THE UNACCEPTABLE CONDITION OF NEW HOMES

Would you spend a year of your life and over a million dollars to build a home if you knew that it would break as soon as you moved in?

LEVEL UP STRATEGIES

www.LevelUpStrategies.com

Created by Brandon Farr

CONTENTS

THE UNACCEPTABLE CONDITION OF NEW HOMES

Introduction

There is an emerging challenge facing the housing industry that will adversely affect the health and wellbeing of homeowners in newer homes, and the integrity of the building infrastructure currently under construction, with a trend towards conditions getting worse in the future.

I was motivated to write this paper because the security of a well-built home is at the centre of wellbeing for most of us. I am proactively raising awareness of important issues, on behalf of every person who sees a home as a place of belonging and security.

BC Housing's Residential Performance Guide summarizes my sentiment well.

> *"Buying a new home is the single largest financial investment that consumers will make. For many, turning the dream of home ownership into a reality is a financial milestone. Homebuyers expect to make that investment with confidence."*

To be perfectly clear, I am not fishing for work – this most certainly is NOT part of a marketing campaign. This is a free resource that I hope sparks important conversations with the people who are able to shift policies and protect homeowners (municipally, provincially, and federally).

This Paper - *The Unacceptable Conditions of New Homes* comes from my experience as a licenced builder. For the last several years, Level Up Strategies has specialized in the reconstruction of new homes that have broken under the 2-5-10 year New Home Warranty. I have seen not only the issues that are common in new homes, but I have also encountered the heartache of owners who are faced with sometimes substantial renovations to homes that have just been built.

This Paper's Thesis

The nature of how the building community is applying energy efficiency via the BC Energy Step Code overtop of our existing Provincial Building Code (BCBC 2018) has created a potential condition whereby toxic air quality for occupants and structural failure of the home seems inevitable.

This is not about blame

While illuminating the issues I am seeing, it is not my intention to assign blame to any party. Instead, I respectfully recognize that converging factors are creating challenges for the whole industry and acknowledge that multiple stakeholders carry responsibility for the current situation as well as guiding our community out of it.

I am optimistic in the capacity and motivation of our building community to demonstrate leadership in energy efficient, strong, resilient, durable infrastructure that will be channelled towards addressing the current and pending issues discussed below.

The Good News

The technology currently exists to do things differently without significantly increased construction complexity or cost. What is needed are some fundamental shifts in the way building code is interpreted and applied to Part 9 Buildings (residential structures), specifically, regarding how the vapour control layer (VRB) and Air Barrier (AB) is situated behind the interior drywall using clear polyethylene plastic.

An analogy to help frame the discussion

A highway is built by considering both ideal use (the speed limit) and real-world use (occasionally people exceed the speed limit, or environmental conditions affect the grip potential of the surface). To account for the complexity of an ensouled world, a highway is built with a "margin of safety" in the design such that vehicles and their occupants don't fly off the road if they travel in less than ideal conditions.

My experience as the Principal of a repair contracting company that specializes in new home deficiencies has opened my eyes to see that current building practice do not offer the same "margin of safety" to owners who are commissioning these homes into existence. Money is not the determining factor in whether a home will succeed or fail to endure and perform as a homeowner would expect. Regrettably, many homeowners will be shocked to discover that their dream homes, with magnificent views and expensive fixtures, will have a legacy of issues being built into the structure of their homes – yet all these issues are within "code" for new Part 9 structures.

For a reasonable standard of construction, a home should be able to perform it's intended function (having people live in it) without fundamentally becoming compromised to the point of inevitable and potentially catastrophic failure caused by the new owners simply moving in.

It is my opinion that homeowners should expect a reasonable level of resilience from their homes. It seems fair that a home ought to perform its intended function for a design life greater than 50 years (and ideally, much longer than that).

Why this might matter

Given the cost of construction and the time and energy investment by all community stakeholders, we must be carefully considering all factors that detract from the resilience and durability of the infrastructure. This is required to mitigate the ultimate waste of tearing a new home down and starting over again.

Clarification on BC Energy Step Code

The BC Energy Step Code is **NOT** bad, and efforts to build efficient infrastructure is a necessary response to what the planet is communicating to us. In alignment with the provinces goals to build net zero ready homes by 2032, we are motivated to have a deep understanding and capacity for how build to the highest standards. In fact, on top of being a licensed builder, Level Up Strategies has become certified in Passive House Designer, and we are an NRCAN Certified Energy Advisor so that we don't have to wait 10 years to build high quality, energy efficient and resilient infrastructure.

This Paper is Not:

A comparison of many ways to build energy efficient homes. There are plenty of resources addressing that topic.

