City of Boulder
Planning & Development Services

PERMIT

Detailed Residential Building Permit Requirements

For Single Family Homes, Duplexes, Triplexes and Townhomes

Including attached and detached accessory buildings, garages, sheds, pergolas, decks, pools and spas

APPLICATION MATERIALS:

- ☐ *Residential Building Permit Application*
  - ○ Required if applying through email. If submitting via email, be sure to read the entire application carefully, answer all questions, and fill in all required blanks.
  - ○ This application form is **NOT** required as a submittal document if applying online through the *Customer Self Service Portal (CSS)*.
- ☐ Scope of Work Form
  - ○ Required for all applications. Refer to the list below and complete the city Scope of Work Form most applicable to the structure type.
    - ☐ *Scope of Work Form – Single Family Detached* (Use this form for detached single family homes)
    - ☐ *Scope of Work Form – Duplex, Triplex or Townhome* (Use this form for attached single family homes, including duplexes, triplexes and townhomes)
    - ☐ *Scope of Work Form – Accessory Structures and Uses* (Use this form for accessory structures associated with a detached single-family home, duplex, triplex or townhome)
- ☐ *Lot Area Declaration Form*
  - ○ Required for new structures and additions to existing structures where less than 50% of the roof framing will be open.
- ☐ *Zoning Data Worksheet*
  - ○ Required for new structures and additions to existing structures where less than 50% of the roof framing will be open and decks more than 30 inches in height from adjacent grade, including the height of a required guard. See the following:
    - ☐ *Building Coverage Handout*
    - ☐ *Section 9-7-11 of the B.R.C. - Maximum Building Coverage*
    - ☐ *Floor Area Ratio Handout*
    - ☐ *Section 9-8-2 of the B.R.C. - Floor Area Ratio*
    - ☐ *Section 9-9-11 – Useable Open Space*
- ☐ *Stormwater & Flood Management Plant Investment Fee Calculation Form*
  - ○ Required for changes in the impervious (hard surface) areas on the property, such as the addition of new paving, sidewalks, and patios, new buildings, and additions to existing buildings. If there is no change in the impervious area of the property, please check the" No Change" box.
- ☐ *Plumbing Fixture Count Form*
  - ○ Required for all projects where there is a plumbing scope of work, including where there is a change in the number, type, or location of plumbing fixtures, including fixtures set on any existing rough-ins or replaced in the existing location.
  - ○ The fixture count form must include all plumbing fixtures that are served by a single water meter, including detached accessory buildings.
  - ○ Please refer to the *Estimating Water, Wastewater & Irrigation Plant Investment Fees and Determining Water Meter Sizing Worksheet* for additional information on water meter sizing.
- ☐ *Residential Housing, Development Excise Tax and Impact Fee Worksheet*
  - ○ Required for all new floor area as defined by *B.R.C. Section 3-8-2(b)*.

☐ Asbestos Inspection Report

- ○ Required for additions or alterations that require removal of materials that may contain asbestos. **Buildings of any age may contain Asbestos Containing Materials.** Provide a copy of an asbestos inspection report prepared by a certified inspector if the scope of the project includes disturbing suspect asbestos-containing materials in excess of any of the following amounts:
  - ☐ 32 square feet of surfaces (walls, ceilings, floors)
  - ☐ 50 linear feet of pipes
  - ☐ Amount of waste equivalent to the volume of a 55-gallon drum

  Reference the *CDPHE webpage on Asbestos* for more information on State requirements

☐ Affordable Housing Compliance

- ○ Developments that include the construction of new housing units must meet the requirements of *Boulder Revised Code, 1981 (B.R.C.), Section 9-13*, which requires that a percentage of all residential development be permanently affordable. Developments subject to annexation agreements may have affordable housing requirements identified within the agreement. Compliance must be verified prior to submitting a building permit application.
- ○ Please contact a housing planner prior to building permit submittal to discuss options for meeting the requirements. Contact and program information may be found at *http://www.boulderaffordablehomes.com*. Once compliance is verified and complete, the housing planner will provide an Affordable Housing case number to reference at building permit submittal.

