

Pikes Peak **REGIONAL** Building Department

RESIDENTIAL PLAN REVIEW

This packet is provided to assist in assembling a successful construction plan review submittal. The information is a summary of plan review requirements and is not intended as a substitute for the Code. Consult government departments in the jurisdiction of the site for additional criteria to meet their requirements.

PIKES PEAK REGIONAL BUILDING DEPARTMENT (RBD)

RBD enforces building codes through plan reviews and site inspections; tests and grants licenses to building and mechanical contractors, registers electrical and plumbing contractors who are licensed by the state of Colorado; oversees floodplain management; assigns addresses; and issues permits to build, alter, convert, repair, move or demolish structures. Pikes Peak Regional Building Department provides services to:

El Paso County	Manitou Springs	Colorado
Spring Monument	Fountain	Palmer Lake
Green Mountain Falls	Woodland Park (City Limits only)	

RESIDENTIAL PLAN REVIEW OVERVIEW

“Residential” is defined as one- and two-family dwellings, town homes, and their accessory structures. (Condominium projects of 3 or more units per building are classified as “Commercial.”) Plans may be drawn and submitted by a home owner who intends to obtain the permit, a design professional licensed by the state of Colorado, or a contractor who holds a Building Contractor C (home builder) license or higher license.

SITE SPECIFIC PLANS

These are residential construction plans for a determined site (site specific). Your plan requires reviews and approvals from the zoning department in the jurisdiction where site is located, and RBD’s Floodplain, Enumeration (addressing), Construction and Mechanical (HVAC) departments. (Plumbing and Electrical code requirements are addressed in the field during inspections.) If plans are modified during construction, the plans usually require another review and approval (called a “splice”).

MASTER PLANS

A master plan is used to build two or more identical single-family detached homes on unspecified sites. After the master plans are reviewed and approved by RBD’s Construction and Mechanical (HVAC) departments, the builder may obtain permits to build homes based on the plans. The building permit is issued for a plan after being reviewed and approved by the zoning department in the jurisdiction where site is located, and RBD’s Floodplain and Enumeration (addressing). The site specific soils report and foundation design are provided with a copy of the plans in the field.

Although master plans are valid for 5 years from original approval date, the construction is required to meet the codes in effect at the time the permit is issued — not just codes when the plan was approved. Master plans may only be used by those with at least a Building Contractor C license. An approved master plan may not bear any handwritten modifications (red lines) and all options must be clearly identified.

PLAN REVIEW FEES

The plan review fee is paid when the submittal is checked in at the front counter or online prior to completing an electronic submittal. The fee is calculated as a percentage of the building permit fee that is based on the square footage of the proposed construction, (refer to the current permit fee schedule). RBD may assess additional fees in the following circumstances:

- A \$50 review fee of each option after two options (5 for engineered stamped) on a master plan, payable when the permit is issued.
- Review of changes to an approved and permitted plan is \$50 per hour; payable prior to the next inspection.
- After the third review of a plan, a \$50 per hour fee is assessed for each additional review.

Plan review or other fees may be charged by the zoning department in the jurisdiction where the site is located

RESIDENTIAL BUILDING CODES

Jurisdictions served by Pikes Peak Regional Building Code adopted the following codes pertaining to residential:

- 2017 Pikes Peak Regional Building Code (PPRBC)
- 2015 International Residential Code (IRC)
- 2015 International Existing Building Code (IEBC)
- 2015 International Energy Conservation Code (IECC)
- 2017 National Electrical Code (NEC)

*The International Fire Code and amendments are adopted by the Fire Authority. Plans are reviewed for compliance with this code by the fire department.

TYPES OF CONSTRUCTION

Components and requirements for residential plans differ between conventional and unconventional construction.

Conventional construction

Residential plans of conventional construction do not require the seal and signature of a design professional licensed by the state of Colorado with the exception of the soils report, foundation design, and pre-engineered trusses. Conventional components include:

- A foundation of poured in place or block concrete with or without footers as loading and soils conditions dictate;
- Wood framed walls of nominal 2 x 4 hem-fir or better quality lumber spaced in compliance with the Code;
- Headers, beams and posts of dimensioned lumber, engineered wood laminate products or steel;
- Floor framing that consists of either dimensioned lumber or approved engineered joist or truss product; and
- Roof framing that consists of either dimensioned lumber or approved engineered rafter or truss product.

