




Standard Residential Deck Plan Information

BUILDING PERMIT GUIDELINES

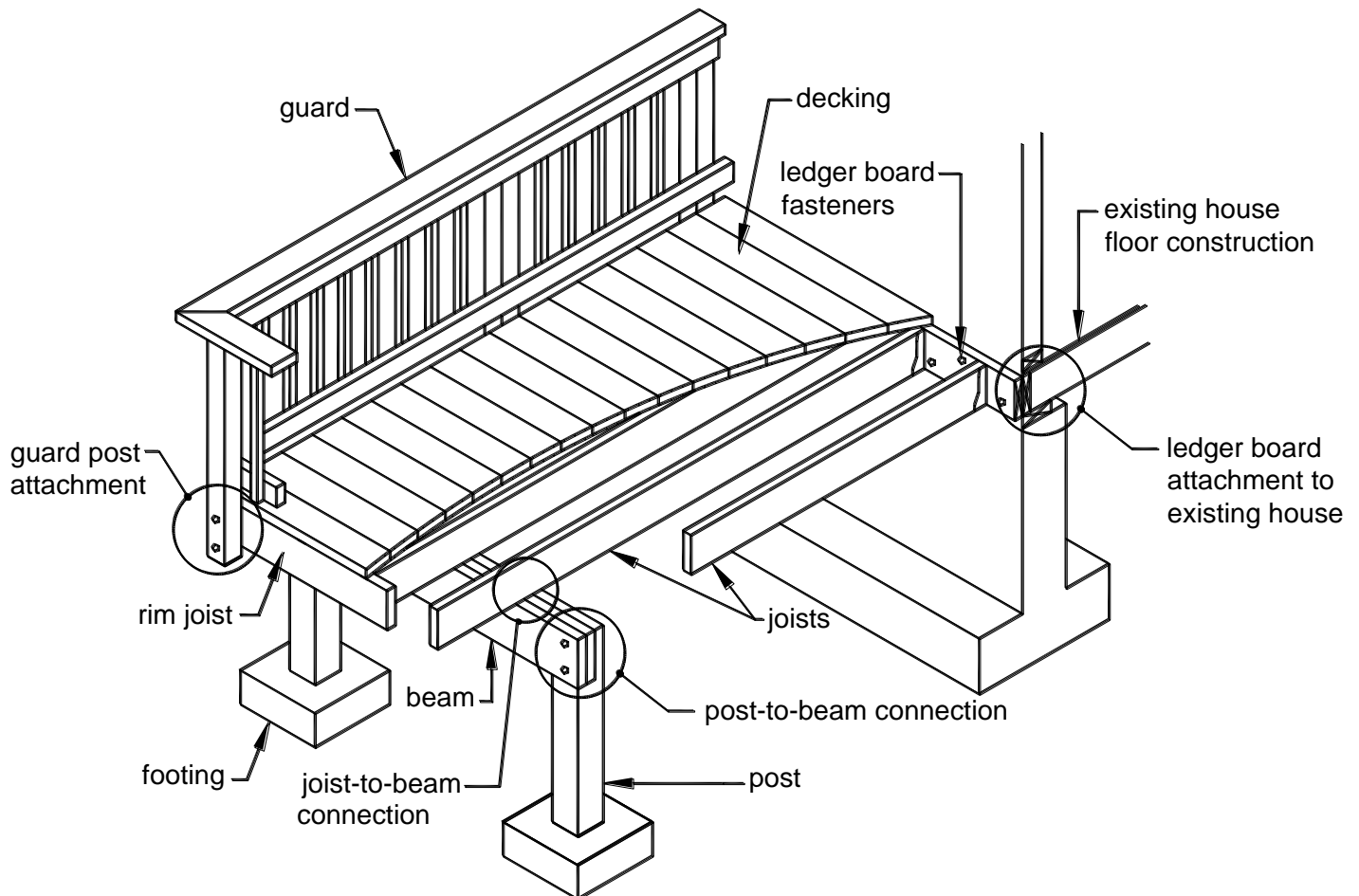
Description		Required	Status	Comments
Applicable Law	County of Simcoe			If applicable
	Ministry of Transportation (MTO)			If applicable
Forms	Building Permit Application	✓		
	Schedule 1: Designer Information	House	✓	Note: House category required for qualified designer or if plans completed by homeowner, must sign the exemption
Plans	Site Plan	✓		Including septic location
	Deck Framing Plan	✓		
	Exterior Elevations	✓		
	Cross Section – including guards	✓		
	Letter of Agent			When application is not signed by the owner
	Permit Fee	✓		As per Fee By-law calculated at permit review
 <p>Electronic submission of application, and all plans and reports in PDF format.</p>				

Decks and Septic Systems

1. Decks may not be constructed on septic leaching beds
2. If a deck is constructed over a septic tank, there shall be sufficient room for ventilation and access to service the tank.
3. Setbacks from deck pier to septic tank is to be 1.5m as per OBC.
If closer, the deck pier may be 1m away from tank provided the depth is the same as tank.
4. Setbacks from deck pier to a leaching bed is to be 2.5m to edge of bed.



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Notes:

Piers required to extend 48" below ground if attached to dwelling

Deck blocks are permitted for decks less than 23 5/8" above grade and not attached to dwelling

The information contained in this document is for reference only. It is intended to assist homeowners with their deck project and to ensure compliance with the requirements of Ontario Building Code. The drawings and details specified are typical construction details and other methods may be permitted upon authorization from Building Services.

All construction shall be inspected including footings prior to placing concrete, framing and a final inspection prior to use. Confirmation for the satisfactory compliance with the OBC will be at the discretion of the Building Official. For more complicated designs, the assistance of a professional designer should be obtained to ensure compliance with the Ontario Building Code and other regulations. It is beyond the scope of this document to detail every possible condition.

Any deviation from the tables will require the plans to be sealed by a Professional Engineer or accompany a designer sheet signed for the category of building structural.

All construction shall conform to the applicable Ontario Building Code as amended.



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Structural Requirements – Joists, Beams & Piers

Ontario Building Code span tables A1 & A-8 from Division B Part 9 are provided for floor joists and beams within a building. These tables do not account for snow load or drift load. The Township of Tay uses Midland from SB1 for Climatic data, factored Part 9 snow load of 2.0kPa. If the live load will exceed 2.0kPa including hot tubs or drift loading it must be designed by a professional person.

