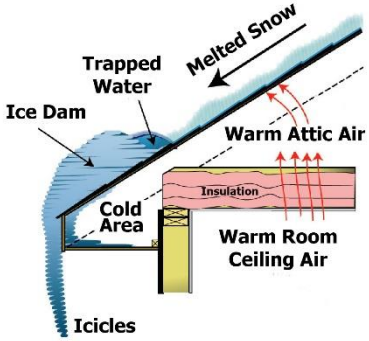
Neighbors,

As you may be aware, I am the Insulation Improvement Project Liaison between the contractor and the HOA Board of Directors. The following is an update of the project with photos and captions as of January 24, 2019:

The primary purpose of the Insulation Improvement Project is to reduce attic temperature. Because warm attic air melts snow on the roof, water from the melted snow flows down the roof and freezes when it reaches the cold eave. Eventually ice dams and icicles are formed. See the diagram to the right. With improved attic insulation this process is reduced.



13 units are now completed.

Most of the units were much worse and had more problems than anticipated. This required significant amounts of additional insulation materials than originally planned. On an average, material used per unit included 370 square feet of fiberglass batt insulation for an R30, 520 square feet of blown-in insulation for an R19 (that is on top of the existing insulation), many feet of aluminum tape and numerous large zip-ties.

There is an 18-inch main trunk line that provides heating and cooling to most of the rooms in the unit. The trunk line insulation is improperly installed and has fallen off. This exposes large areas of uninsulated metal trunk line that radiates heat to the attic. Heat going into the attic requires the furnace to run longer to compensate for the heat loss while keeping the home at the desired temperature, thus increasing the heating bill.

Trunk line insulation has completely fallen off.

Trunk line repair has involved restoring the existing insulation to its proper position and taping the joint closed with aluminum tape. Then zip-ties are used to prevent the insulation from falling off again. The trunk line is then covered with fiberglass insulation, and lastly blow-in insulation is applied where ever needed.

Trunk line insulation position restored and secured with aluminum tape and zip-ties to prevent the insulation from falling off again.

Trunk line covered with fiberglass insulation.

Trunk line and attic area is covered with blown-in insulation where needed.

Insulation is blown-in in the area above the furnace room.

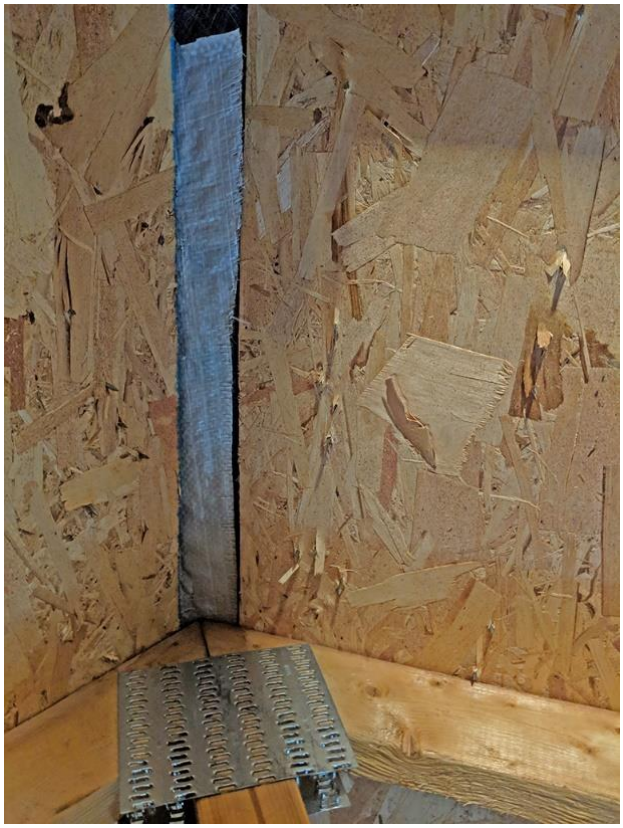
There is a significant amount of heat loss to the attic in the area above the furnace room because of poorly insulated ducts. A barrier was built around this area and filled with blown-in insulation.

The worse situation so far is the main trunk line connection came apart in this unit allowing huge amounts of hot air to flow to the attic. After the repair, the owner stated that he could feel air coming from his registers for the first time. There will be a significant reduction in this owners heating and cooling bills.

This is the open trunk line.

Numerous problems have been discovered that were outside the scope of the project. Here is one example where the bathroom vent had detached from the roof. Another is where the Tyvek under the shingles covered the ridge vent rendering it useless. The contractor is repairing such issues when found.

This is the detached bathroom vent and the repair.



Blocked ridge vent. Functional ridge vents are essential for providing ventilation of the attic.

Hopefully this explains the scope of the project and illustrates the progress so far. An improvement in attic insulation will reduce the attic temperatures and its contribution to melting roof snow. This in turn is anticipated to decrease ice dams and icicles. An added benefit to co-owners will be reduced heating and cooling bills.

If you have any questions you are welcome to call me.

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