

# 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 <u>THE CITY OF BELLEVILLE</u> <small>(Name of municipality, upper-tier municipality, board of health or conservation authority)</small>			
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 <sup>2</sup> )	
B. Purpose of application			
<input type="checkbox"/> New construction <input type="checkbox"/> Addition to an existing building <input type="checkbox"/> Alteration/repair <input type="checkbox"/> Demolition <input type="checkbox"/> Conditional Permit			
Proposed use of building		Current use of building	
Description of proposed work			
C. Applicant      Applicant is: <input type="checkbox"/> Owner or <input type="checkbox"/> 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 (    )

<b>E. Builder (optional)</b>				
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 ( )		
<b>F. Tarion Warranty Corporation (Ontario New Home Warranty Program)</b>				
i. Is proposed construction for a new home as defined in the <i>Ontario New Home Warranties Plan Act</i> ? If no, go to section G.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
ii. Is registration required under the <i>Ontario New Home Warranties Plan Act</i> ?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
iii. If yes to (ii) provide registration number(s): _____				
<b>G. Required Schedules</b>				
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.				
<b>H. Completeness and compliance with applicable law</b>				
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). 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 <i>Building Code Act, 1992</i> , to be paid when the application is made.			<input type="checkbox"/> Yes	<input type="checkbox"/> 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 <i>Building Code Act, 1992</i> .			<input type="checkbox"/> Yes	<input type="checkbox"/> 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 <i>Building Code Act, 1992</i> which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
iv) The proposed building, construction or demolition will not contravene any applicable law.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>I. Declaration of applicant</b>				
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.

<b>A. Project Information</b>			
Building number, street name		Unit no.	Lot/con.
Municipality	Postal code	Plan number/ other description	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name		Firm	
Street address		Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number (     )	Fax number (     )	Cell number (     )	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]</b>			
<input type="checkbox"/> House	<input type="checkbox"/> HVAC – House	<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing – All Buildings	
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work			
<b>D. Declaration of Designer</b>			
I _____ declare that (choose one as appropriate):			
(print name)			
<input type="checkbox"/> 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: _____			
<input type="checkbox"/> 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: _____			
<input type="checkbox"/> 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 practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

## Schedule 2: Sewage System Installer Information

<b>A. Project Information</b>			
Building number, street name		Unit number	Lot/con.
Municipality	Postal code	Plan number/ other description	
<b>B. Sewage system installer</b>			
Is the installer of the sewage system engaged 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?			
<input type="checkbox"/> Yes (Continue to Section C)		<input type="checkbox"/> No (Continue to Section E)	<input type="checkbox"/> Installer unknown at time of application (Continue to Section E)
<b>C. Registered installer information (where answer to B is "Yes")</b>			
Name		BCIN	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number (    )	Fax (    )	Cell number (    )	
<b>D. Qualified supervisor information (where answer to section B is "Yes")</b>			
Name of qualified supervisor(s)		Building Code Identification Number (BCIN)	
<b>E. Declaration of Applicant:</b>			
<p>I _____ declare that:</p> <p style="text-align: center;">(print name)</p> <p><input type="checkbox"/> 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;</p> <p><u>OR</u></p> <p><input type="checkbox"/> 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.</p> <p>I certify that:</p> <p>1. The information contained in this schedule is true to the best of my knowledge.</p> <p>2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.</p> <p>_____</p> <p style="display: flex; justify-content: space-between;"> <span>Date</span> <span>Signature of applicant</span> </p>			



**AUTHORIZATION FROM PROPERTY OWNER for AGENT TO APPLY FOR BUILDING PERMIT ON THEIR BEHALF**

I/we \_\_\_\_\_,  
(Property Owner/s)

Hereby authorize \_\_\_\_\_,  
(Agent)

To apply, on my/our behalf, for a Building Permit on my/our property located in the City of Belleville at:

\_\_\_\_\_  
\_\_\_\_\_  
Property Description (legal, civic address)

\_\_\_\_\_  
Signature of Owner                      Date                      Signature of Owner                      Date

**DECLARATION OF VACANCY**

Where the application is for demolition of a building I/we hereby confirm that the building at \_\_\_\_\_ is vacant.  
Property Description (legal, civic address)

\_\_\_\_\_  
Signature of Owner/Agent                      Date                      Signature of Owner /Agent                      Date

**PLANNING SECTION APPROVAL (Required PRIOR TO application submission)**

Planning Approval: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature of Planner

**FEES (Office use Only)    Civic Address(es)** \_\_\_\_\_

Building Permit	Plumbing Permit	Sewer Permit	Occupancy Permit	Surcharge	Totals
\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	=\$ _____

