BC Residential Building Statistics & Trends Report



BC HOUSING
RESEARCH CENTRE

ABOUT BC HOUSING

BC Housing develops and administers a wide range of initiatives supporting different housing options across British Columbia (BC).

In partnership with the private and non-profit sectors, provincial health authorities and ministries, other levels of government and community groups, BC Housing increases affordable housing solutions for British Columbians.

Under the *Homeowner Protection Act*, BC Housing is mandated to help improve consumer protection for buyers of new homes and the quality of residential construction in BC. BC Housing fulfils this mandate by monitoring and enforcing the mandatory third-party home warranty insurance on all new homes constructed in BC, licensing residential builders and maintaining a register of new homes, and performing research and education functions to advance and promote better building and retrofit practices to benefit BC's residential construction industry and consumers.

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Introduction

The BC Residential Building Statistics and Trends Report presents an analysis of new construction activities and the state of Licensed Residential Builders (LRBs) and Licensed Building Envelope Renovators (BERs). This report provides forward-looking market information and insights for residential construction professionals and homeowners seeking market intelligence and current industry trends to plan ahead and make informed decisions. Data provided in this report are collected through several channels:

- All new homes in British Columbia (BC) must be registered with BC Housing before the
 issuance of building permits and construction starts. New home registration data is a leading
 indicator of housing and economic activity in BC¹, providing information on registered new
 homes by building type, location, and building size.
- LRBs and BERs are licensed by BC Housing.
 To obtain warranty insurance, LRBs and
 BERs must apply and be accepted for home
 warranty insurance coverage by a warranty
 insurance provider. Information on licensing
 requirements and home warranty insurance
 is available on the BC Housing website.
- The Licensed Residential Builder Survey is an annual province-wide quantitative survey covering the typical builder profile (industry experience, builder types), construction activities, and satisfaction and perceptions related to research and education projects.

"This new report is a key indicator of construction activity in the province that will prove to be an essential tool for realtors, analysts and industry stakeholders doing business in British Columbia."

Cameron Muir, Chief Economist, British Columbia Real Estate Association

 The Current New Homeowner Survey and the Prospective New Home Buyer Survey are conducted every two years. Results of the 2016 Consumer Survey are included in the 2016 version of this <u>report</u>.

¹Bank of Canada, 2016. New Housing Registrations as a Leading Indicator of the BC Economy. Document available at: htp://www.bankofcanada.ca/wp-content/uploads/2016/02/sdp2016-3.pdf

2017 Residential Building in BC



Home Registration Data

42,968

Total new registered homes





29,883

New homes in multi-unit buildings





13,085

New single-detached homes





8,793

Purpose-built rentals





Builder **Data**

7,831

Licensed Residential **Builders**

78

Building Envelope Renovators



Where builders work by region*



Builders by building type*



9% built multi-unit low rise





1% built multi-unit high rise



^{*} Data from Licensed Residential Builder Survey

New Home Registration

2017 Highlights

- Nearly 43,000 new homes were registered, the highest recorded since 2002
- Close to 8,800 purpose-built rentals were registered in 2017, an increase of 71.7% from 2016 and the highest recorded
- Just under 70% of new homes were in multi-unit buildings
- Approximately 83% of registered new homes in BC were in Metro Vancouver,
 Capital Regional District, Central Okanagan Regional District, and
 Fraser Valley Regional District

OVERVIEW

Under the Homeowner Protection Act, all new homes in BC must be registered with BC Housing prior to the issuance of building permits and housing starts. Data is collected based on the information provided by Licensed Residential Builders (LRBs) and owner builders through the New Home Registration forms and Owner Builder Authorization applications respectively. In addition to registration, single detached and multi-unit homes constructed by LRBs are required to be covered by home warranty insurance in BC. Over time minor adjustments may be made to new home registration data as registrations are withdrawn or cancelled from home warranty insurance.

"The Trends Report is a targeted snapshot of residential development in BC with detailed, region by region, consumer data presented by building type. Industry experts will appreciate the forecast opportunity this business intelligence provides."

Anne McMullin
President and CEO
Urban Development Institute

BC Housing tracks registration of four different home types: single detached and multi-unit homes enrolled in home warranty insurance, homes constructed by an owner builder not covered by home warranty insurance, and purpose-built rental units that are exempt from home warranty insurance.

Registered new homes in multi-unit buildings (two or more dwelling units) include new homes enrolled with home warranty insurance and new homes in multi-unit rental buildings with a home warranty insurance exemption.

Registered new single detached homes are new homes enrolled with home warranty insurance or with an Owner Builder Authorization issued by the Registrar of BC Housing.

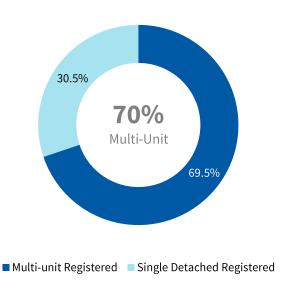
REGISTERED AND ENROLLED HOMES

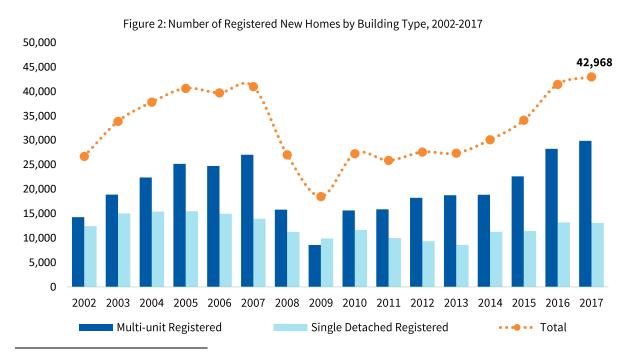
The number of registered new homes² in BC reached 42,968 in 2017, including 29,883 homes in multi-unit buildings³ and 13,085 single detached homes⁴.

The total number of registered homes was up 3.7% from 2016. Registration growth was driven by the multi-unit segment (5.8%), as single detached home registrations slightly declined (-0.8%). Although growth was lower relative to recent years, the annual number of registered new homes in 2017 was the highest recorded since 2002.

Multi-unit buildings accounted for 69.5% of all registered new homes in 2017, higher than the 2013 peak of 68.6%. Purpose-built rental units represented nearly a third (29.4%) of multi-unit registrations in 2017 at 8,793 units. The number of purpose-built rentals in 2017 was the highest recorded since tracking began in 2002, with an increase of 71.7% from 2016.

Figure 1: Share of Registered New Homes by Building Type, 2017





²Over time minor adjustments may be made to the figures as registrations are withdrawn or cancelled. New home registration data is accurate as of January 2, 2018.

³Calculations of "registered new homes in multi-unit buildings" include new homes in multi-unit buildings (two or more dwelling units) enrolled with home warranty insurance, and new homes in multi-unit rental buildings which are exempt from home warranty insurance.

⁴ "Registered new single detached homes" refers to new single detached homes enrolled with home warranty insurance or with Owner Builder Authorizations issued by the Registrar of Builder Licensing.

In 2017, homes enrolled with home warranty insurance accounted for 76.9% of registered new homes, followed by purpose-built rentals (20.5%), and owner-built homes (2.6%).

The total number of new homes enrolled with home warranty insurance was 33,039 in 2017, down 3.1% from 2016. While this is the first year since 2013 that enrollments declined, it remained well above the average of 26,924 since 2002.

As a proportion of total new housing, purposebuilt rental increased 8.3 percentage points between 2016 and 2017. At 20.5%, the proportion of purpose-built rental is the highest recorded since 2002.

Figure 3: Share of Homes Enrolled with Home Warranty, Owner-built Homes and Proposed Purpose-built Rentals, 2017

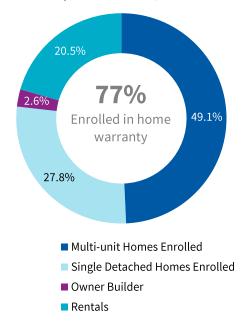
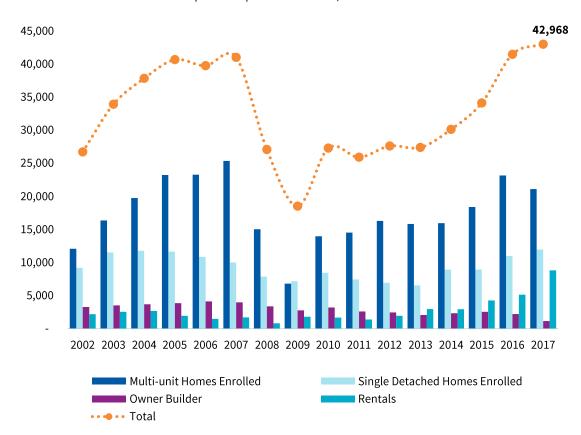


Figure 4: Number of Homes Enrolled with Home Warranty, Owner-built Homes and Proposed Purpose-built Rentals, 2002-2017



Aviva, through National Home Warranty, had the largest share (33.7%) in single detached home enrollments in 2017, followed by Echelon represented by Pacific Home Warranty (33.2%) and Travelers Canada (26.7%).