This Paper is:

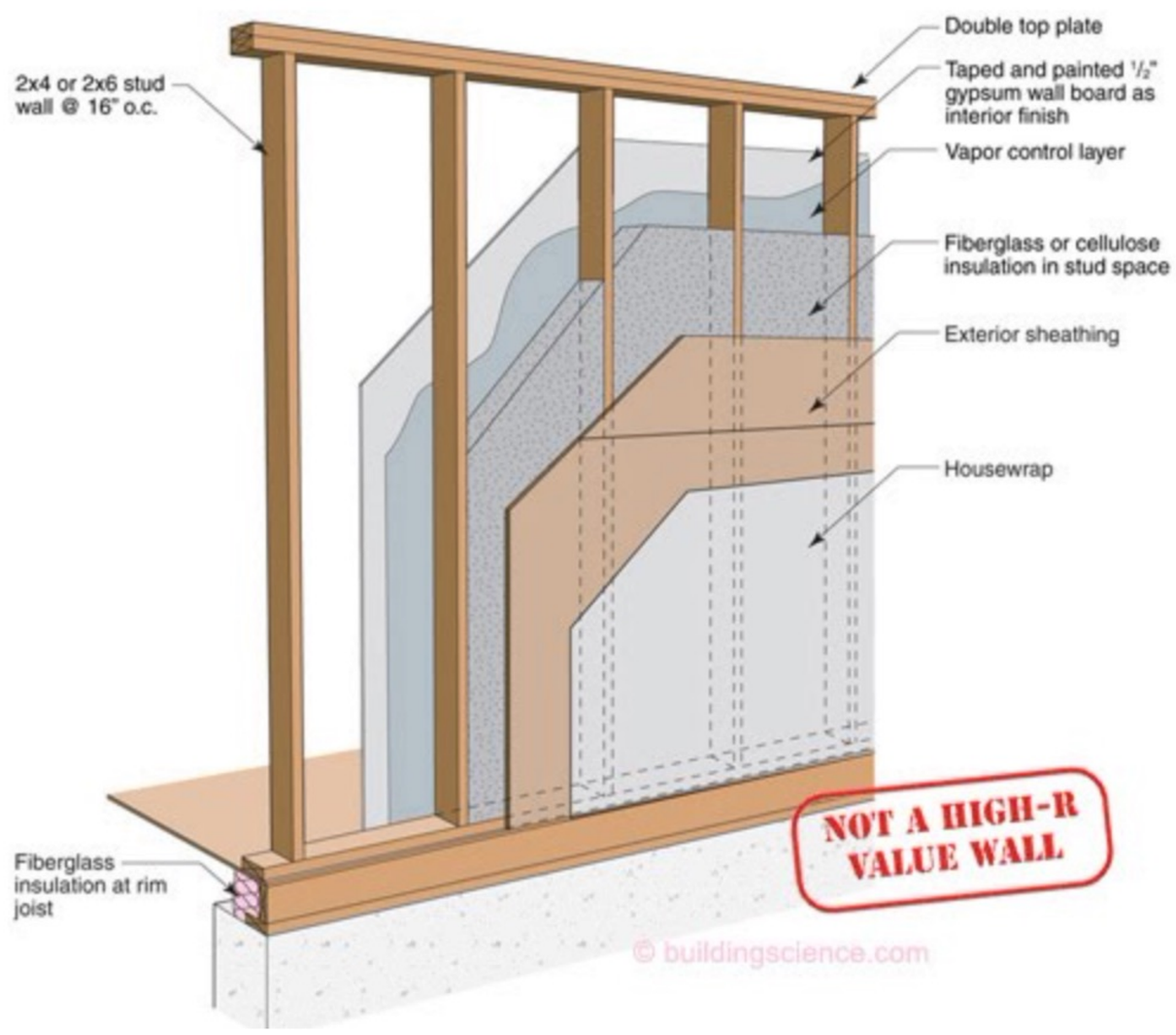
This document is calling attention to the fact that most construction taking place in B.C. follows a path that will create challenging outcomes for homeowners, city officials, engineers, provincial regulatory bodies, insurance companies, and realtors.

The Specific Issue

Homes are typically being built with a wall assembly that permits:

- Drywall
- Clear Polyethylene (Vapour Retardant Barrier + Air Barrier)
- 2x6 studs
- Insulation in the stud cavities
- OSB or ½ plywood exterior sheeting
- Typical Building wrap Water Retardant Barrier (WRB)
- Rain screen
- Siding

Standard Construction Detail



The Specific Warning

If this assembly does not evolve to remove the clear polyethylene, OSB, and 'typical' building wrap, the wall cavities inside new homes will collect moisture and eventually fill with mould. This contaminates air quality, and eventually wood in the exterior wall will rot, thereby compromising the structure of the home. See Case Study photos attached on the following page.

Case Study 01

Real site conditions taken from a Kelowna, BC residence in Spring 2022. This is a home less than 5 years old.

