Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the Building Code Act.

For use by Principal Authority	
Application number:	Permit number (if different):
Date received:	Roll number:

Application submitted to: _____
(Name of municipality, upper-tier municipality, board of health or conservation authority)

A. Project information

Building number, street name		Unit number	Lot/con.
Municipality	Postal code	Plan number/other description	
Project value est. $		Area of work (m^2)	

B. Purpose of application

☐ New construction ☐ Addition to an existing building ☐ Alteration/repair ☐ Demolition ☐ Conditional Permit

Proposed use of building	Current use of building

Description of proposed work

C. Applicant

Applicant is: ☐ Owner or ☐ Authorized agent of owner

Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number	Fax		Cell number

D. Owner (if different from applicant)

Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number	Fax		Cell number

E. Builder (optional)

Last name	First name	Corporation or partnership (if applicable)		
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number	Fax		Cell number	

F. Tarion Warranty Corporation (Ontario New Home Warranty Program)

i. Is proposed construction for a new home as defined in the *Ontario New Home Warranties Plan Act*? If no, go to section G.	☐ Yes	☐ No
ii. Is registration required under the *Ontario New Home Warranties Plan Act*?	☐ Yes	☐ No

iii. If yes to (ii) provide registration number(s): _____

G. Required Schedules

i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.

ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.

H. Completeness and compliance with applicable law

i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted).	☐ Yes	☐ No
Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the *Building Code Act, I992*, to be paid when the application is made.	☐ Yes	☐ No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992.*	☐ Yes	☐ No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992* which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.	☐ Yes	☐ No
iv) The proposed building, construction or demolition will not contravene any applicable law.	☐ Yes	☐ No

I. Declaration of applicant

I _____ declare that:
(print name)

1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

_____ _____
Date Signature of applicant

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name			Unit no.	Lot/con.
Municipality	Postal code	Plan number/ other description		

B. Individual who reviews and takes responsibility for design activities

Name		Firm		
Street address			Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number	Fax number		Cell number	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

☐ House	☐ HVAC – House	☐ Building Structural
☐ Small Buildings	☐ Building Services	☐ Plumbing – House
☐ Large Buildings	☐ Detection, Lighting and Power	☐ Plumbing – All Buildings
☐ Complex Buildings	☐ Fire Protection	☐ On-site Sewage Systems

Description of designer's work

D. Declaration of Designer

I _____ declare that (choose one as appropriate):
(print name)

☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4.of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: _____

Firm BCIN: _____

☐ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5.of Division C, of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

☐ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification: _____

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

_____ _____
Date Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Associa Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

THIS DOCUMENT CONSTITUTES BUILDING FORM 'B' WHICH IS REQUIRED & MUST BE COMPLETED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT IN THE MUNICIPALITY SPECIFIED ON FORM 'A'.
(Refer to back of this Form for instructions & Examples)

