages)
☐	☐	☐	10. Mechanical spaces receiving outdoor combustion air have continuous, air sealed and insulated thermal envelope (walls, floors, ceiling as applicable) to isolate from main house
☐	☐	☐	11. R-3 Hot water piping insulation installed (and recirculation system pipe insulation & controls) • Piping 3/4 inch and larger in nominal diameter • Piping serving more than one dwelling unit • Piping located outside the conditioned space • Piping from the water heater to a distribution manifold • Piping located under a floor slab & buried in piping • Supply and return piping in recirculation systems other than demand recirculation systems

Pre-drywall, post-insulation

WHAT'S WRONG WITH THESE PICTURES?

- Insulation **NOT** aligned with ceiling air barrier

Installing Insulation

- Voids / Gaps
- Compression / Incomplete Fill
- Alignment with air barrier

Pre-drywall, post-insulation

1. Wall insulation in substantial contact and continuous alignment with air barrier (typically sheathing and drywall)

Yes No N/A

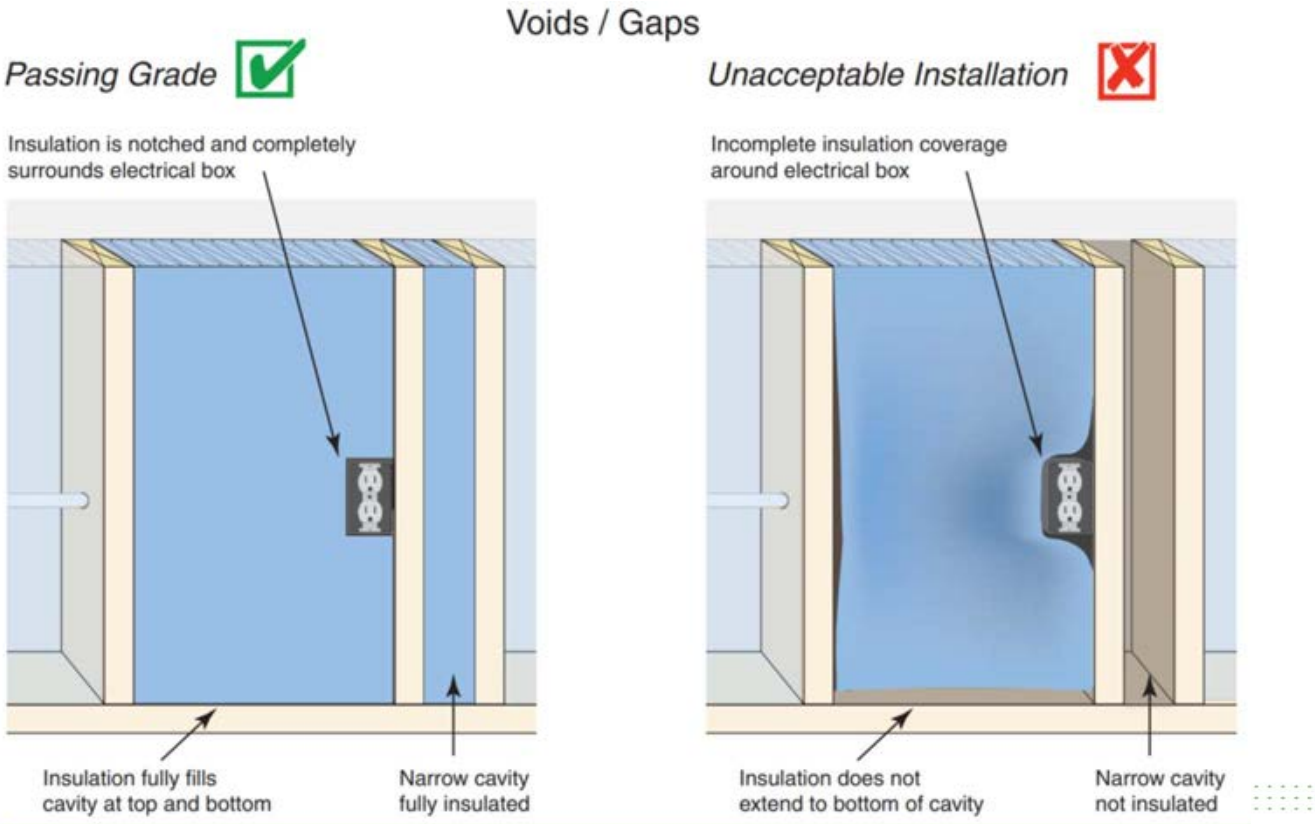
☐☐☐ 1. Wall insulation installed in substantial contact and continuous alignment with the air barrier(s)

