

GRASS SWALE DESIGN CRITERIA

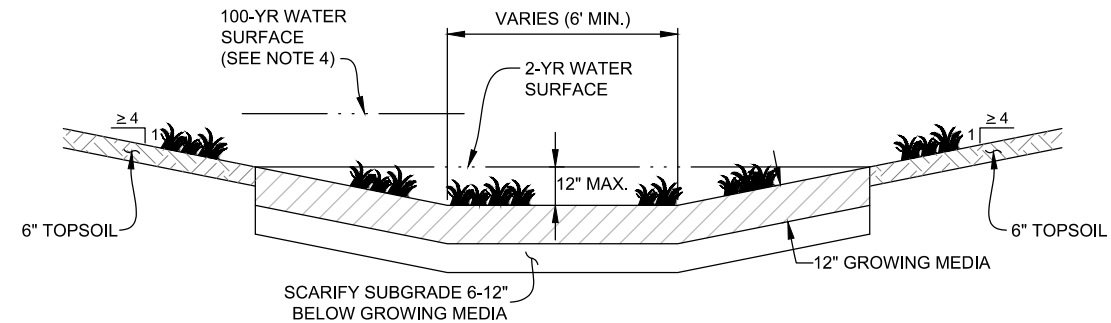
	MIN. SLOPE	MAX. SLOPE	MAX. 2-YEAR VELOCITY (fps)
IRRIGATED BLUEGRASS SOD	0.5%	4.0%	4.0
IRRIGATED TURF-FORMING NATIVE GRASS	0.5%	2.5%	3.0

DESIGN NOTES:

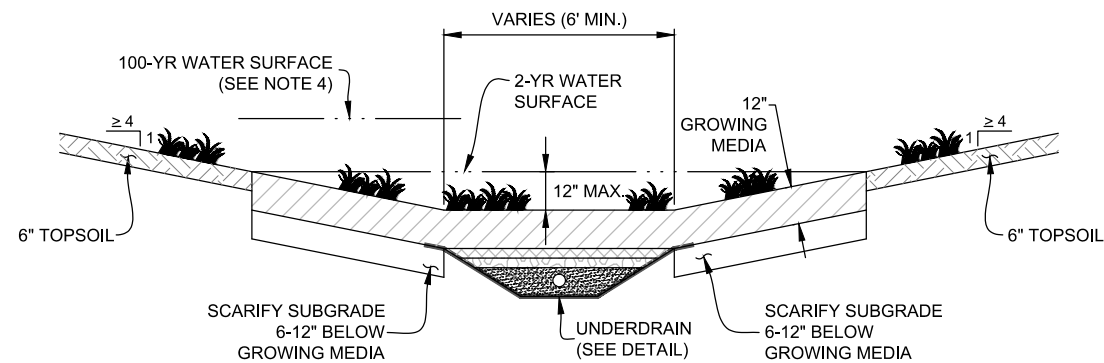
1. AN UNDERDRAIN IS REQUIRED FOR ALL SWALES WITH A SLOPE LESS THAN 2.0% OR WHERE SUBGRADE SOILS ARE NOT SCARIFIED 6-12" PRIOR TO PLACEMENT OF THE GROWING MEDIA. UNDERDRAINS SHALL DAYLIGHT INTO A STORM SEWER, DRAINAGEWAY OR OTHER DESIGNATED DRAINAGE SYSTEM, TYPICALLY A PUBLIC DRAINAGE SYSTEM (NOT CURB AND GUTTER). UNDERDRAIN CLEANOUT DETAILS CAN BE FOUND ON THE GENERAL DETAILS SHEET.
2. UNDERDRAIN SURFACE OUTFALLS SHALL BE PROTECTED WITH A MINIMUM 5'X5' PAD OF TYPLE VL SOIL RIPRAP (12" THICK).
3. NON-IRRIGATED GRASS SWALES ARE NOT PERMITTED AS A WATER QUALITY CONTROL MEASURE.
4. SWALE DEPTH AND/OR LIMITS OF FLOODING DURING THE 100-YEAR EVENT SHALL BE DETERMINED AND INDICATED ON THE DESIGN DRAWINGS. GRASS SWALES MUST HAVE CAPACITY FOR THE 100-YEAR EVENT.
5. TRIANGULAR SWALES ARE NOT PERMITTED.
6. APPROVED MATERIAL SELECTIONS AND SPECIFICATIONS FOR THE SELECTED CONTROL MEASURE ARE LOCATED ON THE CONTROL MEASURE MATERIAL SPECIFICATION SHEET.