☐ *Residential Growth Management System (RGMS) Allocation Process*

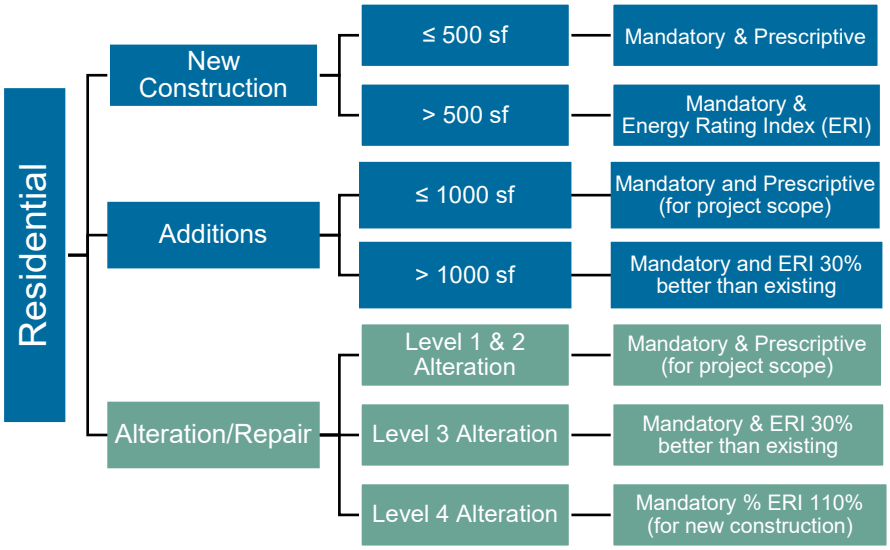
- ○ An RGMS Allocation must be issued, and the case number provided at the time of building permit application.
  - ☐ For new residential unit(s) on an empty lot, the RGMS Allocation Application Form must be submitted to *OlingerA@bouldercolorado.gov.*
  - ☐ For new residential units(s) that will replace existing residential unit(s), there are two options for obtaining an allocation:
    - An RGMS Allocation will be automatically issued three to five business days following the issuance of a *Demolition Permit* for the existing residential unit(s).
  - ☐ A Temporary Allocation may be requested, only if the presence of asbestos requires mitigation prior to demolition of the existing structure. Once the temporary allocation is issued, the building permit application can be accepted; however, the applicant must obtain a demolition permit and a permanent RGMS allocation before the building permit application can be approved.

☐ Separate Permits (add link)

- ○ A separate permit application must be submitted for detached structure
  - ☐ Unenclosed Accessory Structure such as carports, pergolas, or framed decks proposed to surround a pool or spa (that are not attached the dwelling)
  - ☐ Enclosed Structure without Heating and/or Cooling such as a garage or shed
  - ☐ Enclosed Structure with Heating and/or Cooling such as a detached accessory dwelling unit, studio, or office
  - ☐ Residential Pool or Spa

ENERGY CONSERVATION CODE COMPLIANCE:

Refer to the City of Boulder's *Energy Code website* for more information and to download the documentation materials. Project scope determines what materials will be required to demonstrate compliance.



ALTERATION LEVELS	
Level 1	An alteration that includes the removal and replacement or the covering of existing materials, elements, equipment or fixtures using new materials, elements, equipment or fixtures that serve the same purpose.
Level 2	An alteration that includes the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.
Level 3	An alteration where the work area exceeds 50 percent of the building area.
Level 4	An alteration where the work area exceeds 50 percent of the building area, mechanical and lighting systems are substantially replaced, and where the alteration meets the criteria of substantial structural alteration, including fenestration replacement.

