



Building Guide

Colorado Chapter of the International Code Council

Single Family Residential One Story Addition

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 $\frac{1}{4}$ " squares = 1'*).

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

2. Provide Plot Plan showing dimensions of your project or addition and its relationship to existing buildings or structures on the property. Show all easements and the distance to existing property lines drawn to scale. See example on page 2.

3. Provide Floorplans. Drawn to scale. See example on page 5. Structural, section view, elevation or other drawings may be required.

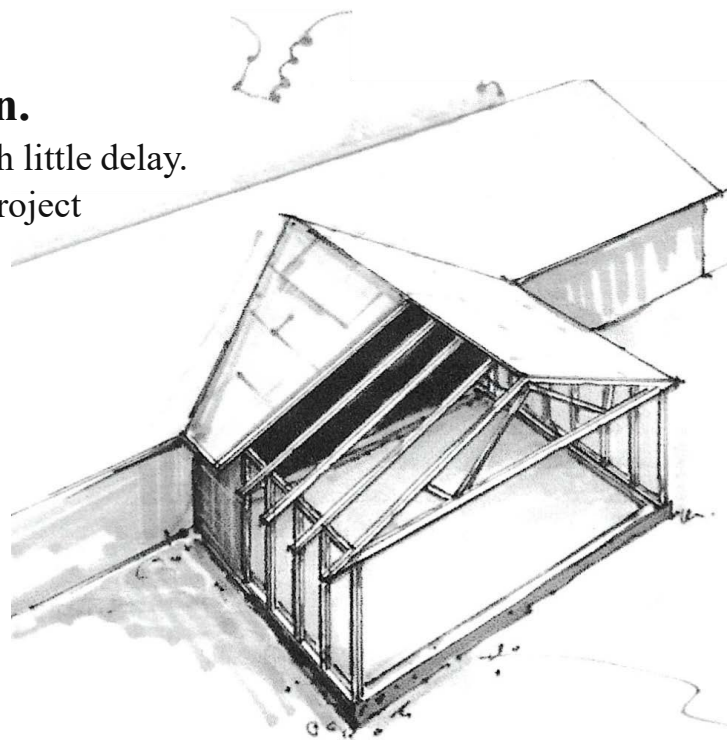
4. Fill out a Building Permit Application.

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.

Smoke alarms and carbon monoxide alarms are required.

The Colorado Chapter of the International Code Council is a professional organization seeking to promote the 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. www.coloradochaptericc.org

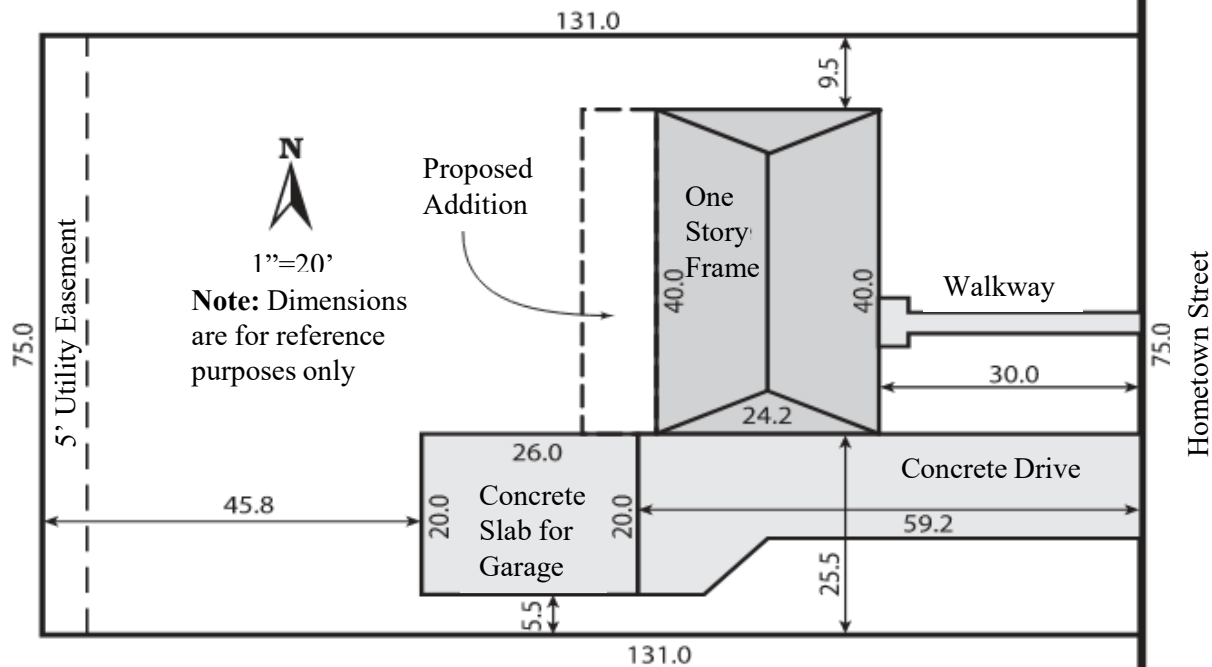
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Note: A plot plan (plan view) showing the dimensions of your project or additions and its relationships to existing buildings or structures on the property must be included. In addition to project dimensions, your plot plan must also show other details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

