Building Guide
Colorado Chapter of the International Code Council

Single Family Residential Uncovered Decks and Porches

How to Use this Guide
Check with your jurisdiction regarding type of submittal (paper or electronic) and for additional requirements. Draw to scale and complete the following (hint: use graph paper with ¼” squares.
Example: ¼” = 1’).

1. Complete this Building Guide by filling in the blanks on page three, and indicating which construction details will be used.

2. Provide Plot Plan (site plan) showing dimensions of your project or addition and its relationship to existing buildings or structures on the property and the distance to existing property lines drawn to scale. See page 2.

3. Fill out a building permit application.
The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.

The Colorado Chapter of the International Code Council is a professional organization seeking to promote the public health, safety and welfare to building construction. We appreciate your feedback and suggestions. To obtain a master copy of this building guide, please write to the Colorado Chapter of the International Code Council, P.O. Box 961, Arvada, CO 80001.
http://www.coloradochaptericc.org

This handout was developed by the Colorado Chapter of the International Code Council as a basic plan submittal under the 2015 International Residential Code. It is not intended to cover all circumstances. Check with your Department of Building Safety for additional requirements.

City of Englewood
Building Division
1000 Englewood PKWY
Englewood, CO 80110
Single Family Residential Uncovered Decks and Porches

Note: A plot plan (plan view) showing the dimensions of your project or additions and its relationships to existing buildings or structures on the property must be included. In addition to project dimensions, your plot plan must also show other details such as post locations and spacing, joist and beam spans, and any other pertinent information not shown on the section drawing.

Site Plan Example

Plan View Example

Tempered windows may be required
Decking Light Door to interior Electrical outlet

36" Min.

Stairs

Joists
Show post and pier size

Install diagonal brace to underside of deck joists

x = Show Dimension

Lateral tracing is required per Section R507.2.4

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Directions
1. Fill in the blanks. Please print legibly.
2. Indicate in the check box which detail from page 4 will be used.

Address:

Size and Spacing of Lags
(example: Two 1/2" x 4 1/2" lags @ 16" O.C.)

Type of decking ___ x ___
(example: 1 x 4 or 2 x 6 - Trex)

Deck Section

Existing bldg.

Electrical outlet required on decks

Approved flashing required

36" high guard with balusters spaced so that a 4 inch diameter sphere cannot pass through

Beam splices to occur over posts with 1 1/2" bearing

Attach decking with non corrosive fasteners

2x ___ joists

spaced ___" apart
(example: 2 x 10" spaced 24" apart)

( ) ___ x ___ beam
(example: (2) 2 x 10" - see detail B)

___ posts

spaced ___" apart
(example: 4 x 4 posts spaced 8" apart)

Span ___ ___
(example: 13'-4"

Type of exterior wall covering
(existing)

Conditions such as attachment to cantilevers or veneers may require Engineer's approval

Note: Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck allows the emergency escape window to be fully opened and provides a path not less than 36" in height to a yard or court. 6'8" required for walk out basements or patios.

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**Detail A**

- Existing building
- Approved flashing required behind existing exterior wall covering
- Attach to joists with non-corrosive fasteners
- Attach ledger to existing bldg. with non-corrosive fasteners. Locate fasteners to penetrate rim joist or wall studs.
- Non-corrosive metal joist hanger
- Approved flashing

Conditions such as attachment to cantilevers or veneers may require Engineer's approval

**Detail B**

- Beam splices to occur over posts with 1 1/2" bearing
- Secure posts to beam with through bolts
- Non-corrosive metal joist hanger
- Non-corrosive metal post/beam connector

**Alternate Detail B1**

- Secure posts to beam with through bolts
- Beam splices to occur over posts with 1 1/2" bearing
- Non-corrosive metal post/beam connector

**Alternate Detail B2**

- Full depth 2x solid blocking
- Beam splices to occur over posts with 1 1/2" bearing
- Non-corrosive metal post/beam connector
- Secure posts to beam with through bolts
- 24"

**Detail C**

- 1/2" (min.) diameter anchor bolt embedded 7" min. into concrete pier or the equivalent
- Non-corrosive metal post anchor
- Finished grade

- 8" (min.) diameter pier
- 8" min. If less than 8", post must be decay resistive
- 36" inches min. or below frost depth

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**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.

**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

**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)

**Acceptable Handrail Details**

**Type II**

- 1 1/4" - 2" Gripable
- Wall or other surface
- 1 1/8" min.

**Type I**

- 1 1/8" min.

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