

# Arlington County, Virginia



## Department of Public Works Retaining Wall Policy December 9, 2002

# **DPW Retaining Wall Policy**

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### **Purpose**

The purpose of this policy is to restate the criteria for maintenance of existing retaining walls along public street rights of way and construction of new retaining walls by the County Department of Public Works (“DPW”).

### **Background**

In Arlington County, Virginia, homeowners, developers, contractors and County personnel have built thousands of retaining walls over the years. Eventually, even well-built retaining walls need maintenance. When maintenance is needed, some types of repairs are very expensive and require skilled craftworkers. For example, a structural repair on a stone-faced retaining wall may require stonemasons to partially reconstruct the wall. With the span of years between initial construction and the time when repairs to retaining walls are necessary, property owners and Arlington County staff often are faced with the need to determine the ownership of the walls and maintenance responsibilities.

### **Maintenance of Existing Retaining Walls**

- The most basic maintenance principle is that a property owner(s) is responsible for maintenance of walls on the owner’s property, unless an existing agreement specifically provides otherwise. When a question arises about maintenance responsibility of a wall on, or adjacent to, public street right of way, the County DPW staff and property owner must first determine upon whose property the wall is located and whether any written agreements about the wall exist.

Without legal obligation and authority, the County will not enter private property to repair a retaining wall. The maintenance of existing retaining walls on private property is the responsibility of the property owner, unless the County has specifically assumed such responsibility by authorized written agreement.

The Public Works Department constructs DPW standard gravity retaining walls, which are stone or concrete faced. Any walls not built to DPW standards were not built by the County and will not be maintained by DPW.

- Removal of a retaining wall sometimes is preferable to extensive maintenance and repairs. When a deteriorating retaining wall is on private property, the property owner must decide if the owner will maintain and repair or remove the wall. Property owners sometimes decide to remove all or part of a wall and regrade the ground instead of incurring the cost of continued wall maintenance and repairs.

Property owners sometimes obtain permission from the County to construct walls that encroach upon public property. This permission requires that all walls on public property be built to DPW standards. For any wall existing on public street right of way without County permission, the property owner must remove the wall at the property owner’s expense. The property owner may apply to the County for enactment of an encroachment ordinance, issuance of a permit, or approval of a license agreement to allow the wall to remain on public property. Any wall maintenance or repair work in public rights of way requires the property owner to obtain a permit issued by DPW.

- Retaining walls are built to resist soil forces and hold back hillsides. Another important wall maintenance principle is for property owners to repair breaches, falling stones, slides, and other retaining wall failures when the failures pose a risk to persons or property.

The Public Works Department removes and repairs damages caused by County walls located on public right-of-way when the walls fail or fall into private property. In a similar fashion, when there is a failure of a private retaining wall on private property, the property owner must promptly remove all material that intrudes onto the public property.

## **Design Options for New Retaining Walls Built as Part of DPW Projects**

Irrespective of the design, retaining walls can be expensive to maintain. The obligation to maintain a specific wall constructed by the County on private property is that of the property owner. When a new wall is built as part of a DPW project this obligation is restated and further specified in a recorded document(s), which memorializes the agreement of the parties and puts subsequent purchasers of the property on notice of the agreement.

In the absence of a legally binding agreement obligating the County to do so, the County cannot maintain retaining walls on private property.

### **Preferred Design:**

**No Wall.** Designs incorporating sloping of a hillside, with restoration of the landscape materials, are preferred to the construction of a wall. Slopes should be 2:1 or less steep to facilitate mowing and general maintenance. Sod, shrubs, trees or other landscape materials on private property which are damaged or removed by construction are replaced in kind, at project cost, in accordance with County policies.

### **Walls:**

**County Owned Wall.** In some instances, the County determines that sloping is not a feasible engineering option and that a retaining wall is required to complete a public project. County owned walls may be on public property or on private property by easement agreement or other authorized written agreement. These retaining walls, constructed at project cost, are owned by the County and are maintained as described in the applicable agreement.

**Privately Owned Wall.** Potential extensive excavation, possible disturbance of buildings, major loss of use of the property, tie-in to existing walls or structures and similar problems or conditions may make grading of the ground impractical. Construction of a retaining wall frequently is an appropriate engineering solution to difficult grade problems caused by the public project. An example of this category of retaining wall is where physical barriers or engineering conditions make it either impossible or impractical to grade the ground without the installation of a retaining wall. When the new retaining wall is complete, the property owner, by written recorded agreement with the County, becomes the owner of the wall and becomes obligated to maintain the wall.

