

Energy Report

Customer Details

Property



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Property Type *

2-Storey

Confirmed Insulation
2600 John St. #208
Markham, ON L3R 3W3

Areas of Focus *



1. Exterior



2. Attic & Roof



3. HVAC



4. Windows & Doors



The assigned grade reflects the current condition of these elements and their role in the overall efficiency, comfort, and durability of the home.

A higher grade (5-4) indicates strong performance with limited or no deficiencies.

Mid-range grade (3) suggest areas where energy loss, air leakage, or moisture concerns may begin to affect the home's efficiency.

Lower grades (1-2) identify significant deficiencies that may impact comfort, energy costs, or long-term structural integrity.

Where deficiencies are identified, this report will outline recommended improvements. A cost estimate is provided to help homeowners plan for corrective measures. These estimates are based on professional repair and insulation practices to ensure deficiencies can be addressed effectively and in line with industry standards.

1. Exterior



1.1 Garage - Ceiling

Deficiencies in the garage ceiling insulation or air barrier can allow heat loss and air leakage between the garage and living spaces. This may lead to cold drafts, higher heating costs, and potential safety concerns if exhaust gases are able to migrate into the home.

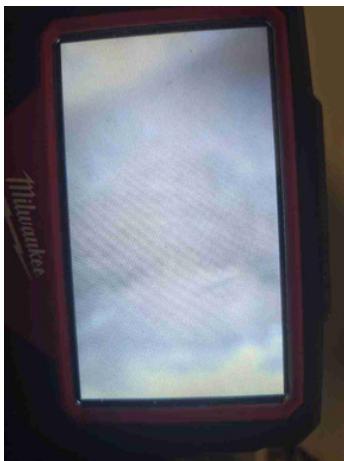
Comments

The Garage Is Not Connected To The Living Space, So Additional Insulation Is Not Required.

1.2 Exterior Walls

Exterior walls with inadequate insulation or air sealing can contribute to significant energy loss and uneven indoor temperatures. Deficiencies may also allow moisture intrusion, which can damage structural components over time. Addressing these issues helps reduce energy costs, improve durability, and maintain consistent comfort throughout the home.

1.2 Item 1 (Picture) Exterior Walls – Inadequate insulation/air sealing



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1.2 Item 1 (Picture) Exterior Walls – Inadequate insulation/air sealing

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Comments

The Walls Are Fully Insulated Throughout The Home Except In The Basement. An Insulation Upgrade In This Area Is Not Cost-Effective At This Time, So No Changes Are Recommended.

1.3 Soffits and Fascias

Damaged or poorly maintained soffits and fascias can restrict attic ventilation and create pathways for moisture or pest intrusion. Over time, this may lead to mold growth, wood rot, or ice dam formation in winter months. Repairing or replacing affected areas helps protect roof structure, maintain airflow, and prevent costly long-term damage.

1.3 Item 1 (Picture) Soffits and Fascias – Damage restricting ventilation



Image_1758125732890.jpg

1.3 Item 1 (Picture) Soffits and Fascias – Damage restricting ventilation

1

2

3

4

5

Comments

The Soffit Vents Are Open And Functioning From The Exterior, Allowing Airflow Into The Attic.

2. Attic & Roof



2.1 Attic Insulation

Deficiencies in attic insulation such as low depth, uneven coverage, or compressed material can lead to significant heat loss, increased energy bills, and uncomfortable temperature fluctuations in the home. Adequate insulation levels are critical to overall efficiency.

2.1 Item 1 (Picture) Attic Insulation – Low coverage/compression



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2.1 Item 1 (Picture) Attic Insulation – Low coverage/compression

1	2	3	4	5
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Attic Square Footage

450

Existing Insulation Inches

6

Insulation Material

Blown-in

Comments

Attic insulation levels vary, with low points of 4 inches and high points of 10 inches, which is well below current standards. Upgrading insulation to R60 (approximately 22 inches) is recommended to ensure consistent coverage, reduce energy loss, and improve year-round comfort.

2.2 Air Sealing

Air leaks around penetrations, attic hatches, and framing joints allow conditioned air to escape and unconditioned air to enter. This can result in drafts, moisture transfer, and reduced insulation effectiveness. Proper air sealing improves both energy efficiency and indoor comfort.

2.2 Item 1 (Picture) Air Sealing – Gaps around penetrations/air leakage

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Comments

The attic has a vapor barrier in place, but general air sealing is recommended around pipes, wires, and penetrations. This will reduce air leakage, improve insulation performance, and enhance overall energy efficiency.

