Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the *Building Code Act,1992*

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.
Town	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, 1992*, 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) (c).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 Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practice, a limited license to practice, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Schedule 2: Sewage System Installer Information

A. Project Information

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

B. Sewage system installer

Is the installer of the sewage system engages in the business of constructing on-site, installing, repairing, servicing, cleaning or emptying sewage systems, in accordance with Building code Article 3.3.1.1, Division C?

☐ Yes (Continue to section C) ☐ No (Continue to Section E) ☐ Installer unknown at time of application (Continue to Section E)

C. Registered Installer information (where answer to section B is "Yes")

Name		BCIN	
Address		Unit Number	Lot/Con.
Municipality (City/Town)	Postal code	Province	E-mail
Telephone (include area code)	Fax (include area code)	Cell (include area code)	

D. Qualified supervisor information (where answer to section B is "Yes")

Name of qualified supervisor(s)	Building Code Identification Number (BCIN)

E. Declaration of Applicant

I, **Declare that:**

☐ I am the applicant for the permit to construct the sewage system. If the installer is unknown at time of application, I shall submit a new Schedule 2 prior to construction when the installer is known.

OR

☐ I am the holder of the permit to construct the sewage system, and am submitting a new Schedule 2, now that the installer is known.

I certify that:

1. The information contained in this schedule 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.

Date

Signature of Applicant

Schedule 2A: Sewage System Information

A. A Proposed Sewage System

IS FOR: ☐ Residential use ☐ Commercial Use

INSTALLATION IS: ☐ New ☐ Replacement ☐ Alteration ☐ Repair

Test Holes are required for all new or replacement Class 4 septic system applications; minimum size to be 3 feet (.9 meters) wide and 6 feet (1.8 meters) deep. Must be stepped or sloped.	Are Test Holes ready? ☐ Yes ☐ No

B. Type of Proposed Sewage System

☐ Class 2 – Leaching Pit ☐ Class 3 - Cesspool ☐ Class 4 – Sewage System ☐ Class 5 Holding Tank

NOTE: Class 2, 3 & 5 sewage systems have limited or restricted uses.

C. Design Flow Calculations – Dwellings (separate calculations required for non-residential structures)

Record number of Plumbing Fixtures (include rough-in plumbing eg. for future basement bathroom)

Description of Fixture	Number of New/Proposed Fixtures		Fixture Units		Fixture Unit Count
Dishwasher		x	1.5	=	
Garbage grinder		x	3	=	
Hot tub/Spa		x	1.5	=	
Kitchen sink		x	1.5	=	
Laundry tub		x	1.5	=	
Toilet		x	4	=	
Tub/Shower (1 head)		x	1.5	=	
Wash basin		x	1.5	=	
Washing Machine		x	1.5	=	
Other – please specify:		x		=	
Other – please specify:		x		=	
	TOTAL FIXTURE UNITS:				
	TOTAL FIXTURE UNITS OVER 20:				

Additional appliances: ☐ Water Softener ☐ Water Filter	Does it backwash into Septic? ☐ Yes ☐ No Does it backwash into Septic? ☐ Yes ☐ No

Record finished floor area (in square meters) for the following:

1st Floor	2nd Floor	3rd Floor	Loft	Walkout	TOTAL

Record number of separate dwelling units:

D. Design Flow Calculations for Dwellings (separate calculation required for non-residential structures)

Where:

A = Bedroom Flow (1-5 bedrooms); **B**= Bedroom Flow (over 5 bedrooms), **C** = Living Area Flow, **D** = Fixture Units over 50.

Bedroom Flow (A)

Select Number of Bedrooms	Volume (Litres)		Total Flow
☐ 1 Bedroom	750	=	
☐ 2 Bedrooms	1100	=	
☐ 3 Bedrooms	1600	=	
☐ 4 Bedrooms	2000	=	
☐ 5 Bedrooms	2500	=	
		TOTAL (A)	

Bedroom Flow (B)

>5 Bedrooms	Number of bedrooms >5	Volume (Litres)			
☐ Yes ☐ No		x	500 (each)	=	
				TOTAL (B)	

Living Area Flow (C)

Size of Living Area	# of Increments of 10m2 over living area		Volume (Litres)		Total Flow
☐ 0 - 200 M2		x	0	=	
☐ 201 - 400 M2		x	100	=	
☐ 401 - 600 M2		x	75	=	
☐ > 600 M2		x	50	=	
				TOTAL (C)	

Fixture Units (D)

Number of Fixture Units over 20 (from pg. 5)	=		x	50 L/Fixture Unit
				TOTAL (D)

E. Design Flow (Number of Litres per day)

Q = A + (the highest of) B or C or D

$$Q = \frac{\quad}{A} + \frac{\quad}{(B \text{ or } C \text{ or } D)}$$

Q = Litres/day

F. Septic Tank Size (Working Capacity) For Class 4 System ☐ Existing ☐ Replacement

		Proposed/Existing Working Capacity
☐ Residential (3600L) Minimum	2 x Q	_____ Litres
☐ Non-Residential (3600L) Minimum	3 x Q	