- ☐ *Mandatory Measures Checklist*
  - ○ Required for all projects, including Repairs, unless the scope meets the criteria of *2020 COBECC*, Section R504 Repairs, OR if the scope is for the addition of an attached deck, pergola, patio cover, or other unconditioned space outside the thermal envelope. Must be integrated into the construction plan set.
- ☐ *Prescriptive Measures Checklist*
  - ○ Required for New Construction not exceeding 500 square feet, Additions not exceeding 1000 square feet and Level 1 and Level 2 Alterations. Must be integrated into the construction plan set.
- ☐ Energy Rating Index (ERI Report)
  - ○ Required for New Construction exceeding 500 square feet, Additions exceeding 1000 square feet and Level 3 and 4 Alterations.
  - ○ To be generated by the compliance software tool and shall document the ERI rating. The report shall include the following:
    - ☐ Project address,
    - ☐ ERI certificate,
    - ☐ Projected annual site energy use by fuel type,
    - ☐ Projected annual energy cost,
    - ☐ Name and address of the approved rating provider,
    - ☐ Date of the home energy rating,
    - ☐ The name and version of the compliance software tool and an inspection checklist. The inspection checklist shall show results for both the ERI reference design and the rated design and shall document all inputs entered by the user necessary to reproduce the results. The ERI Compliance Report shall be submitted with the permit application.

- ☐ Heating and Cooling Equipment Sizing
  - ○ Include Air Conditioning Contractors of America (ACCA) Manuals J and S (Per International Residential Code (IRC) M1401.3) and Manuals D and T (Per IRC M1601.1) where applicable.
  - ○ For any new mechanical heating and/or cooling system in any structure, or for any system which will be replaced with a different type of system, ACCA approved documentation demonstrating proper equipment sizing must be provided. This includes, but is not limited to, the following: hydronic or forced-air systems of any configuration and ground, water and air source heat pumps; but does not include simple furnace or boiler replacements or extensions of existing hydronic or ducted systems, the installation of whole house fans, stand-alone electric baseboard systems or evaporative coolers with a single supply duct.
- ☐ *Construction Waste Recycling Application*
  - ○ Required for the construction of a new dwelling unit. Applicants shall demonstrate that 100% of the clean wood, metal and cardboard will be recycled, reused and/or donated, see *B.R.C. Section 10-5.2(q)*.
- ☐ *Sustainable Deconstruction Plan*
  - ○ Required for full structure demolition and Level 4 alterations. The deconstruction plan must demonstrate that at least 75% of the existing building materials by weight from the deconstruction will be diverted from the landfill for recycling, reuse and/or donation, see *B.R.C. Section 10-5.2(q)*.
- ☐ *Renewable Energy Offset Requirements*
  - ○ Required for heated pools and spas. Pools shall be heated by solar thermal or other equipment that does not rely directly or indirectly on the burning of fossil fuels or shall have their energy use offset by on-site renewable energy generation equipment equivalent to the energy use of the swimming pool.

LOCATION SPECIFIC APPLICATION MATERIALS:

The following permits, approvals and supplemental information may be required based on the scope of the project and/or the location and development constraints of the property:

- ☐ *Floodplain Development Permit Application*
  - ○ Required for projects located within regulatory floodplains; must be submitted at the time of building permit application. If you are unsure whether your existing structure is within a designated regulatory floodplain, you can either reference the city's *floodplain map* webpage or you can request a structure determination from the city by submitting a Flood Information Request through the *CSS portal*.
  - ○ For more information, please visit the *Floodplain Development webpage*.
  - ○ Please review the *Floodplain Development Permit Application Guide* for instructions on how to complete the application. Visit the *Floodplain Development Permits webpage* for more information.
  - ○ Applications for work in the Conveyance or High Hazard zones may need to be approved prior to building permit application. *Check with staff* for determination.
- ☐ *Stream, Wetland and Water Body Permit*
  - ○ Required for projects located within regulatory wetlands, or wetland buffer areas; must be submitted at the time of building permit application.
- ☐ Historic Preservation Approval
  - ○ A *Landmark Alteration Certificate* must be obtained prior to submitting a building permit for exterior modifications to a designated individual landmark or a property located within a designated local historic district.
  - ○ A *Historic Preservation Demolition Review Application* must be approved prior to submitting a building permit for a modification to any existing building that is over 50 years old, if the proposed modification that meets the definition of demolition in *Section 9-16-1(c) of the B.R.C*.
- ☐ Grading and Drainage Plan
  - ○ Required for structures located on a steep slope or *area of mass movement*
  - ○ For properties with significant slope concerns or soils with mass movement potential, a grading and drainage plan designed by a Colorado licensed professional engineer must be provided. See 'Soils Report' below.
  - ○ A grading plan may also be required to ensure that the proposed development will not pose a hazard to persons, surrounding property, the public right of way or other public improvements.

