Building Permit Requirements for a Deck
On a Single Family Dwelling

A building permit for a deck is required when the deck is over 23 5/8” above grade at any point or if the deck has a roof.

When applying for a building permit we require a completed “Application for a Permit to Construct or Demolish”, Schedule 1: Designer Information form and 2 copies of the following:

1. **Site plan** drawn to scale showing your lot, property lines and all existing structures (house, garage, sheds, decks). Dimension the size of the lot and distances from the proposed deck to all property lines and any adjacent buildings (and septic tank and bed if applicable). All easements on your property must also be shown.

2. **Construction drawings** drawn to scale and dimensioned consisting of:
   - Plan view with joist size and spacing, decking material, beam size and span, footing location and guard post spacing. Details of how the deck will be attached to the building and/or supported.
   - Elevation of the deck showing footing size and depth below grade, maximum height of deck above grade and height of guard. See Table A1 in the Deck Package to size footings.
   - Guard construction and attachment details. See details in the Deck Package for typical details used.

**NOTE:** GRCA / MTO / MHAC approval may be required

It is recommended that a person with some general construction knowledge and drafting skills provide this information.

The fee for a construction permit is $364.00 (cash, cheque or debit) *(Subject to Change)* Building Permit Rebate Program of $250 will be refunded if a final inspection is completed within 3 years from the date the permit is issued.

All decks must comply with the Zoning By-Law requirements even if a building permit is not required. Please call the Zoning Division at (519) 740-4650 ext. 4280 to review what the zoning requirements are for your property. There is no fee for zoning review.

Please call the Planning & Development Department at (519) 740-4613 if you have any further questions.
NOTICE

Are you installing spindles instead of 2"x2" pickets?

If you are installing spindles instead of the 2"x2" pickets, the required minimum size of the turned portion is 1 9/32"
There are many spindles on the market, which do not meet this requirement. Ensure you DO NOT INSTALL them within your required guard!

DO NOT NOTCH your 4"x4" guard posts around your deck joists. See the attached details on how to fasten the post.

Are you installing a guard system or decking material other than cedar or pressure treated wood?

If so, additional information such as an evaluation report from the Canadian Construction Materials Centre (CCMC) or a design by a Licensed Professional Engineer in Ontario is required. Please contact the Building Department for more information.
* Lag bolt to existing foundation wall or wood frame with 5/8" dia. Lag bolts @ max. 2' 0" O/C staggered ledger to be same dimension as joist.

Saddle placed to provide lateral support at front/back.

If lagging through brick veneer/siding lags must penetrate fully to become solidly attached to wood framing behind.

See Table A-1 for footing sizes.
### Table A-1 Column Footing Requirements for Decks

#### Column Footing Diameter (in)

<table>
<thead>
<tr>
<th>Floor Area Supported (sq ft)</th>
<th>Bearing Length x Post Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0sqft</td>
<td>10sqft</td>
</tr>
<tr>
<td>8&quot;Ø</td>
<td>8&quot;Ø</td>
</tr>
</tbody>
</table>

**Note:**
1. Bearing Length is 1/3 Joint Span Plus Cantilever (see detail below)
2. Underside of Footing to be on undisturbed soil and Minimum 4'-0" Below Grade
3. Soil to Have a Minimum 75 kPa Bearing Pressure (1500 lbs/sq ft)
4. Concrete Strength to be Minimum 15 Mpa (2200 lbs/sq ft)

### Beam Sizes for Decks (ft-in)

<table>
<thead>
<tr>
<th>Bearing Length</th>
<th>Size of Beam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 x 8</td>
</tr>
<tr>
<td></td>
<td>2 PLY</td>
</tr>
<tr>
<td>8’</td>
<td>7'-9&quot;</td>
</tr>
<tr>
<td>10’</td>
<td>6'-9&quot;</td>
</tr>
<tr>
<td>12”</td>
<td>5'-8&quot;</td>
</tr>
</tbody>
</table>

**Note:**
1. Table based on Deflection Criteria of 1/240

### Floor Joist Spans for Decks (ft-in)

<table>
<thead>
<tr>
<th>Member Size</th>
<th>Strapping Joist Spacing (in)</th>
<th>Bridging Joist Spacing (in)</th>
<th>Bridging &amp; Strapping Joist Spacing (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 x 8</td>
<td>9'-7&quot;</td>
<td>8'-11&quot;</td>
<td>8'-2&quot;</td>
</tr>
<tr>
<td>2 x 10</td>
<td>11'-7&quot;</td>
<td>11'-0&quot;</td>
<td>10'-6&quot;</td>
</tr>
<tr>
<td>2 x 12</td>
<td>13'-8&quot;</td>
<td>13'-0&quot;</td>
<td>12'-4&quot;</td>
</tr>
</tbody>
</table>

**Note:**
1. 2 x 6 Joint Only Permitted if Deck is Less Than 6'-0" Above Grade

---

**Maximum Cantilever:**
- 2"x6" **JOISTS = 12"** (No Roof Loads)
- 2"x8" JOISTS AND GREATER = 24" (No Roof Loads)
# Single Family Dwelling Exterior Guard and Handrail Requirements

<table>
<thead>
<tr>
<th>Deck or Landing Height</th>
<th>Guard Min. Height</th>
<th>Opening Between Picks</th>
<th>Stair Height Min. Height</th>
<th>Opening Between Picks</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 23 5/8&quot; (600mm)</td>
<td>Not Required</td>
<td>&lt; 4&quot; or &gt; 8&quot;</td>
<td>&lt; 3 Risers</td>
<td>Not Required</td>
<td>N/R</td>
</tr>
<tr>
<td>23 5/8&quot; to 35-11&quot;</td>
<td>36&quot; (900mm)</td>
<td>4&quot; Max.</td>
<td>&gt; 3 Risers</td>
<td>36&quot;</td>
<td>4&quot; Max.</td>
</tr>
<tr>
<td>&gt; 35-11&quot; (1800mm)</td>
<td>42&quot; (1070mm)</td>
<td>5&quot; Max.</td>
<td></td>
<td>31&quot; to 38&quot;</td>
<td></td>
</tr>
</tbody>
</table>

## Additional Requirements:

### Landing Requirements
- Landings are required at the top of all stairs with > 3 risers
- Landing length and width to be at least the width of the stair landing length need not exceed 2'-11".
- Maximum 12'-2" vertical height between landings.

