Building Permit Guides

The City of Louisville Design Criteria, Prescriptive Energy Code, and items listed below shall take precedence over requirements listed in the Building Guides of the Colorado Chapter of International Code Council.

- The City of Louisville has adopted the 2018 International Code series.

- Please reference the city’s design criteria and prescriptive energy code available on the City of Louisville website located at www.louisvilleco.gov/government/departments/planning-building-safety/building-permit-guides .

- All decks are required to be designed by a structural engineer and shall include and engineer stamp and signature.

Sec. 15.05.130. - Section R507.1 amended—Decks.
https://library.municode.com/co/louisville/codes/code_of_ordinances
Section R507.1 of the 2018 International Residential Code is amended to read as follows:

R507.1 Decks. Wood-framed decks shall comply with the standards set forth in this section. For decks using materials and conditions not prescribed in this section, refer to Section R301. All decks that are structurally supported from an existing residential home shall be engineered by a structural engineer that is licensed with the State of Colorado.

- Flat roof and patio covers may be required to be designed by a registered design professional. Section R802.4.4 of the 2018 International Residential Code read as follows:

R802.4.4 Rafter supports. Where the roof pitch is less than 3:12 (25-percent slope), structural members that support rafters, such as ridges, hips and valleys, shall be designed as beams, and bearing shall be provided for rafters in accordance with section R802.6
**Single Family Residential Uncovered Decks and Porches**

**Stair & Handrail Specifications**

New or existing light required

Open guardrails on decks more than 30 inches above grade or a floor below shall have members spaced so that a 4 inch diameter sphere cannot pass through.

Guardrail

36" min. height

Openings for required guards on the sides of stair treads shall not allow a 4 3/8" diameter sphere to pass through.

Deck

Less than 6" dia.

10" min. run from nosing to nosing

34-38" above nosings

Handrail (see details below)

Guardrail required if more than 30"

Stairway Notes:
1. Stairways shall be not less than 36" in width.
2. Stairway rises shall be not greater than 7 3/4".
3. Stairway treads shall have a minimum run of 10".
4. The length of Run and the height of Riser shall not vary more than 3/8" in the entire run of the stair.
5. Stairs are required to be illuminated.
6. Open risers permitted if opening is less than 4".
7. A nosing not less than 3/4" but not more than 1 1/4" shall be provided on stairways with solid risers, and less than 11".
8. Composite materials (example: Trex) may require 4 or more stringers

Acceptable Handrail Details

Type II

1 1/4" - 2 3/4" max.
1 3/4"

Wall or other surface

1 1/2" min.

1 1/4" - 2" Gripable

Type I

1 1/2" min.

1-1/2" min.

Unacceptable Handrails

Handrail Notes:
1. Handrails shall be continuous on at least one side of stairs with 4 or more risers.
2. Top of the handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
3. The handgrip portion of handrails shall be not less than 1-1/4 inches nor more than 2 1/4 inches in cross section for non circular handrails.
4. Handrails shall be placed not less than 1-1/2 inches from any wall or other surface.
5. Handrails to be returned to wall, post or safety terminal (per 311.7.8.2 IRC)

This handout was developed by the Colorado Chapter of the International Code Council as a basic plan submittal under the 2012 International Residential Code. It is not intended to cover all circumstances. Check with your Department of Building Safety for additional requirements.