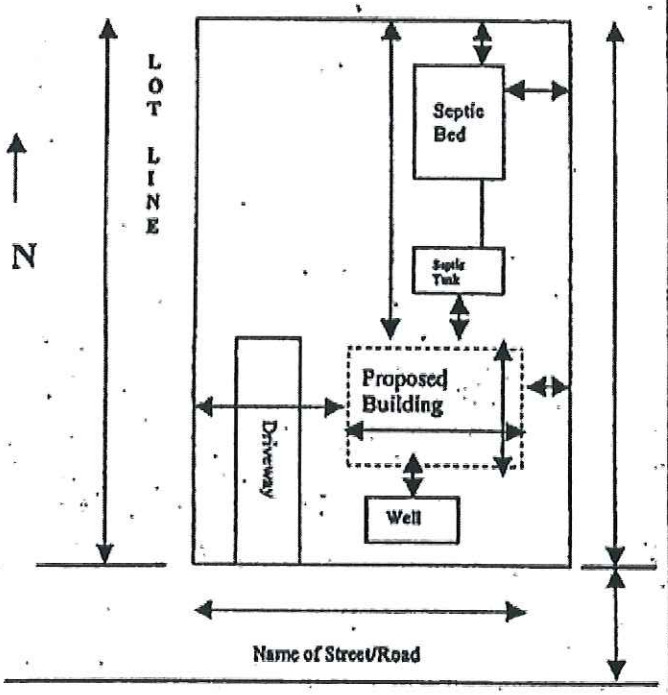
For Office Use Only
Permit No. _____

Lot _____ Conc_____

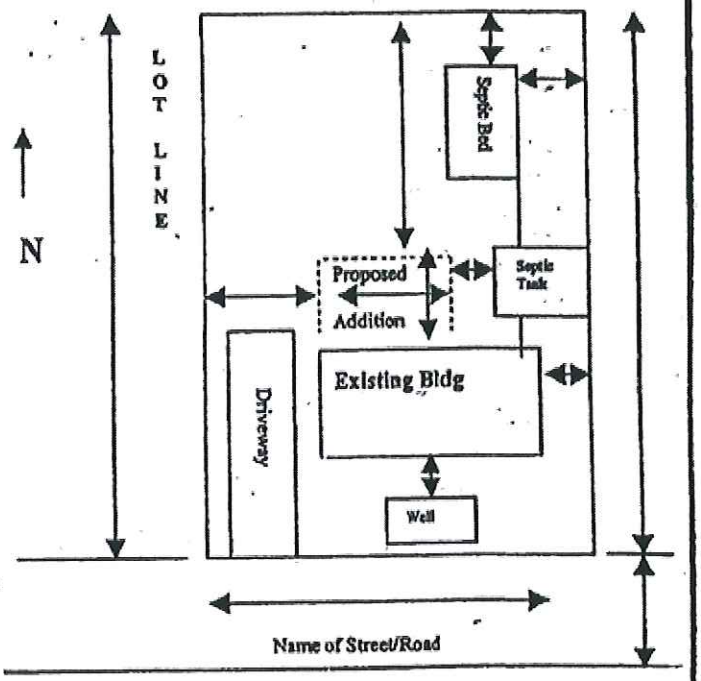
THE ACCURANCY OF THE INFORMATION APPEARING ON BUILDING FORM 'B' IS THE RESPONSIBILITY OF THE APPLICANT AND IS HEREBY MADE PART OF THIS APPLICATION. I HEREBY CERTIFY THAT THE INFORMATION APPEARING ON BUILDING FORM 'B' IS TRUE AND ACCURATE TO BEST OF MY ABILITY.
OWNER OR AUTHORIZED AGENT _____ **DATE** _____

