

# City of Aurora

## Building Division Regulations – Marijuana Related Occupancies

The following regulations pertain to Building Division requirements for the plan review, approval and inspection of marijuana-related occupancies. The requirements listed below are only intended to assist the applicant with some of the requirements for their plan review and permit submittal and are not to be considered an all-inclusive listing of City or Building Division requirements for plan approval or permit issuance.

### **GENERAL BUILDING REQUIREMENTS**

1. All construction and remodeling work must be performed by City of Aurora licensed Class A or Class B contractors. All electrical work must be performed by a State of Colorado licensed electrical contractor. All plumbing work must be performed by a State of Colorado licensed plumber.
2. The currently adopted building codes and standards that have been adopted by the City of Aurora are as follows:  
2015 International Building Code (IBC)  
2015 International Existing Building Code (IEBC)  
2015 International Mechanical Code (IMC)  
2015 International Plumbing Code (IPC)  
2015 International Fire Code (IFC)  
2014 National Electrical Code (NEC)  
2015 International Energy Conservation Code (IECC)  
City amendments to these codes can be found at [www.municode.com](http://www.municode.com)
3. Construction plans and building permits are required per the International Building Code (IBC) Section 105 when the occupant intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done.
4. Provide the address number and/or unit number on all applications, plans, specifications and documents related to the location.
5. A City of Aurora Building Permit application from must be completed in its entirety and included with each plan submittal.
6. An individual plan review submittal package is required for each individual building and building address.

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7. Plan review fees must be paid in full before plans will be accepted for plan review. Plan review and permit fees can be found on the Building Division website.
8. Separate plan reviews and building permits will be required for the installation of each fire protection system required to be installed in conjunction with the alteration of any building or structure.
9. *Inspections.* Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. IBC 110. Inspections can be requested by calling the Permit Center at 303-739-7420 or the Building Division website.
10. *Certificate of Occupancy.* No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the building official has issued a certificate of occupancy therefore as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. IBC Section 111
11. The occupant is required to keep all City approved plans, specifications and related documents on the premises, in an easily accessible location for the building inspector for the required quarterly inspections of the premises by the City.
12. *Occupancy Classification.* Grow facilities, testing facilities and marijuana infused product processing (MIPs) facilities are to meet IBC, Chapter 3 requirements based on Use and Occupancy Classification for a Factory Industrial, F-1, Moderate-hazard Occupancy per IBC 306.2  
  
Marijuana retail stores are to meet IBC Chapter 3 requirements based on Use and Occupancy Classification for a Mercantile Occupancy M (IBC 309.1) and Business Occupancy B. IBC 304.1
13. High-piled stock or rack storage in any occupancy group shall comply with the International Fire Code. IBC Section 413.
14. All hazardous materials must comply with the requirements of IBC Section 414
15. Section 414.1 of the IBC adopted in section 22-131 is deleted in its entirety and amended to read as follows:

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The provisions of IBC sections 414.1 through 414.6 shall apply to buildings and structures occupied for the manufacturing, processing, dispensing, use or storage of hazardous materials, including all retail marijuana establishments.

Each retail marijuana cultivation facilities, retail marijuana product manufacturing facilities, and retail marijuana testing facilities shall submit to the City:

- (1) A plan that specifies all means to be used for extracting, heating, washing, or otherwise changing the form of the marijuana plant or for testing any marijuana or marijuana product, including a verification that such plan is in compliance with all applicable federal, state, and local laws and regulations governing ventilation and safety measures for each such process;
- (2) A report from an industrial hygienist verifying that the plan submitted pursuant to subsection (1) and the improvements to be constructed adequately protects the facility and adjacent properties and persons, and complies with all applicable federal, state, and local laws and regulations;
- (3) A description of all toxic, flammable, or other materials regulated by a federal, state, or local government that will be used, kept, or created at the facility, the quantities and location of such materials, and the manner in which such materials will be stored; and
- (4) A description of the processes used to extract or distill marijuana derivatives from their source and the processes used to incorporate marijuana derivatives into all retail marijuana products produced, including a verification that such processes are in compliance with all applicable federal, state, or local laws or regulations.