Any deviation from the tables will require the plans to be sealed by a Professional Engineer or accompany a designer sheet signed for the category of building structural.

Joist Spans

Size	Spacing	Span
2 x 8	12" o/c	12'-0"
	16" o/c	11'-0"
	24" o/c	10'-0"
2 x 10	12" o/c	14'-0"
	16" o/c	13'-0"
	24" o/c	12'-0"
2 x 12	12" o/c	14'-0"
	16" o/c	14'-0"

Note: All lumber SPF or better - Solid blocking required if span exceeds 6'-11"

Beam Spans

Joist span	Pier spacing				
	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"
6'-0"	2 ply 2x8	2 ply 2x8	3 ply 2x8	3 ply 2x10	3 ply 2x12 4 ply 2x10
8'-0"	2 ply 2x8	2 ply 2x8	3 ply 2x8	3 ply 2x10	3 ply 2x12 4 ply 2x10
10'-0"	2 ply 2x8	3 ply 2x8	3 ply 2x8	3 ply 2x10	3 ply 2x12 4ply 2x10
12'-0"	3 ply 2x8	3 ply 2x8	3 ply 2x10 4 ply 2x8	3 ply 2x10	3 ply 2x12 4ply 2x10
14'-0"	3 ply 2x8	3 ply 2x10	3 ply 2x10 4 ply 2x8	3 ply 2x12 4ply 2x10	3 ply 2x12 4ply 2x10

Pier sizes – based on joist span

Joist Span	Pier Spacing				
	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"
4'-0"					
6'-0"	8"	8"	10"	10"	*
8'-0"	8"	10"	10"	12"	*
10'-0"	8"	10"	10"	12"	*
12'-0"	8"	10"	10"	12"	*
14'-0"	8"	10"	12"	12"	*

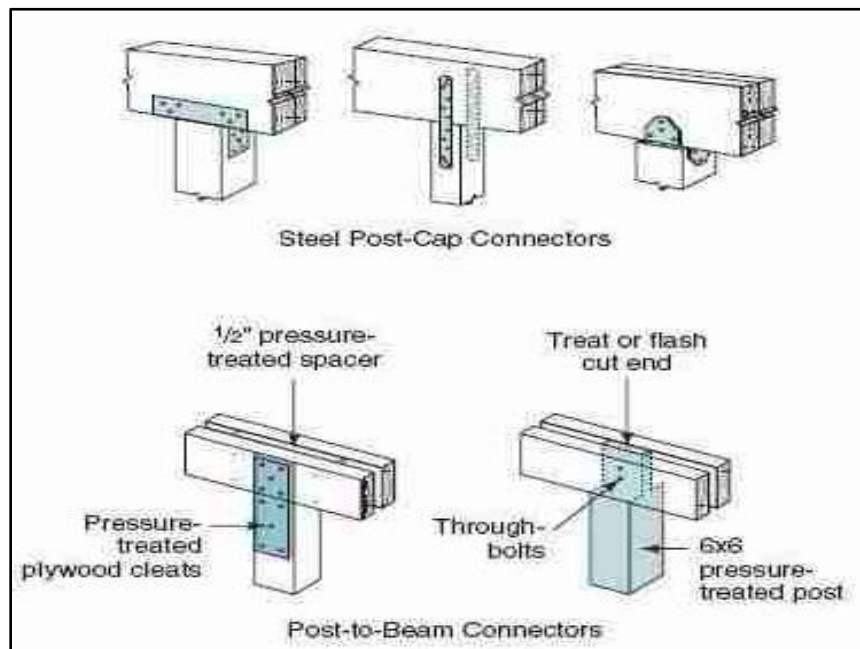
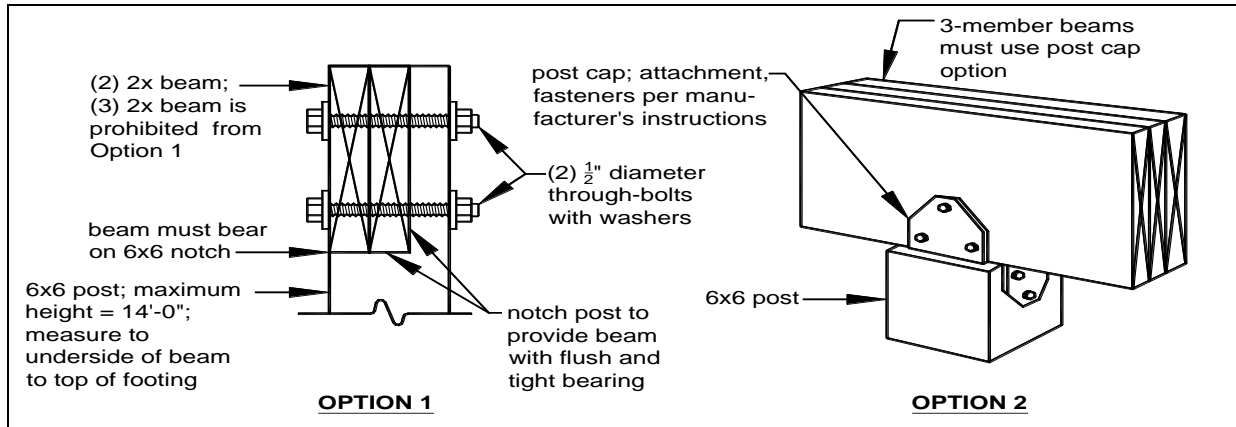
Note: The maximum spacing of a pier shall be 12' without a footing

* Minimum 28" x 28" footing is required for pier spacing that exceed 12'