**Development Charges Payable Now:**  
City Wide \$ \_\_\_\_\_ Stanley Park \$ \_\_\_\_\_ = \$ \_\_\_\_\_

**Development Charges Being Deferred:**  
City Wide \$ \_\_\_\_\_ Stanley Park \$ \_\_\_\_\_ Deposit = \$ \_\_\_\_\_

**Deferred Development Charges to be separately invoiced per civic address**  
Grand Total = \$ \_\_\_\_\_

### Applicable Law Compliance

The following questions must be answered in order to complete your application for building permit and to determine if approvals are required from any other agency before your building permit can be issued.

**Completing this form accurately and providing any other required approvals at application time will help expedite the processing of your building permit.**

Question	Yes	No	Comments
Is the building used as a daycare?			
Is the permit for the demolition of a school?			
Is the building used as a funeral home?			
Is the building used for processing milk?			
Is the building used to house farm animals?			
Is there a farm, feedlot or manure storage within 500m?			
Is the building used for manure storage?			
Is the building located on public land?			
Are Development Charges applicable?			
Is conservation authority approval required?			
Is there a lake, river, creek, stream, pond or wetland on or within 500m of the property?			
Is there a provincial highway within 800m?			
Is there a railway within 500m of the property?			
Is Health Unit approval required (food)?			
Is the building used as a charitable institution?			
Is the building used as a seniors home?			
Is the building used as a seniors centre?			
Is the building used as a nursing home?			
Is the property use changing to residential?			
Is Ministry of Environment approval required?			
Was the property used as a disposal site?			
Is there a septic system on the property?			
Is the building a designated heritage building?			
Is the permit to demolish a heritage building?			
Is site plan approval required?			
Is the permit for a mobile, park model or modular home?			
Is zoning by-law relief required? (Confirm with Planning Section)			

## Statement Regarding Required Inspections

To: City of Belleville Building Inspection Department

Re: \_\_\_\_\_  
(civic address)

I \_\_\_\_\_ (owner / authorized agent) understand that it is my responsibility to call the City of Belleville Building Inspection department for the required inspections listed below. I also understand the person in charge of the construction of the building shall have the permit or a copy of the permit posted at all times during the construction or demolition in a conspicuous place on the property and shall keep and maintain on the site of the construction at least one copy of the drawings and specifications stamped as site copy by the City of Belleville Building department. I further acknowledge and understand that my failure to do so may result in work orders being levied against the property and further that I will be required to uncover any and all work that is covered or enclosed prior to the work being inspected by the City. Further I also understand that all expenses related to the uncovering or exposing of work for the purposes of inspection will be at my expense. It is further acknowledged that I will not expect or knowingly allow City Building Officials to enter or remain in any place or situation deemed unsafe according to the Occupational Health & Safety Act that I am responsible for and that this does not relieve me from having the required inspections conducted and completed by the City Building Division.

### Required Inspections:

**\*\* Minimum 48 Hours notice required for each inspection**

**\*\* Ensure that plans are on site for all inspections**

1. **Services (prior to covering)**
2. **Excavation (prior to pouring footings)**
3. **Foundation (prior to backfilling)**
4. **Underground Plumbing (prior to covering)**
5. **Framing, Plumbing and Mechanical Rough-in (prior to insulation)**  
\*framing inspection will not be conducted separately.
6. **Septic system 1) Prior to covering; 2) Final**
7. **Wood Burning Appliance**
8. **Insulation & vapour barrier (prior to drywall)**
9. **Fire Separations & Fire stopping**
10. **Prior to filling a swimming pool with water**
11. **Prior to Occupancy Union Energy and Electrical Safety Authority Inspection required before Occupancy will be permitted.**
12. **Other \_\_\_\_\_**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**NOTE: INSPECTIONS WILL NOT BE CONDUCTED WHERE PERMIT HAS NOT BEEN PICKED UP**