16. The height and area of all structures will be reviewed for compliance with IBC Chapter 5, “General building heights and areas”
17. All fire rated elements in the space must meet the applicable requirements listed in IBC Chapter 7 for “Fire and Smoke Protection Features”.
18. *Fire barriers for retail marijuana establishments.* Section 508.4.4 of the IBC is amended by adding the following: “Unless higher performance is required by applicable law, there must be a minimum of a one-hour fire separation in accordance with IBC section 707 between a retail marijuana establishment and any adjacent occupancy regardless of occupancy classification.”
19. *Continuity.* Fire barriers shall extend from the top of the floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed spaces, such as the space above a suspended ceiling. IBC 707.5
20. *Openings.* Openings in a fire barrier shall be protected in accordance with IBC Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square

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feet. Openings in exit enclosures and exit passageways shall also comply with IBC Sections 1024.5 and 1024.6, respectively. IBC 707.6

21. Penetrations of fire barriers shall comply with IBC Section 714.
22. Penetrations in a fire barrier by ducts and air transfer openings shall comply with IBC Section 714.1.1.
23. Joints made in or between fire barriers, and joints made at the intersection of fire barriers with underside of the floor or roof sheathing, slab or deck above, shall comply with IBC Section 715.
24. *Required separation of retail marijuana establishments.* Table 508.4 of the IBC is amended by adding the following: “For all retail marijuana establishments, Table 508.4 shall show a required one-hour separation between B, F-1, M, S-1 and B, F-1, M, S-1.”
25. The Construction Type of the proposed space must be determined and clearly identified by the applicant on the construction plans using the requirements listed in IBC Chapter 6.
26. *Interior finish requirements based on group.* Interior wall and ceiling finishes shall have a flame spread index not greater than that specified in Table 803.1.1 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 or UL 723 is required. IBC 803.1.1
27. All materials used as interior finishes, trim and decorative materials must comply with the provisions of IBC Section 803 “Wall and Ceiling Finishes” and the flame spread rating for interior finishes or covered with a thermal barrier per IBC 2604.2 Plastic film, foam plastic insulation and the paper facing on fiberglass insulation must be rated or covered with an approved thermal barrier
28. The design, installation, operation and requirements for all fire protection systems will be governed by IBC Chapter 9, “Fire Protection Systems”.
29. Buildings or portions thereof shall be provided with a means of egress system as required by IBC Chapter 10, “Means of Egress”.
30. The design occupant load of each space will be determined by IBC Section 1004; the occupant load factor (OLF) for retail marijuana stores is 30 sq. ft. per person. The OLF for grow, marijuana infused products, testing and business areas is 100 sq. ft. per person.

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31. The minimum required egress width will be determined by IBC Section 1005.
32. The means of egress, including the exit discharge, shall be illuminated at all times the building space is occupied in accordance with IBC Section 1006.
33. *Accessible means of egress is required.* Accessible means of egress shall comply with IBC Section 1009. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by IBC Section 1007.1 or 1007.1.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.
34. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign. IBC Section 1013
35. Corridors shall be fire-resistance rated in accordance with IBC Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with IBC Section 708 for fire partitions.
36. All spaces within each story shall have access to the minimum number of approved independent exits as specified in IBC Table 1006.3.1 based on the occupant load of the story.
37. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building. IBC Section 1028.1
38. Access must be provided throughout the building for physically disabled persons in accordance with IBC Chapter 11, “Accessibility”.
39. The ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings shall be in compliance with IBC Chapter 12, “Interior Environment”.

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40. *Door arrangement.* Space between two doors in a series shall be 48 inches minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.  
Exception: The minimum distance between horizontal sliding power-operated doors in a series shall be 48 inches. IBC 1010.1.8
41. *Door operations.* Except as specifically permitted, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. IBC 1010.1.9
42. *Hardware.* Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by IBC Chapter 11, shall not require tight grasping, tight pinching or twisting of the wrist to operate. IBC 1010.1.9.1
43. Existing doors other than the main entrance door that require more than one motion to open will need to be changed to door hardware that allows only one operation to open the door.
44. *Hardware height.* Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches minimum and 48 inches maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height. IBC 1010.1.9.2
45. *Locks and latches.* Locks and latches shall be permitted to prevent operation of doors where any of the following exists:
1. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
    - a) The locking device is readily distinguishable as locked;
    - b) A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch high on a contrasting background; and
    - c) The use of the key-operated locking device is revocable by the building official for due cause.