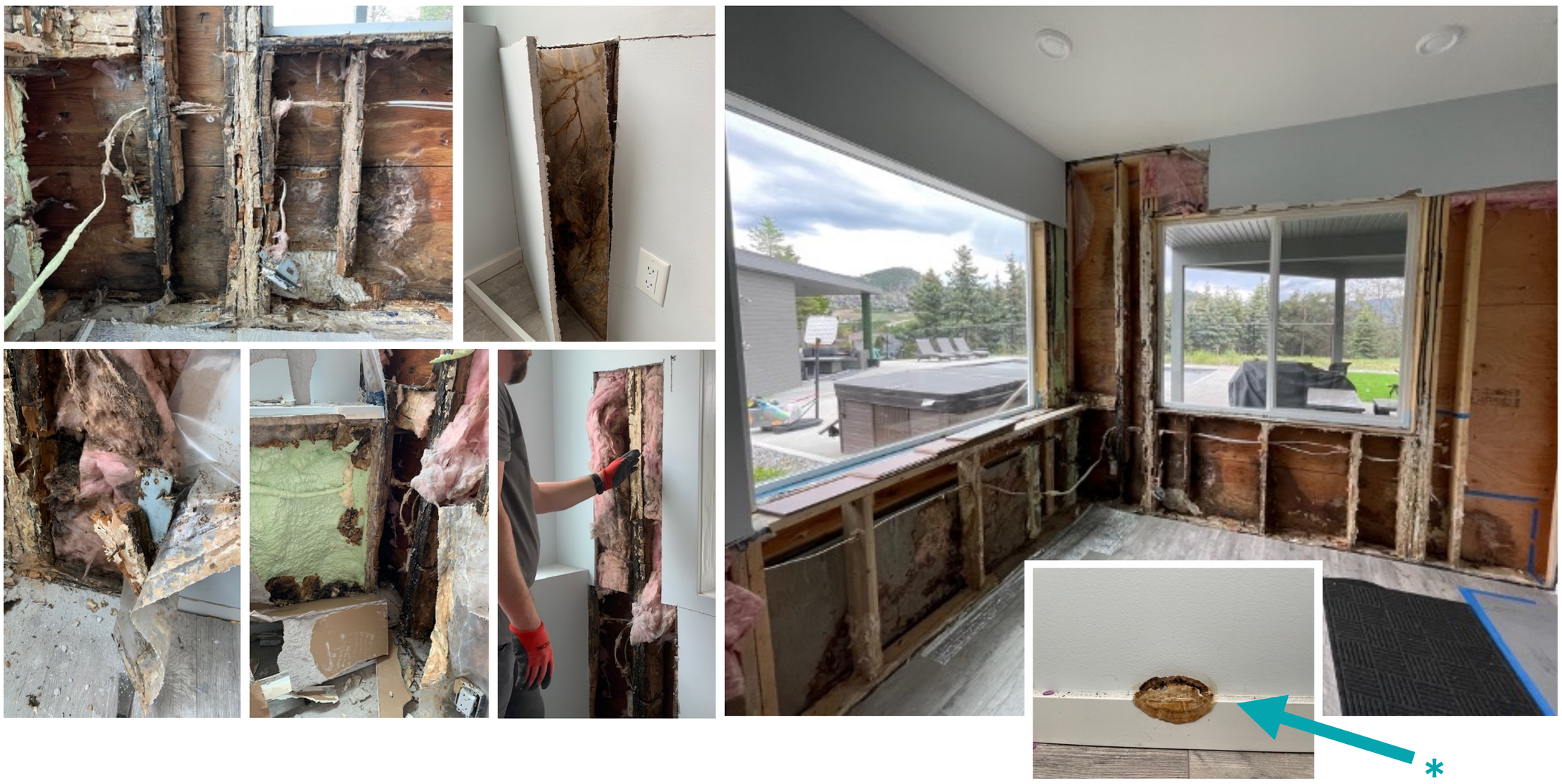
A leak in the envelope allowed water into the wall. This leak went undetected for a few years because the clear poly restrained the water inside the joist cavity. Over time, the insulation accumulated the moisture sufficiently, eventually deteriorated the roof and wall structure.

Note:
The OSB is swollen and completely saturated, thus there is significant growth of mycelium (mould) inside the wall cavity.

Remediation Plan

The entire structure is slated to be torn down to the concrete and reconstructed because of this damage.

Case Study 02



*Real site conditions taken from a Kelowna, BC residence in Spring 2022. This is a home less than 5 years old.

Water wicked up from the exterior concrete slab and filled the wall cavity, resulting in mushrooms, mold and complete structural degradation. The issue was no seen in any of the affected wall surfaces, except that when the little girls bed was moved for cleaning, ***a mushroom was visibly growing out of the baseboard**. Otherwise all the interior and exterior walls, flooring, windows and trim appeared to be “normal”.

Key Question

Haven’t we been building walls with clear poly VRB’s for years?

Yes. ***YET***, we have not been doing this in the context of BC’s Energy Step Code, which for the first time, has introduced a maximum Air Changes per Hour (ACH) target. This additional condition of reducing ACH is the factor that I believe will drive typical wall assembly towards a catastrophic demise.

Clarification on Low Air Changes per Hour (ACH)

We are NOT saying that low ACH is bad. Passive House sets a standard of 0.6 ACH or less, whereas Step Code level 5 is 1.0 ACH or less. This is exceptionally good for energy performance and does not have to be bad for structural integrity. You can achieve these numbers,have a home that is resilient to mould, and is durable for over 100 years if the wall assemblies are allowed to dry when they get wet. ***The differentiator between success and failure has to do with the drying potential (or lack thereof) of the materials being used in the walls***.

For more information on drying potential, I recommend you review Dr. Joseph Lstiburek's work on the topic in more detail →www.BuildingScience.com

Historical Context

Current building practice (BCBC 2018 and earlier) has used clear poly to prevent moisture from entering the wall cavity from inside the house.

BCBC 2018 Excerpts

9.25.3.2. Air Barrier System Properties

(See Note A-9.25.5.1.(1).)

