



C.P. 227, Mansonville,  
Québec, J0E 1X0  
(819) 580-0471

**Inspection #:**

**Inspector:**

**Date:**

**Expertise Address:**

**Client Name:**



**QuébecSpec Building Inspection**

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Please take the time to analyze the following pages contained herein. This is your complete inspection report and must be reviewed carefully. Below is an index of the ratings used in this report.

**Serviceable**

The item was inspected and appeared to function normally at the time of inspection.

**Not Inspected**

The item was not inspected due to inaccessibility, personal items, temperature, weather conditions or the item is not within the scope of the inspection.

**Not Operated**

The system or component was not operated due to inaccessibility, temperature, weather conditions or the item is not within the scope of the inspection.

**Comment**

The item was inspected and found to be deficient in some respect or in the inspectors opinion maintenance needs to be performed.

**Review**

The item was inspected and found to have deficiencies, was operating or installed incorrectly, is a possible health, fire, safety concern or in the inspector's opinion at or near the end of its useful life.

**GENERAL INFORMATION**

We attempt to give the client a comprehensive, clear-cut, unbiased view of the home. The purpose of this inspection is to identify 'MAJOR' problems associated with the property being purchased or sold, although minor items may also be mentioned. Areas, which may be of concern to us, may not be of concern to the client and some items, which may be of concern to the client, may be considered minor to us. Therefore, it is advisable to read the entire report.

Where repairs or replacements are suggested, we recommend licensed professionals in that field be called upon to make those repairs. We can perform verification of repairs to ensure repairs or corrections were made and also advise the client to obtain all paperwork from professionals concerning the work performed. These professionals will be happy to provide you with written statements concerning their work. We further recommend maintaining all paperwork on repairs for future reference.

**Pictures/photos/illustrations**

Are include so that the customer can visualize the type of problem that is represented in the description section of the report, they do reflect the state of the actual property at the time of inspection but are in no way intended to represent all of the defects or problems of the same type or other defects or problems that are present on the property at the time of the inspection.

**FOR ANY MODIFICATION TO THE STRUCTURE, WE RECOMMEND CONSULTING A LICENSED SPECIALIST TO ENSURE THAT MODIFICATIONS ARE DONE SAFELY AND FOLLOWING THE STANDARDS OF PRACTICE**

## GENERAL CONDITIONS

010	Inspector	
020	Occupancy	Occupied.
030	Building Description	The building type is a single family home.  With a full basement.  Built on a sloped lot.
035	Present during the Expertise	The owner was present.
040	Estimated Age	This structure is approximately 17 years of age as stated by the owner.
050	Weather Conditions	Cool and cloudy.  Outdoor Temperature: 5 Celsius.  Indoor Temperature: 20 Celsius.
060	Start Time	6:45 PM
070	Stop Time	8:45 AM
080	Comments	QuébecSpec was mandated by the owner to determine the reason or reasons for the significant ice build-up on the roof structure during the winter months.

To perform the evaluation, the following equipment was used:

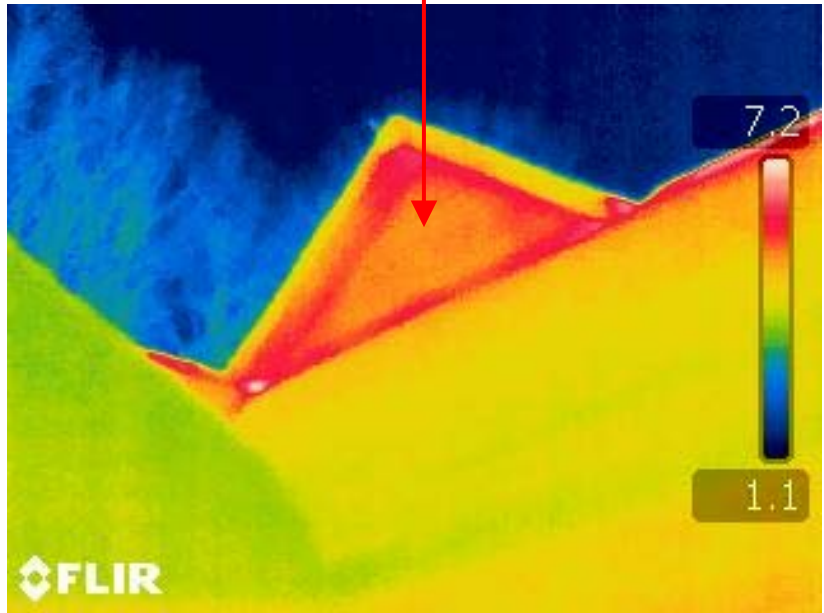
A Flir model B300 infrared camera used in a qualitative mode to determine the areas of the structure that have either significant heat loss or significant air leakage.