Site Plan Example



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Property Address: _____

Note: For roofs with slopes less than 4:12 follow manufacturer's instructions for low slope application of roofing material.

Building Section

12
Pitch | _____

Minimum 1x _____ ridge board
(example: 1 x 12")

2X _____ rafters spaced _____" O.C. or
Manufactured Trusses spaced _____" O.C.
(example: 2 x 12 Rafters Spaced 24" O.C.)

Note: Attic ventilation and access may be required

Provide roof tie downs
Solid 2x blocking between
rafters that are 2x12 or
greater

1x4" collar ties @ 48" O.C.

Note: Pre-engineered roof trusses with truss clips
may be used in lieu of roof structure shown.

Diagonal wind bracing or braced wall
panels at corners and each 20' of wall.

Note: Pre-engineered systems may be used and should be
installed according to the manufacturers installation instructions.

✓ Check One

- ☐ Vented
☐ Unvented

Access
required

18" minimum

Engineered Design: Caissons may be required if your site
has swelling soils. A foundation designed by a Colorado
licensed architect or engineer may be required.

✓ Check One

- ☐ Foundation: Engineered Design
☐ Foundation: Detail A
☐ Other options such as monolithic
(see page 4)

Roof Covering _____
(example: Class A 3 tab shingles)

Sheathing _____
(example: ½" exterior plywood)

Ceiling Insulation _____
(example: R-49)

2x _____ ceiling joists @ _____ O.C.
(example: 2 x 8 @ 24" O.C.)

Double 2x _____ top plate
(example: 2 x 6)

Span _____
(example: 23' 5")

Ceiling height _____
(example: 8')

Siding _____
(example: lap or T-111)

Wall Insulation _____
(example: R-20 Fiberglass Batts)

Wall sheathing _____
(example: ½" exterior plywood)

2x _____ studs @ _____ O.C.
(example: 2 X 6 @ 24" O.C.)

2x _____ Joists @ _____ O.C.
(example: 2 X 10 @ 24" O.C.)

Cont. 2x _____ sill plate
(example: 2 x 4 – decay resistant)

Wall width _____"
(example: 8")

Footing size _____" x _____"
(example: 8" x 16")

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Requirements

Site Plan

- 1. When drawing your plot plan** be sure to show the location of electric, gas, sewer, and water service lines. If you don't know where they are, call the Public Service Utility Notification Center of Colorado, 1-800-922-1987 or 811. They will come out and locate lines for you. Remember to ask them about the cost.
- 2. Show where the existing** electric and gas meters are located on your home. These meters may have to be relocated and it is best to know this before you start construction.