1) *Air barrier systems* shall possess the characteristics necessary to provide an effective barrier to air infiltration and exfiltration under differential air pressure due to stack effect, mechanical systems or wind.

2) Where polyethylene sheet is used to provide airtightness in the *air barrier system*, it shall conform to CAN/CGSB-51.34-M, "Vapour Barrier, Polyethylene Sheet for Use in Building Construction."

9.25.4. Vapour Barriers

9.25.4.1. Required Barrier to Vapour Diffusion

1) Thermally insulated wall, ceiling and floor assemblies shall be constructed with a *vapour barrier* so as to provide a barrier to diffusion of water vapour from the interior into wall spaces, floor spaces or *attic or roof spaces*.

9.25.4.2. Vapour Barrier Materials

1) *Vapour barriers* shall have a permeance not greater than 60 ng/(Pa·s·m^2) measured in accordance with ASTM E 96/E 96M, "Water Vapor Transmission of Materials," using the desiccant method (dry cup).

2) Where the intended use of the interior space will result in high moisture generation, the assembly shall be designed according to Part 5. (See Note A-9.25.4.2.(2).)

3) Where polyethylene is installed to serve only as the *vapour barrier*, it shall comply with Clause 4.4, Thermal Stability, and Clause 5.7, Oxidative Induction Time, of CAN/CGSB-51.34-M, "Vapour Barrier, Polyethylene Sheet for Use in Building Construction."

4) Membrane-type *vapour barriers* other than polyethylene shall conform to the requirements of CAN/CGSB-51.33-M, "Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction."

5) Where a coating is applied to gypsum board to function as the *vapour barrier*, the permeance of the coating shall be determined in accordance with CAN/CGSB-1.501-M, "Method for Permeance of Coated Wallboard."

6) Where foamed plastic insulation functions as the *vapour barrier*, it shall be sufficiently thick so as to meet the requirement of Sentence (1).

While there is a measure of success in this approach to stopping vapour transmission, it is also true that houses simultaneously leaked air all over the place. This is a big reason why homes have typically not been energy efficient, and why there is a push to seal them up tighter as we strive for increased home efficiency.

The result of a well-sealed house is that the heated air from your furnace does not escape out of the house through cracks in the VRB, connections in the walls assemblies, window and door openings, attic hatches, or plumbing penetrations etc.

While these holes are not ideal from an energy consumption point of view or intelligent in their design, they nonetheless allowed some of the moisture that entered the wall to “leak out” along with the warm air from the house. Therefore, an unexpected by-product of an inefficient home is maintaining a small measure of drying potential that would prevent the accumulation of moisture inside the walls.

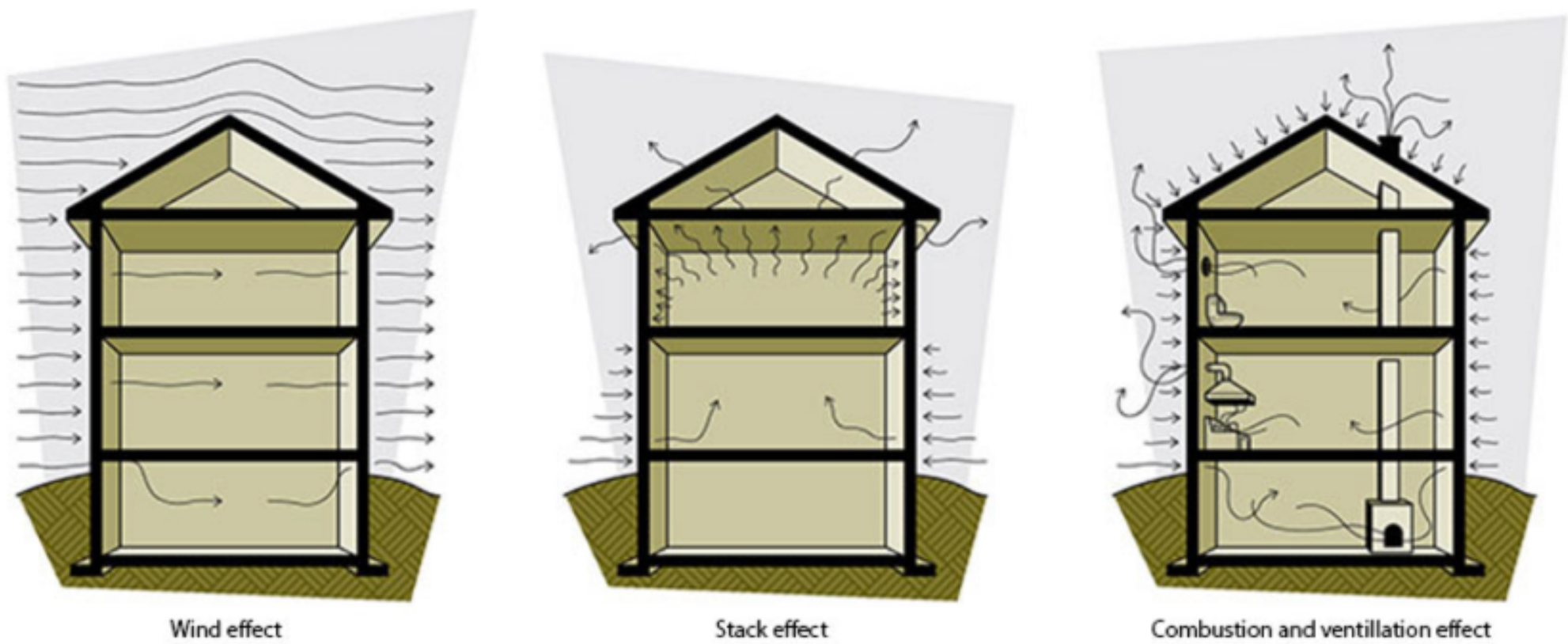


Figure 2-3 Causes of airflow through the building envelope

What's Changed to Cause Problems?