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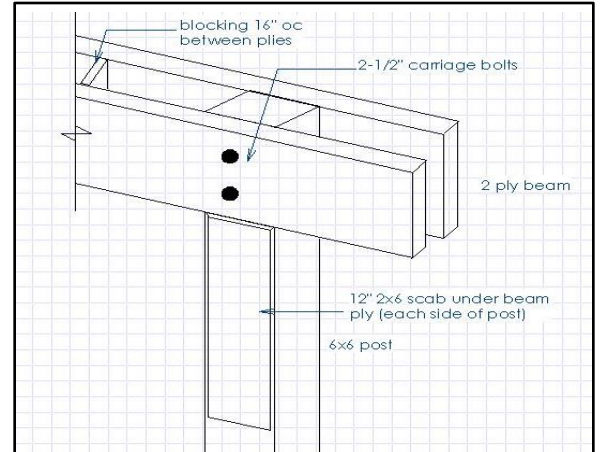
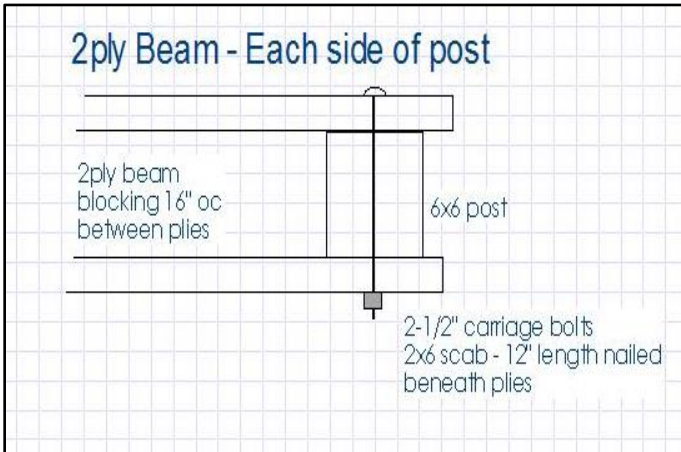
Post to Beam Connection



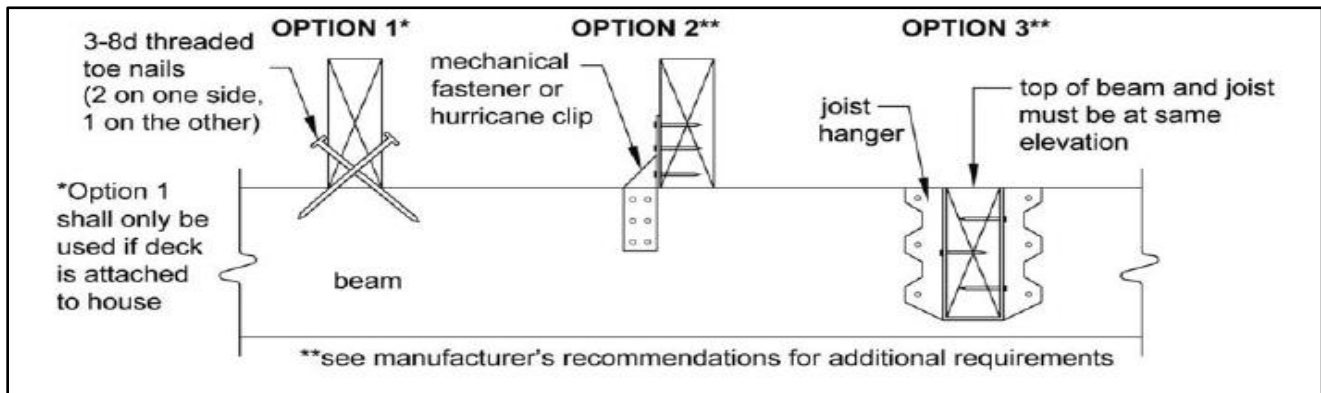


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2 Ply Beam to Post Connection



Connection of Floor Joist to Beam





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Structural Requirements – Ledger Board Attachment

Decks are usually supported on one side by a ledger attached to the house. This ledger attachment is critical to ensure the deck is safely and securely supported. When the ledger is attached to the house, there are very specific requirements that must be met. Follow the diagrams closely for the proper attachment of the ledger.

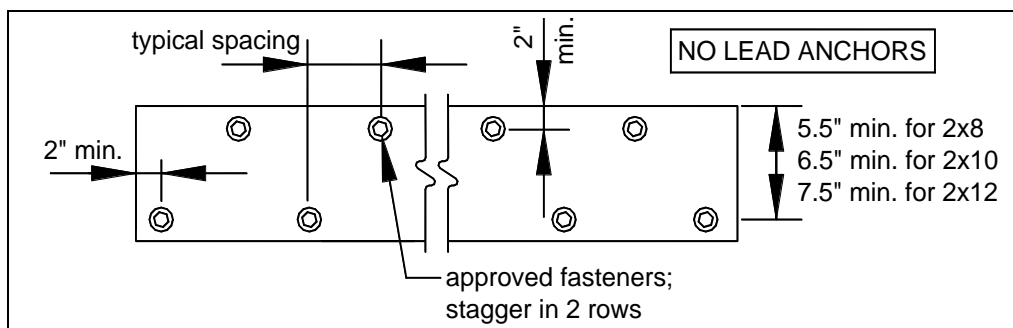
- The deck ledger shall NOT be nailed to the house - it must be lagged, or bolted to the structure of the house.
- The size and spacing of the lag screws is based on their capacity. Lag screw values are assumed to be 325 pounds for 1/2-inch lag screws and 190 pounds for 3/8-inch lag screws. The span of the floor joists determines how much load is being transferred to the ledger and thus to the lag screws.

DECK LEDGER TO HOUSE ATTACHMENT – LAG BOLT SPACING

Lag Bolt Size	Joist Span		
	6'-0"	10'-0"	14'-0"
1/2"	32" o/c	16" o/c	12" o/c
Equivalent 16" o/c Joist Spacing	Every Other Joist Space	Every Joist Space	Each Joist Space with Two Every Other Space
3/8"	24" o/c	12" o/c	8" o/c
Equivalent 16" o/c Joist Spacing	Two Every Third Joist Space	Each Joist Space with Two Every Other Space	Two Each Joist Space

- Deck ledgers shall be minimum 2x8 pressure-preservative-treated No. 2 grade lumber or other approved materials as determined by good engineering practices.
- When deck ledgers are attached to engineered wood products (structural composite lumber rimboard or laminated veneer lumber), the ledger board attachment shall be designed in accordance with the manufacturer's recommendations or good engineering practices.