- ☐ Soils Report
  - ○ Required for structures located on a steep slope or *area of mass movement*
  - ○ A soils report is required for all new residential buildings and for work on buildings that include additions to, or significant alterations of, existing foundations for properties with steep slope concerns, soils with mass movement potential or shrink/ swell potential.
  - ○ Properties with development constraints such as steeply sloped lots, or lots with soils with mass movement or shrink/swell potential require engineered grading and drainage plans in most cases. See 'Grading and Drainage Plan' above.
  - ○ To determine if a specific property has specific geologic development constraints, please visit the city's *eMapLink website* and click the checkbox for "Geologic Development Constraints"
- ☐ Wildland-Urban Interface
  - ○ For properties in the Wildland-Urban Interface, all new structures and those with additions or changes to exterior building components must demonstrate compliance (through construction details in the construction plan set or product specification sheets) with the *International Wildland-Urban Interface Code (IWUIC)* as amended by *Section 10-8.5-2 of the B.R.C.*
  - ○ For more information on Boulder's Wildland-Urban Interface, including structure protection plans and mapping of risk areas, please see the City of Boulder's *Fire and Rescue Wildland Fire* webpage.
- ☐ Copies of Prerequisite Approvals
  - ○ Including but not limited to any Accessory Dwelling Unit, Variance, Minor Modification or Site Review approval.
  - ○ Exterior modifications to properties regulated by a Planned Unit Development (PUD) or Site Review may require an additional review process such as an *Administrative Review* for a *Minor Modification* or other development review process may be required. If your property is zoned RL-2, there is a good chance that this applies to your property.
  - ○ Records of past City of Boulder approvals can be requested through *p&dsrecordrequest@bouldercolorado.gov.* If after researching your property history, you are unsure if a Minor Modification is required for your scope of work, please *submit a request*.

CONSTRUCTION PLAN SET (minimum requirements):

- ☐ Survey
  - ○ All surveys must be stamped by a Colorado licensed Land Surveyor.
  - ○ See the *Survey Handout* to determine what type of survey is required for the proposed scope of work.
    - ☐ Include topographical contours if the lot has a slope greater than 1':25' (4% slope, or 2.3°) within 25 feet of the proposed shed/pergola location and the proposed shed/pergola is 11 feet or taller in height.
- ☐ Site Plan
  - ○ Must be drawn to scale and use a common engineering scale of 1" = 10' or 1" = 20'. The occasional use of 1/8" = 1' or 1/4" = 1' is acceptable when all information can be clearly conveyed at that scale.
  - ○ Based on a survey, including the following information:
  - ○ Property orientation (include north arrow).
    - ☐ Property line locations, dimensions and labels (front, side, rear).
    - ☐ Location and extent of public right(s)-of-way, including streets and alleys.
    - ☐ Location and extent of existing and proposed easements. No portion of a structure may encroach within an easement, including footings and eaves.
    - ☐ Boundaries of flood zones and regulated wetland areas on the property.
    - ☐ All existing and proposed improvements on the property, including but not limited to principal and accessory structures, retaining walls, fences, driveways, sidewalks, patios, paths and swales.
    - ☐ All setback dimensions to existing and proposed buildings, structures, and/ or site features. Refer to *Sections 9-7-2, 9-7-3, 9-7-4 of the B.R.C.* for additional information.
    - ☐ Location of existing and proposed vehicular site access, including width of the driveway/access and separation of curb cut from property lines in accordance with *Section 9-9-5 of the B.R.C.* & *Section 2.04 DCS*.
    - ☐ Location and dimensions of required off-street parking space(s) and required backing distance in accordance with *Section 9-9-6 (d) of the B.R.C*.