2.3 Exhaust Systems (Bathroom, Kitchen, Laundry)

Exhaust systems that are disconnected, blocked, or venting into the attic instead of outdoors can introduce excess moisture, leading to mold, wood decay, and compromised air quality.

Direct venting to the exterior is essential to protect the attic and living spaces.

2.3 Item 1 (Picture) Exhaust Systems – Improper venting/moisture risk



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Comments

The washroom fan is exhausting air but is not properly connected, as it is only placed beside a roof vent. It should be securely vented to the exterior through a proper roof fitting with a clamp to ensure effective moisture removal and to prevent condensation or mold issues in the attic.

2.4 Roof Deck / Ventilation (Soffit & Ridge Vents, Baffles)

Insufficient attic ventilation can cause heat buildup in summer, ice dams in winter, and premature roof wear. Restricted airflow also increases the risk of condensation and mold growth. Balanced soffit and ridge ventilation maintains a stable attic environment and prolongs roof life.

2.4 Roof Deck / Ventilation (Soffit & Ridge Vents, Baffles) Damage restricting ventilation



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2.4 Roof Deck / Ventilation (Soffit & Ridge Vents, Baffles) Damage restricting ventilation

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Comments

While the soffit vents are open, the attic feels exceptionally hot, indicating insufficient air movement. Installing a solar-powered attic fan is recommended to improve airflow, reduce heat buildup, and extend the life of roofing materials while enhancing overall energy efficiency.

2.5 Attic Hatch / Access Insulation

Uninsulated or poorly sealed attic hatches create a major point of heat loss and air leakage.

This can cause drafts and uneven temperatures throughout the home.

Insulating and weatherstripping the hatch helps maintain attic performance and energy savings.

2.5 Item 1 (Picture) Attic Hatch/Access – Poor insulation/air leakage



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2.5 Item 1 (Picture) Attic Hatch/Access – Poor insulation/air leakage

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Comments

The attic hatch requires a new seal and an extended wall to properly accommodate the upgraded insulation level. This will help prevent air leakage, maintain consistent insulation coverage, and improve overall energy efficiency.

2.6 Signs of Moisture/Mold

Moisture or mold in the attic can compromise indoor air quality, weaken structural components, and reduce insulation effectiveness. Prompt remediation is necessary to prevent long-term damage and protect the health of occupants.

2.6 Item 1 (Picture) Moisture, Mold, or Pests - Visible staining or activity



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2.6 Item 1 (Picture) Moisture, Mold, or Pests - Visible staining or activity

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Comments

Condensation is present in the attic, which can lead to mold growth. Remediation and improved ventilation/insulation are recommended to prevent future issues.

2.7 Signs of Pest Activity / Poor Insulation

Evidence of pest activity and/or deteriorated insulation can reduce thermal performance, contribute to poor air quality, and create unsanitary conditions. Pest intrusion may also damage wiring, wood, or ventilation pathways if left unaddressed.

2.7 Signs of Pest Activity / Poor Insulation

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Comments

No animal activity found



3.1 Furnace Efficiency & Age

An aging or inefficient furnace can consume significantly more energy while providing less consistent heating.

Older units may also present reliability issues and higher maintenance costs.

Replacing with a modern high-efficiency model improves comfort, reduces energy bills, and enhances safety.

3.1 Item 1 (Picture) Furnace – Aging unit/low efficiency



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3.1 Item 1 (Picture) Furnace – Aging unit/low efficiency

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Comments

The Existing Furnace Is A Lennox Unit Manufactured In 1996. It Has Significantly Aged Beyond Its Typical Service Life. Consider Replacing The Current Furnace With A High-Efficiency Model.

3.2 Air Conditioner Efficiency & Age

Air conditioners lose efficiency over time, leading to higher cooling costs and reduced performance during peak demand.

Units approaching or exceeding their expected service life are more prone to failure.

Upgrading to a high-efficiency or heat pump system can lower operating costs and improve indoor comfort.

3.2 Item 1 (Picture) Air Conditioner – Reduced efficiency/service life



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3.2 Item 1 (Picture) Air Conditioner – Reduced efficiency/service life

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Comments

The Current York Ac System, Manufactured In 1996, Uses R22 Refrigerant, Which Is Obsolete And Costly To Service. Due To Its Age And Lower Efficiency, Replacement With A Modern Energy Star® Unit Is Recommended For Improved Reliability, Energy Savings, And Comfort.

