

# Next Generation Living Homes

Case Study



## Comprehensive Approach to Home Building

Next Generation Living Homes by Babyfoot Development is a healthy super-insulated home design that incorporates ecofriendly resources creates a peaceful living space with a considerably decreased environmental footprint.

Babyfoot Development's passive approach to high-quality building design inspires a feeling of well-being and serenity. Ten foot ceilings on both the first and second

floor, coupled with large windows, bathe the dwelling in natural light from its southern exposure and provide the living space with an intrinsic connection to nature. Low Volatile Organic Compound (VOC) materials, state-of-the-art heat recovery ventilation, solar passive radiant heating, high-level insulation, and triple-pane windows can achieve a reduction of heating requirements by up to 90% and reducing cooling by 60%, boosting homeowner comfort year round.



Through extensive due-diligence, Babyfoot Developments selected ROCKWOOL insulation as the supplier of choice because of the product's dimensional stability, low VOC emissions ratings, natural material status and R-value stability.

Unlike other insulations, ROCKWOOL has reliable dimensional stability, meaning it will not sag, slump or expand and contract with temperature changes inside the wall cavities, leading to gaps in the building envelope (wall and roof assemblies).

Indoor air quality is also a key component of a healthy home. ROCKWOOL does not emit off-gasses that can release VOCs into the air for occupants to breathe in. Babyfoot designs offer a robust home design that incorporates optimal air quality by focusing on the integrity of the building envelope, as well as on controlled air changes. Another benefit of using ROCKWOOL is the materials sound-dampening characteristics, creating a truly tranquil environment, free of the hustle and bustle of modern life.

The envelope is optimized to avoid thermal bridging and allow the home to maintain moisture levels of 40% year round without concerns of unwanted condensation

on any of the envelope interfaces. Fresh external air is continuously delivered throughout the home by an ultra-efficient HRV via a HEPA filter that removes any sub-micron particulates, pollen and unwanted VOCs.

Regulated moisture levels, along with abundant fresh air, provide the homeowner with unparalleled comfort and wellbeing.

The construction of Babyfoot's Next Generation homes demonstrates how standard construction methods and materials can be used to build a home and eliminate the need for heating and cooling systems in many geographic locations. This allows standard house building crews to construct a home, in the same amount of time and investment, with modern or traditional designs and greatly enhanced indoor comfort levels.

**Exceeding building standards, Babyfoot Development designed and delivered an uncompromised building envelope including:**

- Insulated footings and foundation walls
- A truly continuous vapour barrier
- Thermally separated roof, garage, balcony and porches





ROCKWOOL insulation was used extensively throughout the home to control internal temperature, moisture levels and energy requirements. Surpassing industry regulated code requirements, Babyfoot Developments integrated ROCKWOOL insulation as part of the home design.

**Insulation R-value breakdown:**

- Roof – R66
- Above garage – R-70
- Basement – R45
- Walls – R45

To ensure the home is all-inclusive in all aspects, the developers took orientation and lot geometry into consideration when designing the home. Sun-angle simulations were performed accounting for natural shading and architectural features to maximize the usage of available free energy. An ensemble of extended overhangs, balconies and deciduous trees to the South of the property shade the summer sun without interfering with the solar energy beaming into the house during the winter. At the same time, low solar heat gain windows are used on the western exposure to minimize the cooling load.

Next Generation Living Homes by Babyfoot Development will provide homeowners with an unparalleled living experience, with uncompromised air quality and comfort. ROCKWOOL will continue to be the partner of choice for better building envelopes and energy efficient construction.

“When it comes to insulation, ROCKWOOL was an easy choice for us. The product’s dimensional stability over time, as well as its inherent density, provided us with the specifications that we needed and the reassurance that our Next Generation dwellings would maintain their thermal performance for generations.”

- Paolo Baragetti, Babyfoot Developments



[www.babyfootdevelopments.ca](http://www.babyfootdevelopments.ca)

**ROCKWOOL**

8024 Esquesing Line  
Milton, ON L9T 6W3  
Tel: 1 800 265 6878  
[rockwool.com](http://rockwool.com)