Building DivisionResidential Model Certification Application Guide



Description

An application for a Certified Model must be completed for each model.

General Information

The Town of King Building Division considers a certified model as a unique building design for a detached dwelling, semi-detached unit, townhouse unit, or apartment unit that has been reviewed by the Chief Building Official for compliance with the Ontario Building Code and is intended for construction pursuant to a permit issued under the Building Code Act, 1992. A certified model is not itself a building permit. The Model Certification does not contemplate a review of Applicable Law such as compliance with Zoning By-Laws. Should revisions to the approved model be required as a result of the Zoning review during permit application, additional review times and fees may be applicable.

Required Drawings

Floor Plans - Architectural & Structural

Floor plans fully dimensioned for each level showing architectural and structural details including foundation; slab, footings, exterior walls, joists, rafters, lintels and beams. Plans to show the use of all spaces including the location and type of all plumbing fixtures and floor drains. Floor plans shall include all variations of the plan including those to address grade changes such as walk-out basements.

Elevations

Elevations illustrating all window and door openings as well as denoting exterior cladding/siding type. Indicate roof pitch and dimension overall building height measured from established average grade. Elevations shall include all variations of the plan including those to address grade changes such as walkout basements.

Sections & Details

Cross section(s) to show building construction specifications of all floor, wall and roof assemblies. Show overall building height calculated to the midpoint of the roof or as per zoning by-law standards. Detail stairs, landings, headroom, guards, handrails heights and connection specifications if required.

Block Plans and Elevations

For multi-family dwellings such as townhouses and semi – detached units, Block Plans and Block Elevations will be required with model type and lot numbers indicated.

Engineered Floor Joists

If the proposed dwelling considers the use of Engineered Floor joist, the Floor layout from the manufacturer will be required as well as the individual member profiles sealed by the Engineer.

Engineered Roof Trusses

If the proposed dwelling considers the use of Engineered Floor joist, the Floor layout from the manufacturer will be required as well as the individual member profiles sealed by the Engineer. For multifamily dwellings such as townhouses and semi-detached units, the unit drawings must be coordinated with the Block Trusses. Block Truss layouts must be submitted.

HVAC and mechanical

Proposed HVAC layouts and design Calculations are to be submitted for each model type and variation, including those where grade changes may affect the building envelope.

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Additional Documents

A list of the proposed units and configurations with the corresponding lot numbers shall be provided. A site plan of the overall community shall be provided

Note: Drawings prepared by a qualified Designer as defined by the Ontario Building Code, must include designer's name, Building Code Identification Number (BCIN), signature, and statement that the designer has reviewed and takes responsibility for the design and meets the qualifications set out in the Ontario Building Code as a Designer or other/independent Designer.

Note: If Architectural Control is applicable, required AC stamps must be included on the above noted documents.

Required Forms

- Application for a Certified Model
- Schedule 1 Designer Information
- EEDS

Exemptions - Schedule 1

If drawings are prepared, stamped and signed by a qualified Engineer or Architect, they are exempt from submitting a Schedule 1. Property owners may prepare and submit drawings for a residential accessory structure however must fill-in the form to specify the reason for exemption.

Required Fees - Residential

Fees associated to Model Certification are noted in the Building Fees By-Law available on the Township's website.

Permit Fee	\$ per By-Law
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Should you have any questions or require clarification please contact the Building Division, King Township, 2585 King Road, King City, L7B 1A1 (905) 833-5321

Building Division Application for a Certified Model



Note: This application for a Certified Model is a form prescribed by the Chief Building Office and must be completed for each model. The Town of King Building Division considers a certified model as a unique building design for a detached dwelling, semi-detached unit, townhouse unit, or apartment unit that has been reviewed by the Chief Building Official for compliance with the Ontario Building Code and is intended for construction pursuant to a permit issued under the *Building Code Act, 1992*. A certified model is not itself a building permit.

Project Information				
Name of Subdivision	Register Plan Number or I	Draft Plan Number		
Builder	Tarion Number			
Project Street Address	Unit Number	Lot / Con.		
Municipality	Postal Code	Province		
Applicant is: Owner or	Authorized agent of owner	(Letter of authorization required)		
Last Name	First Name	Corporation		
Street Address	Unit Number	Lot / Con.		
Municipality	Postal Code	Province		
Phone	Email			
Owner (if different from applicant)				
Last Name	First Name	Corporation		
Street Address	Unit Number	Lot / Con.		
Municipality	Postal Code	Province		
Phone	Email			
Project and Model Information				
Model Type:		Lot Upgrades:		
Apartment Townhouse Semi-Detach	ned Detached	Front Rear Side		
Model Name:	Model Elevation: A / 1 B / 2	C /3 D/4		
GFA (incl garage):	Finished Basement: Yes, area:	Project Value:		
Mechanical Ventilation:	Fireplace:			
Type 1 Type 2 Type 3 Type 4	Gas Elect	Woodburning		
Grading:	•	<u> </u>		
Walkout Deck Walk-out Basement	Walk-up Basement			
Fees: Per By-Law				

All personal information in this form is collected pursuant to the *Municipal Freedom of Information and Protection of Privacy Act* and the *Building Code Act, 1992*, S.O. 1992, c. 23 and will ne used for the purpose of the administration and enforcement of the *Building Code Act, 1992*. Questions regarding this collection may be directed to the Chief Building Office, Township of King, 5858 King Road, King City, On L7B 1A1, Telephone 905-833-4102

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 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 C1** HVAC - House **Building Structural** House Small Buildings **Building Services** Plumbing - House Large Buildings Detection, Lighting and Power Plumbing - All Buildings Complex Buildings On-site Sewage Systems Fire Protection Description of designer's work **Declaration of Designer** 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.