3.3 Ductwork Air Leakage

Leaky or uninsulated ductwork allows conditioned air to escape into unconditioned spaces, reducing system efficiency and creating uneven temperatures throughout the home.

Sealing and insulating ducts ensures more consistent comfort, improved air quality, and reduced energy waste.

3.3 Item 1 (Picture) Ductwork – Visible air leakage/uninsulated sections

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Comments

No Leaks Found

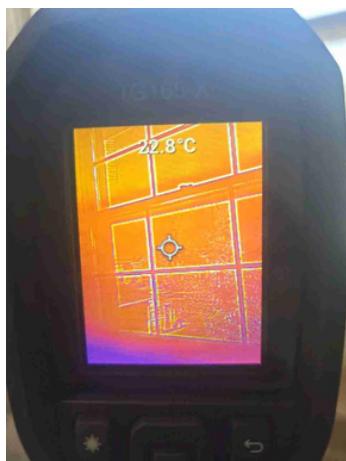
4.1 Windows

Windows that are poorly sealed, damaged, or inefficient can cause drafts, condensation, and elevated energy bills. These conditions may also shorten the lifespan of surrounding wall finishes due to moisture buildup. Proper sealing or replacement ensures improved thermal performance, prevents water damage, and enhances overall comfort.

4.1 Item 1 (Picture) Windows – Poor seals/condensation risk



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4.1 Item 1 (Picture) Windows – Poor seals/condensation risk

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Number of windows

6

Comments

Thermal Imaging Shows Temperature Variations From 18.6°C To 31°C, Indicating Heat Loss In Winter And Heat Gain In Summer. The Original 1996 Windows Are Past Their Service Life; Upgrading To Energy Star® Double-Or Triple-Pane Units Is Recommended For Better Comfort And Efficiency.

44x43
68x38
43x44
28x28
28x26
55x52

4.2 Doors

Exterior doors with worn weatherstripping, poor seals, or structural deficiencies can allow uncontrolled air infiltration. This leads to energy loss, noticeable drafts, and reduced security of the building envelope.

4.2 Item 1 (Picture) Doors – Worn weatherstripping/air infiltration

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Comments

Doors Are Sufficient

Reccomended Upgrades

The following items or conditions reflect systems or components that were found to be deficient, not functioning as intended, or potentially affecting the overall efficiency, comfort, or safety of the home. Some items may also warrant further evaluation by a qualified specialist or require ongoing monitoring.

1. Exterior



1.2 Exterior Walls

Perform dense-pack insulation in exterior walls to increase insulation value and reduce energy loss.

2. Attic & Roof



- **2.1 Attic Insulation**

- Add R-60 (22 inches) of blown-in fiberglass insulation to improve thermal performance and reduce heat loss.

- **2.2 Air Sealing**

- Seal all visible leak points in the attic around pipes, wires, and penetrations with spray foam to minimize air leakage.

- **2.3 Exhaust Systems (Bathroom, Kitchen, Laundry)**

- Properly connect all exhaust vents to discharge through the roof, preventing humidity buildup and reducing the risk of mold growth.

- **2.4 Roof Deck / Ventilation (Soffit & Ridge Vents, Baffles)**

- Install a solar fan to improve airflow and maintain balanced attic ventilation.

- **2.5 Attic Hatch / Access Insulation**

- Add insulation to the attic hatch and install a weatherstrip seal to reduce air leakage at the access point.

- **2.6 Signs of Moisture/Mold**

- Perform mold remediation treatment in the attic, including chemical application to stop active growth and removal of existing moisture/mold stains.

3. Heating / Central Air Conditioning



- **3.1 Furnace Efficiency & Age**

- Replace aging or inefficient furnace with a modern high-efficiency model to improve comfort, lower energy costs, and enhance reliability.

- **3.2 Air Conditioner Efficiency & Age**

- Upgrade existing air conditioning unit to a high-efficiency or heat pump system to reduce cooling costs, improve performance, and extend system lifespan.

- **3.3 Ductwork Air Leakage**

- Seal and insulate ductwork at joints, seams, and unconditioned spaces to minimize air leakage, improve airflow balance, and reduce energy waste.

4. Windows & Doors



- **4.1 Windows**

- Replace existing windows with high-performance, energy-efficient models to reduce drafts, condensation, and energy costs.