For multi-unit enrollments by warranty provider in 2017, Travelers Canada represented the largest market share (53.5%), followed by Aviva through National Home Warranty (23.0%) and RSA Canada represented by WBI Home Warranty (17.6%).

Figure 5: Market Share of Single Detached and Multi-unit Homes Enrolled by Warranty Provider, 2012-2017 2017 2016 Single Detached 2015 2014 2013 2012 5,000 10,000 20,000 25,000 15,000 Aviva (National Home Warranty) ■ Aviva (Pacific Home Warranty) ■ Echelon (Pacific Home Warranty) ■ Travelers Canada ■ RSA Canada (WBI Home Warranty) 2017 2016 Multi-unit 2015 2014 2013 2012

10,000

15,000

5,000

25,000

20,000

REGION

In 2017, approximately 83% of registered new homes in BC were in Metro Vancouver, Capital Regional District, Central Okanagan Regional District, and Fraser Valley Regional District. Metro Vancouver accounted for 61.4% of all registered new homes in BC, followed by the Capital Regional District (9.5%), Central Okanagan Regional District (6.8%), and Fraser Valley Regional District (5.3%).

Of the top 4 regional districts, the Capital Regional District experienced the highest growth in new home registrations at 57.4% between 2016 and 2017. Much of the growth in the Capital Regional District was driven by purpose-built rental, which increased by 545.1% in the same time frame and reached a new peak of 1,658 units. The Central Okanagan Regional District also had an increase in new home registrations overall (3.5%), experiencing higher growth in single detached registrations (7.1%) than in multi-unit (1.9%), despite high growth in purpose-built rental (47.3%).

In Metro Vancouver, new home registrations declined overall (3.5%) despite a strong increase in purpose-built rental (46.4%). The Fraser Valley Regional District experienced an overall 7.8% decrease between 2016 and 2017, including a 68.4% decline in purpose-built rentals, which fell from the 2016 peak of 389 units to 123 units in 2017.

Figure 6: Registered New Homes by Regional District, 2017

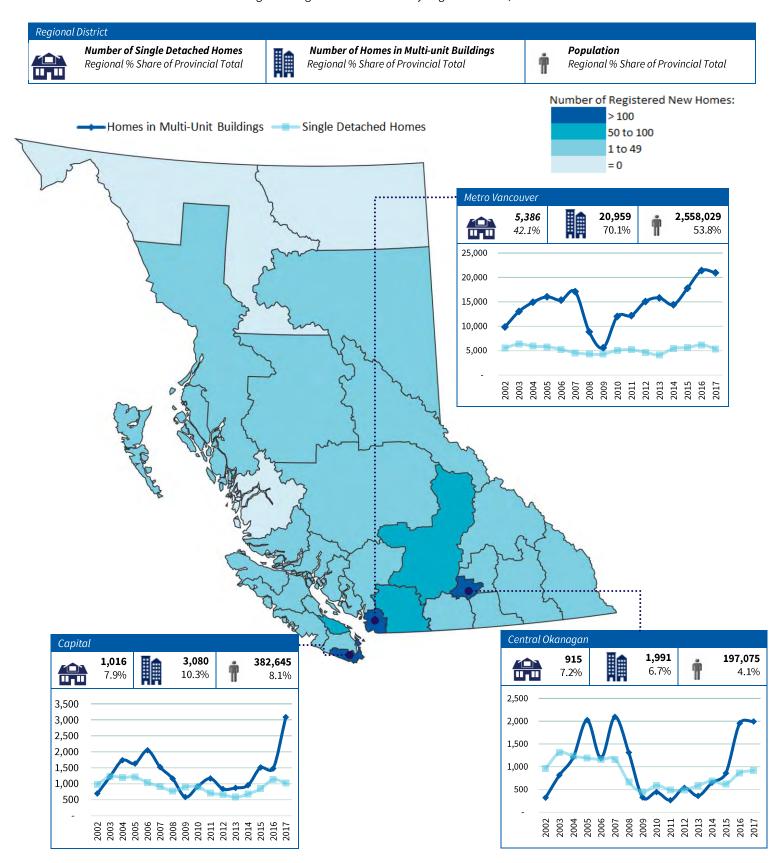
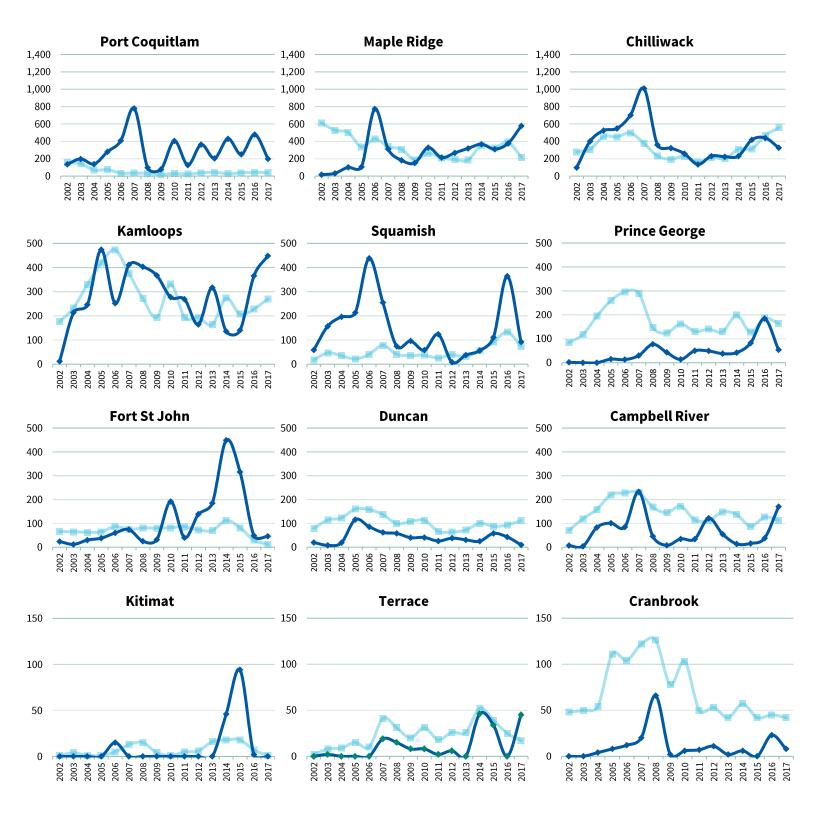


Figure 7: Registered New Homes by Building Type and by Selected City, 2002-2017

Homes in Multi-Unit Buildings Single Detached Homes



MULTI-UNIT BUILDING SIZE

Duplexes were the most popular multi-unit building size in 2017 (34.4%), followed by buildings with 5 to 50 units (29.4%) and quadplexes (18.2%). A total of 675 duplexes were registered, a 6.5% increase over 2016.

The largest increases between 2016 and 2017 were in buildings of 51 to 100 units (40.3%), followed by triplexes (24.7%) and buildings over 100 units (11.3%). Registered buildings with 5 to 50 units were the only building size to see a decline, falling from 670 in 2016 to 578 in 2017 (13.7%).



Figure 8: Registered New Multi-unit Buildings by Building Size, BC, 2002-2017

By number of units, buildings of 100 units-plus accounted for 41.7% of the total units registered in 2017 with 12,470 units, followed by buildings of 51 to 100 units (24.0%) and buildings of 5 to 50 units (23.1%). The number of units in buildings of 51 to 100 units increased 34.5% between 2016 and 2017, while units in triplexes increased 24.7%. The number of units in buildings with over 100 units declined 7.2%.

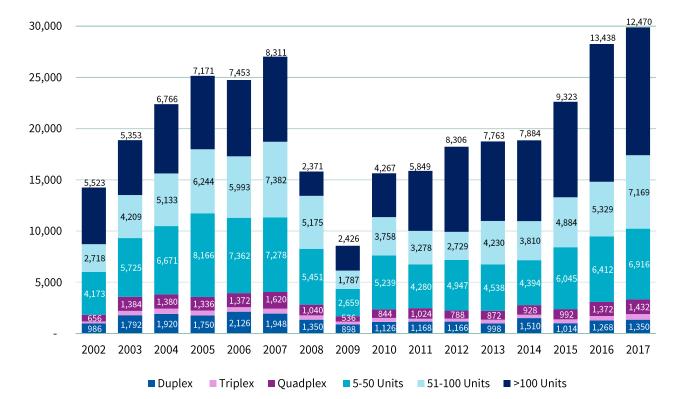


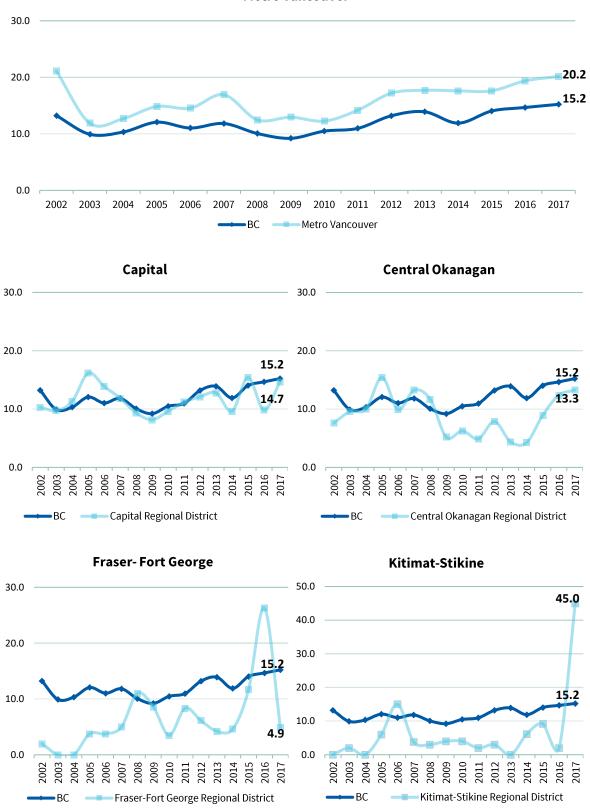
Figure 9: Registered Units in New Multi-unit Buildings by Building Size, BC, 2002-2017

