

CAI

Code Administrators, Inc.



Submittal Requirements for Commercial Projects



Professional Code Services with Integrity and Accountability

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Submittal Requirements for Commercial Projects

The following items are required for commercial projects. Drawings should be drawn to ¼” or 1/8” scale and shall provide the necessary information to verify compliance with the building code. **All drawings shall bear the stamp and signature of the design professional in responsible charge for the design.**

Three (3) sets of construction drawings shall be submitted and shall include:

Site Plan Drawings; Construction documents shall contain a site plan that is drawn to scale. Site plan requirements include all of the following:

- (1) The size and location of new construction and existing structures on the site.
- (2) Accurate boundary lines.
- (3) Distances from lot lines & distance between adjacent structures and property lines.
- (4) The established street grades and the proposed finished grades.
- (5) All utility layouts
- (6) Location of handicap parking & accessible routes, public transportation stops and other required accessibility features.
- (7) Location of designated fire lanes.

Title Page Drawing; Construction documents shall include:

- (1) The contact information for all design professionals, to include designation of the Design Professional in Responsible Charge.
- (2) Description of square footage per floor & number of floors
- (3) Description of type of construction to be utilized
- (4) Use group classification(s), separation or non-separation of mixed use groups
- (5) Height and Area Calculations and area modifications utilized
- (6) Design occupant loads, to include the designation of the number of occupants to be accommodated on every floor and in all rooms and spaces.
- (7) Deferred submittals shall be clearly indicated on the construction documents for review and approval.
- (8) Design codes utilized.
- (9) Special inspection programs, as required by Chapter 17 of the 2003 IBC.

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Three (3) sets of construction drawings shall be submitted and shall include:

Elevation Drawings;

- (1) Description of the exterior wall envelope indicating compliance with the Uniform Construction Code.
- (2) Flashing details.
- (3) Details relating to intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, or parapets, means of drainage, water-resistive membrane and details around openings.
- (4) Construction connection details as indicated in the structural drawing requirements.
- (5) Handicapped accessible fixtures, equipment, & features.

Floor Plan Drawings;

- (1) Describe the specific use of all areas
- (2) Location & types of fire resistant construction
- (3) Tested and listed of fire resistive construction
- (4) Means of egress components
- (5) Handicap accessible features required by Chapter 11 of the 2009 IBC.

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Three (3) sets of construction drawings shall be submitted and shall include:

Structural Drawings;

- (1) Structural design calculations
- (2) Geo-technical engineering report
- (3) Uniform live loads, dead loads, roof & snow loads, wind loads.
- (4) Footing construction details
- (5) Foundation construction details
- (6) Framing construction details
- (7) Concrete construction details
- (8) Masonry construction details
- (9) Wood construction details
- (10) Steel construction details

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Three (3) sets of construction drawings shall be submitted and shall include:

Electrical Drawings;

- (1) Location and type of lighting facilities
- (2) Location and type of electrically operated equipment
- (3) Location and type of electrical circuits
- (4) Location and type of all service equipment of the structure
- (5) Panel schedules
- (6) Grounding systems
- (7) Wiring methods

Mechanical Drawings;

- (1) Size & type of appliances
- (2) Construction details of flues and chimney systems
- (3) Ventilation air provided per occupant load
- (4) Fresh air make-up provided per occupant load
- (5) Location of all ducting and piping
- (6) Gas piping layout and sizing calculations

Plumbing Drawings;

- (1) Plan view and a riser diagram of waste, drainage, & vent piping
- (2) Plan view and riser diagram of water distribution piping
- (3) Pipe sizing & grade of piping
- (4) Drainage fixture unit loads on stacks and drains
- (5) Water distribution design criteria
- (6) Potable water disinfection method
- (7) Size, type, & location of all equipment connected to the water distribution
- (8) Size, type, & location of all equipment connected to the drainage system

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Three (3) sets of construction drawings shall be submitted and shall include:

**Energy Conservation; Compliance path selected, IECC Chapters as follows:
CHAPTER 5 BUILDING DESIGN FOR ALL COMMERCIAL BUILDINGS**

Section

501 General

502 Building Envelope Requirements

503 Building Mechanical Requirements

504 Service Water Heating

505 Electrical Power and Lighting Systems

506 Total Building Performance

- (1) Department of Energy “ComCheck” complete submittal, to include inspection reports**
- (2) IECC complete description of method of compliance with energy conservation code to include thermal envelope barrier, electrical system design, mechanical system design, service water heating design, & total building performance.**

Submittal Requirements for Fire Alarm Systems

The following items are required for commercial projects. Drawings should be drawn to ¼” or 1/8” scale and shall provide the necessary information to verify compliance with the building code. **All drawings shall bear the stamp and signature of the design professional in responsible charge for the design.**

Three (3) sets of construction drawings shall be submitted and shall include:

Fire alarm systems shall be installed in accordance with NFPA 72 - 2007 and all submittals shall be complete and accurately filed.

Riser diagrams and floor plans must accompany the submittal. Zone layouts must be clearly indicated. Battery calculation sheets must be submitted, which clearly show 24 hour standby calculations and five minute alarm power calculations.

Catalog "cuts" or other published information must be submitted which shows the devices and equipment to be installed to be UL listed. Listed spacing of devices if applicable, must be indicated.

Digital alarm communicators must bear the UL protective services label (for fire use). DACT's installed within commercial facilities shall be connected to two (2) separate phone lines.

International Building Code Section [F] 907.1.1 Construction documents:

Construction documents for fire alarm systems shall be submitted for review and approval prior to system installation. Construction documents shall include, but not be limited to, all of the following:

1. A floor plan which indicates the use of all rooms.
2. Locations of alarm-initiating and notification appliances.
3. Alarm control and trouble signaling equipment.
4. Annunciation.
5. Power connection.
6. Battery calculations.
7. Conductor type and sizes.
8. Voltage drop calculations.
9. Manufacturers, model numbers and listing information for equipment, devices and materials.
10. Details of ceiling height and construction.
11. The interface of fire safety control functions

Submittal Requirements for Automatic Fire Sprinkler Systems

The following items are required for commercial projects. Drawings should be drawn to ¼” or 1/8” scale and shall provide the necessary information to verify compliance with the building code. **All drawings shall bear the stamp and signature of the design professional in responsible charge for the design.**

Automatic Fire Sprinkler Systems shall be designed in accordance with the following applicable minimum standards for design, installation, and testing.

2009 International Building Code Section 903.0, FIRE SPRINKLER SYSTEM

2009 International Building Code Section 905.0, STANDPIPE SYSTEMS

2009 International Fire Code Section 903.0, FIRE SPRINKLER SYSTEM

2009 International Fire Code Section 905.0, STANDPIPE SYSTEMS

NFPA 13-07, Installation of Sprinkler Systems

NFPA 13R-07, Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height

NFPA 13D-07, Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

NFPA 14-07, Standpipe and Hose Systems

NFPA 72-07, National Fire Alarm Code

The details of the system indicated on the construction documents shall include calculations and information on the sprinkler spacing and arrangement, water supply and discharge requirements, size and equivalent lengths of pipe and fittings and water supply source. Sufficient information shall be included to identify the apparatus and devices used.

Submittal shall include manufacturer's specification sheets on all piping, fittings, and equipment to be utilized in the fire suppression system from the water source to the inspector's test.