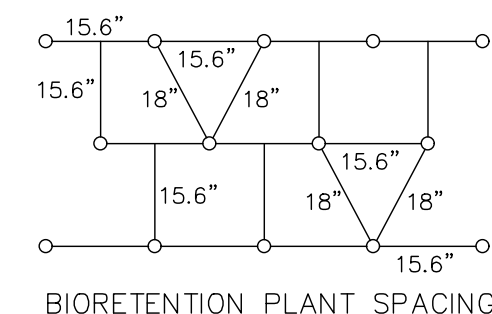


STORMWATER BMP SUMMARY TABLE:

BMP TYPE:	BIORETENTION
DRAINAGE AREA TO BMP:	11.06 ACRES
WQV REQUIRED:	24,943 CU FT
WQV PROVIDED:	31,500 CU FT
FILTER BED AREA REQUIRED:	6,929 SQ FT
FILTER BED AREA PROVIDED:	7,000 SQ FT

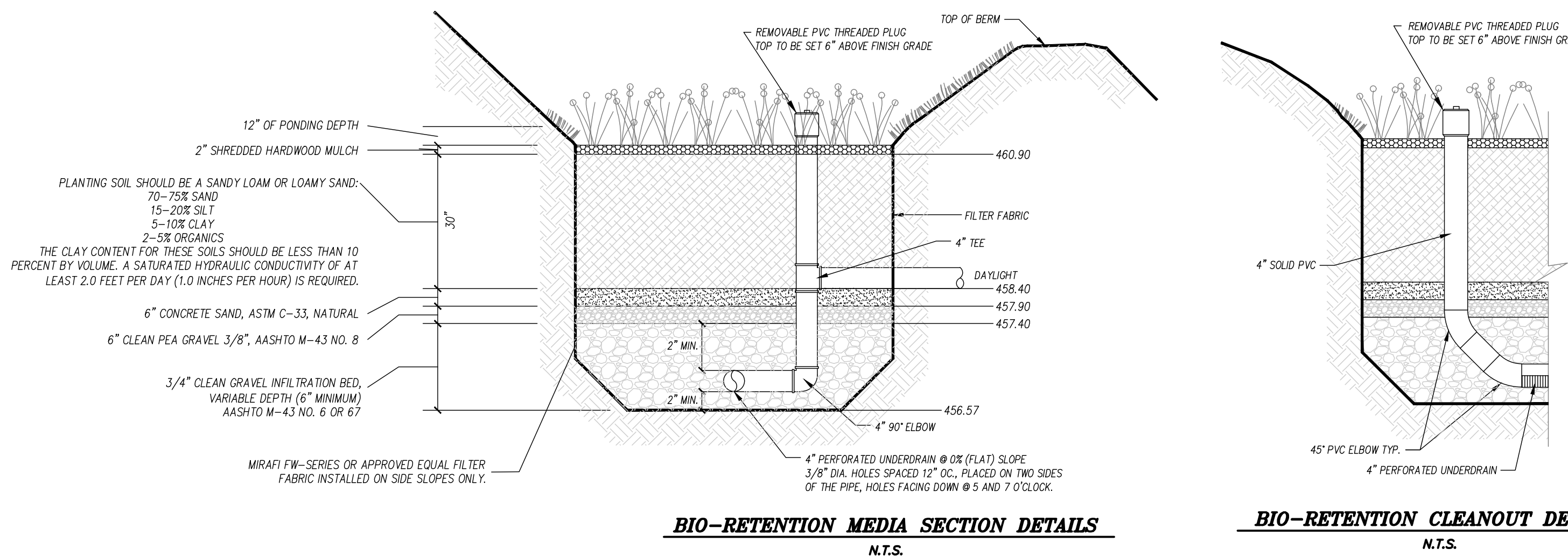
STORMWATER BMP CALCULATIONS:

Drainage Area (A)	11.06	Acres
Percent Impervious (I)	55	%
$R_v = 0.05 + 0.009 * (I)$	0.55	
Rainfall Depth (P)	1.14	in
$WQ_v = [P * R_v * A] / 12 * 43,560$	24943.83	Cu Ft Required
$WQ_v^* =$	31500.00	Cu Ft Provided
$A_f = WQ_v * D_f / [k * (H_f + D_f) * T_f]$		
Filter Bed Depth (Df)	2.50	ft
Coefficient of Permeability (k)	1.00	ft/day
Average Height above Filter Bed (Hf)	2.00	ft
Design Time to Drain Bed	2.00	Days
Area of Filter Bed (Af)	6928.84	Sq Ft Required
Area of Filter Bed (Af)	7000.00	Sq Ft Provided



