

Approximate guide for finding tank & drainfield size
Tank size must be within one tank size of requirement

** Step # 1 – Find your gallons per day.*

Residences

(a) Single or multiple family per dwelling Unit	
1 Bedroom with 750 sq. ft. or less of building area.....	100
2 Bedrooms with 751-1200 sq. ft. of building area.....	200
3 Bedrooms with 1201-2250 sq. ft. of building area.....	300
4 Bedrooms with 2251-3300 sq. ft. of building area.....	400
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 100 gallons per dwelling unit.	
(b) Other per occupant.....	50

Footnotes to Table I:

1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment wastewater flow.

2. Systems serving high volume establishments, such as restaurants, convenience stores and service stations located near interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average sewage volume. Minimum estimated flows for these facilities shall be 3.0 times the volumes determined from the Table I figures.

3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.

4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in Table I do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.

5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as appropriate to the products and services offered.

6. Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential care facilities will house more than two persons in any bedroom, estimated flows shall be increased by 50 gallons per each additional occupant.

(2) Minimum effective septic tank capacity and total dosing tank capacity shall be determined from Table II. However, where multiple family dwelling units are jointly connected to a septic tank system, minimum effective septic tank capacities specified in the table shall be increased 75 gallons for each dwelling unit connected to the system. With the exception noted in paragraph 64E-6.013(2)(a), F.A.C., all septic tanks shall be multiple chambered or shall be placed in series to achieve the required effective capacity. The use of an approved outlet filter device shall be required. Outlet filters shall be installed within or following the last septic tank or septic tank compartment before distribution to the drainfield. The outlet filter device requirement includes blackwater tanks, but does not include graywater tanks or grease interceptors or laundry tanks. Outlet filter devices shall be placed to allow accessibility for routine maintenance. Utilization and sizing of outlet filter devices shall be in accordance with the manufacturers' recommendations. The approved outlet filter device shall be installed in accordance with the manufacturers' recommendations. The Bureau of Onsite Sewage Programs shall approve outlet filter devices per the department's Policy on Approval Standards For Onsite Sewage Treatment And Disposal Systems Outlet Filter Devices, November 2008, which is herein incorporated by reference.

* Step # 2 Using column #1 find your tank size under column #2

TABLE II
SEPTIC TANK AND PUMP TANK CAPACITY

(Column #1) AVERAGE SEWAGE FLOW GALLONS/DAY	(Column #2) SEPTIC TANK MINIMUM EFFECTIVE CAPACITY GALLONS	PUMP TANK MINIMUM TOTAL CAPACITY GALLONS	
		Residential	Commercial
0-200	900	150	225
201-300	900	225	375
301-400	1050	300	450
401-500	1200	375	600
501-600	1350	450	600
601-700	1500	525	750
701-800	1650	600	900
801-1000	1900	750	1050
1001-1250	2200	900	1200
1251-1750	2700	1350	1900
1751-2500	3200	1650	2700
2501-3000	3700	1900	3000
3001-3500	4300	2200	3000
3501-4000	4800	2700	3000
4001-4500	5300	2700	3000
4501-5000	5800	3000	3000

(3) Where a separate graywater tank and drainfield system is used, the minimum effective capacity of the graywater tank shall be 250 gallons with such system receiving not more than 75 gallons of flow per day. For graywater systems receiving flows greater than 75 gallons per day, minimum effective tank capacity shall be based on the average daily sewage flow plus 200 gallons for sludge storage. Design requirements for graywater tanks are described in subsection 64E-6.013(2), F.A.C. Where separate graywater and blackwater systems are utilized, the size of the blackwater system can be reduced, but in no case shall the blackwater system be reduced by more than 25 percent. However, the minimum capacity for septic tanks disposing of blackwater shall be 900 gallons.

(4) Where building codes allow separation of discharge pipes of the residence to separate stubouts and where lot sizes and setbacks allow system construction, the applicant may request a separate laundry waste tank and drainfield system. Where an aerobic treatment unit is used, all blackwater, graywater and laundry waste flows shall be consolidated and treated by the aerobic treatment unit. Where a residential laundry waste tank and drainfield system is used:

(a) The minimum laundry waste trench drainfield absorption area for slightly limited soil shall be 75 square feet for a one or two bedroom residence with an additional 25 square feet for each additional bedroom. If an absorption bed drainfield is used the minimum drainfield area shall be 100 square feet with an additional 50 square feet for each additional bedroom over two bedrooms. The DOH county health department shall require additional drainfield area based on moderately limited soils and other site specific conditions, which shall not exceed twice the required amount of drainfield for a slightly limited soil.

(b) The laundry waste interceptor shall meet requirements of subsections 64E-6.013(2) and (8), F.A.C.

(c) The drainfield absorption area serving the remaining wastewater fixtures in the residence shall be reduced by 25 percent.

(5) The minimum absorption area for standard subsurface drainfield systems, graywater drainfield systems, and filled systems shall be based on estimated sewage flows and Table III so long as estimated

sewage flows are 200 gallons per day or higher. When estimated sewage flows are less than 200 gallons per day, system size shall be based on a minimum of 200 gallons per day.