- ☐ Location of existing and proposed utilities, including water service and meter, wastewater service, sump pump discharge point, stormwater facilities, irrigation ditches, gas and electric services. Indicate if electrical service is overhead or buried.
- ☐ Location of all existing and proposed electrical service panels and exterior mechanical equipment (e.g. air conditioner condensers).
- ☐ Separation distance between trees and utilities (a minimum of 10' between trees and utilities must be maintained).
- ☐ Distances between all buildings (measured from the nearest point, including eaves or other projections). A minimum of six feet of building separation must be maintained between the nearest points of any buildings.
- ☐ Topographical information
- ☐ City mapping system topographical information is for general information only; topographical information and contours for a specific property or lot must be prepared by a Colorado licensed Land Surveyor.
- ☐ See *Survey Information Handout* for specific information.

○ Building Height information

- ☐ The location and elevation of the low point within 25' of the building, and the location and elevation of the upper-most point of the roof of the resulting building, provided in USGS values. See definition of height in *Section 9-16(c)(1) of the B.R.C*.
  - An arbitrary vertical datum (i.e. finish floor 100) may be used so long as it, and the elevations of all relative measurements, ALSO include the USGS conversion value. For example: finished floor elevation of 100' (5325.00 USGS), uppermost roof of 124' (5349.00), and low point of 95' (5320.00).
  - Bulk plane section locations and base elevations – See *Section 9-7-9 of the B.R.C.*, and the *Side Yard Bulk Plane Handout*.

☐ Landscape and Street Tree Plan

○ The landscape and street tree plan must be drawn to scale and use a common engineering scale of 1" = 10' or 1" = 20'. The occasional use of 1/8" = 1' or 1/4" = 1' is acceptable when all information can be clearly conveyed at that scale.

○ This is a required submittal document if the project exceeds the thresholds provided in the table below.

Scope	Threshold	Landscape Plan Requirements
New Construction	Always Reqiured	All Requirements
Addition	Permit Value >25% of Assessor's Actual Structure Value	Street Trees Only
Addition	Permit Value >50% of Assessor's Actual Structure Value	Street Tress & Front Yard Setback
Addition	Permit Value >75% of Assessor's Actual Structure Value	All Requirements
Remodel (no addition of floor area)	Permit Value >100% of Assessor's Actual Structure Value	All Requirements

○ Show all existing and proposed landscape materials such as walks, patios, required street and alley trees, shrubs and other plant material, and irrigation components.

○ See *Section 9-9-12(d) of the B.R.C.* for a comprehensive list of requirements including water conservation and xeriscape standards.

○ Planting details, required planting notes, sample plans and FAQs may be found at the city's *landscaping website*. See *Chapter 3 of the Design and Construction Standards (DCS)* for additional technical requirements.

○ The landscape and street tree plan may be incorporated and shown on the site plan if it does not obscure site plan details, otherwise include on separate sheet(s).

☐ Solar Access Plan

○ The solar access plan must be drawn to scale and use a common engineering scale of 1" = 10' or 1" = 20'. The occasional use of 1/8" = 1' or 1/4" = 1' is acceptable when all information can be clearly conveyed at that scale. If the proposed construction consists exclusively of building elements that are shorter than the solar fence in question, no solar analysis will be required.

