

# Commercial Module System Information



Specifications and Viewable Details may be downloaded  
from our website. Please visit our website @ [www.herculesmfg.com](http://www.herculesmfg.com)



Hercules™ is manufactured by or under license from St Louis Retaining Wall Company, LLC  
Covered by one or more of the following patents: 5,277,012 D360,475 D340,996,  
D362,077 D347,285 D372,106 Other patents pending.

3916 Geraldine Ave. St. Louis, MO 63115  
314-389-9255 phone • 314-389-6416 fax • [www.herculesmfg.com](http://www.herculesmfg.com)

# System Attributes and Overview

Our Hercules and Neptune families of pre-cast concrete retaining wall modules are truly versatile and completely different in form and function from other competitive modular wall systems. Customers select Hercules and Neptune for the following reasons:

- They have a completely different look than traditional modular block walls.
- They provide the opportunity to vegetate the wall for unique aesthetics thus minimizing the impact of a large structure
- They allow more competitive construction bids than traditional modular walls due to their high unit coverage and variable batter
- They eliminate or reduce over-digging behind the wall location
- They create gravity and reinforced walls with the thinnest cross-section in the industry
- They accomplish taller walls without geogrid than competitive systems and yield the industries shortest and lightest geogrid designs when reinforced

Where gravity walls are preferred in order to save mature trees or avoid property lines and existing utilities, our Hercules Standard module may be utilized to accomplish walls up to six feet. When more height is required and a gravity wall is still the best option, then our longer Hercules or Neptune modules may be employed to heights up to twelve feet using our "base drain" section and up to twenty feet in some cases with our "rock wedge" section.

Frequently, retaining wall needs are in excess of 15' and for most of those applications our Hercules Standard module is utilized with geosynthetic reinforcement. Our system generates excellent connection strengths between the modules and a variety of geogrids or woven fabrics. It is not unusual to see Hercules modules utilized as gravity walls and reinforced walls in the same wall, on the same project.

Most Hercules and Neptune walls are built at their steepest inclination of 70 degrees. Additional setback may be employed with all module sizes to achieve desired factors of safety. Specifically, the Hercules Mega, Hercules Long Mega, Neptune Standard, and Neptune Mega modules are better suited to variable setback due to their additional length. Where geogrid or woven geosynthetic reinforcement is required, the Hercules Standard is often the best choice because of their lower transportation cost, ease of handling and lower unit price.

Retaining walls are rarely one consistent height along their entire length. Since all Hercules and Neptune modules are identical when viewed from the face, they are frequently used together in the same wall. Hercules Mega modules may be used for those gravity wall sections above five feet in height and Standards for sections less than five feet in height, therefore creating a more economical wall.

Neptune modules share many of the same attributes of the Hercules modules with the added benefit of a side-to-side interlock. The interlocked "ears" protruding from the sidewalls of each Neptune provides backfill protection from "head-on" wave action or from violent "continuous flow" channels. Neptune walls are frequently topped off with Hercules modules above the wave-line or high-flow line in order to maximize cost efficiency.

Please contact us with your questions and comments. We take great pride in our systems and are willing to go the extra mile to assist designers, engineers and installers in the use of Hercules and Neptune retaining wall systems. Your feedback will always be appreciated and put to good use. Thank you in advance for considering our systems.

Visit us on the web @ [www.herculesmfg.com](http://www.herculesmfg.com)

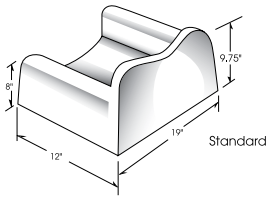


Manufactured by or under license from  
St. Louis Retaining Wall Company, LLC  
Covered by one or more of the following patents:  
5,277,012 • D360,475 • D340,996 • D362,077 • D347,285 • D372,106



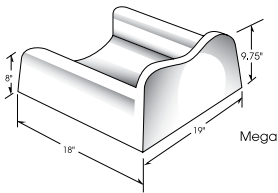
[www.herculesmfg.com](http://www.herculesmfg.com)  
314-389-9255 phone • 314-389-6416 fax  
3916 Geraldine Ave., St. Louis MO 63115

# COMMERCIAL BLOCK SPECIFICATION SHEET



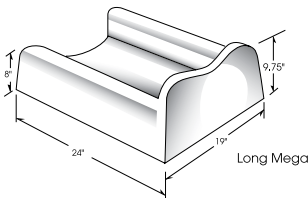
## HERCULES STANDARD™ MODULE (36 units/pallet)

Weight of one module	95	lbs.
Module center to center spacing	27	inches
Length of module (face to rear)	12	inches
Coursing height	8	inches
Coverage	1.50	sq. ft.
Volume of concrete in one square foot section of wall	0.47	cu. ft.
Volume of fill in one square foot section of wall	0.53	cu. ft.