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2. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
3. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures. IBC 1010.1.9.3

46. *Bolt locks.* Manually operated flush bolts or surface bolts are not permitted. IBC 1010.1.9.4

47. *Unlatching.* The unlatching of any door or leaf shall not require more than one operation. IBC 1010.1.9.5

48. *Gates.* Gates serving the means of egress system shall comply with the requirements of this section. Gates used as a component in a means of egress shall conform to the applicable requirements for doors. IBC 1010.2

49. *Turnstiles.* Turnstiles or similar devices that restrict travel to one direction shall not be placed so as to obstruct any required means of egress. IBC 1010.3

50. *Stairway width.* The width of stairways shall be determined as specified in IBC 1005.1, but such width shall not be less than 44 inches. IBC 1011.1

51. Two exits are required from all spaces when the occupant load is greater than 49 occupants as determined by the building official and the common path travel distance exceeds 75 feet. (NOTE: A 100 foot common path travel distance is allowed if the building is equipped with an automatic fire sprinkler system in accordance with IBC 903.3.1.1). IBC 1007.1.1

### **MECHANICAL REQUIREMENTS**

1. A ventilation system will be required to be installed to prevent any odor of marijuana off the premises of the establishment.
2. *Energy utilization.* Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the International Energy Conservation Code. IMC 301.2

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3. *Fuel gas appliances and equipment.* The approval and installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be in accordance with the International Fuel Gas Code. IMC 301.6
4. *Listed and labeled.* Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance with IMC Section 105. IMC 301.7
5. Carbon dioxide generation systems must be listed and labeled, properly installed and functioning with a concentration level of no more than 1,500 ppm per IMC 301.7
6. *Labeling.* Labeling shall be in accordance with the procedures set forth in IMC Sections 301.8.1 through 301.8.2.3. IMC 301.8
7. *Label information.* A permanent factory-applied nameplate shall be affixed to appliances on which shall appear in legible lettering, the manufacturer's name or trademark, the model number, serial number and the seal or mark of the approved agency. A label shall also include the following:
  1. *Electrical equipment and appliances:* Electrical rating in volts, amperes and motor phase; identification of individual electrical components in volts, amperes or watts, motor phase; Btu/h (W) output; and required clearances.
  2. *Absorption units:* Hourly rating in Btu/h (W); minimum hourly rating for units having step or automatic modulating controls; type of fuel; type of refrigerant; cooling capacity in Btu/h (W); and required clearances.
  3. *Fuel-burning units:* Hourly rating in Btu/h (W); type of fuel approved for use with the appliance; and required clearances.
  4. *Electric comfort heating appliances:* Name and trademark of the manufacturer; the model number or equivalent; the electric rating in volts, ampacity and phase; Btu/h (W) output rating; individual marking for each electrical component in amperes or watts, volts and phase; required clearances from combustibles; and a seal indicating approval of the appliance by an approved agency. IMC 301.9
8. *Electrical.* Electrical wiring, controls and connections to equipment and appliances regulated by this code shall be in accordance with NFPA 70. IMC 301.10



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9. *Plumbing connections.* Potable water supply and building drainage system connections to equipment and appliances regulated by the IMC shall be in accordance with the International Plumbing Code. IMC 301.11
10. *Fuel types.* Fuel-fired appliances shall be designed for use with the type of fuel to which they will be connected and the altitude at which they are installed. Appliances that comprise parts of the building mechanical system shall not be converted for the usage of a different fuel, except where approved and converted in accordance with the manufacturer's instructions. The fuel input rate shall not be increased or decreased beyond the limit rating for the altitude at which the appliance is installed. IMC 301.12
11. *Structural safety.* The building or structure shall not be weakened by the installation of mechanical systems. Where floors, walls, ceilings or any other portion of the building or structure are required to be altered or replaced in the process of installing or repairing any system, the building or structure shall be left in a safe structural condition in accordance with the International Building Code. IMC 302.1
12. Penetrations of floor/ceiling assemblies and assemblies required to have a fire-resistance rating shall be protected in accordance with the International Building Code. IMC 302.2
13. Condensate drain systems shall be provided for equipment and appliances containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed and installed in accordance with IMC Sections 307.2.1 through 307.2.4. IMC 307.2
14. *Ventilation required.* Every occupied space shall be ventilated by natural means in accordance with IMC Section 402 or by mechanical means in accordance with IMC Section 403. IMC 401.2
15. Intake opening location.  
Air intake openings shall comply with all of the following:
  1. Intake openings shall be located a minimum of 10 feet from lot lines or buildings on the same lot. Where openings front on a street or public way, the distance shall be measured to the centerline of the street or public way.
  2. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet horizontally from any hazardous or noxious contaminant source, such as vents, streets, alleys, parking lots and loading docks, except as specified in Item 3 or Section 401.4