The unit-building ratio measures the average size of registered multi-unit buildings by calculating the number of new units per building. **BC experienced an increase from 13.9 to 15.2 between 2013 and 2017, surpassing the 2016 peak of 14.7.**

Over the last five years, the highest average unit-building ratios were in Metro Vancouver, Capital Regional District, Central Okanagan Regional District, Kitimat-Stikine Regional District and Fraser-Fort George Regional District. In 2017, Kitimat-Stikine Regional District reached its highest unit-building ratio recorded since 2002 at 45.0, which was driven by a single rental building. Metro Vancouver reached 20.2, the highest since the 2002 peak of 21.1, and Central Okanagan Regional District reached 13.3, the highest since the 2005 peak of 15.4. Fraser-Fort George declined between 2016 and 2017, but the 2016 peak was driven by one multi-unit building of 172 units.

Figure 10: Unit-Building Ratio 2002-2017

Metro Vancouver



In total, there were 10 communities in BC with building ratios of 30 or higher in 2017. White Rock had the highest unit-building ratio at 86.8, followed by Burnaby at 63.2 and Terrace at 45.0.

Table 1: Selected Cities in BC with High Unit-Building Ratios, 2017

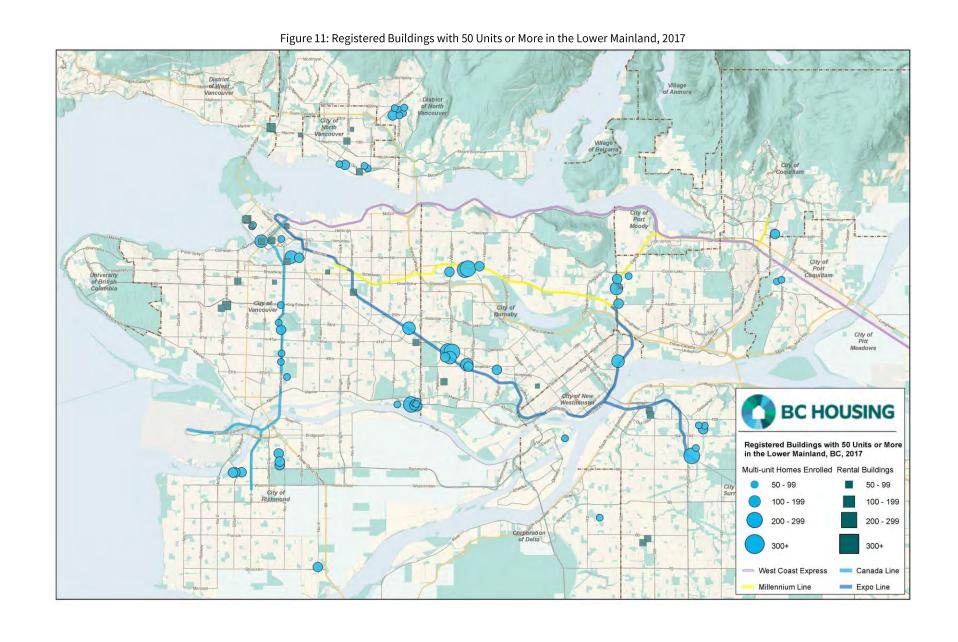
City	Number of Units	Number of Buildings	Unit- Building Ratio
White Rock	434	5	86.8
Burnaby	3,286	52	63.2
Terrace	45	1	45.0
New Westminster	562	14	40.1
Saanich	39	1	39.0
Saanichton	38	1	38.0
North Vancouver	2,214	63	35.1
Vancouver	6,133	182	33.7
View Royal	153	5	30.6
Esquimalt	30	1	30.0

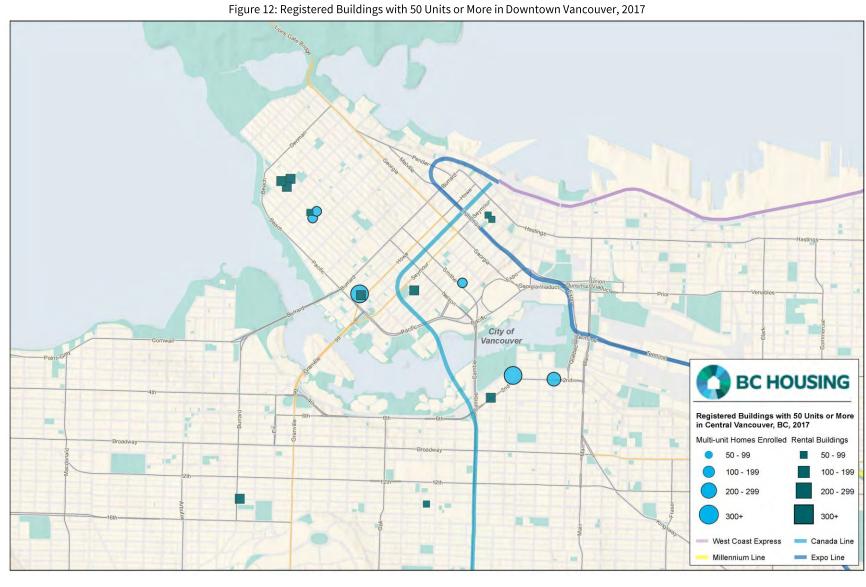
In 2017, the largest building registered in BC was located in Burnaby at 500 units. In total, 7 buildings with 300-plus units were each registered in 2017, of which 4 have over 400 units. By location, 6 of the buildings were registered in Burnaby, 3 in Vancouver and 1 in Surrey.

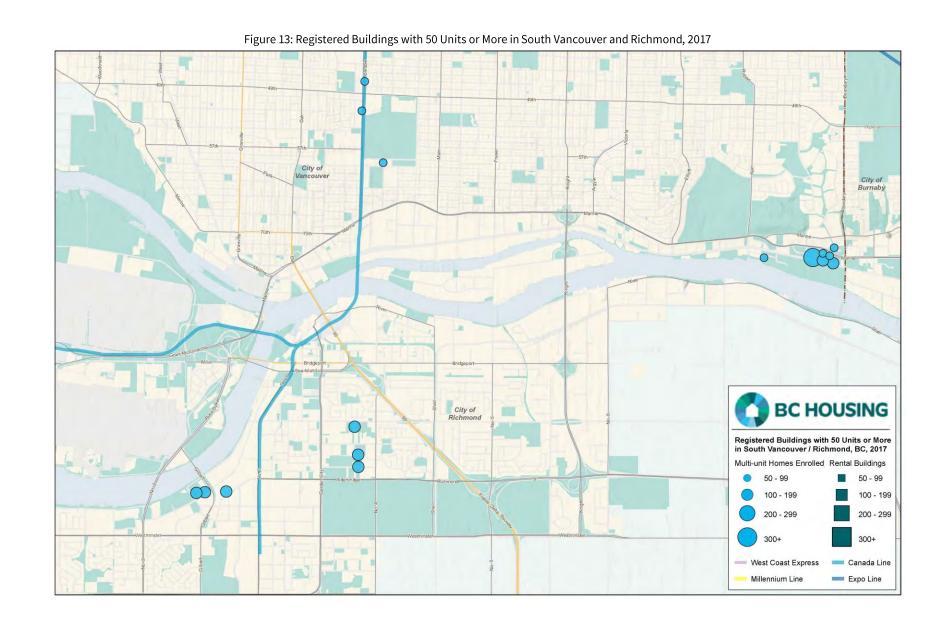
In comparison, there were 11 buildings with 300-plus units registered in 2016, with one building over 500 units and another between 400 and 500 units. In 2014 8 buildings were registered with 300-plus units, all of which were under 400 units in size.

