

# Attic Ventilation Sucks! Are we giving the right advice?

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## Question

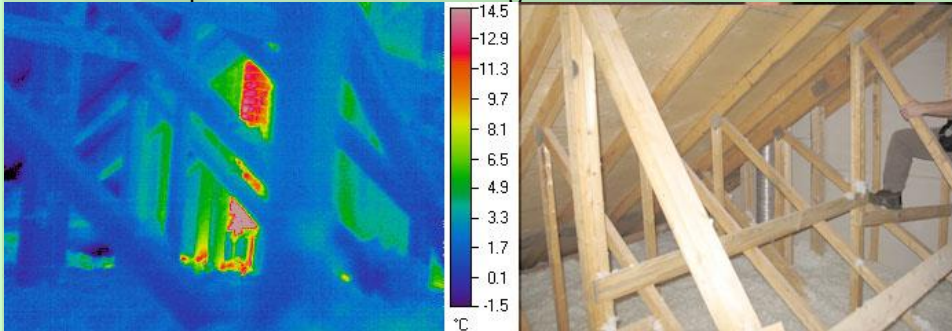
- Why can't we convince the building industry participants that attic air and heat leakage is more significant for ice dams than roof cavity ventilation?
- Case 1 New semi-detached upscale cottage just prior to possession



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### Answer

- Because we obsess about what we can easily see (1 in 300 roof ventilation) rather than the differences in ambient temperatures of the conditioned space, the attic, exterior and the surfaces when the performance of the building enclosure matters.



Exterior air, roof trusses, roof framing and top of insulation -1 to 3 C.  
Party wall 5.5 - 13 C.  
Fireplace vent 14-100 C. (estimated)  
Interior ambient 20 C.

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### Case 2 20 year old row house had reported ice dams

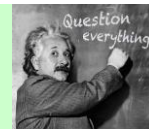


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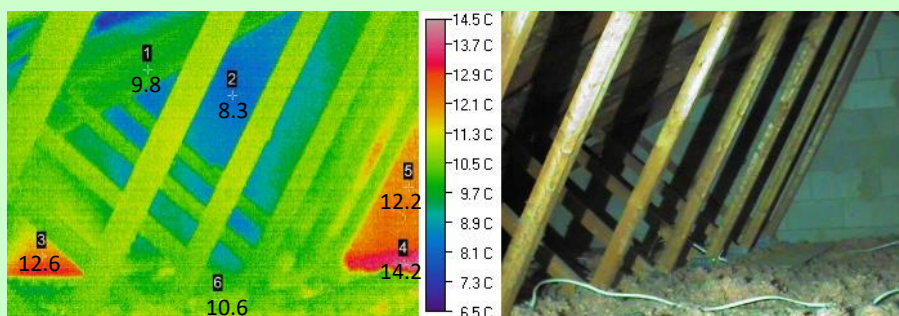
**What are the contributing sources of heat in this 20 year old attic ?**



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**-Why is there too much heat and how can it be reduced?**



Outside temp 0 degrees C. Inside temp 20 degrees C. Attic interior temp~9 degrees C.

#### **Suspected Causes**

- Reduced attic insulation?
- Heat from vents in the attic?
- Air leakage from below?
- Heat from the party walls?
- Heat from the pot lights?
- Heat from the sun? Attic size?



## Attic Ventilation Sucks!

Are we giving the right advice?

-How do you know when ventilation is deficient?



When you don't see vents?  
When the sheathing is stained?  
When there are ice dams?  
When you see added vents?  
When vents are less than 1 in 300?

Is snow/ice build up due to Vents or Heat?

Should the question not be: Why is there too much heat and how can it be reduced?



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### Bottom Line

- 1 Ventilation is not the answer to excessive heat or moisture leaking from the conditioned space into the attic space.**
- 2 The answer is improved air leakage control, and reducing heated surfaces, NOT improved attic ventilation.**
- 3 Stop worrying about the number of vents. Focus on the heat and air leakage.**