



# Iredell County Building Standards

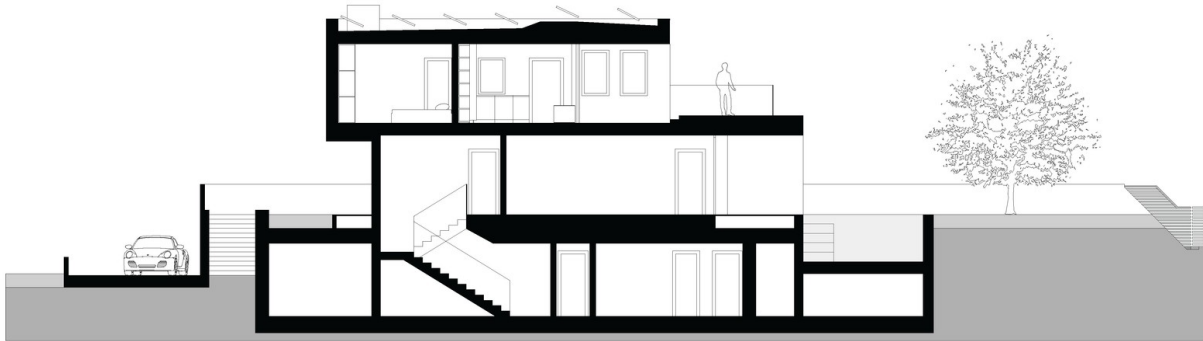
349 North Center Street

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## Structural Design Requirements

The listed items below reflect primary design criteria for construction within Iredell County. It is considered essential for design professionals to reference this information in making a thorough evaluation of new construction projects.

This data is also necessary in order to complete the Structural Design portion of the [Appendix B](#) – Commercial Building Code Summary.

### Design Criteria:

1. **Construction Documents** are per [NCSBC section 1603.1](#).
2. Specify **Soil Bearing** capacity. Presumptive vertical foundation pressure values can be referenced in [NCSBC Table 1806.2](#), rows 4 & 5 are typical of conditions in Iredell County.
3. The minimum **Footing Depth** is 12" per [NCSBC 1809.4](#).
4. The occupancy or use of a space determines the appropriate **Floor Live Load** per [NCSBC Table 1607.1](#).
5. A typical **Roof Live Load** is 20 PSF per [NCSBC Table 1607.1](#) (row 26).
6. The **Ground Snow Load** is 15 PSF per [NCSBC 1608.2](#).
7. The **Ultimate Design Wind Speed** is 115 per [NCSBC 1609.3](#).
8. Verify the **Exposure Category** per [NCSBC sections 1609.4.2 & 1609.4.3](#).
9. The **Seismic** Ground Motion Values for North Carolina can be found on the maps in [NCSBC 1613.5](#).
10. Identify the **Risk Category** of the structure per [NCSBC Table 1604.5](#).

# 2018 Building Code Summary for All Commercial Projects

## Structural Design [per NC Administrative Code Appendix B](#)

(Provide on Sheet 1 or 2 of the Structural Sheets)

### DESIGN LOADS:

Importance Factors:	Wind ( $I_w$ )	_____
	Snow ( $I_s$ )	_____
	Seismic ( $I_E$ )	_____
Live Loads:	Roof	_____ psf
	Mezzanine	_____ psf
	Floor	_____ psf
Ground Snow Load:	_____ psf	
Wind Load:	Basic Wind Speed	_____ mph(ASCE-7)
	Exposure Category	_____

**SEISMIC DESIGN CATEGORY:**     A     B     C     D

Provide the following Seismic Design Parameters:

**Occupancy Category** (Table 1604.5)     I     II     III     IV  
**Spectral Response Acceleration**     $S_s$  \_\_\_\_\_ %g     $S_l$  \_\_\_\_\_ %g  
**Site Classification** (ASCE 7)     A     B     C     D     E     F  
 Data Source:     Field Test     Presumptive     Historical Data

### Basic structural system (check one)

- Bearing Wall                       Dual w/Special Moment Frame
- Building Frame                       Dual w/Intermediate R/C or Special Steel
- Moment Frame                       Inverted Pendulum

**Analysis Procedure:**     Simplified     Equivalent Lateral Force     Dynamic

**Architectural, Mechanical, Components anchored?**  Yes     No

**LATERAL DESIGN CONTROL:**     Earthquake     Wind

**SOIL BEARING CAPACITIES:** Field Test (provide copy of test report) \_\_\_\_\_ psf  
 Presumptive Bearing capacity \_\_\_\_\_ psf Pile size, type, and capacity \_\_\_\_\_