Pre-drywall, post-insulation

2. Wall insulation neatly fills cavity (no voids, no insulation compression)

Yes No N/A

2. Wall insulation neatly fills cavity (no voids, no insulation compression due to wiring & plumbing)

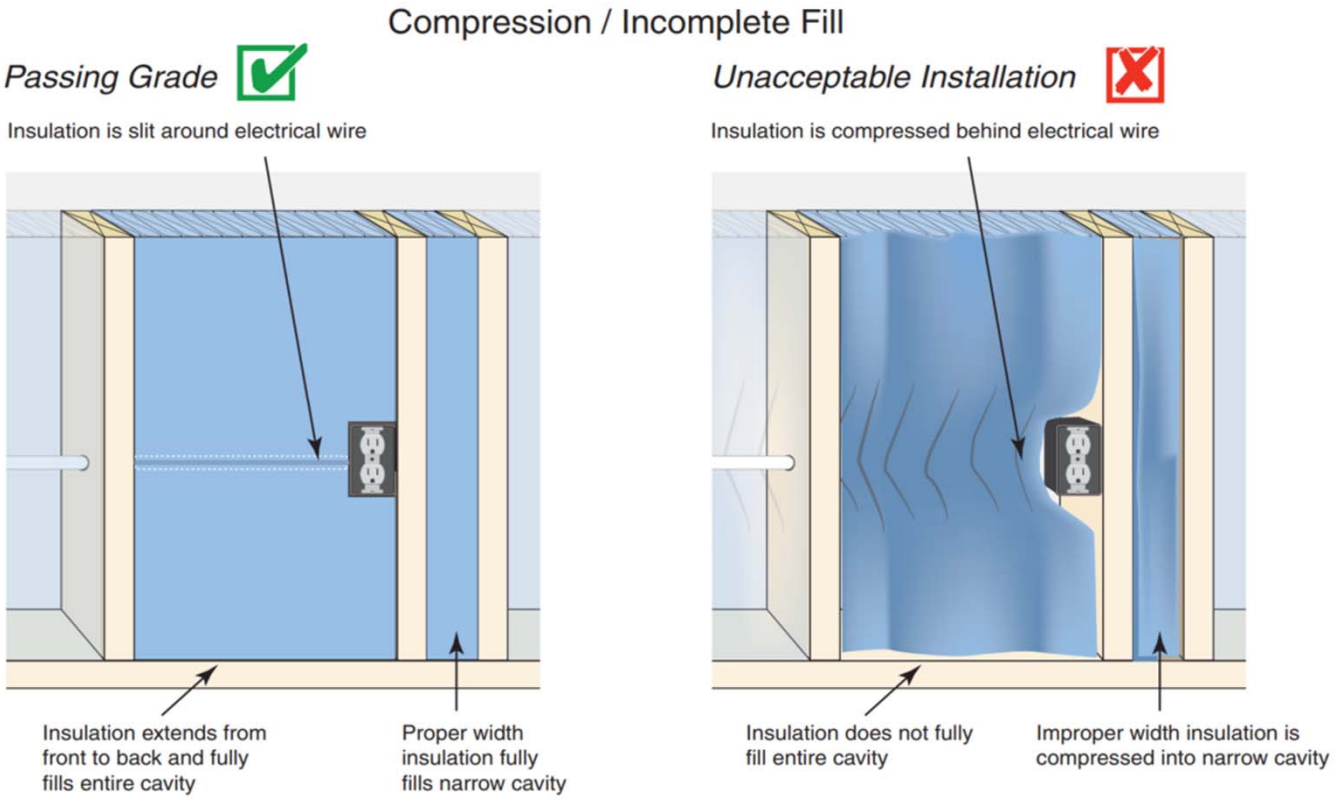


Pre-drywall, post-insulation

2. Wall insulation neatly fills cavity (no voids, no insulation compression)

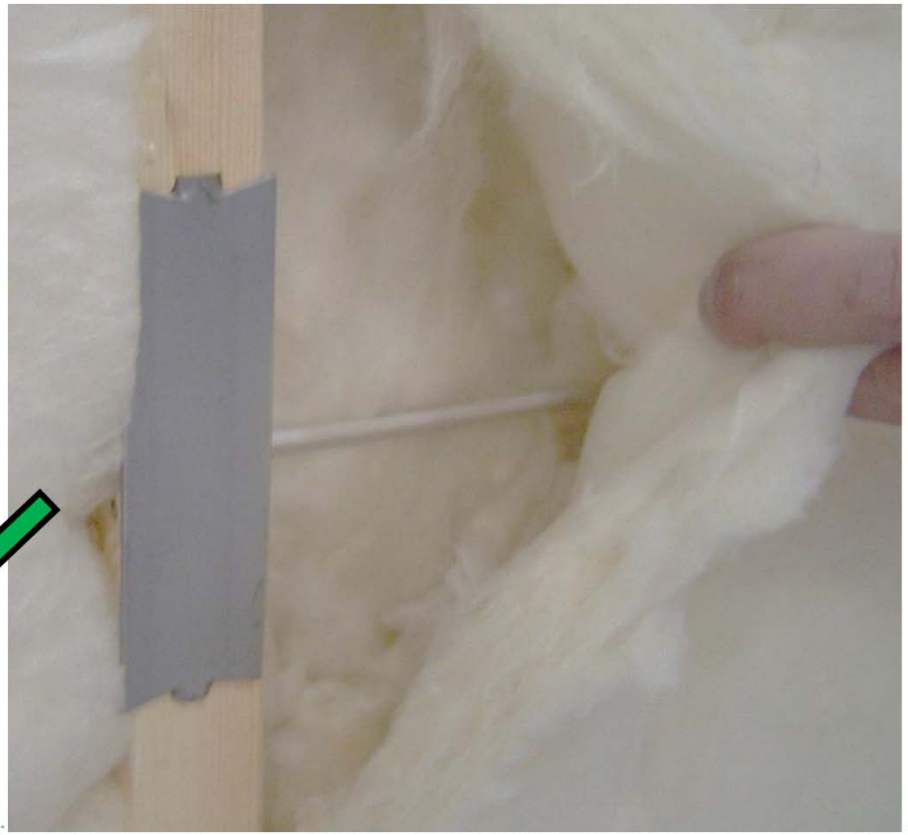
N/A No Yes

2. Wall insulation neatly fills cavity (no voids, no insulation compression due to wiring & plumbing)



Wall Insulation Details

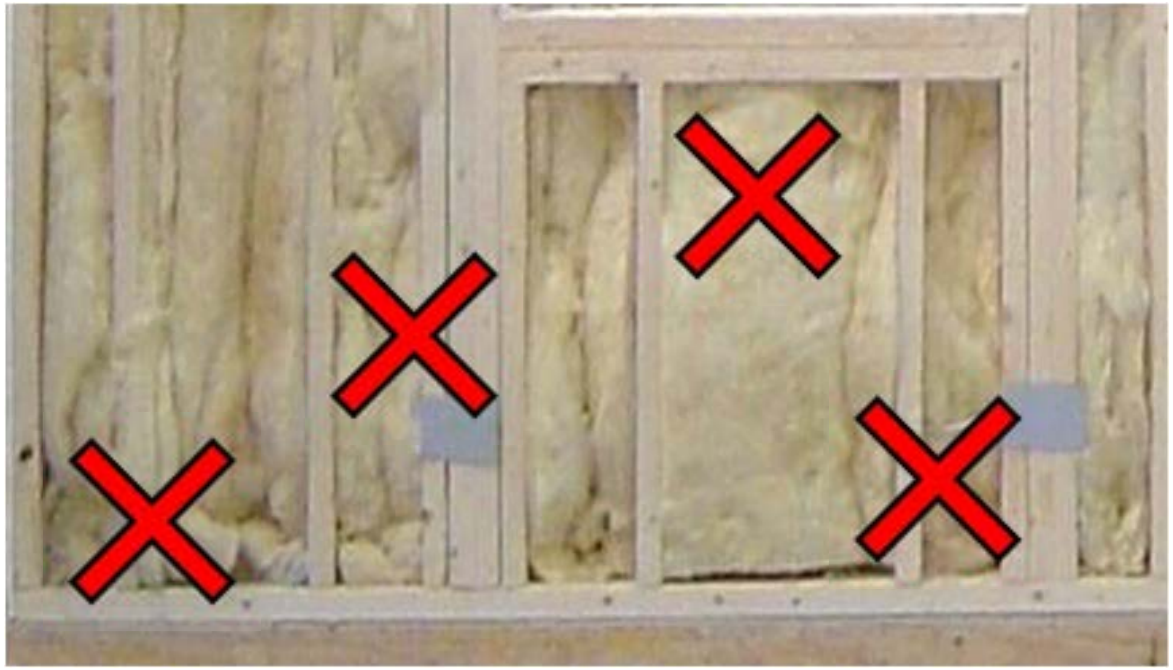
- Batt is slit or split to allow the wire to bisect the cavity & not compress the insulation

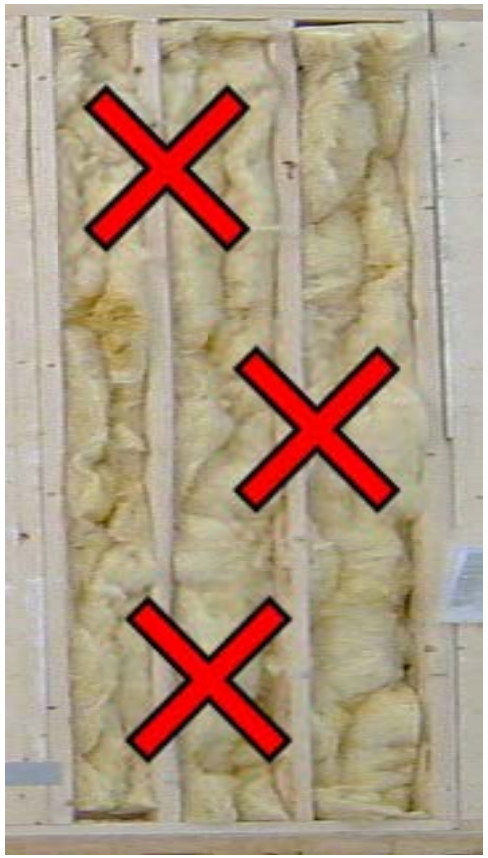


Wall Insulation Details

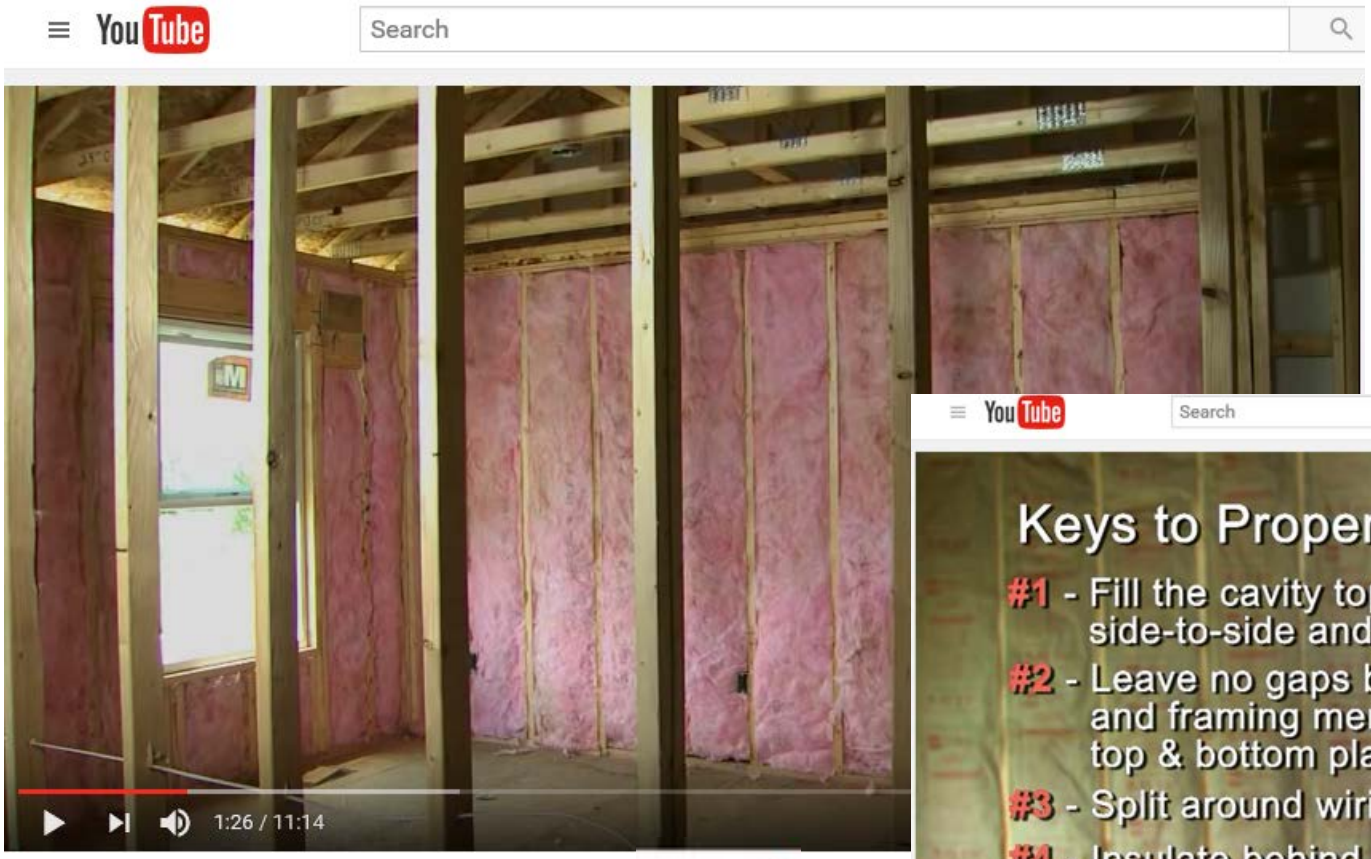
- Wire is compressing the insulation
- Voids around electrical outlet
- Missed a whole cavity

Wall Insulation Details





Installation Videos



Pre-drywall, post-insulation

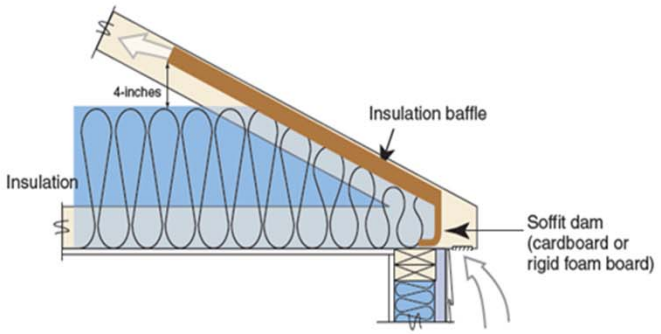
Yes No N/A

☐☐☐ 3. Attic insulation prep properly performed

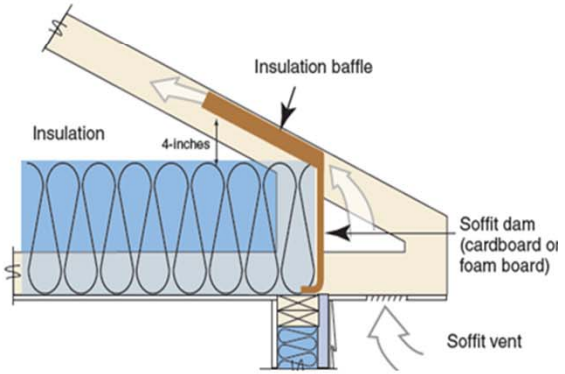
- Dams and vent baffles extend over top plate of exterior walls
- Dams installed at attic access and to adjacent uninsulated areas (porches & garages, etc.)
- Insulation installed under elevated HVAC/appliance platforms in attics

