



BUILDER

THE MAGAZINE OF THE CANADIAN HOME BUILDERS' ASSOCIATION

Kitchen & Bath Trends

Building a Low Carbon House

Asphalt Shingle Technology

Reducing the Risk of EMFs

Construction Financing

Market Report: Manitoba

Tiny Houses

Economics: Soaring High

Visit us online at www.HomeBuilderCanada.com



© 2015 CertainTeed Gypsum Canada, Inc.

CUT LABOUR COSTS

Slash noise in one quick cut: Specially formulated noise-reducing drywall with viscoelastic polymer lets you slash sound transmission without complex techniques.

- Score and Snap for faster installation
- Lower labour costs
- Superior acoustic performance

Be Certain™ with CertainTeed Gypsum.

Visit certainteed.com/gypsum/acoustics to learn more.

silentFX 
QuickCut

800-233-8990 • certainteed.com

ROOFING • SIDING • TRIM • DECKING • RAILING • FENCE
GYP SUM • CEILINGS • INSULATION

CertainTeed
SAINT-GOBAIN
Gypsum

Put our EXPERTISE to work.

With endless design options, helping homeowners find the ideal features to get the most value out of their renovation budget is easier than ever.

Attractive window shapes for architectural symmetry.

Stylish grilles for increased curb appeal.

There is a reason JELD-WEN is the go-to brand for so many experienced professionals.

Visit jeld-wen.ca to explore our endless selection of top-performing windows and doors.



JELD-WEN.
WINDOWS & DOORS

A high-quality photograph of a modern kitchen interior. The kitchen features light-colored, shaker-style cabinets with dark hardware. The countertops are made of dark granite. The backsplash is composed of light-colored, rectangular stone tiles. A large, stainless steel range hood is mounted above a dual-oven gas cooktop. The floor is made of large, light-colored stone tiles. On the left, a stainless steel refrigerator is visible. The lighting is warm and comes from recessed ceiling lights and under-cabinet lighting.

Granite counters, marble floors and Icynene. (Yes, Icynene.)

As a builder, you build homes with only the best material. So, if you want homes that stand out, choose Icynene spray foam insulation. To learn about all the different advantages visit icynene.ca. And remember to ask for it by name.

CHBA Report

- 28 President's Message
- 29 CEO's Update

Columns

- 9 Economics
- 10 Building Science
- 12 Expert Opinion
- 14 Common Cents Construction
- 30 Tool Talk

Departments

- 6 News
- 8 Association
- 33 Renovation
- 34 Industry News
- 34 Calendar
- 35 Advertisers Index

COVER



Building a low carbon house at The Endeavour Centre, a not-for-profit sustainable building school in Peterborough, Ont. Photo by Chris Magwood.

Home BUILDER Magazine is published by Work-4 Projects Ltd. six times a year. Editorial/Advertising: 4819 St. Charles Boulevard, Pierrefonds, Quebec, Canada, H9H 3C7. Tel: 514-620-2200, E-mail: homebuilder@work4.ca. Entire contents copyright March 2016 by Work-4 Projects Ltd. Reprints only by written permission. Opinions expressed are those of the authors or persons quoted and not necessarily those of the publisher or any other organization. The occasional appearance of photographs depicting safety violation does not represent an endorsement of the practice by the publisher or any other organization. Subscription rates in Canada: \$36* a year, \$60* for two years, \$80* for three years. U.S. and foreign subscriptions payable in U.S. funds only. ISSN No. 0840-4348. Legal deposit — The National Library of Canada and Bibliothèque et Archives Nationales du Québec, 2007. Canada Post Permit #0295647. *Plus applicable taxes. GST/HST registration #R105741383 • Date of mailing: March 2016

9

ECONOMICS: Soaring High

Watching rising house prices has been a favourite Canadian preoccupation for a number of years now. But what about today's soaring prices?

10

BUILDING SCIENCE: Tiny Houses

The big question seems to be about where tiny houses fit in the regulatory context. Not surprisingly, there is a whole lot more to consider besides "how small we can build and still meet code?"

12

EXPERT OPINION: Building a Low Carbon House

It's easier than you think.

16

BUILDER PROFILE: Avanti Custom Homes



Winnipeg's Randall Homes launches Avanti Custom Homes, entering the custom home market—without the custom price.

20

MARKET REPORT: Manitoba

Mike Moore, President of the Manitoba Home Builders' Association, tells it like it is in "What Is or What Might Be?"



22

KITCHEN AND BATH: Personalized Luxury

NKBA's 2016 kitchen and bath trends focus on pampering people and their pets.

25

ROOFING REPORT: Asphalt Shingle Technology

A century of advances and technology.

26

A SAFER SMART HOUSE: Reducing the Risk of EMFs

André Fauteux returns with Part II of his report on electromagnetic fields (EMF), and strategies for builders to reduce the risk.

30

TOOL TALK: Teamwork & Learning Tools

This month could almost be called Teamwork Talk, as two of the entries are a result of just that. Even the rest of the line-up is a direct result of manufacturers trying to one-up the competition.



Next Issue: May/June

Outdoor Living, Landscapes & Decks /
CHBA National Awards for Housing Excellence and Annual Conference

A look at outdoor living, landscaping and decks. CHBA National Awards for Housing Excellence and Annual Conference, May 4-6 in Kelowna, B.C.



To book your premium ad space, call 514-620-2200 or e-mail sales@work4.ca

Canada Revenue Agency: Tax Deduction Tips

OTTAWA — As a skilled tradesperson, if you bought new tools for work this year, you may be able to claim the tradesperson's tools deduction, a deduction of up to \$500. You will need your employer to certify the tools were bought by you, for you, to be used directly in your work, to claim the deduction. You may also be able to get a rebate on the goods and services tax/harmonized sales tax (GST/HST) you paid.

If you are self-employed, you may also be able to deduct other reasonable expenses you paid to earn income—including vehicle expenses, supplies needed to complete a job, and office space expenses.

Employers can also benefit. If your business hires a qualified apprentice working in an approved Red Seal trade, you may qualify to claim the apprenticeship job creation tax credit. This non-refundable investment tax credit is equal to the lesser of \$2,000 or 10% of the eligible apprentices' salaries or wages. Don't need to use the whole credit amount this year? Carry the unused amount back three years or carry it forward up to 20 years. For more information, go to www.cra.gc.ca.

TD: The Booming, The Stable and The Struggling

TORONTO — Housing in Canada can best be characterized as a three-speed market, according to a recent *Canadian Regional Housing Report* released by the TD Economics: the booming (Toronto, Vancouver and surrounding areas), the struggling (Calgary, Edmonton, Saskatoon, and Regina), and the stable (the rest of Canada).

The dominance of the fastest-growing markets boosted overall Canadian resale activity in 2015 to its second highest level on record (behind 2007), while national prices surged by 8.5%.

The wide performance gap between markets looks set to narrow somewhat in 2016. This convergence will be partly driven by recent regulatory changes and an upward drift in borrowing rates, which will put the brake on future gains in the most expensive Toronto and Vancouver markets.

For the beleaguered markets hit most directly by low oil prices, including Calgary, stabilization in housing prices is unlikely to take place before 2017.

BC Budget 2016: New Housing Affordability Measures Announced

BURNABY, B.C. — Effective February 17, 2016, the purchase of a qualifying new housing unit valued at up to \$750,000 will be exempt from the Property Transfer Tax (PTT).

The cost of this measure will be offset by adding a third tier to the property transfer tax rate at 3% on the portion of the fair market value over \$2 million. The PTT had previously been applied as 1% on the first \$200,000 of the property market value and 2% on the remainder.

"We have advocated that changes to the property transfer tax structure are long overdue and that B.C. home buyers deserve a reduction in taxes on housing," said CHBA BC CEO **NEIL MOODY**. "We are pleased to see the provincial government eliminate the PTT on new housing units up to \$750,000."

Canadian residents and permanent residents who purchase their principal residence and live in the unit for a full year will be exempt from the PTT on newly built homes up to \$750,000. This exemption is predicted to save the purchaser up to \$13,000, and provides an estimated \$75 million in property transfer tax relief for new construction in 2016-17.



CMHC: First Annual Estimate of Urban Households in Core Housing Need

OTTAWA — In the 2012 base year, Statistics Canada replaced the Survey of Labour and Income Dynamics (SLID) with the Canadian Income Survey. According to estimates of urban core housing need based on data from the Canadian Income Survey, 1.4 million urban households, or 13.5% of all Canadian households living in urban areas, were in core housing need in 2013. This proportion is virtually the same as in 2012, considering the statistical accuracy of the estimate based on this survey.

In 2013, 13.5% of Canadian Households living in urban areas were in core housing need

	2011	2012	2013
Canada	12.8%	13.2%	13.5%
Ontario	14.0%	16.6%	16.6%
British Columbia	15.7%	16.2%	16.1%
Prince Edward Island	9.0%	9.9%	12.9%
Nova Scotia	12.8%	14.1%	12.5%
Manitoba	10.0%	10.4%	11.8%
Saskatchewan	12.0%	12.5%	11.6%
Newfoundland and Labrador	12.0%	12.5%	10.3%
Quebec	11.3%	8.9%	9.8%
Alberta	10.4%	7.8%	8.9%
New Brunswick	9.8%	8.7%	8.4%

Source: CMHC (housing indicators and data based on the 2012 and 2013 Canadian Income Survey and the 2011 National Household Survey)



The Magazine of the Canadian
Home Builders' Association
Vol. 29 No. 2
March/April 2016

Publisher

Nachmi Artzy
pub@work4.ca

Contributors:

Jon Eakes
André Fauteux
James Kirby
Chris Magwod
Kathleen Maynard
Bo Mochemiak
Mike Moore
Jillian Murray
Peter Norman

Production Manager

Kelvin Chan
production@
homebuildercanada.com

Sales Coordinator

Polly Ma
coordinator@work4.ca

Accounting

Patricia Fleurent
accounting@work4.ca

Circulation Manager

mail@work4.ca

Editor

Judy Penz Sheluk
editor@work4.ca

Published by

Work-4 Projects Ltd.

Advertising/Editorial:

4819 St. Charles Blvd.
Pierrefonds, Quebec
Canada, H9H 3C7
Phone: 514-620-2200
www.homebuildercanada.com

© 2015 Benjamin Moore & Co. All trademarks are registered trademarks of their respective owner.



GARAGEGUARD®. FOR PEOPLE WHO REALLY LOVE THEIR GARAGE.

For a garage floor with outstanding hardness and chemical resistance your customers will love. No matter the problem, INSL-X® has the solution. Visit insl-x.ca.



CHBA BC Announces B.C.'s First Certified Master Residential Builder



Larry Clay

BURNABY — The Canadian Home Builders' Association of BC (CHBA BC) is proud to announce that **LARRY CLAY**, president of **Clay Construction Inc.**, is the province's first certified Master Residential Builder.

To earn this certification, Clay successfully completed all required courses in the CHBA BC Continuing Education program. The courses focus on many of the important aspects of the residential construction industry in British Columbia, including the BC Building Code, energy-efficient building methods, site safety, and construction law. The certification program is designed for students who want to stay current on industry trends, technical advances, code developments and best practices.

"Damage has been done by inexperienced and unscrupulous contractors. The industry needs professional development for builders, renovators and contractors in addition to consumer education and protection," said Clay. "CHBA BC provides ample opportunities for builders to develop their business skills to better serve the consumer."

Clay's participation in this program demonstrates his commitment to continuing education and professional development in his field. Clay is also recognized as a Certified Housing Professional and a Certified Renovation professional.

"The Master Builder Certification is the highest level offered by our Association, and we congratulate Larry Clay of Clay Construction for being our first builder member to achieve this designation," said **NEIL MOODY**, CEO CHBA BC. *Submitted by Alycia Coulter, CHBA BC.*

CHBA PEI Takes a Stand Against Proposed HST Increase

CHARLOTTETOWN — The P.E.I. Standing Committee on Education and Economic Development got an earful from people involved in the home construction and real estate industries in early March. Home builders and realtors filled the meeting room to tell government about the impact of the HST on their businesses. CHBA Prince Edward Island provided figures from the Canada Mortgage and Housing Corporation to show a 40.7% decrease in housing starts in the province from 2011 to 2015, noting that the introduction of the HST on April 1, 2013 was a big factor behind the decline.

SCOTT COSTAIN, director CHBA PEI, and owner of a construction company in Summerside, said that the 14% tax on new homes is driving some business underground, and has cost the province thousands of jobs and millions of dollars in lost tax revenue because of the impact it's had on the industry. He further noted that, "raising HST to 15% "can't do anything but hurt."

JUST ANOTHER CASE OF WINDOW ENVY.

Scan the QR code to find out why we stand out from the crowd, and don't be surprised if your home or job site attracts more attention.