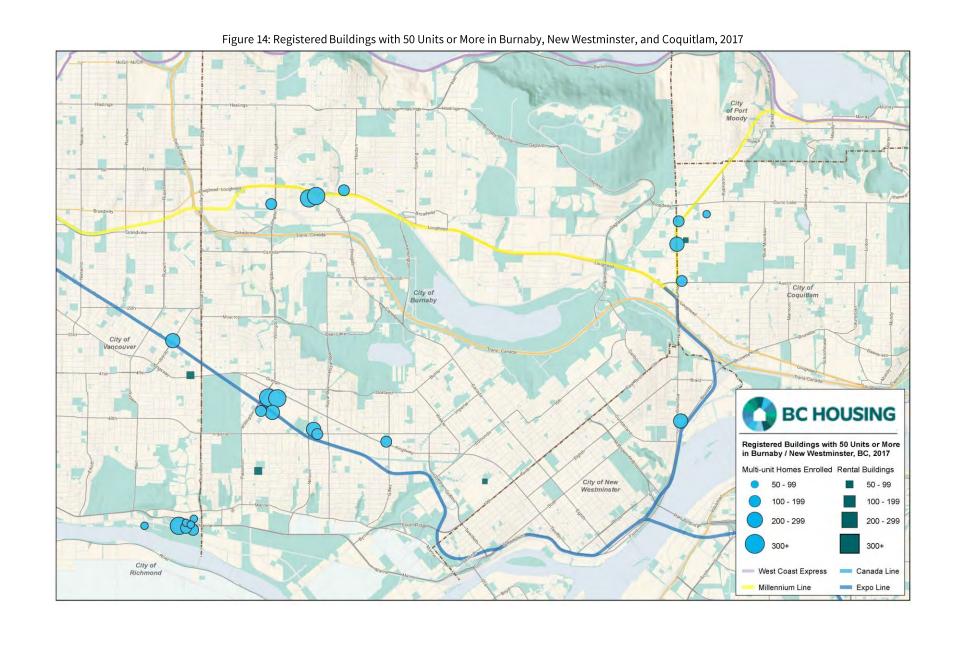
Table 2: Top 10 Largest Registered Multi-unit Buildings in BC, 2017

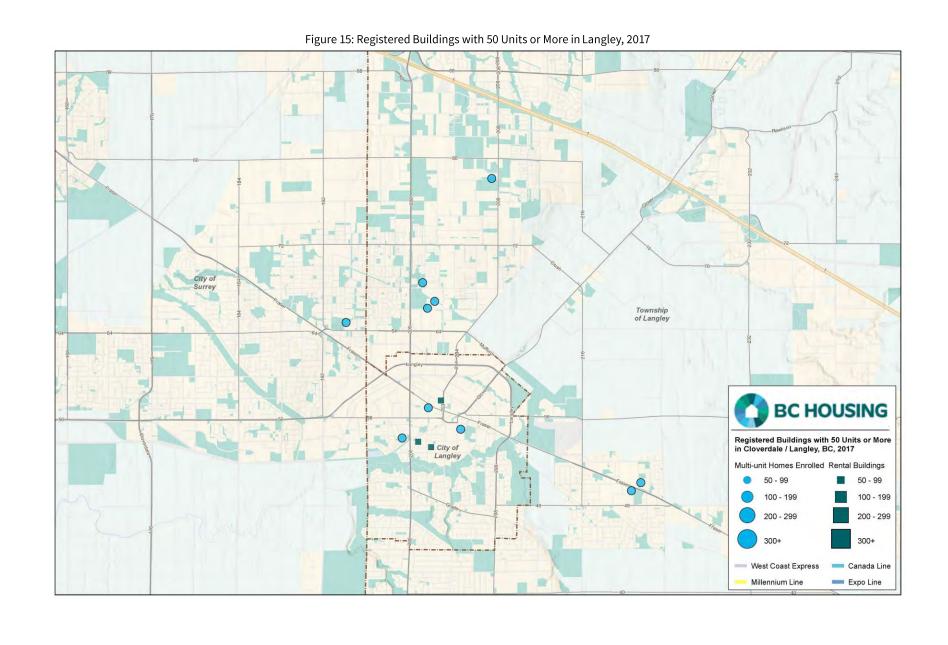
Address	City	Number of Units
4828 Lougheed Highway	Burnaby	500
6000 Mckay Avenue	Burnaby	422
9887 Whalley Boulevard	Surrey	419
4874 Lougheed Highway	Burnaby	400
6080 Mckay Avenue	Burnaby	334
3530 Sawmill Crescent	Vancouver	326
4458 Beresford Street	Burnaby	286
6700 Dunblane Avenue	Burnaby	258
5058 Joyce Street	Vancouver	256
1335 Howe Street	Vancouver	253

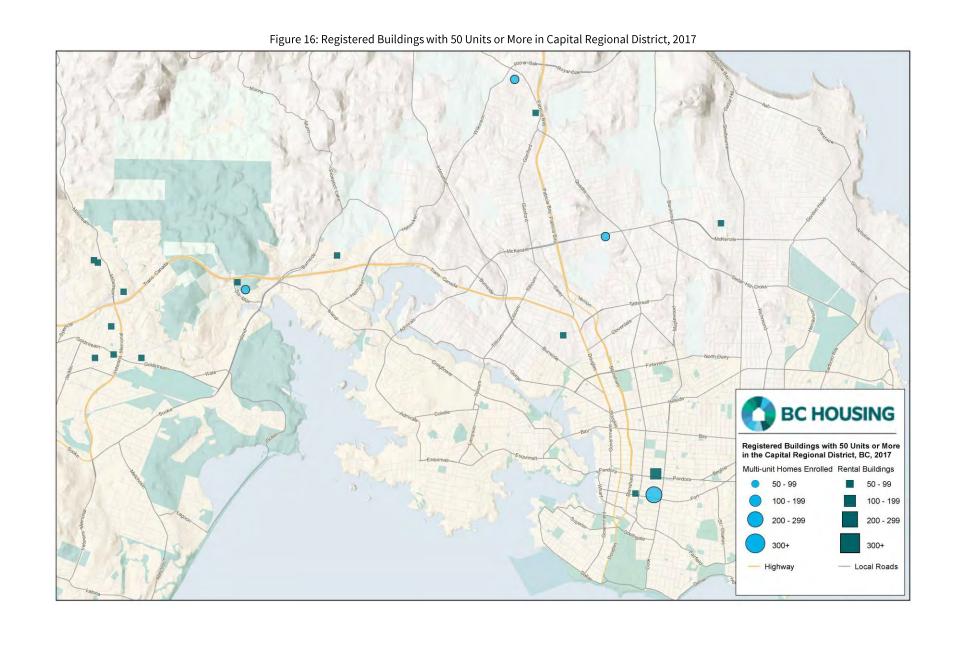


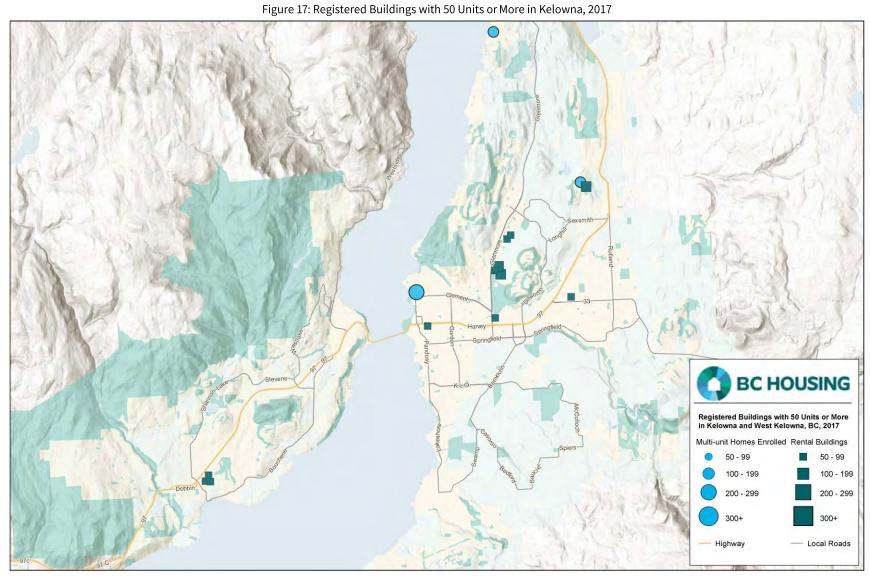












Licensed Residential Builders

2017 Highlights

- The number of Licensed Residential Builders has grown continuously since 2009 and reached a new high of 7,831
- Nearly 70% of BC builders reported they worked in the Lower Mainland
- BC builders reported completing 4.7 homes per year on average
- The average reported builder tenure was 13 years, down from the 2009 peak of 17 years but close to the 2016 average of 14 years

OVERVIEW

In addition to requiring third-party home warranty insurance on new home construction throughout the province, the *Homeowner Protection Act* provides for the licensing of residential builders, including general contractors and developers. The licensing and warranty insurance systems work together to ensure that builders meet minimum standards and consumers are protected with a strong, third-party warranty should a construction defect occur. All residential builders applying for building permits to construct new homes in BC must be Licensed Residential Builders (LRBs) and arrange for home warranty insurance. In geographic areas where building permits are not required, residential builders are still required to be LRBs and arrange for home warranty insurance prior to the commencement of construction.

