



2024 INTERNATIONAL BUILDING CODE Commercial Permits

Revised 11/24/2025

Review Checklist to be filled out by Design Professional or Owner

Submittal Date: _____

Building Address: _____

Owner: _____

Total Floor Area: _____

Scope of Work Area: _____

Type of Construction: _____

Building Type: _____

No. Stories: _____

Occupancy Classification: _____

Fire Sprinklers: _____

Zone District: _____

Name of PUD (if applicable): _____

Discussed project with the Planning Division

This checklist is compiled for plan checking purposes for use by the Division of Building and Life Safety Inspections the Fire District will also have their own checklist for their permit. **The owner or architect is required to check each box throughout the checklist to verify they have submitted plans with the required information. Failure to do so will result in the plans not being reviewed. N/A can be used if not applicable.** The information contained herein will also provide condensed construction information for design and job use. The checklist is not intended to indicate any change in any building code or ordinance by inference or omission.

Please check the box on each line item for each item that is on the set of plans that you are submitting. **Failure to have the checklist items listed NOT on your set of plans will result in your plans going back to you or your design professional additional plan review fees may be assessed with additional wait time.** Any indicated correction not made or construction detail not shown will be assumed to be installed in accordance with the City adopted Building Codes and standards.

GENERAL:

- Indicate project name and address on each drawings.
- Indicate on the cover sheet of plans the name, title, address, and phone number of designer(s) of record and a complete sheet index of all submitted plans.
- Each sheet shall be sealed and signed by a Colorado licensed/registered professional designer as required by state law.
- Plans shall be complete and shall consist of architectural, structural, electrical, plumbing, Life Safety, Sprinkler and mechanical drawings (where any of these elements occur in the proposed scope of work), specifications, calculations, soils report, and supportive data.
- Show all mine hazards within 200 ft. of structure. Look at City Building Website for Mine Hazard Info.
- For remodels, renovations, or a change of use or occupancy, provide a written project narrative description of the complete scope of work included.
- Provide a fully dimensioned plot plan drawn to scale. Show lot size, roads, streets, easements, setbacks and property lines. Indicate location, size and use of all buildings and structures. Identify adjacent tenants in multi-tenant buildings.
- Provide a written description of the project scope on the cover sheet
- If any work is proposed on the exterior of the building or site, provide the zone district in which the property is located, and the applicable PUD the property is subject to. If not known, contact the Planning Department to obtain this information prior to the submission of a building permit.
- Note that all new electrical and mechanical systems must have a commissioning report before final inspection.
- Fire Hardening Code. Manufactures specification and testing of Materials must be submitted to show that all exterior materials meet a Class A Fire Spread and Smoke Index of a Class A.
- Staging Area on Plans for Construction staging, Modular Office location, Construction Parking, Equipment Parking, Fencing of 6 ft fence, Signs and Dirt Storage.

CODE ANALYSIS:

- List all adopted Codes the minimum standards of the 2024 IBC, IPC, IFGC, IMC, IFC, IECC, IEBC, ICC A117.1 2017 and 2023 NEC, Colorado Model Electric Ready Code and Solar Ready Code.**
- List the construction type as defined by the 2024 IBC.
- Note the 2023 NEC as Adopted by the State of Colorado
- List occupancy classification and occupant load calculations. List required occupancy separations or fire resistive construction elements included for each area. (2024 IBC 302, 1004)
- Actual floor area, number of stories and height of the building. (2024 IBC 504)
- Exit analysis including exit width requirements and number of exits. Clearly identify all doors used for exit egress. (2024 IBC 1005, 1006, 1007)
- Indicate if building has a sprinkler system or if one will be installed. (2024 IBC 903)
- Provide plumbing fixture calculations per 2024 IBC 2901.
- Provide an egress plan including travel distances and the accessible means of egress for each floor level.

