

Stonebridge Builders Guide

NOVEMBER 2007

BUILDERS INFORMATION PACKET ON THE WASTEWATER TREATMENT SYSTEM



Credit River Township
18985 Meadow View Blvd.
Prior Lake, MN 55372
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General Information For Builders, ISTS Contractors and Homeowners

B1 – General Information (For Builders and ISTS Contractors)

Builders in Stonebridge:

Several developments within Credit River Township are installing community sewage treatment systems (CSTS). The installation process affects the builder, Township, Scott County your subcontractors and the homeowner. Therefore a number of issues need to be communicated with all parties to help this process run as smoothly as possible.

Below are items you, your subcontractors and homeowners need to be aware of while construction occurs on your project:

General Information

- This manual is intended to be used as an aid in guiding you through the installation of the individual Septic Tank Effluent Pumping (STEP) system process. The information in this packet may be updated periodically. Please consult with Credit River Township to determine if any changes have been made that may supersede this document.
- The homeowners will be provided a HOMEOWNERS MANUAL by the developer. The manual is appended to the back of the builders manual for your information.
- The builder is responsible to provide a copy of the as-built drawing to the homeowner. The ISTS contractor shall provide the builder with a copy.
- Beginning in 2007, all lots (owned by builders, homeowners or the developer) will be charged a monthly service fee. Based upon currently information, this monthly fee for wastewater service will be around \$99.20 a month and is subject to change based upon a number of unknown variables at this time.

B-2 - The Inspection Process

In summary, below are the tasks that the ISTS Contractors are required to perform.

1. Coordinate with Scott County on their permitting process;
2. Send proposed tank locations to Credit River Township Engineer, Jeff Elliott;
3. Upon approval of the first two items, call for an inspection for the vacuum test of the septic tanks;
4. After septic tank passes vacuum test, complete system and call EcoCheck for a final inspection;
5. Schedule for a CO with Scott County.

Details of the Inspection Process

- Two inspections will be required for the installation of the septic tank and STEP pumping systems. The first inspection is to perform a vacuum test on the tanks. The second inspection is for final approval of the system. For this inspection, your subcontractors shall be 100% complete with their work (including electrical, phone line and panel connections). If your inspections do not meet specifications, additional inspections will be required for an additional cost. **Please note the telephone line needs to be hooked up and operational for a Certificate of Occupancy to be issued.**
- Inspections will be performed on behalf of the Township (these inspections are in addition to County inspections). Currently the Township is using the services of EcoCheck, Inc. tank installation inspections will be done on Mondays and Wednesdays ONLY. EcoCheck will need notification on the PROCEEDING THURSDAY in order to perform inspections the following week.

Please contact EcoCheck directly for your inspections. The contacts are as follows:

Steve Kokesh - 651-255-5047
Ryan Brandt - 651-255-5049
Mike Thompson - 651-255-5054
Bill Bement – 651-255-5051

- Scott County is requiring Credit River Township to approve the inspections prior to the County issuing a Certificate of Occupancy. Therefore the system shall be operational prior to the County's final Certificate of Occupancy inspection. Please be aware of the inspection schedule to make sure your project is not delayed by a lack of planning.
- Attached in this packet is a list of specifications that need to be complied with. Also an inspection form used by the Township is attached. Please note that the specification must be strictly adhered to. The inspection form identifies the main points of the specifications. However, if your subcontractor meets all of the major points in the inspection form, but does not comply with the other listed specifications, the system may be listed as non-compliant and a CO may not be issued. Please communicate this with your subcontractors.

- The Township reserves the right to make minor modifications to the specifications. In the event that this occurs, the Township will notify the Builders of the change and how it will impact current projects.
- Inspections for builders are not part of the monthly service fee. Builders will be charged \$425.00 per inspection. If inspections do not pass, additional charges will be passed onto the builder until the system passes inspection. The Township also reserves the right to modify inspection fees.
- Township inspections are separate from any County inspections. The cost of Township inspections are independent of any County permit fees.