EXAMPLES ONLY

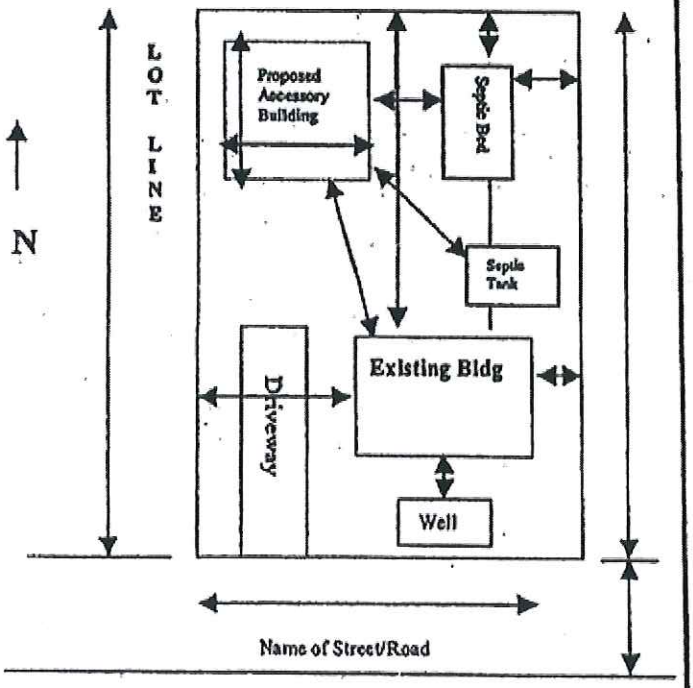
SAMPLE TO USE IF NEW BUILDING



SAMPLE TO USE IF ADDITION TO BUILDING



AMPLE TO USE IF ACCESSORY BUILDING



ITEMS THAT MUST APPEAR ON SAMPLE USED

1. Frontage of Lot
2. Depth of Lot
3. If Irregular shape - all dimensions
4. Location of Septic System
5. Location of Driveway
6. North to be indicated
7. Size of Proposed Building or Addition
8. Measurement in <u>feet</u> from Proposed or Existing Buildings in Relation to all Lot Lines and any water course (ie. creek, stream,marsh, lake or river)
9. Do not forget to sign Building Form "B"

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

LOCATION OF INSTALLATION

Lot # _____ Plan # _____
Township _____
Roll # _____
Address _____

BUILDER

Name _____
Address _____
City _____
Tel _____ Fax _____

INSTALLING CONTRACTOR

Name _____
Address _____
City _____
Tel _____ Fax _____

COMBUSTION APPLICANCES 9..32..3..1.(1)

a) Direct vent (sealed combustion only) _____
b) Positive venting induced draft _____ (except fireplaces)
c) Natural draft, B-Vent or Induced draft fireplace _____
d) Solid fuel (including fireplaces) _____

HEATING SYSTEM

Forced Air _____
Non Forced Air _____
Electric Space Heat _____

HOUSE TYPE 9.32.3.2.(2)

I Type a) or b) appliances, no solid fuel _____
II Type I except with solid fuel (including fireplace) _____
III Any Type c) appliance _____
IV Type I, or II with electric space heat _____
OTHER: Type I, II, or IV no forced air _____

TOTAL VENTILATION CAPACITY 9.32.3.3.(1)

Bsmt & Master Bdrm	@ 10 L/S		L/S
Other Bedrooms	@ 5 L/S		L/S
Bathrooms & Kitchen	@ 5L/S		L/S
Other Rooms	@ 5L/S		L/S
	TOTA		L/S

PRINCIPAL VENTILATION CAPACITY 9.32.3.4.(1)

Master Bedroom	@ 15 L/S		L/S
Other Bedrooms	@ 7.5 L/S		L/S
	TOTAL		L/S

PRINCIPAL EXHAUST FAN CAPACITY

Model: _____ Location _____
_____ L/S _____ Sones _____ HVI

HEAT RECOVERY VENTILATOR

Model: _____
_____ L/S High _____ L/S Low
_____ % Sensible Efficiency @ - 25C _____ HVI

SUPPLEMENTAL VENTILATION CAPACITY

Total Ventilation Capacity _____ L/S
Less Principal Vent. Capacity _____ L/S
Required Supplemental Vent. Cap _____ L/S

SUPPLEMENTAL FANS 9.32.3.5

Location	Model	L/S	Sones	HVI

SYSTEM DESIGN OPTION

1 Exhaust Only/Forced Air System _____
2 HRV with Exhaust Ducts/Forced Air System _____
3 HRV Simplifed Connection to Air System _____
4 HRV – Full Ducting/Not Coupled To Forced Air System _____
Part 6 Design _____

DESIGNER CERTIFICATION

I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.

Name _____

Signature _____

HRAI # _____ Date _____

VENTILATION SYSTEM DECISION TREE

Dwelling has electric service?
Dwelling intended for occupancy on a continuing basis in winter?

Yes to both

Mechanical Ventilation is Required
Part 9 Residential occupancy?
4 or less bedrooms?
Self contained ventilation system serving single dwelling unit?
Builder wants to use Part 9 Design?

