

**Whispering Woods
St. Charles County, Mo.**

REVISIONS			
ZONE	REV	DESCRIPTION	APPROVED

General

Install modular walls at the locations and elevations on the plan. The contractor shall protect all existing utilities, and shall be responsible for all worker and public safety at the retaining wall site. All installation shall be per the retaining wall material manufacturer's construction Recommendations, and/or as noted herein.

Materials

The Leveling Pad shall be constructed of compacted 1-inch-minus crushed limestone.

Retaining wall units shall be Rockwood Classic. Units must be 12 in. deep and provide an infilled unit weight greater than 100 pcf. Concrete wall units shall meet the requirements of ASTM C90-90 and compressive strength shall be a minimum of 3000 psi. The maximum water absorption shall be limited to 8.0 percent. The concrete shall have adequate freeze thaw resistance in accordance with ASTM 666-90.

The retaining wall infill material shall be 2-in clean crushed limestone or smaller or pea gravel.

The reinforced wall backfill material shall be compacted 2" clean or smaller.

Geogrid shall be RauGrid as indicated on the sections, or approved equivalent.

Filter Fabric shall be Mirafi 140N or approved equivalent. Filter fabric shall separate the block from the reinforcing backfill and the overlying soil cap.

Clean Low Plastic soil (Liquid Limit < 50%) shall be retained for the Cohesive Soil Cap above the granular backfill in areas not to be paved. Soil cap to be compacted.

Wall Foundation Excavation

Foundation soil shall be excavated as required for the leveling pads and the reinforcing zone. We recommend the exposed soils be observed by the undersigned engineer prior to placing rock fill to confirm the suitability of the soils. The excavation must be free of loose soil, uncompacted fill, water, or frozen material. Undercut any unsuitable soil. Undercut areas shall be filled with material compacted to at least 95% of the material's standard Proctor maximum dry density.

Wall Construction

Install the first course of units on the leveling pad. Install the next course in a running bond stack. A minimum of 6 in. of block must overlap each unit below it. Adjust for setback per course. Backfill units and continue construction. Filter fabric shall separate the granular backfill from the retained soil and the soil cap. Filter fabric shall not cover the foundation materials.

Geogrid Reinforcing

The geogrids shall be cut to the design lengths "L" and placed between the blocks at the block courses shown on the plans. Wall heights between the design section heights shown, or lower than the lowest section height shown, shall be reinforced in accordance with the next higher design section. The geogrid's primary strength direction will be perpendicular to the wall face (into the fill). The geogrid shall be placed horizontally and laid flat on the reinforced fill material. The geogrid shall be placed so that a minimum of 8 in. of grid is between the block layers. Slack in the geogrid shall be removed prior to placing backfill.

Wall Backfill

Backfill material shall be placed in maximum 24 in. loose lifts and compacted by 2 passes of a vibratory roller or 4 passes of a vibratory plate compactor. Backfill shall be placed, spread and compacted in such a manner that minimizes wrinkles and movement of the geogrid.

The front of the wall shall be backfilled with soil and compacted to finished grade.

During backfill placement the 3 ft. zone directly behind the wall shall be limited to the use of hand operated compaction equipment. Construction equipment shall not be operated directly on the geogrid.