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3. Intake openings shall be located not less than 3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3048 mm) of the opening.
  4. Intake openings on structures in flood hazard areas shall be at or above the design flood level. IMC 401.4
16. *Intake opening protection.* Air intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in louvers, grilles and screens shall be sized in accordance with IMC Table 401.5, and shall be protected against local weather conditions. Outdoor air intake openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the International Building Code. IMC 401.5
17. *Contaminant sources.* Stationary local sources producing airborne particulates, heat, odors, fumes, spray, vapors, smoke or gases in such quantities as to be irritating or injurious to health shall be provided with an exhaust system in accordance with IMC Chapter 5 or a means of collection and removal of the contaminants. Such exhaust shall discharge directly to an approved location at the exterior of the building. IMC 401.6
18. *Ventilation system.* Mechanical ventilation shall be provided by a method of supply air and return or exhaust air. The amount of supply air shall be approximately equal to the amount of return and exhaust air. The system shall not be prohibited from producing negative or positive pressure. The system to convey ventilation air shall be designed and installed in accordance with IMC Chapter 6. IMC 403.1
19. Section 403.1 of the IMC is amended by adding the following: “A plan for ventilation of a retail marijuana establishment that describes the ventilation systems that will be used to prevent any odor of marijuana off the premises of the establishment must be submitted to the City. For retail marijuana cultivation facilities, such plan shall also include all ventilation systems used to control the environment for the plants and describe how such systems operate with the systems preventing any odor leaving the premises.

The required outdoor ventilation rate required for each retail marijuana establishment will be as follows:

- (1) For retail marijuana cultivation facilities, 8 persons per 1,000 square feet with a ventilation rate of 60 cubic feet per minute per person;

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- (2) For retail marijuana stores, retail marijuana product manufacturing facilities, and retail marijuana testing facilities 8 persons per 1,000 square feet with 15 cubic feet per minute per person.”

20. *Outdoor air required.* The minimum outdoor airflow rate shall be determined in accordance with IMC Section 403.3

Exception: Where the registered design professional demonstrates that an engineered ventilation system design will prevent the maximum concentration of contaminants from exceeding that obtainable by the rate of outdoor air ventilation determined in accordance with IMC Section 403.3, the minimum required rate of outdoor air shall be reduced in accordance with such engineered system design. IMC 403.3

21. *Recirculation of air.* The outdoor air required by IMC Section 403.3 shall not be recirculated. Air in excess of that required by IMC Section 403.3 shall not be prohibited from being recirculated as a component of supply air to building spaces, except that:

1. Ventilation air shall not be recirculated from one dwelling to another or to dissimilar occupancies.
2. Where mechanical exhaust is required by Note b in IMC Table 403.3, recirculation of air from such spaces shall be prohibited. All air supplied to such spaces shall be exhausted, including any air in excess of that required by IMC Table 403.3.
4. Where mechanical exhaust is required by Note g in IMC Table 403.3.1.1 mechanical exhaust is required and recirculation is prohibited where more than 10 percent of the resulting supply airstream consists of air recirculated from these spaces. IMC 403.2.1

22. *Balancing.* The ventilation air distribution system shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow rate as required by IMC Sections 403.3 and 403.3.1.2. Ventilation systems shall be balanced by an approved method. Such balancing shall verify that the ventilation system is capable of supplying and exhausting the airflow rates required by IMC Sections 403.3 and 403.3.1.2. Such air balance reports shall be provided to the inspector at time of inspection. Air balance reports may be requested by the inspection during quarterly inspections to ensure ongoing compliance with City requirements, and when issues or concerns regarding odors are brought to the attention of the City. IMC 403.1.5

23. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems

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that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy. IMC 405.1

24. The design, construction and installation of mechanical exhaust systems, including hazardous exhaust systems shall be in compliance with IMC Section 501.
25. *Exhaust discharge.* The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in IMC Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawl space. IMC 501.3
26. *Location of exhaust outlets.* The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:
  1. For ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet from property lines; 10 feet from operable openings into buildings; 6 feet from exterior walls and roofs; 30 feet from combustible walls and operable openings into buildings which are in the direction of the exhaust discharge; 10 feet above adjoining grade.
  2. For other product-conveying outlets: 10 feet from the property lines; 3 feet from exterior walls and roofs; 10 feet from operable openings into buildings; 10 feet above adjoining grade.
  3. For all environmental air exhaust: 3 feet from property lines; 3 feet from operable openings into buildings for all occupancies other than Group U, and 10 feet from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.
  4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment.
27. *Exhaust opening protection.* Exhaust openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in screens, louvers and grilles shall be sized not less than 1/4 inch and not larger than 1/2 inch. Openings shall be protected against local weather conditions. Outdoor openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the International Building Code. IMC 501.3.2

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28. *Pressure equalization.* Mechanical exhaust systems shall be sized to remove the quantity of air required by this chapter to be exhausted. The system shall operate when air is required to be exhausted. Where mechanical exhaust is required in a room or space in other than occupancies in R-3 and dwelling units in R-2, such space shall be maintained with a neutral or negative pressure. If a greater quantity of air is supplied by a mechanical ventilating supply system than is removed by a mechanical exhaust for a room, adequate means shall be provided for the natural or mechanical exhaust of the excess air supplied.

If only a mechanical exhaust system is installed for a room or if a greater quantity of air is removed by a mechanical exhaust system than is supplied by a mechanical ventilating supply system for a room, adequate makeup air consisting of supply air, transfer air or outdoor air shall be provided to satisfy the deficiency. The calculated building infiltration rate shall not be used to satisfy the requirements of this section. IMC 501.4

29. An exhaust system shall be provided, maintained and operated as specifically required by IMC 502 and for all occupied areas where machines, vats, tanks, furnaces, forges, salamanders and other appliances, equipment and processes in such areas produce or throw off dust or particles sufficiently light to float in the air, or which emit heat, odors, fumes, spray, gas or smoke, in such quantities so as to be irritating or injurious to health or safety. IMC 502.1

30. Required hoods shall meet the requirements of IMC Sections 506, 507 and 508.

31. Hazardous exhaust systems shall be designed and constructed in accordance with IMC Section 510.

32. *Independent system.* Hazardous exhaust systems shall be independent of other types of exhaust systems. Incompatible materials, as defined in the International Fire Code, shall not be exhausted through the same hazardous exhaust system. Hazardous exhaust systems shall not share common shafts with other duct systems, except where such systems are hazardous exhaust systems originating in the same fire area. IMC 510.4

33. *Mitigation of noxious gases produced by retail marijuana establishments.* IMC Section 510.2 is amended by adding the following: “Where hazardous exhaust is warranted for retail marijuana cultivation facilities, retail marijuana product manufacturing facilities, and retail marijuana testing facilities plans shall include all ventilation systems used to mitigate noxious gases or other fumes used or created as part of the production process in accordance with this chapter.”

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34. Duct systems used for the movement of air in air-conditioning, heating, ventilating and exhaust systems shall conform to the provisions of IMC Chapter 6 except as otherwise specified in IMC Chapters 5 and 7. IMC 601.1

