Clarke & Decatur County

Environmental Health

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144 W. Jefferson St., Osceola IA 50213

1/2022

OPERATING PROCEDURES/GUIDELINES
ON-SITE WASTEWATER TREATMENT & DISPOSAL

The first goal is to ensure that all required housing be equipped with an approved septic system (tank, lines & secondary treatment), and that efforts be made to inform citizens of the county on health hazards relating to septic systems, aware of their existing systems, and the county regulation.

These procedures/guidelines may require additions as new questions or circumstances arise. They will be reviewed yearly in January or February prior to the construction season beginning. They will provide guidance to the Sanitarian to ensure that everyone asking a similar question gets the same answer. Not all sites are alike though, and may require limited variations.

- New construction requires an application be filled out and a permit issued prior to a contractor starting work on the septic system.
- Existing septic systems that requiring digging, the Sanitarian will be notified. Replacement of short sections of pipe, 1 stick or less, will not require a permit but if the tank has to be replaced, a permit will be needed and the entire system upgraded. If the existing secondary treatment system fails or if the entire discharge line from a tank has to be replaced creating a new direct discharge, then the entire system shall be upgraded.
- The application for permit shall be filled out completely online via the online portal.
- Uncovering a septic tank to have it pumped is considered maintenance, no notification or permit is needed.
- Rebuilding of a home or moving a manufactured home onto a site with an existing system will be considered the same as new construction. This may require upgrading or replacement of the existing system if it does not meet current State and County regulations.
- In upgrading a system, if the tank is found to be in acceptable condition but too small or containing only one compartment, another tank could be added with it to meet requirements.
- As the Sanitarian is not always available, notification for final inspection is needed 24 hours or more in advance. Special arrangements may be needed.
- If request is made for a time of sale inspection, both parties must agree to the inspection. If an inspection is performed and the system is found to be inadequate, the system would require upgrading.
- Anyone wanting to install an alternative type system will need approval of the Board of Health. The board could then allow the Sanitarian to approve future systems of the same type, or require their approval on each system. These variances could also require written agreements between owner and Board of Health addressing testing, failure or poor results of the system. The owner shall see that this agreement is recorded with the County Recorder, in the abstract of title for the property containing the alternative system.
- Contractors doing septic work will “register” with the Sanitarian. To be on a list provided to individuals contractors must have attended an approved septic course within the calendar year. This also means they understand the county regulations and agree to follow them. There will be a $50 registration fee for new contractors and $25 every 5 years to re-register.
- When a system requiring a service agreement is installed, it will be the responsibility of the owner to see that the service agreement (original copy) is recorded with the County Recorder, in the abstract of title for the property containing the system, within thirty days after inspection. A service agreement shall be maintained at all times and on file with the administrative authority.
- The contractor or company that is providing the maintenance agreement is responsible for testing the effluent at the required times with a copy of the results being submitted to the Sanitarian.
- When planning your septic system, consideration should be given to its location, future plans and required distance requirements. Anyone planning to do their own work shall discuss their site with the County Sanitarian prior to starting the work to make sure they understand all of the requirements. The Sanitarian can do a site preview with the contractor and/or homeowner prior to the work being done.

- If a system is installed which has a surface discharge, that discharge shall be on your own property within distance requirements from property lines, easement areas, etc. Systems should discharge away from road ditches. If a road ditch is the only option, a permit shall be obtained from the road authority to perform work in the road right-of-way.
- Any dwelling where plumbing does not exist shall be served by an impervious vault toilet meeting the requirements of IAC 567-69.13(455B). Any dwelling with plumbing (drains from a sink, tub, etc.) that discharges water out of the dwelling shall be served by an on-site septic system consisting of a primary and secondary treatment system as required per IAC 567-69.1(455B). If the dwelling does not contain a toilet connected to the plumbing system, the dwelling shall also be served by an impervious vault toilet meeting the requirements of IAC 567-69.13(455B).
- There is a low interest loan program available for those who qualify. This program is intended for those sites that currently have improper septic systems and have to or want to upgrade their system. It is only available for unincorporated portions of the county. Ask for information on the Onsite Wastewater Assistance Program (OSWAP).
- There may also be grant money or low interest funds available from USDA Rural Development. These are generally based on your income and age. Ask for information on these programs.