Engineering Specifications for Individual STEP System Installations

B-3 - Engineering Specifications for STEP Systems

0328.0.0 ONSITE SEPTIC TANKS/PUMP TANKS FOR SINGLE FAMILY DWELLINGS IN SCOTT COUNTY

1. General:

The following specifications shall apply to all contractors who install the septic tank, pump tank, forcemain, etc. out to the connection near the road.

- a. Septic tank capacity shall be a minimum of one 1,250 gallon septic tank and one 2,000 gallon tank with two compartments, be precast concrete or fiberglass and meet MN Rules 7080. The sewer district's engineer or his representative shall inspect all installations:
- b. Tanks requiring deep burial (>36") or subject to traffic loading require special consideration and permission of sewer district's engineer. (A minimum soil cover of 12 inches shall be used, unless specified otherwise by manufacturer.)
- c. Tanks shall be manufactured and furnished with access openings 24 inches in diameter and of the configuration shown on the manufacturer's drawings. Modification of completed tanks will not be permitted.
- d. Inlet plumbing shall include an inlet tee or factory baffle which penetrates 18 inches into the liquid from the inlet flow line. The inlet plumbing shall allow for natural ventilation back through the building sewer and vent stack. Place inlet tee directly under inspection pipe.
- e. Tanks shall be capable of successfully withstanding an above-ground static hydraulic test and shall be individually tested.

2. Concrete Tanks:

- a. Tanks may be protected by applying a heavy cement-base waterproof coating (Thoroseal or equal), on both inside and outside surfaces, in compliance with Council of American Building Officials (CABO) report #NRB-168; 6181, however the tank should be watertight without the addition of seal coatings.
- b. Tanks shall be manufactured and furnished with access openings of the size and configuration to accommodate individual packaged pump systems. For 24-inch diameter access risers, the tank manufacturer shall cast in place a flanged tank adapter to facilitate the bonding of a 24-inch diameter access riser. The flanged tank adapter shall be made of 1/4" thick ABS and shall have an outside diameter of 27 inches and an inside diameter of 22-3/4 inches. The flanged adapter shall be Orenco Systems®, Inc. Model PRTA24 or engineer-approved equal. The adapter must have an overall height of no less than 3 inches to allow 1-1/2" exposed for sufficient bonding area once the adapter is installed in the tank. In lieu of the flange, the riser may be cast directly into the top of the tank. The septic tank and the top slab shall be sealed with a preformed flexible plastic gasket. The flexible plastic gasket shall be equal to the flexible butyl resin sealant congeal CS-102 or CS-202 as manufactured by Concrete Sealants, Inc. of New

Carlisle, Ohio, and shall conform to federal specification SS-S-00210(2iOA) and AASHTO M-198.

- c. Inlets to the septic tank will be watertight pipe seal Ty Seal or equal as approved by the Engineer. Each tank shall be tested after installation, by filling with water to 6" above the highest penetration in the riser. After 24 hours, the tank shall be refilled to a point two inches, (2") above any penetration into riser and the exfiltration rate shall be determined by measuring the water loss during the next two (2) hours. In lieu of the water test a vacuum test is required after installation. The vacuum test must keep a 4" height for 5 minutes. The riser must also be included in the test. **Any leakage on either test shall be cause for rejection.**

03280.01 RISERS & LIDS:

1. Risers:

- a. Risers shall be required for access to internal vaults and access into the septic tanks for septage pumping. All risers shall be constructed watertight. The risers shall be attached to the tanks such that a watertight seal is provided. Risers shall extend three inches (3") above original grade to ensure a positive drainage away from the access. Risers for inspection ports shall be a minimum of 24 inches in nominal diameter. Risers containing pumping assemblies shall be a minimum of 24 inches in diameter and shall be of sufficient diameter to allow removal of internal vaults without removing plumbing or wiring. Adhesive required to adhere the PVC or fiberglass risers to either fiberglass or ABS tank adapter shall be either a two-part epoxy, Model MA320 or equal, or a single component adhesive Model ADH100 or equal.