### **PLUMBING REQUIREMENTS**

1. The provisions of the IPC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within this jurisdiction. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the International Fuel Gas Code (IFGC).
2. *Fixtures, faucets and fixture fittings.* IPC 401.1 shall govern the materials, design and installation of plumbing fixtures, faucets and fixture fittings in accordance with the type of occupancy, and shall provide for the minimum number of fixtures for various types of occupancies.
3. *Water Heaters.* The provisions of IPC Chapter 5 shall govern the materials, design and installation of water heaters and the related safety devices and appurtenances.
4. *Water Supply and Distribution.* The materials, design and installation of water supply systems, both hot and cold, for utilization in connection with human occupancy and habitation and shall be governed by IPC 601.1
5. Backflow prevention on hose bibs and faucets will be required per IPC 608.1
6. *Sanitary Drainage.* The materials, design, construction and installation of sanitary drainage systems shall be in compliance with IPC 701.1
7. *Indirect/Special Waste.* IPC Chapter 8 shall govern matters concerning indirect waste piping and special wastes. This chapter shall further control matters concerning food-handling establishments, sterilizers, clear-water wastes, swimming pools, methods of providing air breaks or air gaps, and neutralizing devices for corrosive wastes.
8. *Vents.* IPC Chapter 9 shall govern the materials, design, construction and installation of vent systems.
9. *Traps, Interceptors and Separators.* IPC Chapter 10 shall govern the material and installation of traps, interceptors and separators.

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### FUEL GAS CODE REQUIREMENTS

1. The International Fuel Gas Code (IFGC) shall govern the design and installation of fuel-gas piping systems, fuel gas appliances, gaseous hydrogen systems and related accessories.
2. *Maintenance.* Installations, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe condition. Devices or safeguards which are required by the IFGC shall be maintained in compliance with the code edition under which they were installed. The owner or the owner's designated agent shall be responsible for maintenance of installations. To determine compliance with this provision, the code official shall have the authority to require an installation to be re-inspected. IFGC 102.3
3. *Required testing.* Whenever there is insufficient evidence of compliance with the provisions of this code, evidence that a material or method does not conform to the requirements of the IFGC, or in order to substantiate claims for alternative materials or methods, the code official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. IFGC 105.3
4. Appliances regulated by the IFGC shall be listed and labeled for the application in which they are used unless otherwise approved in accordance with IFGC Section 105. The approval of unlisted appliances in accordance with IFGC Section 105 shall be based upon approved engineering evaluation. IFGC 301.3
5. *Hazardous locations.* Appliances shall not be located in a hazardous location unless listed and approved for the specific installation. IFGC 303.2
6. Every appliance shall discharge the products of combustion to the outdoors. IFGC 501.2

### ENERGY CONSERVATION

1. All new buildings must comply with the requirements of the International Energy Conservation Code.
2. Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with the IECC. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

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An addition shall be deemed to comply with the IECC if the addition alone complies or if the existing building and addition comply with the IECC as a single building.

Exception: The following need not comply provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
  2. Glass only replacements in an existing sash and frame.
  3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
  4. Construction where the existing roof, wall or floor cavity is not exposed.
  5. Reroofing for roofs where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
  6. Replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a conditioned space from the exterior shall not be removed,
  7. Alterations that replace less than 50 percent of the luminaires in a space, provided the alterations do not increase the installed interior lighting power.
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3. Aurora, CO is considered to be Climate Zone 5B for purposes of design and applicable code requirements listed in IECC Chapter 3 Table C301.1.
  4. The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72°F (22°C) for heating and minimum of 75°F (24°C) for cooling. IECC C 302.1
  5. Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code. IECC C 303.1
  6. The requirements contained in IECC C 401 are applicable to commercial buildings, or portions of commercial buildings. These commercial buildings shall meet either the requirements of ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except



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for Low-Rise Residential Buildings, or the requirements contained in this chapter. IECC 501.1

7. A commercial building project shall comply with the requirements in IECC Sections 502 (Building envelope requirements), 503 (Building mechanical systems), 504 (Service water heating) and 505 (Electrical power and lighting systems) in its entirety. As an alternative the commercial building project shall comply with the requirements of ASHRAE/IESNA 90.1 in its entirety. IECC 501.2

### **FIRE CODE REQUIREMENTS**

1. The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited in the areas indicated in IFC Sections 310.2 through 310.8.
2. Storage of combustible materials in buildings shall be orderly. Storage shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur per IFC Section 315.1.
3. Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited per IFC Section 316.4.
4. Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with the provisions of IFC Section 401.1.
5. Emergency evacuation drills complying with the provisions of this section shall be conducted at least annually for Group F occupancies listed in Section 404.2 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities per IFC Section 405.1.
6. The provisions of IFC Sections 407.2 through 407.7 shall be applicable where hazardous materials subject to permits under IFC Section 5001.5 are located on the premises or where required by the fire code official.
7. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official per IFC 506.1.