- Set back requirements (from Chapter 69)

Minimum Distance in Feet From	Closed Portion of Treatment System	Open Portion of Treatment System
Private water supply well	50	100
Groundwater heat pump borehole	50	100
Lake or Reservoir (over 1 acre)	50	100
Stream or pond (under 1 acre)	25	25
Edge of drainage ditch	10	10
Dwelling or other structure	10	10
Property Lines	10	10
Water lines continually under pressure	10	10
Suction water lines	50	100
Foundation drains/subsurface tiles	10	10

LIST OF LOCAL CERTIFIED WELL PLUGGING CONTRACTORS 6-1-2020

Kenny Holmes-8088	Corydon	641-870-0402
Jeff Starlin-9975	Diagonal	641-344-9783
Gene Cameron-6944	Osceola	641-342-3413
Glen Bedwell-7263	St. Charles	641-396-2462
Gerald Snyder-8479	Murray	515-975-2594
Kevin Buckingham- 10529	Leon	641-414-7702
Tim Newberry- 10533	Lamoni	641-414-1731

This is not a complete list. This list is just a few that we know of that do work in the county.

Options for Secondary Treatment Systems

Subsurface Absorption Systems – Soil absorption systems are the best available treatment technology and shall always be used where possible. A percolation test or professional soil analysis is required before any soil absorption system is installed. There are different types of absorption systems – gravel system and chamber system.

Mound System – Mound systems shall be permitted only after a thorough site evaluation has been made and landscaping, dwelling placement, effect on surface drainage and general topography have been considered.

The following systems generally have a surface discharge and may require a NPDES permit. The NPDES permit will specify the sampling frequency. If the system is designed with no discharge, then the NPDES permit and sampling is not required.

Intermittent Sand Filter System – Subsurface sand filters may be used when the site is unacceptable for a soil absorption system.

Constructed Wetlands – Constructed wetlands shall only be used when the site is unacceptable for a soil absorption system. Because of higher maintenance requirements, preference should be given to sand filters, where conditions allow. The effluent from a constructed wetland shall receive additional treatment through the use of sand filters.

Peat Filters & Re-circulating Textile Filters – May be used when the Administrative Authority determines the site is unacceptable for a soil absorption system. There are different brands and they require a maintenance contract.

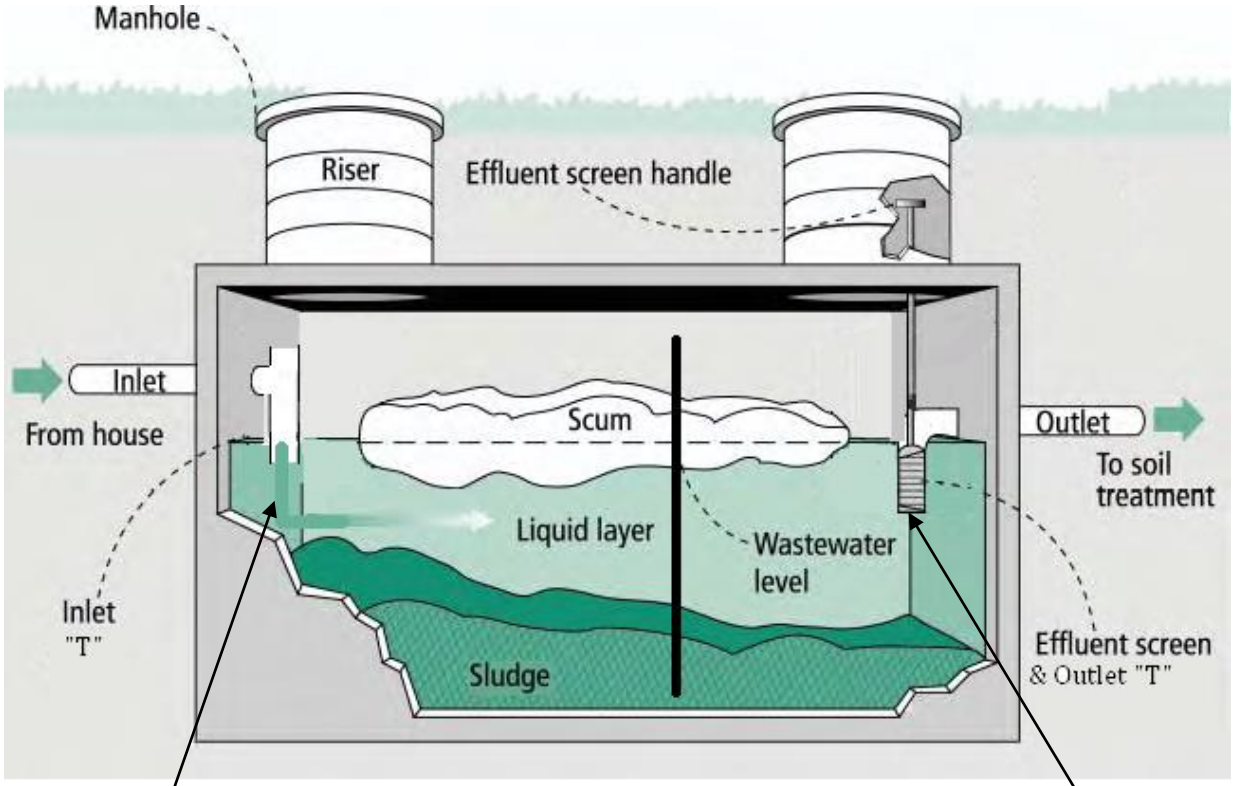
Individual Mechanical Aerobic System – Mechanical aerobic systems may be used when the site is unacceptable for a soil absorption system. Because of higher maintenance requirements of the mechanical aerobic systems, preference should be given to sand filters, where conditions allow. There are different brands of mechanical aerobic systems and they shall all be certified. A maintenance contract with a manufacturer-certified technician shall be maintained at all times.