For a few years builders have been required to use special plastic boots around electrical outlets. They are also required to use acoustical sealant around the perimeter and joints of the clear poly VRB to get rid of the leaking points of the wall assembly, make the home more air-tight, and help keep the heat in the home. ***This is where the problems I am addressing began to materialize***.

Entering the era of Step Code, builders are being asked to seal up a home more thoroughly and measure their success with a blower door test. Many builders, designers, and building officials are continuing to build with the traditional practice of using Clear Poly and acoustical sealant to combine the VRB and AB in order to keep the ACH below the required standard set out in the BC Energy Step Code.

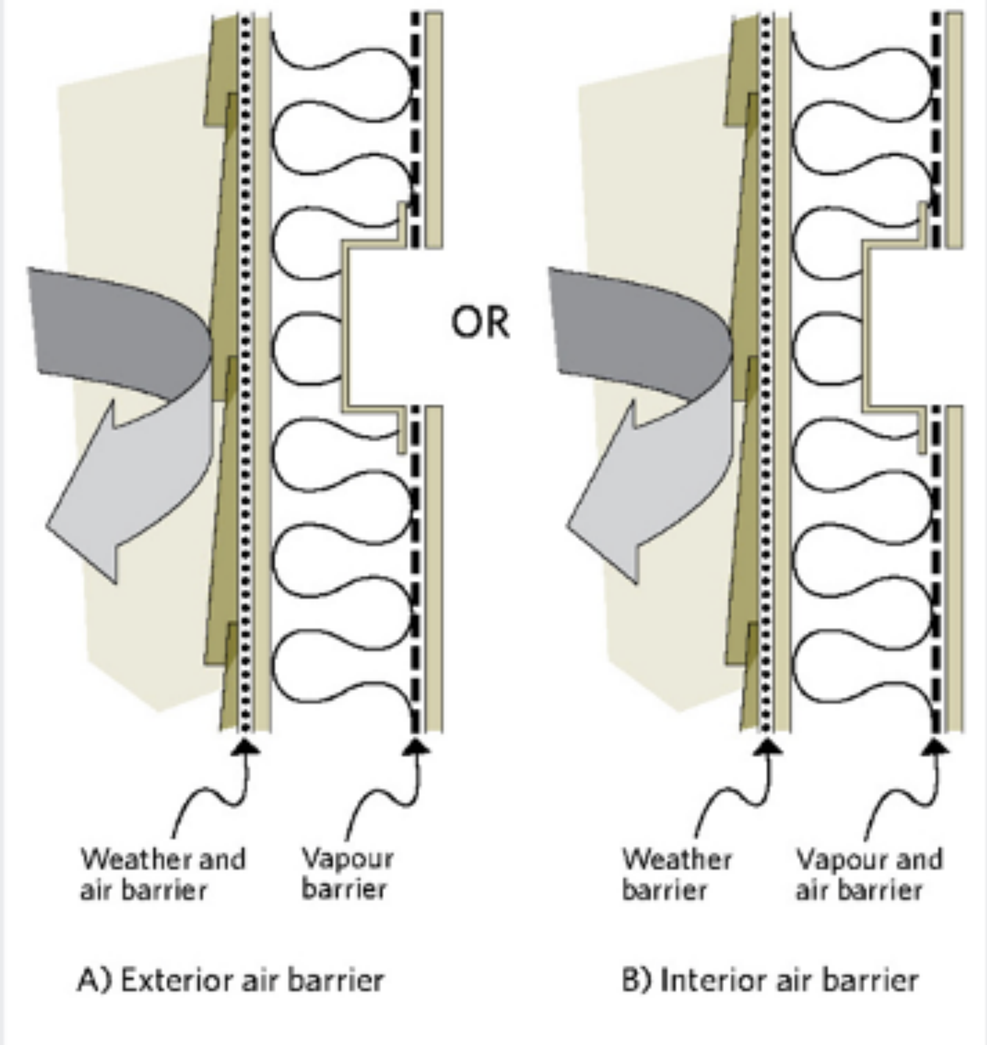


Figure 2-8 Weather barrier, air barrier and vapour barrier

In this approach, the drying potential of the wall is being taken away as well, which means any moisture that gets into the wall cannot get out as easily (or at all). This creates well-documented patterns of damage to a home as seen in the photos of the Kelowna, BC residence in the case study.

Remember the leaky condominium crisis?

