

Office of Building Department

Town of Southington, Connecticut

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BASIC REQUIREMENTS OF THE BUILDING CODE: COMMERCIAL, INSTITUTIONAL, & MULTI-FAMILY RESIDENTIAL

The 2021 International Building Code (IBC) portion of the 2022 Connecticut State Building Code applies to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures, **EXCEPT** Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height, which shall comply with the 2021 International Residential Code portion of the 2022 Connecticut State Building Code.

The IBC portion of the State Building Code requires that certain information must be provided, either in the construction documents (plans) or in addition to the construction documents. If the required information is not submitted with the application for building permit, the Building Department cannot issue a building permit, and we may not be able to complete a review of the construction documents.

The following are some of the most important sections of the Building Code with regard to information that *must* be provided in or along with the construction documents:

105.3 Application for Permit. To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished by the department of building safety for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. **Indicate the use and occupancy** for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in Section 107.
5. State the valuation of the proposed work.
6. Be signed by the applicant, or the applicant's authorized agent.
7. Give such other data and information as required by the building official.
8. Be accompanied by a **statement of special inspections** as required by Section 1704.3.
9. Identify if the structure or addition exceeds the threshold limits cited in Section 107.7.

10. Identify a registered design professional in responsible charge as required by Section 107.3.4.
11. Identify deferred submittals, including deferred submittal schedule, as required by Section 107.3.4.1.

105.3.1.1 Zoning Approval. Pursuant to subsection (f) of section 8-3 of the Connecticut General Statutes, no building permit shall be issued, in whole or in part, for a building, structure or use subject to the zoning regulations of a municipality without certification in writing by the official charged with the enforcement of such regulations that such building, structure or use is in conformity with such regulations or is a valid nonconforming use under such regulations.

The Zoning Department is a separate department from the Building Department. It is the applicant's responsibility to ensure that zoning approval has been obtained prior to applying for a building permit.

105.3.1.2 Fire Marshal Approval. Pursuant to section 29-263 of the Connecticut General Statutes, no building permit for a building, structure or use subject to the requirements of the Connecticut State Fire Safety Code shall be issued in whole or in part without certification in writing from the local fire marshal that the construction documents for such building, structure or use are in substantial compliance with the requirements of the Connecticut State Fire Safety Code.

In Southington, the Building Department and the Fire Marshal's office perform the required plan reviews in parallel. Three sets of construction documents are submitted to the Building Department. The Building Department transmits one set to the Fire Marshal's office for review. Questions about the Fire Codes or the Fire Marshal's review should be directed to the Fire Marshal's office at (860) 621-3202

105.3.3 By Whom Application Is Made. Pursuant to section 29-263 of the Connecticut General Statutes, application for a permit shall be made by the owner or by an authorized agent. If the authorized agent is a licensed contractor, the provisions of section 20-338b of the Connecticut General Statutes shall be followed. The full names and addresses of the owner, agent and the responsible officers, if the owner or agent is a corporate body, shall be stated in the application.

107.1 General. Submittal documents consisting of construction documents, **statement of special inspections, geotechnical report and other data** shall be submitted in two or more sets, or in a digital format where allowed by the building official, with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

107.2 Construction Documents. Construction documents shall be in accordance with Sections 107.2.1 through 107.2.8.

107.2.1 Information on Construction Documents. Construction documents shall be dimensioned and drawn on suitable material. Electronic media documents are permitted to be submitted where approved by the building official. **Construction documents shall be of**

sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official. When the quality or arrangement of materials is essential for conformity to this code, specific information shall be given to establish such quality or arrangement, and this code shall not be cited, or terms such as "legal," "per code," or their equivalent used as a substitute for specific information.

107.2.2 Fire Sprinkler System Shop Drawings. Shop drawings for fire sprinkler system(s) shall be submitted to indicate conformance to this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9. Pursuant to section 29-263a of the Connecticut General Statutes, such documents shall be accompanied by evidence of licensure as an automatic fire sprinkler layout technician in accordance with section 20-304a of the Connecticut General Statutes or a professional engineer licensed in accordance with chapter 391 of the Connecticut General Statutes.