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8. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in IFC Sections 903.
  - IFC 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:
    - A Group F-1 fire area exceeds 12,000 square feet.
    - A Group F-1 fire area is located more than three stories above grade plane.
    - The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
  - IFC 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:
    - A Group M fire area exceeds 12,000 square feet.
    - A Group M fire area is located more than three stories above grade plane.
    - The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
    - A Group M occupancy is used for the display and sale of upholstered furniture.
  - An automatic sprinkler system shall be provided as required in IFC Chapter 23 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays per IFC 903.2.7.1.
9. In addition to the requirements of IFC Section 903.2, the provisions indicated in IFC Table 903.2.11.6 also require the installation of a fire suppression system for certain buildings and areas.
  - IFC Section 5003.8.5.3, exhausted enclosures where flammable materials are used shall be protected by an approved automatic fire-extinguishing system in accordance with IFC Chapter 9.
10. Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed, installed, inspected, tested and maintained in accordance with the provisions of IFC Section 904 and the applicable referenced standards.
11. Portable fire extinguishers shall be installed in F and M occupancy groups per IFC Section 906.1. The size and distribution of portable fire extinguishers shall be in accordance with IFC Sections 906.3.1 through 906.3.4.

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12. An approved fire alarm system installed in accordance with the provisions of the IFC and NFPA 72 shall be provided in new buildings and structures in accordance with IFC Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with IFC Section 907.5, unless other requirements are provided by another section of this code.
- A manual fire alarm system that activates the occupant notification system in accordance with IFC Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:
    - The Group F occupancy is two or more stories in height; and
    - The Group F occupancy has a combined occupant load of 500 or more above or below the lowest level of exit discharge.
      - Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.
  
  - A manual fire alarm system that activates the occupant notification system in accordance with IFC Section 907.5 shall be installed in Group M occupancies where one of the following conditions exists:
    - The combined Group M occupant load of all floors is 500 or more persons.
    - The Group M occupant load is more than 100 persons above or below the lowest level of exit discharge.
      - Exceptions:
        1. A manual fire alarm system is not required in covered mall buildings complying with Section 402 of the International Building Code.
        2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with IFC Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.
13. Per IFC Section 907.2.13.1.2, Duct smoke detectors complying with IFC Section 907.3.1 shall be located as follows:
- In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm). Such detectors shall be located in a serviceable area downstream of the last duct inlet.

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- At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system.
14. Smoke and heat vents shall be installed per IFC Section 910.2, in the roofs of one-story buildings or portions thereof occupied in Group F-1 having more than 50,000 square feet of undivided area.
15. Explosion control shall be provided per IFC 911.1. in the following locations:
- Where a structure, room or space is occupied for purposes involving explosion hazards as identified in IFC Table 911.1.
  - Where quantities of hazardous materials specified in IFC Table 911.1 exceed the maximum allowable quantities in Table 2703.1.1(1).

Such areas shall be provided with explosion (deflagration) venting, explosion (deflagration) prevention systems, or barricades in accordance with this section and NFPA 69, or NFPA 495 as applicable. Deflagration venting shall not be utilized as a means to protect buildings from detonation hazards.

16. Hazardous Materials Inventory Statement (HMIS) per IFC Section 2701.5.2. An application for a building permit shall include an HMIS, such as Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Tier II Report or other approved statement. The HMIS shall include the following information:
- Product name.
  - Component.
  - Chemical Abstract Service (CAS) number.
  - Location where stored or used.
  - Container size.
  - Hazard classification.
  - Amount in storage.
  - Amount in use-closed systems.
  - Amount in use-open systems.
17. The storage, use and handling of all hazardous materials shall be in accordance with IFC Chapter 27. The maximum allowable quantity of hazardous materials per control area will be established using IFC Section 2703.1.
- The maximum allowable quantity per control area shall be as specified in Tables 2703.1.1(1) through 2703.1.1(4). Note: For retail and wholesale storage and display in Group M occupancies, see Section 2703.11.