The data in this section is from the Builder Licensing Registry, which is tracked and monitored by BC Housing. Further information on licensing requirements is available on the BC Housing website.

"Construction is an intensely competitive sector. Success means knowing your market and planning your next move strategically and analytically. The BC Residential Building Statistics and Trends Report provides detailed information that savvy business owners can turn into a competitive advantage."

Chris Atchison, President BC Construction Association

LICENSING

The number of LRBs grew in 2017, while the number of Licensed Building Envelope Renovators (BERs) declined.

The number of LRBs has grown continuously since 2009, reaching a new high of 7,831 in 2017. LRBs increased 9.5% compared to 2016, and more than doubled compared to 2002. In 2017, the number of BERs declined to 78.

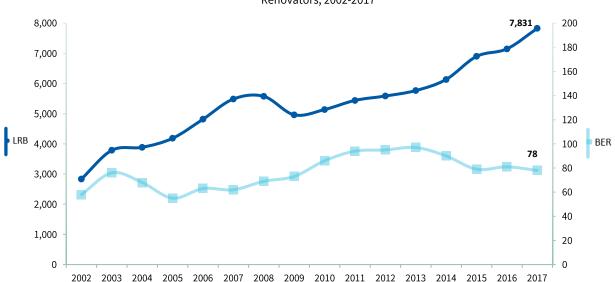


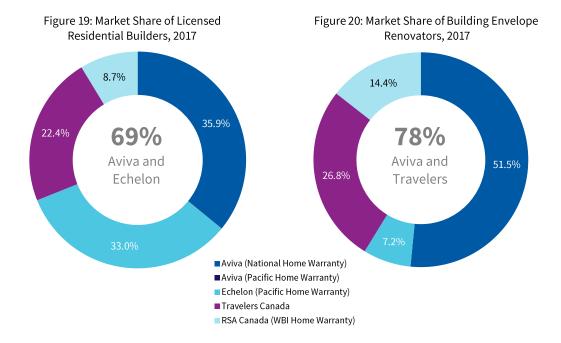
Figure 18: Number of Licensed Residential Builders and Building Envelope Renovators, 2002-2017

As of January 1, 2018, Aviva through National Home Warranty had the largest market share of LRBs (35.9%) and BERs (51.5%).

To obtain warranty insurance for new homes and applicable building renovations, LRBs and BERs must apply and be accepted for home warranty insurance coverage by a warranty insurance provider. In some cases, a LRB or BER may be registered with more than one warranty provider.

Of the 7,342 LRBs with warranty acceptance from warranty providers, Aviva through National Home Warranty accounted for 2,635 (35.9%), followed by Echelon represented by Pacific Home Warranty with 2,424 (33.0%), Travelers Canada with 1,643 (22.4%), and RSA Canada represented by WBI Home Warranty with 638 (8.7%). Aviva through Pacific Home Warranty represented less than 0.1% of LRBs with warranty acceptance.

Of the 106 BERs with warranty acceptance, Aviva through National Home Warranty accounted for 50 (51.5%), followed by Travelers Canada at 26 (26.8%) and RSA Canada represented by WBI Home Warranty at 14 (14.4%).



LICENSED RESIDENTIAL BUILDER SURVEY

Survey Methodology

The *Licensed Residential Builder Survey* is a province-wide quantitative survey covering the typical builder⁵ profile (industry experience, type of builder), their construction activities, and their satisfaction and perceptions related to research and education projects.

The survey was conducted bi-annually between 2003 and 2011 and annually between 2012 and 2017. For the 2017 survey, email invitations were sent to 5,761 builders in good standing without expired, suspended or cancelled licenses. Builders completed a total of 1,008 online surveys, a response rate of 17.5%.

To ensure the final sample accurately reflected the total population and composition of builders in BC, mathematical weights were applied based on region (i.e. the area of BC where they primarily build) and the number of homes built, or started, in the past year.

In the 2017, survey language was updated to reflect the new name of Licensing and Consumer Services. In all prior surveys, the Homeowner Protection Office (HPO) was referenced.

Further information on survey methodology is provided in Appendix 1.

⁵Includes licensed developers, custom home builders, general contractors, building envelope renovators, project/construction managers, and others.

Survey Results

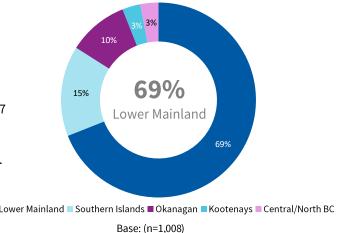
Construction Activity

Primary Area of Construction

In 2017, 69% of builders reported working primarily in the Lower Mainland, followed by 15% in the Southern Islands, 10% in the Okanagan, and 3% in both the Kootenays and Central and Northern BC.

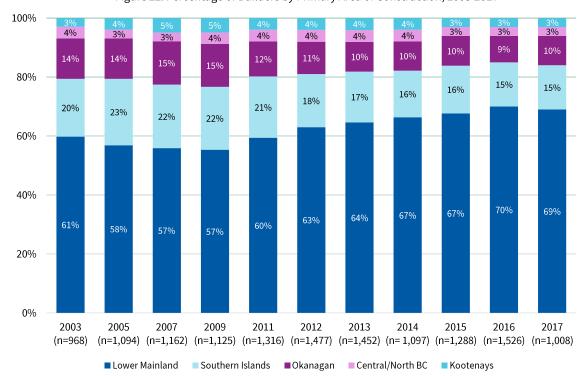
Although the regional distribution between 2015 and 2017 stayed stable, the proportion of builders working in the Lower Mainland increased 12 percentage points relative to the low of 57% in 2007 and 2009. Over the same period, the proportion of builders in the Southern Islands and Okanagan declined by 7 and 5 percentage points respectively.

Figure 21: Percentage of Builders by Primary Area of Construction, 2017



■ Lower Mainland ■ Southern Islands ■ Okanagan ■ Kootenays ■ Central/North BC

Figure 22: Percentage of Builders by Primary Area of Construction, 2003-2017



Housing Type Constructed in Past Five Years

In 2017, 96% of surveyed builders reported building single detached homes in the past five years, while 20% built row, townhouses or duplexes, 9% built low-rises, and 1% built high-rises. Since 2009, the proportion of builders reporting building multi-unit homes has generally decreased, resulting in an overall breakdown by building type similar to 2003.

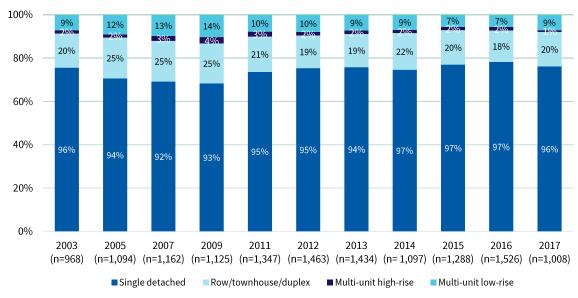


Figure 23: Percentage of Builders by Housing Type Constructed in Past Five Years, 2013-1017

Note: Multi-unit low-rise refers to buildings with less than four stories and Multi-unit high-rise to buildings with four stories or more.

Homes Built or Started Building⁶ in Past Year

Most surveyed builders (82%) reported that they built or started building between 1 and 5 homes in the last year. Over half (53%) of builders reported building or starting between 1 and 2 homes, followed by 29% reporting between 3 and 5 homes, and 11% reporting no home construction. The proportion of builders with more than 5 homes started or built was low, at 1% each for 11 to 20 and 21 to 50 homes, and 2% for 6 to 10 homes and 51 or more homes.

There were relatively small shifts in builder distribution by number of homes built or started between 2016 and 2017.

29%

2%
1%
196
2%

82%
Built or started
1 to 5 homes

Figure 24: Percentage of Builders by Number of Homes

Built or Started, 2017

Base: (n=1,008)
* Response category grouping different prior to 2012.

■ None ■ 1 to 2 ■ 3 to 5 ■ 6 to 10 ■ 11 to 20* ■ 21 to 50* ■ 51+*

⁶ All homes worked on over the past year, including homes started but unfinished and homes previously started and finished.

In 2017, the average number of homes built or started in the past year increased to 7.0 per builder compared to the low of 4.9 in 2016. The average number of homes built or started increased between 2016 and 2017 for all housing types, but the increase was particularly notable for homes in high-rise buildings⁷, which went from 78.6 per builder in 2016 to 189.1 per builder in 2017. The average number of homes built or started per builder in the past year was 4.6 homes per builder for single detached, 22.2 per builder for row, townhouse or duplex, and 47.5 per builder for low-rise.