107.2.3 Means of Egress. The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress including the path of the exit discharge to the public way in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

107.2.4 Exterior Wall Envelope. Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive barrier and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, as well as the test procedure used.

107.2.5 Exterior Balconies and Elevated Walking Surfaces. Where balconies or other elevated walking surfaces have weather-exposed surfaces, and the structural framing is protected by an impervious moisture barrier, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include manufacturer's installation instructions.

107.2.6 Site Plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey.

In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.

NOTE: The site plan required by the Building Code is separate from any site plans required by the Zoning Department. Building code fire separation distances are different from zoning setback distances. The site plan required by the Building Code must include the property lines; distances from the proposed building or addition to the property lines; if there are other structures on the same parcel, the location of the fire separation line between the structures and the fire separation distance between the proposed structure and the fire separation line; the location and layout of any on-site parking; the location of any required accessible parking, and the accessible route from accessible parking to the accessible entrance(s) to the proposed building; grade contours or spot grade elevations sufficient to document the gradient along all accessible paths of travel on the site; and fire lanes (if required by other provisions of the Building Code or the Fire Code).

107.2.6.1 Design Flood Elevations. Where design flood elevations are not specified, they shall be established in accordance with Section 1612.3.1.

107.2.6.2 Private Sewage Disposal System. The site plan shall indicate the location of a private sewage disposal system where a public sewer is not available. Private sewage disposal systems shall be designed and installed in accordance with the requirements of the Public Health Code adopted under authority of section 19a-36 of the Connecticut General Statutes. All technical and soil data required by the Public Health Code shall be submitted with the site plan. Approval of such systems shall be by the local authority having jurisdiction. When such approval is required by the local authority having jurisdiction, written proof of such approval shall be submitted to the building official prior to issuance of a building permit.

NOTE: The local authority having jurisdiction regarding private sewage disposal systems is the South-Central Health District. The Health District is a separate department from the Building Department. All questions relating to sewage disposal systems should be directed to the Health Department at (860) 276-6275.

107.2.7 Structural Information. The construction documents shall provide the information specified in Section 1603.

107.6 Additional Requirements. Pursuant to section 29-276c of the Connecticut General Statutes, the plans and specifications for any proposed structure or addition classified as (1) assembly, educational, institutional, high-hazard, transient residential, which includes hotels, motels, rooming or boarding houses, dormitories or similar buildings, other than residential buildings designed to be occupied by one or more families, without limitation as to size or number of stories; (2) business, factory and industrial, mercantile, moderate and low-hazard storage, having three stories or more or exceeding 30,000 square feet total gross area; and (3) nontransient residential dwellings having more than 16 units or 24,000 square feet total gross

area per building, shall be sealed by a licensed architect or professional engineer as defined by the statutory requirements of the professional registration laws of the State of Connecticut, and acting within the scope of their practice. Such architect or engineer shall be responsible for the review of shop drawings and the observation of construction. In the event such architect or engineer is unable to fulfill his or her review responsibilities, an additional architect or engineer shall be retained and the local building official shall be informed, in writing, of such retainer. If fabricated structural load-bearing members or assemblies are used in such construction, the licensed professional engineer responsible for the design of such members or assemblies shall be responsible for the implementation of the design by reviewing the fabrication process to ensure conformance with the design specifications and parameters. The additional requirements set forth in this subsection shall not apply to alterations, repairs, relocation or change of occupancy to any existing building.

107.7 Threshold Limits. Pursuant to section 29-276b of the Connecticut General Statutes, this section shall apply to any proposed structure or addition thereto that exceeds one or more of the following threshold limits:

1. Having four stories;
2. 60 feet in height;
3. With a clear span of 150 feet in width;
4. Containing 150,000 square feet of total gross floor area;
5. Exception: For Group S (Storage) the limit shall be 250,000 total gross square feet.
6. With an occupancy of 1,000 persons;
7. Group I (Institutional) use with 150 beds or persons;
8. Group R-1 (Residential) hotels or motels with 200 rooms in a single structure;
9. Group R-2 (Residential) multiple-family with 100 dwelling units in a single structure;
10. Group S (Storage) parking structures with 1,000 cars.