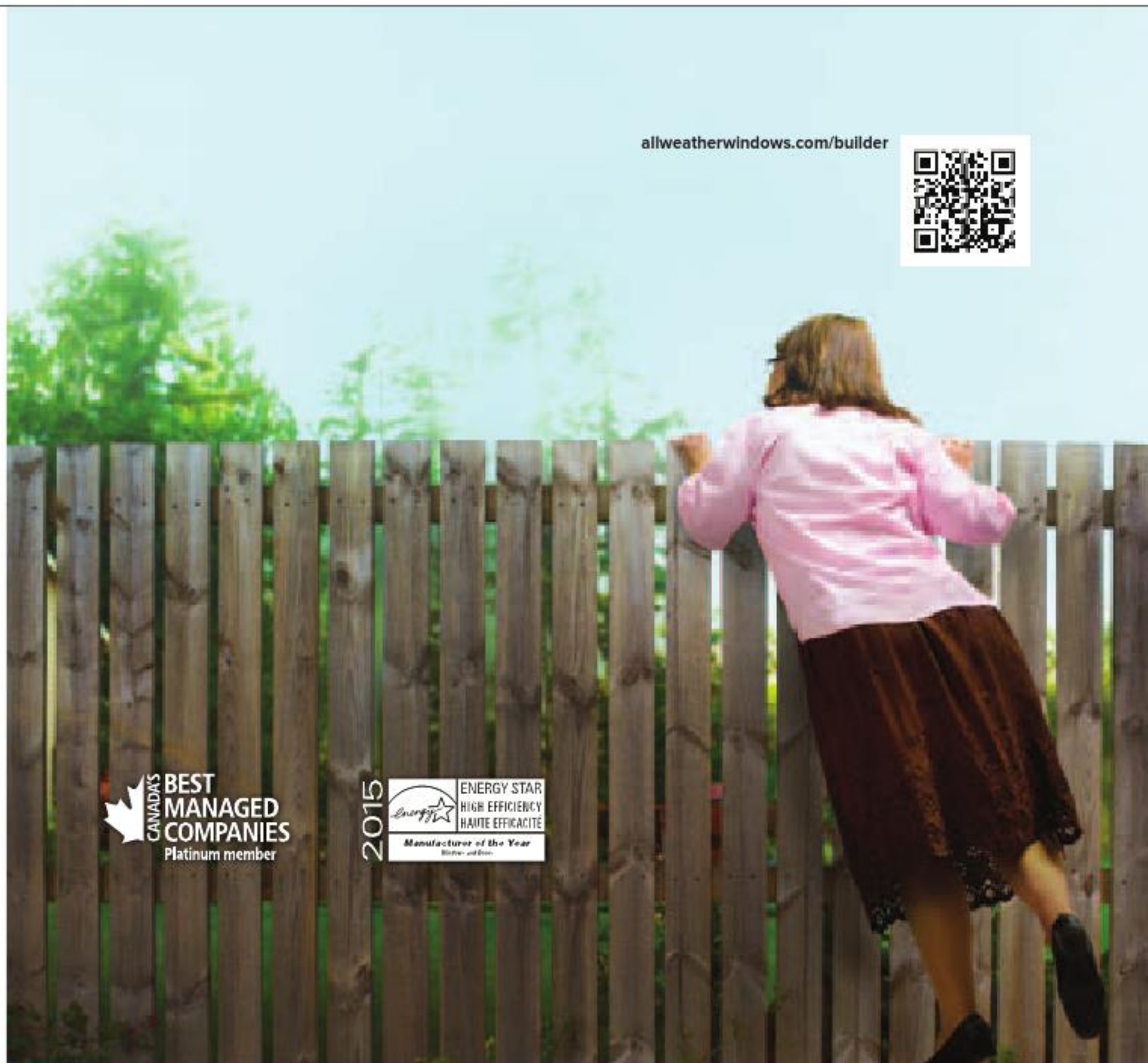
OFFICIAL PARTNER



2015



allweatherwindows.com/builder





By Peter Norman

At the beginning of 2016, the question of housing valuations remains ever-present.

Peter Norman is a member of the CHBA Economic Research Committee and is Chief Economist at Altus Group (formerly Clayton Research), the leading provider of independent real estate consulting and advisory services.

Soaring High

Watching rising house prices has been a favourite Canadian preoccupation for a number of years now. The media, the Bank of Canada, CMHC, Canadian policy makers, international ratings agencies and various housing analysis have each taken a kick at the can sometime in the past several years at assessing the risks of a correction.

At the beginning of 2016, the question of housing valuations remains ever-present. Housing price pressures have certainly been rising across Canada and in certain larger markets in particular. In January 2016, home values in Canada were some 7.7% higher than a year earlier, and the momentum continues to be upward and diverging from the five-year average growth at 4.9%. Canadians like to see sustained modest real (after inflation) growth in housing values as it instills confidence in home ownership as a sound investment, but when prices appear too elevated, policy makers become concerned about the effects on affordability and homeowners become nervous about the possibility of an asset price bubble.

Recent trends by region line up very closely with the so-called "two speed" economy in Canada. Housing prices are advancing at some 20% in Vancouver and 11% in Toronto as B.C. and Ontario have taken leadership spots in economic growth. By contrast, prices are beginning to fall in Calgary (down 3.1% year over year), Regina (down 0.7%) and Saskatoon (down 2.1%) as these energy-sector-dependent economies continue to contract. At the same time, many markets in Canada have seen low and steady price increases like Ottawa (1.1%) and Montreal (1.5%).

Pent-up Demand Pressures

Demand pressures in Vancouver and Toronto are largely behind soaring prices in those markets and these demand pressures are only rising as strong and growing economies in B.C. and Ontario draw in migration from weaker parts of the country. In addition to all this, demand for housing, particularly in those two markets, has been boosted by foreign investor buyers. This latter component continues to be difficult to quantify with the data we have available, but we know it exists and, with the sharply stronger U.S. dollar value in recent months, Canadian real estate can still look like a bargain.

In Toronto, there continues to be a very stark contrast between the price escalations seen among single-family homes relative to condominium apartments. According to the MLS Home Price Index, single-family resale Home Price Index were some 12.6% above year-ago levels in January, about three times

the modest pace among condominium apartments. Similar trends exist among new homes. At year end 2015, the average new low-rise home price was some \$829,766 and had risen 18% year-over-year, in stark contrast to average new high-rise transaction at \$453,083, about the same as the year before, both as measured from the RealNet price index. Importantly, new condominium prices are flat in part as the product sold continues to get smaller. The large differential between single-family and apartment price growth clearly points to the shortages of supply of both new and resale single-family units in a market that continues to cope with single-family land supply constraints.

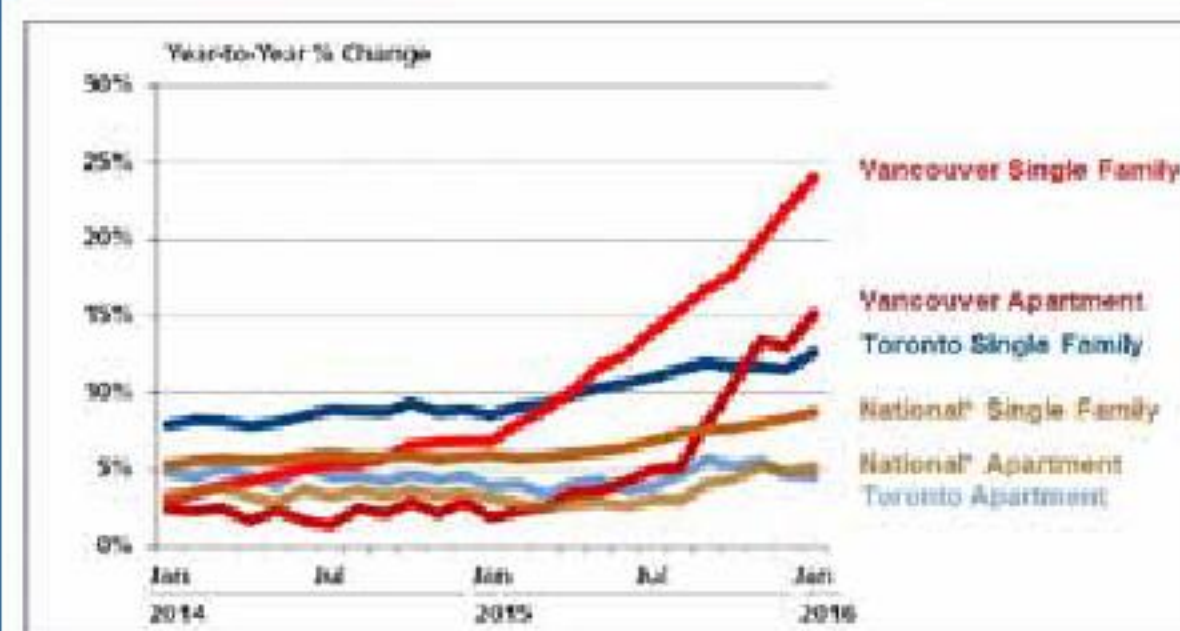
In the case of Vancouver, there is some differential between single-family and apartment price growth, and the gap is considerably narrower in a market where the shortage of supply reaches across all types. The rate of escalation in prices even in the past few months has been astonishing. Most recently, single-family home prices are now fully 24% higher than just a year ago, and condominium apartments are 15% higher.

Caution Ahead

Despite the long history of chatter about rising house prices, it is only in the past few months, and among a few select cities that we've really run into the sort of rapid escalation worthy of concern. Even though the rise is based on the fundamentals (strong demand, supply shortages), it still has disastrous effects on housing affordability, which can destabilize markets and ultimately affect economic development.

It's tempting to look at pockets of fast housing-price rises as areas at risk of a housing price correction, but in as much as these trends are being driven by strong demand linked to the strong regional economies, there may be considerable more time left in this current rally. 🏠

Rapid Acceleration in Prices in Vancouver, Steady Pressure in Toronto: Cautions Ahead



© 2016 Altus Group
Source: Altus Group Economic Consulting based on MLS Home Price Index (CMAA)



By Kathleen Maynard

No matter where you build a house in Canada, and no matter its size, you need to meet the regulations in force.



Kathleen Maynard is CEO of the Canadian Manufactured Housing Institute and Vice Chair of the CSA Technical Committee on Prefabricated Buildings, Modules and Panels.

Where Do Tiny Houses Fit?

In recent months, not a week has gone by in the office without an inquiry about tiny houses. Whether generated by reality television, environmental concern or housing affordability, there is no question that the “tiny house movement” has captured the imagination of more than one potential home buyer.

The big question seems to be about where tiny houses fit in the regulatory context. Not surprisingly, there is a whole lot more to consider besides “how small we can build and still meet code?” But although an array of technical and administrative requirements come into play, getting to the answer is possible. A discussion paper being prepared for the Provincial-Territorial Policy Advisory Committee on Codes by staff at the Canadian Manufactured Housing Institute has identified several factors to consider.

No matter where you build a house in Canada, and no matter its size, you need to meet the regulations in force where the home is placed. Technical requirements based on the National Building Code (NBC) are essentially the same across Canada. There are some exceptions, such as less-stringent requirements for cottages and park model trailers for seasonal housing in Ontario.

Many small homes are built in factories, so discussions about tiny houses often explore CSA standards. Factory-built homes certified in accordance with **CSA A277 Procedure for Certification of Prefabricated Buildings, Modules and Panels** are recognized as compliant, by reference or policy, in most provinces and territories. Alberta and Quebec require CSA A277 certification for factory-constructed buildings. Factory-built tiny houses can be certified in accordance with CSA A277.

- **CSA Z240 MH Series Manufactured Homes** defines a manufactured home as a “transportable, single- or multiple-section, one-storey dwelling ready for occupancy on completion of set-up in accordance with the manufacturer’s instructions.” Where referenced or accepted by local regulation, CSA Z240 MH-certified tiny houses comply, whether they are constructed with or without a chassis.
- **CSA Z241 Park Model Trailers** defines these as recreational units that in addition to other criteria, are “designed as living quarters for seasonal camping.”



COURTESY GUILDCREST HOMES



Certified in accordance with CSA A277, Guildcrest Homes' Eldorado complies with the Ontario Building Code for year-round occupancy. Set on a permanent foundation, it has a gross area of 486 sq. ft.; 621 sq. ft. including patio.

The standard does not apply to houses intended for year-round use. Tiny houses can be constructed in accordance with CSA Z241, but then cannot be used as a permanent residence.

- **The CSA Z240 RV Series** defines a recreational vehicle as “a vehicular-type unit that is primarily designed as temporary living quarters for recreational, camping, or seasonal use.” Recreational vehicles are considered to be vehicles rather than buildings. Tiny houses can be constructed in accordance with **CSA Z240 RV Series**, but then cannot be used as a permanent residence.

The one aberrant case is a site-built tiny house for year-round use, constructed on a chassis and not placed on a permanent foundation. In order to comply with building regulations, these houses would need to be installed on permanent foundations; and may also need to pass the deformation-resistance test provided in CSA Z240.2.1. They may also need to meet the most stringent requirements to ensure they will comply with local requirements wherever they move.

How Small Can You Go?

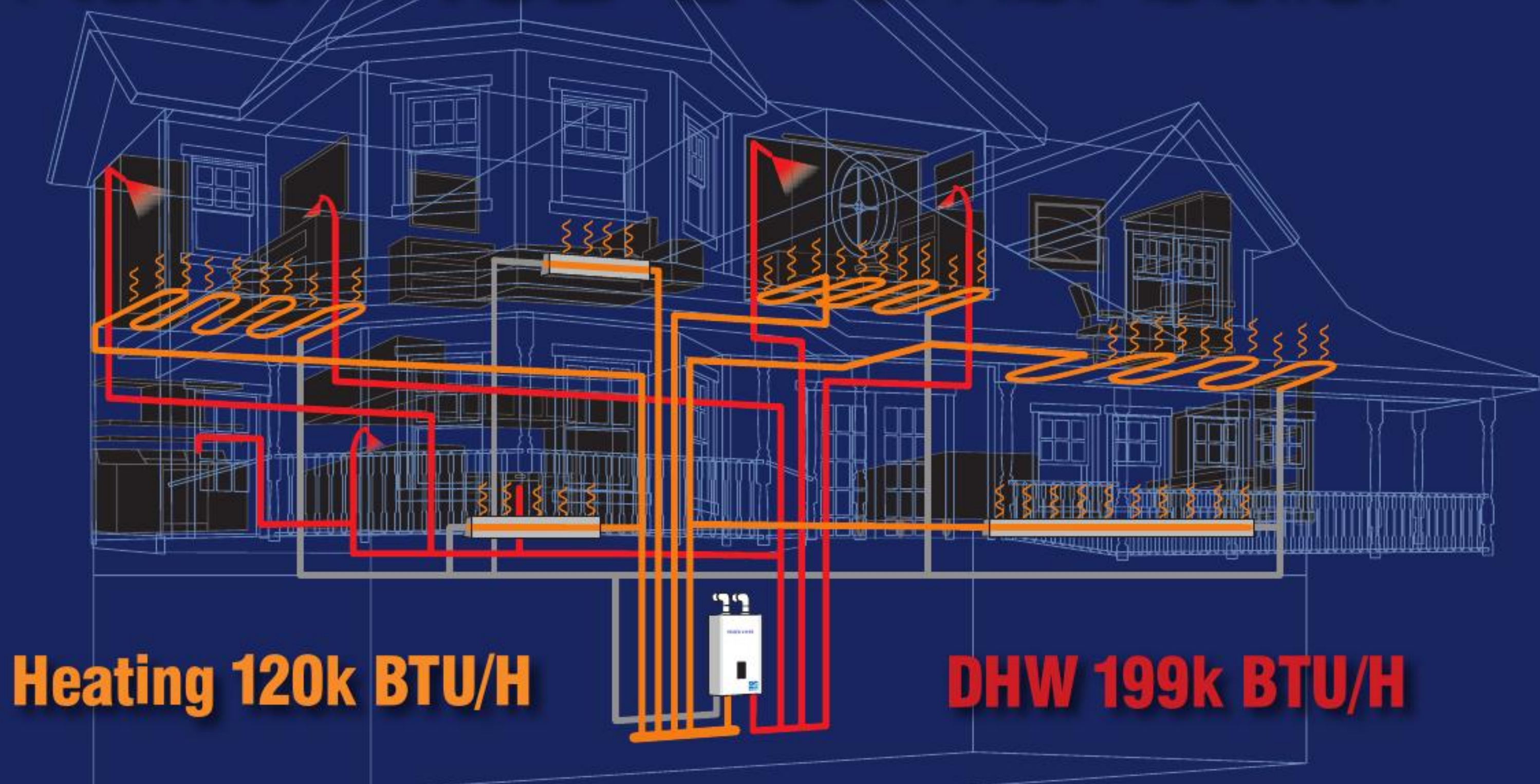
Except for the Ontario Building Code, building regulations do not specify minimum areas for dwelling units, rooms or spaces. Other requirements may raise compliance questions, such as those for ceiling heights and lofts; hallway and doorway widths; stairs, handrails and guards; egress windows; smoke alarms; foundations and anchorage; ventilation and energy efficiency.