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18. Use, dispensing and handling of hazardous materials in amounts exceeding the maximum allowable quantity per control area set forth in IFC Section 2703.1 shall be in accordance with IFC Sections 2701, 2703 and 2705. Use, dispensing and handling of hazardous materials in amounts not exceeding the maximum allowable quantity per control area set forth in IFC Section 2703.1 shall be in accordance with IFC Sections 2701 and 2703.
19. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with IFC Chapter 30, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purposes of the controls required.
  - Compressed gases classified as hazardous materials shall also comply with Chapter 27 for general requirements and chapters addressing specific hazards, including Chapters 35 (Flammable Gases), 37 (Highly Toxic and Toxic Materials), 40 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 41 (Pyrophoric Materials).
20. Prevention, control and mitigation of dangerous conditions related to storage, use, dispensing, mixing and handling of flammable and combustible liquids shall be in accordance with IFC Chapter 27 and 34.
  - Flammable and combustible liquids shall be classified in accordance with the definitions in IFC Section 3402.1.
  - The storage of flammable and combustible liquids in containers and tanks shall be in accordance with IFC Section 3404 and the applicable sections of IFC Chapter 27.
  - Liquid storage quantity limitations shall comply with IFC Sections 3404.3.4.1 through 3404.3.4.4.
  - For occupancies other than Group M wholesale and retail sales uses, indoor storage of flammable and combustible liquids shall not exceed the maximum allowable quantities per control area indicated in IFC Table 2703.1.1(1) and shall not exceed the additional limitations set forth in the section.

### **ELECTRICAL REQUIREMENTS**

1. A single line diagram of the existing and proposed electrical system, including the main electrical service, shall be provided to the city. National Electric Code (NEC) 215.5
2. All electrical equipment is to be listed and labeled by an approved testing agency. NEC 110.3.

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3. Flexible cords (extension cords) are not to be used as a substitute for fixed wiring nor run through holes or concealed in walls, structural ceilings, suspended ceilings, dropped ceilings or floors; run through doorways, windows or similar openings; attached to building surfaces, NEC 400.8
4. Approved wiring methods must be utilized in grow facilities in accordance with NEC Chapter 3.
5. Grow rooms will be considered damp/ wet locations as they are subject to wash down and are subjected to high humidity. Indoor wet location wiring methods shall meet the requirements of NEC art 300.6(D) when humidity is left uncontrolled %50>.
6. Ground Fault Circuit Interrupters are required for personnel protection in wet locations. NEC Article 210.8(B)(6)
7. NM cable (romex) is not allowed for use in wet locations (i.e. grow rooms) per NEC 334.10.
8. Clear working space around electrical equipment shall be maintained per NEC Article 110.26 (A)(1), (A)(2),(A)(3).
9. All electrical distribution equipment, switch boards, panel boards and control centers must be identified with ARC-FLASH HAZARD WARNINGS.
10. All Electrical services that are a solidly grounded wye with more than 150V to ground and larger than 1,000 AMPS are required to be Ground-Fault Protected. NEC Article 230.95
11. Grow lights must be installed per manufacture instructions and wired per NEC article 410
  - a) Remote Ballasts shall be installed as near to the lamp as practicable to keep the secondary conductors as short as possible. NEC art 410.144(B)
  - b) Ballast secondary cord/conductors cannot pass through partitions and must be visible its entire length outside the fixture. NEC art 410.62(C)(1).
12. High-Intensity Discharge Lighting. Luminaires that use a Metal Halide lamp, other than a thick-glass parabolic reflector lamp (PAR), shall be provided with a containment barrier (Lens) on the fixture. NEC Article 410.130(F)(5)

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13. Portions of Marijuana Infused Product facilities may be considered a Hazardous Location based on the method used for THC extraction and the amount hazardous material stored. Full disclosure of the proposed extraction process will be required at time of plan submittal.
14. All buildings that are being newly constructed will be required to install a Concrete Encased Grounding Electrode.
15. Show window receptacles for retail stores shall be required per NEC Article 210.62
16. Heating and Air-conditioning equipment shall require a 15 or 20 amp service receptacle within 25 feet of the equipment. NEC Article 210.63
17. Prior to stocking of any marijuana products, all building components and electrical equipment shall be completed, inspected and approved per IBC 109.