

Minimum Requirements for Ramps and Landings Guide

1.0 Design Intent

Construction of ramps and landings must adhere to the minimum structural requirements as per the most current version in force of the National Building Code of Canada (NBC) and *standards for Barrier Free Design*.

The contractor shall consult with the homeowner and provide details to describe the type of construction and the materials to be used for construction of ramps and landings.

- 1.1 Note: Stairs funded under the Senior Safe @ Home or Disability programs are subject to a design riser height of 6" (150mm) with a maximum height of 6½" (165mm) and minimum run of 9 ¼" (235mm) and a minimum tread width of 10 ¼" (260mm). All other programs are subject to the most current version of NBC in force (typical).

2.0 Minimum Requirements for Ramps

- 2.1 Ramps constructed (floated) on concrete deck blocks will not be funded unless located in a designated mobile park subdivision.
- 2.2 All exposed wood is to be pressure treated.
- 2.3 Wood ramps shall be built with pressure treated lumber and shall have a maximum gradient of 1:12.
- 2.4 Ramps shall be mechanically fastened to Sonotube cement footings / galvanized steel auger piles / or pressure treated piers and shall be installed to below frost depth and shall be spaced as per the most current version of the NBC. (DO IT YOURSELF SCREW PILES ARE NOT PERMITTED).
- 2.5 Ramps shall have a clear width of not less than 34¼" (870mm).
- 2.6 A 5'x5' (1525 x 1525mm) level area shall be provided at the top and bottom of the ramp.
- 2.7 The ramp shall be provided with a guardrail and handrail on both sides, with a vertical height of not less than 34" (865mm) and not more than 38" (965mm).
- 2.8 A clearance of not less than 2" (50mm) shall be provided between a handrail and any surface behind it.
- 2.9 All handrails shall be constructed so as to be continually graspable along their entire length with no obstruction on or above them to break a handhold, except where the handrail is interrupted by newels at changes in direction.
- 2.10 Newel posts shall be provided at the beginning and termination of rails unless beginning or terminating at the face of a structural wall or post.
- 2.11 Guard posts shall be spaced to provide structural support to the railing and shall be spaced no less than 4' (1220mm) on center and shall not exceed 6' (1830mm) on center and shall be fastened to the sub structure with carriage or leg bolts.

3.0 Minimum Requirements for Landings

- 3.1 Landings constructed (floated) on concrete deck blocks will not be funded unless located in a designated mobile park subdivision.
- 3.2 All exposed wood is to be pressure treated.
- 3.3 No more than two (2) landings will be funded (primary entrance and a secondary entrance)
- 3.4 The maximum landing size funded for each entrance is 100ft² (9.2 m²).
- 3.5 The minimum accepted size of the primary landing is 6' x 8' to accommodate "aging in place" objectives.
- 3.6 Primary landings smaller than 6' x 8' will not be funded.
- 3.7 There are no minimum size restrictions on secondary landings.
- 3.8 Built up beams shall meet the requirements of Part 9 (Table 9.23.4.2-H) of the latest version of the NBC currently in force, all other beams substitutions shall be an engineered to meet NBC Part 4.
- 3.9 **A threshold for a doorway that services a ramp or landing shall be not more than ½" (13mm) higher than the finished floor surface of the landing and shall be bevelled to facilitate the passage of a wheelchair or to accommodate "aging in place" objectives of the funding.**
- 3.10 Landings and steps shall be mechanically fastened to Sonotube cement footings / galvanized steel auger piles / or pressure treated piers and shall be installed to below frost depth, spacing as per the most current version of the NBC. **(Must be visible / accessible at time of inspection)** (DO IT YOURSELF SCREW PILES ARE NOT PERMITTED).
- 3.11 There must be a level landing area at the base of the steps at ground level. Concrete patio stone pads or gravel shall be placed so they extend out at least three feet to a width at least equivalent to the step width.
- 3.12 **Stairs shall conform to the requirements of (1.8 Wooden Landings)**
- 3.13 A guard rail shall be provided to protect all open sides of the landing where there is a difference of 2' (610mm) or more between the walking surface and the adjacent surface.
 - 3.13.1 36" (915mm) high rail on landings 2' (610mm) above adjacent surface, and
 - 3.13.2 42" (1065mm) high rail on landings 5' (1525mm) above adjacent surface.
- 3.14 Guardrails on landings shall be continuous unless interrupted by a newel post, doorway, or stair.
- 3.15 A handrail and guard shall be installed on both sides of the stairs and shall terminate at a newel post.
- 3.16 **All handrails shall be constructed so as to be continually graspable along their entire length with no obstruction on or above them to break a handhold, except where the handrail is interrupted by guard posts at changes in direction.**
- 3.17 Newel posts for stairs shall be installed below frost depth unless otherwise fastened with carriage or leg bolts.
- 3.18 Guard posts shall be spaced to provide structural support to the railing and shall be spaced no less than 4' (1220mm) on center and shall not exceed 6' (1830mm) on center and shall be fastened to the sub structure with carriage or leg bolts.
- 3.19 Balustrades, where required, shall be spaced so that the widest opening shall not exceed 4" (100mm).

4.0 Minimum Requirements for a landing foundation in a designated Mobile Park subdivision

Homeowners are advised to consult with the mobile park technical services office prior to proceeding.

Where a temporary footing is in use:

- 4.1 The maximum permitted height of a landing above the adjacent ground is 30" (760mm).
- 4.2 A Foundation trench 8-10" (200-250mm) in depth x 24" (610mm) in width, shall be provided at each vertical foundation pier.
- 4.3 A continuous trench shall be provided between piers not more than 6' (1830mm) apart.
- 4.4 Compacted gravel (¾" minus) shall be placed at a depth of 8-10" (200-250mm) in each trench.
- 4.5 24 x 24" (610 x 610mm) concrete patio block including a deck block shall be centered at each pier.