100% 2% 3% 2% 10% 27% 25% 27% 27% 26% 80% 26% 29% 11% 24% 31% 60% 26% 32% 57% 54% 40% 56% 57% 53% 43% 43% 40% 39% 20% 16% 15% 12% 13% 13% 11% 11% 10% 0% 2003 2005 2007 2009 2011 2012 2013 2014 2015 2016 2017 (n=968)(n=1,094) (n=1,162) (n=1,125) (n=1,347) (n=1,463) (n=1,434) (n=1,097) (n=1,288) (n=1,526) (n=1,008)■ None ■ 1 to 2 ■ 3 to 5 ■ 6 to 10 ■ 11 to 20^* ■ 21 to 50^* ■ 51+*

Figure 25: Percentage of Builders by Number of Homes Built or Construction Started, 2003-2017

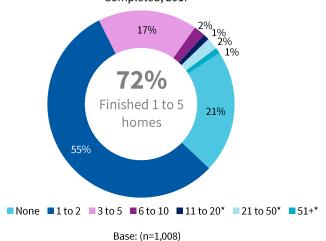
Homes Completed⁸ in Past Year

In 2017, over 70% of surveyed builders reported finished between 1 and 5 homes in the past year.

Over half (55%) reported finishing between 1 and 2 homes, followed by 21% reporting no homes, and 17% between 3 and 5 homes. The proportion of builders reporting more than 5 homes completed in the past year was low, 2% each for 6 to 10 homes and 21 to 50 homes, and 1% each for 11 to 20 homes and 51 or more homes.

There were relatively small shifts in builder distribution by number of homes completed between 2016 and 2017.

Figure 26: Percentage of Builders by Number of Homes Completed, 2017



* Response category grouping different prior to 2012.

^{*} Response category grouping different prior to 2012.

⁷Caution: small base size.

⁸ Only homes that were finished in the past year. Does not include started but unfinished homes.

The average reported number of homes completed in the past year was 4.7 homes per surveyed builder, an increase compared to the 2016 low of 3.5. While this is the highest average number of homes completed per builder since 2009, it remains considerably lower than the 2007 peak of 12.9 homes. The average number of homes finished increased between 2016 and 2017 for all housing types, but was particularly pronounced for homes in high-rise⁹ buildings, which increased from 56.2 per builder in 2016 to 114.0 per builder in 2017. The average number of homes completed per builder in the past year was 3.0 homes per builder for single detached, 13.6 per builder for row, townhouse or duplex, and 27.4 per builder for low-rise.

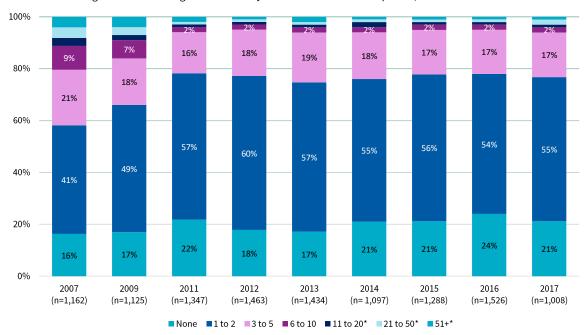


Figure 27: Percentage of Builders by Number of Homes Completed, 2007-2017

^{*} Response category grouping different prior to 2012.

⁹ Caution: small base size.

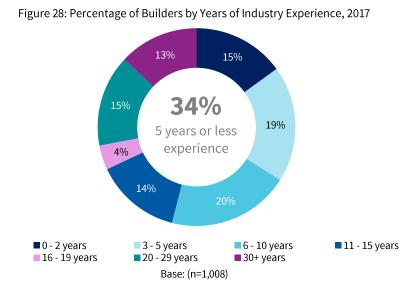
Builder Profile

Industry Experience

More than a quarter (28%) of builders reported 20 years or more industry experience.

Approximately one-third (34%) of builders reported 5 years or less industry experience. Over half (54%) had 10 years or less experience.

Average reported builder tenure was 13 years in 2017, close to the average tenure of 14 years between 2014 and 2016. Since 2003, the proportion of builders with 2 to 5 years' experience increased 10 percentage points and the proportion of builders with 6 to 10 years' experience increased 7 percentage points.



The proportion of builders with 20 to 29 years' experience saw the largest decline at 11 percentage points since 2003.

Average builder tenure was lowest in the Lower Mainland at 12 years in 2017, while the highest builder tenure was in the Kootenays at 18 years¹⁰. Builder tenure increased with residential building size, with builders reporting work on single detached buildings averaging 13 years' experience and builders working on multi-unit buildings ranging between 17 and 18 years¹¹.

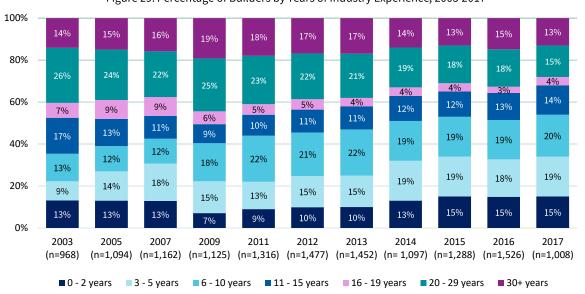


Figure 29: Percentage of Builders by Years of Industry Experience, 2003-2017

¹⁰ Caution: small base size.

¹¹ Caution: small base size.

Type of Licensed Residential Builder

In 2017, 68% of builders considered themselves custom home builders and 66% referred to themselves as general contractors. Over a third of builders classified themselves as developers (37%) or construction managers (34%).



Figure 30: Percentage of Builders by Type, 2007-2017

Builder Education and Training

Importance of Education and Training by Subject Area

Most builders reported that all education and training (E&T) subject areas were somewhat or very important. The top E&T subject areas considered somewhat or very important by builders include:

- Building codes (99%)
- Construction technologies (97%)
- Construction management and supervision (97%)
- Occupational health and safety (97%)

Less than 90% of builders identified rapid damage assessment (89%) and human resource planning and management (84%) as somewhat or very important.

Between 2011 and 2017, an increasing proportion of builders identified each E&T area as important. The largest increase over this period occurred in human resource planning and management (15 percentage points), followed by business planning and management and communications (both 11 percentage points). The 2017 results were largely consistent with 2016, with the greatest shift being an increased interest in business ethics (5 percentage points), followed by occupational health and safety, communications, and business planning and management (all at 4 percentage points).

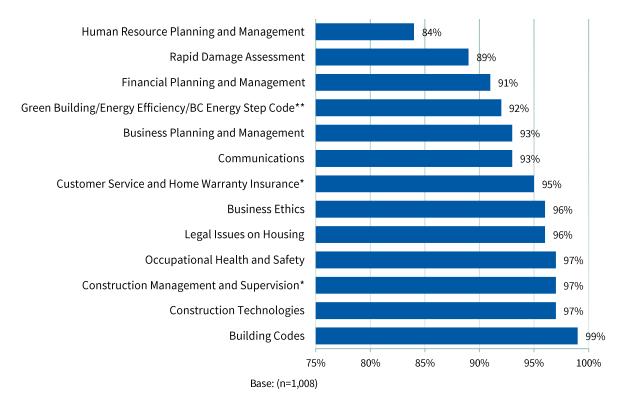


Figure 31: Importance of Education and Training (E&T) by Subject Area, 2017

^{*}Prior to 2016, 'Construction Management and Supervision' was 'Management and Supervision' and 'Customer Service & Home Warranty Insurance' was 'Customer Service'.

^{**}Prior to 2017, 'Green Building/Energy Efficiency/BC Energy Step Code' was 'Green Building/Energy Efficiency'.

Other findings include:

- Builders by Region Builders across all regions were most likely to consider E&T on building codes important (between 97% and 99%). Over 90% of builders in all regions also agreed that E&T on construction technologies (between 93% and 98%) and occupational health and safety (between 91% and 98%) were important. Lower Mainland builders were, on average, more likely to consider all E&T areas important relative to other regions, while builders in the Kootenays and Central and Northern BC were the least likely. The largest divergence between regions occurred for rapid damage assessment E&T, with 64% of Kootenay¹² builders agreeing it was important compared to 92% of Lower Mainland builders. This was followed by customer service and home warranty insurance E&T, with 81% of Central and Northern BC builders agreeing it was important compared to 96% of Lower Mainland builders.
- **Builders by Housing Type** All high-rise¹³ builders agreed that E&T on building codes, legal issues, and construction management and supervision were important. Builders of single detached homes (99%) and row homes, townhouses, and duplexes (98%) were also most likely to consider E&T on building codes important, while builders of low-rise buildings were most likely to report business ethics E&T as important (98%). The largest divergence between builders by housing type was for construction technologies, with 86% of high-rise builders¹⁴ reporting it was important compared to 98% of single detached builders. This was followed by human resource planning and management, with 77% of high-rise builders¹⁵ reporting it was important compared to 87% of low-rise builders.
- Builders by Experience Builders across experience levels were most likely to consider building code E&T important (between 99% and 100%). However, less experienced builders were generally more likely to report a given E&T was important compared to more experienced builders. The largest divergence was for green building/energy efficiency/BC Energy Step Code E&T, with 87% of builders with 20 or more years' experience agreeing it was important compared to 96% of builders with 2 years or less experience. A similar divergence occurred for rapid damage assessment, with 85% of builders with 20 or more years' experience agreeing it was important compared to 93% of builder with 2 years or less experience.