2. Outlet Risers:

Outlet risers shall be ribbed PVC as manufactured by Orenco Systems®, Inc. or engineer-approved equal. The material shall be PVC as per ASTM D-1784 and tested in accordance with AASHTO M304M-89. Risers shall be at least 12 inches high, shall have a minimum nominal diameter of 24 inches for simplex pumping applications, and shall be factory-equipped with the following:

- a. Electrical and Discharge Grommets: Neoprene grommets shall be installed for discharge piping, vent piping, and/or the electrical conduit to assure a watertight seal. The grommet material must be EPDM synthetic rubber in accordance with MIL-STD-417, 60 durometer.
- b. Adhesive: When bonding to concrete or fiberglass grooves, a two-part epoxy, 24-inch diameter riser and one quart required per 30-inch diameter riser, Model ADHP10 or ADHQ10, or equal shall be used. When bonding to a flanged riser tank adapter, either a two-part epoxy, Model MA320 or equal, or a single component adhesive Model ADH100 or equal shall be used.

3. Lids:

- a. One lid shall be furnished with each access riser. Lids shall be Orenco Systems®, Inc. Model FL24-GI4-4BO-W or engineer-approved equal, as appropriate, fiberglass with green non-skid finish, and provided with TEK 14 x 2 Stainless Self Drilling Fastenal PN 31963 or equal. The riser and lid combination shall be gasketed and able to support a 2500 lb. wheel load. (Note: This is not to imply that PVC risers are intended for traffic areas.)

4. Insulation:

- a. Rigid closed-cell foam insulation of 4" thickness shall be mechanically attached to the underside of the lid. All fasteners shall be made of corrosion resistant stainless steel. The insulation shall have an R-value of no less than 10 per 2" increment.

5. Riser Installation:

- a. Riser installation shall be accomplished according to the manufacturer's instructions.

03280.2 SEPTIC TANK EFFLUENT PUMPING ASSEMBLIES:

All pumping systems shall be supplied by a reputable manufacturer with at least five years of experience in supplying equipment for effluent sewers. References must be available on request from the engineer. Systems shall be Orenco Systems®, Inc. High-Head Pumping Assemblies or engineer-approved equal, composed of:

1. Risers & Lids:

- a. Same as B, 2 through 5, above.

2. Screened Pump Vault:

- a. Orenco Systems®, Inc. Model PVU 57-189, (external flow inducer) Biotube® Pump Vault or engineer-approved equal, installed in conformance with the engineer's plans. The filter shall have a minimum effective screen area of no less than 15.1 square feet. The Biotube® Pump Vault shall consist of a 12-inch diameter, 57-inch deep PVC vault with eight (8) 1-3/8 inch diameter holes evenly spaced around the perimeter, located appropriately to allow for maximum sludge and scum accumulation before requiring pumping (Holes set at 65 TO 75% of minimum liquid level). Housed inside the PVC vault shall be the Biotube® assembly consisting of 1/8-inch mesh polypropylene tubes. Attached to the vault is a 4-inch diameter flow inducer to accept the high-head effluent pump.

3. Discharge Hose and Valve Assembly:

- a. Orenco Systems®, Inc. Model HV100BCFCASX, 1-inch diameter, 150 psi PVC ball valve, 150 psi PVC check valve, PVC flex hose with working pressure rating of 100 psi, and Schedule 40 PVC pipe. **Include anti-siphon assembly unless the treatment site is definitely more than 50 feet above the connection being made.** Pump unions must be within arm's reach (15" of lid) and disconnectable without entering rise. Shut off valves must be operable from the top of the riser. Screened pump vault must be removable by only disconnecting pump union.

4. Float Switch Assembly:

- a. Orenco Systems®, Inc. Model MF3A-YBRW-27V with 20' cords with three switch floats mounted on a PVC stem attached to the filter cartridge. The floats must be adjustable and must be removable without removing the pump vault. The high- and low-level alarms and on/off function shall be preset as shown in the engineer's plans. The floats shall be UL or CSA listed and shall be rated for a minimum of 5.0A @ 120 VAC.