The Biggest Barrier

In the end, it turns out that zoning bylaws present the biggest regulatory hurdle. Minimum specifications for lot size or building area, outdated terminology, or a failure to recognize non-typical land use such as land-lease or condominium developments all present barriers to tiny houses.

Tiny houses offer housing choice and affordability. While the idea is not new, there is new interest in the idea. If you’re looking to answer demand for tiny houses, check with local officials on the requirements that apply in your market, and be sure to get clear interpretation of the requirements.

Navien NCB-E Combi-boiler



Whole house heating and DHW for larger homes all in one compact combination boiler



HTG & DHW
120k BTU/h 199k BTU/h

AFUE 95.0%

2"–3" VENTING
LONG DISTANCES

NG or LP FIELD GAS
CONVERTIBLE

DUAL STAINLESS
STEEL
HEAT EXCHANGERS

Navien NCB-E is the high efficiency tankless condensing combination boiler with the capacity to supply both heat and DHW for larger homes — enough hydronic heat for the whole house, plus hot water to run two showers and a dishwasher at the same time.



Save installation time and reduce call backs, as your customers save energy and enjoy all the hot water they need, whenever they want it. **Now available in four sizes — NCB-150E, NCB-180E, NCB-210E and NCB-240E.**

To learn more visit WholeHouseCombi.com or Navien.com.

KD navien®

T H E L E A D E R I N C O N D E N S I N G T E C H N O L O G Y



By Chris Magwood

Building a Low Carbon Home

It's easier than you think

Whether or not you consider yourself an environmentalist, and regardless of your position on climate change, it is impossible to deny that buildings are responsible for an overwhelmingly large slice of the carbon emissions pie. U.S. figures attribute 46.7 per cent of all carbon emissions in that country to the making and operating of buildings, and with Canadian federal and provincial governments ramping up plans to reduce carbon emissions, the building industry is firmly in their cross hairs.

However, there is very good news for home builders in the upcoming "war on carbon." Our industry can very easily play a leadership role in helping to combat climate change. And not only can we make an important difference, we can do it without making major adjustments to our practice, unlike many other sectors of the economy.

Understanding Building Carbon

To understand how our industry can turn the corner and be leaders in carbon reductions, a builder has to understand where all that building carbon comes from.

"Embodied carbon" is the amount of carbon that is released during the harvesting, manufacturing, transportation and installation of building materials. Some of the materials we use on a regular basis have a very large carbon footprint. In fact, sometimes a material can be responsible for carbon emissions that outweigh the material itself.

At the same time, other materials have very low carbon emissions. Some materials can even have a "carbon sequestration" effect, and actually store more carbon in the material itself than was generated on its path to the building site, giving them an overall negative carbon impact.

Fortunately for home builders, it is as easy and cost effective to build a radically low carbon home as it is to build a carbon hog.

Informed choices when it comes to selecting and specifying materials are the key to reducing the carbon footprint of our homes. In every product category, there

are competing materials with varying carbon impacts. Choose the right materials and you are a climate change champion; choose the wrong ones and you are the problem that governments are trying to solve. And the differences can be very significant, even if the finished house looks and performs the same, see chart.

As you can see in the chart, two houses built to identical plans and specifications can have radically different carbon footprints—as much as 68% per cent different! One house can be seen as a part of the problem, and the other as part of the solution. The difference in carbon footprint equals more than 1.5 million tons in carbon reduction over 200,000 homes annually, making this an important contributor to overall national reduction targets.

It just so happens that the carbon friendly choices we can make can also have a positive effect on the Canadian economy. As you may have noticed in the chart, "bio-fibre" products—largely wood-based—are the best choices, and they are also largely Canadian-produced products.

You'll also find that there is no additional price tag for the low-carbon options. In fact, some of them are less expensive than their carbon-heavy competitors.

Of course, there are even more effective ways that home builders can further reduce carbon output. As the chart makes clear, basements represent the biggest percentage of the carbon footprint of an average home. Shallow foundations can result in homes that are carbon negative, and low-carbon choices throughout the rest of the home can continue this positive trajectory.

It won't be long before governments start requiring home builders to be part of the carbon reduction solution. Fortunately for us, becoming leaders in the fight against climate change is something we can do without dramatically changing our practices.



Wood fibre board sheathing can replace OSB and foam insulation with a single installation, and at a thickness of 1.5 inches adds R-4 to the building. This material also sequesters carbon.

Chris Magwood is a designer, builder and teacher working for The Endeavour Centre, a not-for-profit sustainable building school in Peterborough, Ontario. www.endeavourcentre.org

High Carbon Home (1500sf)		Low Carbon Home (1500sf)	
Material	Carbon Content*	Material	Carbon Content*
8" concrete wall	2272.5	8" concrete wall, 35% slag	1635
4" XPS foam insulation	1199.4	4" EPS insulation	929.5
4" basement slab	3736.5	4" basement slab, 35% slag	2688.8
2" XPS under slab ins.	593.6	2" EPS under slab ins.	460.1
2x6 framing @ 16" OC	-778.2	2x6 framing @ 16" OC	-778.2
Fiberglass insulation	744	Dense packed cellulose ins.	-157.5
1.5" XPS insulation	449.8	1.5" wood fiber board	-453.5
Vinyl siding	1920.5	Wood siding	-613.9
Fiberglass ceiling insulation	1002.3	Cellulose ceiling insulation	-98.7
Total carbon footprint	11,140.4 kg of CO ₂		3,611.6 kg of CO ₂

* All figures from Inventory of Carbon and Energy (ICE) V2.0



Cellulose insulation actually sequesters carbon, and offers competitive R-values and costs. It can be dense-packed into walls and loose blown into attics.

PORCELAIN PANELS THE FUTURE



VENTILATED RAINSCREEN FACADE SYSTEM

bildtec.

TECHNOLOGY FOR TOMORROW'S BUILDER

BILDTEC Building Systems Inc. 345 Horner Ave. Suite 100, Toronto ON, M8W 1Z6 **Phone** / 416.252.6165 Ext 126 **Email** / info@bildtec.ca

Coming Soon Bildtec Downtown Designer Lifestyle Showroom Space | 146 Dupont St. Toronto, ON



By Jillian Murray (above)
and Bo Mocherniak

When it comes to construction financing in Canada, one size does not fit all.

Jillian Murray is a Director in the Grant Thornton advisory services practice in Halifax. She is the leader for the construction and real estate group for the Atlantic region. She can be reached at jillian.murray@ca.gt.com.

Bo is National Leader for the Real Estate and Construction Group of Grant Thornton Canada, and a member of the Grant Thornton International Real Estate Sector Group. He can be reached at bo.mocherniak@ca.gt.com.

Dollars and Sense: Breaking Down Construction Financing

Acquiring construction financing isn't a game of chance—rather, it takes significant skill.

If you're looking to increase your available financing opportunities, you need to give lenders what they want—and that means understanding how the financing process works.

Who Are the Lenders?

When it comes to construction financing in Canada, one size does not fit all. Fortunately there are many lenders willing to meet the needs of a wide range of construction projects, including:

- ▶ Chartered banks
- ▶ Canada Mortgage and Housing Corporation
- ▶ Business Development Bank of Canada
- ▶ Life insurance companies
- ▶ Specialized real estate lenders (non-banks)
- ▶ Local, regional and other private lenders

To improve the likelihood of acquiring financing on attractive terms, it is important to find the lenders with the strongest appetite for the type of project at hand, not necessarily the lowest price. Rather than seeking the lowest interest rate, it's more valuable to partner with a lender who can align its financing offer to suit the needs of your business and project.

What Can You Expect from the Process?

Because every construction project is different, the process to obtain construction financing can be daunting. That's why it helps to break it down into three steps:

Initial discussion and proposal

This initial stage is used to launch discussions with potential lenders, provide them with information and gauge—or pique—their interest in a particular project. In this phase, you will want to provide the lender with enough information to broadly assess the project to determine if it meets its lending criteria. Depending on the stage of the project, this may include: architectural renderings, construction cost estimates, financial projections, background information on the project team and shareholders, and potential sources of equity to fund the project. If the lender is willing to proceed, it will typically issue you a non-binding discussion paper (or term sheet) that will outline the general terms and conditions under which it is prepared to lend the funds.

Due diligence

Following the acceptance of the term sheet, the lender will want to complete its due diligence. This is the

point where it will look to verify all the information provided. This will involve reviewing many aspects of the project, including:

- ▶ Its cash flow projections, both through the construction phase as well as upon lease-up and stabilization,
- ▶ The reputation and financial qualities of the borrower, including the ability to guarantee the loans and fund cost overruns,
- ▶ The quality, experience and reputation of the developer, engineers and general contractors,
- ▶ Overall market conditions (e.g. vacancy rates, interest rates, lease-up timeframe and proposed rental rates),
- ▶ Project attributes (e.g. costs, engineering design, environmental reports, permits, sources and uses of funds) and
- ▶ Project value relative to loan value (i.e. what is the cost to construct and what is the value of the completed project).

A well-presented financing proposal will help you prepare for this process. This should include a summary of the project, as well as the borrower's business, offering both historical and projected financial information and experience. A financial forecast is also a great tool to help you in your proposal. It should outline the cash flows of the project and demonstrate your ability to repay debt under the conditions of the lender's term sheet.

Commitment letter and funding

Once the due diligence phase is completed, it's time for the formal commitment letter and funding. In many construction projects, the total project financing will generally be in two separate loans: construction and take-out.

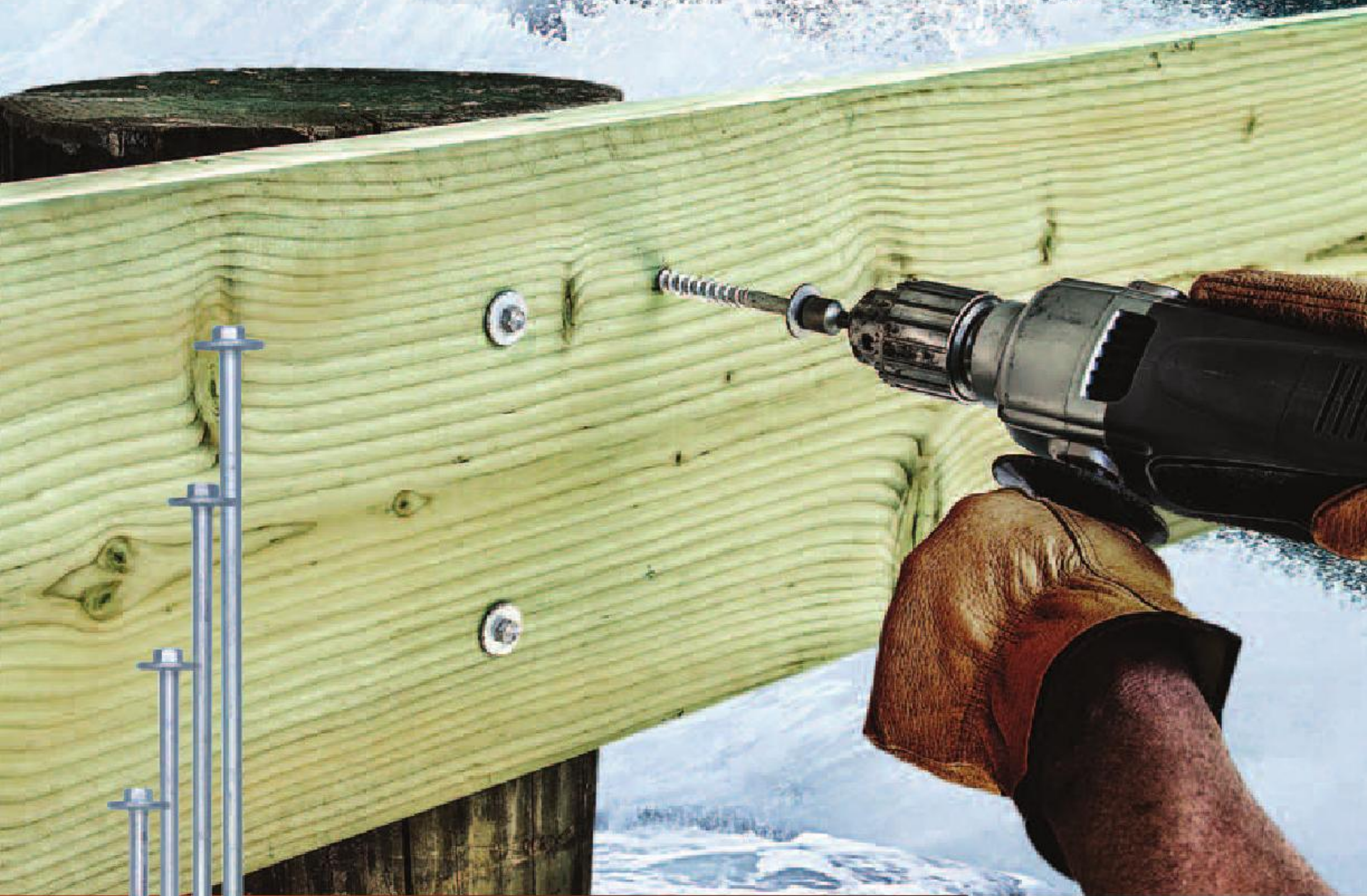
The construction loan is generally drawn in tranches, where the amounts are tied to the level of completion of the project. This facility typically will fund acceptable soft costs (e.g. engineering, architect and other professional fees), as well as hard costs for the project (e.g. land servicing and early stage construction). The draws will need to be supported by invoices, and typically will be verified by a third party. Once the construction is complete, the building occupied and all of the conditions met, the permanent take-out financing is advanced and regular principal and interest payments commence.