3. Attic insulation preparation (dams, baffles, elevated platforms)

Standard Truss
with tapered
insulation depth



Energy Truss
with full height insulation
(recommended)



Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 3. Attic insulation prep properly performed

- Dams and vent baffles extend over top plate of exterior walls
- Dams installed at attic access and to adjacent uninsulated areas (porches & garages, etc.)
- Insulation installed under elevated HVAC/appliance platforms in attics

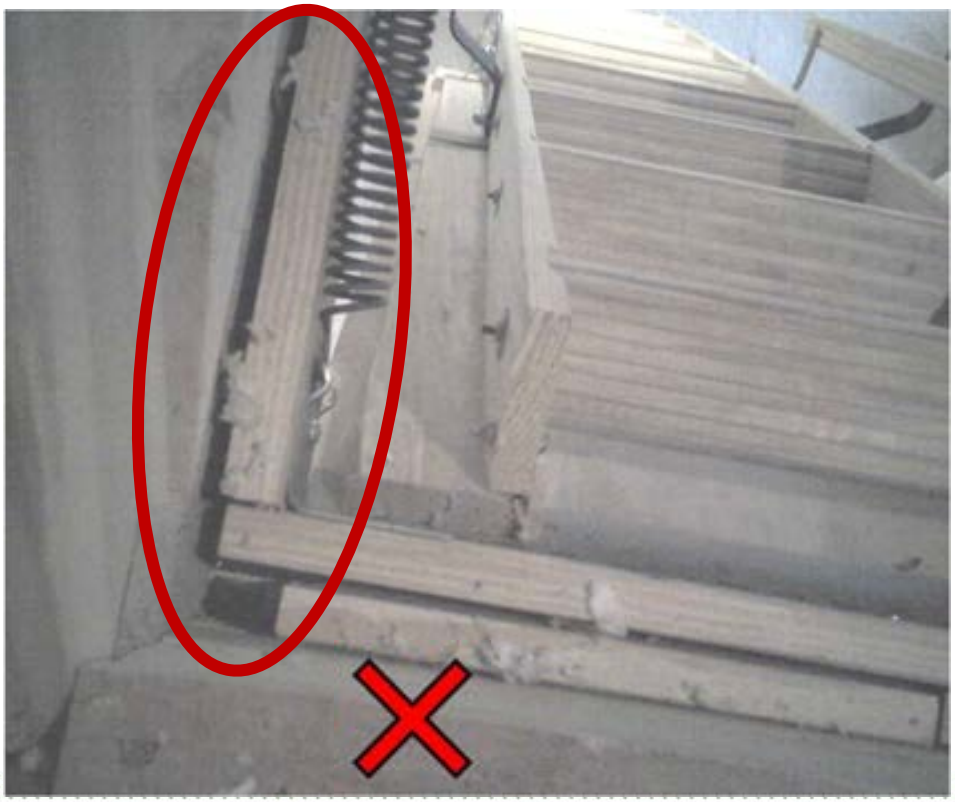
3. Attic insulation preparation (dams, baffles, elevated platforms)

Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 4. Attic pull-down stairs sealed into rough opening

4. Attic pull-down stairs sealed into rough opening

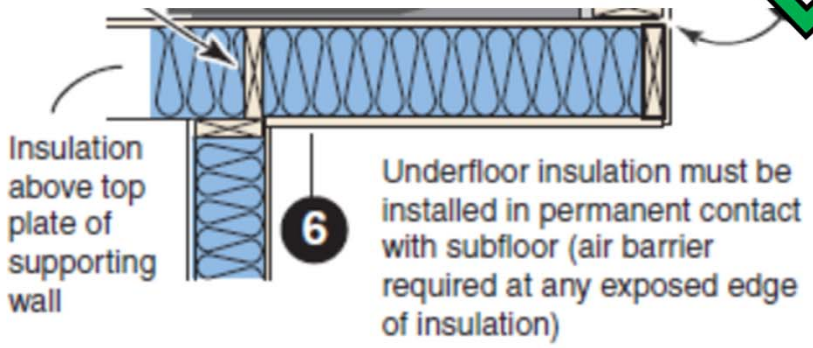


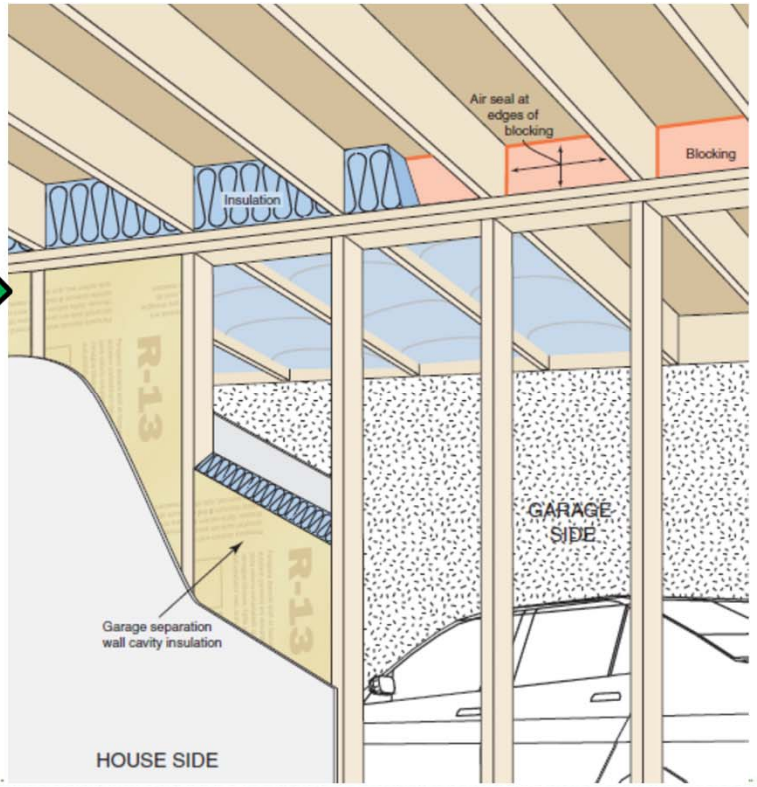
Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 5. Cantilevered floors insulated properly (R-19)

5. Cantilevered floors insulated properly





Pre-drywall, post-insulation

6. Rim/band areas insulated properly (R-20 or R-13+5)

Yes No N/A

☐☐☐ 6. Rim/band areas insulated properly (R-20)

Rigid Foam Board

Batt Insulation

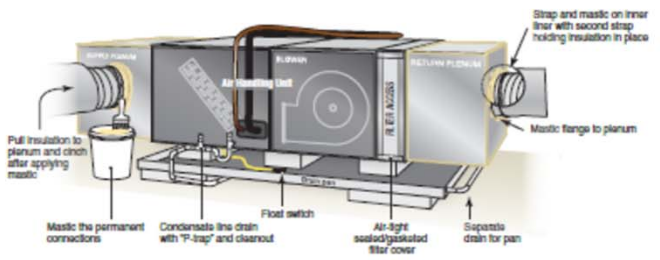
Bagged Insulation

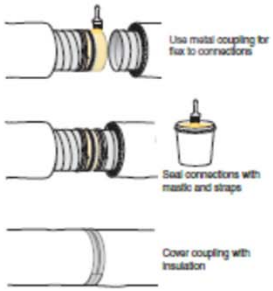
Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 7. Ducts insulated to R-8 in attics, R-6 in other unconditioned space
Visually check for sealant at seams and fittings

7. Ducts insulated properly (including boots)
   Visual check for sealing





Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 7. Ducts insulated to R-8 in attics, R-6 in other unconditioned space
Visually check for sealant at seams and fittings

7. Ducts insulated properly (including boots)
   Visual check for sealing

Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 8. Floor insulation supported and in full contact with subfloor sheathing

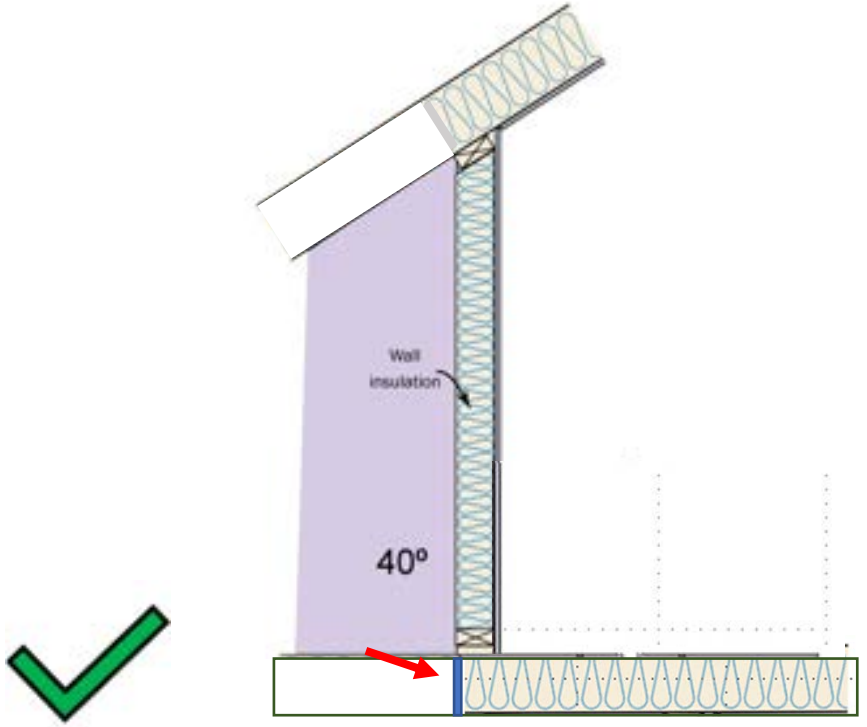
8. Floor insulation supported and in full contact with subfloor

