Air-sealing a Flat Roof “Attic”

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Why air-seal?

GRASP this:

- Building Science performed in 1992
- 40 buildings air-sealed and cellulosed vs. 40 buildings only cellulosed but no sealing
- No moisture issues even 25 years later- even on the un-air-sealed buildings

Get on your spelunking gear

Are you in shape?

- 10 sit-ups a day
- 1 push –up
- Get on the floor and start dragging your self around by the arms for practice.

CAT WALKS?

Respirator, goggles, hat, gloves, HOP

You need this

And this

To Find the Leaks

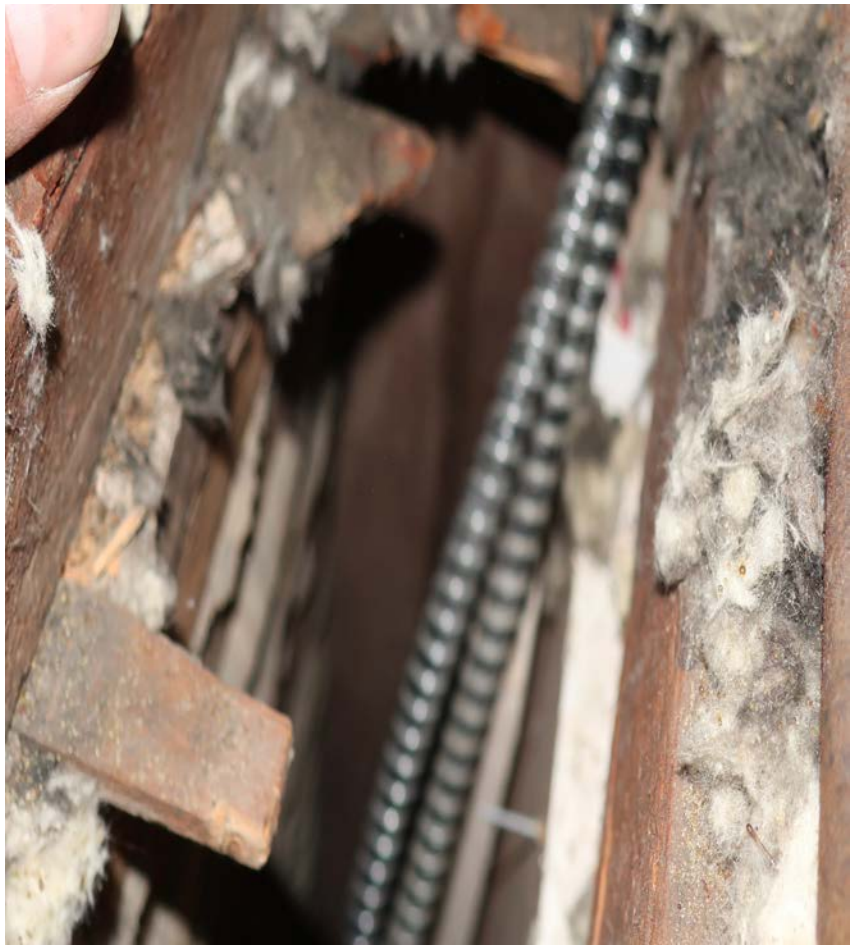
Either this…

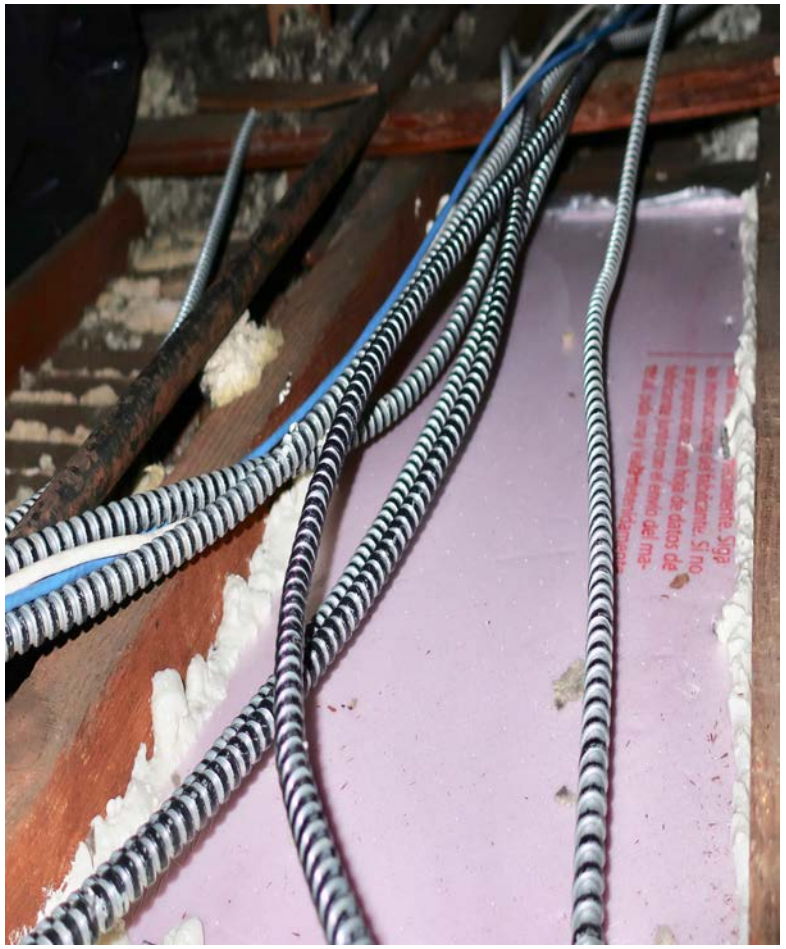
…or this

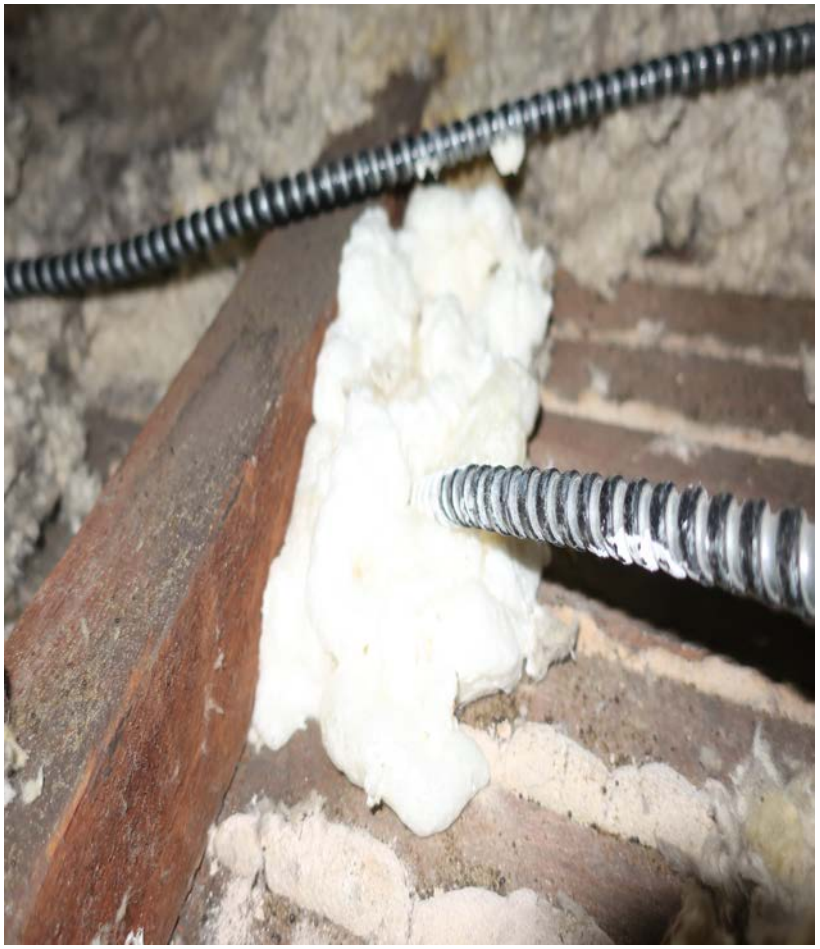
To Fix the leaks


LITHIUM

Assist Wall







Chimney

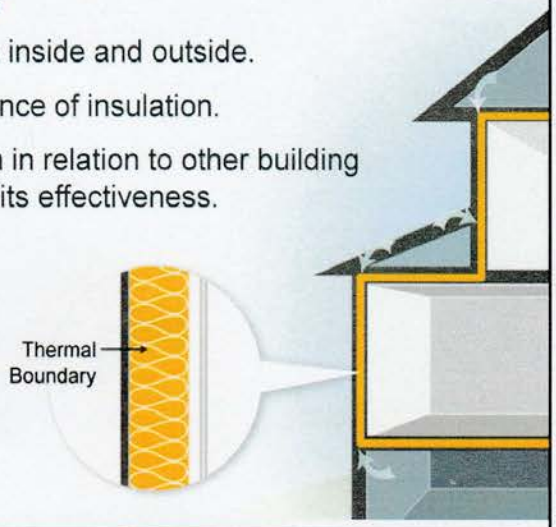
Thermal Boundary

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

ENERGY MOVEMENT

The Thermal Boundary:

- Limits heat flow between inside and outside.
- Easy to identify by presence of insulation.
- The location of insulation in relation to other building components is critical to its effectiveness.
- Even small areas of missing insulation are very important.
- Voids of 7% can reduce effective R-value by almost 50%.




inch

Bath Fan & Recessed light

Cellulose

- Dense-packing where access is too tight
- GRASP Project Energy Savings
- GRASP Project lack of moisture issues 25 years later!!!!!

10 from Jason's Air-Sealing Check List

- 1. Chimneys
- 2. Recessed Lights
- 3. Bathroom Fans
- 4. Stink Pipes
- 5. Wet Walls/ All Wall Tops (Top Plates)
- 6. Duct Work
- 7. Attic Entrances
- 8. Gable Ends
- 9. Surprises
- 10. Junction Boxes

Vertical Thermal Boundaries

Dropped Soffits

Ceiling Height Changes

Knee-walled Spaces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