

Vancouver Building Bylaw – March 1st 2018 updates

New Residential Homes - Summary Sheet

Component	1&2 Family	Townhomes Low-rise MURBs < 4 storeys	4-6 Storey Residential	
Opaque Envelope	Above Grade Walls Foundation Walls	3.85 (R22 eff)	3.85 (R22 eff)	3.85 (R22 eff)
	Attic	8.5 (R50 eff)	6.8 (R40 eff)	6.8 (R40 eff)
	Flat and Vaulted Roof	4.3 (R28 Nom)	5.28 (R30 eff)	5.28 (R30 eff)
	Under Slab	2.5 (R14 eff)	2.5 (R14 eff)	2.5 (R14 eff)
	Exposed Floors	4.2 (R24 eff)	4.2 (R24 eff)	4.2 (R24 eff)
	Blower Door Air Tightness (ACH)	Testing + 3.5 ACH50	TH: Testing + 3.5 ACH50 MURB: Testing + 2.0 L/s/m2 @75Pa	Testing + 2.0 L/s/m2 @75Pa
	Concrete Balconies Exposed Slab Edge	N/A	0.42 (R 2.4)	0.42 (R 2.4)
	Side Hinged Doors	U 1.8 W/m ² K (0.32 Btu/h•ft ² •°F)	U 1.8 (0.32)	U 1.8 (0.32)
Transparent Envelope	Windows Curtainwalls	U 1.4 W/m ² K (0.25 Btu/h•ft ² •°F)	U 1.4 (0.25)	U 1.4 (0.25)
	Sliding Glass Doors	U 1.4 (0.25)	U 1.4 (0.25)	U 1.4 (0.25)
	Skylights and Sloped Glazing	U 2.4 (0.42)	U 2.4 (0.42)	U 2.4 (0.42)
	Roof Access Hatches	U 2.9 (0.51)	U 2.9 (0.51)	U 2.9 (0.51)
Mechanical	Furnace / Make-up air	92% Annual Fuel Utilization Efficiency (AFUE)	92% AFUE	92% AFUE
	Boiler	92% AFUE	92% AFUE	92% AFUE
	Fireplaces	Direct Vent Electronic Ignition	Direct Vent Electronic Ignition Must be on a fireplace timer	Direct Vent Electronic Ignition Must be on a fireplace timer
	Outdoor Fireplaces	Electronic Ignition Must be on a fireplace timer	Electronic Ignition Must be on a fireplace timer	Electronic Ignition Must be on a fireplace timer
	Heat Recovery Ventilator (HRV)	65% sensible heat recovery efficiency (SRE) at 0°C	65% SRE at 0°C	65% SRE at 0°C
	Domestic Hot Water	Energy Factor (EF) of 0.78	Energy Factor (EF) of 0.78	Energy Factor (EF) of 0.78
	Drainwater Heat Recovery (DWHR)	N/A	*42% efficiency OR DHW Heat Pump (COP≥2.9)	42% efficiency OR DHW Heat Pump (COP≥2.9)
	Solar Chase	Solar Chase 2x 2" PVC	Solar Chase - PV only	Solar Chase - PV only
EnerGuide Report	EnerGuide report Pre-Permit Checklist Pre-Drywall Checklist	EnerGuide report Pre-Permit Checklist Pre-Drywall Checklist	Air tightness testing only	

* A DWHR system is exempt in townhomes only, if the units are fully electric (including space heating and cooking)

Vancouver.ca/homeenergy

- For more information, documents and processes on single family home bylaw requirements
- Large home calculator template will be posted once finalized

Vancouver.ca/home-property-development/zero-emissions-buildings.aspx

- Bylaw Amendments under “VBBL, March 1 2018”

GHG CALCULATOR FOR LARGE HOMES

One and Two Family Dwellings over 325 square meters



Version # 1.0.0 (Jan 18)

For homes applying for a permit after March 1st 2018, this checklist MUST be completed electronically and submitted at Development Permit stage. If you have any questions regarding the information requested on this form, refer to the "Intro, Info & Instructions" tab. Further review of each unique application, plans or documents may reveal additional requirements.

Project Information

Project Address	
Modelling completed by:	
Company name:	
Date:	

Model Summary

Primary Dwelling Energy Model Results	Energy Consumption (GJ/a)	Fuel Type (Elec/NG)	GHG Emission Factor (kgCO ₂ e/GJ)	GHG Emissions (tCO ₂ e)
<i>Modelled Electricity Consumption</i>		Electricity	3	0.000
<i>Modelled Natural Gas Consumption</i>		Natural Gas	51	0.000
Primary Dwelling GHG Emissions in tCO₂e				0.000
Modelling Software (including version #)				

Non-Typical Load Calculations	Installed (#)	Areal Length (m ² or m)	Energy Consumption (GJ/a)	Fuel Type (Elec/NG)	GHG Emission Factor (kgCO ₂ e/GJ)	GHG Emissions (tCO ₂ e)
Indoor Fireplaces						
Indoor Fireplace (>60% Efficiency)	0		2.0	Natural Gas	51	0.000
Indoor Fireplace (≤60% Efficiency)	0		3.0	Natural Gas	51	0.000
Rough-in	0		3.0	Natural Gas	51	0.000
Outdoor Fireplace/Decorative Flame/Plumbed/Piped Outdoor Space Heater						
<30,000 btu/hr (8.8 kW)	0		3.3	Natural Gas	51	0.000
<100,000 btu/hr (29.3 kW)	0		7.1	Natural Gas	51	0.000
≥100,000 btu/hr (29.3 kW)	0		13.7	Natural Gas	51	0.000
Plumbed/Piped Grill	0		6.0	Natural Gas	51	0.000
Rough-in	0		6.0	Natural Gas	51	0.000
Pools and Hot Tubs						
Outdoor Pool (Above or Below Ground, Natural Gas Heater, Area in m ²)	0		0.0	Natural Gas	51	0.000
Indoor Pool (Natural Gas Heater, Area in m ²)	0		0.0	Natural Gas	51	0.000
Indoor or Outdoor Hot Tub	0		11.0	Natural Gas	51	0.000
Secondary Cooking Area						
Stove, Oven, or Cooktop	0		2.0	Natural Gas	51	0.000
Outbuildings						
Pool House						
<i>Modelled Electricity Consumption</i>	0			Electricity	3	0.000
<i>Modelled Natural Gas Consumption</i>	0			Natural Gas	51	0.000
Laneway House						
<i>Modelled Electricity Consumption</i>	0			Electricity	3	0.000
<i>Modelled Natural Gas Consumption</i>	0			Natural Gas	51	0.000
Heated Garage						
<i>Modelled Natural Gas Consumption</i>	0			Natural Gas	51	0.000
Other Outbuildings						
<i>Modelled Electricity Consumption</i>	0			Electricity	3	0.000
<i>Modelled Natural Gas Consumption</i>	0			Natural Gas	51	0.000
Other						
Heated Surfaces and Snowmelt System (Area in m ²)	0		0.0	Natural Gas	51	0.000
De-icing Cable (Length in m)	0		0.0	Natural Gas	51	0.000
Spa Rooms (Natural Gas Heater)	0		17.0	Natural Gas	51	0.000
Decorative Lighting						
Incandescent	0					
CFL	0					
LED	0					
Non-Typical Load GHG Emissions in tCO₂e						0.000

Total GHG Emissions Compliance Check			
Primary Dwelling	0.000	tCO ₂ e	
Non-Typical Loads	0.000	tCO ₂ e	
Total	0.000	tCO ₂ e	
Compliance with Large Homes policy?		Yes	