- ○ Required when there is an addition or new construction that exceeds 12 feet in height in RL-1, RE, MH and RR zones on flat lots.
- ○ If the lot has a slope greater than 1':25' (4% slope, or 2.3°) within 25 feet of the proposed new construction and the proposed construction is 11 feet or taller in height, include topographical contours provided by a Colorado licensed surveyor on the survey document or site plan.
- ○ In all other residential zones, on flat lots, provide a solar access plan if the proposed construction exceeds 25 feet in height or 24 feet in height and the slope within 25 feet of the proposed construction exceeds 1':25' (4% slope or 2.3º).
- ○ A solar analysis demonstrating compliance with the solar access regulations in *Section 9-9-17* of the B.R.C. may be required. Step-by-step instructions for preparing a solar analysis are available in the *Solar Access Guide*. The solar analysis may be incorporated and shown on the site plan if it does not obscure site plan details, otherwise include on separate sheet(s).
- ○ Provide a calculation table in addition to the solar access plan (see *Solar Access Guide*).

☐ Floor Plans

- ○ Must be drawn to scale and use a common architectural scale of 1/4" = 1' or 3/16"= 1'. The occasional use of other scales that are able to clearly, accurately and verifiably relay the information is acceptable
- ○ Including the following information:
  - ☐ Dimensioned existing floor plans for all levels, including demolition details.
  - ☐ Dimensioned proposed floor plans for all levels, including hallway and stair widths.
  - ☐ Label all room uses (e.g. bedroom) and sizes (e.g. 5' x 8').
  - ☐ Maximum Allowable Floor Area Information. See *Floor Area Ratio Handout*.
  - ☐ Partially exposed lower levels. Reference *Section 9-8-2 of the B.R.C.*
    - Clearly identify portions of partially exposed lower levels and window/door wells that contribute to the maximum allowable floor area ratio.
  - ☐ High-volume spaces.
    - Identify high-volume spaces 16' or greater in height. Reference *Section 9-8-2(e)(1)(D)(ii) of the B.R.C.*
  - ☐ Uninhabitable Space (per definition of "Uninhabitable space" in *Section 9-16 of the B.R.C.*).
    - Identify individual rooms and portions of rooms where head height is less than 6', where applicable, or rooms used solely for mechanical purposes.
  - ☐ Locations and sizes of external openings including windows and doors.
  - ☐ Window information.
    - The size and type of each window.
    - Provide the U-factor.
    - Show where safety glazing will be used.
    - Indicate which windows will meet emergency escape and rescue (egress) requirements.
    - Detail window wells at egress windows (2018 IRC R303.1, R308.4 R310.2 R311, R613).
  - ☐ Landing on each side of each exterior door (2018 IRC R311.3).
  - ☐ Locations and types of plumbing fixtures (as listed on the *Plumbing Fixture Count and Irrigation Form*) as well as existing and proposed rough-ins.
    - Please note the locally amended flow rates of IRC table P2903.2.
    - For limitations on the type and number of plumbing fixtures allowed in accessory buildings see definition of "accessory building" in *Section 9-16-1 of the B.R.C*.
  - ☐ Location of equipment.
    - Show the location of water heaters, furnaces, boilers and any fireplace(s) (2018 IRC G2406).
  - ☐ Location(s) of mechanical/plumbing chases and vent/flue/intake terminations.
  - ☐ Location and size of electrical service main and sub-panels (2018 IRC E3502).
  - ☐ Location of smoke and carbon monoxide alarms.
    - Smoke alarms must be hardwired and interconnected (2018 IRC 314 & 315).
  - ☐ Location of under-floor access and venting (2018 IRC R408.1, 408.2, 408.4 & 2018 IMC 306.4).
  - ☐ Location of attic access and venting (2018 IRC R806 & R807).

- ☐ New Construction Only:
  - Clearly identify the following:
    - Solar ready requirements per the requirements identified in Chapter M23 of the IRC and Section R407 of the 2020 COBECC.
    - Electric vehicle charging Infrastructure per the requirements identified in Section R404.2 of the 2020 COBECC and Chapter E39 of the IRC. Indicate if feeds are underground or overhead.
    - Radon mitigation requirements as identified in the IRC 2018, Appendix F.