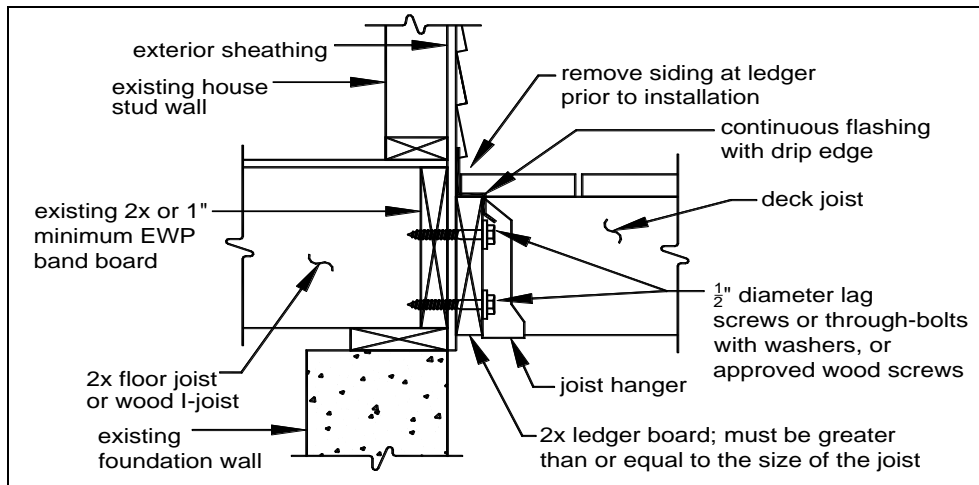
LEDGER BOARD FASTENER SPACING



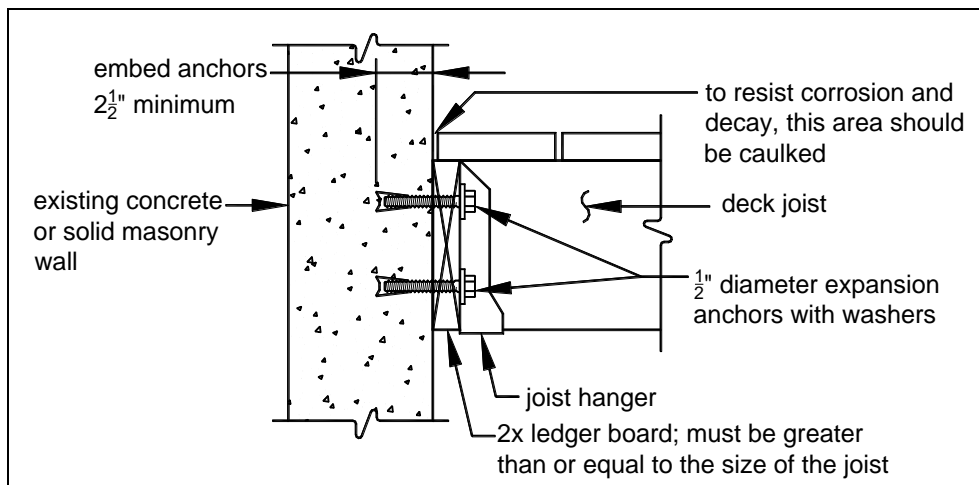


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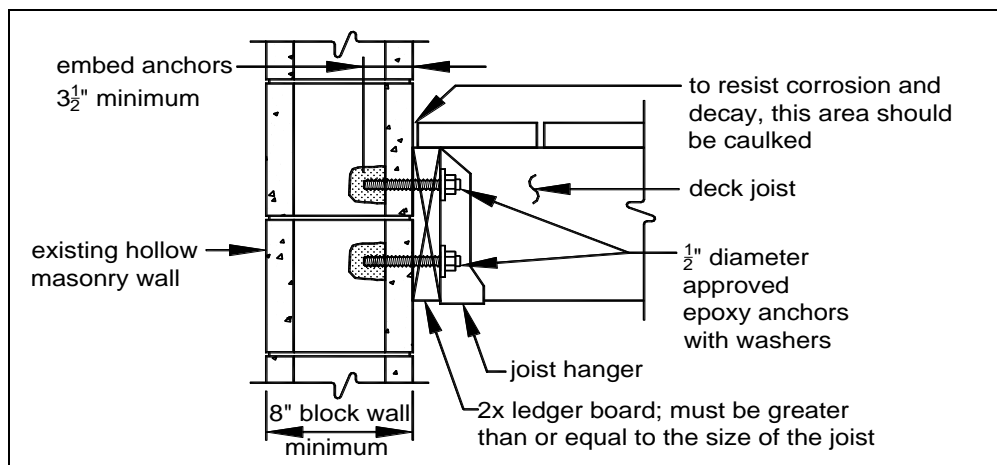
LEDGER BOARD CONNECTION TO RIM BOARD



LEDGER BOARD CONNECTION TO POURED FOUNDATION WALL



LEDGER BOARD CONNECTION TO BLOCK WALL



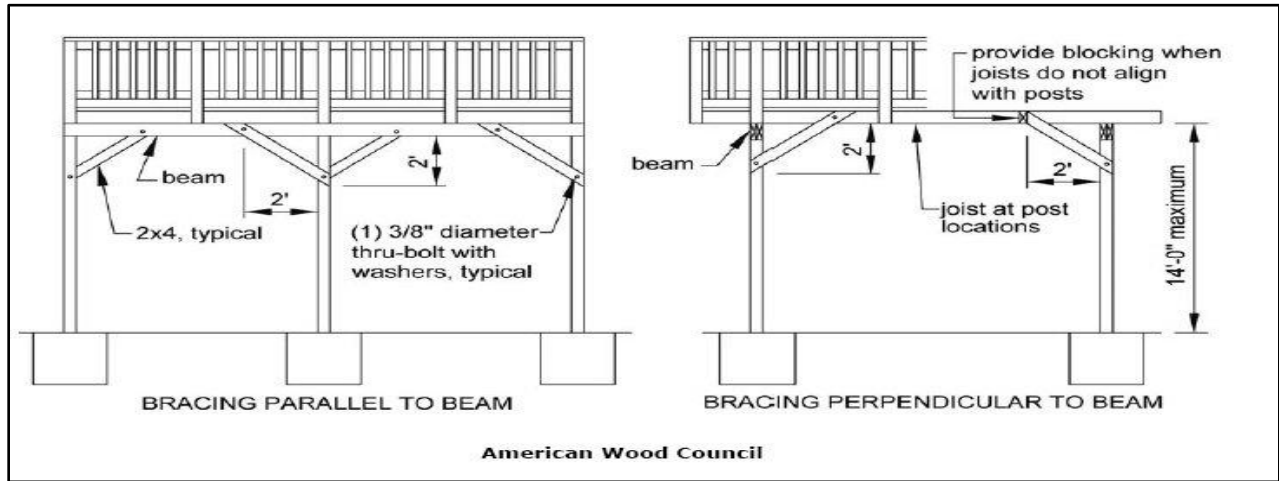
Note: Ensure anchors into solid masonry of block or through bolt with a carriage bolt
Top course of hollow block is typically core filled. Ensure anchors are into solid masonry or web of hollow block. Alternatively, install a carriage bolt through ledger board and block