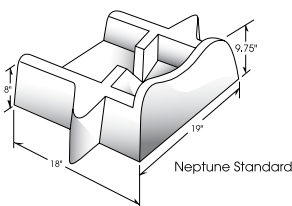
## HERCULES MEGA™ MODULE (24 units/pallet)

Weight of one module	130	lbs.
Module center to center spacing	27	inches
Length of module (face to rear)	18	inches
Coursing height	8	inches
Coverage	1.50	sq. ft.
Volume of concrete in one square foot section of wall	0.67	cu. ft.
Volume of fill in one square foot section of wall	0.86	cu. ft.



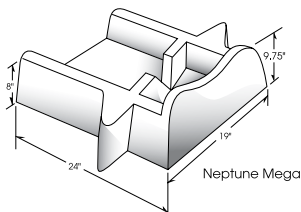
## HERCULES LONG MEGA™ MODULE (20 units/pallet)

Weight of one module	165	lbs.
Module center to center spacing	27	inches
Length of module (face to rear)	24	inches
Coursing height	8	inches
Coverage	1.50	sq. ft.
Volume of concrete in one square foot section of wall	0.86	cu. ft.
Volume of fill in one square foot section of wall	1.09	cu. ft.



## NEPTUNE STANDARD™ MODULE (20 units/pallet)

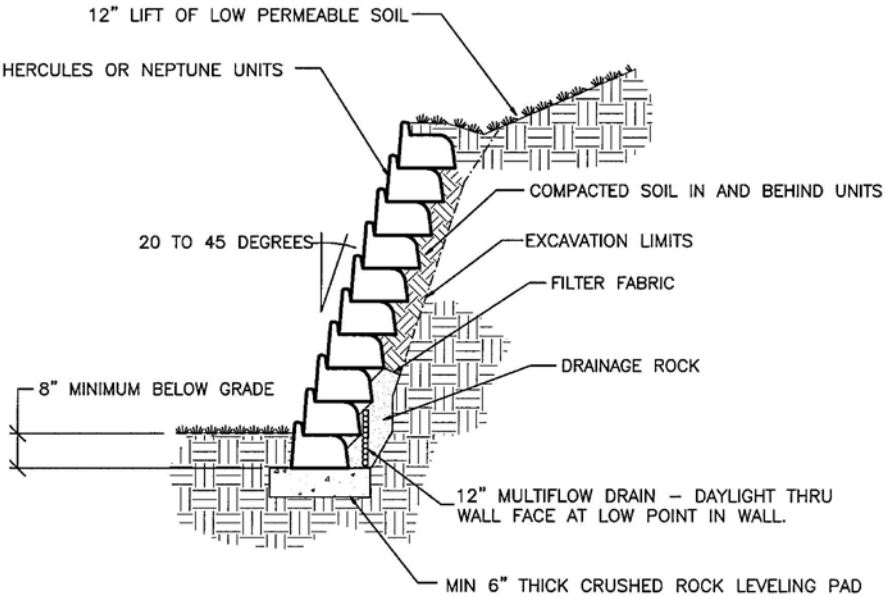
Weight of one module	165	lbs.
Module center to center spacing	27	inches
Length of module (face to rear)	18	inches
Coursing height	8	inches
Coverage	1.50	sq. ft.
Volume of concrete in one square foot section of wall	.86	cu. ft.
Volume of fill in one square foot section of wall	.70	cu. ft.



## NEPTUNE MEGA™ MODULE (10 units/pallet)

Weight of one module	200	lbs.
Module center to center spacing	27	inches
Length of module (face to rear)	24	inches
Coursing height	8	inches
Coverage	1.50	sq. ft.
Volume of concrete in one square foot section of wall	1.05	cu. ft.
Volume of fill in one square foot section of wall	0.93	cu. ft.