A Win-Win Scenario

By understanding the financing process and working with your lender, you can increase your chances of acquiring the funding you need, on the terms you want, to position your construction project for success. 🏠



OVERCOME THE ELEMENTS



Drive faster. Save cost. Overcome the elements. Our new Strong-Drive® SDWH Timber-Hex HDG screw requires no predrilling. Unlike bolts, washers and nuts, this screw is driven from one side, making installation of railings and framing safer and less cumbersome. With its ASTM A153 Class C hot-dip galvanized coating, the SDWH Timber-Hex HDG screw can stand up to corrosive marine and coastal environments.

Help your customers save time, cost and hassle. Call us at (800) 999-5099 and visit strongtie.com/timberhex-hdg.

Available in 4", 6", 8", 10", 12" Lengths

SIMPSON
Strong-Tie



A Custom Home Without the Custom Price

Winnipeg's Randall Homes launches Avanti Custom Homes

BY JUDY PENZ SHELUK

A partner of Randall Homes, a family-owned builder since 1983 in the Winnipeg home building industry, Avanti Custom Homes launched in September 2015 with a 1,722-square-foot bungalow in the Oak Bluff West subdivision on the outskirts of Winnipeg.

The neighbourhood offers lot sizes ranging from 70' to 84' wide. There are plans already in place to build in other communities in Winnipeg. Why did a production builder enter the custom build space? We sat down with **JASON JAQUET**, the company's Vice President, to find out.

HBM: Let's start by finding out a bit about Randall Homes.

JJ: Randall Homes was established in 1983 by my father, **RANDY JAQUET**. The first year we were in business we sold 35 homes, the next year we sold over 70 and we've grown ever since. The company now sells over 220 homes annually, and has won numerous awards over the years for our innovative designs. Our philosophy is that we don't build homes to win awards; we build them for our customers. The emphasis has always been creating a comfortable living space. The key to our success is the long-term relationships built along the way—from developers and tradespeople to the bank and accounting firm to the staff and the Jaquet family. More than a home builder, we are a relationship builder.

HBM: Clearly the company has been successful. What prompted the decision to enter the custom home market, and what changes were required to do so?

The home buyer can request anything they want, from small tweaks to drawing completely new plans from scratch.

JJ: Randall Homes has been a company that is always pushing the envelope with award-winning design ideas and standard features added into our homes. As a result, we wanted to set up a custom home company that would be able to offer a custom home without the custom price tag. Giving them Choice, Value and Service (a key element of the Randall

Homes philosophy in the house market), coming up with new concepts and new designs at an affordable price point in custom market.

HBM: It's early days for Avanti Custom Homes. What has been your biggest challenge to date, and how does that compare to your experience as a production builder?

JJ: The biggest challenge we faced was getting the Avanti Custom Homes name out in the Winnipeg marketplace. Since Randall Homes was already an established builder in Winnipeg, as a new custom builder in an already competitive custom market we used social media and print ads to brand the Avanti Custom Homes name and get people talking before we started any projects.

HBM: The pricing structure for an Avanti home is fixed vs. the more traditional cash allowance route. What are the advantages for the customer and the builder in using this method?

JJ: The buyer knows exactly what they are going to get and at what cost:

► Cash allowances can leave the client with ► **18**



Unafraid to go to grade.

Homes covered with Cellect® Cellular Composite Siding are truly covered, because unlike fiber cement and engineered wood, Cellect can go to grade without being damaged by mud, mold, mildew, dirt, snow and ice. Give credit to advanced cellular material that virtually eliminates the need for maintenance. And Kynar Aquatec® coating that keeps our stunning colors from fading. Plus patented interlocking joints that produce virtually seamless looks while blocking out moisture from all manner of Canadian weather. This is what an exterior can do when engineered with 100% passion and 0% fear.

Find out everything siding can do at cellect.royalbuildingproducts.com.





16 ▶ some uncertainties that can be really stressful (will the allowance convert what we think it will?)

► We are upfront with all costs so the client knows what they are getting and at what they cost. No \$40,000 + surprises in the end when they realize that the allowances didn't cover everything they wanted.

As a builder, fixed pricing means we don't need to estimate because we know what it is going to cost. It also allows us to give the best price upfront.

HBM: Beyond the years of experience in the Winnipeg market, what other advantages does the production builder background bring?

JJ: As a custom builder, being partnered with a large established builder like Randall Homes allows us to have an in-house design centre. This allows clients to finalize finishes and design choices—without having to drive around the city and/or be pressured by each retailer to push their allowance.

We are also able to bring tried and true best practices from a serious volume of building to each custom home that a typical custom builder building 10-20 homes a year simply

As a builder, fixed pricing means we don't need to estimate because we know what it is going to cost. It also allows us to give the best price upfront.



does not have.

Another serious advantage is our integrated service department; our combined volume again allows us to staff service crews that can move quickly and efficiently to handle any service needs.

HBM: You are currently offering customizable plans of bungalows and two-storey home models. Will you expand upon this, and what sort of customization can the home buyer request?

JJ: The home buyer can request anything they want, from small tweaks to drawing completely new plans from scratch. We are only limited by their budget and the development's guidelines for designs and site plans.

HBM: What's next for Avanti Homes?

JJ: We will be expanding into more subdivisions for 2016, which will allow Avanti Custom Homes to offer additional choices to home buyers and to continue to expand our philosophy: A Custom Home Without the Custom Price.

HBM: Thank you, Jason.





GOOD NEWS CANADA!

SUPERIOR FOUNDATION

The Leader In Residential Precast Concrete Foundations

Today's finest homes are being built on Superior foundations. Maybe it's because Superior Walls is the leader in residential precast foundation systems. Maybe it's because our high-strength concrete walls are created in a factory controlled environment with built-in insulation.

Or maybe architects and builders just like warm, dry basements and added living space for their home buyers. Whatever the reason, more new homes are resting on Superior Walls foundations. Maybe it's time you found out why.

Call or click for more information.



MANUFACTURING OPPORTUNITIES AVAILABLE!

Superior Walls is expanding throughout Canada. Manufacturing opportunities are available in select regions. Call for more details.



Superior Walls®
BUILD ON A SUPERIOR FOUNDATION™

1-800-452-9255
www.SuperiorWalls.ca



Manitoba

What If or What Might Be?



By Mike Moore, President,
Manitoba Home Builders' Association



In the past, I have used this opportunity to tell everyone about the current state of the residential construction industry in Winnipeg and throughout Manitoba. I have told everyone that 2013 was an outstanding year with start numbers higher than any other year in the previous 25.

The following year (2014) saw a decline of 15 per cent—not surprising, in that it's tough to keep breaking records, but still significant.

Last year's (2015) numbers were deceiving. If one only looked at starts, they would say that it was a pretty good year. After all, the numbers in Winnipeg were up a bit and it appeared as though we had returned to the previous years' numbers.

However, looking deeper, one could see that the single-family detached segment declined by another 12 per cent. In addition, condominium starts decreased by similar numbers. Apartment starts tripled over the previous year and so it looked like multi-family starts were on the rise and overall starts were on a par with the previous year. In Winnipeg, apartment starts do not have the same economic impact or air of permanent residency that comes from a single-family detached home or condominium.

Strangely enough, the Canada Mortgage and Housing Corporation still ranked Winnipeg as being problematic, primarily from overbuilding in the multi-family sector. How it came to this conclusion, I may never understand, given that both the builds and the inventory were in apartments, not permanent housing.

However, what is of greater concern to the residential construction industry in Winnipeg and throughout Manitoba is not what has happened over the past year, but rather what may be happening in the coming year. This is defi-

nately a time of great potential change significantly impacting our builders and renovators.

Policies and Politics

In the City of Winnipeg, Mayor **BRIAN BOWMAN** has suggested that new developments generate less revenue than they cost the city in terms of providing services and that growth fees, while creating higher property prices for some, would be preferable to the alternative of higher property taxes for all.

However, on the positive side, the City has committed to a thorough and complete Development Agreement Parameter review with full representation from the Manitoba Home Builders Association (MHBA) and the Urban Development Institute. This process is expected to last another five months, resulting in a clearer picture of who should pay for what—and hopefully clarifying that new development pays its fair share and even more in contributing to the welfare of the city.

On the provincial level, Election Day is scheduled for April 19. After 17 years of NDP rule in Manitoba, it appears as though the Progressive Conservatives are destined to form the next government. All polls show the Conservatives well in the lead with

the Liberals and NDP trailing by significant levels. However, as we all know, polls aren't results and nothing is certain until after the election.

The current government has brought in mandatory warranty legislation that won't come into effect until January 2017.

There is still a significant amount of tweaking to do in order to make this work at a practical level. The MHBA will make this a priority for the new government.

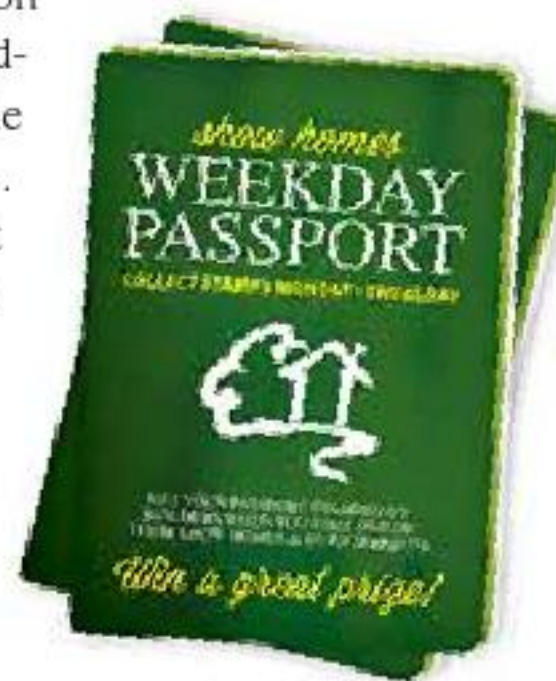
The new National Building Code will have to be reviewed provincially with interest in ensuring that affordability and practicality are heeded. We saw what happened with the electrical code and want to ensure that the NBC works for Manitoba. The new home market is far too important to allow random expenses from unnecessary legislation to negatively impact it.

Positive Signs

The renovation industry remains very strong. With one of the oldest housing stocks in Canada, Winnipeg is a renovators' haven. Renovation plans resonate with 58% of the population and the legitimate industry has a difficult time keeping pace. This then results in an underground economy that unfortunately has been all too prevalent.

Despite any recent lulls, it appears as though the new home industry is once again on the upswing. Sales have been strong for the past three months and, as we all know, March brings the Spring Parade of Homes and over 35,000 people visiting new show homes over a three-week period. Should this event kick-start the spring buying season, 2016 will be just fine.

In summary, the residential construction industry in Winnipeg and Manitoba is beginning to rebound from two slower years and will do so if left unencumbered. However, as evidenced above, it is the uncertainty of the future rather than the present that will tell the tale.





DuPont™ Tyvek®

The ONE



For more than thirty years, DuPont™ Tyvek® has set the performance standard and today it protects millions of homes in North America.

Our weather barriers are made using a unique process that fuses polyethylene fibers into a strong uniform web structure that provides superior air and water hold-out while letting moisture escape. Whether you're building a new home, or residing or remodeling an existing one, insist on DuPont™ Tyvek® for superior weather protection.

The difference is DuPont™ Tyvek®

Copyright © 2015 DuPont. The DuPont Oval Logo, DuPont™ and Tyvek® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.





COMPILED AND EDITED BY JUDY PENZ SHELUK

Designer: Cheryl Kees Clendenon, IN DETAIL INTERIORS
Photo: Greg Riegler

NKBA's 2016 kitchen and bath trends focus on pampering people and their pets

The National Kitchen & Bath Association (NKBA) has tracked kitchen and bath design trends throughout its 53-year existence. This year, more than 450 NKBA members from across the country participated in the study, reporting the materials, product types and design styles they specified during the past year in response to changing consumer preferences. Once again, the NKBA has been generous enough to share its findings with *Home BUILDER Magazine*.

NKBA members specialize in full kitchen and bath projects, both renovation and new construction. The NKBA 2016 Design Trends Report focuses on identifying trends among kitchens in the \$20,000 - \$49,000 price range and up and bathrooms in the \$10,000 - \$30,000 range and up. One third of survey respondents described their customer base as "empty nesters," with 20% reporting that multi generational

households and families with teenage children represent their primary customer bases.

Two-thirds of NKBA member respondents to the 2016 Design Trends Report work for, or own, kitchen and bath dealerships or are kitchen and bath designers. Other respondents included employees at mass retailers or decorative plumbing showrooms, interior designers, renovators and builders.