Pre-drywall, post-insulation

Yes No N/A

☐☐☐ 9. Floor assembly end-dam barriers installed under attic knee walls (such as for bonus room floors above garages)

9. Floor assembly insulation has end dams installed under attic knee walls

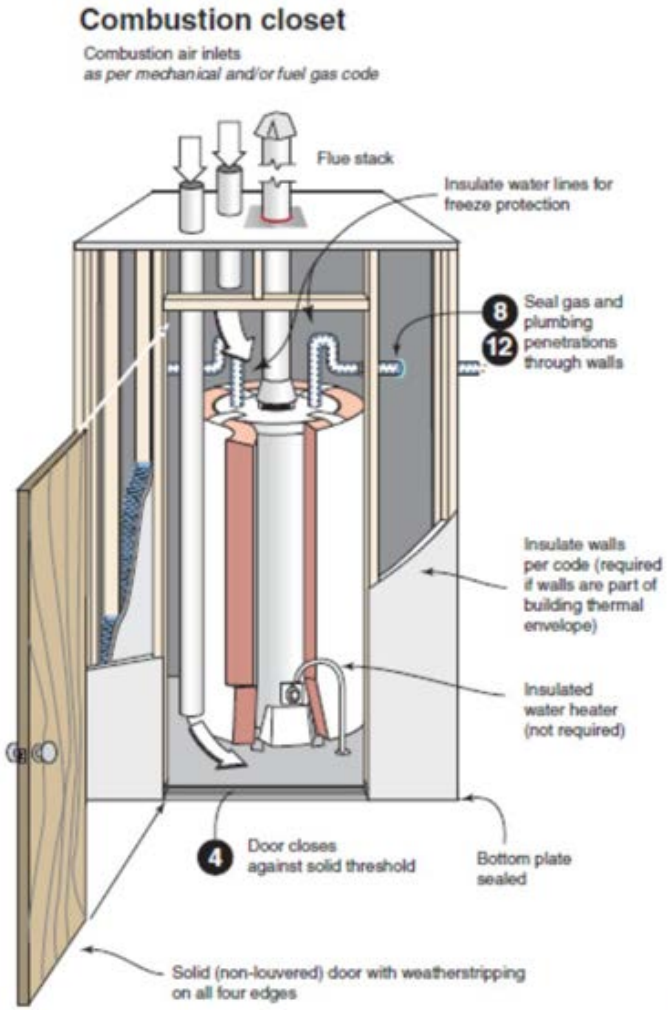


Pre-drywall, post-insulation

10. Mechanical spaces (i.e., combustion closets) are sealed and insulated to isolate from main house

Yes No N/A

☐☐☐ 10. Mechanical spaces receiving outdoor combustion air have continuous, air sealed and insulated thermal envelope (walls, floors, ceiling as applicable) to isolate from main house



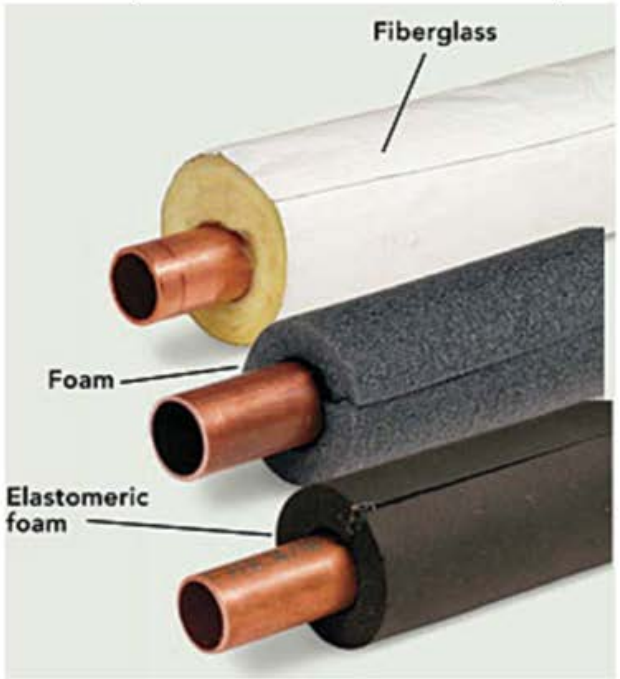
Pre-drywall, post-insulation

11. R-3 hot water pipe insulation

Yes No N/A

☐☐☐ 11. R-3 Hot water piping insulation installed (and recirculation system pipe insulation & controls)

- Piping 3/4 inch and larger in nominal diameter
- Piping serving more than one dwelling unit
- Piping located outside the conditioned space
- Piping from the water heater to a distribution manifold
- Piping located under a floor slab & buried in piping
- Supply and return piping in recirculation systems other than demand recirculation systems



Final Inspection

- Confirm all items prior to Certificate of Occupancy

Final inspection (confirm prior to Certificate of Occupancy)

1. Blower door and duct leakage passing results correctly displayed on energy code certificate
2. Mechanical ventilation system installed for homes < 5 ACH50
3. Duct boots insulated and sealed to drywall and/or subfloor
4. Underfloor insulation installed in complete contact with air barrier and permanently secured in place (e.g., wire staves)
5. Crawlspace has complete (min. 6-mil poly) vapor barrier (overlapped and sealed to foundation)
6. Conditioned Crawlspace Wall has insulation installed as per code (402.2.11)
7. Basement wall insulated as per code (~~R-13 cavity or R-10 continuous for CZ 4~~; amended to R-0)
8. Attic access (pull-down stairs or hatch) meets R-38 insulation and air sealing requirements (pull-down stairs door is sealed into rough opening)
9. Utility (e.g., gas piping) penetrations sealed at exterior.
10. Plumbing penetrations in drywall are sealed
11. Attic Ceiling insulation is properly installed: coverage is consistent, proper depth throughout
    - Attic contains Loose-fill Insulation Card and Rulers (1 per 300 sf)
    - Dams and vent baffles extend over top plate of exterior walls at eave/soffit vents
    - Dams installed at attic access and to adjacent uninsulated portions (porches & garages, etc.)
    - Insulation shield around appliance vent pipes and chimneys
12. Refrigerant line-set insulation is protected from elements and air sealed at envelope junction
13. Efficient lighting for 90% of bulbs– CFL's, linear fluorescent & LED (not incandescent or halogen)

Final inspection

1. Blower door (<3 ACH_{50}) and duct leakage (≤ 4%) passing results correctly obtained and displayed on energy code certificate

Yes No N/A

☐☐☐ 1. Blower door and duct leakage passing results correctly displayed on energy code certificate

Final inspection

1. Blower door and duct leakage passing results correctly obtained and displayed on **energy code certificate**

Yes No N/A

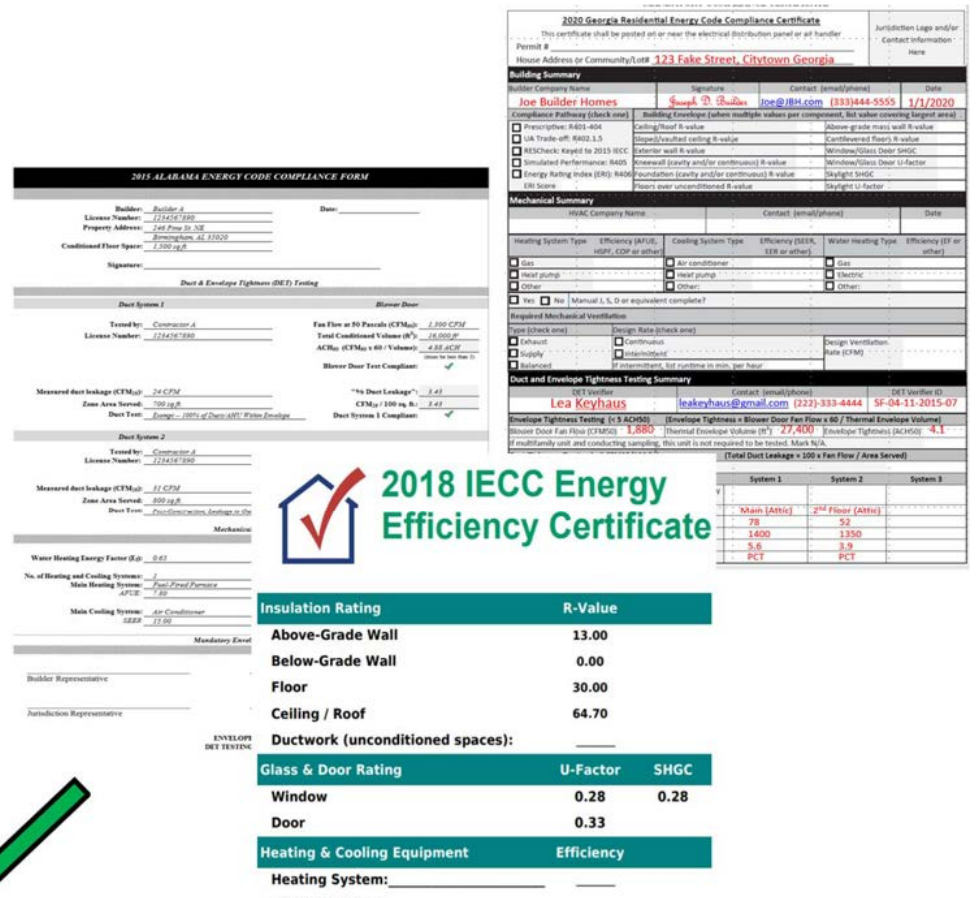
☐☐☐ 1. Blower door and duct leakage passing results correctly displayed on energy code certificate

Final inspection

Yes No N/A

☐☐☐ 1. Blower door and duct leakage passing results correctly displayed on energy code certificate

1. Blower door and duct leakage passing results correctly obtained and displayed on **energy code certificate**



2015 ALABAMA ENERGY CODE COMPLIANCE FORM

2020 Georgia Residential Energy Code Compliance Certificate

2018 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	13.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	64.70
Ductwork (unconditioned spaces):	____

Glass & Door Rating	U-Factor	SHGC
Window	0.28	0.28
Door	0.33	

Heating & Cooling Equipment	Efficiency
Heating System: _____	____
Cooling System: _____	____
Water Heater: _____	____

