

# RETAINING WALL POLICY



*Revised April 5, 2023*



## RETAINING WALL POLICY

### Introduction

The 2018 North Carolina Building Code includes requirements for the design and construction of retaining walls. Specifically, Section 1807.2 states:

Retaining systems providing a cumulative vertical relief greater than 5 feet (1524 mm) in height within a horizontal distance of 50 feet (15 m) or less, including retaining walls or mechanically stabilized earth walls, shall be designed under the responsible charge of the registered design professional. Retaining systems shall meet the requirements of Section 1610. Testing and inspection reports shall comply with Section 1704.2.4 and shall verify:

1. Foundation support system is adequate for the intended site conditions;
2. Measurement of the quality of construction materials for conformance with specifications;
3. Determination of similarity of actual soil conditions to those anticipated in design; and
4. Examination of backfill materials and any drainage systems for compliance with plans and specifications.

### Scope of Requirements

These requirements will apply to all developments and subdivisions, which include retaining walls and grades falling within the criteria described in Section 1807.2. In addition, the Town will apply the criteria to residential projects where retaining walls impact public use or access areas.

Design and submittal requirements:

#### **Option 1:**

Submit, as part of the site plan review drawing set, retaining wall drawings, fully designed and detailed, and sealed by a North Carolina Licensed Professional Engineer.

As required by North Carolina Building Code section 1807.2.4, retaining systems less than 5 feet (1524 mm) in cumulative vertical relief and adjacent to a structure located closer than the vertical relief shall be designed under the responsible charge of a registered design professional.

#### **Option 2:**

Site plan review drawing set to include location and design criteria (wall height and schematic wall cross section) for retaining walls only, along with the following statements:

- “Design of all retaining walls is to be per North Carolina Building Code Section 1807.”
- “Detailed retaining wall design drawings, sealed by a North Carolina Licensed Professional Engineer, will be submitted to the Town prior to construction.”
- “The registered design professional in responsible charge or engineer of record shall indicate in the project documents the required credentials of the special inspector. The special inspector or a North Carolina

Licensed Professional Engineer must perform construction observation of the retaining wall. A letter sealed by a NC Licensed Professional Engineer will be submitted to the Town verifying that retaining walls are constructed per the approved engineered drawings.”

**Construction Requirements**

Construction of retaining walls may proceed only after detailed retaining wall design drawings, sealed by a North Carolina Licensed Professional Engineer, are approved by the Town. The North Carolina Licensed Professional Engineer of Record or the designated special inspector will perform construction oversight.

Upon completion of retaining wall construction, the Engineer of Record will submit 1) a sealed letter to the Town, verifying the retaining walls are constructed per the engineered drawings, in compliance with Section 1807 of the NC Building Code, and 2) a copy of all special inspections reports in accordance with Section 1704.2.4 of the NC Building Code.

Certificates of Occupancy will only be issued after approval of the Engineer’s sealed letter and copy of the special inspections reports.