



City of Gainesville – Building Division

306 NE 6th Ave, Gainesville, FL 32601

GENERAL DESIGN REQUIREMENTS

Codes in effect on December 31, 2020

Florida Building Code, Building - 7th Edition (2020)
Florida Building Code, Existing Building - 7th Edition (2020)
Florida Building Code, Residential - 7th Edition (2020)
Florida Building Code, Energy Conservation - 7th Edition (2020)
Florida Building Code, Plumbing - 7th Edition (2020)
Florida Building Code, Mechanical - 7th Edition (2020)
Florida Building Code, Fuel Gas- 7th Edition (2020)
Florida Building Code, Accessibility - 7th Edition (2020)
National Electrical Code 2017 – NFPA 70-17
Florida Fire Prevention Code – 7th Edition

View FBC - <https://floridabuilding.org>

View FFPC - <https://www.myfloridacfo.com/Division/SFM/BFP/FloridaFirePreventionCodePage.htm>

Construction Documents

FBC-B1603.1 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 1603.1.8 shall be indicated on the construction documents.

Ultimate Design Wind Speed – FBC-B 1609.3 - linear interpolation permitted (Risk Category – See FBC-B 1604.5)

120 mph V_{ult} - RISK CATEGORY I BUILDINGS AND OTHER STRUCTURES (Exposure C at 33 feet above ground)

130 mph V_{ult} - RISK CATEGORY II BUILDINGS AND OTHER STRUCTURES (Exposure C at 33 feet above ground)

140 mph V_{ult} - RISK CATEGORY III BUILDINGS AND OTHER STRUCTURES (Exposure C at 33 feet above ground)

150 mph V_{ult} - RISK CATEGORY IV BUILDINGS AND OTHER STRUCTURES (Exposure C at 33 feet above ground)

Wind Design Data

FBC-B 1603.1.4 Wind design data - The following information related to wind loads shall be shown, regardless of whether wind loads govern the design of the lateral force-resisting system of the structure:

1. Ultimate design wind speed, V_{ult} , (3-second gust), miles per hour (km/hr) and nominal design wind speed, V_{asd} , as determined in accordance with Section 1609.3.1.
2. Risk category.
3. Wind exposure. Applicable wind direction if more than one wind exposure is utilized.
4. Applicable internal pressure coefficient.
5. Design wind pressures to be used for exterior component and cladding materials not specifically designed by the registered design professional responsible for the design of the structure, psf (kN/m²).

Design Rainfall – FBC-B 1611.1 - 100-YEAR, 1-HOUR RAINFALL 4.5 INCHES

1603.1.9 Roof Rain Load Data

The following roof rain load parameters shall be shown regardless of whether the rain loads govern the design:

1. Rain load
2. Rain intensity, i (in./hr) (cm/hr)

Flood Design Data

FBC-B 1603.1.7 Flood design data - For buildings located in whole or in part in flood hazard areas as established in Section 1612.3, the documentation pertaining to design, if required in Section 1612.5, shall be included and the following information, referenced to the datum on the community's Flood Insurance Rate Map (FIRM), shall be shown, regardless of whether flood loads govern the design of the building:

1. Flood design class assigned according to ASCE 24.
2. In flood hazard areas the elevation of the proposed lowest floor, including the basement.
3. In flood hazard areas the elevation to which any nonresidential building will be dry floodproofed.

See [Floodplain Management Ordinance of the City of Gainesville](#)

Design Load-bearing Values of Soils

1603.1.6 Geotechnical info - The design load-bearing values of soils shall be shown on the construction documents.

Dead Loads

FBC-B 1606.1 General - Dead loads are those loads defined in Chapter 2 of this code. Dead loads shall be considered permanent loads.

Floor Live Loads

FBC-B 1603.1.1 Floor live load - The uniformly distributed, concentrated and impact floor live load used in the design shall be indicated for floor areas.

Roof Live Loads

FBC-B 1603.1.2 Roof live load - The roof live load used in the design shall be indicated for roof areas (See 1607.12).

Special Loads

FBC-B 1603.1.8 Special loads - Special loads that are applicable to the design of the building, structure or portions thereof, including but not limited to the loads of machinery or equipment, that are of greater magnitude than the loads defined in the specified floor and roof loads shall be specified by their descriptions and locations.

FBC-B 1603.1.8.1 Photovoltaic panel systems - The dead load of rooftop-mounted photovoltaic panel systems, including rack support systems, shall be indicated on the construction documents.

Building and Structure Anchorage

FBC-B 1604.8 Anchorage - Buildings and other structures, and portions thereof, shall be provided with anchorage in accordance with Sections 1604.8.1 through 1604.8.3, as applicable.