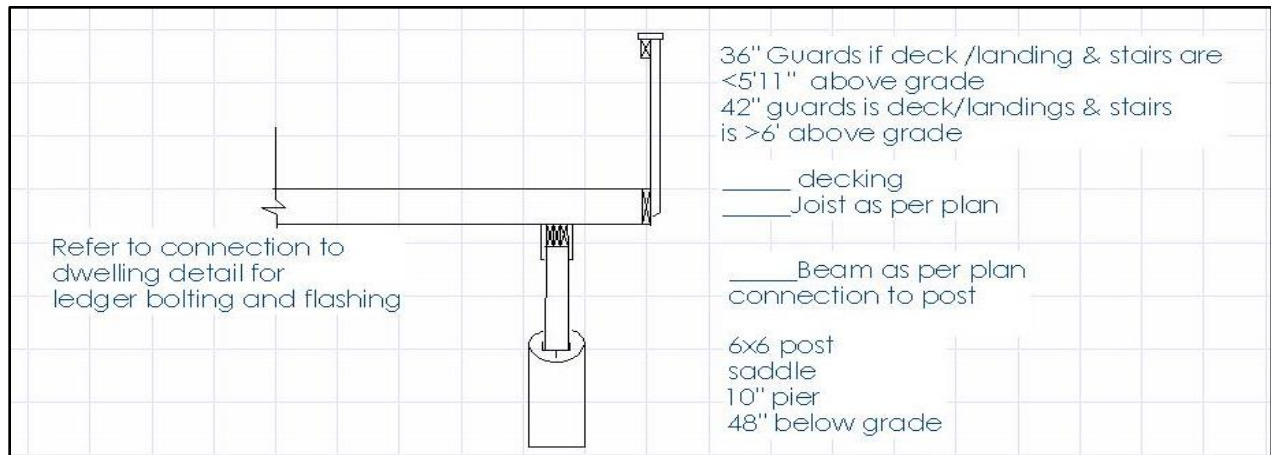
Standard Residential Deck Plan Information

SAMPLE DECK ELEVATION PLAN & DECK LATERAL SUPPORT

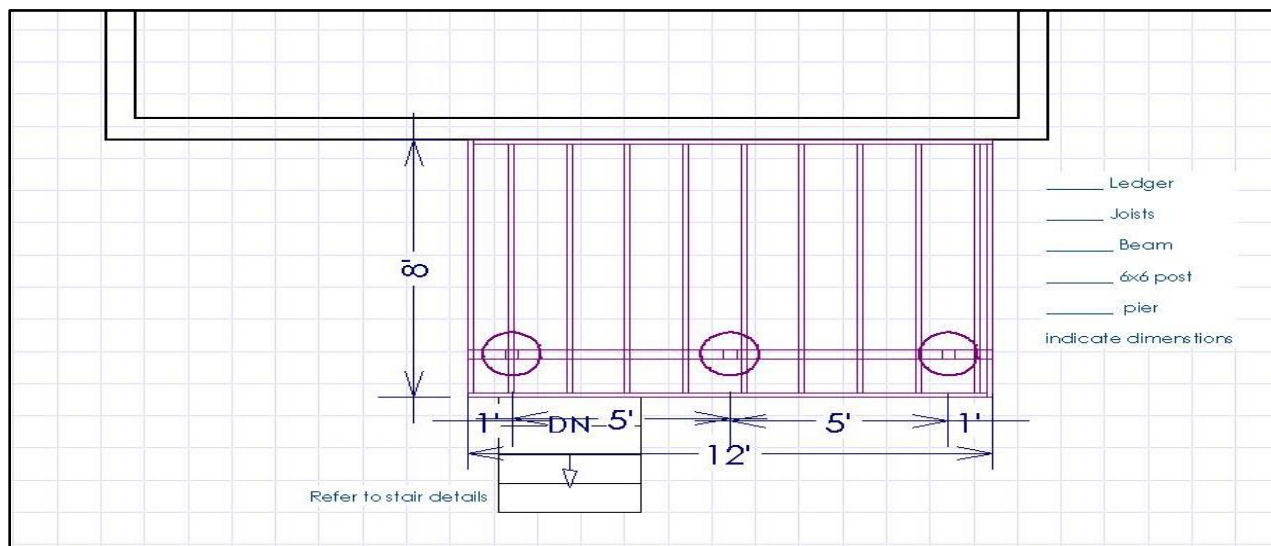
When heights exceeds 6'