CONSTRUCTION NOTES: (INCLUDE ON CONSTRUCTION DRAWINGS)

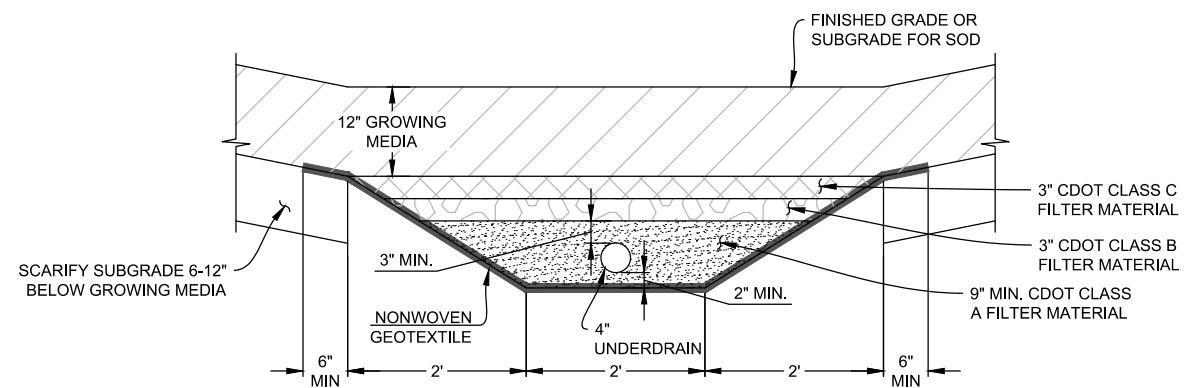
1. EROSION CONTROL BLANKET IS REQUIRED IN ALL NATIVE GRASS SWALES FOR ESTABLISHMENT OF GRASS COVER. BLANKET SHALL EXTEND TO EDGE OF GROWING MEDIA AT A MINIMUM. BLANKET SELECTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE SEMSWA GESC MANUAL.
2. WHERE POSSIBLE, IRRIGATION SYSTEMS SHALL BE INSTALLED IN CONJUNCTION WITH FINISH GRADING OF GRASS SWALE. IF IRRIGATION INSTALLATION WILL LAG, SWALE SHALL BE RESTORED TO ORIGINAL CONDITION FOLLOWING INSTALLATION. DISTURBED MEDIA LAYERS SHALL BE RESTORED, GEOTEXTILES AND EROSION CONTROL BLANKETS SHALL BE REPLACED OR PATCHED, AND FINISH GRADES SHALL BE RESTORED TO THE DESIGNED SLOPES. IRRIGATION HEADS SHALL BE PLACED ABOVE THE 2-YEAR WATER SURFACE ELEVATION.



GRASS SWALE WITHOUT UNDERDRAIN (SLOPES ≥ 2%)
N.T.S.



GRASS SWALE WITH UNDERDRAIN (SLOPES < 2%)
N.T.S.



UNDERDRAIN DETAIL
N.T.S.

PLOT: 6/28/2019 9:48:33 AM NAME: P:\2019 PROJECTS\19-013\01 CM DRWGS AND MATERIAL RECS - DOUGLAS COUNTY\CAD\WORKING\KDC\08-013.03_GRASS.DWG

REFERENCE:	SCALE:	Standard Plan Revision	
		No.	Date



7437 SOUTH FAIRPLAY STREET
CENTENNIAL, CO 80112
PHONE (303) 858-8844
FAX (303) 267-9565

GRASS SWALE