Yes to All Above

Non solid fuel fireplaces are direct vent?
Other non solid fuel appliances are direct vent or induced draft?

Yes to Both

Part 9 of the Code applies
Select one of the System Options described?

Yes

Some electric space heat?
Solid fuel fired appliances present?

Yes to Either

Type II or Type IV dwelling
HRV required
Couple ventilation to F/A heating system?

Yes

Options 2 and 3

No

Option 4

No to either

Mechanical Ventilation is not Required
Provide Natural Ventilation as per 9.32.1.2 and 9.32.2 of Code.

No to Any of Above

Design to Part 6

No to Either

Type III dwelling
Design to Part 6

No

Design to Part 9

No to Both

Type I dwelling.
Couple ventilation to FF/A system?

Yes

Options 1, 2, 3

No

Option 4

CO sensors required
If house contains solid fuel-fired combustion appliance

HOUSE TYPES

Type 1

Only direct vented or mechanically induced draft fuel-fired combustion appliance: no solid fuel-fired combustion applicances: only direct vented fuel-fired fireplaces; no electric space heat.

Type II

Type I houses which contain solid fuel-fired combustion appliances.

Type III

All houses containing natural draft non-solid fuel-fired combustion appliances or mechanically vented induced draft non-solid fuel-fired fireplaces.

OPTIONS

OPTION 1

Exhaust only ventilation

OPTION 2

HRV coupled to a forced air heating system. Extended exhaust ductwork

OPTION 3

HRV coupled to a forced air heating system. Simplified exhaust ductwork.

OPTION 4

HRV not coupled to a forced air heating system.

Energy Efficiency Design Summary: Performance & Other Acceptable Compliance Methods

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the Performance or Other Acceptable Compliance Methods described in Subsections 3.1.2. and 3.1.3. of SB-12,

This form must accurately reflect the information contained on the drawings and specifications being submitted. Refer to Supplementary Standard SB-12 for details about building code compliance requirements. Further information about energy efficiency requirements for new buildings is available from the provincial building code website or the municipal building department.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name		Unit number	Lot/Con
Municipality	Postal code	Reg. Plan number / other description	

B. Compliance Option [indicate the building code compliance option being employed in this house design]

☐ *SB-12 Performance** [SB-12 - 3.1.2.]	* Attach energy performance results using an approved software (see guide)
☐ *ENERGY STAR®** [SB-12 - 3.1.3.]	* Attach Builder Option Package [BOP] form
☐ *R-2000®* *[SB-12 - 3.1.3.]	* Attach R-2000 HOT2000 Report

C. Project Building Design Conditions

Climatic Zone (SB-1):	**Heating Equipment Efficiency**	**Space Heating Fuel Source**
☐ Zone 1 (< 5000 degree days)	☐ ≥ 92% AFUE	☐ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		**Other Building Characteristics**
Area of walls = _____ m^2 or _____ ft^2	W, S & G % = _____	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☐ Air Conditioning ☐ Combo Unit ☐ Air Source Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)
Area of W, S & G = _____ m^2 or _____ ft^2		
SB-12 Performance Reference Building Design Package indicating the prescriptive package to be compared for compliance		
SB-12 Referenced Building Package (input design package): Package:_____ Table:_____		

D. Building Specifications [provide values and ratings of the energy efficiency components proposed, or attach *ENERGY STAR* BOP form

Building Component	**Minimum RSI / R values or Maximum U-Value(1)**		**Building Component**	**Efficiency Ratings**	
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value(1) or ER rating		
Ceiling with Attic Space			Windows/Sliding Glass Doors		
Ceiling without Attic Space			Skylights/Glazed Roofs		
Exposed Floor			**Mechanicals**		
Walls Above Grade			Heating Equip.(AFUE)		
Basement Walls			HRV Efficiency (SRE% at 0°C)		
Slab (all >600mm below grade)			DHW Heater (EF)		
Slab (edge only ≤600mm below grade)			DWHR (CSA B55.1 (min. 42% efficiency))		# Showers___
Slab (all ≤600mm below grade, or heated)			Combined Space / Dom. Water Heating		

(1) U value to be provided in either $W/(m^2 \cdot K)$ or $Btu/(h \cdot ft^2 \cdot F)$ but not both.