SAMPLE DECK SECTION



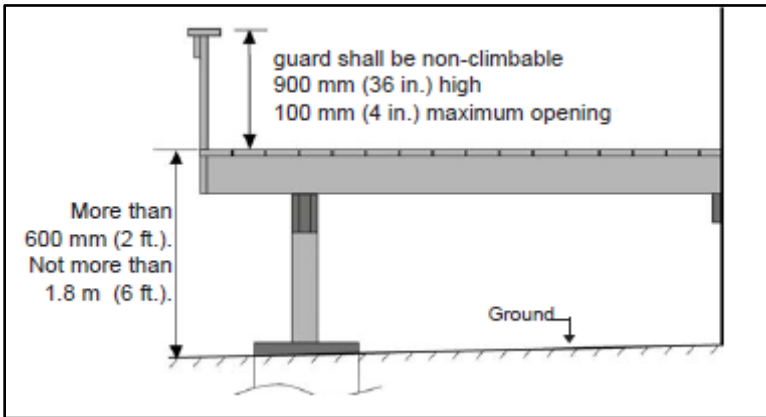
SAMPLE PLAN VIEW





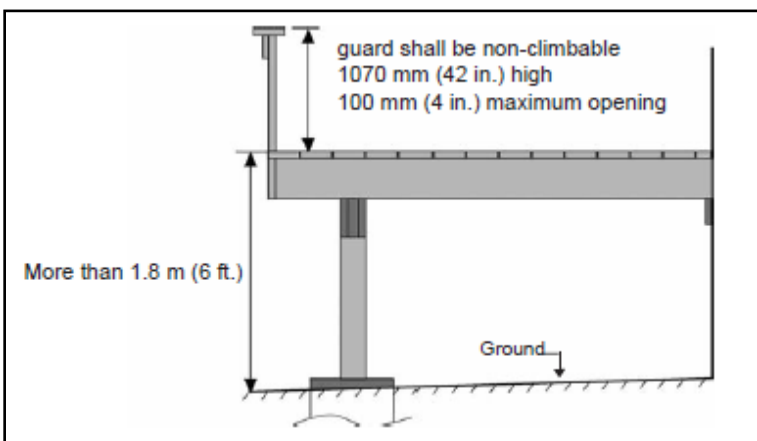
Standard Residential Deck Plan Information

Required Guards



The OBC requires that a guards be installed on walking surfaces on each side that is not protected by a wall where [OBC Division B 9.8.8.1(1)]:

- there is a difference in elevation of **more than 23 5/8"** between the walking surface and the adjacent surface, or
- the adjacent surface within 3'-11" from the walking surface has a slope of more than 1/12.



The OBC requires that an exterior guard shall be [OBC Division B 9.8.8.3]:

- not less than 36" high where the walking surface served by the guard **is not more than 5'-11" above finished ground level**
- not less than 36" high for guards installed on flights of steps, where the height of a guard on a flight of steps is measured vertically from a line drawn through the leading edge of the treads served by the guard, and
- **not less than 3'-6" in all other situations**

The OBC also requires that guards be constructed so that [OBC Division B 9.8.8.5 & 9.8.8.6]:

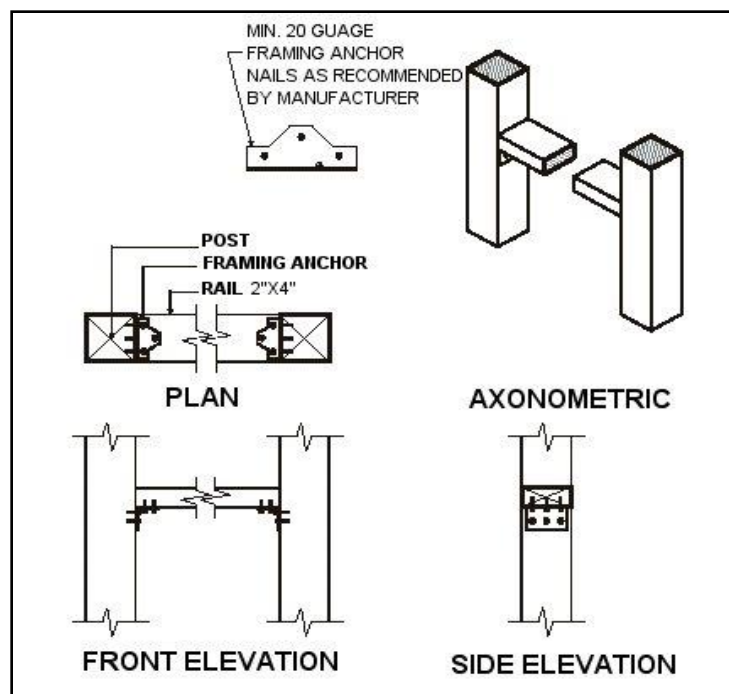
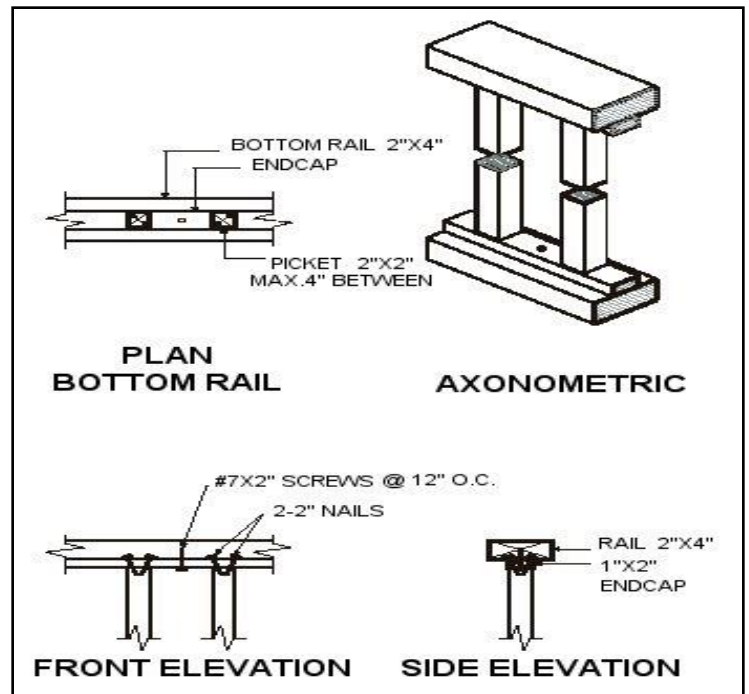
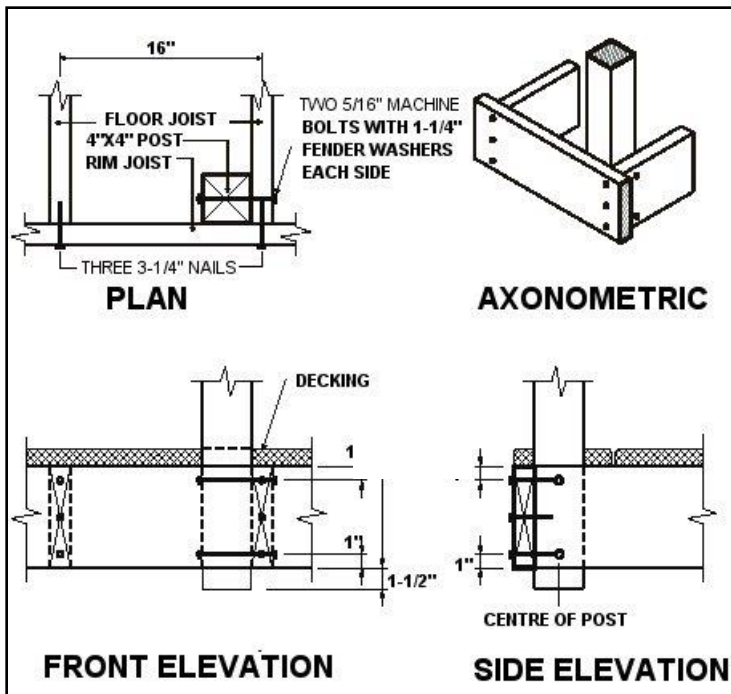
- openings through any required guard shall be of a size that will prevent the passage of a spherical object having a diameter of more than 4", and
- no member, attachment or opening will facilitate climbing