# TYPICAL HERCULES AND NEPTUNE CROSS SECTIONS

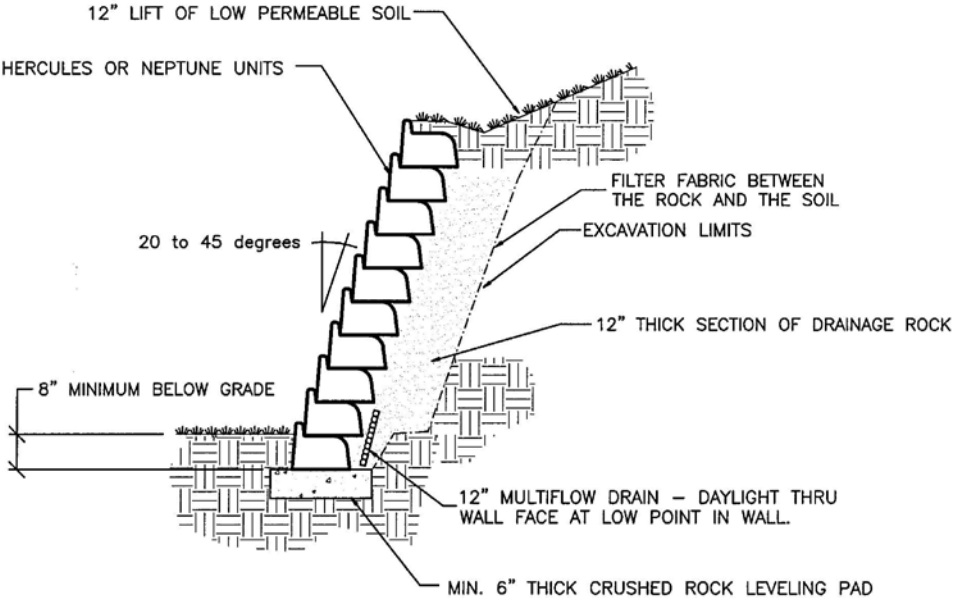


## DRAINAGE ROCK

NOT TO SCALE

## TYPICAL APPLICATIONS

- \* Walls that are max of 5' utilizing Hercules Standard Units
- \* Walls that are max of 7' Utilizing Hercules Mega Units
- \* Depending on soil and surcharges, max wall height may vary



## BASE DRAIN SECTION

NOT TO SCALE

## TYPICAL APPLICATIONS

- \* All walls with anticipated drainage issues
- \* Walls that are max of 6' utilizing Hercules Standard Units
- \* Walls that are max of 12' Utilizing Hercules Mega or larger Units
- \* Depending on soil and surcharges, max wall height may vary

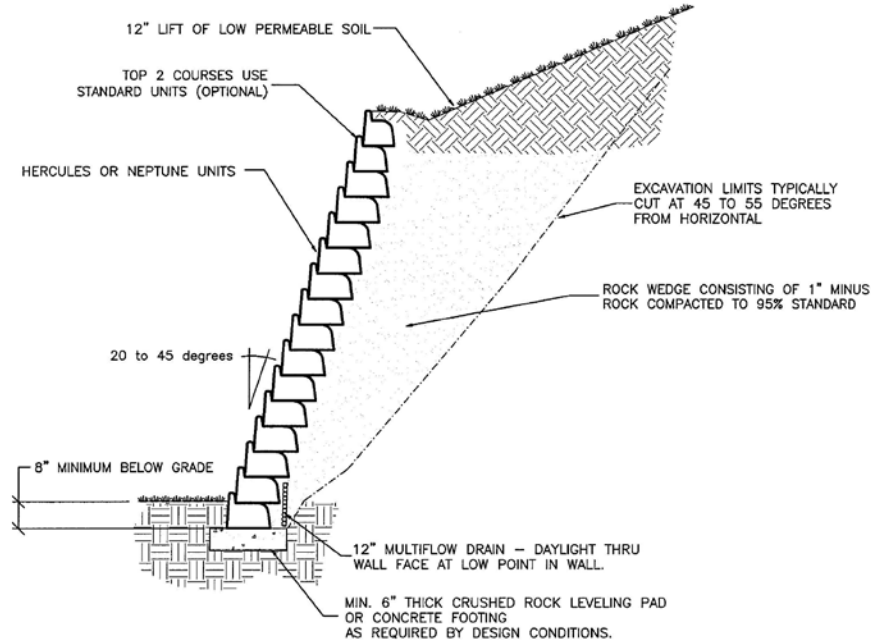


Manufactured by or under license from  
 St. Louis Retaining Wall Company, LLC  
 Covered by one or more of the following patents:  
 5,277,012 • D360,475 • D340,996 • D362,077 • D347,285 • D372,106