Impervious Vault Toilets (Outhouses) – Impervious vault toilets may be used if designed and constructed in accordance with Chapter 69.

Alternative or innovative systems are to be designed and operated in accordance with approved standards and operating procedures established by the administrative authority.

Every on-site system, except mechanical-aerobic systems, shall have, as a primary treatment unit, a septic tank meeting state's requirement. Size is based on the number of bedrooms for homes and water usage for businesses. Tank size shall increase if high volume water use fixtures are used.

Homeowners are responsible for the maintenance, care and proper functioning of their septic system. This includes maintaining maintenance contracts with service providers for those types of systems that require maintenance contracts.



Shall be 4”sch. 40 pipe & shall extend at least 6” above & 8” below liquid level.(No more than 20% of liquid depth.)

Shall be 4” sch. 40 pipe & shall extend at least 6” above & at least 10” below liquid level. (No more than 25% of liquid

Every septic tank shall be divided into 2 compartments. This may be obtained by using more than 1 tank. Influent compartment shall not be less than ½ nor more than 2/3 of total capacity. Effluent compartment shall not be less than 1/3 nor more than ½ of total capacity. Any tank placed in fill soil shall be placed on a level, stable base that will not settle. Access must be provided to all parts of tank necessary for adequate inspection, operation & maintenance. If only 2 opening in tank located over inlet & outlet. They must be at least 18”. A 24” diameter opening may be provided at the center of tank with 2 smaller openings of at least 6 “over the inlet & outlet. If top of tank is more than 12 “ below finished ground level, a riser at least 24” in diameter must be installed over each manhole of 18” or more in diameter to ring the top of the manhole lid to within 6” of the finished ground level.

- Tank shall not be used for disposal of chemical wastes or grease in quantities, which might be detrimental to the bacterial action in the tank.
- Interior length of tank should not be less than 5’ & shall be at least 1 ½ times the width. No tank or compartment shall have an inside width of less than 2’. The minimum inside diameter of a vertical cylindrical septic tank shall be 5’.
- Minimum liquid depth shall be 40”. Maximum liquid depth for calculating capacity shall not exceed 6 ½’.
- Tanks shall be constructed of poured concrete or plastic resistant to corrosion or decay & designed so they will not collapse or rupture. Metal tanks are prohibited Fiberglass or plastic tanks shall be bedded according to manufacturer’s specifications.
- Inlet and outlet connections at the tanks shall be made by self-sealing gaskets cast into the concrete or formed into the plastic or fiberglass