Protection of Work

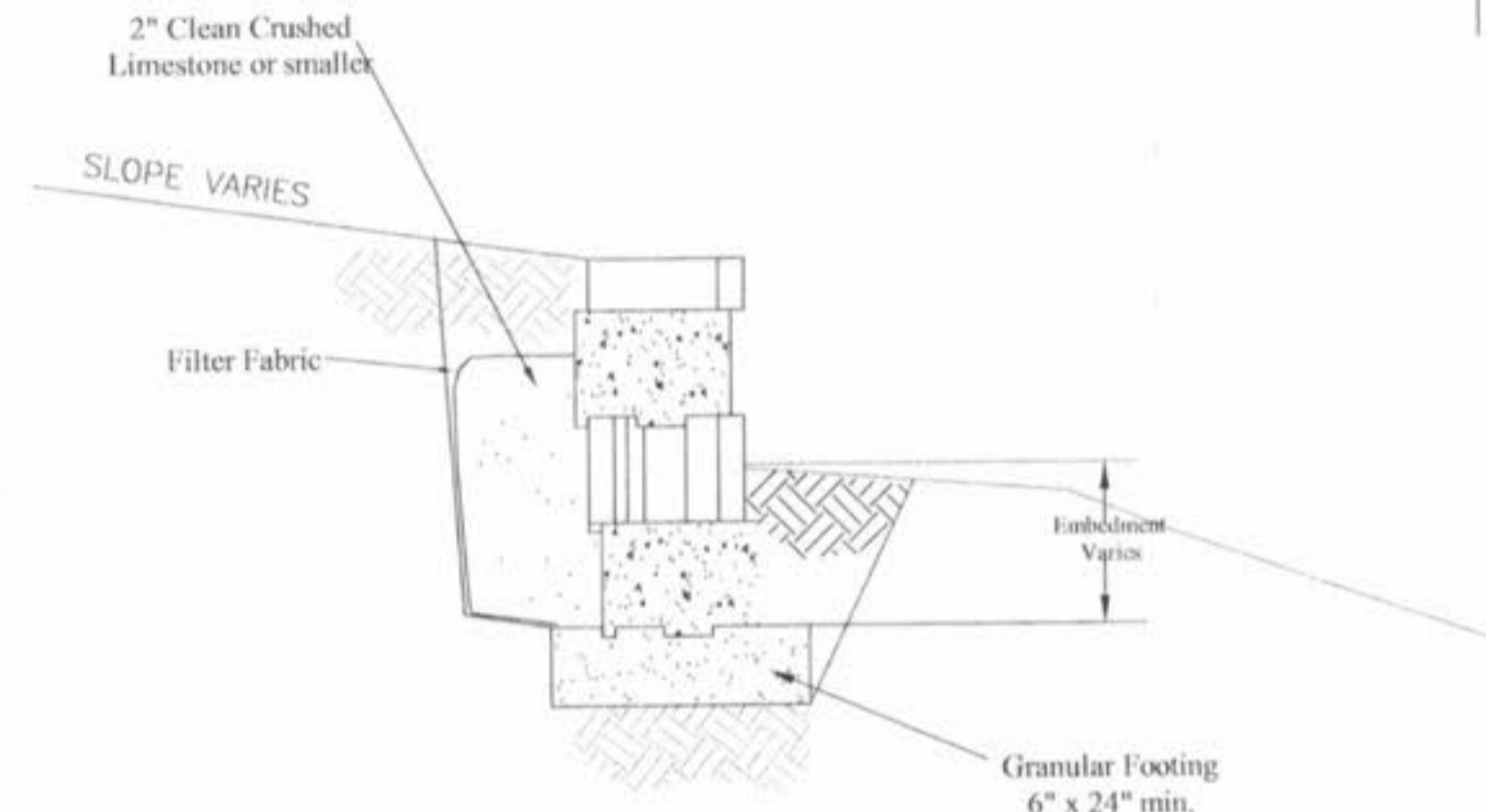
The surface of the wall backfill shall be graded at the end of each day of work to provide positive surface drainage away from the wall if feasible. Grading shall include proper contouring of fills in adjacent areas to prevent the flow of excessive surface water toward the wall. Finish grading should be completed in accordance with the approved site development plan.

The stability of temporary excavation during wall construction is beyond the scope of this design. The construction methods, safety and stability of the temporary excavation are strictly the responsibility of the contractor.