[www.herculesmf.com](http://www.herculesmf.com)  
 314-389-9255 phone • 314-389-6416 fax  
 3916 Geraldine Ave., St. Louis MO 63115

# TYPICAL HERCULES AND NEPTUNE CROSS SECTIONS

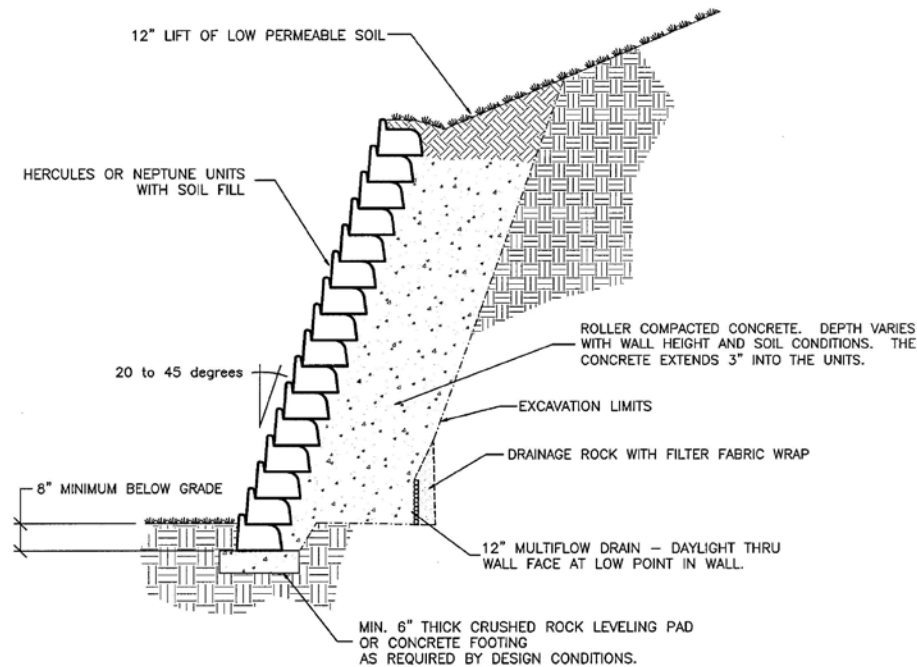


## TYPICAL APPLICATIONS

### ROCK WEDGE SECTION

NOT TO SCALE

- \* Walls that have max height of 10'-20' where overdigging for geosynthetics is not possible
- \* This design typically utilizes all Hercules Mega and Neptune units
- \* Depending on soil and surcharges, max wall height may vary



## TYPICAL APPLICATIONS

### ROLLER COMPACTED CONCRETE SECTION

NOT TO SCALE

- \* Walls with max height of 15'-30' where overdigging for rock wedge or geosynthetic reinforcement is not possible
- \* Example: A 20' wall with a very steep slope on the top continuing up another 100' in elevation. Even if possible, the overdig for the geosynthetic would create a dangerous cut that would require costly shoring or other precautions