** Step # 3 - To find drainfield size (non-mound), divide gallons per day by a loading rate under column "C" or "D". Use column A & B as a guide.*

** Your figures will be a vague guide. Exact drainfield size will be determined by the Health Dept. after a complete site evaluation.*

TABLE III
For Sizing of Drainfields Other Than Mounds

<i>(Column A)</i> U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURE CLASSIFICATION	<i>(Column B)</i> SOIL TEXTURE LIMITATION (PERCOLATION RATE)	MAXIMUM SEWAGE LOADING RATE TO TRENCH & BED ABSORPTION SURFACE IN GALLONS PER SQUARE FOOT PER DAY	
		<i>(Column C)</i> TRENCH	<i>(Column D)</i> BED
Sand; Coarse Sand not associated with a seasonal water table of less than 48 inches; and Loamy Coarse Sand	Slightly limited (Less than 2 Min/inch)	0.80	0.60
Loamy Sand; Sandy Loam; Coarse Sandy Loam; and Fine Sand	Slightly limited (2-4 min/inch)	0.80	0.60
Loam; Fine Sandy Loam; Silt Loam; Very Fine Sand; Very Fine Sandy Loam; Loamy Fine Sand; Loamy Very Fine Sand; and Sandy Clay Loam	Moderately limited (5-10 min/inch)	0.65	0.35
Clay Loam; Silty Clay Loam; Sandy Clay; Silty Clay; and Silt	Moderately limited (Greater than 15 Min/inch but not exceeding 30 min/inch)	0.35	0.20
Clay; Organic Soils; Hardpan; and Bedrock	Severely limited (Greater than 30 Min/inch)	Unsatisfactory for standard subsurface System	
Coarse Sand with an estimated wet season High water table within 48 inches of the bottom of the proposed drainfield; Gravel or Fractured Rock or Oolitic Limestone	Severely limited (Less than 1 Min/inch and a Water table less than 4 feet below The drainfield)	Unsatisfactory for standard subsurface System	

Footnotes to Table III:

1. U.S. Department of Agriculture major soil textural classification groupings and methods of field identification are explained in Rule 64E-6.016, F.A.C. Laboratory sieve analysis of soil samples may be necessary to confirm field evaluation of specific soil textural classifications. The USDA Soil Conservation Service "Soil Textural Triangle" shall be used to classify soil groupings based on the proportion of sand, silt and clay size particles.

2. The permeability or percolation rate of a soil within a specific textural classification may be affected by such factors as soil structure, cementation and mineralogy. Where a percolation rate is determined using the falling head percolation test procedure described in the United States Environmental Protection Agency Design Manual for Onsite Wastewater Treatment and Disposal Systems, October, 1980, incorporated by reference into this rule, the calculated percolation test rate shall be used with Table III and evaluated by the DOH county health department with other factors such as history of performance of systems in the area in determining the minimum sizing for the drainfield area.

3. When all other site conditions are favorable, horizons or strata of moderately or severely limited soil may be replaced with slightly limited soil or soil of the same texture as the satisfactory slightly limited permeable layer lying below the replaced layer. The slightly limited permeable layer below the replaced layer shall be identified within the soil profile which was submitted as part of the permit application. The resulting soil profile must show complete removal of the moderately or severely limited soil layer being replaced and must be satisfactory to a minimum depth of 54 inches beneath the bottom surface of the proposed drainfield. The width of the replacement area shall be at least 2 feet wider and longer than the drain trench and for absorption beds shall include an area at least 2 feet wider and longer than the proposed bed. Drainfields shall be centered in the replaced area. Where at least 33 percent of the moderately limited soils at depths greater than 54 inches below the bottom of the drainfield have been removed to the depth of slightly limited soil, drainfield sizing shall be based on the following sewage loading rates. Where severely limited soils are being removed at depths greater than 54 inches below the bottom of the drainfield, 100 percent of the severely limited soils at depths greater than 54 inches shall be removed down to the depth of an underlying slightly limited soil. Maximum sewage loading rates for standard subsurface systems installed in replacement areas shall be 0.80 gallons per square foot per day for trench systems and 0.60 gallons per square foot per day for absorption beds in slightly limited soil textures. Where moderately limited soil materials are found beneath the proposed drainfield, and where system sizing is based on that moderately limited soil, soil replacements of less than 33% may be permitted.

4. Where coarse sand, gravel, or oolitic limestone directly underlies the drainfield area, the site shall be approved provided a minimum depth of 42 inches of the rapidly percolating soil beneath the bottom absorption surface of the drainfield and a minimum 12 inches of rapidly percolating soil contiguous to the drainfield sidewall absorption surfaces, is replaced with slightly limited soil material. Where such replacement method is utilized, the drainfield size shall be determined using a maximum sewage application rate of 0.80 gallons per square foot per day of drainfield in trenches and 0.60 gallon per square foot per day for drainfield absorption beds.

5. Where more than one soil texture classification is encountered within a soil profile and it is not removed as part of a replacement, drainfield sizing for standard subsurface drainfield systems and fill drainfield systems shall be based on the most restrictive soil texture encountered within 24 inches of the bottom of the drainfield absorption surface.

(6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, 3-22-00, 9-5-00, 11-26-06, 6-25-09.