5. High-Head Effluent Pump:

- a. Must be approved for use in pump vault as described in D2. For all individual applications, an Orenco Systems®, Inc. Model P100511, 1/2 hp, 115 VAC, single phase, 60 Hz, two-wire motor, with 20-foot long extra heavy duty (SO) electrical cord with ground. Pump shall be capable of providing a flow rate of 5 gpm against a head of 200 feet, or 10 gpm against a head of 135 feet. When used in conjunction with a flow controller, the pump shall be capable of providing 5 gpm against a head of 160 feet. Pump shall be UL and CSA listed as an effluent pump. Pump shall be provided with a non-prorated five-year warranty.
- b. Warranty cards shall be provided by the Contractor at the time of the inspection with all information completely filled out.
- c. **(New Specification-November 2007)Place 24"X24" insulation pouch over effluent pump piping at top of riser. Insulation pouch shall be manufactured by Dekossa Products or Township Engineer approved equal. If alternative product is used, installer shall have product approved by Township Engineer prior to installation.**

6. Electrical:

- a. Electrical wires are to be water and vapor sealed wherever it enters and leaves conduit. Single family home control panels require 1 individual branch circuit for the pump and another circuit for the alarm. The Alarm circuit can be shared with other loads in the house. Neither are to be on a GFI. Run a separate electrical circuit from the control panel to the main box at the house.

- b. The pump control panel shall be equipped with dial-up telemetry. Phone wiring is to be lightning protected on both ends and installed per NEC. It should be connected to building phone wiring after building alarm panel.

7. Controls and Alarms:

Controls and alarms shall be listed per UL 508. Panels shall be repairable in the field without the use of soldering irons or substantial disassembly. Panel shall be Orenco Systems®, Inc. Model VCOM-S1 RO HTSA PSA control panel meeting the following:

Control Panel Standard Components

- a. Motor-Start Contactor: 115 VAC: 14 FLA, 3/4 hp, 60 Hz; 2.5 million cycles at FLA (10 million at 50% of FLA). 230 VAC: 14 FLA, 2 hp, 60 Hz; 2.5 million cycles at FLA (10 million at 50% FLA).
- b. Toggle Switch: Single-pole, HOA switch. 20 amps, 1 hp.
- c. Controls Circuit Breaker: 10 amps, OFF/ON switch. Single-pole 115 VAC. DIN rail mounting with thermal magnetic tripping characteristics.
- d. Pump Circuit Breaker: 20 amps, OFF/ON switch. Single-pole 115 VAC, double-pole 230 VAC. DIN rail mounting with thermal magnetic tripping characteristics.
- e. Audio Alarm: 80 dB at 24", warble-tone sound.
- f. Visual Alarm: 7/8" diameter red lens, "Push-to-silence." NEMA 4, 115 VAC
- g. Panel Enclosure: NEMA 4X rated. Constructed of UV-resistant fiberglass; hinges and latch are stainless steel. Conduit couplings provided.
- h. SIRO Panel Ratings: 115 VAC, 3/4 hp, 14 amps, single phase, 60 Hz.
- i. Telemetry Unit – VCOM-S1 W/HT
- j. Power surge arrestor
- k. Phone surge arrestor
- l. DSL Filter

8. Installation:

- a. All pumping system components shall be installed in accordance with the manufacturer's recommendations, the engineer's plans, and all state and local regulations. Include all necessary electrical to connect to panel for residence including two separate electrical connections.

9. Location:

- a. The pump control panel shall be mounted on a post close to the tank and pump. The control panel shall be located within 10 feet and in sight of the pump motor. The panel should be located at a convenient height (usually about five feet above the ground).

10. 1" services Tracer wires on

- a. Contractor shall place tracer wire on service from service connection to tank. Extend tracer wire to surface and wrap around service connection and top of control panel post.

11. General Information

- a. Inspections shall be scheduled on set dates as per Credit River Township.
- b. **Contractor is required to provide a scaled as-built drawing of the installation to the Credit River Township inspector. A copy of the as-built shall be provided to the Builder and the Builder shall supply that copy to the Homeowner. The Builder is responsible to complete this.** Drawing shall include the house footprint, service line to the septic tank, control panel, septic tank and sizes, 1-inch service line location, and the location of the curb stop. The drawing shall be provided on form provided by the Township.