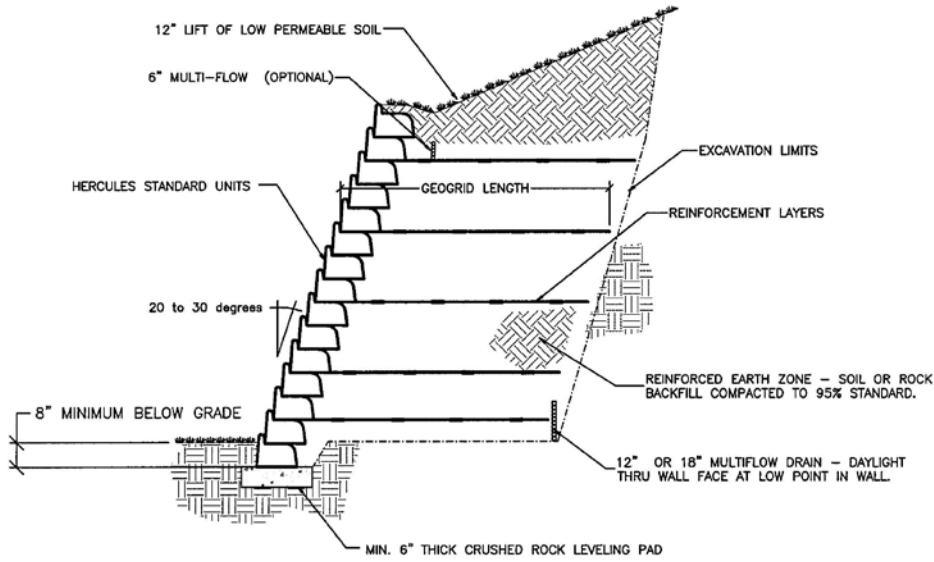


Manufactured by or under license from  
St. Louis Retaining Wall Company, LLC  
Covered by one or more of the following patents:  
5,277,012 • D360,475 • D340,996 • D362,077 • D347,285 • D372,106



[www.herculesmfg.com](http://www.herculesmfg.com)  
314-389-9255 phone • 314-389-6416 fax  
3916 Geraldine Ave., St. Louis MO 63115

# TYPICAL HERCULES AND NEPTUNE CROSS SECTIONS

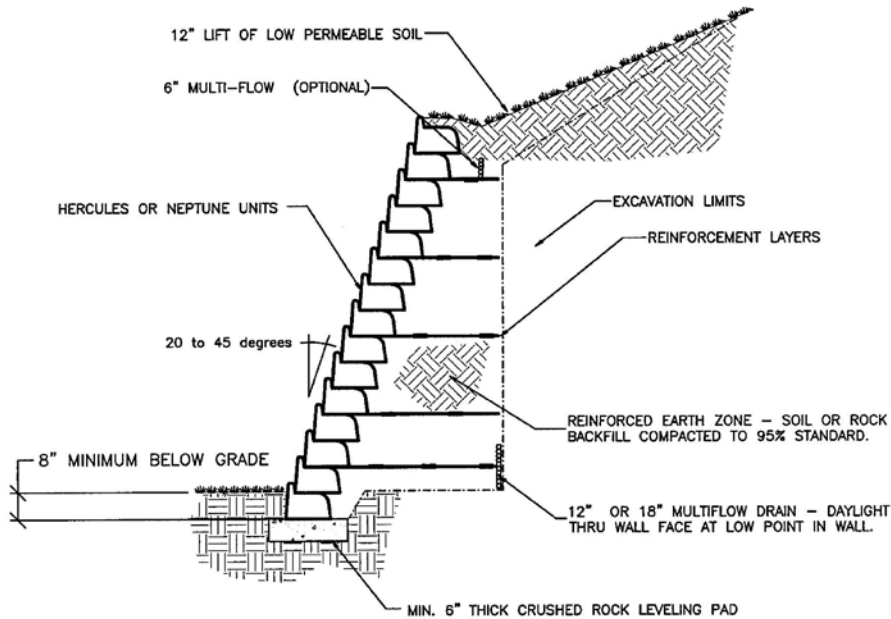


## TYPICAL APPLICATIONS

- \* Tall walls where overdigging for the geosynthesis is not an issue
- \* Fill applications where the placement of the geosynthetics does not require overdigging
- \* Hercules and Neptune walls utilize lighter geosynthetics and shorter lengths than other competitive systems

## GEOGRID SECTION #1

NOT TO SCALE



## TYPICAL APPLICATIONS

- \* Walls with tight excavation limits
- \* Sites that anticipate future utility placement and/or other disturbances after wall construction
- \* Very effective beneath roadways and in front of rock outcroppings

