

Retaining Wall Requirements

Lancaster County requires building permits for all retaining walls four feet (4') in height or greater, measured from the bottom of the footing to the top of the wall, and any wall supporting a surcharge or impounding Class I, II or IIIA liquids. If a retaining wall meets any of these criteria, whether site built or modular, it must be designed by a Professional Engineer who is currently registered to practice by the state of South Carolina. Upon approval of a retaining wall plan, a contractor, duly licensed for this work in South Carolina must obtain the permit to construct the wall. During construction, a "third party" South Carolina licensed "special Inspector" shall inspect the work at prescribed stages and certify that the construction complies with the approved plan and the Building Code. Certification is to be received by the Building Official prior to issuance of a Certificate of Completion. Third party inspections are in addition to the normally required footing and formwork inspections prior to pouring concrete. For segmented walls, a footing inspection is required prior to laying wall segments to determine wall location.

Required Submittals

Please provide 2 copies of the proposed plan and specifications including the site plan showing the location of the retaining walls pertinent to adjacent lots, making sure to include elevations at the top of each wall and bottom of each footing.

Please provide the following on drawings:

A. Structural details for each wall and footing that include:

1. Materials
2. Dimensions
3. Reinforcement
4. Drainage methods for relief of hydrostatic pressure
5. Concrete design strength
6. Slope of finished grade
7. Backfill Materials
8. Modular walls should show types, spacing and embedment length of all geogrid reinforcement

B. Soil parameters used in the design including:

1. Soil bearing pressure
2. Active and Passive Equivalent lateral fluid pressure
3. Internal Angle of friction
4. Coefficient of friction
5. Surcharge load
6. Soil Density

C. Concrete design strength at 28 days

D. Material specifications for all steel reinforcement

E. Minimum lap splice lengths for steel reinforcement

- F. Specified thickness of all structural concrete*
- G. Calculations prepared and sealed by a duly registered South Carolina Professional Engineer demonstrating the structural adequacy of each proposed wall to resist the applicable design loads within the specified allowable soil bearing pressure and to maintain a minimum factor of 1.5 of safety against overturning and sliding.*
- H. Name, address, contact information and SCLLR license number of the licensed "Third Party " inspector including the frequency established by the designing Engineer.*

The use of standard wall designs does not relieve the Engineer of Record of responsibility to verify soil parameters. Said parameters to reflect field-verified soil conditions at time of plan submission. Master soil reports or out of date reports will be rejected.

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