## ROOF

Step #	Component	Comments
301	Roofing Type & Materials	Sloped construction. Asphalt shingles.
306	Roof Comments	<b>Review. Heat loss observed at several areas on the roof.</b>  <b>See comments #357, 360, and 1053.</b>



The yellow to red areas in the picture represent major heat loss and air leakage.



### QuébecSpec Building Inspection

## ATTIC

There are a number of components that make an attic work properly; the roof, the insulation and ventilation. The roof itself must keep the elements out of the house, thereby protecting the occupants and also the structure from damage due to moisture. Insulation keeps the house warm in winter and cool in summer. Without proper ventilation, heat can build up in the attic during summer, making the rest of the house unnecessarily warm.

Step #	Component	Comments
351	Access	Accessed.
352	Framing	Serviceable. Trusses.
353	Sheathing	Serviceable. Plywood.
353a	Skylight	<b>Review. We recommend removing the bat insulation from skylight and spraying with urethane foam to seal all areas of air leakage.</b>
355	Insulation	<p><b>Review.</b></p> <p>Mineral wool / fiberglass.</p> <p>Approximate thickness is 10" to 12".</p> <p><b>Insulation is compressed at certain areas.</b></p> <p><b>We recommend correcting this situation to restore insulation factor and conserve energy.</b></p>
356	Vapour-Barrier	Serviceable.
357	Ventilation	<p><b>Review.</b> Soffit vents and Ridge vents.</p> <p><b>We recommend adding extra ventilation (maximum type vent or other) in order to enhance air circulation in the attic, to prevent moisture/humidity accumulation and damage/deterioration to the structure.</b></p> <p><b>We also recommend condemning any other upper vents to ensure efficiency of maximum vent.</b></p>

360 Attic Comments **Review. Several areas of heat loss due to air leakage were observed in the attic.**

**Heat loss will cause ice build-up on the roof during the winter months.**

**We recommend removing the bat insulation from this area and spraying with urethane foam to seal all areas of air leakage.**