Name: _____ Date: _____

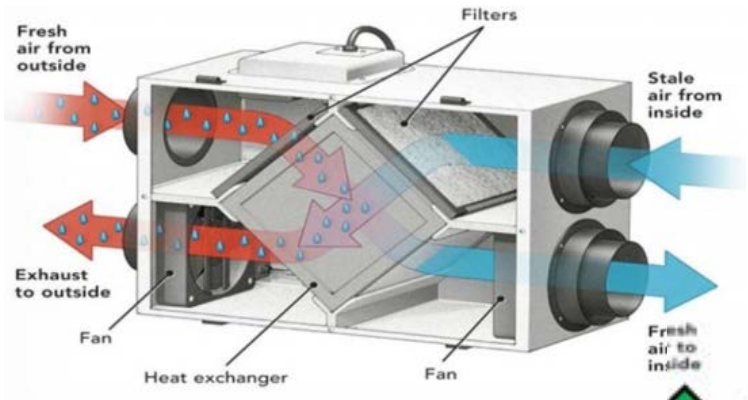
Comments

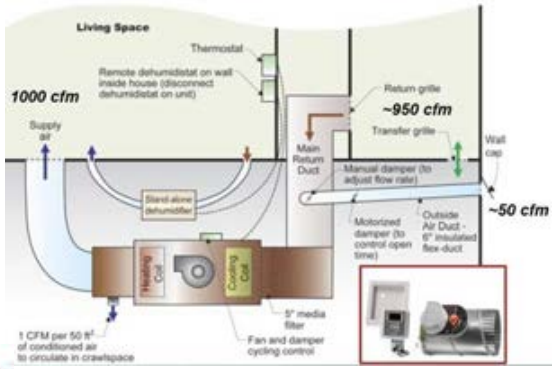
Final inspection

2. Mechanical ventilation system installed for homes < 5 ACH50 (as per IRC)

Yes No N/A

☐☐☐ 2. Mechanical ventilation system installed for homes < 5 ACH50



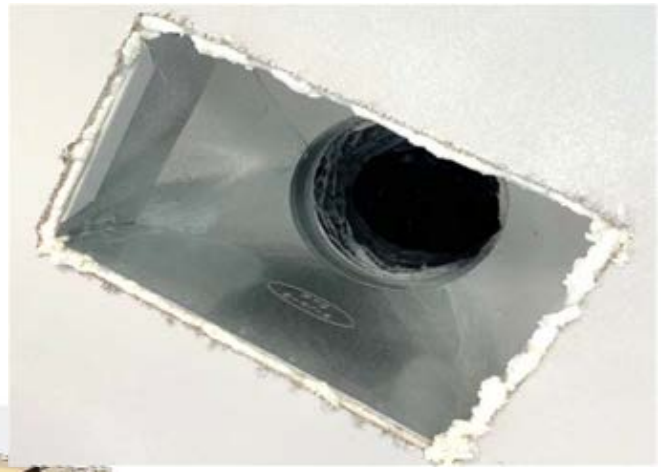


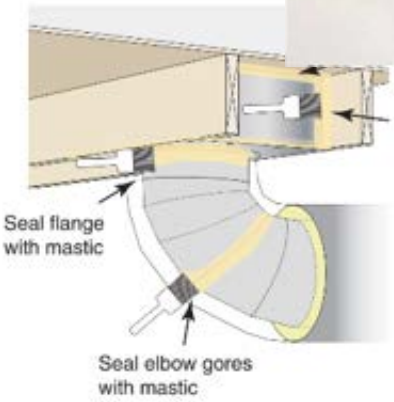
Final inspection

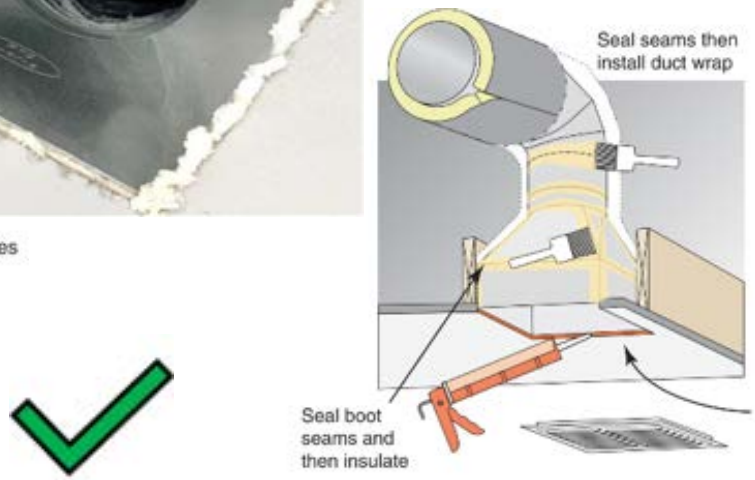
3. Duct boots insulated and sealed to drywall/ subfloor

Yes No N/A

☐☐☐ 3. Duct boots insulated and sealed to drywall and/or subfloor







Final inspection

Yes No N/A

4. Underfloor insulation installed in complete contact with air barrier and permanently secured in place (e.g., wire staves)

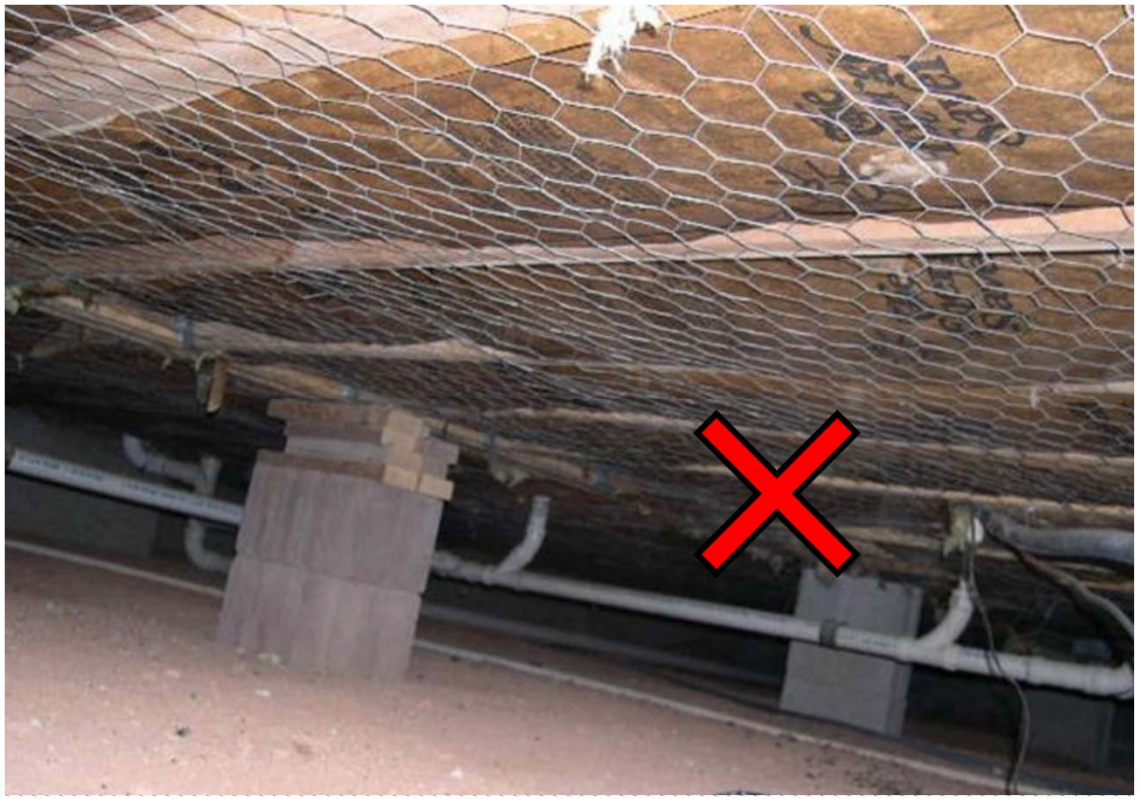
4. Underfloor insulation installed in complete contact with air barrier and secured

Final inspection

Yes No N/A

☐☐☐ 4. Underfloor insulation installed in complete contact with air barrier and permanently secured in place (e.g., wire staves)