**MUNICIPALITY OF THE CITY OF BELLEVILLE – OFFICE OF THE CHIEF BUILDING OFFICIAL**

**TELEPHONE 1-613-967-3204**

**FAX: 1-613-967-3262**

**PLUMBING INFORMATION**

<p><b>NUMBER OF FIXTURES</b></p> <p><b>SINKS</b> <input style="width: 40px;" type="text"/></p> <p><b>BASINS</b> <input style="width: 40px;" type="text"/></p> <p><b>SHOWERS</b> <input style="width: 40px;" type="text"/></p> <p><b>TOILETS</b> <input style="width: 40px;" type="text"/></p> <p><b>BATH TUBS</b> <input style="width: 40px;" type="text"/></p> <p><b>LAUNDRY TUBS</b> <input style="width: 40px;" type="text"/></p> <p><b>DISHWASHERS</b> <input style="width: 40px;" type="text"/></p> <p><b>HOT WATER TANKS</b> <input style="width: 40px;" type="text"/></p> <p><b>FLOOR DRAIN</b> <input style="width: 40px;" type="text"/></p> <p><b>ROOF DRAIN</b> <input style="width: 40px;" type="text"/></p> <p><b>OTHER (SPECIFY)</b> <input style="width: 200px;" type="text"/></p> <p><b>TOTAL FIXTURES:</b> <input style="width: 200px;" type="text"/></p>	<p><b>FEES: *</b></p> <p><b>TOTAL FIXTURES:</b> ( <input style="width: 40px;" type="text"/> ) X \$7.00 = \$ <input style="width: 80px;" type="text"/></p> <p><b>Plus Residential \$15.00/unit</b> \$ <input style="width: 80px;" type="text"/></p> <p><b>OR</b></p> <p><b>Instit., Comm., Indust., Gov't. \$75.00</b> \$ <input style="width: 80px;" type="text"/></p> <p><b>Plus</b></p> <p><b>INGROUND PLUMBING: \$50.00</b> \$ <input style="width: 80px;" type="text"/></p> <p><b>(ONLY Instit., Comm., Indust., Gov't., Mtpl. Dwellings)</b></p> <p><b>TOTAL FEES:</b> \$ <input style="width: 100px;" type="text"/></p> <p style="text-align: right;"><b>* MINIMUM FEE: \$50.00</b></p>
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**SEWER INFORMATION**

DIAMETER (INCHES)	LENGTH (METRES)	FEE *	PER UNIT CHARGE	NO. OF	TOTAL FEE
4 INCHES	<input style="width: 40px;" type="text"/>	\$ <input style="width: 60px;" type="text"/>	<b>CATCHBASINS \$40.00</b>	<input style="width: 40px;" type="text"/>	\$ <input style="width: 80px;" type="text"/>
6 INCHES	<input style="width: 40px;" type="text"/>	\$ <input style="width: 60px;" type="text"/>	<b>MANHOLES \$40.00</b>	<input style="width: 40px;" type="text"/>	\$ <input style="width: 80px;" type="text"/>
<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	\$ <input style="width: 60px;" type="text"/>	<b>TOTAL FEES: \$</b>	<input style="width: 100px;" type="text"/>	<b>* MIN. FEE: \$25.00</b>

- \$6.00 PER 25MM OF PIPE DIAMETER FOR EACH 30 METRES OF LENGTH OR PART THEREOF
- ROAD CUT PERMITS ARE REQUIRED FOR ALL WORK WITHIN CITY ROAD ALLOWANCES (PERMITS AVAILABLE FROM PUBLIC WORKS AT 75 WALLBRIDGE CRESCENT)

**SEPTIC INFORMATION – CLASS 2 TO 5**

State Number Of	Bedrooms/Motel Units	People	Flush Toilets	Urinals	Washbasins	Showers or Bathtubs	Water Supply			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Proposed or Existing	<input type="checkbox"/> Dug or bored well	<input type="checkbox"/> Drilled Well	<input type="checkbox"/> Municipal
Total Fixture Units							<input type="checkbox"/> Other			
Attach completed sketch on Page 2. List other attachments.										
Relationship to severance (if applicable)					Directions to lot (Highway No., Secondary Roads, Signs to Follow, etc.)					
<input type="checkbox"/> Lot approval pending <input type="checkbox"/> Lot approved, under Severance Application No.										
REQUIRED TEST: (Article 8.2.1.2. of the O.B.C. requires one of the following tests)										
Percolation Test:		Hole 1	Hole 2	Hole 3	Highest Perc. Time					
		<input style="width: 60px;" type="text"/>	<input style="width: 60px;" type="text"/>	<input style="width: 60px;" type="text"/>	<input style="width: 150px;" type="text"/>					
OR Unified Soil Classification: <input style="width: 150px;" type="text"/>										





# CALCULATION SHEET

## Ontario Building Code Proposed Requirements Residential Sewage Disposal System

Name: \_\_\_\_\_ Address: \_\_\_\_\_ Tel: ( ) \_\_\_\_\_

### 1. Sewage Flow

a) Number of bedrooms: \_\_\_\_\_ = \_\_\_\_\_ Litres (1)