G. Other Treatment Unit ☐ Tertiary ☐ Secondary

Manufacturer	Model	BMEC (Attach to Application)

Schedule 2B: Class 4 Sewage System Calculations

A. Absorption Trench

☐ In-ground ☐ Raised ☐ Partially Raised

L = Length of Distribution Pipe (in metres)

Q = Daily Design Flow (in litres)

T = Percolation Time of underlying soil

8.7.3.1(2)

L = Q x T /200

L =

NOTE:

OR

8.7.3.1(3) With Treatment Unit or Permitted by Proprietary Products

L = QT/300

L = Q x T /300

L =

NOTE:

B. Filter Bed

☐ In-ground ☐ Raised ☐ Partially Raised

L = Length of Distribution Pipe (in metres)

Q = Daily Design Flow (in litres)

T = Percolation Time of underlying soil

EFFECTIVE SURFACE AREA

i) If Q < 3000 litres/day

A = Q/75

A = ... /75

A = ... m^2

OR

ii) If Q > 3000 litres/day

A = Q/50

A = ... /50

A = ... m^2

If Area "A" of effective surface area is greater than 50 m2:

How many cells are to be installed? .....

What is the size of each cell? .....

FILTER MEDIUM BASE AREA

A = QT/850

A = ... x ..... /850

A = ... m^2

Schedule 2C: Soil Design Criteria and Site Evaluation

A. Percolation Rate of Design Soil (T)

Percolation Rate of Design Soil	Percolation Rate of Mantle Sand	
T = _____ min/cm	T = _____ min/cm	SEE:
Soil is: ☐ Native ☐ Imported	Soil is: ☐ Native ☐ Imported	☐ Laboratory Analysis ☐ Lab Report Attached

NOTE: The MUNICIPALITY will require documentation by a certified soil technician on proposed imported soils to confirm the percolation rate ("T"-time), or the suitability of filter sand or imported fill.

A Dose Pump is required if total distribution pipe is 150m or more.

Dose Pump required? ☐ Yes ☐ No

L = Total Length of distribution pipe in the leaching bed

V = Effluent volume (in litres) pumped.

☐	3" diameter distribution pipe	V =	3.3 x L	= .....
☐	4" diameter distribution pipe	V =	5.9 x L	= .....

B. Site Plan

PROVIDE THE FOLLOWING INFORMATION:

- ✓ Locate and show horizontal distance from sewage system to all proposed or existing structures, driveway, property lines, swimming pools
- ✓ Locate and show clearance to all wells (including those on adjacent properties)
- ✓ Water courses (eg. lakes, rivers etc.)
- ✓ Swales, slopes and changes in grad
- ✓ North (facing) arrow
- ✓ Tank and pump chamber sizes (in litres)
- ✓ Base, contact and loading areas (in square meters)
- ✓ Length of distribution pipe (in metres)

Please use the attached template.

Schedule 2D: Site Plan

SEPTIC INSTALLATION SITE PLAN

Address:		Plan:		Lot:		Con:	

Tank Size (L)		Pump Chamber Size (L)		Base Area (m^2)	
Contact Area (m^2)		Contact Area (m^2)		Length of Distribution Pipe (m)	

C. Declaration

1. I acknowledge that any deviation from the approved plans and specifications after the permit is issued is a violation of the Building code Act and agree to consult with a building inspector before making any changes from the approved plans.
2. I agree to comply with the provisions of the Municipal Building and Zoning By-laws.
3. I agree that, neither the granting of a permit, nor approval of the plans and specifications, nor inspections made by MUNICIPALITY Inspectors during work on the sewage system, shall relieve me from responsibility for carrying out the work in accordance with the Building Code Act, as amended, and the Regulations made thereunder.
4. I declare that the information contained herein is in every respect, fully and truthfully stated to the best of my knowledge and belief.
5. I acknowledge that I will provide a pit analysis of filter medium where applicable.
6. I acknowledge that, prior to backfilling, the stone layer shall be protected by covering it with untreated building paper **or** a permeable geo-textile fabric.
7. I acknowledge that a leaching bed shall not be covered with any material having a hydraulic conductivity less than 0.01m/day.
8. I acknowledge that I will operate (if owner), or advise the owner (if contractor) of the operation and maintenance required on the septic system.
9. I acknowledge that I will provide/obtain a Maintenance Contract for a Treatment Unit and Class-5 Holding Tank.
10. I acknowledge that should a temporary entrance be required to construct this septic system, I will obtain an entrance approval if required by the Public Works Department, prior to commencing construction.

Submitted by:

Name (please print)	Signature of Owner or Agent	Date

☐ Permit Granted ☐ Permit Granted with attachments ☐ Unable to grant, reasons attached.

Name (please print)	Signature of Chief Building Official or Designate	Date

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•K) or Btu/(h•ft^2•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•K) or Btu/(h•ft^2•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.