Floor Plan

- 3. Smoke alarms and CO alarms.** Smoke alarms are required to be hardwired and interconnected in new and existing bedrooms, halls, and one on each level unless removal of the interior wall or ceiling finishes. In such a case, battery operated devices are acceptable in the existing areas, and interconnection shall only be required in the new area when more than one device is installed in that new area. Carbon Monoxide alarms are required on each floor with bedrooms. They are recommended to be located no farther than 15 ft. from any bedroom entrance. Do not install within 15 ft. of fuel burning appliances. Follow the manufacture's recommendations for location, testing, and placement.

- 4. Additions** shall not obstruct or reduce dimensions of required bedroom or basement egress windows.

- 5. Safety glass is required** in some locations. The plan reviewer can identify which windows require safety glass.

- 6. Heat is required** in all habitable rooms. Show how the addition will be heated on the plan.

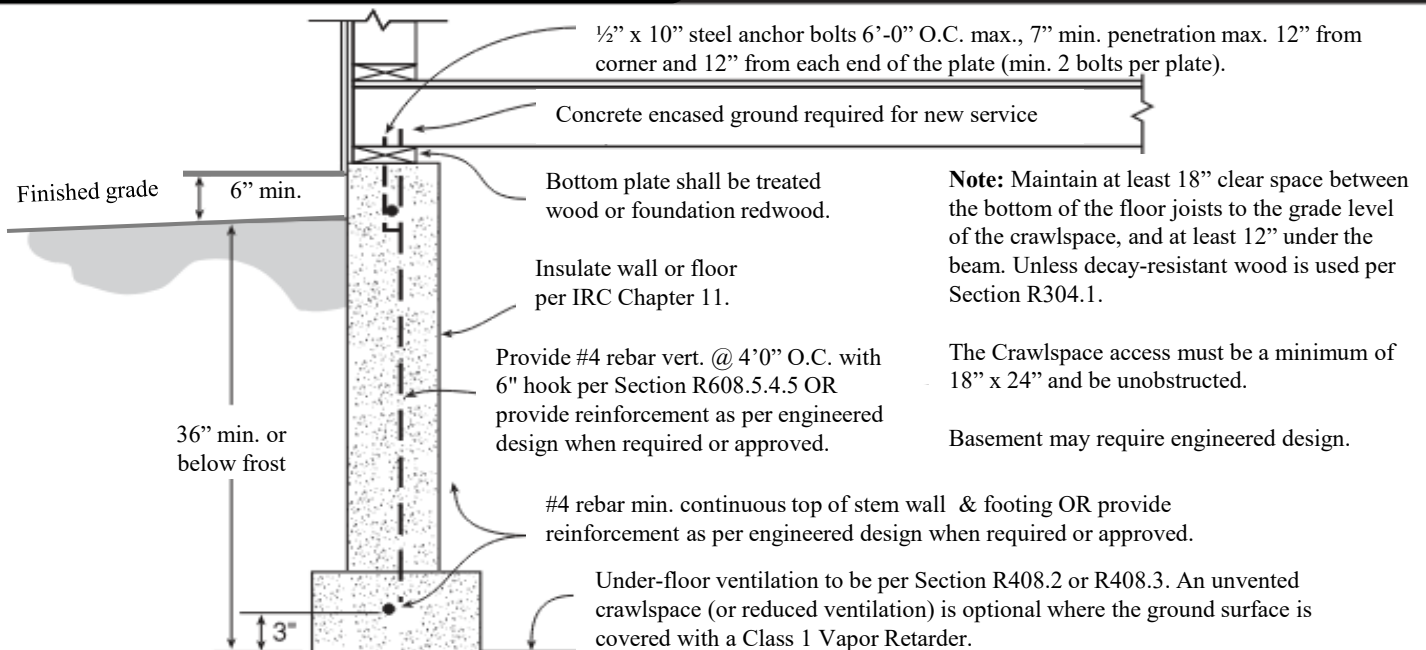
Electric Code

- 7. Existing electric service** may require an upgrade or relocation. Indicate the size of your electric service (the number on the main breaker) on your plan. This can help the plan reviewer determine if an upgrade is needed before you start construction.

