DISTRICT OF PARRY SOUND

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OFFICE OF THE CHIEF BUILDING INSPECTOR

# CHECKLIST FOR ALL BUILDING APPLICATIONS

The following items are required to be submitted as a complete application. If all the appropriate information is not provided, the application will be returned as incomplete.

1. The completed Ontario Application Form and all applicable schedules.
2. Two (2) sets of all drawings and plans. All drawings must be legible and to scale.
3. Return this Checklist with the appropriate boxes checked next to the drawings etc. you have submitted.
4. For a Change of Use, plumbing or other permit not listed below, contact the Building Department.

New Building, Addition and Renovation:
Also include items from above: __1 __ 2 __ 3

It may be possible to combine certain drawings with others, as long as all the necessary design information is provided (e.g. Plumbing, mechanical and electrical services).

- o Site Plan
- o Building Elevations
- o Floor Plan
- o Framing Plan
- o Electrical Services Plan
- o Sections & Details Plan
- o Roof Plan
- o Plumbing Plan
- o Foundation Plan
- o Heating Ventilation Air-Conditioning Plan

## Deck Attached or Unattached to a Structure

Also include items from above: ___ 1 ___ 2 ___3

- o Site Plan: Detailed legible plan showing all existing and proposed buildings, their square footage, location to lot lines, septic system, water and shore road allowance or crown reserve.
- o Foundation, Piers, Floor & Section Plans: Drawings that show size and spacing of piers or foundation, beams, joists, decking and railing details.

## Sewage System

Approval is required from North Bay Mattawa Conservation Authority for waste disposal systems for a new house, cottage, sleeping cabin, addition or change of use prior to the issuance of a building permit. Proof of this approval by North Bay Mattawa Conservation Authority is required before a building permit is issued. Please contact North Bay Mattawa Conservation Authority at 1-705-474-5420 for more information.

Applications for septic systems are available in the Armour Township Office.

## REQUIRED PERMIT DRAWINGS

The following list of required drawings should be used as a guide when preparing drawings for submission for a building permit, for a project designed under Part Nine of the Ontario Building Code, which does not require professional design. Any project that requires design by an Architect and/or a Professional Engineer (Part Three buildings, such as assembly, institutional or large buildings over 600 square meters and multiple dwellings), will require more comprehensive drawings to illustrate compliance with the Ontario Building Code.

The Designer that prepares the permit drawings is responsible to ensure that they provide sufficient information to the Builder to ensure compliance with the requirements of the Ontario Building Code. As of January 1, 2006, all Designers will be required to show proof of meeting qualifications required by the Ministry of Housing.

1. **Site Plan**

    - ✓ The location of all existing buildings as well as the proposed, location and design of access routes must be illustrated.
    - ✓ The setbacks to lot lines must be clearly shown.
    - ✓ The existing and proposed drainage patterns should be illustrated (provide geodetic elevations if in a flood plain, or plan of subdivision)
    - ✓ The proposed means of storm water disposal (from foundation drains and rainwater leaders) must be illustrated.
    - ✓ The plan must be to scale and show all property boundaries, adjacent road and water bodies, easements and right-of-ways. The location of site services should be added to the site plan as well.
    - ✓ A copy of the deed is required if the site plan has not been prepared by an Ontario Land Surveyor. Should include the location and dimensions of all buildings and septic systems.

2. **Floor Plans**

    - ✓ All rooms must be labeled to illustrate their intended use.
    - ✓ The location of doors, windows, plumbing fixtures, and stairs must be clear.
    - ✓ Structural information for the roof or floor above may also be illustrated on the floor plan for simple projects, as well as mechanical and electrical information. The

plans must be to scale, with a separate plan for each storey, including basement. If the project is an addition, the layout of the existing floor plan is also required.

**3. Foundation Plans**

- ✓ The size and type of materials used for the foundation must be specified.
- ✓ The location of all footings, including column and pier footings must be illustrated.
- ✓ The location and type of any required drainage should be illustrated. The location of plumbing and electrical services can be added on this drawing.
- ✓ The soil conditions on the proposed building site must be indicated.

**4. Framing Plans**

For simple projects, the framing can be shown on the floor plans.

- ✓ The size and location of all structural members must be clear. The spans for beams should be indicated.
- ✓ The specifications for engineered lumber must be provided (e.g. truss drawings)
- ✓ All loads must be safely transferred to the foundations; sufficient information must be provided on the drawings to verify this.
- ✓ The type of framing materials must be specified (e.g. S.P.F. metal, etc.)

**5. Roof Plans**

- ✓ May be illustrated on the floor plans for simple projects. Roof slope and any roof mounted equipment must be shown.

**6. Sections and Details**

- ✓ Cross-sections will illustrate all the materials that make up the wall, floor and roof systems.
- ✓ Adequate information shall be included to be able to determine the location of insulation, air barrier, vapor barrier, structural members, sheeting, stairs, fireplaces, backfill height, bracing and required connections, for example.