Top 10 Kitchen Trends

1. Transitional style, with clean lines, and less ornamentation.
2. Two or more cabinet colors/finishes in the same kitchen, often in a light/dark combo.
3. Pull-outs, tilt-outs, and tilt-ins for easy

Designer: Robin R. Fisher, CMKBD, CAPS,
ROBIN RIGBY FISHER DESIGN
Photo: Dale Lang

THE BOLD LOOK
OF **KOHLER**®



Artifacts® Pull-Down Spout Kitchen Faucet & Wall-Mount Pot Filler

The task-oriented faucets of Kohler's Artifacts collection bring an eclectic elegance into any kitchen. The Pull-Down Spout Kitchen Faucet displays vintage style with its high-arch spout and turned lever handle, while the Pot Filler allows you to conveniently fill large pots directly on or near the stovetop. The Artifacts collection displays a vintage style while bringing professional convenience to home cooks.

Available at



**Robinson Lighting
& Bath Centre**

Vancouver • Coquitlam • Kamloops • Penticton • Edmonton • Calgary • Saskatoon • Brandon • Winnipeg

www.robinsonlightingandbath.com



- 22 ▶ access to storage, trash and recycling.
4. The look of wood flooring dominates, be it actual wood or wood-look ceramic tile.
 5. Different countertops for islands and the perimeter, varying in both color and material.
 6. Outdoor kitchens (most popular in the Southeastern U.S.)
 7. Built-in coffee stations and wet bars, as

8. well as built-in wine refrigerators.
8. Pocket doors. Casement windows and standard (double hung) windows were the most popular for kitchens and predicted to grow.
9. Pet spaces, including built-in feeding stations, food storage, and crates.
10. Docking and charging stations.



Designer: Emily Miller, CKD; KITCHEN & BATH CONCEPTS OF PITTSBURGH Co-Designer: Thomas S. Trzcinski
Photo: Craig Thompson



Designer: Lori Carroll, LORI CARROLL & ASSOCIATES
Co-Designer: Esthela J. Celaya - ORIGINATE INTERIOR DESIGN LLC; Debra Gelaty - Lori Carroll and Associates
Photo: William Lesch

Top 10 Bath Trends

1. Greater acceptance of aging-in-place amenities: no-threshold showers, grab bars, higher vanity heights, chair-height toilets.
2. Transitional is pulling away from contemporary. Transitional is the most popular style.
3. Neutral colors rule in the bath. White is most popular fixture color, and whites and grays are the most popular overall color schemes.
4. More open shelving and floating vanities.
5. More built-in storage functionality: more
6. roll-out shelves in bath cabinetry, more "hidden" electrical outlets for blow dryers, etc.
6. Undermount sinks are far and away the most popular sink style. Emerging: 15% did a trough sink, which may increase slightly.
7. When tubs are installed in master bathrooms, they are most likely to be free-standing.
8. Increasing use of shower amenities such as lights, built-in seats and benches, and hand shower in addition to the mounted

showerhead.

9. Polished chrome is the most popular faucet finish.
10. Other amenities specified by at least 25% of NKBA members in 2015:
 - ▶ Easy maintenance features
 - ▶ Electric radiant floor heating
 - ▶ Master bathrooms with coffee bars, microwaves, and wet bars
 - ▶ TV in mirror
 - ▶ Quiet or soft-close toilet seat
 - ▶ Steam showers



Methodology: The National Kitchen & Bath Association conducted an online survey late in 2015. More than 450 U.S. and Canadian NKBA members responded. Respondents were asked to report results for the full calendar year 2015 and also to report on which styles and products were increasing in popularity, decreasing in popularity or showing no change in their markets.

ENERGY STAR® FOR NEW HOMES

Get ahead of the change.



The new Ontario Building Code takes effect on January 1, 2017.

Building to a higher performance standard now ensures that you'll exceed stricter requirements of the Ontario Building Code in 2017 and beyond. Through programs like ENERGY STAR for New Homes, you can future-proof your business, getting ahead of the demand for increased energy efficiency instead of paying the price of catching up.

What you need to know today, to succeed tomorrow.

Visit uniongas.com/HighPerformanceHomes to learn about advanced building practices and technologies other builders are using to raise energy performance and quality standards while keeping costs low. Take advantage of advice and lessons learned from industry experts and your peers who are leading the way in high performance home construction today.



© The ENERGY STAR name and symbol are registered trademarks of the United States Environmental Protection Agency and are used in Canada with permission.
© Union Gas Limited 03/2016 UG20150071



Asphalt Shingle Technology

A century of advances and technology

BY JAMES R. KIRBY, AIA

When the Asphalt Roofing Manufacturers Association (ARMA) turned 100 in 2015, it gave the organization a unique opportunity to pause and appreciate advances in technology over the last century. By consistently improving as modern technology progressed, the industry has evolved significantly.

Imagine how different asphalt roofing was back in 1893, when all asphalt shingles were organic, with mica, dolomite and even oyster shells added to the shingle surface for durability; shingles were then coloured by coating them with crushed slate or shells.

The earliest asphalt shingles were single-cut pieces of material. These eventually evolved to have two or more tabs, and eventually into shingles with multiple cut-outs and thicknesses. Today, asphalt shingles come in a variety of colour and multi-tonal textural options. Designer asphalt shingles can even mimic the appearance of wood, tile or slate to add an architectural aesthetic to any roof, all while providing affordability and ease of installation.

Sealant strips were added in the 1950s to improve wind resistance and reduce installation time. In the 1970s, fibreglass was introduced to help reinforce shingles, making them both stronger and more fire-resistant. Some asphalt shingles included polymers to modify the asphalt. These improvements in shingle components have evolved over the years to provide durability and longevity, even when

faced with heavy rain, ice, snow or hail.

Roofing professionals now choose shingles for their wind, impact and fire-resistance based on various ASTM, CSA, UL and ULC rating systems. As this technology has developed, so have the industry-standard tests that

Today, asphalt shingles come in a variety of colour and multi-tonal textural options.



ensure asphalt materials can stand up to the toughest wear and tear. Algae resistance is another aspect unique to modern asphalt products. Many manufacturers now offer algae-resistant shingles that use special copper-coated granules to control the unsightly discoloration algae can cause.

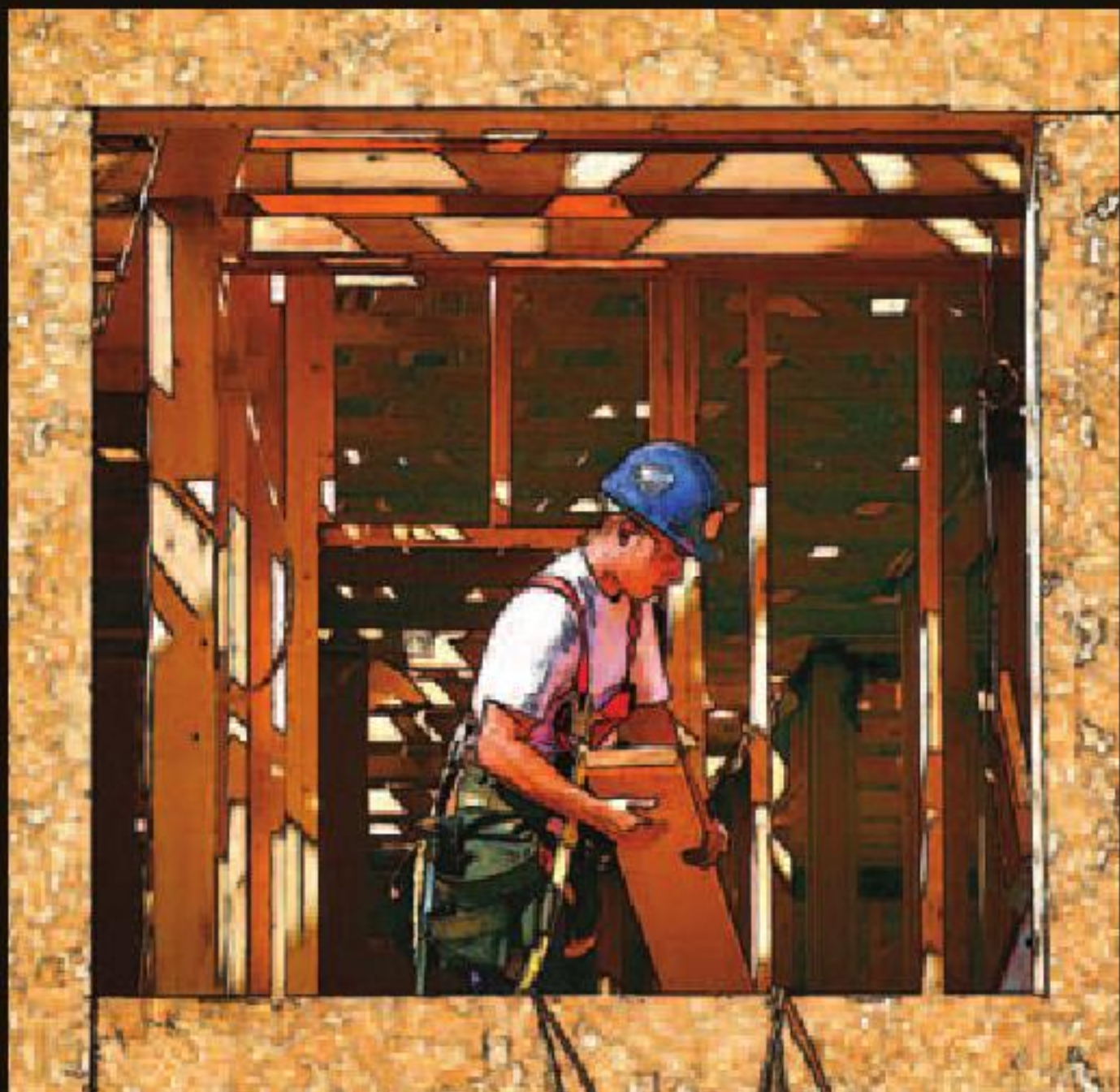
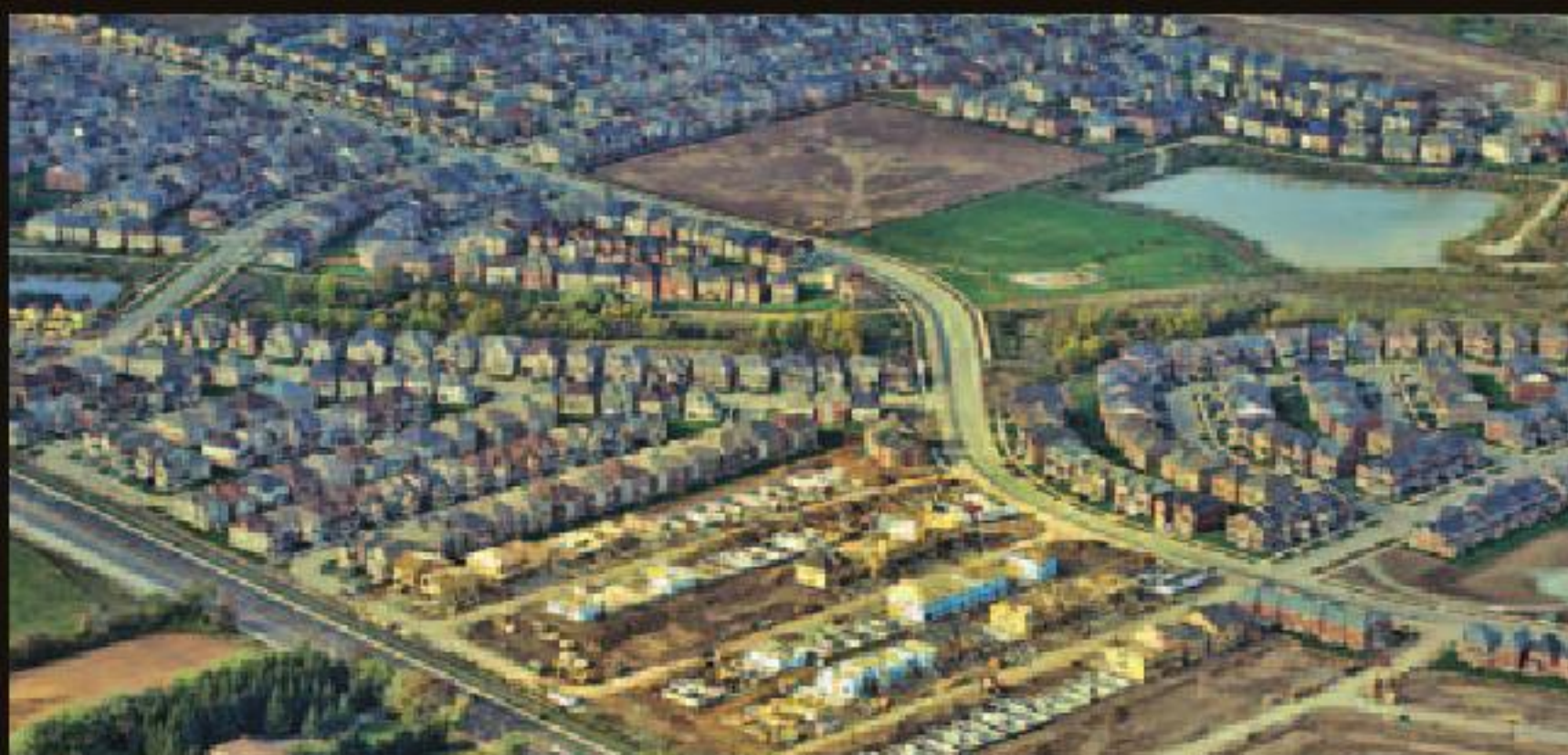
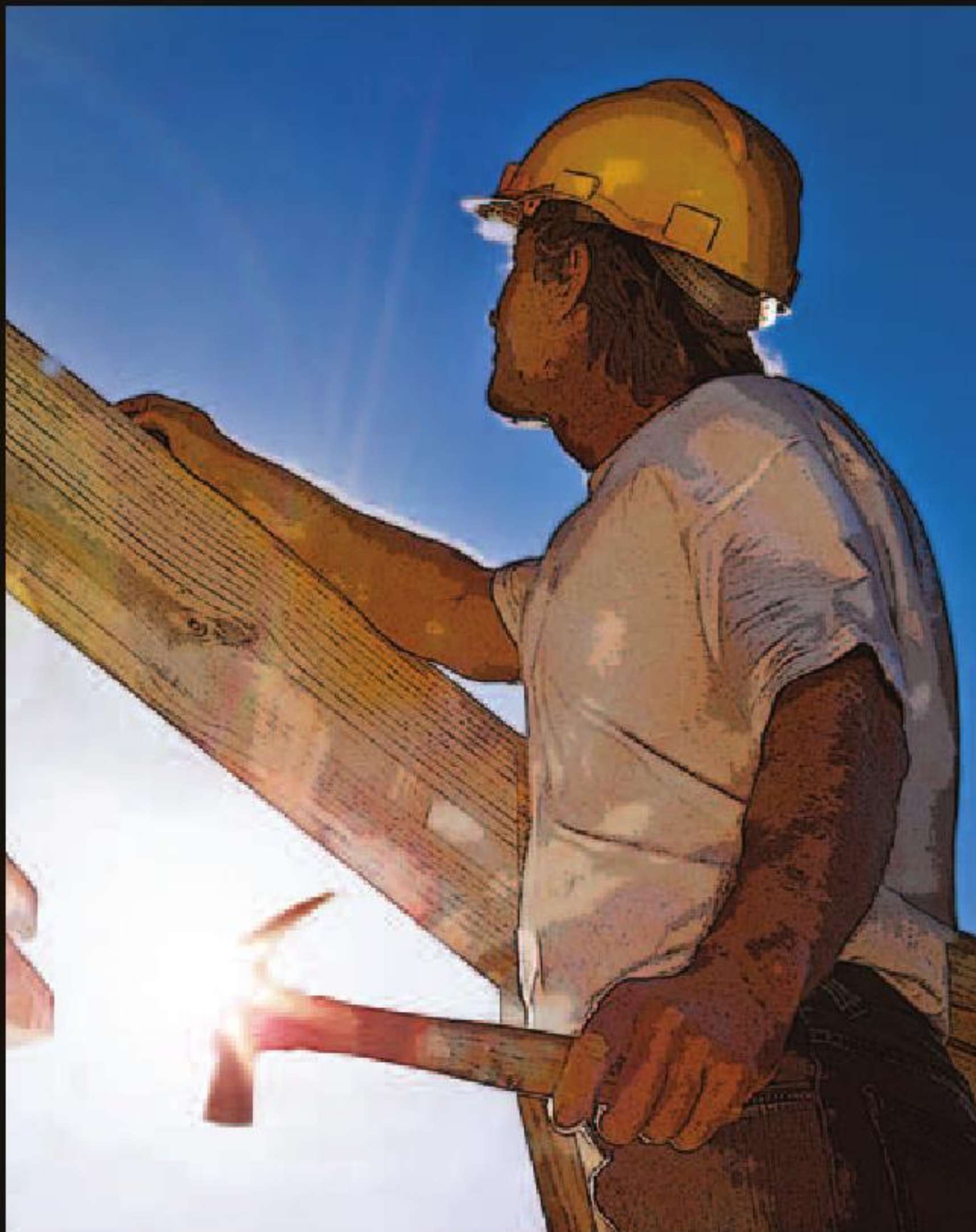
Over the past century, asphalt shingle manufacturers have used research and technology to address specific roofing issues and create even better products. Improvements in aesthetics and durability have kept asphalt roofing a top choice for homeowners in North America. The way the members of this industry have developed new products and technologies ensures that there will be more exciting changes to come throughout the next 100 years.