BIORETENTION PLANTING PALLET

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
21	COREOPSIS LANCEOLATA	LANEALF COREOPSIS	1 QT.
45	ECHINACEA PURPUREA	PURPLE CONFLOWER	100 mm ELLEPOT
45	MONARDA FISTULOSA	WILD BERGAMONT	120 mm ELLEPOT
26	PHLOX PANICULATA	MEADOW PHLOX	1 GALLON
6	PANICUM VIRGATUM	SWITCH GRASS	1 GALLON



BIORETENTION NOTES:

- BUILD AND VEGETATE RAIN GARDEN AFTER SITE IS ESTABLISHED PREVENT SEDIMENT FROM CLOGGING THE SYSTEM.
- INFILTRATION AREAS (THE AREA OF THE RAIN GARDEN AS DEFINED BY THE TOP ELEVATION OF THE FACILITY) SHALL BE FENCED OFF FROM THE FIRST DAY OF EARTH MOVING UNTIL PROJECT COMPLETION TO PREVENT COMPACTION OF THE SUBGRADE, DIRT TRACKING ONTO ANY LAYER OF THE FACILITY AND STOCKPILING OF CONSTRUCTION MATERIALS THAT MAY CLOG THE SURFACE.
- DURING EXCAVATION OF NATIVE SOILS TO THE BOTTOM OF THE FACILITY, RAINFALL MAY CAUSE FINES TO CLOG THE SURFACE OF THE FACILITY. IF THE NATIVE SOIL HAS BEEN EXPOSED TO RAINFALL, HAND RAKE THE SURFACE TO A DEPTH OF 3" TO RESTORE INFILTRATION CAPACITY.
- CALL 24 HOURS IN ADVANCE OF CONSTRUCTING THIS FACILITY SO CONSTRUCTION OBSERVATION MAY BE PERFORMED TO IDENTIFY VARIATIONS IN THE FIELD THAT MAY AFFECT DESIGN AND VERIFY PROPER CONSTRUCTION.
- DURING AREA DRAIN INSTALLATION, DISTURB NATIVE SOILS AS LITTLE AS POSSIBLE.
- 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, MILKWEED, 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 (ROBBER WHEELED HEAVY EQUIPMENT AND MECHANICAL TAMPING DEVICES ARE NOT RECOMMENDED FOR COMPACTION). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN THE FOLLOWING TABLE.

PARAMETER	VALUE
PH RANGE	5.2 TO 8.00
ORGANIC MATTER	1.5 TO 5.0%
MAGNESIUM	35 LBS. PER ACRE, MINIMUM
PHOSPHORUS	75 LBS. PER ACRE, MINIMUM
POTASSIUM	85 LBS. PER ACRE, MINIMUM
SOLUBLE SALTS	≤ 500 PPM

PROJECT TITLE
IMPROVEMENT PLANS
 MIDWAY TRAILERS INC DBA
 MISSOURI GREAT DANE
PROFILES
 PFS No. 90056.MOCD.00R
 TASK 001

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ENGINEER AUTHORIZATION
 THE RESPONSIBILITY FOR PROFESSIONAL ENGINEERING LIABILITY ON THIS PROJECT IS LIMITED TO THE SET OF PLANS AUTHORIZED BY THE SEAL, SIGNATURE, AND DATE HEREON ATTACHED. RESPONSIBILITY IS EXCLUDED FOR ALL OTHER ENGINEERING PLANS INVOLVED IN THIS PROJECT AND SPECIALTIES EXCLUDED HEREON AFTER THIS DATE UNLESS REAUTHORIZED.
PROCKETT, RAY & SILVER, INC.
 LICENSE #33268



KARL A. SCHENKE, P.E.
 PROFESSIONAL ENGINEER LICENSE 2003015039

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Page No. 8 of 20
PROFILES

*** 12/12/2018, Review Set, NOT APPROVED FOR CONSTRUCTION ***