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Guards

Option "A": Post and Rail System





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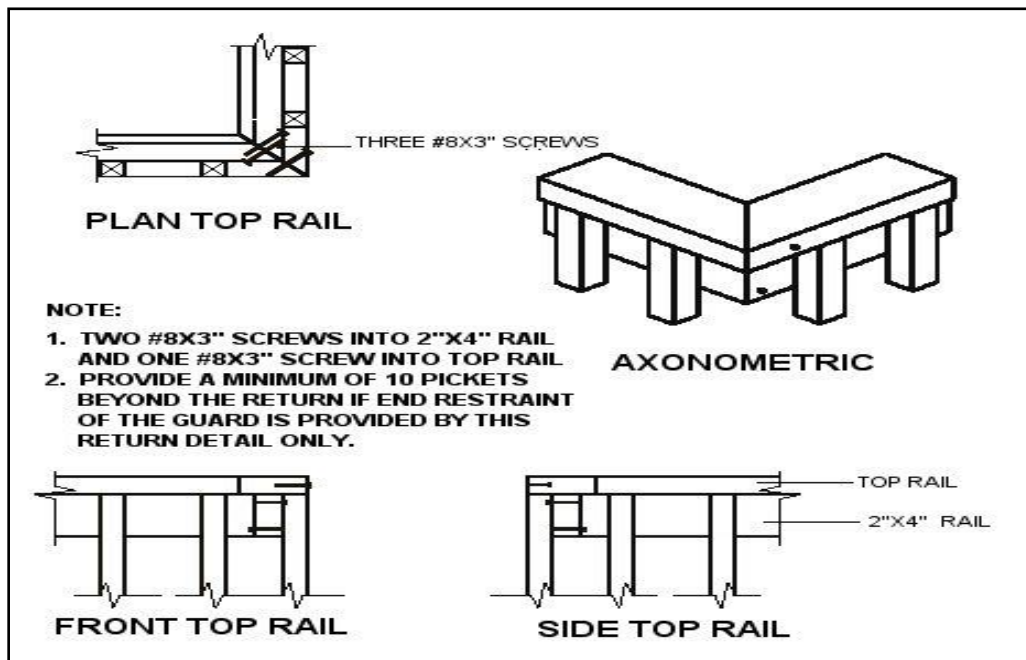
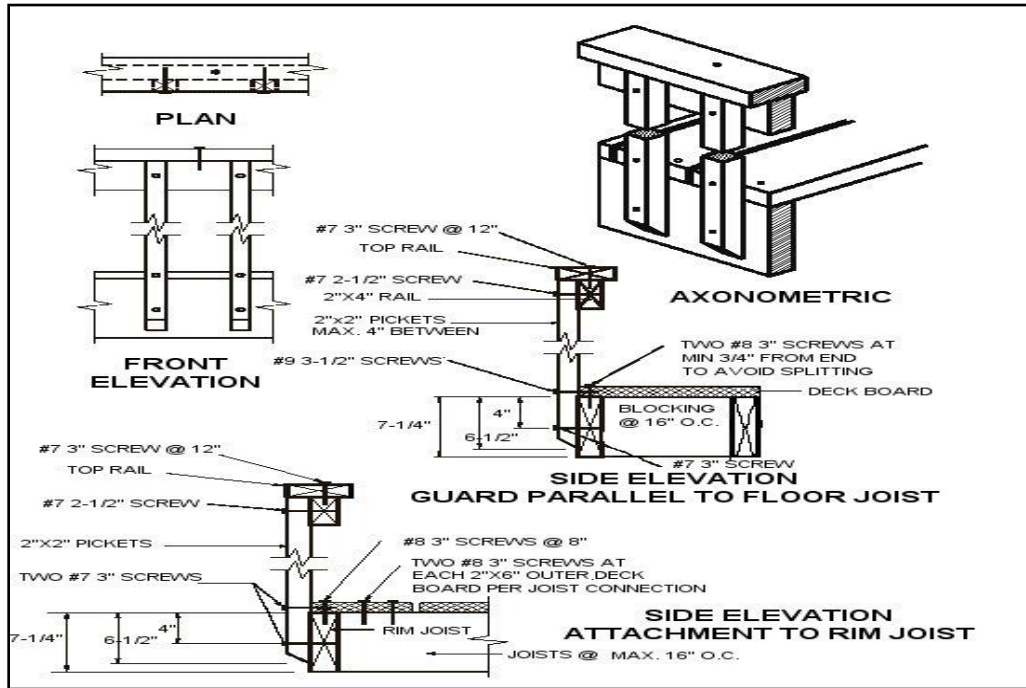
CONSTRUCTION NOTES

1. Decking is omitted from the Post Detail plan view and the axonometric view for clarity.
2. Joists spaced at maximum 16" on center.
3. Maximum spacing between posts:
 - a. 4'-11" for cedar
 - b. 6'-0" for pressure treated
4. All fasteners shall be resistant to corrosion.
5. All lumber shall be decay resistant and all cut ends of preservative treated lumber shall be treated to prevent decay.
6. Minimum height of guard for a deck between 24" and 5'-11" above grade shall be 36".
7. Minimum height of guard for a deck more than 5'-11" above grade shall be 42".
8. Maximum 4" opening between pickets and no member or attachment between 4" and 36" shall facilitate climbing.