James R. Kirby, AIA, is director of technical services for the Asphalt Roofing Manufacturer's Association (ARMA), with expertise in roof system design and construction, weatherproofing and energy-efficiency of the building envelope, as well as rooftop PV systems. More information on asphalt roofing advances can be found at www.asphaltroofing.org.

Our Survey Confirms...

Home BUILDER Magazine delivers results like no other magazine in the residential construction industry:

- 🏠 More than 100,000 readers eagerly read every issue in search for advice and contacts.
- 🏠 100% of renovators and contractors found new information or products.
- 🏠 86% of all builders found new information or products.
- 🏠 Renovators, contractors and builders all refer to web links, find new suppliers and purchase products as a direct result of Home BUILDER; more than 80% took two or more such actions.



*Home BUILDER Magazine:
Readers, Referrals, Results*

29th YEAR
**H O M E
BUILDER**
THE MAGAZINE OF THE CANADIAN HOME BUILDERS' ASSOCIATION

Canadian
Home Builders'
Association



Call us to book your premium ad space:

514-620-2200 • sales@work4.ca • HomeBuilderCanada.com

A Safer Smart House

BY ANDRÉ FAUTEUX

"As

many as 3% of the population, one million Canadians, have electrohypersensitivity (EHS) symptoms that are so severe they are unable to function in our modern world," according to biologist **MAGDA HAVAS**,

an electromagnetic fields (EMF) expert at Trent University in Peterborough, Ont.

Those affected have lost their tolerance to low exposures to EMFs, especially radiofrequencies (RFs) used by antennas and wireless devices, which do not seem to harm most of us—at least as acutely. They suffer daily from severe headaches, dizziness, nausea, tinnitus, memory and concentration problems, and mood disorders. While the jury is still out on the exact causes of the disorder, patients, physicians and independent scientists worldwide say the symptoms regress or disappear when low- and high-frequency EMF exposures are reduced. And this is even without their knowledge, thus contradicting the so-called nocebo effect, where symptoms are caused by fear of a danger.

Builders and renovators should be aware of this because the number of EHS cases has been increasing dramatically in the last decade, noted Dr. **RIINA BRAY**, Medical Director of the Environmental Health Clinic at Women's College Hospital, in Toronto. "Those at highest risk for EHS include the foetus, children, the elderly, the infirm, those with predisposing morbidities—usually cardiac and neurological—and those with a toxic overload," Bray told the Federal Standing Committee on Health (HESA). Both experts are quoted in HESA's report, *Radiofrequency Electromagnetic Radiation and the Health of Canadians*, published last June.

Thus, in the age of smart-connected homes



and devices, we will see an ever-increasing demand for safer houses that are not filled with products communicating wirelessly, at least not 24/7. And that market may explode sooner than later: Havas' research—notably in schools—shows at least 30% of people are already experiencing mild to moderate EHS symptoms, though most have not linked them to EMFs yet. These are same symptoms you or your close ones may be experiencing if you often hold a wireless devices to your body, which manufacturers warn against in their product literature.

In coming years, expect homes wired with phone jacks, Ethernet cable and eventually fibre optics in most rooms to sell faster.

Reducing the RF Risk

Following up on my earlier feature in *Home BUILDER* (Nov/Dec 2015) on 60-Hz EMFs, here is how you can reduce the most noxious form of EMFs—pulsed RFs, especially in the microwave (3 to 30 gigahertz) band:

Most of your clients are probably addicted to wireless and playing ostrich to the increasing scientific calls to reduce RF exposure. Of course, it's not your business to tell them what to do. But building professionals have a moral obligation to keep informed about the growing consensus around new toxins, be they phthalates in vinyl, flame-retardants in insulation and fabrics or RFs from smart meters and appliances.

In coming years, expect homes wired with phone jacks, Ethernet cable and eventually fibre optics in most rooms to sell faster.

Healthy housing research and reports by CMHC in the early 1990s concluded that, at minimum, we should all make our bedrooms pollution-free oases where the body can recover. That's especially true for radiation because night time exposure to EMFs (including light) reduces the body's secretion of melatonin. The vital hormone not only regulates our biological clock including sleep patterns. It is also a powerful tumour suppressor.

California EMF consultant **JEREMY JOHNSON** suggests that builders recommend the use of a timer to shut off their wireless router at night. Trained as an engineer, Johnson realized his successful Silicon Valley career was coming to an end when he became electrohypersensitive.

"Ethernet is safe, it's secure against hackers and it's faster than Wi-Fi. When people realize the dangers of Wi-Fi, I think there's going to be a massive movement back to wired connections. Microsoft Surface and Google Nexus offer an Ethernet option. If you do need Wi-Fi, use a Router Guard to block 90% RFs emitted."



Lutron RadioRA2 Appliance

When a client asks you for a low radiation home, your challenge will be to ensure you install thermostats, switches and other controls that emit little or no RFs. If a client wants home automation, a good compromise is **Lutron's** RadioRA2 master control system. It uses safe infrared sensors, wires and lower frequency RFs (170 and 434 megahertz, typical of remote vehicle starters) to control lighting, shades, AV and temperature. In addition to being less vulnerable to interference from neighbouring wireless devices, its Clear Connect RF technology only emits microwaves for five seconds when a command is sent.

"It's the product I prefer," said Quebec home automation dealer **MARTIAL BEAUREGARD**, of **MBI Systems**. "In more than 15 years, I only received two service calls." Another issue is that large appliances are beginning to be equipped with wireless chips that will also pulse RFs 24/7 to chat with your Home Area Network (HAN) and perhaps someday with smart meters. If you install such wireless appliances in a new home, you may receive calls from clients wanting a refund if the manufacturer won't allow chip deactivation.

Smart Meters

Medical scientists and international home automation expert **TIMOTHY SCHOECHLE** says Smart Meters are a benefit to utilities and a disadvantage to consumers in several ways. They have been linked to several home fires. They present privacy issues as they can be hacked and they collect data on consumer behaviours that utilities have sold to marketers. And, despite what health authorities and utilities claim, two former California Public Utilities Commission (CPUC) presidents, **MICHAEL**

PEEVEY and **LORETTA LYNCH**, admitted off and on the record what physicians and patients have been saying for years: Up to 190,000 daily RF pulses can trigger EHS symptoms, especially if you spend hours daily next to one or, even worse, near several. If your utility does not offer an opt-out program (in favour of non communicating digital meters), the Smart Meter Guard (\$130 US) is a stainless steel meshing cap that can be installed on the glass globe to block up to 99% of RF emissions without preventing data transmission.

The least builders should do is keep bedrooms and other highly occupied rooms at least 3-4 meters from a single smart meter. If there are several meters nearby or if children and other hypersensitive individuals live in the house, the RF emissions (also from external sources such as cell towers) can be shielded with reflective carbon-based Y-Shield paint sold by **Safe Living Technologies (SLT)** (www.slt.co), based in Ontario.

Dimmers, fluorescent lighting and cheap inverters are huge sources of noxious dirty electricity.

Various metallic materials (roofs, cladding, mosquito screens, low-emissivity glazings and foil-backed vapour barriers) also reflect RFs to varying degrees. SLT even sells Swiss Shield Daylight fabric, which contains 4% copper and silver. It is often used to make drapes and bed canopies to shield 99.6% (24 dB) of 1 GHz RFs.

Dirty Electricity

It's also a good idea to filter the high frequency transients (dirty electricity), generated by all electronic devices. According to physicist **PAUL HÉROUX**, who teaches occupational medicine at McGill University, this is the most dangerous form of EMFs. Many people have seen their health improved after installing capacitors that cancel such electrical noise created by Switch Mode Power Supplies (SMPSSs). But before doing so, have your electrical system checked for wiring errors because capacitors can generate high 60 Hz magnetic fields in unbalanced circuits. An EMF consultant can track all radiation sources and recommend



Smart Meter Guard

solutions. For example, dimmers and fluorescent lighting are huge sources of dirty electricity; replace with multiple switches and LED lighting (colour temperature around 3000 K to protect the eyes from harmful blue-white light).

Energy efficiency lowers 60-Hertz EMFs by reducing power use. And many people with EHS or other health problems find that living in an off-grid home improves their wellbeing because it isolates them from dirty electricity from the grid. Using direct current (DC) lights and appliances fed directly by photovoltaic panels is also preferable because their DC power does not generate 60-Hz EMFs. However, according to Héroux, brushed DC motors generate considerably more RF interference than their brushless or electronically commutated (ECM) counterparts. The same goes for DC/AC inverters: Buy top quality "pure sine wave" models as they generate less dirty electricity. People with EHS have also seen their health improve by having a surge suppressor—which also protects appliances—installed on their wiring, such as the Canadian-made **Clean Volt** and **Cratus Canada**.

In conclusion, if healthy housing is your business, the least you can do is buy the little **Cornet** ED78S RF/LF Meter and measure low and high frequency EMFs in your houses to get familiar with various sources of emissions. It costs only \$155 at www.slt.co, which also offers high-end meters to differentiate various RF sources. And the best thing you can do is build or renovate in tandem with an EMF consultant. 🏠

For more information, visit www.c4st.org / www.emfanalysis.com / www.slt.co



Jane Morgan
President, CHBA

Visiting
with local
Associations
really drives
home that,
while this
country is
incredibly
diverse, within
our industry
we have so
very much in
common.

How Did This Happen So Fast?

As I write this, our staff is putting the finishing touches on plans for the CHBA National Conference in Kelowna this May. In that context, I recently got an invitation to attend the Past Presidents' meeting. *Past Presidents?* How did this happen so fast?

It seems like my term only started, I am just getting comfortable in my role as President, and already it's drawing to a close. So, feeling introspective, I'm looking back over the past year, while still looking forward to my final two months in office.

First, you should know: I've always been a great big patriot. I love this country. And serving as your National President has given me the opportunity to see more of Canada, and meet more industry people, than I ever have before.

I've just returned from a trip to Alberta via Vancouver, where I visited with Past President Gary Friend. And, shortly before that, my husband and I were hosted by four different local HBAs in British Columbia. Without exception, everywhere we visited we were warmly and enthusiastically welcomed—home builder hospitality is certainly second to none.

Visiting with local Associations really drives home that, while this country is incredibly diverse, within our industry we have so very much in common.

Visiting HBAs

Two of my recent HBA visits demonstrated some of the defining characteristics we share: pride in what we do and a personal commitment to always be pushing to do even better.

The first point was driven home when I attended the CHBA – Central Okanagan's Tommie Awards in Kelowna on January 30th. While this may be a mid-size HBA, there is nothing mid-sized about how they celebrate the achievements of their leading home builders, renovators and developers.