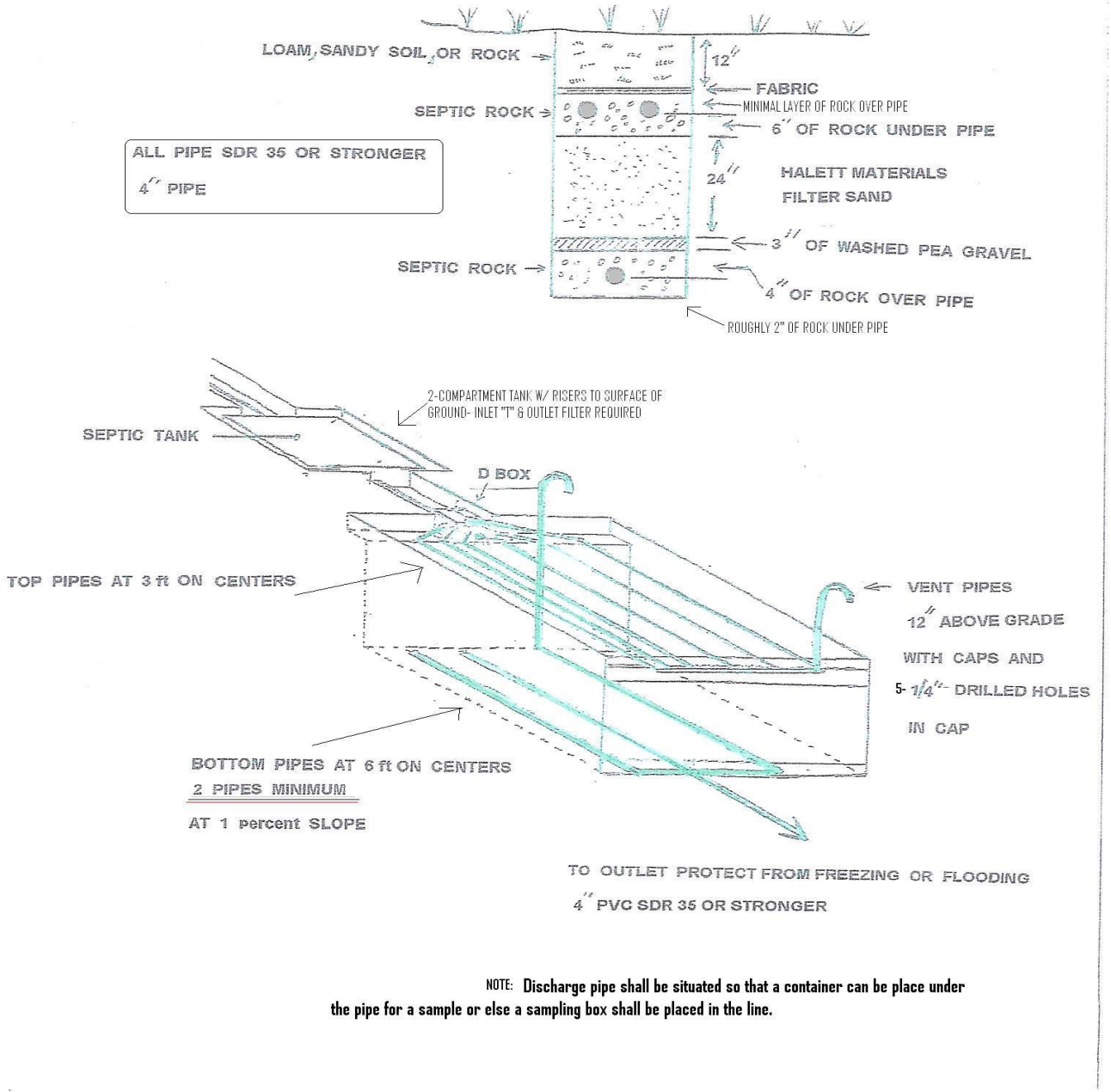
Tank capacity	
3 bedroom or less	1,250 gals
4 bedrooms	1,500 gals
5 bedrooms	1,750 gals
6 bedrooms	2,000 gals

SUB-SURFACE SAND FILTER				
Bedrooms	Sq. ft.	Examples		
1	240	12 X 20	15 X 16	8 X 30
2	480	20 X 24	12 X 40	16 X 30
3	720	24 X 30	12 X 60	20 X 36
4	960	30 X 32	20 X 48	12 X 80

Reduction sizing:
Siphon-Dosed-- 180 sq. foot per bedroom
Pressure-Dosed--150 sq. foot per bedroom