## GEOGRID SECTION #2

NOT TO SCALE



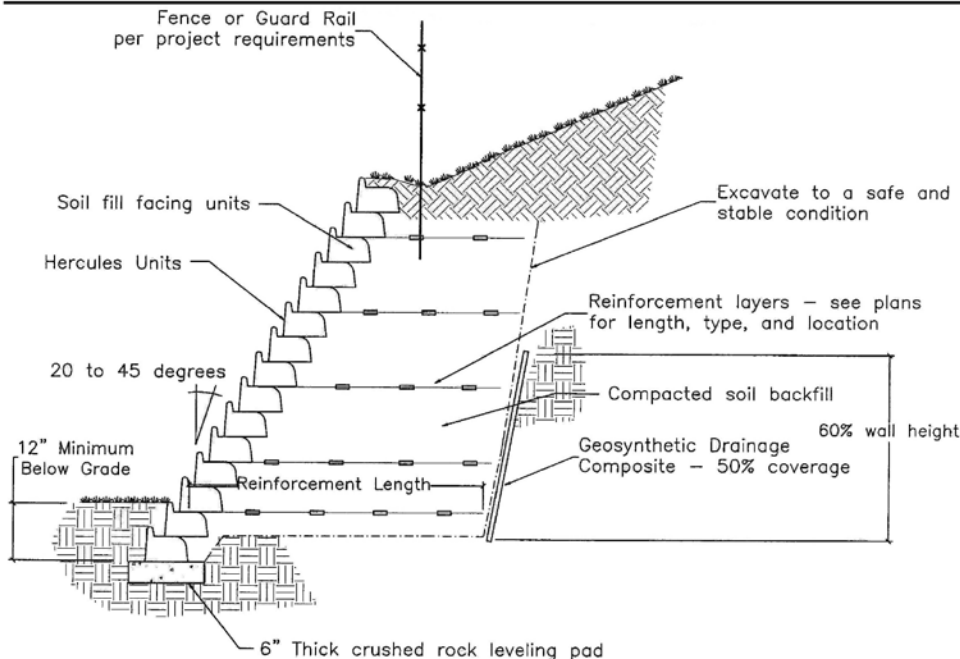
Manufactured by or under license from  
 St. Louis Retaining Wall Company, LLC  
 Covered by one or more of the following patents:  
 5,277,012 • D360,475 • D340,996 • D362,077 • D347,285 • D372,106



www.herculesmfg.com  
 314-389-9255 phone • 314-389-6416 fax  
 3916 Geraldine Ave., St. Louis MO 63115



# TYPICAL HERCULES AND NEPTUNE CROSS SECTIONS



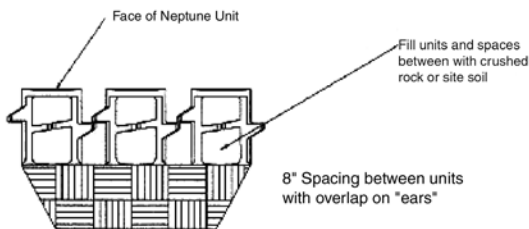
## TYPICAL APPLICATIONS

- \* Road widening or extremely tall projects where a natural slope would take up more space than available and a near vertical wall is not required or economical
- \* Projects that need to minimize the impact of a large structure since these slopes are easily spray seeded with native plant material for total coverage and no maintenance
- \* Where developments must pass through environmentally sensitive areas