CAUTION:

- 1. Open manholes are potentially hazardous, so it is essential that the lids be bolted securely at all times.
- 2. The atmosphere in interceptor tanks can be dangerous, so maintenance should be performed only by trained personnel.
- 3. Control/alarm panels should be mounted out of the reach of small children and must be kept locked.

Credit River Township Inspection Form

B-4- Credit River Township STEP System Installation Inspection

Report Number: _____
(Report number is number in the address –
Development - the number of the inspection)

Date of Inspection: _____
Address: _____
RTU Number of Panel: _____
Septic Tank Manufacturer: _____
Installer Name: _____
Phone Number: _____
On-site Representative of Installer: _____
Inspected by: _____

Pass	Fail	Comments	Inspection Points
			Flanged Adapter – Orenco Systems Model PRTA24 – Adapter shall have a height of no less than 3 inches.
			Riser is a minimum of 30 inches in diameter when bury depth is 36 inches or greater. All other risers shall be a minimum of 24 inches in diameter.
			Riser is installed to grade.
			Outlet risers shall be ribbed PVC.
			Epoxy used shall be Model MA320 or ADH100.
			Lids shall be model number FL24GI4-4BO-W (with warning label).
			Insulation shall be 4-inches in thickness and be composed of closed cell foam.
			Screened pump vault shall be Biotube Pump Vault PVU57-1819.
			Discharge hose and valve assembly shall be model HV100BCFCASX. This includes the ball valve, check valve, flow control, anti siphon and flex hose.
			Three floats shall be Model MF3A-YB,R,W-27V-20 (YB – high water level alarm, pump on, R-Pump off, W-Redundant off low level alarm). 20-foot cord length. Floats are mercury.
			Orenco pump shall be model P100511, 1/2 HP 115 VAC single phase with 20 foot cord.
			Pump carries a 5-year warranty.
			No splice box installed.
			Controls and alarms consist of VCOM-S1ROHT SA PSA (Panel S1RO with heater, power surge arrestor and telephone surge arrestor).
			Control Panel shall be located within 3 feet of the manhole access to the pump.
			Septic tank passes vacuum test.
			Electrical is hooked up.
			Phone line is hooked up.
			Floats are set correctly.
			DSL Filter provided in panel.
			As-built drawing provided by contractor.
			Curb stop is opened and pump is operational.
			Location of panel is satisfactory for maintenance and line of sight.