**7. Building Elevations**

- ✓ Show proposed grade at each elevation of the building. Windows, doors, roof slopes, decks, chimneys, etc., should be clearly illustrated.

**8. Electrical Drawings**

- ✓ Show location of lights, smoke alarms, carbon monoxide detectors, switching and other electrical components required under the Ontario Building Code.
- ✓ <u>Note: Contact Hydro One for permits required under the Electrical Code.</u>

## 9. Heating, Ventilation and Air Conditioning Drawings

- ✓ Indicate the locations of supply and return air openings for heating and ventilation.
- ✓ Provide heat loss calculations and duct design information.
- ✓ Provide location and description of HVAC (Heating, Ventilation and Air Conditioning)units and ventilation design summary.
- ✓ Provide wood stove and fireplace locations and required clearance measurements.

## 10. Plumbing Drawings

- ✓ Show all plumbing fixtures, including rough-ed fixtures.
- ✓ Provide information on pipe sizing, material, appliances, devices and fixtures used.

# ADDENDUM TO BUILDING PERMIT APPLICATION

TOWNSHIP OF ARMOUR

The following additional pieces of information must be completed in order for the building permit to be issued:

Size of Lot: _____ (This information may be indicated on the on the drawing)

Zoning: _____ Official Plan Designation:_____

**WATERFRONT PROPERTY:**

FLOOD PLAIN ELEVATION MUST BE ESTABLISHED, VERIFIED, INDICATED ON THE PROPERTY AND ON THE SITE PLAN DRAWINGS.

SHORE ROAD ALLOWANCE OWNED YES____ NO____

Ministry of Transportation Permit Required: YES____ NO____

Entrance Permit Required: YES____ NO____

PERMIT FEE: _____ PERMIT #:_____

DATE ISSUED: _____ PERMIT ISSUED BY: _____

DECLARATION

I,_____ am the authorized owner/agent in the above application and I understand that the issuance of a permit shall not be deemed a waiver of any of the provisions of any by-laws or requirements of building code, act, regulations made thereunder, notwithstanding anything included in or omitted from the plans or other material filed in support of or in connection with the above application or building proposed in the above application is prohibited and such could result in the permit being revoked.

I further acknowledge that in the event the permit is revoked for any cause of irregularity or non-conformity with by-laws or requirements of the Building Code or regulations made thereunder, there shall be no right of claim whatsoever against the municipal corporation or any official thereof and any such claim is hereby expressly waived.

_____ , Ontario, 20____

_____

Signature of Owner or Authorized Agent

# BUILDING INSPECTION LIST

PERMIT NUMBER: _____

NAME OF OWNER: _____

NAME OF BUILDER: _____

I declare and confirm that the Intended Use of the construction authorized by this permit is as indicated on this application form. I understand that any Change of Use from what is contained in this application may not comply with the provisions of the applicable zoning by-law in effect for the subject property.

I declare that the Intended Use of the Building being constructed under the above mentioned Permit will be used for:

_____

I also declare that I have an obligation to contact the Chief Building Official at 705-382-3332 at least two (2) business days in advance of all of the following construction phases which require an inspection:

- Completion of Excavation
- Prior to Backfilling: drain tiles, crushed stone, damp proofing, footings, foundation wall
- Framing : sub floor, lintels bridging, studs, partitions, trusses , rafters, sill plates sealed to foWldation
- Insulation: vapour barrier, wall corners, doors, windows, electrical, attic ventilation
- Plumbing and Heating
- Exterior Finish
- Final Inspection

Sworn before me at the Township of Armour in the District of Parry Sound, this_____day of

_____, 20_____

_____ _____

Applicant C.B.C.O.

# 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. |
| 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, 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 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

## 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 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?

☐ 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 B is "Yes")

| Name | | | BCIN | |
|---|---|---|---|---|
| Street address | | | Unit number | Lot/con. |
| Municipality | Postal code | Province | E-mail | |
| Telephone number<br>( ) | Fax<br>( ) | | Cell number<br>( ) | |

## 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:
(print name)

☐ 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 or partnership.

_____ _____

Date Signature of applicant

# 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<br>□ Slab-on-ground □ Walkout Basement<br>□ Air Conditioning □ Combo Unit<br>□ Air Source Heat Pump (ASHP)<br>□ 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<br>□ Slab-on-ground □ Walkout Basement<br>□ Air Conditioning □ Combo Unit<br>□ Air Sourced Heat Pump (ASHP)<br>□ 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.

*Township of Armour*

# Letter of Authorization

**AUTHORIZATION FOR AN APPLICATION FOR A BUILDING PERMIT BY A PERSON OTHER THAN THE LEGAL OWNER**

I, _____, being the legal owner of property described as Lot _____, Concession _____, Parcel #_____, Plan _____, located in the Township of Armour.

In the District of Parry Sound, located at:

Civic Address: _____

Tax Assessment Roll #: _____

Authorize _____, to submit an application for a building permit at the above noted property.

_____ _____

Signature of Legal Owner(s) Date