E. Performance Design Verification [Subsection 3.1.2. Performance Compliance]

The annual energy consumption using Subsection 3.1.1. SB-12 Reference Building Package is_____GJ (1 GJ =1000MJ)

The annual energy consumption of this house as designed is _____GJ

The software used to simulate the annual energy use of the building is:_____

The building is being designed using an air tightness baseline of:

- ☐ OBC reference ACH, NLA or NLR default values (no depressurization test required)
- ☐ Targeted ACH, NLA or NLR. Depressurization test to meet _____ACH50 or NLR or NLA

- ☐ Reduction of overall thermal performance of the proposed building envelope is not more than 25% of the envelope of the compliance package it is compared against (3.1.2.1.(6)).
- ☐ Standard Operating Conditions Applied (A-3.1.2.1 - 4.6.2)
- ☐ Reduced Operating Conditions for Zero-rated homes Applied (A-3.1.2.1 - 4.6.2.5)

- ☐ On Site Renewable(s): Solar:_____
  Other Types: _____

F. ENERGY STAR or R-2000 Performance Design Verification [Subsection 3.1.3. Other Acceptable Compliance Methods]

- ☐ The NRCan "ENERGY STAR for New Homes Standard Version 12.6 " technical requirements, applied to this building design result in the building performance meeting or exceeding the prescriptive performance requirements of the Supplementary Standard SB12 (A-3.1.3.1).

- ☐ The NRCan,"2012 R-2000 Standard " technical requirements, applied to this building design result in the building performance meeting or exceeding the prescriptive performance requirements of the Supplementary Standard SB12 (A-3.1.3.1).

Performance Energy Modeling Professional

Energy Evaluator/Advisor/Rater/CEM Name and company: Accreditation or Evaluator/Advisor/Rater License #

***ENERGY STAR* or R-2000**

Energy Evaluator/Advisor/Rater/ Name and company: Evaluator/Advisor/Rater License #

G. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

Qualified Designer: Declaration of designer to have reviewed and take responsibility for the design work.

Name	BCIN	Signature

Guide to the Energy Efficiency Design Summary Form for Performance & Other Acceptable Compliance Methods

COMPLETING THE FORM

B. Compliance Options

Indicate the compliance option being used.

- *SB-12 Performance* refers to the method of compliance in Subsection 3.1.2. of SB-12. Using this approach the designer must use recognized energy simulation software (such as HOT2000 V10.51 or newer), and submit documents which show that the annual energy use of the proposed building is equal to or less than a prescriptive (referenced) building package.
- *ENERGY STAR* houses must be designed to *ENERGY STAR* requirements and verified on completion by a licensed energy evaluator and/or service organization. The *ENERGY STAR* BOP form must be submitted with the permit documents.
- *R-2000* houses must be designed to the *R-2000 Standard* and verified on completion by a licensed energy evaluator and/or service organization. The HOT2000 report must be submitted with the permit documents.

C. Project Design Conditions

Climatic Zone: The number of degree days for Ontario cities is contained in Supplementary Standard SB-1
Windows, Skylights and Glass Doors: If the ratio of the total gross area of windows, sidelights, skylights, glazing in doors and sliding glass doors to the total gross area of walls is more than 17%, higher efficiency glazing is required. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 3.1.1.1. of SB-12 for further details.
Fuel Source and Heating Equipment Efficiency: The fuel source and efficiency of the proposed heating equipment must be specified in order to determine which *SB-12 Prescriptive* compliance package table applies.
Other Building Conditions: These construction conditions affect *SB-12 Prescriptive* compliance requirements.

D. Building Specifications

Thermal Insulation: Indicate the RSI or R-value being proposed where they apply to the house design. Refer to SB-12 for further details.