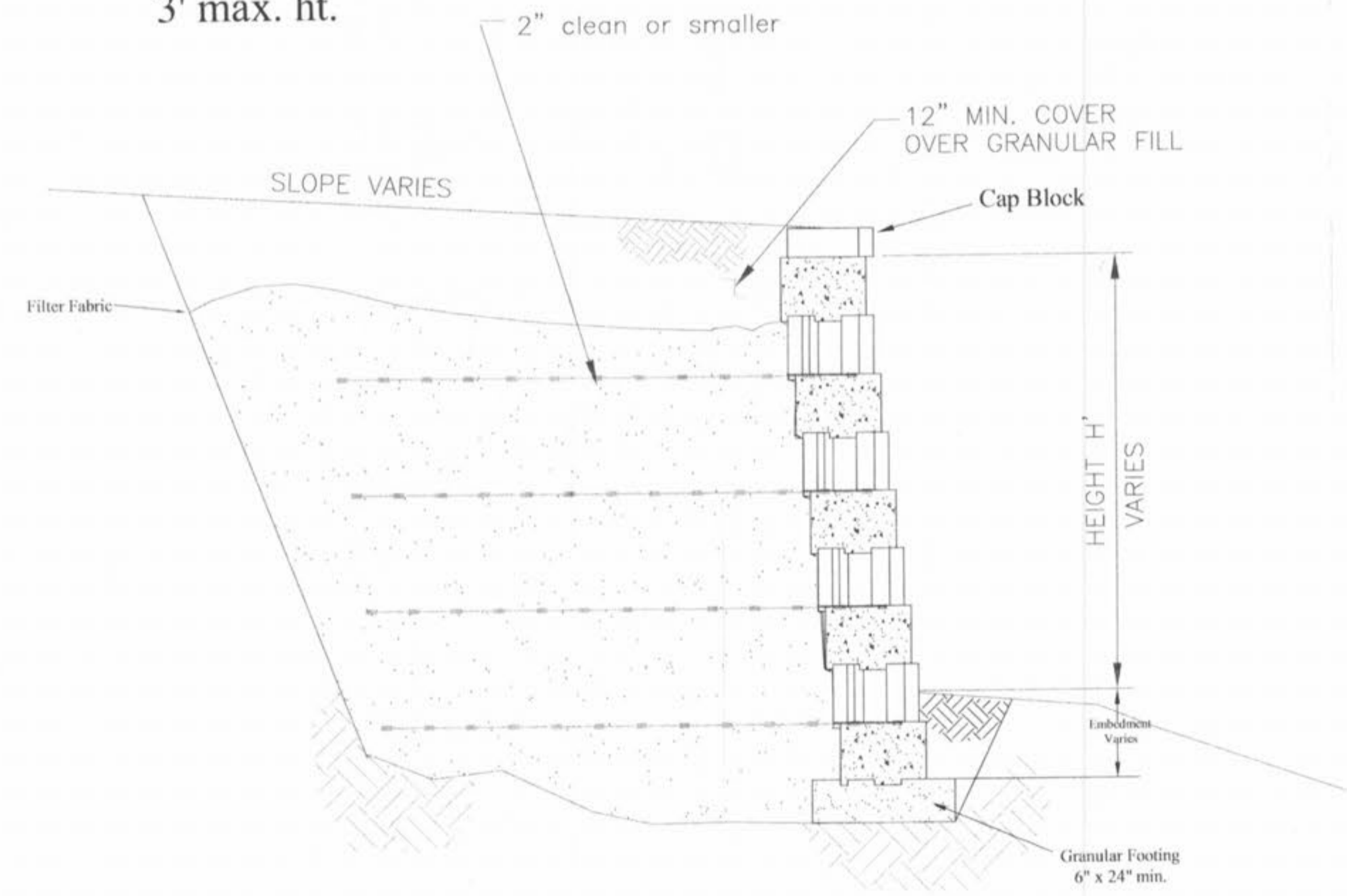
Miscellaneous

A fence or guardrail should be installed along the top of the walls under a separate plan. If a fence will be installed it is recommended PVC pipe or sonotube sleeves be placed as the wall is backfilled to prevent a need to excavate post holes after wall construction which could cause damage to the geogrid.

Changes shall not be made to these plans without written approval of the undersigned engineer.



**Gravity Block Wall
(N.T.S.)
3' max. ht.**



**Reinforced Block Wall
(N.T.S.)**



Engineering Solutions, P.C. (314) 280-7748	Specs. & Typical Wall Sections			
	Whispering Woods St. Charles County, Mo.			
SIZE	FSCM NO.	DWG NO.	REV	
SCALE	SHEET		RW 1	