Presby Environmental, Inc.

The Next Generation of Wastewater Treatment Technology

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Project:_____Date: _____

1) Daily Design Flow =_____Bedrooms x 120 GPD/bedroom = _____GPD ☐NSF-40 ☐TS-1

2) NC Soil Loading Rate = _____ GPD/sq. ft., Presby Soil Loading Rate (PR-SLR) = _____GPD/sq. ft.

Table A

Soil Group USDA Textures	North Carolina Soil Loading Rate GPD/ft²	NSF-40 Presby System Pad / Bed Loading Rate GPD/ft² (600 GPD daily flow maximum)	TS-I Presby System Pad / Bed Loading Rate GPD / ft² (1,500 GPD daily flow maximum)	Length to Width Ratio
Group I: Sands with S or PS Loamy Sand structure and clay mineralogy	1.2 – 0.8	1.067 – 0.711	1.600 – 1.067	2:1
Group II: Coarse Loams with S or PS Loamy Sand structure and clay mineralogy	0.8 – 0.6	0.711 – 0.533	1.067 – 0.800	3:1
Group III: Fine Loams with S or PS Loamy Sand structure and clay mineralogy	0.6 – 0.3	0.400 – 0.200	Not allowed	3:1

Notes: 1) Pad / Bed loading rates reflect approve reduction in size. 2) TS-1 systems for "fill" sites limited to 480 GPD.

3) System Sand Bed Area Required = _____GPD ÷ _____ PR-SLR = _____ sq. ft. minimum

4) AES Pipe Required =_____ Bedrooms x 50 ft/bedroom = _____ ft. minimum

5) Presby Pipe Row Length to be used =_____ ft

6) Pipe Required (from Step #4) _____ ft ÷ Row Length (from Step #5) _____ft =_____Rows
Note: round up to nearest whole number

7) Pipe Layout Width (PLW) = (_____ # Rows from Step #6 – 1) x 1.5 ft. row spacing + 1 ft = _____ ft.

8) System Sand Bed Dimensions

A) Calculate System Sand Bed Length (SSBL):

Row Length_____ft + (2 x _____ ft from Table C) = _____ft System Sand Bed Length (SSBL)

B) Calculate System Sand Bed Width (SSBW):

1) SSBA (from Step #5)_____sq ft ÷_____ft SSBL =_____ft SSBW minimum

2) Pipe Layout Width =_____ft + (2 x _____ ft from Table C) =_____ft SSBW needed to cover all Presby Pipes

3) System Sand Bed Width used =_____ft (B1 or B2 above - whichever is larger)

C) System Sand Bed Area Provided (SSBA):

SSBL (from A) =_____ft x_____ft SSBW (from B3) =_____sq ft SSBA provided

Notes: _____