Unconventional construction

Residential plans that differ from conventional construction must be sealed and signed by a design professional licensed by the state of Colorado. Examples of unconventional construction include:

- Block or poured concrete walls, including approved insulated concrete forms (ICF), that extend beyond foundation
- Earth-sheltered or bermed
- Steel stud or post-and-beam
- Pre-engineered metal
- Structural Insulated Panel (SIP)
- Log
- Adobe or masonry brick
- Straw or tire bale
- Pole barns

SPLICE (PLAN CHANGE) PROCEDURES

Plans may be modified after construction begins. This is referred to as a splice. To process a splice, bring in two copies of the already revised plan and check them in at the permit counter or in plan review prior to review. Most splices can be reviewed during walk-thru hours. There will be a fee to process a splice, with the minimum being \$50.

PREPARING THE RESIDENTIAL PLAN PACKAGE

One complete plan is required. After approval and the permit is issued, the plan will be scanned and the original returned to the permit holder. You must keep the plan on the building site at all times and accessible to the inspectors. Electronic submittals will need to be printed and on the building site at all times and accessible to the inspectors. The scanned image will be retained at Pikes Peak Regional Building Department.

LABELING EACH PLAN SHEET

The following information is important for each sheet of your plans package:

- Builder's name, address, phone numbers
- Architect, Engineer and Design Professionals' names, addresses, phone numbers
- Accurate and complete address of the building site
- Master plan number (if applicable)

DRAWINGS

The plan must be in a clear and legible format on substantial paper, plastic or fabric material, or electronic means as approved by the Regional Building Official. With the exception of the site plan, plans are drawn to a scale no smaller than 1/8 inch = 1 foot, (1/4 inch = 1 foot is preferred). Lettering must be no smaller than 1/8 inch in height. Clarity is important for accurate review and transfer of plans to public record. Plans that do not meet these criteria can be rejected.

ATTACHMENTS

Staple the following items to your plans:

- Manufactured trusses used for the roof frame: Attach the truss manufacturer's shop drawings sealed and signed by an engineer currently licensed by the state of Colorado. (Exception for Master Plans: manufacturer's shop drawings will be accepted with the plan or in a separate three-ring binder in consideration of multiple options that may be present.)
- International Energy Conservation Code Certificate or REScheck printout
- Residential HVAC Equipment Certificate
- Duct layouts with associated calculations

All forms are available at www.pprbd.org

DIMENSIONS

Dimensions (stated in English units) must be noted on all floor plans, elevations and sections. The conventional method for stating dimensions of openings is foot-inch by foot-inch for doors and windows. State any variation from this format on your plans for accurate measurement conversion.

CHECKING IN PLANS FOR REVIEW

Before checking in plans for review, make certain all information is included and accurate. Plans cannot be amended until the conclusion of the review process that includes the above governmental departments. Incomplete or inaccurate information will require correcting and resubmitting plans for another review which will cause a delay.

RESUBMITTAL PROCEDURES

Plans are required to go through the entire initial review process before they can be checked back out to the applicant. Once that initial review has occurred, the applicant will need pick the plans up from our office. If corrections are needed in order to complete the plan approval, the corrections can either be done as markups or page replacements. If the corrections needed are minor and can be done with a handwritten note, the DESIGN PROFESSIONAL OF RECORD can make the change then date and initial the change on the existing sheet. If the correction warrants a page replacement, the new page is to be inserted into the plan set and the old page removed. ALL old pages are to be returned with the corrected set upon plan resubmittal, regardless of the reason the page was replaced. This procedure is to occur PRIOR to the plan being resubmitted

PERMITTING

In order to obtain the permit once the plans are approved, additional documentation may be required. For new homes, a tap fee receipt or septic permit must be provided. Contact Regional Building Department to verify all requirements prior to permitting.

PLAN REVIEW DEPARTMENTS

Contact information is listed in the typical order of the review process, and includes most departments. After plans are submitted for review, you may track the progress on our web site, under PLAN CHECK, by the assigned plan number or project address.

DEPARTMENT	PHONE	WEB
Pikes Peak Regional Building Department		
Plan Review	719-327-2880	www.pprbd.org
Enumeration	719-327-2960	www.pprbd.org
Floodplain Management	719-327-2889	www.pprbd.org
Elevators(if app)	719-327-2880	www.pprbd.org
Development Services (Zoning)		
Colorado Springs DRE	719-385-5982	www.coloradosprings.gov
El Paso County Dev. Serv.	719-520-6300	www.co.elpasoco.com
Fountain Planning & Zoning	719-322-2028	www.fountaincolorado.org
Green Mountain Falls	719-684-9414	www.gmfcu.us
Manitou Springs Planning	719-685-4398	www.manitousprings_co.gov
Monument Planning	719-481-2954	www.townofmonument.net
Palmer Lake	719-481-2953	www.ci.palmer_lake.co.us
Woodland Park Planning	719-687-5202	http://city-woodlandpark.org
Fire Authority*		
Colorado Springs	719-385-5982	www.coloradosprings.gov
NE Teller (Woodland Park)	719-687-1866	www.netellerfire.org
Engineering		
Colorado Springs	719-385-5979	www.coloradosprings.gov
El Paso County	719-520-6460	www.co.elpasoco.com
Health (septic)		
El Paso County Heath Dept.	719-578-8968	www.co.elpasoco.com
Utilities*		
<i>Colorado Springs Utilities</i>		
Applications and Permits	719-668-8111	www.csu.org
Gas/Electrical Division	719-668-8259	www.csu.org
Wastewater and Water Div.	719-668-8259	www.csu.org