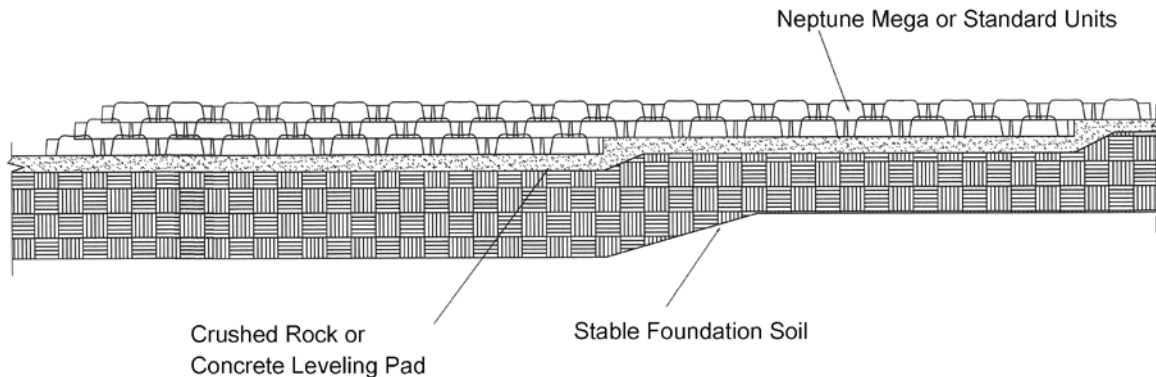
## REINFORCED SOIL SLOPE #1

NOT TO SCALE

# NEPTUNE UNIT DETAILS

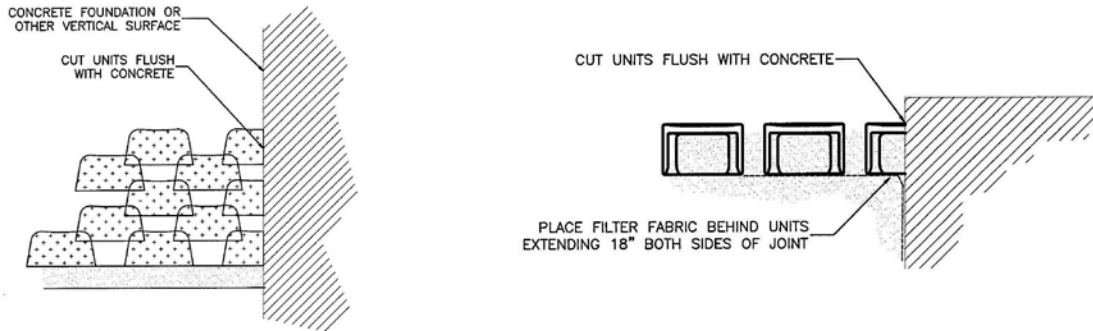


Top View of Neptune Installation

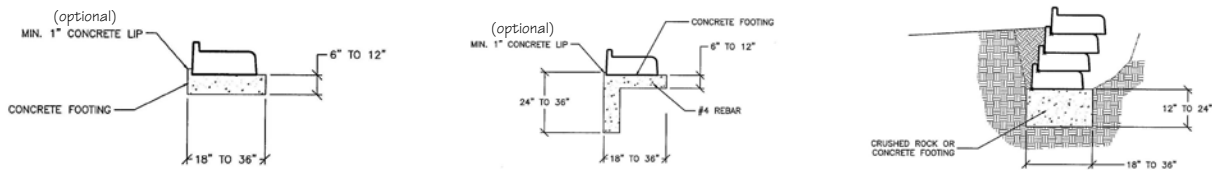


# USEFUL HERCULES AND NEPTUNE DETAILS

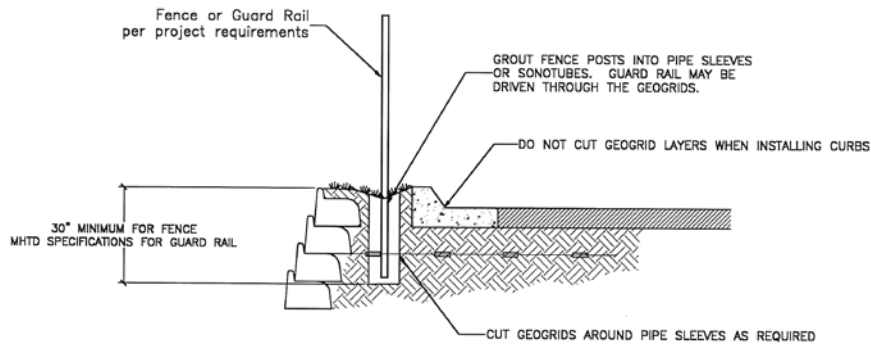
## Abutment Details:



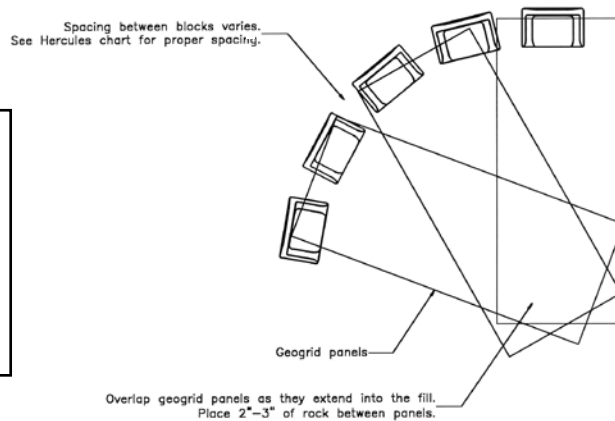
## Footing Details:



## Fence, Guard Rail, and Curb Detail:



## Radius Wall Detail:



Please feel free to contact us for specialty details from our library, or go to [www.herculesmfg.com](http://www.herculesmfg.com) for downloads.



