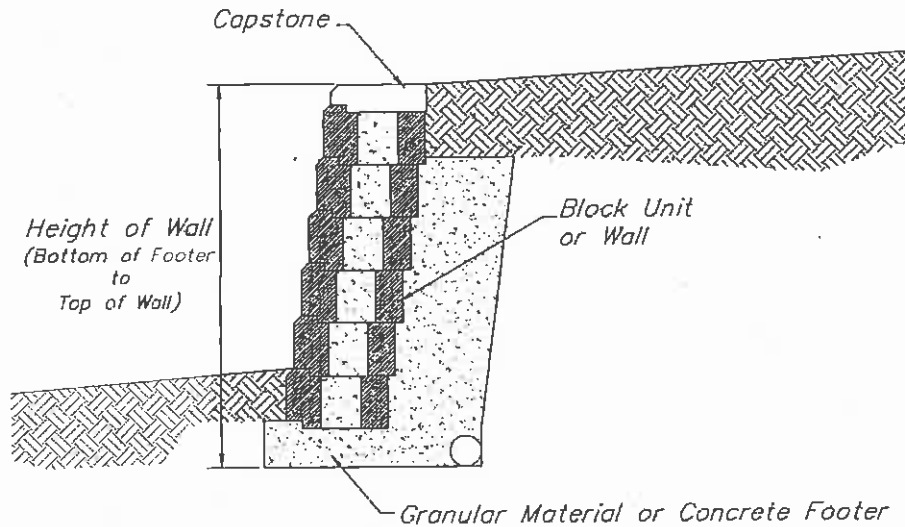


**City of Brecksville
Engineering Department
Retaining Wall Requirements
Under 4 Feet**

Measured from the bottom of the footer (whether its gravel or concrete) to the top of the wall (including a cap).



Height Measurement Diagram

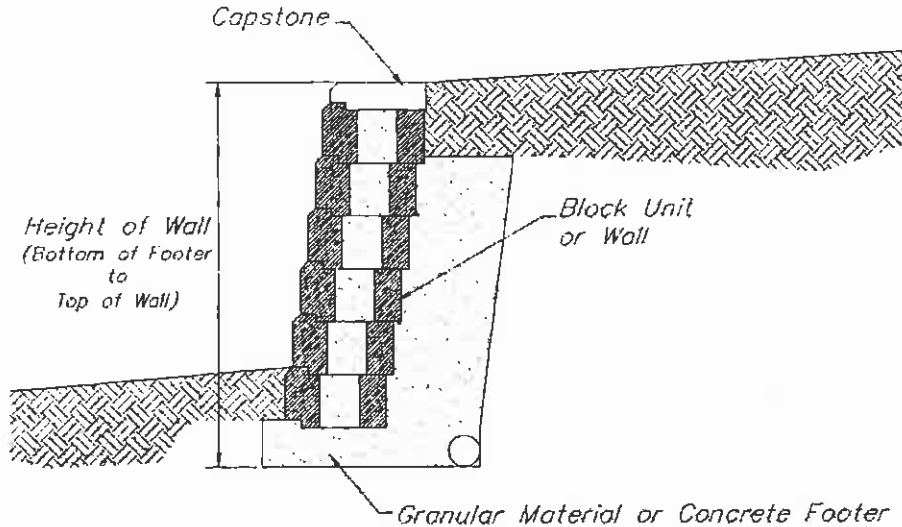
Please Note:

The information and calculations requested below are the minimum requirements for submission. Additional information and/or calculations may be requested at the time of review.

- Show in plan view with proposed and existing contours. Plan must be to scale.
- Provide a cross-sectional view(s).
- Must include existing and proposed elevations.
- Include how disturbed area will be restored (i.e. seeding)
- Show all existing and proposed structures (i.e. buildings, headwalls, drives, roadway, sidewalk, trees, etc.)
- Typical Engineering scale 1"=5', 10', 20' etc.
- Show right of way if applicable.
- Show erosion control measures.
- Include a railing, guardrail, hedging on top of retaining walls exceeding 30" in height.

City of Brecksville
Engineering Department
Retaining Wall Requirements
4 Feet and Over

Measured from the bottom of the footer (whether its gravel or concrete) to the top of the wall (including a cap).



Height Measurement Diagram

Please Note:

The information and calculations requested below are the minimum requirements for submission. Additional information and/or calculations may be requested at the time of review.

- ❖ Two copies of plans and calculation. Copies must be signed and sealed by a professional engineer registered in the State of Ohio.
- ❖ Specifications of the construction material. Referencing ODOT is acceptable.
- ❖ Specification for backfill material and compaction requirements.
- ❖ Wall elevations and multiple cross-sections for each retaining wall, to include structural details. The actual ground slope at the top and the toe of the wall.
- ❖ Bearing capacity of the soil.
- ❖ Method of drainage behind the wall.
- ❖ Calculations demonstrating the structural and geotechnical stability. Calculations shall address the effect of any surcharges on the wall.
- ❖ Must show the wall structure is safe against overturning. Minimum safety factor for overturning = 1.5.
- ❖ Must show the wall structure is safe against sliding. Minimum safety factor for sliding = 1.5.
- ❖ All parameters data and values used in calculations must be stated and justified.
- ❖ Must show the capability of the structural components of resisting internal shears and bending moments developing as a result of soil and other loading.
- ❖ Must show the foundation material supporting the wall will not exceed the bearing capacity.
- ❖ Must show the settlement and distortion of the wall due to compression of the foundation soil are limited to a tolerable value.
- ❖ Guardrail and /or fencing required on top for retaining walls over 36" in height.
- ❖ Typical Engineering scale 1"=5', 10', 20' etc.
- ❖ Show right of way if applicable.
- ❖ Show erosion control measures.
- ❖ 4 foot and under retaining wall requirements must be complied with also.