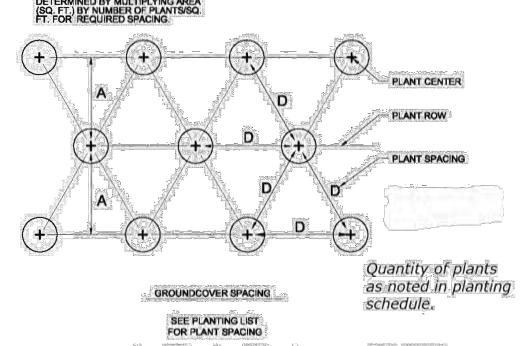


+ + + + + + BIORETENTION PLANTINGS AREA

SPACING *D* ROW *A* NUMBER OF PLANTS/SQ, FT. 30* 26* 160 24* 20.8* 25 18* 15.6* 450 15* 13.0* 640 -12* 10.4* 1.00 -10* 8.66* 1.44 8* 6.93* 2.25



	11 - 6"	1:-6"		ET AT ORIGINAL LANTING DEPTH
_900E	W A			OTTED ROUNDCOVER PLANT
				DEEP MULCH KEEP ULCH AWAY FROM ROWN OF PLANT
		i Tensasina	P	LANTING SOIL MIX
JAK.		Constitution of the consti	S	UBGRADE

3. TOP OF ROOTBALL STRIPPED OF 1/2 SURFACE GROWING MEDIA AND COVEREDWITH 1/2 LANDSCAPE BED MIX PLUS SURFACE MULCH.

Plant Spacing Plan

N.T.S. Planting Detail Courtesy of Ted Spaid

Figure 9 SWT Design, St. Louis, MO

MSD Landscape Guide for Stormwater Best Management Practices

The planting soil should be a sandy loam or loamy sand (should contain a minimum of 60 percent sand, by volume). The clay content for these soils should be less than 10 percent by volume. A saturated hydraulic conductivity of at least 1.0 feet per day (0.5 inches per hour) is required. (Without post-construction verification, a conservative default value of 0.5 feet per day is acceptable. The design rate may be increased to 2 feet/day if field observation, post-construction infiltration testing, or other equivalent testing (as determined by the District) is provided to confirm the design rate is achieved.) The soil should be free of stones, stumps, roots, or other woody material over 1 inch in diameter. For best results, brush or seeds from noxious weeds, such as Johnson grass, mugwort, nutsedge and Canadian thistle should not be present in the soils. Placement of the planting soil should be in lifts of 12 to 18 inches, loosely compacted (rubber wheeled heavy equipment and mechanical tamping devices are not recommended for compaction). The specific characteristics are presented in the following table.

Table 1: Planting Soil Characteristics. Source: Maryland Stormwater Manual

Parameter	Value	
pH range	5.2 to 8.00	
Organic matter	1.5 to 5.0%	
Magnesium	35 lbs. per acre, minimum	
Phosphorus (P ₂ O ₅)	75 lbs. per acre, minimum	
Potassium (K ₂ O)	85 lbs. per acre, minimum	
Soluble salts	≤ 500 ppm	

Planting, Water and Mulch Requirements for Stormwater BMPs

Table 3: Planting, Water and Mulch Requirements

Table 5. Flanting, Water and Mulch Requirements									
Water Availability	Required	Minimum	Water Requirement	Water Requirement	Maximum				
	Planting Period	Container Size	First 3 Weeks*	After 3 Weeks*	Mulch Depth****				
No ability to water after	Late Feb. – April only	2.25" x 3.75" or larger	Water each plug immediately		1.5 for plugs				
Manual watering with standard sprinkler	Late Feb. – Early June	4.5" x 5" (quart) or larger in summer & fall	1" (60 min) every 4 days	1" (60 min) every 7 days until plants established***	1.5" for plugs				
	Sept. – October				2.5" for quarts				
Automatic irrigation	Late Feb. – Early Oct.	2.25" x 3.75" (plug) or	1" (60 min) every 4 days in	1" (60 min) every 7 days until	1.5" for plugs				
(set to water more		larger in spring	spring and fall	plants established***	2.5" for quarts				
frequently than normal		4.5" x 5" (quart) or	1" (60 min) every 3 days in						
during first two months after planting)		larger in summer & fall	summer						

*This water amount includes natural rainfall. If you get a ½ inch of natural rain then you will need to add a ½ inch of water to meet the 1 inch requirement.

**Requires transport of water to the planting site in large containers and pouring enough water onto each plant (after planting) to moisten the entire planting

***Plants are established when roots have grown out of the container soil and into the native soil by 3-5 inches. This normally takes 3-4 months for most perennials and grasses and up to 6-7 months for trees and shrubs.

****Shredded leaf compost is recommended for use with perennials and grasses. Shredded bark mulch is recommended for tree and shrub plantings at a depth of 3 inches.

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