4. Underfloor insulation installed in complete contact with air barrier and secured

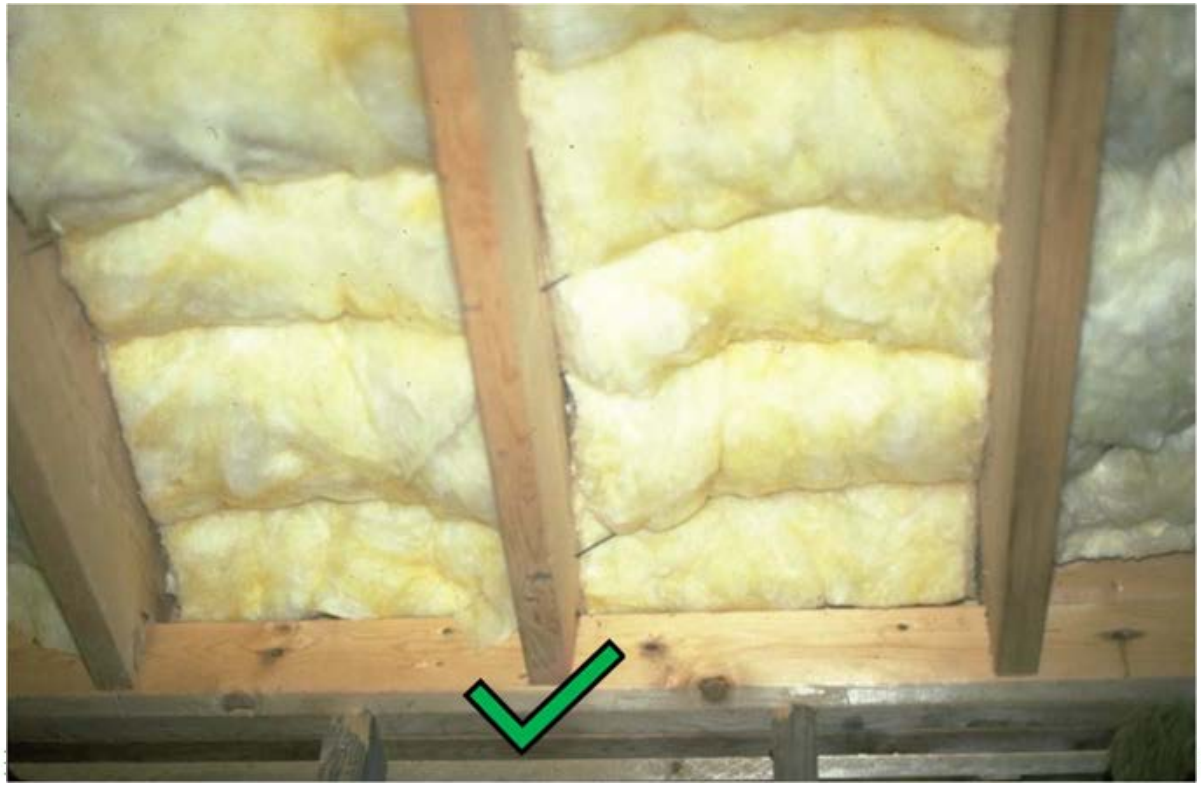


Final inspection

4. Underfloor insulation installed in complete contact with air barrier and secured

Yes No N/A

☐☐☐ 4. Underfloor insulation installed in complete contact with air barrier and permanently secured in place (e.g., wire staves)



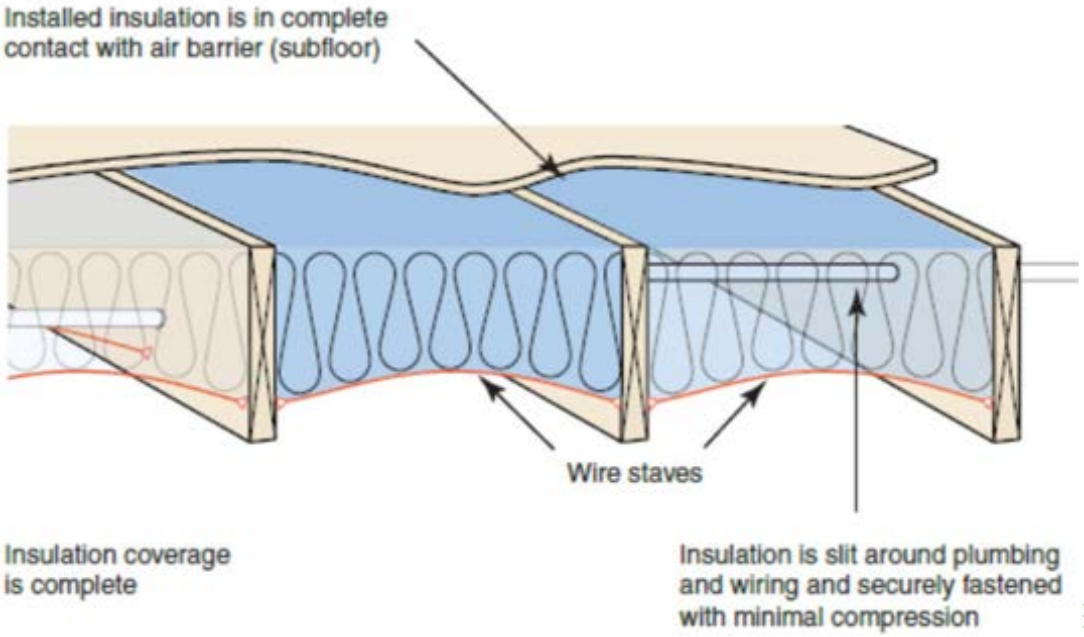
Final inspection

4. Underfloor insulation installed in complete contact with air barrier and secured

Yes No N/A

4. Underfloor insulation installed in complete contact with air barrier and permanently secured in place (e.g., wire staves)

Passing Grade

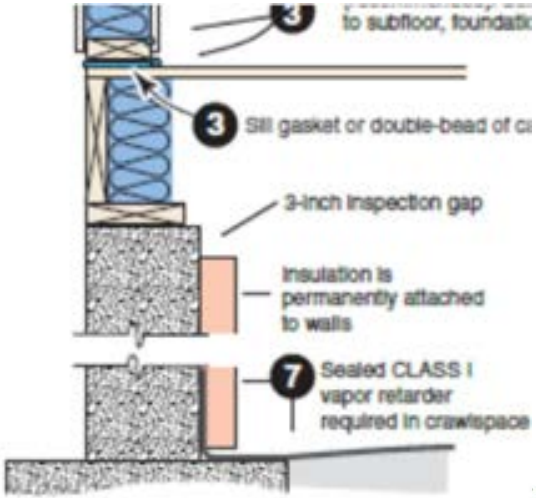


Final inspection

Yes No N/A

☐☐☐ 5. Crawlspace has complete (min. 6-mil poly) vapor barrier (overlapped and sealed to foundation)

5. Standard vented and conditioned crawlspaces have 6-mil poly vapor retarder sealed to foundation



Final inspection

Yes No N/A

☐☐☐ 6. Conditioned Crawlspace Wall has insulation installed as per code (402.2.11)

6. Conditioned crawlspaces have wall insulation per code (402.2.11) (R-10 continuous for CZ-4)

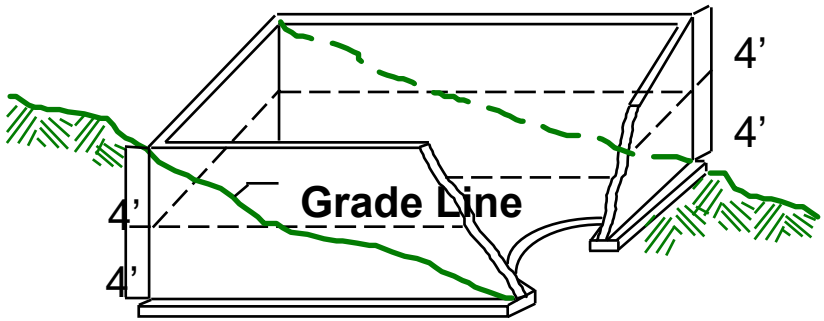
R402.2.11 Crawl space walls. As an alternative to insulating floors over crawl spaces, crawl space walls shall be insulated provided that the crawl space is not vented to the outdoors. Crawl space wall insulation shall be permanently fastened to the wall and shall extend downward from the floor to the finished grade elevation and then vertically or horizontally for not less than an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with the *International Building Code* or *International Residential Code*, as applicable. Joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (153 mm) up stem walls and shall be attached to the stem walls.

Final inspection

Yes No N/A

☐☐☐ 7. Basement wall insulated as per code (~~R-13 cavity or R-10 continuous for CZ 4~~; amended to R-0)

7. Basement wall insulated as per code (R-13 cavity or R-10 continuous for CZ-4)
   Note: St. Louis amended to R-0



Final inspection

Yes No N/A

☐☐☐ 7. Basement wall insulated as per code (~~R-13 cavity or R-10 continuous for CZ 4~~; amended to R-0)

7. Insulated basement wall methods

Cellulose blanket/batt

Rigid foil-faced poly-iso foam board

Fiberglass batt w/ vinyl backing

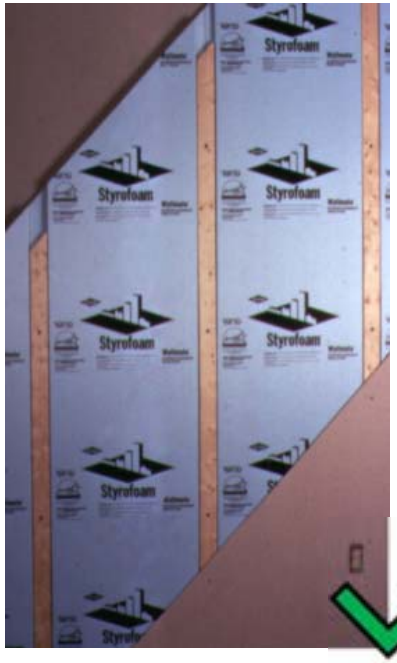
Final inspection

Yes No N/A

☐☐☐ 7. Basement wall insulated as per code (~~R-13 cavity or R-10 continuous for CZ 4~~; amended to R-0)

7. Insulated basement wall methods

Rigid foam board



Fiberglass batt in AGW, foam board on concrete

Spray Polyurethane Foam

Final inspection

Yes No N/A

☐☐☐ 7. Basement wall insulated as per code (~~R-13 cavity or R-10 continuous for CZ 4~~; amended to R-0)