ARCHITECTURAL:

- Show overall building height dimensions on both exterior elevations and at building sections. Indicate existing and proposed finished grade elevation. Also include grade at highest and lowest exterior corners of the building at finished grade to establish average grade. Include a building height dimension from average grade.
- Address must be located on building in large reflective and contrasting numbers 6 inches or greater. Per IFC 505
- All A Occupancies must have panic hardware on all exit doors
- Occupant loads must be noted on the set of plans.
- Provide floor plans, details, and schedules (show existing/demolition separate from proposed/new construction)
- Provide complete and clearly dimensioned floor layout at each level which identifies the use of each room and the type and location of each wall.
- Provide a complete roof plan indicating all roof slopes, size, and location of the primary and secondary drainage systems. Demonstrate rooftop equipment location and distances from the edge of the roof. If new or modified screening is required, include height and material for screening, and height of roof top equipment being screened.
- Provide structural details of the roof

- Provide reflected ceiling plans for each level including ceiling heights, ceiling types, and access panels and lighting plan.
- Provide exterior elevations for each side of the building which contains clearly dimensioned overall building height and floor-to-floor heights, indicate the location of all doors and glazed openings.
- Provide a door schedule which clearly references doors labeled on the floor plans, indicate the type and size of each door, include hardware schedule and egress hardware.
- Provide a window schedule that specify required type, size, corresponding to each glazed opening indicated on the plans.
- Provide building and wall sections which clearly identify the required type and location of all materials for construction including wall bracing.
- Provide the location and hourly fire-rating of all fire-rated assemblies including fire walls, fire separation assemblies, columns, beams, shafts, floors and roofs.
- Provide complete stairway, guardrail, and handrail details. (2024 IBC 1011, 1014. 1015)
- Location and method of storage of hazardous materials with a complete Hazardous Materials Inventory Statement completed by a qualified professional.
- Show all Fire Separations
- Multifamily homes show details for a radon mitigation system at the foundation level and venting through the roof
- Provide Solar Ready conduit and structure.

ACCESSIBILITY

- Clearly demonstrate the accessible routes and accessible entrances.
- Provide details of site and building elements such as ramps, curb ramps, accessible parking spaces, and passenger loading zones.
- Provide details for accessible drinking fountains, urinals, water closets, and toilet compartments demonstrating required clearances and mounting heights.
- Provide details for accessible bathtubs and shower compartments demonstrating required clearances.
- Provide details for built-in furnishings and equipment including benches, dining surfaces, work surfaces, sales and service counters.
- Clearly identify accessible elements with required signage. (2024 IBC 1112)

ENERGY

Table C402.1.3 (Mandatory)

Opaque Thermal Envelope Insulation Component of an Average Minimum Requirements, R-Value Method in following locations:

Roof C402.2.3	
Insulation entirely above roof deck	R-49/ R-49 ci
Metal buildings	R-21 + R-11 LS
Attic and other	R-49
Walls. Above grade C402.2.2	
Mass	R-21/ R-21 ci
Metal buildings	R-21 + R-10ci
Metal framed	R-21+ R-10ci
Wood framed and other	R-27/ R-20 + R-5 ci
Walls, Below grade C402.2.5	
Below-grade wall ^b	R-10 ci
Floors C402.2.3	
Mass	R-21
Joist/framing	R-38
Slab-on-grade floors C402.2.4	
Unheated	R-20 for 24" below
Heated	R-15 for 36" below + R-5 full slab

90% of light fixtures shall contain high-efficiency lamps, light occupant sensors in commercial, timers on bathroom exhaust fans, structures to be built solar ready.