SAND FILTER

240 Square Foot Per Bedroom

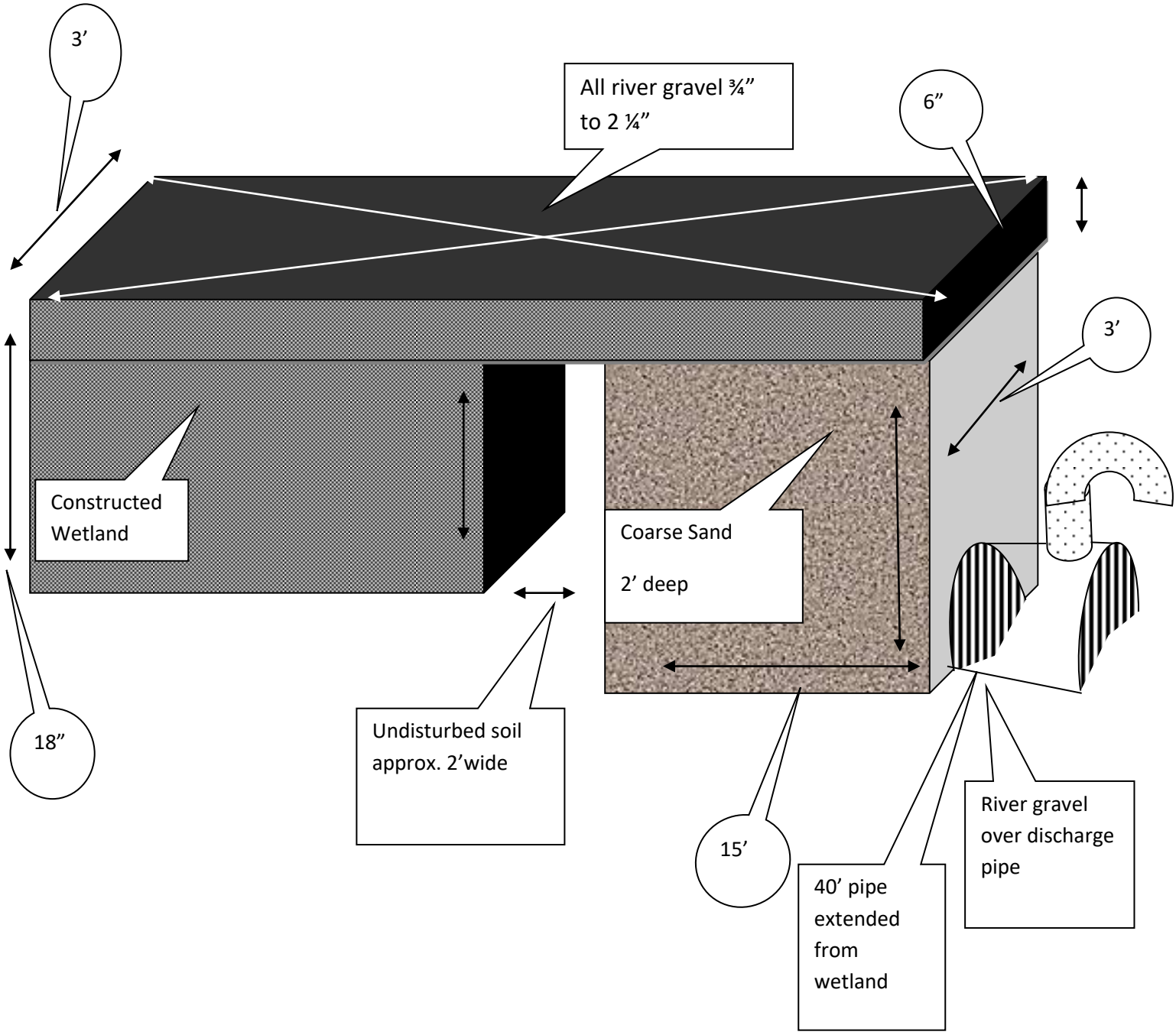


NOTE: **Discharge pipe shall be situated so that a container can be place under the pipe for a sample or else a sampling box shall be placed in the line.**

Sub-surface sand filter-based on chapter 69 guidelines

- For residential systems, subsurface sand filters dosed by a dosing siphon shall be sized at a rate of 180 square feet of surface area per bedroom and those dosed by a pump shall be sized at 150 square feet of surface area per bedroom.
- All materials are to be clean and washed. Sand shall meet Iowa DOT standards for concrete sand, pea gravel is to be 1/8 to 3/8 inch in size and the septic rock is to be ¾ to 2 ½ inches in size.