The finalist and award-winning homes were stunning. And the 600 members in attendance for the awards gala were beyond enthusiastic. The winners radiated

pride, and this was clearly shared by everyone in the audience. Celebrating what we do, and those who excel within our industry, is an incredibly positive part of our Association. I was thrilled to be part of it all.

Just a few days before my visit to Kelowna, I was in Abbotsford to take part in the CHBA – Fraser Valley's BuildIn 2016, an annual event focused on education, training and networking for members. Again, Fraser Valley is not a large HBA, yet they put tremendous effort into organizing a professional development day that is very well attended by members.

This speaks to the dedication of our Association at all levels in supporting the professionalism and business success of members. And it speaks very well of the culture within our industry, one that embraces and supports continuous improvement and innovation in what we do, and how we do it.

Travelling home from Vancouver was somewhat bittersweet. I stopped over in Nova Scotia to attend the memorial reception for one of our Past Presidents, Richard Lind.

With Richard's passing, we have lost a stalwart for the industry, and our Association. At his memorial, I had occasion to spend time with Past Presidents Tom Cochren and John Hrynkow, and retired CHBA staffer Don Johnson. Another Past President, Dick Miller, was also in attendance.

During our time together, we heard over and over what a pillar of his community Richard was, and what an important part CHBA played in his career and his life. And the time I spent with some of our Past Presidents and staff, and current staff and members of the Nova Scotia HBA was both wonderful and heart warming.

Richard exemplified the extraordinary commitment that those in our industry hold towards what they do, and the passion they bring to their work and their Association. I think Richard would have been proud to see us all come together in his honour.

The reception was held in Lunenburg, Nova Scotia, Richard's hometown and surely one of the prettiest places in Canada. And that brings me back to my national pride.

I travelled from Vancouver to Lunenburg, and then home to St. John's. I've heard it from other Past Presidents, and I've witnessed it myself.

As vast and diverse as this country is, we also have so much in common. It is anchored by our pride in what we do, and our commitment to always do better. And it makes us a family of sorts—one that stretches the full 7,500 kilometers across our wonderful country.



President Jane Morgan and CEO Kevin Lee in conversation with the Hon. Jean-Yves Duclos (left), Minister of Families, Children and Social Development, and Minister responsible for Canada Mortgage and Housing Corporation, during CHBA's Forum for Growth reception.

CHBA EXECUTIVE COMMITTEE

President:

Jane Morgan, St. John's, NL

Past President:

Bard Golightly, Edmonton, AB

First Vice-President:

Bob Finnigan, Toronto, ON

Second Vice-Presidents:

Eric DenOuden, Belleville, ON

Nathan Stone, Langley, BC

Treasurer:

Blake Hudema, Burnaby, BC

Presidential Appointees:

Carolina Oxtoby, Calgary, AB

Stefanie Coleman-Dias,

St. Thomas, ON

Chief Executive Officer:

Kevin Lee, Ottawa, ON

CHBA Contact:

David Foster
National Office, Ottawa, ON



Kevin Lee
CEO, CHBA

Affordability
is a growing
concern right
across the
country.

Delivering the Real Story on Housing

On March 8, CHBA leaders from across the country spent the day in conversation with Members of Parliament during this year's Forum for Growth. It was a tremendous success, at an important time, with a new government in place and many issues facing our members and our industry.

A key goal for this year's event was to bring our new MPs and new government leaders "up to speed" on the housing issues that affect Canada, and their constituents, and of course the role the federal government can play in addressing these issues.

Some 60 per cent of MPs are in Parliament for the first time. Therefore, it's important to provide them with solid information about our industry, and housing market conditions, so they have an informed perspective.

As always, CHBA provided Parliamentarians with key facts about housing in Canada. We reminded them that 70 per cent of Canadians are homeowners and that our homes represent some \$4 trillion in assets, offset by just \$1 trillion in outstanding mortgages.

We provided details on the economic role our industry plays across Canada (\$125 billion in investment value), and as the largest employer (900,000+ jobs). And we provided MPs with the specific data on our industry's jobs and economic impact in their home communities.

We also shared with them our research showing that 80 per cent of today's young Millennial families say they want to be homeowners, and that the vast majority of these—over 90 per cent—aspire to live in ground-oriented, family-friendly homes.

The key focus of this year's Forum discussions with MPs was affordability. Our message was simple: While media reports focus on the latest bidding war for a high-end home in Vancouver or Toronto, there's a lot more involved in the widening "affordability gap" faced by young first-time home buyers. And affordability is a growing concern right across the country.

per cent in recent years, an emerging "baby boomlet," coupled with restrictive policies may result in a shortfall of 300,000 family-friendly homes over the next decade. This will push prices up even further.

In addition, the array of taxes on new development has increased exponentially, and now totals over \$6 billion per year. We made the point to MPs that these "new home buyer taxes" go straight into the price of every new home built.

CHBA's advocacy calls for effective action by all levels of government to close the affordability gap, so that young families can buy their first home.

At the federal level, we identified a number of actions that can be implemented now.

First, 30-year mortgage amortization should be available to well-qualified first-time buyers of homes priced under \$500,000. This would give 80,000 more families the opportunity to own a home—without risk or cost to government.

Second, GST should not be applied on top of development taxes charged by other levels of government. Such "tax on tax" is inappropriate and debilitating. Although often mischaracterized as charges the developer pays, these taxes end up in the home buyer's mortgage. Such taxes should not be subject to GST.

Longer-term, federal infrastructure and transit funding are key to address the underlying pressures on affordability. Simply put, Canada needs to modernize its infrastructure and transit systems to reflect the dynamic urban character of our country. This should be paid for from the general tax base, not just by new home buyers who can least afford it.

CHBA made the point that cost-sharing requirements to fund infrastructure and transit should be split 50/50 with provinces. Otherwise, municipalities will be forced to add yet higher development taxes to the price of every new home, pushing the affordability gap even wider.

CHBA's message to MPs, backed-up with the facts, is simple: Affordability matters because in the long run, it impacts everyone.

Providing MPs with solid information is the first step in effective advocacy. Thanks to the many Association volunteers who participated in this year's Forum for Growth, this process is well underway with the new government. And as always, it will continue throughout the year. Stay tuned!



Kevin Lee and BILD Chair Steve Deveau (left) meet with Adam Vaughn, MP for the Toronto Riding of Spadina-Fort York, and Parliamentary Secretary to the Prime Minister during CHBA's Forum for Growth 2016.

Getting Past the Headlines

To really understand the affordability story, we need to get past the headlines, and examine the "new fundamentals" that are driving housing markets today.

In our largest cities, there are simply not enough "family-friendly" homes being built, so demand greatly exceeds supply, pushing prices upwards.

This shortage results, in large measure, from development policies limiting access to land, and other accompanying restrictions that drive up land costs.

With Canada's birth rate up 20

Teamwork & Learning Tools

This month could almost be called Teamwork Talk, as two of the entries are a result of just that. Even the rest of the line-up is a direct result of manufacturers trying to one-up the competition. Don't you just love free enterprise?



Radon Control—The Essential Tool Is Understanding

Preparing for radon control in new construction appears very simple, but understanding sub-slab depressurization is more complex than it seems. All designers, builders and tradespeople should take a few minutes to watch my just released technical videos on radon detailing: *Sub-Slab prep / Sealed Membranes / Passive Stacks / Discharge*. www.JonEakes.com/Trades-Training and look in the Radon drawer.

Finding More Ways to Make Better Blades

Last September, I mentioned that **Bosch** purchased **Freud** in order to improve their offering of saw blades. **Fein** is another German company that actually invented the oscillating saw. When their patents ran out, everyone started making oscillating tools, including Bosch.

Despite all the competition, Fein maintained dominance in the quality and variety of blades available. So mounting adapters and universal mountings were

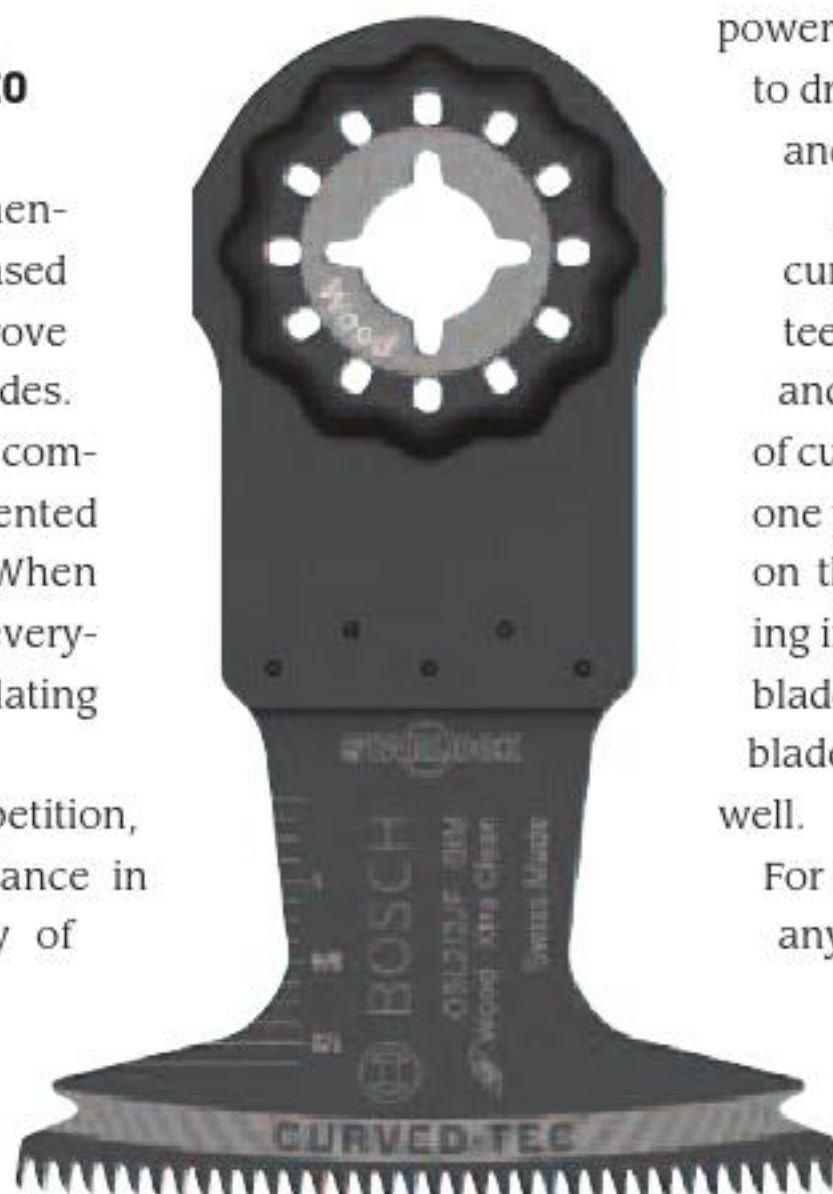
invented to use Fein blades on other machines, but some “universal” mountings don't actually fit perfectly snug. With the oscillating action of this tool, an imperfect fit between the blade and the tool translates into slippage and loss of both power and reach.

This year Bosch and Fein have joined forces to support a common universal mounting system for professional grade oscillating tools: **Starlock** for ordinary blades and **Starlock-Max** for extreme duty longer/stronger blades.

Bosh has brought out 30 blades with the Starlock mounting and 10 extreme-duty blades are coming out in April with the Starlock-Max mounting, requiring the most powerful of the oscillating tools to drive them as they are wider and longer.

Just look at this “Hero curved-tec”—Japanese style teeth with a sweeping curve and an inch and a half depth of cut. It will cut through a 2x in one pass. I really like the curve on this blade for clean plunging into material. Their carbide blades and 2-1/4” demolition blades are worth looking at as well.

For techniques on the use of any oscillating tool you should check out my 13 videos in the *Learning Curve* section of my web site JonEakes.com.

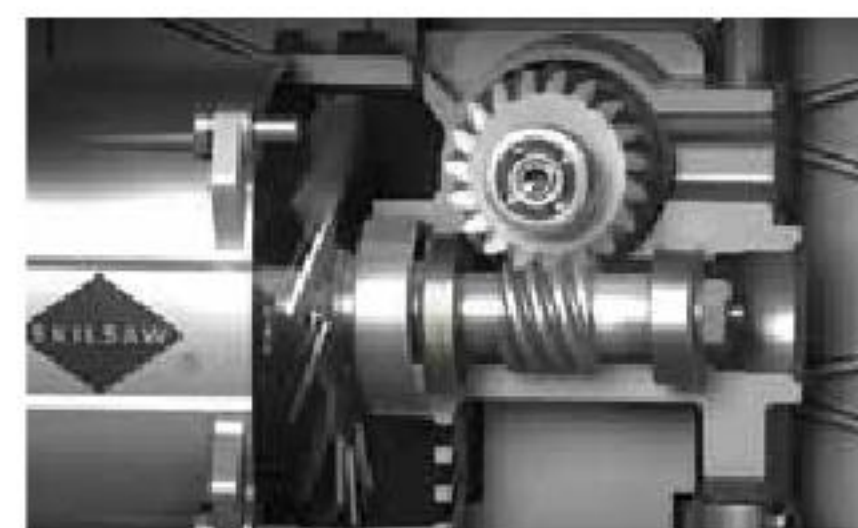


A True Laminate Flooring Blade

There was more teaming up this year: **Diablo** saws has teamed up with Pergo flooring to bring out a 10” Laminate flooring blade that finally allows using a chop saw to cut directly down on the tungsten finish without destroying your regular carbide blades. With only 12 weirdly shaped teeth, this is the first saw allowing direct chop cuts while lasting 75 times longer than regular carbide. The special grind on the Polycrystalline-Diamond (PCD) teeth is what works miracles. With this blade you don't even need to watch my *Learning Curve* video on Specialty Circular Saw blades / cutting laminate flooring, where I demonstrate how to cut perpendicular to the tough laminate flooring finish to extend the life of your blades. Rather, go to YouTube and look up “Diablo Pergo Blade.”