### **Special Retaining Wall Situations on DPW Construction Projects:**

**Relocated Existing Wall.** Private property owners use a variety of materials to build retaining walls on private property. Examples of these materials are timber, cinder block, dry stacked stones, and brick. The Department of Public Works only builds stone or concrete faced walls. Where an existing private retaining wall exists, of any material, and the wall must be relocated to accommodate a DPW project, the wall will be relocated at project cost. However, the relocated wall will be built to current DPW specifications, including types of materials. The replacement wall will be installed on private property. When the new retaining wall is complete, the wall will continue to be a private retaining wall, with maintenance by the private property owner, as specified in a written, recorded agreement between the County and the property owner.

**Wall Constructed by County as Compensation for Property Rights.** Private property owners occasionally grant temporary or permanent property rights to the County to allow construction of sidewalks, curbs, gutters, and other public improvements. The private property rights granted to the public have some value. Because these public improvements may enhance the value of the adjacent private property, property owners frequently grant to the County these property rights for nominal or no monetary compensation. On rare occasions, a property owner wants a retaining wall to be built as partial compensation for the granting of the property rights to the County. If the cost of the wall approximates the cost of the property rights, then the County and the property owner may agree that the wall be built as part of the project, at project cost. The wall will be installed on private property. If the wall is more costly than the value of the property rights, the property owner may have the wall constructed as part of the project at the property owner's expense. This expense will be determined by the difference in cost to the County of the wall and any grading, which would have otherwise been necessary in the absence of the wall. The property owner must pay this expense before commencement of the project. When the new retaining wall is complete, the wall will be a private retaining wall,

with maintenance by the private property owner, as specified in a written, recorded agreement between the County and the property owner.

## DPW Retaining Wall Policy

**APPROVED:** Sam Kem 12/10/02  
Sam Kem, Director Date  
Public Works Department

L:/Eng\_Chf/Misc/Final Retaining Wall Policy 12-9-02

## Typical Retaining Walls in Arlington County

Below is a photo of a privately built brick retaining wall installed on private property. Maintenance is the property owner's responsibility.



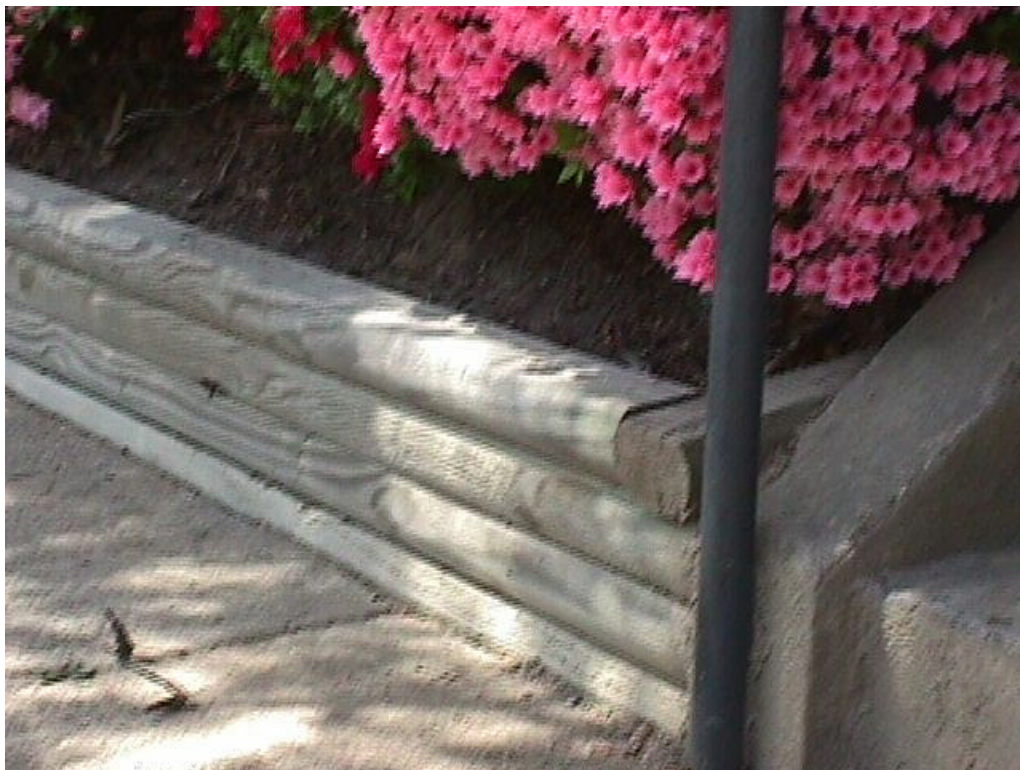
Below is a photo of a privately built timber post retaining wall installed on private property. Maintenance is the property owner's responsibility.