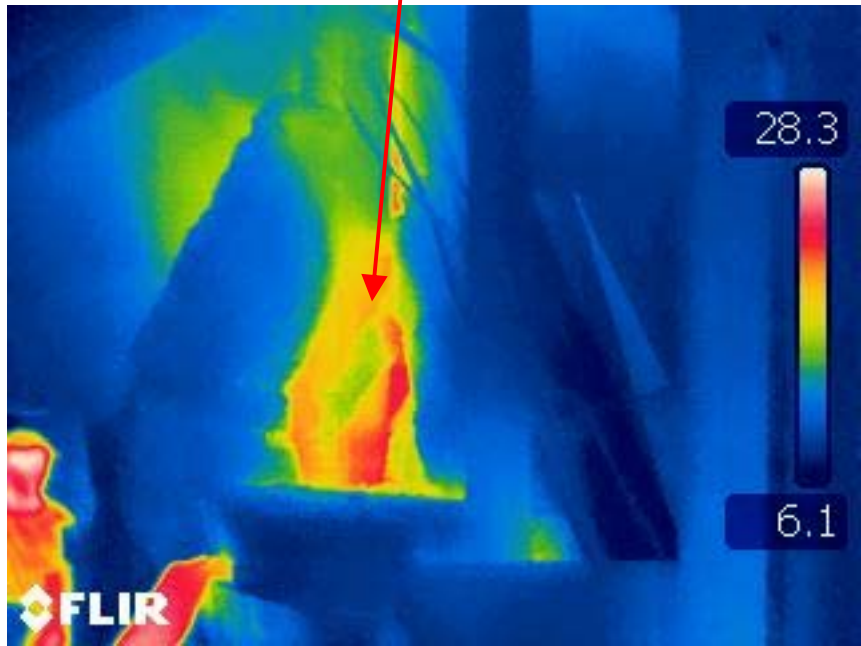


**The major areas of air leakage and heat loss are coming from inside the attic in the above area showed in the picture.**

360 Attic Comments



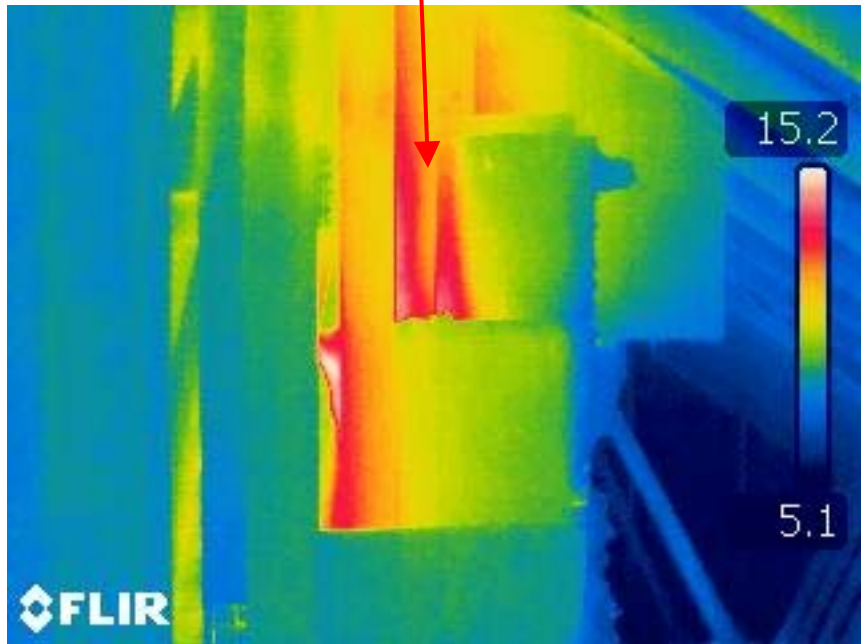
The yellow to red areas in the picture represent major heat loss and air leakage.



360 Attic Comments



The yellow to red areas in the picture represent major heat loss and air leakage.