Table C402.5
Building Thermal Envelope Fenestration Maximum

Vertical Fenestration	
Maximum U-Factor Fixed/Operable	0.34/0.45
Maximum SHGC	0.33
Entrance Doors	0.63
Maximum air leakage rate for curtain walls and storefront glazing	.06 cfm/ft2
Skylights	
Maximum U-Factor	0.50
Maximum SHGC	0.40
Maximum Air leakage rate	.20 cfm/ft2

- Clearly demonstrate the location of the thermal envelope and indicate the insulation values. (2024 IECC C402.1.3)
- List all windows and glazing U Factors. (2024 IECC C402.5)
- Provide a signed 2024 Mechanical COMcheck and 2024 Lighting COMcheck Compliance Report.
- Provide a vapor retarder and water-resistive barrier for exterior walls and under concrete floors. (2024 IECC 402.1.3)
- Structure must be Solar Ready
- Structure Must be Electric Ready, Electric ran to all gas appliances
- C402.6.2.1 Whole Building Test Method and reporting by Third Party

STRUCTURAL

- Provide complete structural design criteria with engineering including but not limited to required design loads, material specifications, soils reports and structural construction requirements.
- Complete foundation plans and construction details including foundation drainage. (2024 IBC 1803, 1804, 1805, 1806, 1807, 1808)
- Foundation wall and slab details, reinforcing steel sizing and spacing.
- Show all mine hazards and engineering on foundations to compensate for the mine hazards and soils report.
- Provide complete structural details on all walls, floor ceilings and foundation which clearly indicate the required connections between all wall floor, and roof framing components including anchorage to foundation. All sections, details, and elevations shall be clearly referenced on the foundation, floor, and roof framing plans.
- Provide the locations, weight and method of supporting all mechanical equipment and any other special fixed equipment.
- Provide complete and clearly dimensioned floor framing plan for each level and roof framing plan which indicates the materials, types, sizes, and locations for all structural elements.
- Soils Report must note Mine hazards in area.

MECHANICAL

- Note all Mechanical shall be installed to the 2024 IMC**
- Provide complete plan for each floor level and roof which indicates the type, size, location of equipment and fire dampers for each air distribution system.
- Provide equipment schedule which includes ratings for air flow (cfm), BTU, and energy efficiency.
- The location, size and materials used for all ducts, plenums, vents and piping.
- Provide complete calculations for outdoor air ventilation based on the corresponding occupancy classification and occupant load.
- Mechanical Ducts outside of Building Envelope must be R-8 insulation
- Complete details for exhaust hoods and associated grease duct systems with clean out locations and indicate method of supplying makeup air, kitchen air balance/ interlocks, hood details and equipment. (2024 IMC 501)
- Provide gas piping sizing using longest length method per Appendix A IFGC.
- All equipment must be listed and labeled for its use by Underwriters Laboratory or a Nationally Recognized Testing Laboratory.
- Balance report is needed for C.O.
- Commissioning Report is needed for new mechanical systems
- Details for mechanical fire suppression systems and hood details for all kitchens
- Note that all hot water heaters and Boiler's must also be inspected by the State of Colorado and the City of Louisville.

ELECTRICAL

- Note shall be installed to the State of Colorado Electrical Code**
- City will require an Electrical Engineer to design all systems that are greater than a 600 amp service.
- Provide an electrical legend showing symbols used on drawings.
- Plans shall show locations of new/existing and relocated utilization equipment.
- Plans shall indicate equipment and panel rating, as well as panel schedules which include all branch circuit loads. Plans shall include all affected electrical panel and service entrance load calculations. (2023 NEC 408, 110)

- Provide complete panel schedules with load calculations. For remodels show existing and new loads. Provide a one-line diagram with complete load calculations and maximum available fault current.
- Include complete lighting plans with fixture schedule for all new luminaires.
- Show means of egress illumination and exit signage throughout building and exit discharge. (2024 IBC 1008, 1009.9)
- Plans shall indicate all affected feeder and service entrance conductor sizes on the 1-line diagrams.
- Provide hazardous area plan. (2023 NEC 500.4 A)
- Lithium Energy Storage Systems (ESS). Energy storage systems shall not be installed inside the thermal building envelope of a commercial structure, primary residence, or Accessory Dwelling Unit (ADU). The ESS shall be installed on the outside of the thermal envelope or in an exterior insulated shed attached or detached to the building envelope to protect from extreme heat and cold. The ESS shall have electrical disconnects within 3 to 6 ft of the ESS. The installation of an ESS in garages that are attached to a residence or ADU must have One Hour Fire rated walls and ceiling and or an approved Fire Suppression system in the garage. The ESS shall be installed on the wall farthest away from the residence inside the garage the ESS shall have a Heat Detector that is tied into the Smoke Detectors and shall have a flashing light on the battery with the fault.