That was an example of water that came into the wall assembly from the outside. The industry adapted with different construction details like rain screens to guard from those issues in the future. It is worth noting that those issues are also caused by rain events combined with systems that trap moisture. The industry learned how to better protect buildings from the outside. Now, when leaks do happen, we typically chalk that up to an accident (plugged gutter or severe weather event), or faulty workmanship (missing or incomplete flashing/membrane during construction etc.). These often issues can be addressed from the outside of the home, as they are located in a specific area, or a consistent pattern of areas.

What if the leak is not from the outside?

What is not being taken into account is the water produced from the inside of a home. NRCAN's Keeping the Heat In document illustrates that a family of 4 produces 49.8L of moisture every week, and that moisture must go somewhere. If it gets into the walls, how is it supposed to get out?

Table 2-2 Moisture added to the house through various household activities (for a family of four)

Activity	Moisture produced (L)
Cooking – three meals daily for one week	6.3
Bathing – 0.2 L per shower or 0.05 L per bath	2.4
Clothes washing (per week)	1.8
Floor mopping per 9.3 m² (100 sq. ft)	1.3
Normal Respiration and skin evaporation from occupants	38.0
Total moisture production per week	**49.8**

This spotlights the fact that vapour **WILL** get in because of how we are combining the VRB and AB into the clear polyethylene layer that is directly behind the drywall. As soon as a home owner hangs a picture or TV on an interior wall, the barrier is silently compromised. This hole will now act as a portal for water to enter the wall assembly.

Stepping Back for Perspective

One of the biggest challenges the industry faces is building authorities (Code writers, engineers, architects, building officials, energy advisors) who typically view a home and its multiple interlinking systems through an idealized lens. It seems the goal is often to “make the spreadsheet happy” so the proposed building plan passes inspection criteria.

There are also the builders who still believe “a building needs to breath” and mistakenly equate “leaking through cracks” as “breathing and good.” I have a video here E addressing the misconceptions of breathing versus properly ventilating a home.

More specifically, the plans/code/regulations are all built for “perfect” application. This is naive, because every home is built in the real world, by real people, and exposed to real environmental conditions which introduce complexity to the ideal plan.

In an ideal world, buildings should never settle, windows should never leak, flashing installations should always be perfect, and poly and acoustical sealant should protect every cubic inch of the wall cavity from water vapour entering the assembly.

Despite the idealized specifications, these issues do occur. Sadly, homeowners are stuck with all the direct and indirect consequences of these failures.

Suggesting an Evolution in Philosophy

A prudent design philosophy would take these imperfect conditions into account; specifically, the implications of vapour from the interior of the home entering the wall cavity.

Categorizing the Issues

Issues regarding the way air tightness is being achieved typically fall under **3 categories.**

1. Occupants’ health and wellbeing in the short and long-term.
2. Structural integrity of a home when there is rotten wood in the load-bearing wall assemblies.
3. The impact on our community financially and socially when the predominant mode of construction is leading to uninhabitable homes.

The likely outcomes of the typical way wall assemblies are constructed:

1. An airtight home traps off-gassing of toxic building materials inside the home which is then filtered by human lungs.
2. Clear poly behind the drywall is not an intelligent barrier. When water gets in from either rain or human-caused vapour, it is not able to get out through the poly.
3. OSB is a sufficiently structural sheeting material according to the BC Building Code) but has an extremely low permeability (drying potential) when wet (3 perms), contrasting the drying potential with ½" plywood when it is wet (15 perms). Hence, moisture related issues accelerate once they begin in homes with OSB sheeting.
4. As soon as something punctures the clear poly VRB, this penetration becomes a conduit for water vapour to enter the wall assembly through vapour drive, stack effect, wind effect, combustion, and ventilation effect.
5. The less "leaking locations" are in a building (think Step Code level 3,4,5 homes), the higher the concentration of moisture there will be in the locations that do leak. This moisture will accelerate the decay of the structure in those leaking areas.
6. Even the most basic human activity in the home will puncture the clear poly VRB if it is behind the drywall. This includes hanging curtains, photos, art, a wall-mounted TV, or having kitchen cabinets on the exterior walls. This results in moisture accumulation in the walls which will lead to mould, and potentially structural decay.
7. How do you effectively remediate an issue that is in every wall of the home? How do you remediate part of the VRB, AB, WRB strategy when is baked into the building because of how the code was applied (as distinct from simply replacing a leaking window, or enhancing a flashing detail)? What are the implications of replacing all exterior walls of a new custom home that is already occupied?
8. Because the currently specified assembly is so good at retaining moisture within the cavity, leaks (when they do occur) are not readily identifiable. This means issues can fester unattended for years until structural failure occurs. (See attached field photos from real world case study.)

Simple Changes that would be Beneficial to New Homes:

1. Eliminate the use of OSB as an exterior sheeting material
2. Use an alternate VRB AB strategy so there is not a combination directly behind the drywall that can be easily compromised
3. Stop the use of clear poly and acoustical sealant. Instead, use a directionally vapour-open membrane, which lets moisture diffuse out of the wall cavity when it gets in. (Think Gore-Tex Rain Jacket) 475 High Performance Building Supply has options.
4. Ensure proper ventilation of the home with a properly commissioned and balanced HRV/ERV. This provides sufficient fresh air to ensure occupants are not subjected to off-gassing of toxic building materials being confined within the home for them to breathe, and can be calibrated to help mitigate moisture challenges.