Inspection Results: ☐ Pass ☐ Fail

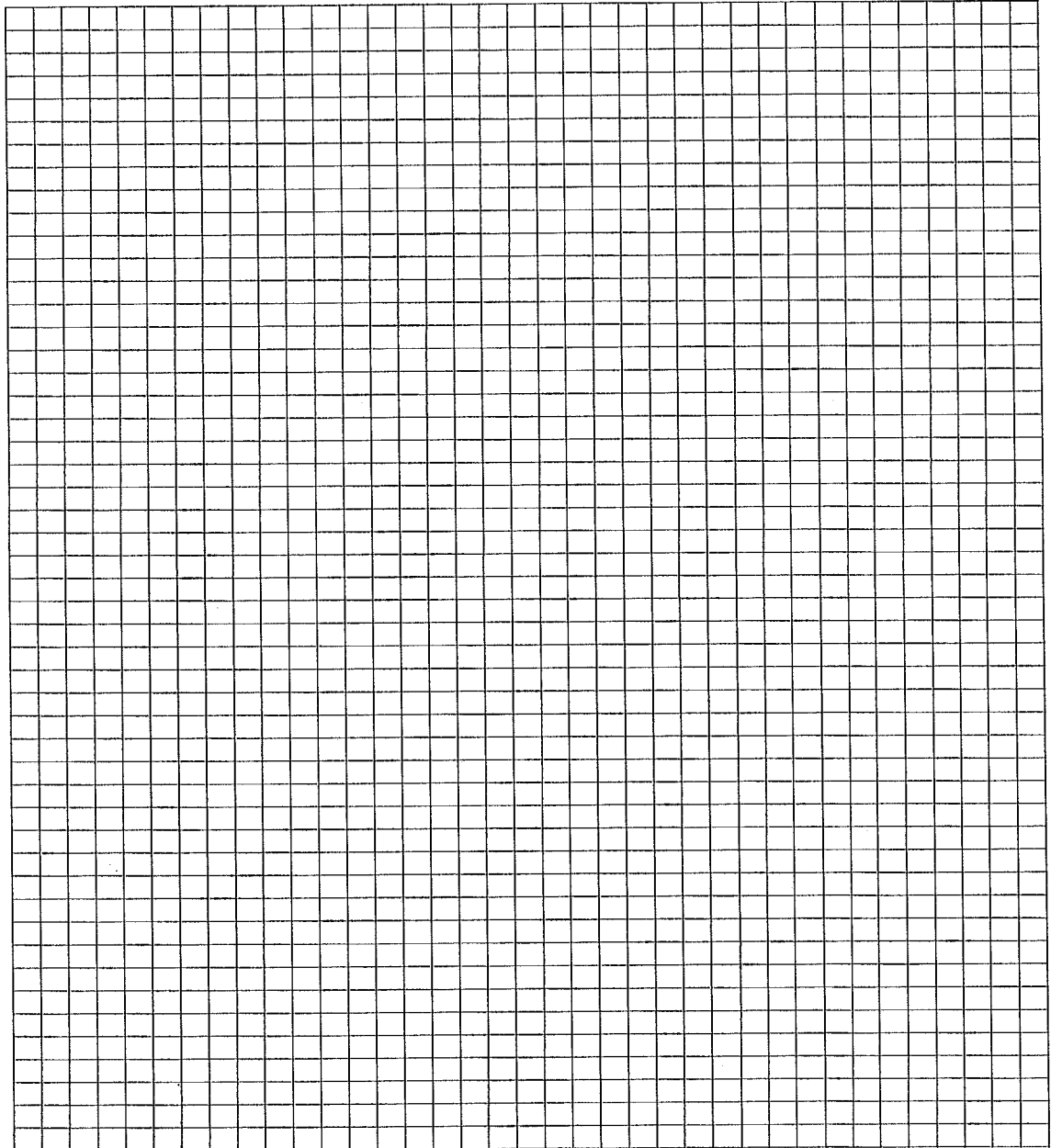
Comments: _____

As Built Drawing Form

B-5 - Credit River Township ISTS As-Built drawing

Development Name: _____
Address: _____
Installer: _____
Contact: _____
Phone Number : _____
Phone Number (cell): _____
Date of Completion: _____

Map Scale: _____



Note: This drawing shall be scaled and the following items are required to be placed on this drawing. Failure to do this will result in a non compliant inspection and a CO will not be issued.

Show the following items on the map

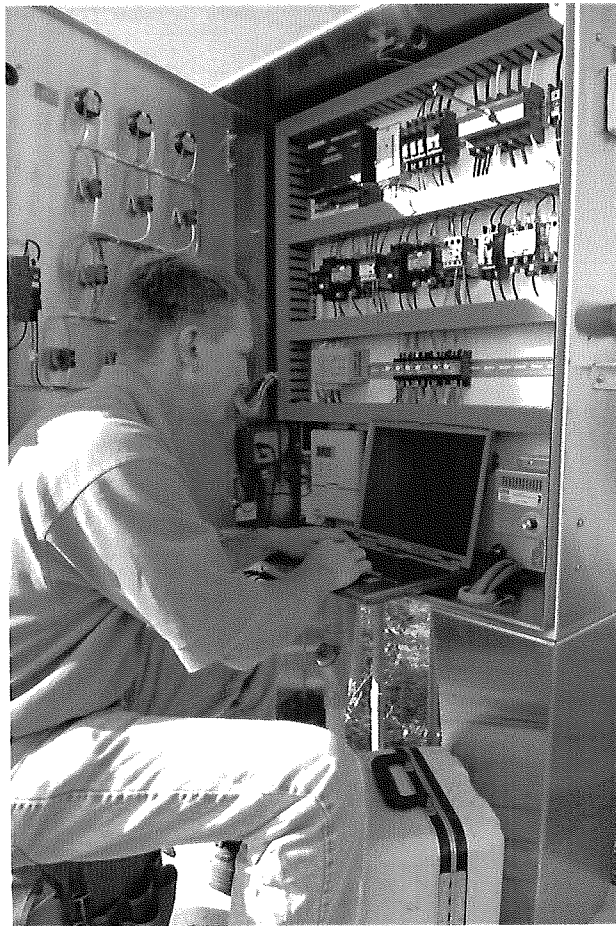
- | | | |
|------------------------------|-----------------------------|-----------------------------------------|
| ___ Indicate North | ___ septic tank #1 location | ___ phone line to panel |
| ___ Show slope and direction | ___ septic tank #2 location | ___ electrical line to panel |
| ___ Property line | ___ Pump tank location | ___ water well location (if applicable) |
| ___ Dwelling | ___ Service line location | ___ tracer wire access location |
| ___ Service line to house | ___ Curb Stop for property | |

