



**Montgomery County**  
**Department of Permitting Services**

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## **Construction Documents Required for Retaining Wall Permit Applications**

### **Plan Review Requirements**

All types and heights of retaining walls with a retained height over 2'-0" or any height retaining wall that supports a surcharge requires a building permit. Retaining walls with a stem height of over 7'-0" shall also meet the commercial permits Special Inspection Program requirements by code. Wall stem height is measured from the top of footing to the top of the stem.

For Construction projects requiring retaining walls the following additional documents shall be submitted along with the permit application:

Minimum submittal requirements can be found under "Commercial Submittal Guidelines for Non-Fast Track Permits".

1. **Approved Site Plan**
2. **Geotechnical Report:**

A geotechnical engineering report prepared by the Geotechnical Engineer of record of the project is required for the design of retaining walls. As a minimum the report shall include the following information:

- A. Soil boring logs
- B. Soil profiles
- C. Soil classifications
- D. Ground water conditions
- E. Soil unit weights
- F. Soil internal friction angles
- G. Recommended active and passive soil pressures
- H. Recommended Surcharge

3. **Design Calculations:**

The calculations shall include the following:

- A. A summary of the soil parameters used in the design.
- B. Design loads
  - Retained soils
  - Retained ground water
  - Surcharge from all applicable sources, including, but not limited to equipment and vehicles, tower cranes, fire truck, material stock piles, structures and improvements, etc.
  - Fire truck loading requirements can be found at <https://www.montgomerycountymd.gov/DPS/Resources/Files/COMBUILD/ComSubGuideNonFT.pdf>
- C. All relevant safety factors shall be shown.

- D. Input and output from computer programs used for the analysis and design of the retaining walls and/or hand computations verifying the results.
- E. Global slope stability analysis.

**4. Plans and Sections:**

- A. A plan to show all adjacent utilities, facilities, pertinent topographic information.
- B. Retaining wall elevation and plan locations.
- C. Details of all wall sections including reinforcing, wall footing and schedules.
- D. Structural Notes: Notes showing the applicable codes and standards, soil properties utilized in the design, assumed design surcharge, material properties (Concrete, reinforcing, masonry etc.), general construction notes and limitations set by SER.
- E. If the location of the proposed retaining wall is adjacent to fire truck access, then the fire truck access drawing shall be submitted.

**5. Special Inspection for Walls over 7'-0" tall:**

Special Inspection (Complex Structure) review takes place after the submittal and approval of the project. Statement of Special Inspection form can be found at the County website. After the submittal of this form and requested inspector qualification documents, the reviewer from the Complex Structure team will contact the applicant to set up a pre-construction meeting for special inspections.

See Montgomery County [Special Inspection Manual](#) and the [Statement of Special Inspection Form](#).