The Worm Has Come to the Table

SkillSaw, the people who invented the circular saw and are specialists even today on powerful worm drive saws, has just launched the first ever Worm Drive Table Saw. They call this 10” portable table saw “the next evolution in ripping,” bringing the powerful torque of worm drive direct drive to the table saw. The





Grow your business in Kelowna.

73rd CHBA National Conference

MAY 4-6, 2016

BRINGING OUR INDUSTRY TOGETHER

Be there for the CHBA National Awards for Housing Excellence

Expect a strong focus on building your business

Hear great speakers in a great location

Canadian
Home Builders'
Association



Andrew Coyne



Benjamin Tal



Ron Tite

REGISTER TODAY: WWW.CHBA.CA/CONFERENCE



30 ► drive mechanism also allows for a 3-1/2" depth of cut with a 10" blade. If ripping and heavy work is your main concern, this is your next table saw.

Batteries Just Keep on Evolving

The **Bosch** Power Ready Wireless Charging System allows you to simply stand your tool on the induction charging plate and it charges until you grab the tool again—no changing out the battery, no wires. Now the WCBAT620 brings a 4.0 Ah battery to this wireless system for more runtime.



40V batteries have become common on outdoor tools, like the **DeWalt** Brushless Backpack Blower. This tool extends runtime by building two battery bays into the tool itself. Using one or two of the new 40V MAX* 7.5Ah Lithium Ion batteries keeps the 450 CFM, 140 MPH flow of air going for a long time.



Yes 9 Ah batteries are coming. **Milwaukee** was going to launch this "High Demand" powerhouse in January, but it will apparently be on the shelves in the late spring. As power continues to grow you really need to balance working weight against battery run-time and change-out.



What Is a Dot Ratio and Why Do I Care?

I just got my hands on a new Milwaukee temperature gun, the 2276-20. It is a great thermometer that works with a contact probe, or with a laser. This one has about the best Dot Ratio (Distance to Spot) you can get: 1:40. But just what does that mean?

Most laser thermometers have a 1:10 or 1:12 dot ratio—some with 1:20, a few with 1:30, and, of course, for more money even 1:40. That means that the flat surface being probed for temperature will be 1" in diameter if my gun is 40" away—or with the more common guns, you will need to be 10" away to get a 1" diameter averaging.

At 10' away, your measurement surface could be 1' in diameter for a 1:10 ratio or 3" in diameter for a 1:40 tool. The little dot seems to pinpoint a specific tiny place to measure, but the dot ratio tells you what it is really measuring.



If you want to see the effect of this just shoot the laser dot on a window frame close up when it is cold outside. Then back up keeping the dot in the same place. Watch the temperature drop as the gun averages the temperature over a larger and larger surface, which now includes the cold window glass and an insulated wall. Actually with mixed temperatures in the field of measurement, the averaging is usually higher than a true average—a mathematical thing about radiation. The important take-away is that, the higher the D:R, the more accurate the temperature; the lower the D:R, the closer you need to get.



Montreal-based TV broadcaster, author, home renovation and tool expert Jon Eakes provides a tool feature in each edition of *Home BUILDER*.
www.JonEakes.com

CHBA Teams-up with Home Hardware and Rona to Deliver the *Get it in Writing!* Message to Contractors



GARY SHARP, CHBA's Director of Renovator Services, has been delivering the *Get it in Writing!* message to renovators and contractors across Canada this winter. His message is simple: "If you want to beat the 'cash guys,' you need to focus on what you offer, as a professional."

While most of his presentations have been made to local HBA members, Sharp recently joined up with **Home Hardware** and **Rona** to reach a much larger contractor audience, with very positive results.

Sharp was invited by both retailers to participate in their contractor trade shows, to which their contractor customers are invited. He'll be attending seven Home Hardware Pro Contractor Shows, and seven Rona Contractor Shows this season, right across Canada.

Partway through these events, Sharp says he's getting an enthusiastic response, noting that, "These tradeshow can have 1,000 to 1,500 contractors in attendance, many who are not CHBA members but should be."

He finds that non-Association contractors are impressed with CHBA's commitment to fight the underground, and the value of the sales techniques that *Get it in Writing!* provides to contractors.

"I'm teaming up with the local HBA in each location," said Gary, "and we're handing out a lot of membership kits to prospective members. The seminar doesn't just open their eyes to how they can deal more effectively with underground competition, it also shows them the value offered by our Association to anyone who wants to stand out as a professional." CHBA appreciates the assistance that Home Hardware and Rona are providing in reaching out to contractors across the country. 🏠

Houzz: 2016 Canada Kitchen Trends Study

The Houzz 2016 Canada Houzz Kitchen Trends Study uncovers the trends that define today's kitchen, including the emergence of the "super kitchen." This room serves multiple purposes, blurring the lines between the room and other living spaces, and incorporates features, functions and decor typically associated with other rooms.

Renovation highlights include:

- Kitchen walls coming down: 42% of renovating homeowners are making their kitchens more open to other living spaces and 47% of renovated kitchens are completely open to other interior spaces; 20% are more open to the outdoors.
- New kitchens mean new style: 75% of renovating homeowners change the style of their kitchen during the project. Top styles are contemporary (33%), modern (17%) and transitional (14%).
- Borrowed from the Living/Dining Room: Many homeowners are adding features such as dining tables (22%), chandeliers (18%), and desks/workspaces (10%) to their updated kitchens. Customized features that support entertaining are also popular.
- Pro help key: 83% of homeowners are enlisting professional help for their kitchen renovation project. Building specialists, including electricians, plumbers and stone fabricators top the list (51%), followed by general contractors (40%) and cabinet makers (38%). 🏠

Annual New Product Showcase



July/August is Home BUILDER Magazine Annual New Product Showcase (NPSC) Issue. This is a great opportunity for manufacturers and suppliers to connect their new products and services to our 96,000 readers.

We will be announcing details and guidelines for submission in May. Sign up and we will send you detailed NPSC information when it becomes available.



To sign up, scan QR code or visit:
www.homebuildercanada.com/NPSC2016.htm



WANTED A FEW GOOD HOME BUILDERS

B.C. master planned residential development is looking for quality home builders to work with.

- Single family & multi-family sites available
- Tightly held market with strong pricing
- Centrally located to most of the LNG Projects proposed for British Columbia

For more information, please visit:

AmblesidePark.ca

or call the developer direct at 250-287-2200.

2016 Construction Industry Survey: BC Hiring Workers Back From Alberta

VICTORIA — Strong activity in British Columbia's construction industry is drawing skilled workers back to the province from Alberta and more young people are entering the trades, according to the 2016 Construction Industry Survey released by the BC Construction Association, in partnership with Progressive Contractors Association and Construction Labour Relations.

The survey found that 45 per cent of employers hired a worker last year that came directly from working in Alberta's oil and gas sector. The number of youth going directly into the construction trades from high school is up 15 per cent since 2014.

While key economic data in the 2016 survey confirm a healthy and expanding sector, two-thirds of workers in skilled trades are now over the age of 45 and in their wake there are not enough new people entering the field. These demographic trends and a projected increase in construction activity are forecast to create a shortfall of 15,000 workers.

Read the full Survey at www.bccasn.com.



Association of Home Appliance Manufacturers: Connected Appliances

WASHINGTON — While connected home appliances are still an emerging market, the additional convenience that comes with features like remote operation, automated ordering, alerts and remote repairs promise the meaningful, life-enhancing benefits that are the top priority of home appliance manufacturers and users.

The Association of Home Appliance Manufacturers white paper, *Home Appliance Connectivity: Limitless Potential*, provides answers to a number of important consumer questions about connected home appliances, including:

- The difference between smart, Smart-Grid enabled and connected home appliances,
- How connected appliances will allow consumers to save more time,
- How smart appliances can reduce their users' energy costs,
- The steps being taken to preserve high safety standards in connected appliances,
- Steps users of connected appliances can take to protect their personal data.

Find the report at www.aham.org.



Do you have a question that needs answering? Home BUILDER Magazine's interactive feature with expert Jon Eakes is ready to help. Visit homebuildercanada.com and click on "Ask the Expert."

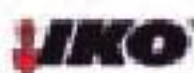
The Envi Wall Mounted Heater



The Envi Heater is a wall-mounted electric heater designed to be economical, safe, and simple for commercial and residential heating. At only 475 watts, this fanless heater will silently heat any home without any fire hazard because of the cool-to-touch exterior and multiple patented safety cutoffs. The Envi is simple to operate with a built-in thermostat and mounts in seconds! Ideal for those small spaces that you just can't ever keep warm, the Envi Heater is the perfect solution for your heating needs!

For more information and to learn how to order yours, visit www.eheat.com or call 1-800-807-0107.

IKO Dynasty® with ArmourZone™



Battles the Elements, Protects Against Inclement Weather

IKO Dynasty® shingles' extra weathering-asphalt coating adds weight for better performance and weather resistance. Dynasty is engineered to be one of the most wind-resistant shingles in the company's line-up. It offers a Limited Wind Warranty of up to 130 mph (210 km/h) with the use of only four nails.

For additional information on our full line of premium roofing products please call: **1-855-IKO-ROOF** (1-855-456-7663) or visit our website at www.iko.com

CALENDAR

April 1-3

Sudbury Home Show
Sudbury, ON
sudburyhomebuilders.com

April 7

Springfest / PM Conference
Buildings Canada
Toronto, ON
www.buildingscanada.com

April 13-15

North American Steel Construction Conference
American Institute of Steel Construction
Orlando, FL
www.aisc.org/NASCC

April 24-26

Spring Training 2016
Building Knowledge Canada
www.buildingknowledge.ca

May 4-6

2016 CHBA National Conference
Canadian Home Builders' Association
Kelowna, BC
www.chba.ca

May 25-29

CSC Conference
Construction Specifications Canada
Halifax, NS
Halifax Marriott Harbourfront Hotel
csc-dcc.ca/Conferences

Forum for Growth 2016 a Huge Success

OTTAWA — March 8 saw spring arrive in Ottawa, along with Canadian Home Builders Association leaders from across Canada for the Association's annual day on Parliament Hill—CHBA's Forum for Growth 2016. The consensus among participants was that the event was "the best yet."

With a new government in place, and with nearly two-thirds of all MPs being "first-timers," the focus this year was on building relationships and providing MPs with solid information about the residential construction industry and its place in Canada's economy and the lives of Canadians.

The event was capped off with a packed reception that saw more than 140 Ministers, Parliamentary Secretaries, MPs and government officials attend, and featured an address to members from the Hon. **JEAN-YVES DUCLOS**, Minister of Families, Children and Social Development. Duclos is also the Minister responsible for Canada Mortgage and House Corporation.

Earlier in the day, members fanned out across Parliament Hill for 61 meetings with Members of Parliament from across the country—the highest number of MP meetings ever for the Forum, and one of the largest "Hill Day" events of its kind. Each discussion was anchored by CHBA's new *Continuing the Conversation* brief, which highlights key data on affordability, the new fundamentals driving home prices and the challenges faced by young families trying to become middle-class home-owners. Visit www.chbaforum.ca for the complete document.

The day was also widely followed on Twitter and Facebook as both members, HBAs and MPs posted photos and comments, check out **#CHBAForum** to see all the action. The campaign resulted in over 160,000 social media impressions.

ADVERTISERS IN THIS ISSUE

Advertiser	Page	Phone	Web site
All Weather Windows Ltd.	8	800-638-5709	www.allweatherwindows.com
Ambleside Projects Ltd.	35	250-287-2200	www.AmblesidePark.ca
Benjamin Moore	7	416-766-1173	www.insl-x.ca
BILDTEC	13	416-252-6165	www.bildtec.ca
CertainTeed Gypsum Canada, Inc.	2	800-233-8990	www.certainTeed.com/Gypsum
CHBA - Conference	33	613-230-3060	www.chba.ca/conference
E.I. duPont Canada Company	21	800-387-2122	www.construction.tyvek.ca
Envii Heater	36	800-807-0107	www.eheat.com
Icynene Inc.	4	800-758-7325	www.icynene.com
IKO Wilmington	36	855-456-7663	www.iko.com
JELD-WEN of Canada	3	204-510-4745	www.jeld-wen.ca
NAVIEN	11	949-420-0420	www.navien.com
Nudura Corporation	35	866-468-6299	www.nudura.com
Owens Corning Canada LP	38	800-438-7465	www.owenscorning.ca
Robinson Lighting & Bath Centre	23	604-879-6847	www.robinsonlightingandbath.com
Royal Building PRODUCTS	17	614-754-3463	www.royalbuildingproducts.com
Simpson Strong-Tie Canada	15	800-999-5099	www.strongtie.com/timberhex-hdg
Superior Walls of America Ltd.	19	800-452-9255	www.SuperiorWalls.ca
Union Gas	25	416-496-5344	www.uniongas.com

SAFETY & COMFORT MATTER.



When building your home feeling safe and comfortable is essential to happy living, which is why... **SAFETY & COMFORT MATTER.**

At NUDURA, safety & comfort does matter. When you build your walls with NUDURA you can expect to get more out of your building product.

Walls make up the largest surface area of any home; therefore it is extremely important to rely on a building solution that provides maximum strength and comfort. NUDURA Insulated Concrete Forms provide superior insulation, strength, clean air, storm and fire resistance as well as environmental qualities that can also minimize long-term maintenance costs. Visit www.nudura.com to learn why safety & comfort matter.



To learn more about NUDURA ICFs visit:
www.nudura.com | 1-866-468-6299





ONE SYSTEM LEADING TO NET ZERO READY.

Owens Corning™ FOAMULAR® CodeBord® Air Barrier System is another innovative solution providing long term energy efficiency performance and comfort for homeowners.

I-800-GET-PINK® or visit **owenscorning.ca**



THE PINK PANTHER™ & © 1964-2015 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved. The colour PINK is a registered trademark of Owens Corning. © 2015 Owens Corning. All Rights Reserved. 73% recycled content is based on the average recycled glass content in all Owens Corning fiberglass batts, rolls and unbonded loosefill insulation manufactured in Canada. Minimum 20% recycled content. SCS certified.