☐ Building Elevations

- ○ Including the following information:
  - ☐ Provide two dimensional drawings.
    - Perspective or isometric drawings may be provided as supplemental information only.
  - ☐ Building Height information.
    - Identify elevation of the low point within 25' of the building and the elevation of the upper-most point of the roof of the resulting building, provided in USGS values. See definition of height in *Section 9-16(c)(1) of the B.R.C*.
    - An arbitrary vertical datum (i.e. finish floor 100) may be used so long as it, and the elevations of all relative measurements, ALSO include the USGS conversion value. For example: finished floor elevation of 100' (5325.00 USGS), uppermost roof of 124' (5349.00), and low point of 95' (5320.00).
  - ☐ Existing and proposed grade.
    - See *Floor Area Ratio* and *Side Yard Wall Articulation* Handouts.
  - ☐ Provide Bulk Plane information.
    - See *Side Yard Bulk Plane* Handout.
  - ☐ Indicate roof pitch and roof covering materials, slope and underlayment.
    - Class A roofing materials are required; wood roofing materials are prohibited (2018 IRC R904 & *Sections 10-5.5-2 (h) & (i) of the B.R.C.*). Roofing materials must also meet the wind speed requirements as specified in *Section 10-5-2 (ff) of the B.R.C.*

☐ Building Cross Sections

- ○ At relevant locations (stairwells, other high-volume spaces, rooms with sloping ceilings, etc.) including the following information:
  - ☐ Building Height information.
    - Identify elevation of the low point within 25' of the building and the elevation of the upper-most point of the roof of the resulting building, provided in USGS values. See definition of height in *Section 9-16(c)(1), B.R.C.*
    - An arbitrary vertical datum (i.e. finish floor 100) may be used so long as it, and the elevations of all relative measurements, also include the USGS conversion value. For example: finished floor elevation of 100' (5325.00 USGS), uppermost roof of 124' (5349.00), and low point of 95' (5320.00).
- ○ High-volume spaces 16' or greater in height.
  - ☐ See *Floor Area Ratio Handout*.
- ○ Ceiling height in individual rooms/portions or rooms that are less than 6' in height.
  - ☐ See *Floor Area Ratio Handout*.
- ○ Stair details, including but not limited to (2018 IRC R311.5):
  - ☐ Headroom requirements.
  - ☐ Rise and run.
  - ☐ Riser opening size (if any).
  - ☐ Handrail and guard configuration.
  - ☐ Attachment details.

☐ Wall Section Details:

- ○ At relevant locations, include the following information:
- ○ Show location of insulation and provide R-value information (2020 COBECC, 2018 IRC R402.2.9)

- Fire-resistive assemblies.
  - ☐ Details of rated assemblies for walls within 5' of a property line.
  - ☐ Demonstration of how projections within the 5' fire separation distance will be protected on the underside (2018 IRC R302.1 & Table R302.1).
- Garage/house separation.
  - ☐ Detail the wall and ceiling construction between the garage and house (2018 IRC R309.1 & R309.2).
- Common walls at townhouses.
  - ☐ At the common wall for townhouses, provide a section of the structure detailing the 1-hr. rated wall assembly, or clearly demonstrate how an exception will be met (*Section 10-5.5-2(i) of the B.R.C.*).

