The Corporation of the Township of North Huron

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 m	1e Corporation of th unicipality, upper-tier mun	he Township of North icipality, board of health or c	Huron onservation 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				
	ddition to an xisting building	Alteration/repair	Demolition	Conditional Permit
Proposed use of building	Curr	rent use of building		
C. Applicant Applicant is	s: Owner or	Authorized ag	gent of owner	
Last name	First name	Corporation of	or partnership	
Street address	ł		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ()	Fax ()		Cell number ()	
D. Owner (if different from applica	ant)			
Last name	First name	Corporation of	or partnership	
Street address	I		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ()	Fax ()		Cell number ()	

Application for a Permit to Construct or Demolish - Effective January 1, 2014

E. Builder (optional)						
Last name	First name	Corporation or partnersh	nip (if applic	cable)		
Street address			Unit numb	ber l	_ot/con.	
Municipality	Postal code	Province	E-mail			
Talaakara sumbar	Fax		Call average			
Telephone number	()		Cell numb	ber		
F. Tarion Warranty Corporation (Ontario	Now Home Warrant	(Program)	· /			
i. Is proposed construction for a new hom <i>Plan Act</i> ? If no, go to section G.	-	- /	Ye	S	No	
ii. Is registration required under the Ontari	o New Home Warranties	Plan Act?	Ye	s	No	
			10		110	
iii. If yes to (ii) provide registration number	(s):					
G. Required Schedules	(0).					
i) Attach Schedule 1 for each individual who rev	iews and takes responsit	pility for design activities.				
	-					
ii) Attach Schedule 2 where application is to cons		pair a sewage system.				
H. Completeness and compliance with a	pplicable law					
 i) This application meets all the requirements of Building Code (the application is made in the applicable fields have been completed on the schedules are submitted). 	correct form and by the c	wher or authorized agent		6	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 <i>Building Code Act, 1992</i> , to be paid when the application is made.						
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, Yes No resolution or regulation made under clause 7(1)(b) of the <i>Building Code Act, 1992.</i>						
iii) This application is accompanied by the inform law, resolution or regulation made under claus the chief building official to determine whether contravene any applicable law.	se 7(1)(b) of the Building	Code Act, 1992 which ena	able	6	No	
iv) The proposed building, construction or demoli	tion will not contravene a	ny applicable law.	Yes	6	No	
I. Declaration of applicant						
I(print name)				decla	are that:	
(princhame)						
 The information contained in this application documentation is true to the best of my 		s, attached plans and spec	cifications, a	and other a	attached	
2. If the owner is a corporation or partners		b bind the corporation or p	artnership.			
Date	Signature of a	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 descript	ion				
B. Individual who reviews and takes	responsibilit	y 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 in Division C]	ndividual iden	tified in Section B. [Build	ding Code Table	3.5.2.1. of			
Small Buildings Large Buildings Complex Buildings Description of designer's work		g Services on, Lighting and Power otection	Building Stru Plumbing – I Plumbing – A On-site Sew	House			
D. Declaration of Designer							
I		de	clare that (choose o	ne 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:							
 The information contained in this s I have submitted this application with the submitted the submitted							
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.
- 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.

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	on	

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
□ <i>R-2000</i> ® *[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			
		Log/Post&Bea	m 🗆 ICF Above Gra	ade 🛛 ICF Basement		
Area of walls = $m^2 \text{ or} _{ft^2}$		Slab-on-ground URAL Walkout Basement				
	W, S & G % =	Air Conditioning Combo Unit				
		Air Source He	at Pump (ASHP)			
Area of W, S & G =m ² orft ²		Ground Sourc	e Heat Pump (GSHF	P)		
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)) # Sh		
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.

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).

ENERGY STAR or R-2000 Energy Evaluator/Advisor/Rater/ Name and company:

Performance Energy Modeling Professional Energy Evaluator/Advisor/Rater/CEM Name and company:

Evaluator/Advisor/Rater License #

Accreditation or 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						

Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016

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.

- <u>SB-12 Performance</u> 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.
- <u>ENERGY STAR</u> 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 <u>SB-12 Prescriptive</u> compliance package table applies. *Other Building Conditions:* These construction conditions affect <u>SB-12 Prescriptive</u> 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 <u>SB-12 Performance</u> 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 <u>SB-12 Performance</u> 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 P	rincipal Au	Ithority			
Application No: Mode				Certification Number			
A. Project Information							
Building number, street name Unit number Lot/Con							
Municipality	Pos	tal code	Reg. Pla	an number / other descript	ion		
B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]							
SB-12 Prescriptive (input design						_	
C. Project Design Conditions	5						
Climatic Zone (SB-1):		Equipment Effi	ciency	Space Heating F	uel 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 C			
Area of walls = $m^2 \text{ or} _{ft^2}$		& G % =		•	I □ Walkout Base	rade □ ICF Basement ement	
Area of W, S & G =m ² orft ²	$G = \m^2 \text{ or } ft^2$ Utilize window averaging: □Yes □No G = \m^2 \text{ or } ft^2 Utilize window averaging: □Yes □No G = Ground Sourced Heat Pump (ASHP) G = Ground Sourced Heat Pump (GSHP)				HP)		
D. Building Specifications [pro	ovide values	and ratings of the	energy eff	iciency components p	proposed]		
Energy Efficiency Substitutions							
□ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & ((6))						
Combined space heating and domes	tic water h	eating systems	(3.1.1.2.(7) / 3.1.1.3.(7))			
□ Airtightness substitution(s)	3.1.1.4.B F	Required.		Permitt	ed Substitution:		
Airtightness test required							
(Refer to Design Guide Attached) Table 3							
Building Component	Minimum	Required: RSI / R values		Building Compo	ed Substitution:	Efficiency Ratings	
		num U-Value ⁽¹⁾					
Thermal Insulation	Nomina	Effective		ws & Doors Prov		ating	
Ceiling with Attic Space				ws/Sliding Glass	Doors		
Ceiling without Attic Space			Skylights/Glazed Roofs				
Exposed Floor			Mecha		T		
Walls Above Grade				g Equip.(AFUE)			
Basement Walls				fficiency (SRE% at	0° C)		
Slab (all >600mm below grade)				leater (EF)			
Slab (edge only ≤600mm below grade)				(CSA B55.1 (min. 42		# Showers	
Slab (all ≤600mm below grade, or heated)			Combir	ed Heating System	m		

(1) U value to be provided in either W/(m²•K) or Btu/(h•ft²•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 <u>SB-12 Prescriptive</u> design tables (this form is for this option (Option 1)),
- 2. Use the <u>SB-12 Performance</u> 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.

• <u>SB-12 Prescriptive</u> 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 <u>SB-12 Prescriptive</u> compliance package table applies. *Other Building Conditions:* These construction conditions affect <u>SB-12 Prescriptive</u> compliance requirements.

D. Building Specifications

Thermal Insulation: Indicate the RSI or R-value being proposed where they apply to the house design. Under the <u>SB-12 Prescriptive</u> 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 <u>SB-12 Prescriptive</u> 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.

Township of North Huron

Schedule 3 Plot Plan & Zoning Information (Site Plan)