Desire for More Education and Training by Subject Area

Approximately 60% of builders reported wanting more E&T on building codes (59%) and construction technologies (59%), while half wanted more on green building/energy efficiency/BC Energy Step Code (49%). Builders were the least likely to want more E&T in human resource planning and management (12%), communications (14%), and business ethics (15%).

Since 2011, builders have been most likely to want more E&T in building codes, construction technologies, and green building/energy efficiency/BC Energy Step Code. Between 2011 and 2017, the proportion of builders wanting more training in building codes grew 35 percentage points, followed by construction technologies (33 percentage points), construction management and supervision (24 percentage points), and legal issues on housing (17 percentage points). Between 2016 and 2017, builder interest in green building/energy efficiency/BC Energy Step Code increased by 4 percentage points and communications grew by 1 percentage point. However, builder interest decreased by 4 percentage points for building codes and legal issues on housing over the same period.

¹² Caution: small base size.

¹³ Caution: small base size.

¹⁴ Caution: small base size.

¹⁵ Caution: small base size.

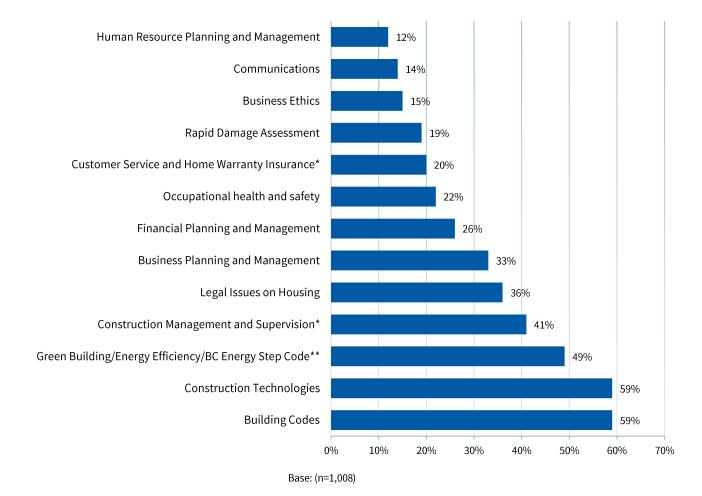


Figure 32: Desire for More Education and Training (E&T) by Subject Area, 2017

Energy Efficiency

Use of a Green Building Program

At 15%, green program participation in 2017 is the second highest level recorded since reporting began in 2012. This is the first time builders reported increased participation relative to the previous year.

^{*}Prior to 2016, 'Construction Management and Supervision' was 'Management and Supervision' and 'Customer Service & Home Warranty Insurance' was 'Customer Service'.

^{**}Prior to 2017, 'Green Building/Energy Efficiency/BC Energy Step Code' was 'Green Building/Energy Efficiency'.

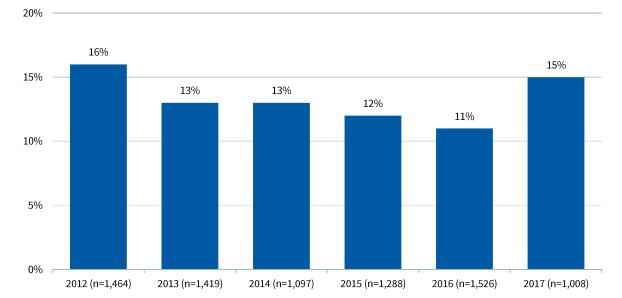


Figure 33: Use of a Green Building Program, 2012-2017

Other survey findings include:

- **Builders by Region** Kootenay¹⁶ builders were most likely to report participation in a green building program (19%)¹⁷, followed by Lower Mainland builders (17%), and Southern Island builders (14%). Central and Northern BC (5%) and Okanagan (5%) builders were the least likely to report green building program participation.
- **Builders by Housing Type** Nearly a third of high-rise builders¹⁸ reported green building program participation (29%), followed by approximately a quarter of low-rise builders (24%) and over 20% for builders of row homes, townhouses, and duplexes (21%). Builders of single detached homes were the least likely segment at 15%.
- **Builders by Experience** Builders with 3 to 5 years and 11 years or more experience were most likely to participate in green building programs (16%). Builders with 2 years or less experience were the least likely to report green building program participation (12%).

Energy Star¹⁹ was the most popular green building program reported, with over half (57%) of builders participating. BuiltGreen was the second most popular green building program, despite participation declines from 57% in 2015 to 39% in 2017.

¹⁶ Caution: small base size.

¹⁷ Caution: small base size.

¹⁸ Caution: small base size.

¹⁹ Added to the aided list in 2017.

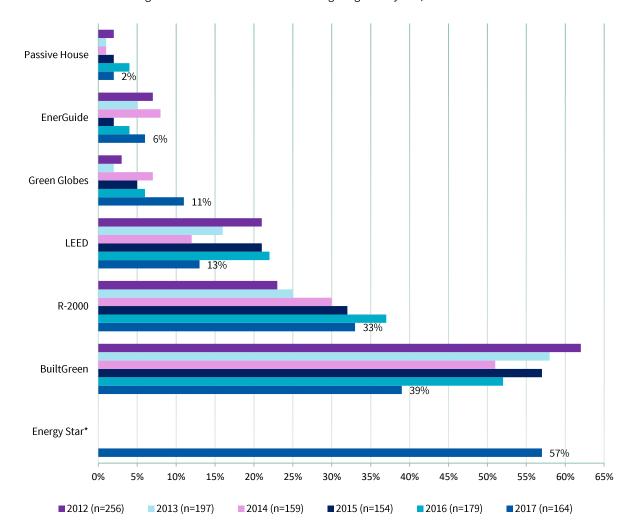


Figure 34: Breakdown of Green Building Programs by Use, 2012-2017

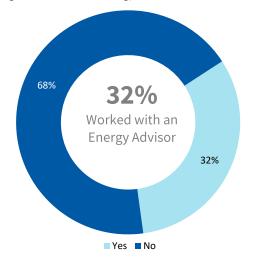
*Energy Star was added as an option in 2017.

Use of an Energy Advisor

Nearly a third (32%) of builders reported working with an Energy Advisor in the past year. Other findings include:

- **Builders by Region** Builders in the Lower Mainland and Kootenay²⁰ regions were the most likely to have worked with an Energy Advisor at 38%. In contrast, builders in Central and Northern BC were much less likely to report working with an Energy Advisor at 2%.
- **Builders by Housing Type** Over 40% of builders of lowrise (46%), row homes, townhouses, and duplexes (45%), and high-rise²¹ (44%) reported using an Energy Advisor in the last year. Nearly a third of single detached builders (32%) reported the same.
- **Builders by Experience** Over a third (34%) of all builders with more than 3 years' experience reported using an Energy Advisor in the last year, while 20% of builders with 2 or less years' experience reported the same.

Figure 35: Use of an Energy Advisor in the Past Year, 2017

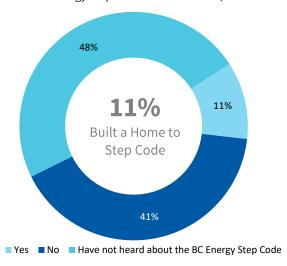


BC Energy Step Code

In 2017, 11% of builders reported building housing that met one of the steps of the BC Energy Step Code. Other findings include:

- **Builders by Region** Kootenay²² builders were the most likely to have built housing meeting a step of the BC Energy Step Code at 14%, followed by Southern Island builders at 12% and Lower Mainland builders at 11%. Builders in the Okanagan (7%) and Central and Northern BC (9%) were the least likely to report building housing meeting a step of the BC Energy Step Code.
- **Builders by Housing Type** Builders of row homes, townhouses, and duplexes (16%) and low-rise buildings (15%) were most likely to have built homes meeting one of the steps, while high-rise²³ was the least likely (8%).
- **Builders by Experience** Builders with 11 to 19 years' experience (15%) were most likely to have built a home meeting one of the steps, while builders with 2 years or less experience were the least (6%).

Figure 36: Built a Home Meeting a Step of the BC Energy Step Code in the Past Year, 2017



²⁰ Caution: small base size.

²¹ Caution: small base size.

²² Caution: small base size.

²³ Caution: small base size.

Universal Housing Design

In 2017, over a third (37%) of surveyed builders anticipated building homes in the next two years incorporating universal design features. Other survey findings include:

- **Builders by Region** Lower Mainland builders were most likely to report they would likely incorporate universal design features (40%), followed by Southern Island and Kootenay²⁴ builders (33%). Under 30% of builders in the Okanagan (23%) and Central and Northern BC (27%) were likely to incorporate universal design features.
- **Builders by Housing Type** Over 40% of builders of low-rise (45%) and row homes, townhouses, and duplexes (42%) reported they would likely incorporate universal design features. Builders of single detached homes and high-rises²⁵ were the least likely to report adopting universal design (37%). High-rise builders were the most uncertain at 60% neither likely nor unlikely to adopt.
- **Builders by Experience** Builders with 2 years or less experience were the least likely to report they would incorporate universal design (30%). These builders were also the most likely to be unsure, with 62% reporting they were neither likely nor unlikely to incorporate universal design features. Builders with 3 to 5 years' experience were the mostly likely to incorporate universal design (44%), followed by builders with 11 to 19 years' experience (40%).