☐ Structural Drawings:

- All new structures and additions must be designed by a Colorado licensed engineer to resist wind, seismic and gravity loads (2018 IRC R301.2.1.1 & *Section 10-5.5-2(g) of the B.R.C.*). Design wind speeds are 150 mph V east of Broadway and 165 mph V west of Broadway.
- Including the following:
  - ☐ Footing and foundation design.
  - ☐ All footings and foundations for areas in excess of 150 square feet shall be designed by a Colorado licensed engineer, except for detached accessory structures which are not intended for human habitation.
- Framing Sections.
  - ☐ Include the size, species, grade, and spacing of framing members.
  - ☐ Specify connections, dimension footings and foundations.
  - ☐ Specify roof and wall sheathing, roof covering material and underlayment, wall siding and underlayment, insulation, foundation drainage and location of grade.
- Conventional roof framing.
  - ☐ Provide a roof framing plan showing the size, grade, span and spacing of all roof and ceiling members.
  - ☐ Also include ridges and valleys, roof pitches and location and size of skylights. (2018 IRC R802)
- Truss framed roofs.
  - ☐ Stamped manufacturer's truss drawings for each type of truss must be provided and keyed to the roof framing plan (2018 IRC R802.10).
  - ☐ Truss submittals may be deferred until framing inspection for simple roof designs without large interior point loads.
- Structural Insulated Panels (SIPs).
  - ☐ All proposed SIP wall and roof systems require additional documentation to be provided at the time of application including, but not limited to, manufacturer's information and the ICC Evaluation report for the product system chosen.
  - ☐ Stamped structural plans must include all intended SIP's applications and include panel location and attachment details.
- Insulated Concrete Forms (ICF).
  - ☐ All proposed ICF systems require additional documentation to be provided at the time of application including, but not limited to, manufacturer's information and the ICC Evaluation report for the product system chosen if available.
  - ☐ Stamped structural plans must include all intended ICF applications.
- Concrete encased electrodes.
  - ☐ Identify the location of concrete encased electrode(s) for electric service on foundation plan (2018 IRC E3608).
- Additional roof, deck, and/or floor loads, such as those associated with photovoltaics, heavier roofing materials such as concrete tile or slate, concrete topping for floors and hot tub installation on elevated decks or floors, must be identified and included in calculations/analysis by the Structural Engineer.

☐ Existing Building Code Analysis

- Existing building projects must provide a comprehensive code analysis that indicates the code being used (IRC, IEBC, or IBC), the scope (repair, alteration, addition, change of occupancy/use, or relocation), and the level of alteration.

DEFINITIONS:

BUILDING TYPE	
Multi-Family	Buildings that contain attached residential dwelling units not regulated by the International Residential Code (IRC).
Commercial	General term for any building designed under the International Building Code (IBC); used interchangeably with “Non-Residential“.
Mixed- Use	Buildings that contain attached residential dwelling units as well as other uses not associated with residential occupancy.
Non-Residential	General term for any building designed under the IBC that does not contain residential dwelling units; used interchangeably with “Commercial“.
Industrial	Buildings that contain primarily Factory, High Hazard, Storage or Utility uses.

WORK CLASS	
New	The construction of a new strucuture or building.
Addition	Any construction that results in an increase in building coverage, height, number of stories or floor area, which may include internal mezzanines.
Remodel / Alteration	Any construction or renovation to an existing structure other than a repair or addition.
Repair	The reconstruction, replacement or renewal of any part of an existing building for the purpose of maintenance or to correct damage. A repair DOES NOT include complete replacement of a building or building system. Repairs to buildings that have sustained *substantial structural damage* are considered Remodel / Alterations.

Please note: The City of Boulder will periodically adopt and amend updated versions of all Model Codes and the B.R.C. through public process. When this occurs, some of the items in this checklist may be changed or updated, and a new checklist should be obtained from the *Planning and Development Services Applications and Forms Database*. This checklist applies only to the requirements of the 2018 IBC as amended, BRC 1981 10-5-5, as it applies to structures covered by the scope, relevant portions of the *2020 City of Boulder Energy Conservation Code* and BRC 1981 *Title 9*, and is not a complete or exhaustive list of the requirements of any adopted Code, or of all elements which should be included in a plan set, nor does it contain complete information describing what your permit application must contain to demonstrate compliance with the IBC or the B.R.C. Please contact the *Planning and Development Services Center* for more information.