### Step Requirements
- Maximum riser height 7 7/8".
- Minimum run 8 3/4".
- Minimum tread width 9 3/4".
- Any one flight of stairs shall have uniform rise and run.

![Tread and Run Diagram](image)

- **MIN. 9 3/4"**
- **MIN. 8 3/4"**
- **7 7/8" MAX RISE**

### Stringer Requirements
- Minimum nominal 2" x 10" "S".
- Effective depth minimum 3 1/2".
- Maximum 2'-11" between stringers.

### Guard Requirements
- Guards shall be designed so that no member, attachment or opening located between 5 1/2" and 36" above walking surface will facilitate climbing.
  - A) Are located more than 450 mm (18") horizontally and vertically from each other.
  - B) Provide not more than 15 mm (5/8") horizontal offset.
  - C) Do not provide a toe-space more than 45 mm (1 3/4") horizontally and 20 mm (13/16") vertically.
  - D) Present more than a 1-in-2 slope on the offset.

## Guard Detail

![Guard Detail Diagram](image)

- **4"x4" Post**
- **2"x2" Pickets with Max 4" Openings**
- **2"x6" Rail Cap**
- **2"x4" Top Rail**
- **2"x4" Bottom Rail**
- **2"x2" Pickets with Max 4" Openings**
- **Header (Ring Joist)**
- **Deck Joists**
- **Decking**
- **Provide Support to Bottom Rail at Intervals Not More Than 5'-0" with a Filler Block and Two(2) Screws**
**Detail EB-2**  
**Exterior Connection: Post Screwed to Rim Joist**

Notes:
1. Decking is omitted from the plan view and the axonometric view for clarity.
2. Fasten 25 mm x 140 mm (⅜" x 6" nominal) outer deck board to rim joist with 63 mm (2½") nails at 300 mm (12").
3. Fasten 25 mm x 140 mm (⅜" x 6" nominal) outer deck board to floor joist with 1 - 63 mm (2½") nail at each joist.
4. The post may be positioned anywhere between the joists.
5. #9 screws may be replaced by #8 screws if the maximum spacing between posts is not more than 1.20 m (3'-11").
6. Dimensions shown are in mm unless otherwise specified.

<table>
<thead>
<tr>
<th>MAXIMUM SPACING BETWEEN POSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
</tr>
<tr>
<td>Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir</td>
</tr>
<tr>
<td>Northern Species</td>
</tr>
<tr>
<td>Column 1</td>
</tr>
</tbody>
</table>

SB-7 Page 14
**Detail EB-4**

Exterior Connection: Post Bolted to Floor Joist - 9.5 mm (3/8"") Bolts

**Notes:**
1. Decking is omitted from the plan view and the axonometric view for clarity.
2. 38 mm (1½") post projection is not required where the maximum spacing between posts does not exceed 1.20 m (3'-11").
3. Joists may be spaced at 610 mm (24") o.c. or 406 mm (16") o.c.
4. Where floor joists are spaced at 610 mm (24") o.c., decking shall have a minimum thickness of 38 mm (1½") and shall be fastened to the floor with 2 - 76 mm (3") nails.
5. Dimensions shown are in mm unless otherwise specified.

<table>
<thead>
<tr>
<th></th>
<th>Maximum Spacing, m (ft-in)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAXIMUM SPACING BETWEEN POSTS</strong></td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td></td>
</tr>
<tr>
<td>Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir</td>
<td>1.49 (4'-11&quot;)</td>
</tr>
<tr>
<td>Northern Species, Cedar</td>
<td>1.20 (3'-11&quot;)</td>
</tr>
<tr>
<td>Column 1</td>
<td>2</td>
</tr>
</tbody>
</table>
**Detail EB-5**

**Exterior Connection: Post Bolted to 2 Floor Joists**

**Notes:**
1. Decking is omitted from the plan view and the axonometric view for clarity.
2. 38 mm (1½") post projection is not required where the maximum spacing between posts does not exceed 1.20 m (3'-11").
3. Joists may be spaced at 610 mm (24") o.c. or 406 mm (16") o.c.
4. Where floor joists are spaced at 610 mm (24") o.c. decking shall have a minimum thickness of 38 mm (1½") and shall be fastened to the floor with 2 - 76 mm (3") nails.
5. Dimensions shown are in mm unless otherwise specified.

---

**MAXIMUM SPACING BETWEEN POSTS**

<table>
<thead>
<tr>
<th>Species</th>
<th>Maximum Spacing, m (ft-in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir</td>
<td>2.14 (7'-0&quot;) *</td>
</tr>
<tr>
<td>Northern Species, Cedar</td>
<td>1.20 (3'-11&quot;)</td>
</tr>
<tr>
<td>Column 1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Max 8'-0" Post Spacing Permitted if Connection of Guard Post to Wood Joist Includes Construction Adhesive*