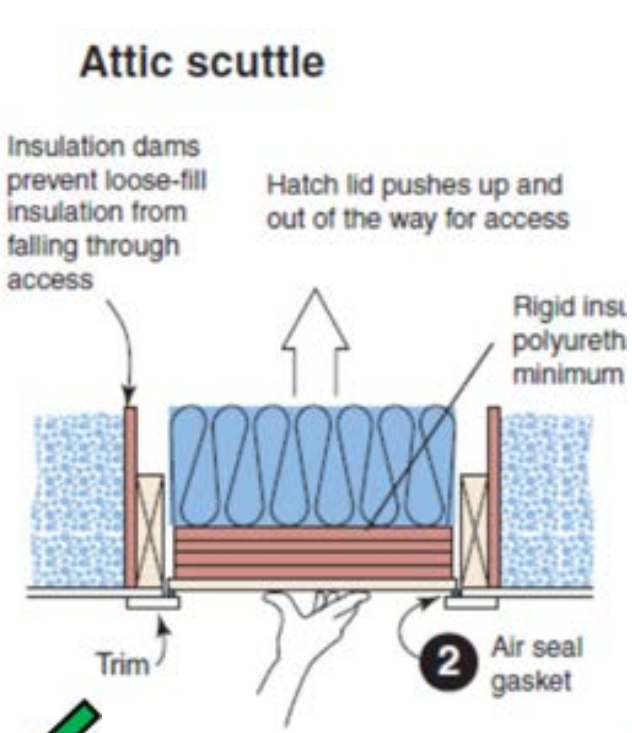
7. Insulated basement wall methods

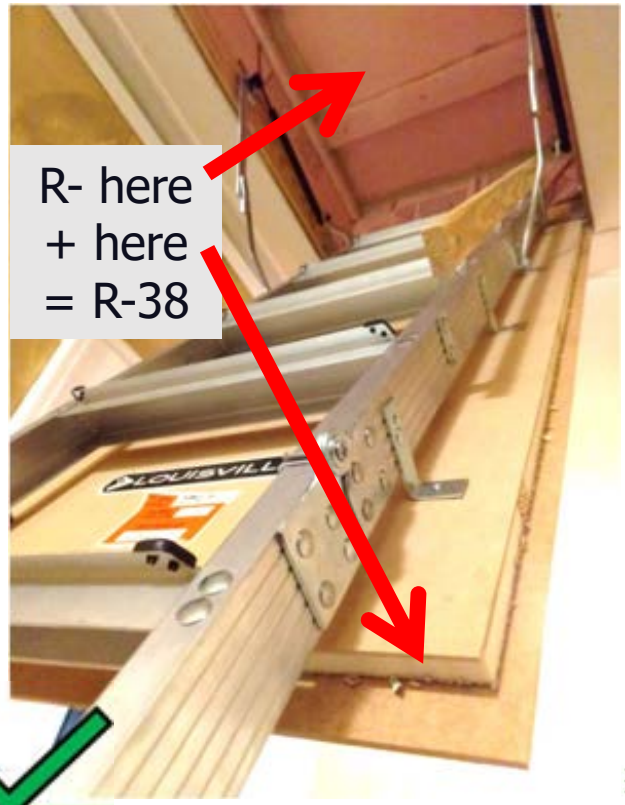
Final inspection

8. Attic access (pull-down stairs or hatch) meets air sealing and insulation (*R-38) requirements

Yes No N/A

☐☐☐ 8. Attic access (pull-down stairs or hatch) meets R-38 insulation and air sealing requirements (pull-down stairs door is sealed into rough opening)





Final inspection

Yes No N/A

☐☐☐ 8. Attic access (pull-down stairs or hatch) meets R-38 insulation and air sealing requirements (pull-down stairs door is sealed into rough opening)

8. Attic access (pull-down stairs or hatch) meets air sealing and insulation (*R-38) requirements

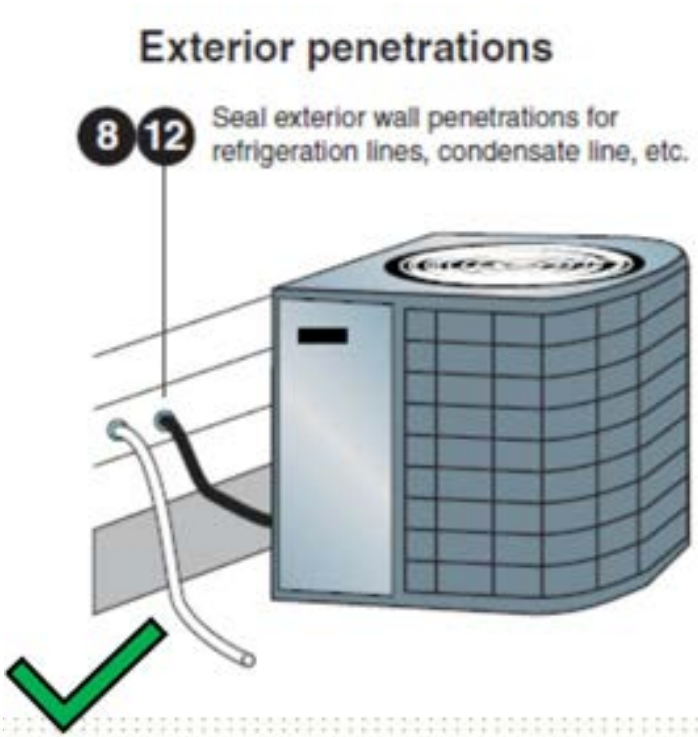
Total R-38

Final inspection

Yes No N/A

☐☐☐ 9. Utility (e.g., gas piping) penetrations sealed at exterior

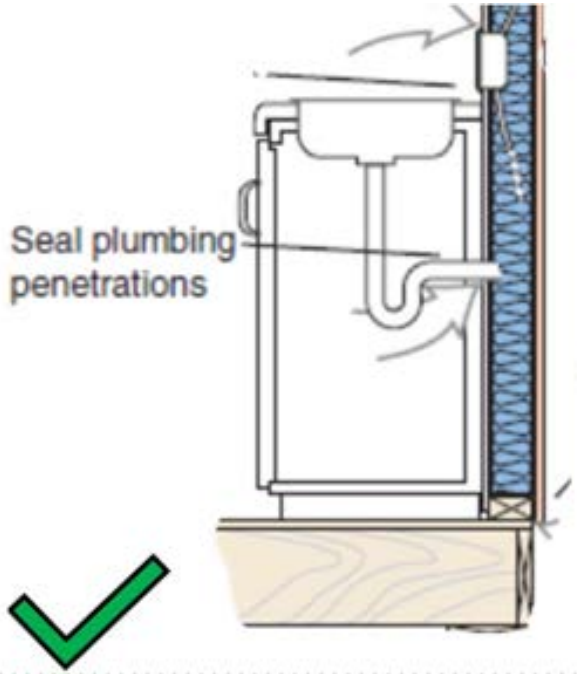
9. Utility (e.g, gas piping) penetrations sealed

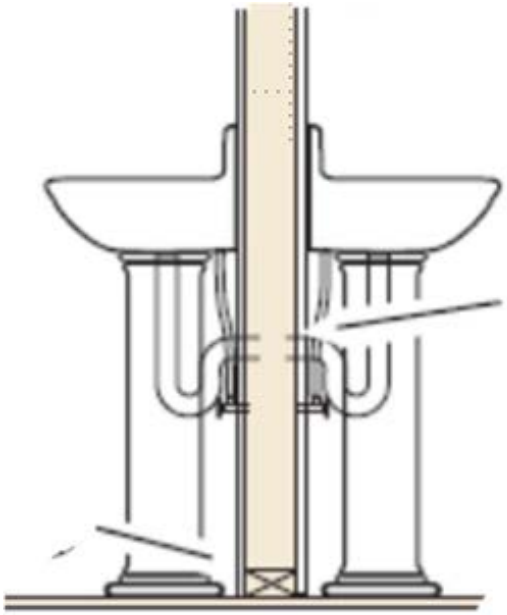


Final inspection

Yes	No	N/A	
☐	☐	☐	10. Plumbing penetrations in drywall are sealed

10. Plumbing penetrations sealed to drywall

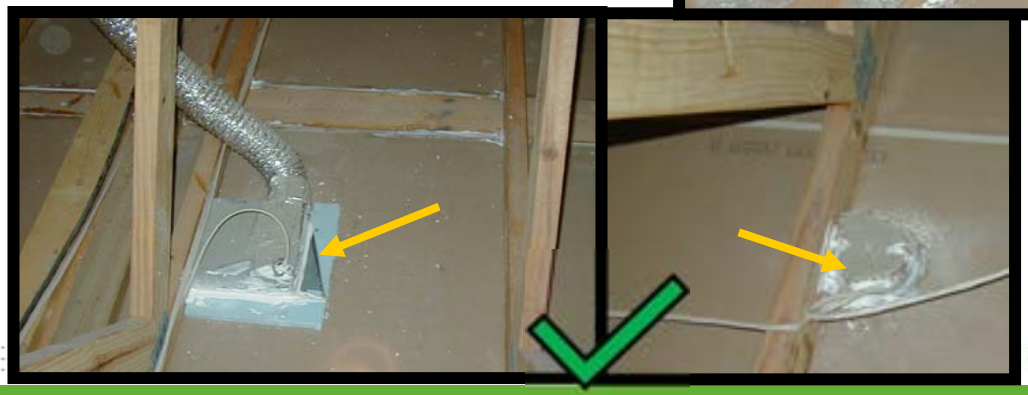




Before ceiling insulation…

Drywall is the only ceiling Air Barrier

- After drywall, but before ceiling insulation is added, interior wall plate leak paths are sealed with caulk, foam, or gaskets
- Light fixture boxes are caulked
- Bath vent fan rough openings sealed with foam and caulked to the drywall



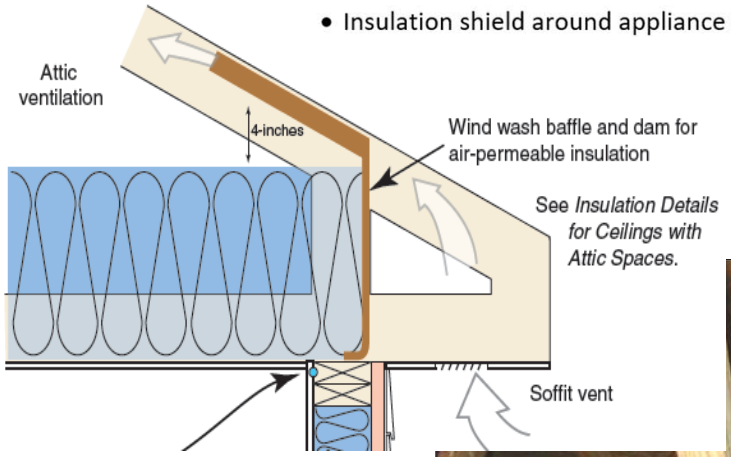
Final inspection

11. Attic ceiling insulation is consistent, proper depth throughout (card & rulers, dams & baffles, shields)

Yes No N/A

☐☐☐ 11. Attic Ceiling insulation is properly installed: coverage is consistent, proper depth throughout

- Attic contains Loose-fill Insulation Card and Rulers (1 per 300 sf)
- Dams and vent baffles extend over top plate of exterior walls at eave/soffit vents
- Dams installed at attic access and to adjacent uninsulated portions (porches & garages, etc.)
- Insulation shield around appliance vent pipes and chimneys