Homeowners Manual

Stonebridge Homeowners Guide

NOVEMBER 2007

HOMEOWNERS INFORMATION PACKET ON YOUR WASTEWATER TREATMENT SYSTEM



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18985 Meadow View Blvd.
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Fax: 952-440-5617

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Section H1 - Service Providers for the Township

Contact these individuals if you experience problems with your system. For non-emergency situations, please contact the Direct Business Line during normal business hours.

EcoCheck Direct Business Line – 651-255-5075 (normal business hours)

Ryan Brandt (ryan.brandt@jacqueswhitford.com)

651-255-5049 office (8AM – 5PM)

612-616-6370 cell (for emergency services and after hours)

651-255-5060 fax

Bill Bement (Bill.bement@jacqueswhitford.com)

651-255-5051 office (8AM – 5PM)

651-491-6772 (emergency service calls only, please)

651-255-5060 fax

Mike Thompson (mike.thompson@jacqueswhitford.com)

651-255-5054 office (8AM – 5PM)

612-201-8990 cell (for emergency services and after hours)

320-396-2306 home (emergency service calls only, please)

651-255-5060 fax

Steve Kokesh (Steven.kokesh@jacqueswhitford.com)

651-255-5047 office (8AM – 5PM)

651-303-7620 cell (for emergency services and after hours)

763-712-1973 home (emergency service calls only, please)

651-255-5060 fax

Contact the above personnel immediately if:

- You observe water on the ground that may be related to the septic system (please ensure there is no irrigation lines that may be the cause of the problem)
- Your audible alarm is activated. The personnel above will give you instructions on how to disable it.
- Damage has occurred to your system (tree branch falls on control panel, vehicle hits the control panel, etc.)
- You think that an emergency situation exists.

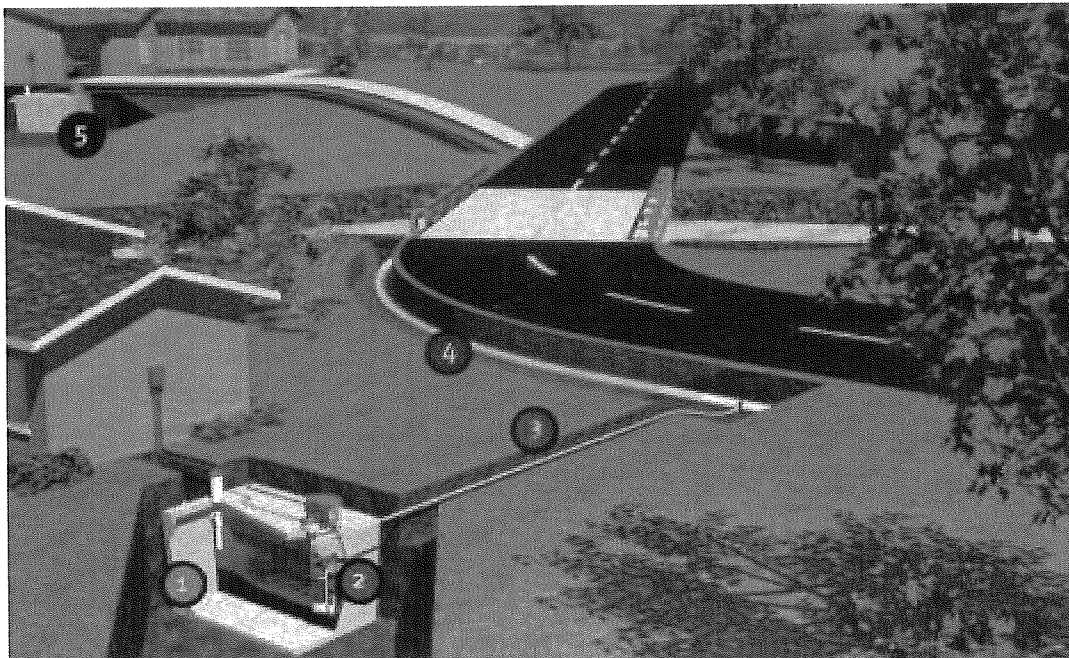
Section H2 - Important Issues for Homeowners