EXCEPTION:

- Commercial Buildings with a 1 hour rated room where mechanical ventilation is separated from the rest of the building and shall have a Heat Detector at each battery with a flashing light on the battery with the fault.
- Commissioning Report is needed for Electrical
- All equipment must be listed and labeled for its use by Underwriters Laboratory or a Nationally Recognized Testing Laboratory.

PLUMBING

- Must note all plumbing to be installed to 2024 IPC**
- Two Separate water lines must be indicated on the set of plans with the size of the waterlines, one for the Fire Suppression System and one for the Culinary Water System. Cannot use Fire Water line for Culinary water.
- Isometric and floor plan view of all water, drainage, waste and vent piping, with location, size and material. Provide a floor plan showing all location of fixtures and types.

- Show location of clean-outs, backwater valves, water shutoff valves, and back-flow prevention.
- Provide a complete three-dimensional isometric drawing of the drainage systems including roof drain details.
- Submit completed Industrial Waste Survey
- If a food service establishment, submit additional documentation as outlined on the industrial waste survey and grease interceptor sizing form.
- Show location and details of pretreatment devices (grease interceptors, grease traps, oil / water separators, sand traps, etc.)
- Two fixture count forms are required, one for existing fixtures and one for proposed
- Annual water demand letter from licensed engineer or architect for indoor and other usage
- Irrigation plan showing total irrigated area and instantaneous demand for each zone, calculated by a licensed engineer or architect
- Completed tap fee calculation form with completed indoor, irrigation, and sewer sections as appropriate

FIRE SPRINKLER

- Must Note All fire sprinkler systems to be designed and installed to the most current edition of NFPA 13. Separate deferred submittal required through the Louisville Fire Protection District.**
- Provide FDC (fire department connection) location on drawings (2024 IFC, 912)
- Ensure system is tapped into a commercial line (i.e. city main) and not a domestic water supply. **Separate deferred submittal required through the Louisville Fire Protection District for Underground Fire Line. Proof of installer State certification, design drawings showing compliance with NPFA 24, and material data sheets required.**

FIRE ALARM

- Must note all fire alarm systems to be designed and installed to the most current edition of NFPA 72. Separate deferred submittal required through the Louisville Fire Protection District.**
- Provide FACP location on plans

FIRE DEPARTMENT

- Provided site location map

- Show fire apparatus access to the building(s) (2024 IFC, 503)
- Show gas, water and electrical cut offs (2024 IFC, 509.1.1)
- Show designated fire lanes (2024 Appendix D)
- Show all tanks & generators (2024 IFC, 1203.1.1)
- Obtain a fuel storage permit for onsite construction (2024 IFC, 105.6.16)
- Show gates across entrances and fire department access roads (2024 IFC, 503.6)
- Show fire sprinkler riser room location and provide permanent markings on exterior (2024 IFC, 509)
- Show Knox box location on drawings (I24 506)
- If any hazardous materials are being used at the business provide a list of chemicals and their quantities (2024 IFC, 5001.5.2)

AFFIDAVIT:

I (print name) _____ understand by signing below I agree that I have noted all the requirements on my submitted set of plans and I acknowledge that failure to do so will result in the plans being returned until such requirements are addressed on the set of plans and additional plan review fees could added with an additional plan review wait time.

Signature: _____ Date: _____