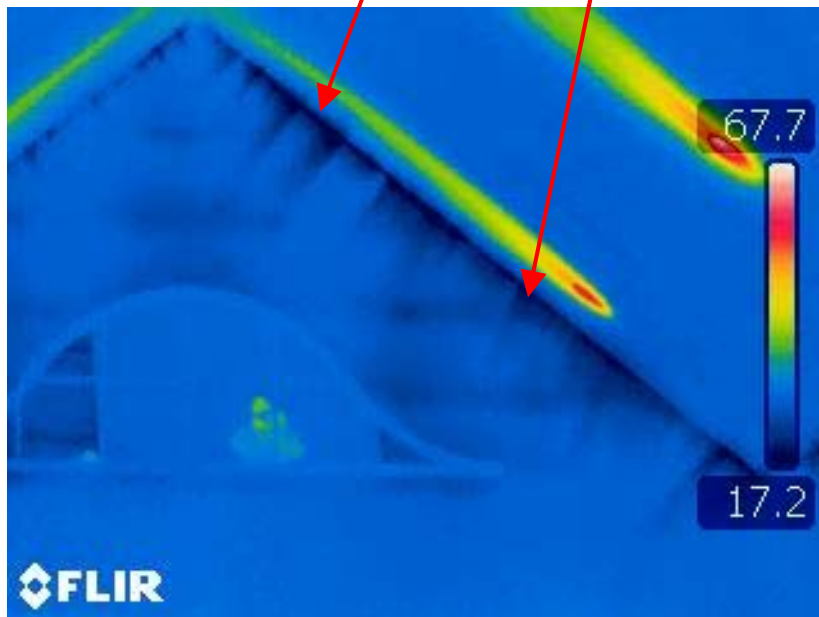


## LIVING ROOM

Step #	Component	Comments
1053	Walls / Veiling	<p><b>Review. Air leakage noticed at all wall to ceiling areas.</b></p> <p><b>These areas of air leakage will cause heat to build up in the attic and creating ice problem on the roof during winter months.</b></p> <p><b>We recommend ceiling all of these areas will a flexible caulking to prevent heat loss into the attic.</b></p>

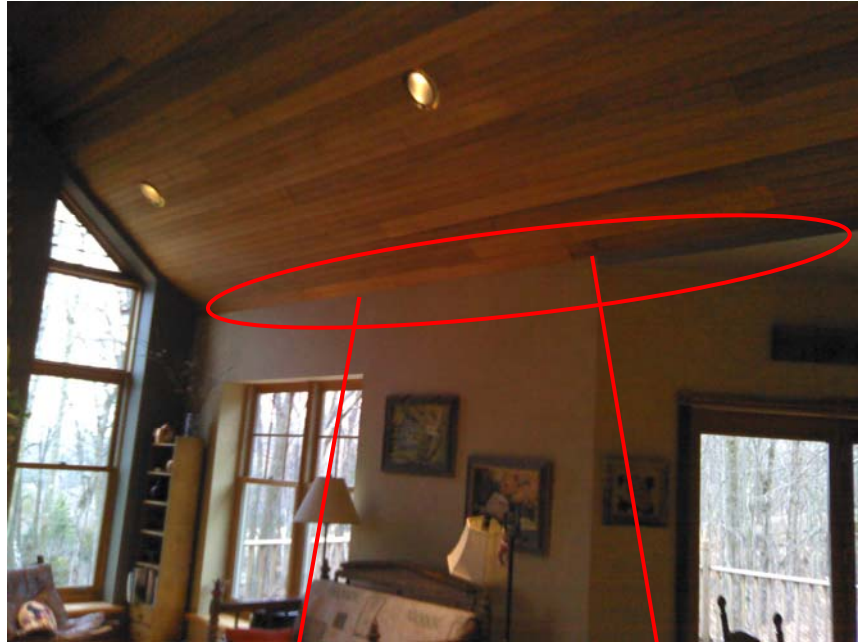


The bleu streaking areas in the picture represent major air leakage.



**QuébecSpec Building Inspection**

1053 Walls / Veiling



The bleu streaking areas in the picture represent major air leakage.



1053 Walls / Veiling



The bleu streaking areas in the picture represent major air leakage.



**QuébecSpec Building Inspection**

## CONCLUSION

Our expertise revealed multiple areas of heat loss and air leakage from the attic and roof structure. These areas of heat loss are probably the reason for the ice build-up on the roof structure during the winter months. It is also possible that the ridge ventilation of the roof is insufficient during the winter months.

Most areas of heat loss are caused by air leakage from the internal structure of the house to the attic structure. This appears to be occurring mainly in the living room area. A negative pressure was created in the house by turning on all extractions ventilators to accentuate the air leakage and make it visible to the infrared camera.

### Recommendations:

- A flexible sealant should be installed at all walls to ceiling joints to prevent air leakage from the main living area into the attic area.
- The current bat insulation that is currently installed around the top front ceiling living room area should be replaced with urethane foam. This will seal all openings thus preventing any air leakage.
- The bat insulation surrounding the skylight structures should be replaced with urethane foam. This will seal all openings thus preventing any air leakage.
- Extra ventilation should be added to the attic structure to allow for a more efficient air circulation especially during the winter months.
- The attic insulation is compressed at certain areas in the attic. The situation should be corrected to maintain a proper insulation value.