

Building Permit Application Guide for Exterior Decks

(For One and Two Family Dwellings)

NOTE: The 2021 IRC NJ Edition contains all of the information necessary to design and build a code compliant deck. Here is a link to view this or any other NJ adopted codebooks; <https://www.ni.gov/dca/divisions/codes/codereg/> Scroll down to One and Two Family Dwellings and click on 2021 IRC NJ Edition to view the book and then go to Chapter 5: Floors, where you can find Section R507 for Decks.

The following information must be provided for plan review to demonstrate compliance with Section R507 of the 2021 International Residential Code NJ Edition and the New Jersey Rehabilitation Subcode, (N.J.A.C. 5:23-6) as applicable.

- 1.** Provide two identical sets of plans drawn to scale with dimensions and sufficient clarity, prepared by a NJ registered architect, NJ licensed P.E. or the owner/occupant of a detached, single-family dwelling. Designer must sign and number all pages.
- 2.** The plans shall contain a Plan view, an Elevation view and a Section view that have clear dimensions showing the locations and sizes of footings, posts, beams, joists, ledger and flashing. Show locations of doors, windows and stairways.
- 3.** Describe the materials to be used for the framing, decking and hardware. i.e., pressure treated wood, composite decking, hot dipped galvanized fasteners, etc.
- 4.** On the Elevation view, show the height of the deck from a door threshold and approximate height above surrounding grade. Show window and door locations.
- 5.** Deck ledgers must be a minimum of 2 X 8 inches and fastened to a band joist that bears directly on the primary structure capable of supporting all required loads. Deck ledgers attached to cantilevers will require signed and sealed drawings from a design professional licensed and/or registered in New Jersey.
- 6.** Footings: On Plan view show the locations of all footings and indicate with dimensions the distances from the house and distances between footings. On Section view show the diameter and depth below grade. (Footing depth must be 42 inches)
- 7.** Beams: On Plan view indicate locations of beams that support joists and spacing of support posts. On Section view show the dimension of the beam and support posts and attachment details, i.e., post to beam bracket, post to footing brackets.
- 8.** Joists: On Plan view show direction and spacing of floor joists. On Section view show dimensions of joists and indicate length of any cantilevers.
- 9.** Decking: On Plan view show direction of decking i.e., perpendicular or angled installation. On Section view Identify material to be used, if using material other than wood, include installation guide for the material to be used.
- 10.** Stairways and railings: See separate guide for code compliance details.

A Summary of requirements for Code compliant stairs

(For One and Two Family Dwellings)

NOTE: For complete rules see 2021 International Residential Code NJ Edition

1. The minimum clear width of stairs shall be 36 inches and a handrail projection of not more than 4 h" is permitted on each side.
2. The maximum height for any riser is 8 1/4" and this includes from a landing to the highest point of a door threshold.
3. The minimum depth for a tread is 9 inches. In addition to the minimum depth, a tread must include a nosing of not less than 3/4" and not more than 1 1/4"
4. Risers and treads must be dimensionally uniform. This means that all risers must be of equal height and all treads must be of equal depth. An allowance of 3/8" inch from the greatest riser to the smallest riser and from the greatest tread depth to the smallest tread depth is allowed in a given flight.
5. There shall be a landing or floor at the top and bottom of each stairway. The floor or landing shall be the full width of the stairs served for a minimum of 36 inches in the direction of travel.
6. A guard is required at open sides of stairs when the height of the walking surface is 30 inches or more above adjacent grade or other surfaces. The minimum height of a guard shall be 34 inches to the top, as measured from a line across the tread nosing. Guards at other walking surfaces shall have a minimum height of 36 inches.
7. A handrail is required on at least one side of any stairway with four or more risers. The height to the top of the handrail shall be a minimum of 30 inches and a maximum of 38 inches as measured from a line across the tread nosing. Handrail ends must terminate into walls or posts, ends cannot be left open.
8. Graspable handrail, Grip size Type I; If the handrail is circular in section, it must be a minimum of 1 1/4" diameter and a maximum of 2" in diameter. If the handrail is not circular it must have a perimeter of no less than 4" but not greater than 6 7/8" with a maximum cross section of not more than 2 1/4". The edges shall have a minimum radius of 1/16" For type .11 handrails see the 2021 IRC NJ Edition for complete rules.
9. Openings in guards have limits. Openings in stair guards shall not allow the passage of a 4 3/8" sphere. The triangular opening created by a riser, tread and bottom of a stair guard shall not allow passage of a 6" sphere. Openings in all other guards shall not allow the passage of a 4" sphere.
10. Glazing adjacent to stairs or landings may have to be safety or tempered depending on the location. See chapter 3 of the 2021 IRC NJ Edition for details.