# Frequently Asked Questions

**Q. When dirt is placed in the pocket, how does it stay in place?**

A. Hercules modules have a solid bottom, two side rails and a face wall that is taller than the side rails. Soil is easily compacted into the module and once other modules are stacked around it, the soil is trapped behind the face. Soil could only leave by being lifted up and out. Properly backfilled, compacted, drained and graded walls present no opportunity for such a force to act on the soil.

**Q. Why doesn't Hercules require a cap unit?**

A. Properly built walls will be backfilled up to the peak of the top modules face which ensures the entire module is covered. Only the faces of the modules should show on completed Hercules walls. Other systems use a cap to cover unsightly features like pin holes or a hollow core. Try using your favorite perennial low growing groundcover in the top row of modules as a "Green Cap".

**Q. When building a Hercules wall, can you stack 4-5 courses before backfilling?**

A. NO. Proper technique for all walls is to build and compact course by course. Hercules modules can only be properly filled when they are the uppermost course, so the installer is forced to use the proper technique. Once several courses are stacked up, there is no way to completely fill and compact in the modules.

**Q. What is the minimum setback distance of one course?**

A. Setback, from the bottom of the face on course #1, to the bottom of the face, when pulled all of the way forward on course #2, is 2 7/8 inches.

**Q. Do you have to use topsoil if you want to plant the wall?**

A. NO. Most annuals and perennials will grow well in soil available on the site regardless of quality. If site soil seems particularly bad, the face of the wall can be dusted with topsoil once the wall is complete. The use of poor quality soil will keep down unintended weed growth and periodic feeding will increase the growth and health of the intended plant material.

**Q. What are the advantages of crushed rock footing vs. a poured footing?**

A. The concept of a modular wall is to be flexible. Blocks are designed to move with the natural pressures created. With a crushed rock footing the wall has the flexibility to move with the earth. When a poured footing is used, the wall is restricted from its natural movement. Poured footings do offer many options for scour protection and to resist sliding in very poor soil conditions.

**Q. Will my Hercules wall count as greenspace?**

A. YES. Greenspace is viewed differently on every project and by every governing agency. Hercules walls have been accepted in the past and will likely be accepted more frequently as zoning regulations become more restrictive. Green building initiatives are now educating and driving the need for sustainable development and energy conserving practices such as a "Green Roof" and "Green Walls".

**Q. When should I use a Neptune module as opposed to a Hercules module?**

A. Hercules modules are routinely utilized in lighter duty water applications in addition to landbased applications. Neptune modules are always utilized in water applications and provide additional backfill protection from violent, continuous flow and wave action.

**Q. How do you keep weeds from growing in the Hercules units?**

A. Weeds will grow in a soil filled wall more or less based on the quality of the soil. However, planting a wall with properly chosen, hardy plant material will prevent the opportunity for weeds. Using a time release, granular fertilizer and pulling a few weeds until the intended plant material becomes mature and dominate will ensure a long-term, low maintenance "green wall".

**Q. How does the Hercules system utilize reinforcement when it has no pin?**

A. Pins, for competitive wall systems, function the same as our front face. They are all alignment devices. Connection between the modules and reinforcing materials is achieved by weight and friction as the material is sandwiched between the units. The Hercules system, as tested, has one of the highest connection strengths in the industry.



Manufactured by or under license from  
St. Louis Retaining Wall Company, LLC  
Covered by one or more of the following patents:  
5,277,012 • D360,475 • D340,996 • D362,077 • D347,285 • D372,106



[www.herculesmfg.com](http://www.herculesmfg.com)  
314-389-9255 phone • 314-389-6416 fax  
3916 Geraldine Ave., St. Louis MO 63115