Below is a photo of a privately built timber retaining wall installed on private property. Maintenance is the property owner's responsibility.



Below is a photo of a privately built landscaping timber retaining wall installed on private property. Maintenance is the property owner's responsibility.



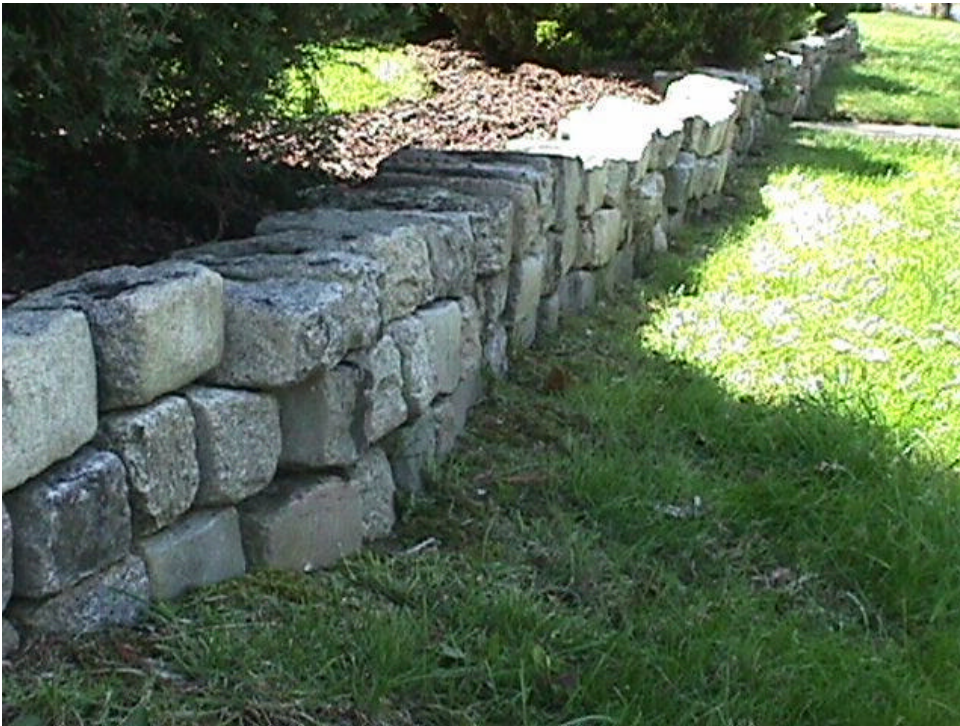
Below is a photo of a privately built cinder block retaining wall installed on private property. Maintenance is the property owner's responsibility.



Below is a photo of a privately built decorative concrete block retaining wall installed on private property. Maintenance is the property owner's responsibility.



Below is a photo of a privately built dry stacked stone block retaining wall installed on private property. Maintenance is the property owner's responsibility.



Below is a photo of a County Standard, DPW built mortar rubble retaining wall installed next to the parking lot at Swanson Middle School. Maintenance is by the County.





Below is a close up photo of the mortar rubble (concrete faced) retaining wall at Swanson. The individual pieces are old sidewalk.



Below is a photo of a County Standard, DPW built stone faced rubble retaining wall installed next to a park along Lorcom Lane. Maintenance is by the County.



Below is a photo of a 2:1 (two foot over and one foot up) mowable slope. These slopes are preferred to walls due to lower initial construction cost and lower continuing maintenance cost. Maintenance of the slope is the responsibility of the private property owner.