The Uncomfortable Question

Looking more specifically at the shared responsibility of homeowner wellbeing...
Who is Responsible if Something Goes Wrong with a New House?

1. The Builder

If the house was built to code – and the issue was not one of negligent details such as improper installation – ***how is the Builder responsible for the mould or structural damage if they followed code?***

Yes, a licenced builder has a 2-5-10 year new home warranty for every new home built in B.C. (that is the law). However, the builder is also only liable for deficiencies to that home for the first 2 years before the liability transfers to the builder's Home Warranty Insurance Company.

2. The Home Warranty Insurance Company

The home warranty coverage is valuable peace of mind for the homeowner. However, there are policy timelines that will restrict access to coverage in some cases, and there is typically a $200,000 limit on payouts. Given the cost of construction, ***does it seem realistic*** that $200,000 would cover the full expense related to a structural overhaul of the house once fully built and occupied?

Home Warranty charges about $5,000 to the builder (later billed to the owner) to register a new home under the policy. ***Is it sustainable*** for the Insurance Company to absorb a $195,000 loss on the bulk of new home construction, especially given the high volume of new homes built each year?

Insurance Coverage Details

Mandatory Policy of New Home Warranty Coverage according to BC Housing states:

At a minimum, home warranty insurance coverage includes:

- 2 years on labour and materials (some limits apply
- 5 years on the building envelope, including water penetration
- 10 years on the structure of the home

The two-year labour and materials coverage includes any defect in labour and materials for:

- 12 months on detached homes and on non-common property in strata units (including fee simple homes)
- 15 months on the common property of strata buildings
- 24 months on all new buildings for defects when related to delivery and distribution systems; defects related to the exterior cladding, caulking, windows, or doors that may lead to detachment or material damage to the new home; **coverage for violations of the Building Code that constitute a health or safety risk or is likely to result in damage to the new home; and defects which render the home unfit to live in.**

3. BC Housing

BC Housing plays a vital and multifaceted role in licensing builders and setting standards for the performance of designs, materials, and workmanship in residential construction. See below an excerpt from the introduction of their Residential Construction Performance Guide. Notice how they do not seem to have any specific responsibility pertaining to whether a new home lives up to the performance guide.

Introduction

British Columbia is recognized for the high performance of its residential construction sector. Working with industry, the provincial government strives to ensure that BC homes are among the most comfortable, durable and energy efficient in the world. With this system of construction defect insurance to protect consumers, every new home built by a licensed residential builder in the province is protected by mandatory third-party home warranty insurance.

Buying a new home is the single largest financial investment that consumers will make. For many, turning the dream of home ownership into a reality is a financial milestone. Homebuyers expect to make that investment with confidence.

4. Building Inspectors

Some may ask, ***"Shouldn't they see the pending issues and do something about it?"*** I do not think it is that simple. It does not seem like inspectors are rewarded for innovative building practices like what is being proposed. It also does not seem fair to expect inspectors to identify and understand the implications of potential failures. Building officials are tasked with auditing the existing construction against the minimum standards set by code. Therefore, if an inspector walks onto a new home job-site and sees pink insulation behind clear poly which has been completely sealed by acoustical sealant, it will get a "green checkmark" for following the code.

The Uncomfortable Question

Looking more specifically at the shared responsibility of homeowner wellbeing...
Who is Responsible if Something Goes Wrong with a New House?

5. Step Code

The issue is not with energy efficiency or high-performance homes. Step Code sets standards for ACH as indicators of how effectively sealed a house is. The standards do not dictate the construction path or materials used to achieve those numbers. People have been successfully building homes with less than 0.6 ACH for decades without the issues this Paper is discussing.

6. Energy Advisors

The role of an Energy Advisor is often simply imputing data given to them by the designer. Further, the typical role of an Energy Advisor is to look at data and make assumptions based on idealized situations utilizing antiquated Hot2000 software (based on MS Dos). There is often no reward or invitation to consider things like drying potential in the wall assembly. Energy Advisors have a single specific objective: meet target energy utilization rates (MEUI + TEDI). For a deeper look on how energy modelling materializes in real life, BC housing did a comparative analysis called: Design vs Actual Energy Performance . It is not good (see excerpt below).

> Of the 10 buildings, two had better actual performance then modelled (1.5% to 29.3% less energy), whereas the other eight consumed between 22.1% and 281.7% more energy than models predicted. The observed performance discrepancy is attributable to all the phases of the building life cycle, from conceptual design development to construction as well as commissioning to post-occupancy. However, a recurring issue related to lower than expected performance of air source heat pumps and differences between modelled and actual occupant behaviours.

7. Building Code Regulators

Who writes and who interprets the code is a multifaceted question. The specific role and responsibilities of the people tasked with writing provincial or national building code is beyond the scope of my current understanding. However, extensive field experience has led me to the conclusion that if houses are built to “code” and that “code” creates a high probability for failure, the “code” most certainly sets the tone for what is acceptable. I believe that raising the bar to eliminate practices prone to causing damage to occupants and the structures they inhabit seems like a necessary minimum initial step.
Whether the “code” bears responsibility for the resulting damage is for others to debate.