*Suburban communities located outside of the city of Colorado Springs are served by several different utility providers and fire districts. Please call the appropriate phone number listed above under "Zoning" for information. Links to most cities and townships served by Regional Building Department are also available on our web site.

RESIDENTIAL CONSTRUCTION PLANS

This list is intended to be used as a guideline for preparing a completed plan submittal. Additional requirements may be requested during the plan review process.

PLOT PLAN (Site specific plans only)

Scaled to standard engineer's scale (1" = 20' recommended)

A site/plot plan review is required for all new construction plans. Contact the zoning department having jurisdiction for additional information.

- **Complete street address.**
- **Legal description of property.**
- **Property lines and dimensions.** Include side, front and rear yards.
- **All site improvements**, including existing and proposed new construction (deck, patio enclosure, garage, etc.)
- **Tax Schedule number** (County Clerk & Recorder)

FOUNDATION PLAN

- Type of foundation
- Type of under floor space
 - Basement
 - Crawl space (specify conditioned or vented)
 - Not excavated

Structures will be required to have a soils report and engineered foundation design at the time of first inspection.

FLOOR PLANS

Complete architectural floor plan for each level, including basement, that identifies:

- All interior dimensions
- Intended use of each room or area
- Location and dimension of each door
- Location and dimension of each window and type:
 - Single hung
 - Double hung
 - Casement
 - Sliding
 - Fixed
- Window well size
- Safety glass (tempered) where required
- Mechanical equipment location specified as:
 - Furnace/boiler, gas or electric indicated with thermal input values in BTU/hr
 - Water heater, gas or electric indicated
 - Floor drain
 - Vent stack
- Attic access, location and size
- Crawl space access, location and size
- Fireplaces as listed appliances with fuel source identified
- Smoke and carbon monoxide detector locations
- Area in square feet of each habitable room

EXTERIOR ELEVATIONS (Master plans show options)

Illustrate all sides of the building to include:

- Finished grade (if known)
- Floor and plate heights
- Roof slope or pitch
- Roof material
- Exterior finish (wood, stucco, etc.)
- Attic ventilation information
- Crawl space ventilation information

- Chimney heights & distance to roof
- Roof drainage requirements

INTERIOR SECTIONS/DETAILS

A minimum of one dimensioned section through the entire building is provided that identifies:

- Foundation
- Elevations of each level
- Framing material/description
- Floor levels
- Number of plates
- Finish grades, if known
- Insulation (match or exceed Energy Certificate)
- Stairs
 - Material
 - Rise/run dimensions
 - Handrail, guardrail
 - Head clearance
 - Landing
 - Stringer connection detail
 - Fire protection on underside, if any

FLOOR FRAMING PLAN

Complete structural plan per floor that identifies:

- Framing material:
 - Dimensioned lumber
 - Engineered product (I joists)
 - Pre-manufactured product (floor trusses)
- If engineered material, include manufacturer and model description
- Spacing
- Post, beam and header size and locations
- Bearing walls, indicate stud size and spacing
- Number of trim & king studs for beams and headers
- Hangers and tie downs (at location on plans)
- If framing involves any steel to steel connections, provide details. Drawings may require the seal of a design professional licensed by the state of Colorado.

ROOF FRAMING PLAN

Complete structural plan that includes:

- Framing material:
 - Rafters
 - Engineered product (I joists)
 - Pre-manufactured product (roof trusses)
- Spacing
- Over-framing shaded and noted
- Post, beam and header locations, size & material
- Bearing walls, indicate stud size and spacing
- Number of trim & king studs for beams and headers
- Hangers and tie downs (either at location on the plans or as a schedule on the plans)
- If engineered wood trusses are used, provide the following information. (**Note: Truss manufacturer layouts are not accepted in lieu of framing plans.**)
 - Detail of each truss component produced by the manufacturer, stamped by a Colorado licensed design professional.
 - Label all trusses on the roof framing plan with alphanumeric labels corresponding to the details
 - Label all girder trusses with the number of plies
 - Indicate size and species of bearing chord or web