Constructed Wetland



May be in trenches or beds-300 sq ft per bedroom. (45 sq ft) sand filter required following any constructed wetland system

Soil Borings, Soil Analysis

Jim Carroll,PE — Clive, IA
515-250-2103

Choquette Engineering-Ken Choquette, PE — Des Moines, IA
515-306-0019/265-8681

Stiens Soil Evaluations-Chris Stiens — Maryville, MO
(660)-562-0726

Lee Engineers & Surveyors-Wally Greenlees — Urbandale, IA
(515)252-7457

ABACI Consulting, INC — Grimes, IA
(515)986-5048

Douglas Oelmann — Altoona, IA
(515)419-2926

Camron Collier, PE — Grand River, IA
(515)238-6330/641-414-4669

TRAINED SERVICE/MAINTENANCE PROVIDERS

System Type Legend: P- Peat/Coco; A- Advantex; W/C- Whitewater/Clearstream

Countryside Septic	Johnathan	Norwalk	515-202-4895	P,W/C
Deery Construction Inc	Brad Derry	New Market, IA	712-370-1547	P
Friday Excavation	Curt Friday	Lorimor, IA	641-340-5607	P
J&H Construction	Josh Jackson	Osceola, IA	641-414-3171	P, A
Keeney Custom Fencing	Aaron Keeney	Davis City, IA	641-344-5498	P
Mike's Construction, LLC	Mike Yutzy	Leon, IA	641-344-7220	P, A
Molitor Construction, LLC	Paul Molitor	Boone, IA	641-298-1268	A
OWWT, LLC	James Carney	Des Moines, IA	515-244-4646	P, W/C
Rogers Septic LLC	Rick Rogers	Des Moines, IA	515-282-0777	W/C, P
Snyder Plumbing LLC	Gerald Snyder	Truro, IA	641-342-8579	P
Southern Iowa Plumbing, LLC	John Buttz	Corydon, IA	641-870-1640	P, A

This is not a complete list. This list is just a few that we know of that do work in the county or supply materials needed in septic construction.

Licensed Septic Pumpers

Cannon's Porta John Rentals Greg Cannon-202 N. Grant St. Mt Ayr	**641-464-2906/641-344-7343** Truck holds up to 375 Gallons
Page Construction Mike Page, Shannon City	**641-340-1888** Truck holds up to 2000 Gallons
Rauch's Septic Service Eddie Rauch- 13326 205th St. Lamoni	**641-773-5351** Truck holds up to 2500 Gallons
Anytime Septic Services II, 502 W. Main St. St. Charles	**641-396-2440** Truck holds up to 2500 Gallons
Dave's Pumping Service, 1685 Upland Trail Prole	**515-462-1903**
Don's Jons LLC, Craig Shippley - PO Box 88, Lineville	**800-944-2317/660-953-1611** Truck holds up to 900 gallons
Forest Septic Tank Service, Po Box 219 Indianola	**515-961-2113** Truck holds up to 4500 Gallons
Lathrop Farms, 6921 219th Trail Albia	**641-777-3774**
Mike Killen Construction, 1679 140th Ave Carlisle	**515-480-6082** Truck holds up to 2200 Gallons
RM Plumbing & Construction, Robert McCaulley, Lucas	**515-321-6623** Truck holds up to 2,000 gallons
Southern Iowa Plumbing, LLC, John Buttz- 411 N Dotur Dr, Corydon	**641-870-1640** Up to 2,000 gallons
Wiegert Disposal Inc, PO Box 344 Martensdale	**641-764-2389** Up to 5,000 gallons
Willets & Woosley Sewer & Septic, 411 New York Ave Creston	**641-782-4220** Truck holds up to 1,700 gallons

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SEPTIC TANKS

LIEBUS CONCRETE PRODUCTS—1-800-491-6869	115 8TH Ave EAST – Oskaloosa, Iowa
LISTER INDUSTRIES ---– Phone – 515-244-3149	300 NW 48TH PL. – Des Moines, Iowa
PRE-CAST CONCRETE COMPANY—-641-782-4515	622 ½, New York Ave. –Creston, Iowa
INDIANOLA PRECAST- 515-961-5158/515-865-8815	12995 80th Ave--- Indianola, IA
YODER'S PRECAST LLC- 641-898-2803	2874 210th St--- Seymour, IA