Final inspection

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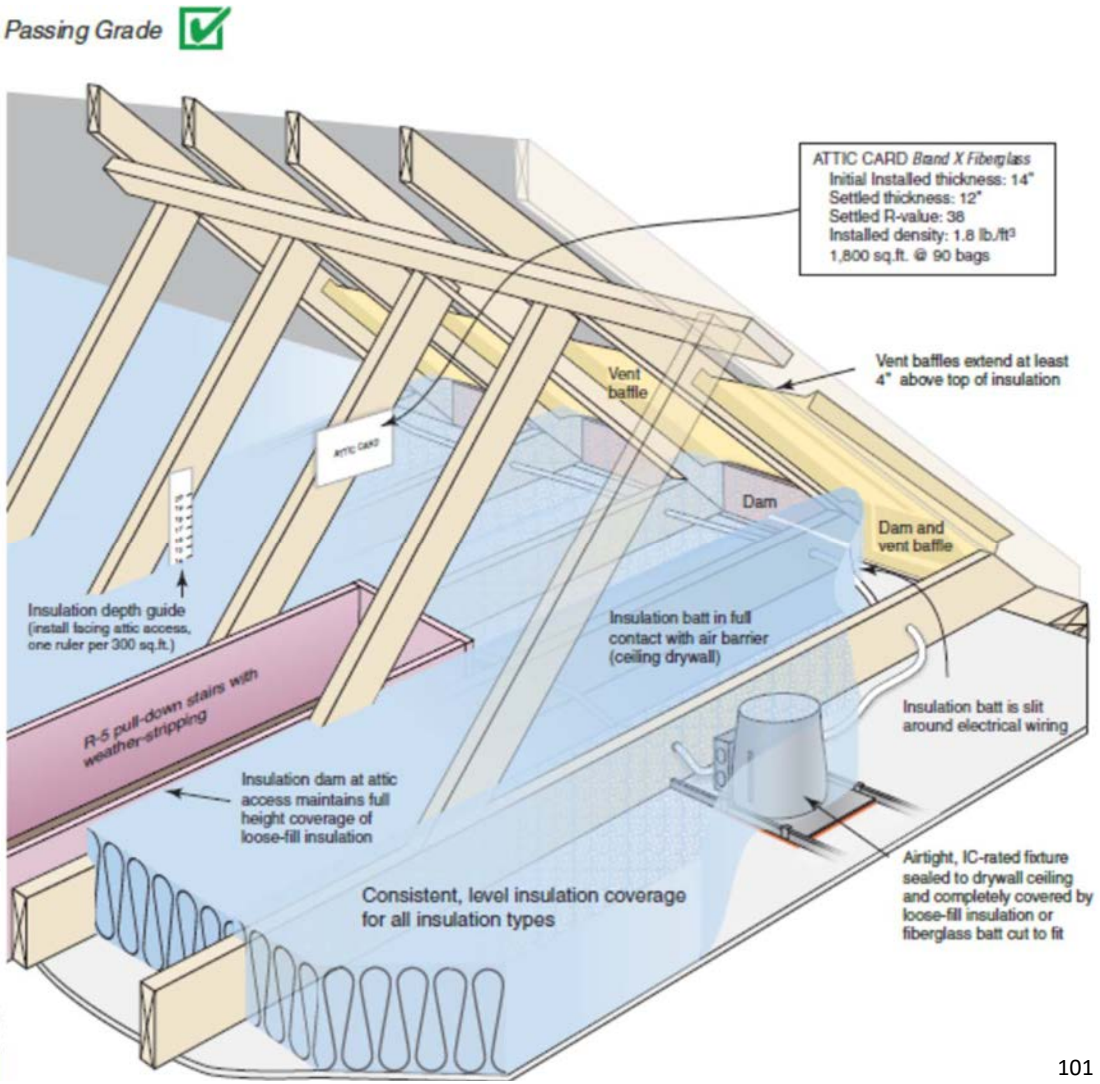

Final inspection

11. Attic ceiling insulation is consistent, proper depth throughout (card & rulers, dams & baffles, shields)

N/A
No
Yes

11. Attic Ceiling insulation is properly installed: coverage is consistent, proper depth throughout
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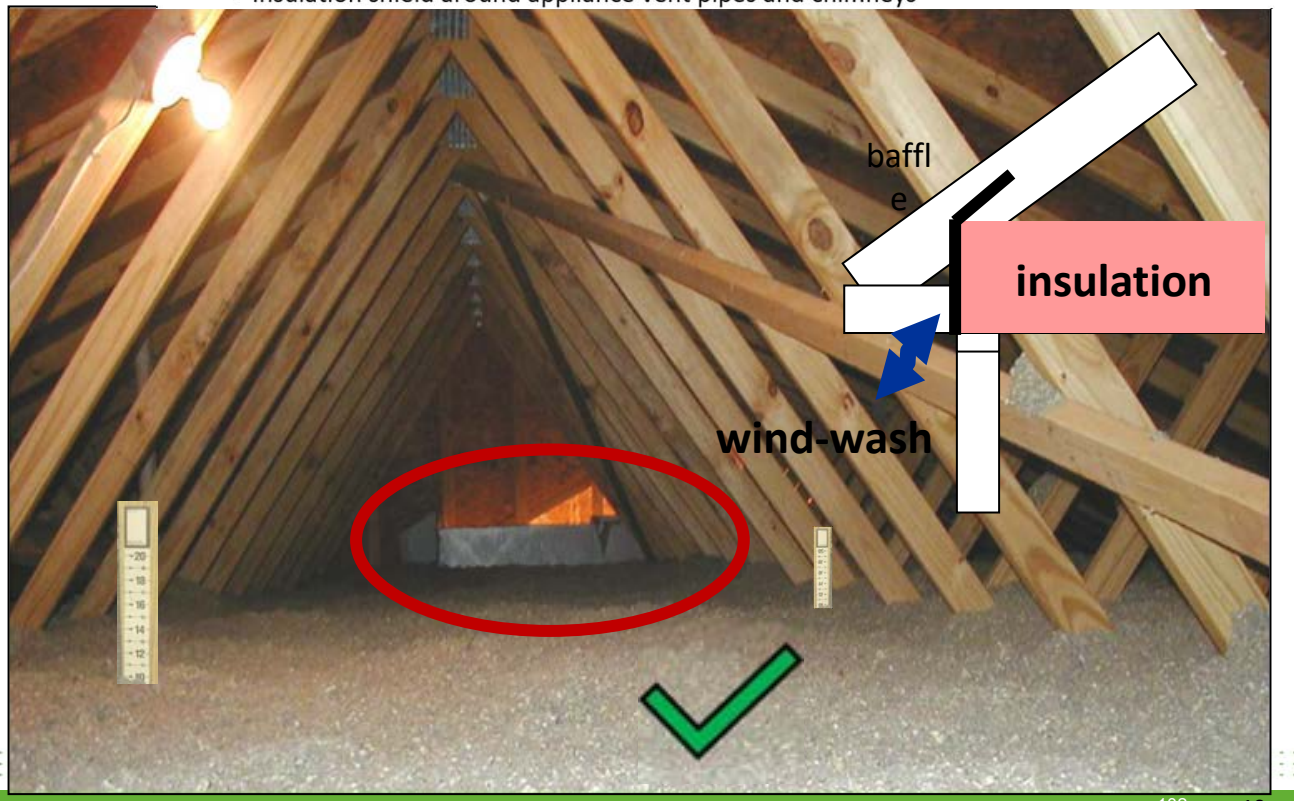


Final inspection

11. Attic ceiling insulation is consistent, proper depth throughout (card & rulers, dams & baffles, shields)

N/A
No
Yes

☐☐☐ 11. Attic Ceiling insulation is properly installed: coverage is consistent, proper depth throughout

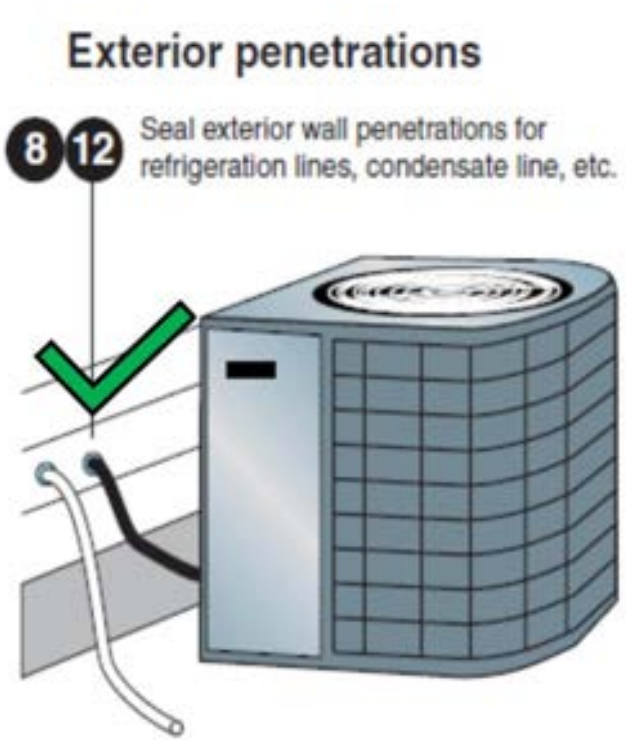
- Attic contains Loose-fill Insulation Card and Rulers (1 per 300 sf)
- Dams and vent baffles extend over top plate of exterior walls at eave/soffit vents
- Dams installed at attic access and to adjacent uninsulated portions (porches & garages, etc.)
- Insulation shield around appliance vent pipes and chimneys

Final inspection

Yes No N/A

☐☐☐ 12. Refrigerant line-set insulation is protected from elements and air sealed at envelope junction

12. Refrigerant line-set insulation is protected (and air sealed)



Final inspection

Yes No N/A

☐☐☐ 13. Efficient lighting for 90% of bulbs– CFL's, linear fluorescent & LED (not incandescent or halogen)

13. Efficient light bulbs – 90% are fluorescents, CFL or LED

Thank you!

matt@verda-solutions.com
mikeb@southface.org
sjohnson1@southface.org
abell@opelika-al.gov

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