



City of Bexley Building Regulations Residential Plan Review Checklist for DECKS

In order to ensure a smooth plan review process, please verify that your **DECK permit drawings** include these items listed below.

- ❖ ***You must have your approved Minor Architectural application #2 completed prior to submitting for a building permit***

- ❖ **RCO 106.1.3 Site plan showing:**
 - North orientation arrow
 - Size and location of new residential construction and all existing structures on the site.
 - All property and interior lot line locations with setback and side yard dimensions
 - Distances from buildings to lot lines
 - Location of any fences
 - In the case of a demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site.

- ❖ **RCO 311.7.5 Stair treads and risers:**
 - Stair treads and risers shall meet the requirements of this section. For the purposes of this section, dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

- ❖ **RCO 311.7.5.1 Risers**
 - The riser height shall be not more than 8 1/4 -inches (209 mm).
 - The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).
 - Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical.
 - At open risers, openings located more than 30 inches (762 mm), as measured vertically, to the floor or grade below shall not permit the passage of a 4-inch-diameter (102 mm) sphere

- ❖ **RCO 311.7.8.1 Handrails**
 - Handrails shall be provided in accordance with RCO Section 311.7.8.1 and shall be not less than 34 inches measured vertically from the sloped plane adjoining the tread nosing and shall be not more than 38 inches in height

- ❖ **RCO 311.7.8.5 Grip size**
 - Required handrails shall be of one of the following types or provide equivalent graspability.
 - **Type I.** Handrails with a circular cross section shall have an outside diameter of not less than 1 1/4 inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular, it shall have a perimeter of not less than 4 inches (102 mm) and not greater than 61



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1/4 inches (160 mm) and a cross section of not more than 2 1/4 inches (57 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

- **Type II.** Handrails with a perimeter greater than 6 1/4 -inches (160 mm) shall have a graspable finger recess area on both sides of the

profile. The finger recess shall begin within 3/4 -inch (19 mm) measured vertically from the tallest portion of the profile and have a depth of not less than 5/16 -inch (8 mm) within 7/8 -inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 -inch (10 mm) to a level that is not less than 1 3/4 -inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1 1/4 -inches (32 mm) and not more than 2 3/4 -inches (70 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

❖ **RCO 312.1.2 Height:**

- Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) in height as measured vertically above the adjacent walking surface or the line connecting the nosings.
 - Exceptions: 1. Guards on the open sides of stairs shall have a height of not less than 34 inches (864 mm) measured vertically from a line connecting the nosings. 2. Where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) as measured vertically from a line connecting the nosings

❖ **RCO 312.3 Opening limitations**

- Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm) in diameter. The opening width as measured between the balusters (Pickets) shall be less than 4-inches wide

❖ **R328.4.1 Uplift protection:**

- Posts shall have uplift protection by one of the following methods:
 - 1. Uplift protection blocks attached to each side of the base of the post. The post uplift blocks shall be placed horizontally, attached per Table 328.7 and comply with Section 317;
 - 2. 12 inch high, concrete collar poured on top of footing around the post, with 2-#5x9 inch rebar placed through the posts at 3 inches and 9 inches from bottom of post in opposite directions. The rebar ends must be 1 1/2 inches from the soil. See Figure 328.1.

❖ **403.1.4.1 Frost protection.**

- Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:



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❖ 403.1.4.1 Frost protection (cont.)

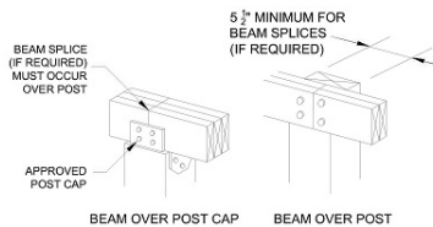
- 1. Extended below the frost line specified in Table 301.2(1).
- 2. Constructed in accordance with Section 403.3.
- 3. Constructed in accordance with ASCE 32.
- 4. Erected on solid rock.

❖ RCO 507.5 Deck Beams and Bearing.

- Deck beams and their support shall be provided with full support by the bearing on wood, concrete or masonry in accordance with this section, 507.5.1 and **Figures 507.5.1(2) and 507.6 respectively**

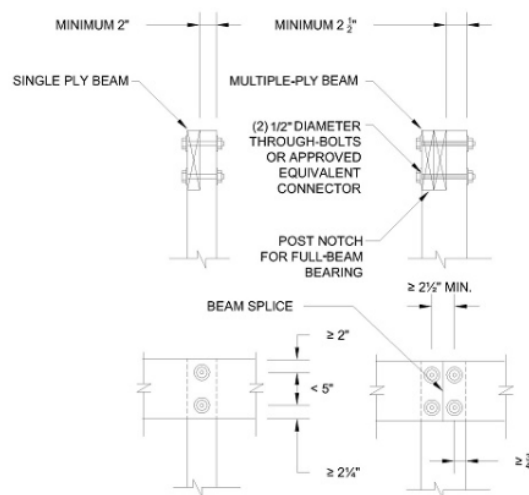
507.5.1 Deck beam bearing.

The ends of beams shall have not less than 1½-inches (38 mm) of bearing on wood or metal and not less than 3-inches (76 mm) of bearing on concrete or masonry for the entire width of the beam. Where multiple-span beams bear on intermediate posts, each ply must have full bearing on the post in accordance with Figures 507.5.1(1) and 507.5.1(2).



For SI: 1 inch = 25.4 mm.

FIGURE 507.5.1(1) DECK BEAM TO DECK POST



For SI: 1 inch = 25.4 mm.

FIGURE 507.5.1(2) NOTCHED POST-TO-BEAM CONNECTION



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❖ **RCO 602.3 (1) Fastening Schedule**

- Structural members shall be fastened, adjoined or attached in accordance with the Fastener Schedule for Structural Members

- ❖ Beams, girders or other concentrated loads supported by a wall or column shall have a minimum bearing of 3 inches in length measured parallel to the beam upon solid masonry not less than 4 inches in thickness or upon a metal bearing plate of adequate design and dimensions to distribute the load safely per RCO 606.13

- ❖ Fasteners and connectors in contact with preservative-treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicone bronze or copper. Coating types and weights for connectors in contact with preservative-treated wood shall be in accordance with the connector manufacturer's recommendations. In the absence of manufacturer's recommendations, a minimum of ASTM A 653 type G185 zinc-coated galvanized steel, or equivalent, shall be used.