The Uncomfortable Question

Looking more specifically at the shared responsibility of homeowner wellbeing...
Who is Responsible if Something Goes Wrong with a New House?

8. Homeowner Protection Act

The roles and limitations of this act (as far as it pertains to this issue of moisture getting trapped in wall assemblies) are beyond the scope of issues being highlighted in this document. See the below excerpt from Homeowner Protection Act Website

Purposes of the Act

2 (1) The purposes of this Act are

(a) to strengthen consumer protection for buyers of new homes,

(b) to improve the quality of residential construction, and

(c) to support research and education respecting residential construction in British Columbia.

(2) A further purpose of this Act is the administration of the reconstruction loan portfolio, as defined in section 24.1, in accordance with Part 9.

9. Designers and Architects

Not every project has an architect, but once you reach a certain scale, it is required. Given that training and technical resources exist to approach building design in energy efficient and durable ways, how much longer should professionals who design buildings continue to specify designs that will potentially cripple the structure well short of a reasonable service life?

This is a building under construction in Kelowna BC (taken at the time of writing this document in May 2022) that appears to be following the traditional building strategy. I am curious about the choice to specify vulnerable wall assemblies (OSB) like this when there are paid, registered professionals on file that should be guiding clients with the type of information that this Paper is discussing. ***What will happen to the occupants if the walls of this building fill with mould?***

The Uncomfortable Question

Looking more specifically at the shared responsibility of homeowner wellbeing...
Who is Responsible if Something Goes Wrong with a New House?

10. The Homeowner

It seems there is a lot of responsibility that ends up falling to the Homeowner when things go wrong in their home – whether they want it or not. The homeowner will be responsible for advocating for the resolution of the issues, coordinating insurance, legal representation, and fully bearing the significant inconvenience of a renovation – or having to move out.

But what about before the issues occur? A homeowner should be allowed to hang a picture or TV without risk of damage to their home or indoor air quality.

However, there are some factors that the homeowner can contribute to this situation. Again, this is being stated not to assign blame, but to raise awareness. Homeowners need to understand that "code" is the **lowest** standard you can legally build a house to without getting sued – which also makes it the cheapest.

There is often an over-reliance on "just meeting code." Every owner has the right to request excellence from building professionals, so long as owners are **also** willing to invest the time and financial resources to support their project.

10.1 Budgets

When building a home, many decisions need to get made, and an owner's relationship with their budget comes into the equation. Budgets affect not only the quality of materials used, but the quality of building professionals as well. If budgets are a driving force for the owner, who is commissioning a structure into existence, then choices to economize get made.

Imagine being an owner looking at spending a year or more building a home and over a million dollars of your hard-earned money, and your builder asks, "Would you prefer to have granite countertops throughout, or wall assembly with higher drying potential?" My speculation as to why so many new homes are still clad in OSB as opposed to plywood is because it is cheaper yet still within code.

10.2 Time Pressure

Owners can apply pressure to the designer, Energy Advisor, or builder regarding timelines, perhaps seeing what they can get away with regarding inspection criteria as it pertains to the BC Energy Step Code. These factors often deter comprehensive discussions with visionary professionals about best practices for beautiful, resilient, efficient homes.

Code Should Protect Homeowners Beyond Ideal Conditions, which is why I believe code needs to evolve to safeguard homeowners now and into the future. Homeowners must be protected against the pitfalls of non-resilient building materials and construction practices that lead to compromised occupant health (mould) and safety (structures that rot).

Summary

The problems of building a wall with poor drying potential will stop when it is no longer acceptable to do so. Whose decision that is has yet to be established, and this document has been written to accelerate the discussion.

Each municipality can set its own bylaws, but the province sets the overall tone of acceptable practice with the building code. Currently, the focus seems to be achieving energy efficiency following traditional building practices. It feels as though there was not sufficient consideration of the factors working against the drying potential in the wall, coupled with an over-reliance on idealized performance of wall assemblies (designs that make spreadsheets happy but offer no livable resilience for the humans that occupy the homes).

The simple reality is that water will eventually find its way into the wall assembly. Whether it comes from the outside due to the environment, or from the inside due to occupants, we need to re-evaluate how our structures can incorporate livable resilience for the ensouled [RF2] world in which they are built.

Conclusion

While there are some safeguards for homeowners in terms of Home Warranty Insurance, coverage provided is not meant to offset catastrophic failure of the house, nor are the policy limits sufficient to recover the cost.

Regardless of what outcomes protracted litigation may achieve, technical details regarding money and liability are a small variable when integrated with the heartache, frustration, and degradation of wellbeing and security inside one's own home.

This document is an active step towards ensuring prospective homeowners have the best available information to help them on the marvellous journey of building or purchasing a home.

This is our time:
It's clear to see there is a shifting global climate. My genuine desire is that when homeowners choose to invest the time, energy, money, along with their hopes and dreams into a new home; that it reliably serves them and their community as a place of refuge and belonging for decades to come.

Yours truly,

Level Up Strategies Inc.
Per: Brandon Richard Farr

Other Papers written by Level Up Strategies
5 Areas New Homes are Likely to Fail
A White Paper on Black Mold – In Consideration of the BC Energy Step Code