E. Performance Design Summary

A summary of the performance design applicable only to the *SB-12 Performance* option.

F. ENERGY STAR or R-2000 Performance Method

Design to ENERGY STAR or R-2000 Standards.

G. House Designer

The building code requires designers providing information about whether a building complies with the building code to have a BCIN. Exemptions apply to architects, engineers and owners designing their own house.

BUILDING CODE REQUIREMENTS FOR AIRTIGHTNESS IN NEW HOUSES

All houses must comply with increased air barrier requirements in the building code. Notice of air barrier completion must be provided and an inspection conducted prior to it being covered.
The air leakage rates in Table 3.1.2.1. are not requirements. The Table is not intended to require or suggest that the building meet those airtightness targets. They are provided only as default or reference values for the purpose of annual energy simulations, should the builder/owner decide to perform such simulations. They are given in three different metrics; ACH, NLA, NLR. Any one of them can be used. They can be used as a default values for both a reference and proposed building or, where an air leakage test is conducted and credit for airtightness is claimed, the airtightness values in Table 3.1.2.1. can be used for the reference building and the actual leakage rates obtained from the air leakage test can be used as inputs for the proposed building.

OBC Reference Default Air Leakage Rates (Table 3.1.2.1.)

Detached dwelling	3.0 ACH50	NLA 2.12 cm^2/m^2	NLR 1.32 $L/s/m^2$
Attached dwelling	3.5 ACH50	NLA 2.27 cm^2/m^2	NLR 1.44 $L/s/m^2$

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the *SB-12 Performance* option is used and an air tightness of less than 3.0 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of detached houses, or 3.5 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of attached houses is necessary to meet the required energy efficiency standard.

ENERGY EFFICIENCY LABELING FOR NEW HOUSES

ENERGY STAR and R-2000 may issue labels for new homes constructed under their energy efficiency programs. The building code does not currently regulate or require new home labeling.

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name		Unit number	Lot/Con
Municipality	Postal code	Reg. Plan number / other description	

B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]

SB-12 Prescriptive (input design package): Package: _____ Table: _____

C. Project Design Conditions

Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating Fuel Source
☐ Zone 1 (< 5000 degree days)	☐ ≥ 92% AFUE	☐ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____ m^2 or _____ ft^2	W, S & G % = _____	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☐ Air Conditioning ☐ Combo Unit ☐ Air Sourced Heat Pump (ASHP) ☐ Ground Sourced Heat Pump (GSHP)
Area of W, S & G = _____ m^2 or _____ ft^2	Utilize window averaging: ☐ Yes ☐ No	

D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions

☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))

☐ Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))

☐ Airtightness substitution(s)		
Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B	Required: _____ Permitted Substitution: _____
	☐ Table 3.1.1.4.C	Required: _____ Permitted Substitution: _____
		Required: _____ Permitted Substitution: _____

Building Component	Minimum RSI / R values or Maximum U-Value[1]		Building Component	Efficiency Ratings	
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value[1] or ER rating		
Ceiling with Attic Space			Windows/Sliding Glass Doors		
Ceiling without Attic Space			Skylights/Glazed Roofs		
Exposed Floor			**Mechanicals**		
Walls Above Grade			Heating Equip.(AFUE)		
Basement Walls			HRV Efficiency (SRE% at 0°C)		
Slab (all >600mm below grade)			DHW Heater (EF)		
Slab (edge only ≤600mm below grade)			DWHR (CSA B55.1 (min. 42% efficiency))		# Showers___
Slab (all ≤600mm below grade, or heated)			Combined Heating System		

(1) U value to be provided in either $W/(m^2 \cdot K)$ or $Btu/(h \cdot ft^2 \cdot F)$ but not both.

E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

Qualified Designer Declaration of designer to have reviewed and take responsibility for the design work.