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Guards Option "B": Cantilevered Picket System



Note: Posts required at opening and change of direction if less than 10 pickets



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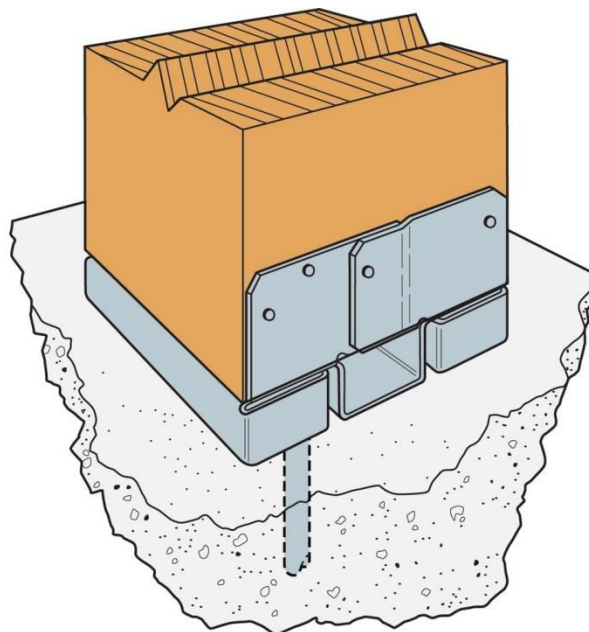
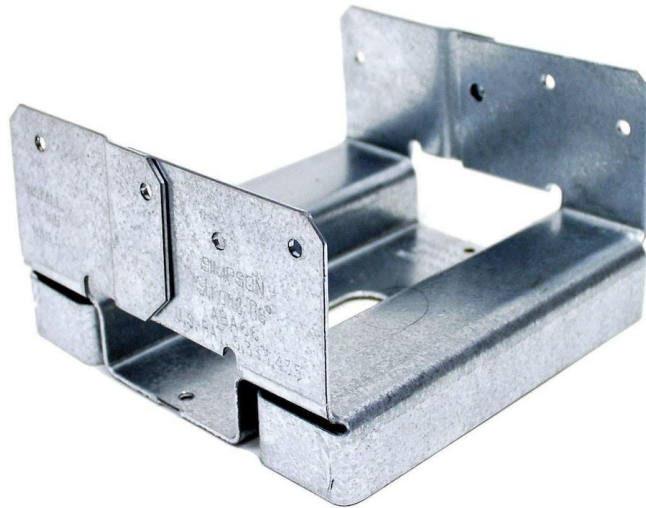
CONSTRUCTION NOTES:

1. All fasteners shall be resistant to corrosion.
2. All lumber shall be decay resistant. All cut ends of preservative treated lumber shall be treated to prevent decay.
3. Minimum height of guard for a deck between 24" and 5'-11" above grade: **36"**.
4. Minimum height of guard for a deck more than 5'-11" above grade: **42"**.
5. Maximum 4" opening between pickets and no member or attachment between 5'-1/2" and 36" shall facilitate climbing.
6. Composite decking is required to have BMEC or CCMC approvals
7. Pre-engineered guard systems (what you would purchase from lumber store) are required to have Ontario Engineering.
8. Any guard assembly that is site manufactured, such as wood/glass guards is required to be engineered.
9. A privacy wall / fence boards is permitted if constructed as a guard and should be discussed with Building Inspector prior to proceeding.
10. All work whether detailed on plans or not is subject to the filed approval of the Building Inspector and shall meet Ontario Building Code.
11. Footings/piers shall bear on undisturbed soil minimum 48" below grade
12. Deck blocks shall bear on stone base or native soils (top soil and organics removed)
13. Deck posts shall be centrally located on footings/piers
14. All framing connections shall be **nailed** in accordance with OBC 9.23.3.4. Only deck boards can be secured with either **nails or screws**. Guards must be fastened in accordance with SB-7.
 - a. Nailing, screws, lag bolts, and machine bolts shall not cause splitting of wood elements.
 - b. Fasteners shall be resistant to corrosion
 - c. All nails shall be common spiral.



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Preferred Deck Post Bracket



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 <i>Ontario New Home Warranties Plan Act</i> ? If no, go to section G.			Yes	No
ii. Is registration required under the <i>Ontario New Home Warranties Plan Act</i> ?			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). 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.			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 <i>Building Code Act, 1992</i> .			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 <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.			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			
<p>I _____ declare that (choose one as appropriate):</p> <p style="text-align: center;">(print name)</p> <p>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.</p> <p style="padding-left: 40px;">Individual BCIN: _____</p> <p style="padding-left: 40px;">Firm BCIN: _____</p> <p>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.</p> <p style="padding-left: 40px;">Individual BCIN: _____</p> <p style="padding-left: 40px;">Basis for exemption from registration: _____</p> <p>The design work is exempt from the registration and qualification requirements of the Building Code.</p> <p style="padding-left: 40px;">Basis for exemption from registration and qualification: _____</p> <p>I certify that:</p> <ol style="list-style-type: none"> 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. <p style="margin-top: 20px;"> _____ Date _____ Signature of Designer </p>			

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.

TOWNSHIP OF TAY

Building Services Division

450 Park Street, P.O. Box 100, Victoria Harbour, ON L0K 2A0
Phone (705) 534-7248 Fax (705) 534-4493



AUTHORIZATION FOR AN APPLICATION

FOR A BUILDING PERMIT

BY A PERSON OTHER THAN THE LEGAL OWNER

I _____, being the legal owner of the
subject property located at _____
in the Township of Tay, hereby authorize _____
to apply for a building permit for work to be done on this property.

Date

Signature of Legal Owner

Personal information contained on this form/document/application is collected pursuant to the *Municipal Freedom of Information and Protection of Privacy* legislation and will be used for the purpose for which it was collected. Questions about this collection should be directed to the Clerk of the Township of Tay.