#### ADD

b) Living Space: \_\_\_\_\_ m<sup>2</sup>  
 Each 10 m<sup>2</sup> over 200m<sup>2</sup> up to 400 m<sup>2</sup>: \_\_\_\_\_ x 100 = \_\_\_\_\_ Litres  
 Each 10 m<sup>2</sup> over 400m<sup>2</sup> up to 600 m<sup>2</sup>: \_\_\_\_\_ x 75 = \_\_\_\_\_ Litres

Total: \_\_\_\_\_ Litres (2)

#### OR ADD (whichever is the larger flow)

c) Total Fixture Units:  
 Each Fixture Unit Over 20: \_\_\_\_\_ x 50 = \_\_\_\_\_ Litres (3)

Total Sewage Flow: (Q) (Add 1 + 2 or 3) \_\_\_\_\_ Litres

### 2. Septic Tank Size

Residential Occupancy: Sewage Flow: \_\_\_\_\_ x 2 = \_\_\_\_\_ Litres (Minimum – 3600 Litres)  
 Recommend \_\_\_\_\_ Litre Tank

### 3. Leaching Bed Size

Length of Pipe =  $\frac{\text{Sewage Flow} \times \text{Percolation Time}}{200}$

$L = \frac{QT}{200} = \frac{\quad \times \quad}{200} = \quad$  m. of trench      ft. of trench  
 Rounded to: \_\_\_\_\_ m. of trench      \_\_\_\_\_ ft. of trench

### 4. Loading Rate for Fill-Based Absorption Trenches and Filter Beds

Loading Rates	Percolation Time	Loading Rate (L/ m <sup>2</sup> /day)
	1-20	10
	20-35	8
	35-50	6
	> 50	4

Sewage Flow ÷ Loading Rate = \_\_\_\_\_ m<sup>2</sup> of contact area  
 \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ m<sup>2</sup> of contact area

### 5. Filter Bed Size

Sewage Flow < 3000 Litres/Day: Sewage Flow ÷ 75 = m<sup>2</sup>  
 ÷ 75 = \_\_\_\_\_ m<sup>2</sup> of filter bed

Sewage Flow > 3000 Litres/Day: Sewage Flow ÷ 75 = m<sup>2</sup>  
 ÷ 50 = \_\_\_\_\_ m<sup>2</sup> of filter bed

### 6. Filter Bed Contact Area of Filter Sand

Area =  $\frac{\text{Sewage Flow} \times \text{Percolation Rate}}{850}$  = \_\_\_\_\_ m<sup>2</sup> of contact area

A =  $\frac{QT}{850} = \frac{\quad \times \quad}{850} = \quad$  m<sup>2</sup> of contact area

Expanded contact area is to be no less than the filter bed size.

SOIL CONDITION	
Depth (metres)	Soil Type
0	_____
0.5	_____
1.0	_____
1.5	_____
Show Rock Elevations	_____
Show Water Table	_____ W

Owner/Contractor/Designer's Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# 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
<input type="checkbox"/> Zone 1 (< 5000 degree days)	<input type="checkbox"/> ≥ 92% AFUE	<input type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel
<input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input type="checkbox"/> ≥ 84% < 92% AFUE	<input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____ m <sup>2</sup> or _____ ft <sup>2</sup>	W, S & G % = _____	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Sourced Heat Pump (GSHP)
Area of W, S & G = _____ m <sup>2</sup> or _____ ft <sup>2</sup>	Utilize window averaging: <input type="checkbox"/> Yes <input type="checkbox"/> No	

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

Energy Efficiency Substitutions				
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))				
<input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))				
<input type="checkbox"/> Airtightness substitution(s)  Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required: _____ Permitted Substitution: _____			
	<input type="checkbox"/> Table 3.1.1.4.C Required: _____ Permitted Substitution: _____			
	Required: _____ Permitted Substitution: _____			
Building Component	Minimum RSI / R values or Maximum U-Value <sup>(1)</sup>		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windows & Doors Provide U-Value <sup>(1)</sup> 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<sup>2</sup>•K) or Btu/(h•ft<sup>2</sup>•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 <sup>2</sup> /m <sup>2</sup>	1.81 in <sup>2</sup> /100ft <sup>2</sup>	0.93 L/s/m <sup>2</sup>	0.18 cfm50/ft <sup>2</sup>
Attached dwelling	3.0	2.12 cm <sup>2</sup> /m <sup>2</sup>	3.06 in <sup>2</sup> /100ft <sup>2</sup>	1.32 L/s/m <sup>2</sup>	0.26 cfm50/ft <sup>2</sup>

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.