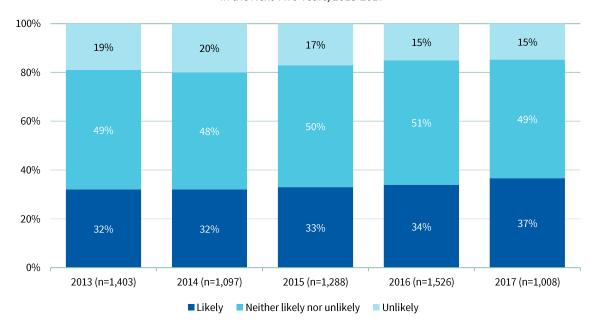


Figure 37: Likelihood of Building Homes Incorporating Universal Housing Design Features in the Next Two Years, 2013-2017

The main reasons builders incorporated universal housing design features: meet market demand (31%), accommodate an aging population (19%), meet requirements or guidelines (14%), and provide greater accessibility (11%). Top reasons for not incorporating universal design features: lack of market demand (33%) and higher cost (22%).

²⁴ Caution: small base size.

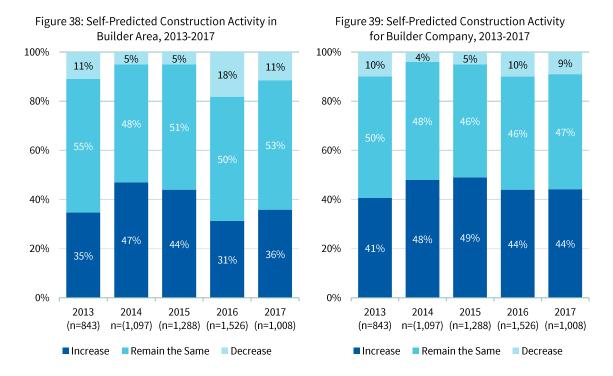
²⁵ Caution: small base size.

New Residential Construction Activity Predictions

In 2017, 36% of builders reported expecting an increase in the level of construction activity in the area they operate over the next 12 months, and 44% reported expecting their company's construction activity to increase. Between 2013 and 2017, builders were consistently more optimistic about their company's level of activity increasing relative to the area in which they operate. Expectations for 2017 construction activity were better or similar to 2016, but remained lower compared to 2015 expectations.

Other findings:

- **Builders by Region** Over 40% of builders in Central and Northern BC (48%), Lower Mainland (46%), Southern Island (41%) and Okanagan (41%) expected an increase in their company's level of activity. Kootenay²⁶ builders were the least likely to expect an increase at 35% and the most likely to report activity would remain the same at over half (57%). Central and Northern BC and Okanagan builders were the most likely to expect a decrease in activity at 14%.
- **Builders by Housing Type** High-rise builders²⁷ were the most optimistic, with nearly 60% expecting an increase in their construction activity (57%) and none expecting a decrease. Over half of low-rise builders (52%) expected an increase, followed by builders of row homes, townhouses and duplexes (47%) and single detached homes (44%). Builders of low-rise and single detached homes were equally likely to expect a decrease (9%) followed by builders of row homes, townhouses, and duplexes (7%).
- **Builders by Experience** Builders with 2 or less years of experience were the most likely to expect an increase in their construction activity (54%), while less than 40% of builders with 20 years or more experience (38%) expected the same. Builders with 3 to 5 years' experience were most likely to report expecting a decrease (13%), followed by builders with 20 years or more experience (10%) and with 6 to 9 years' experience (9%).



²⁶ Caution: small base size.

²⁷ Caution: small base size.

Appendix 1: Methodology

NEW HOME REGISTRATION

BC Housing is responsible for the *Homeowner Protection Act*, mandated to increase consumer protection for new home buyers and help bring about improvement to the quality of residential construction. Under the *Act*, all new homes in BC must be registered prior to the issuance of building permits and housing starts. The new home registration data measures residential construction activities at the beginning of a project before construction commences.

New home registration data are collected from Licensed Residential Builders and owner builders through the New Home Registration forms and Owner Builder Authorization applications. Over time, minor adjustments may be made to the new home registration data as registrations are withdrawn or cancelled from home warranty insurance.

This report provides information on registered new homes by building type, building size, and building location. Figures for registered new homes include both multi-unit and single detached new homes enrolled with home warranty insurance and Owner Builder Authorizations. CSA-approved manufactured homes (mobile homes and factory-built homes), floating homes, non-stratified hotels, motels, dormitories and care facilities are excluded from the definition of *new home*.

Geographical terms in this publication are based on Statistics Canada's 2006 Census area. In February 2009, the regional district of Comox-Strathcona was replaced by two successor regional districts, Comox Valley and Strathcona.

In collaboration with BC Housing, the Bank of Canada conducted a study to assess whether or not new home registration data can be used as a leading indicator for economic activity in BC. Study findings reveal that quarterly increases in new registrations for single detached homes have statistically significant predictive content for growth in real Gross Domestic Product (GDP) over the next one to three quarters, providing stronger signals compared to housing starts and building permits over this forecast horizon. To view the report, go to the Staff Discussion Papers section on the Bank of Canada's website.

The Monthly New Homes Registry Report is available on the BC Housing's Research Centre <u>website</u>. Home registration data are available upon request. Data inquiries should be directed by email to: technicalresearch@bchousing.org.

LICENSED RESIDENTIAL BUILDER SURVEY

The *Licensed Residential Builder Survey* is a province-wide quantitative survey covering the typical builder²⁸ profile (industry experience, type of builder), their construction activities, and their satisfaction and perceptions related to research and education projects.

The survey was conducted in odd years between 2003 and 2011 and every year between 2012 and 2017. For the 2017 survey, a list of 7,632 builders in BC was provided. Email invitations to the survey were sent out to 5,761 builders who were in good standing and did not have an expired, suspended or cancelled license. A total of 1,008 surveys were completed online by the builders, representing a response rate of 17.5%.

Several measures were taken to improve the response to the survey:

- Three reminder emails were sent: (1) on September 25, 2017, (2) on October 10, 2017 and (3) on October 27, 2017 to those builders who had not yet completed the survey at the stated dates.
- Fax reminders were sent on October 2, 2017 to 1,151 builders with valid fax numbers who had yet to complete the survey.
- Reminder telephone calls were made from October 24 to 28, 2017 to those builders who had not yet completed the survey. There were 23 builders who elected to complete the survey over the telephone with an interviewer at that time.

To ensure the final sample of builders accurately reflected the total population and composition of BC builders, mathematical weights were applied based on region (for example, the area of BC where they primarily build) and the number of homes built or started in the past year. The following table shows the original unweighted sample sizes for these two factors, the actual proportions needed, and the final weighted sample sizes.

Sample Surveyed and After Weighting

	Sample Surveyed	Sample After Weighting
Region		
Lower Mainland	646	698
Southern Islands	151	149
Okanagan	117	98
Central and Northern BC	51	29
Kootenays	43	33
Homes Built or Started in Past Year		
<6 units	824	944
6 to 20 units	123	35
21 to 50 units	24	8
51+ units	37	21

Note: Lower Mainland includes Metro Vancouver, Fraser Valley, Sunshine Coast, Whistler and Pemberton area. Southern Islands includes Vancouver Island and the Gulf Islands.

The following table shows the maximum margins of error at 95% level of confidence for this survey's single sample sizes found in this study. Margins of error have been rounded to full percentages to correspond with the data presented in this report.

Survey Margins of Error

	Margins of Error (95% confidence)
Total	+/-3%
Lower Mainland	+/-4%
Southern Islands	+/-8%
Okanagan	+/-9%
Central/Northern BC	+/-15%
Kootenays	+/-14%

²⁸ Includes licensed developers, custom- home builders, general contractors, building envelope renovators, project/construction managers, and others.

Appendix 2: Glossary

Type of Home	Description	Enrolled in Home Warranty Insurance
Enrolled Single Detached Home	Registered single detached homes with home warranty insurance.	Yes
Owner Built	Individuals building a single detached home for their own personal use and who directly manage the construction of the new home may obtain an Owner Builder Authorization and be exempt from licensing and home warranty insurance requirements.	No
Enrolled Multi-Unit Home	Registered new homes in multi-unit buildings (two or more dwelling units) enrolled with home warranty insurance. Does not include purpose-built rentals.	Yes
Purpose-built Rental	New homes in multi-unit buildings that qualify for the rental exemption from home warranty insurance. Homes constructed under a rental exemption must be constructed for rental purposes, including social housing, and have a restrictive covenant registered on title restricting the sale of any dwelling unit for a 10-year period.	No