NOTE:

Date

- 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.

Signature of Designer



Energy Efficiency Design Summary (Part 9 Residential)

This form is used to summari	ze the ene	ergy efficie	ency design of	the project. Information	on completing this is	on the reverse	
				incipal Authority			
Application No:			Model/Certification Number				
A. Project Information							
Building number, street name					Unit number	Lot/Con	
Municipality		Postal	code	Reg. Plan number / other des	cription		
B. Compliance Option							
☐ <i>SB-12 Prescriptive</i> [SB-12 - 2.1.1.]			Table:	Table: Package: A B C D E F G H I J K L M (circle one)			
☐ SB-12 Performance* [SB-12 - 2.1.2.]		.]	* Attach energy performance calculations using an approved software				
☐ Energy Star®* [SB-12 - 2.1.3.]			* Attach Builder Option Package form				
☐ EnerGuide 80®*			* House mu	ıst be evaluated by NF	RCan advisor and i	meet a rating of 80	
C. Project Design Condi	itions		ı				
Climatic Zone (SB-1):			ent Efficiency	Space Heating Fuel	Source		
□ Zone 1 (< 5000 degree days)	□ ≥ 90%	_		□ Gas	□ Propane	□ Solid Fuel	
☐ Zone 2 (≥ 5000 degree days)		s < 90% A	FUE	□ Oil	□ Electric	□ Earth Energy	
Windows+Skylights &Glass Do	ors			Other Building Cond			
Gross Wall Area = m ² Gross Window+ Area = m ² Window		Vindows+	·	□ ICF Basement□ ICF Above Grade	 □ Walkout Basem □ Slab-on-ground 	ent □ Log/Post&Beam	
D. Building Specification	ns [provid	e values ar	nd ratings of the	•		Energy Star BOP form]	
				• • • • •		• • • • • • • • • • • • • • • • • • • •	
Building Component		RSI/	R values	Building Cor	nponent	Efficiency Ratings	
Thermal Insulation		RSI/	R values	Building Cor Windows & Doors ¹	mponent	Efficiency Ratings	
Thermal Insulation Ceiling with Attic Space		RSI / I	R values		-	Efficiency Ratings	
Thermal Insulation		RSI/	R values	Windows & Doors¹ Windows/Sliding Glass Skylights	-	Efficiency Ratings	
Thermal Insulation Ceiling with Attic Space		RSI/	R values	Windows & Doors ¹ Windows/Sliding Glas	-	Efficiency Ratings	
Thermal Insulation Ceiling with Attic Space Ceiling without Attic Space		RSI/	R values	Windows & Doors¹ Windows/Sliding Glass Skylights	ss Doors	Efficiency Ratings	
Thermal Insulation Ceiling with Attic Space Ceiling without Attic Space Exposed Floor		RSI/I	R values	Windows & Doors¹ Windows/Sliding Glas Skylights Mechanicals	ss Doors	Efficiency Ratings	
Thermal Insulation Ceiling with Attic Space Ceiling without Attic Space Exposed Floor Walls Above Grade		RSI/I	R values	Windows & Doors¹ Windows/Sliding Glass Skylights Mechanicals Space Heating Equip	ss Doors	Efficiency Ratings	
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Guide to the Energy Efficiency Design Summary Form

The Energy Efficiency Design Summary form summarizes the compliance path used by a house designer to comply with energy efficiency requirements of the Ontario Building Code. This form must accompany the building permit application. The information on this form MUST reflect the drawings and specifications being submitted, or the building permit may be refused. 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 at www.mah.gov.on.ca, or the municipal building department.

Beginning January 1, 2012, a house designer must use one of four energy efficiency compliance options in the building code:

- 1. Comply with the SB-12 Prescriptive design tables,
- 2. Use the <u>SB-12 Performance</u> compliance method, and model the design against the prescriptive standards,
- 3. Design to Energy Star standards, or
- 4. Evaluate the design according to EnerGuide technical procedures and achieve a rating of 80 or more.

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 2.1.1. of SB-12. Energy efficiency design modeling and testing of the building is not required under this option.
- <u>SB-12 Performance</u> refers to the alternative method of compliance set out in Subsection 2.1.2. of SB-12.
 Using this approach the designer must use recognized energy simulation software (such as HOT2000 V9.34c1.2 or newer), and submit documents which show that the annual energy use of the building is equal to a prescriptive package.
- <u>Energy Star</u> houses must be designed to *Energy Star* requirements and be labelled on completion by Enerquality or other agency. The *Energy Star* BOP form must be submitted with the permit documents.
- <u>EnerGuide80</u> houses are validated by NRCan authorized energy advisors and must achieve a rating of 80 or more when evaluated in accordance with EnerGuide administrative and technical procedures.

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 and 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 <u>SB-12 Prescriptive</u> option may not be used. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 2.1.1.1. 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, RSI 3.52 wall insulation is permitted in certain conditions where other design elements meet higher standards. Refer to SB-12 for further details.

E. Performance Design Summary

This section is not required to be completed if the SB-12 Prescriptive option is being used.

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 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</u> <u>Performance</u> option is used and an air tightness of less than 2.5 ACH @ 50 Pa in the case of detached houses, or 3.0 ACH @ 50 Pa in the case of attached houses is necessary to meet the required energy efficiency standard. A blower door test must also be conducted if the <u>EnerGuide 80</u> option is used.

ENERGY EFFICIENCY LABELING FOR NEW HOUSES

Energy Star and EnerGuide issue labels for new homes constructed under their energy efficiency programs. The building code does not regulate new home labelling.