Name	BCIN	Signature

Guide to the Prescriptive Energy Efficiency Design Summary Form

This form must accurately reflect the information contained on the drawings and specifications being submitted. Refer to Supplementary Standard SB-12 for details about building code compliance requirements. Further information about energy efficiency requirements for new buildings is available from the provincial building code website or the municipal building department.

The building code permits a house designer to use one of four energy efficiency compliance options:

1. Comply with the *SB-12 Prescriptive* design tables (this form is for this option (Option 1)),
2. Use the *SB-12 Performance* compliance method, and model the design against the prescriptive standards,
3. Design to *Energy Star, or*
4. Design to *R2000* standards.

COMPLETING THE FORM

B. Compliance Options

Indicate the compliance option being used.

- *SB-12 Prescriptive* requires that the building conforms to a package of thermal insulation, window and mechanical system efficiency requirements set out in Subsection 3.1.1. of SB-12. Energy efficiency design modeling and testing of the building is not required under this option. Certain substitutions are permitted. In which case, the applicable airtightness targets in Table 3.1.1.4.A must be met.

C. Project Design Conditions

Climatic Zone: The number of degree days for Ontario cities is contained in Supplementary Standard SB-1
Windows, Skylights and Glass Doors: If the ratio of the total gross area of windows, sidelights, skylights, glazing in doors and sliding glass doors to the total gross area of walls is more than 17%, higher efficiency glazing is required. If the ratio is more than 22%, the *SB-12 Prescriptive* option may not be used. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 3.1.1.1. of SB-12 for further details.
Fuel Source and Heating Equipment Efficiency: The fuel source and efficiency of the proposed heating equipment must be specified in order to determine which *SB-12 Prescriptive* compliance package table applies.
Other Building Conditions: These construction conditions affect *SB-12 Prescriptive* compliance requirements.

D. Building Specifications

Thermal Insulation: Indicate the RSI or R-value being proposed where they apply to the house design. Under the *SB-12 Prescriptive* option, alternative ICF wall insulation is permitted in certain conditions where other design elements meet higher standards. Refer to SB-12 for further details. Where effective insulation values are being used, the Authority Having Jurisdiction may require supporting documentation.

BUILDING CODE REQUIREMENTS FOR AIRTIGHTNESS IN NEW HOUSES

All houses must comply with increased air barrier requirements in the building code. Notice of air barrier completion must be provided and an inspection conducted prior to it being covered.

The air leakage rates in Table 3.1.1.4.A are not requirements. This provision is a voluntary provision for when credits for airtightness are claimed. Credit for air tightness allows the designer to substitute the requirements of compliance packages as set out in Table 3.1.1.4.B or 3.1.1.4.C. Neither the air leakage test nor compliance with airtightness targets given in Table 3.1.1.4.A are required, unless credit for airtightness is claimed. Table 3.1.1.4.A provides airtightness targets in three different metrics; ACH, NLA, NLR. Any one of them can be used.

OBC Reference Default Air Leakage Rates (Table 3.1.1.4.A)

Building Type	Airtightness Targets				
	ACH @ 50 Pa	NLA @ 10 Pa		NLR @ 50 Pa	
Detached dwelling	2.5	1.26 cm^2/m^2	1.81 $in^2/100ft^2$	0.93 $L/s/m^2$	0.18 $cfm50/ft^2$
Attached dwelling	3.0	2.12 cm^2/m^2	3.06 $in^2/100ft^2$	1.32 $L/s/m^2$	0.26 $cfm50/ft^2$

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the *SB-12 Prescriptive* option with airtightness credit being applied. Results of the airtightness test may need to be submitted to the Authority Having Jurisdiction. Airtightness of less than 2.5 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of detached houses, or 3.0 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of attached houses is necessary to meet the required energy efficiency standard.

E. House Designer

The building code requires designers providing information about whether a building complies with the building code to have a BCIN. Exemptions apply to architects, engineers and owners designing their own house.

Form authorized by OHBA, OBOA, LMCBO. Revised November 30, 2016.