Roof Overframe

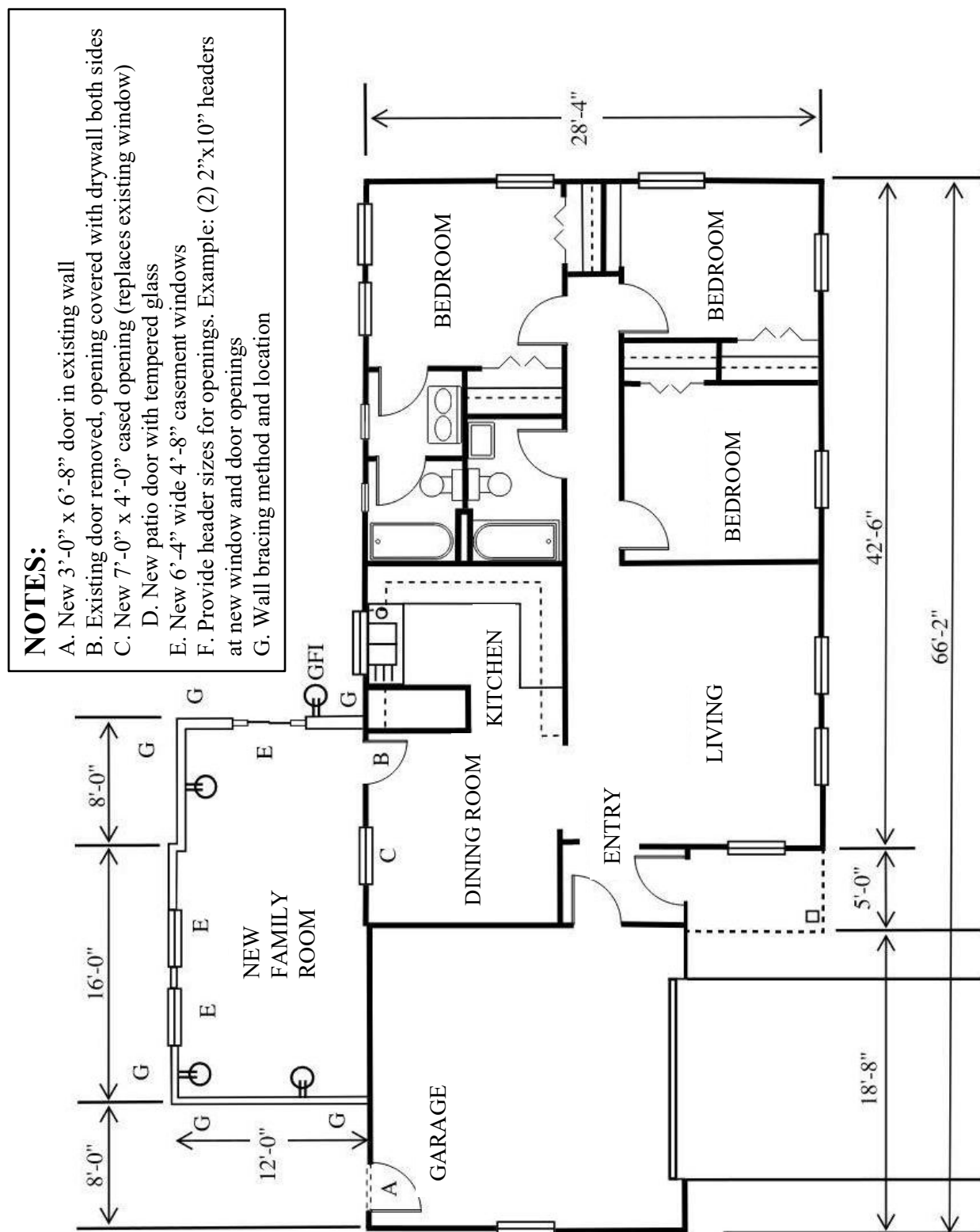
- 8. When constructing a new valley** use a continuous board under the bottom cut of the new rafter to provide a solid nailing surface. The board should be at least 2" thick, nominal, and should be at least as wide as the base of the new rafter.

Crawlspace Foundation Detail A



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SCALE: 1/8" = 1'

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