Threshold limits shall not apply to alterations, repairs or change of occupancy to any existing building.

110.1 General. 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 visible and able to be accessed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the owner or the owner's authorized agent to cause the work to remain visible and able to be accessed for inspection purposes. Neither the building official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

1603.1 General. Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the construction documents.

1704.3 Statement of Special Inspections. Where special inspections or tests are required by Section 1705, the registered design professional in responsible charge shall prepare a statement of special inspections in accordance with Section 1704.3.1 for submittal by the applicant in accordance with Section 1704.2.3.

1901.5 Construction Documents. The construction documents for structural concrete construction shall include:

1. The specified compressive strength of concrete at the stated ages or stages of construction for which each concrete element is designed.
2. The specified strength or grade of reinforcement.
3. The size and location of structural elements, reinforcement and anchors.
4. Provision for dimensional changes resulting from creep, shrinkage and temperature.
5. The magnitude and location of prestressing forces.
6. Anchorage length of reinforcement and location and length of lap splices.
7. Type and location of mechanical and welded splices of reinforcement.
8. Details and location of contraction or isolation joints specified for plain concrete.
9. Minimum concrete compressive strength at time of posttensioning.
10. Stressing sequence for posttensioning tendons.
11. For structures assigned to Seismic Design Category D, E or F, a statement if slab on grade is designed as a structural diaphragm.

Plumbing Code:

110.1 Construction Documents. Construction documents, engineering calculations, diagrams and other such data shall be submitted in two or more sets, or in a digital format where allowed by the code official, with each application for a permit. The code official shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made for pipes, fittings and components and shall indicate the materials and methods for maintaining required structural safety, fire-resistance rating and fireblocking.

Mechanical Code:

110.1 Construction Documents. Construction documents, engineering calculations, diagrams and other data shall be submitted in two or more sets, or in a digital format where allowed by the building official, with each application for a permit. The code official shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Where special conditions exist, the code official is authorized to require additional construction documents to be prepared by a registered design professional. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made for

mechanical systems, and the materials and methods for maintaining required structural safety, fire-resistance rating and fireblocking.

Electrical Code:

As established by the 2022 Connecticut Supplement adopting the 2020 *National Electrical Code*, administration of the NEC portion of the State Building Code shall be under the provisions of the IBC portion of the 2022 State Building Code. In general, this means that construction documents must be sufficiently clear and complete to allow the Electrical Inspector to determine that the work, when complete, will conform to all applicable code requirements.

Required Inspections:

- A. Formed footings and slabs including reinforcement and vapor barrier prior to pouring concrete.
- B. Formed foundation walls with reinforcing installed prior to pouring concrete.
- C. Foundation walls, drainage and insulation prior to backfill.
- D. Underground/Trench for Electric Service – before backfilling.
- E. Underground/Trench for Plumbing (water service) - before backfilling.
- F. Underground/Trench for gas service or propane - before backfilling.
- G. Rough inspection of Plumbing, Mechanical, Gas and Electrical systems shall be made **prior to covering or concealment**, before fixtures or appliances are set or installed, and prior to framing inspection.
 - Rough Plumbing
 - Rough HVAC
 - Gas piping
 - Gas pressure test
 - Rough Electric
- H. Rough structural and insulation prior to covering.
 - All rough utility inspections must have passed before the insulation inspection can be scheduled.
- I. Masonry bearing, attachment, flashing and weep hole installation.
- J. Final Electric, final Plumbing and final HVAC.
- K. Certificate of Occupancy or Certificate of Approval inspection.
 - Must have the following before the final inspection can be scheduled:
 - Final Zoning sign-off
 - Fire Marshal sign-off
 - Health Department sign-off (if applicable)
 - Final Special Inspections Report