Several developments within Credit River Township are installing community sewage treatment systems (CSTS). Homeowners need to be aware of the equipment that is installed on-site as well as its location and operation to prevent future conflicts.

How Your System Works

All of the wastewater from your home flows through your interior plumbing and into one or two septic tanks. The septic tanks are designed to settle out solids and allow water to flow into a biotube pumping chamber. This chamber has a filter inside that prevents any solids from being transported to the pump. When enough water is in the pumping chamber, the pump will activate, sending the water off your property and to the sewer main. The sewer is located on the sides of the road and transports the water to a centralized wastewater treatment site. All of the water is cleaned by a treatment system and is professionally operated. Following treatment, the water is recycled back to the groundwater. Greater than 99% of the wastewater pollutants in the water are removed. This type of system provides equal if not better treatment than most wastewater treatment facilities across the state of Minnesota.

Below is a schematic of the system at your home (except your home may have two septic tanks, instead of one shown in the picture).



1 Watertight tanks provide primary treatment, so only liquids are conveyed to the treatment plant.

2 Our patented Biotube® Pump Vault filters out solids, and our lightweight, non-corroding pumps last more than 25 years.

3 One-inch diameter service lines can be easily installed with a trencher.

4 Small diameter main lines follow the contour of the ground, saving excavation costs. No expensive manholes or lift stations are required.

5 Filtered effluent is conveyed by gravity from homes at higher elevations, so no pump is required.

Cautions for the Homeowner

- Only qualified personnel shall open the control panel if service is needed.
- Do not dig on your property without knowing where all of your pipes, electrical lines and telephone lines are. Your builder should have provided an as-built drawing for your reference. However, if you propose any construction project that requires digging, (i.e. footings, swimming pools, landscaping, hot tubs, etc) you will need to locate your utilities at your expense prior to any construction activity.
- Do not plow snow towards the control panel and tanks
- Do not travel over the pipes that lead to your septic tank or sewer main (towards the road).
- Open manholes are potentially hazardous, so it is essential that the lids be bolted securely at all times.
- The atmosphere in septic tanks can be dangerous, so maintenance should be performed only by trained personnel.
- Control/alarm panels should be secured.

General Information for Homeowners

- The Township will be maintaining your system on your behalf. The Township has a maintenance easement on the property, which allows the service provider to adequately maintain the system and to perform service calls.
- Some of the services that will be provided at your home include: septic tank pumping once every three years, filter cleaning, electrical work and other miscellaneous tasks.
- Please be advised that the Township has been granted the right to enter onto your property to perform any necessary maintenance for the system. The only restriction on the Township's right of access is that the Township or its authorized agents cannot enter your dwelling(s) without your permission. If an entrance in your home is needed, the Township or its authorized agents will notify you to arrange for a time to perform the necessary work.
- A list of names of authorized agents is provided at the Credit River Town Hall. Questions regarding authorized agents may be directed to the Town Hall phone number (952-440-5515).
- The Township will provide septic tank pumping as part of the anticipated \$99.20 monthly service fee. Therefore homeowners will not be responsible for pumping their septic tanks based upon normal usage. An allowance of one pumping event per three years is budgeted. If additional pumping is needed the cost of the pumping is the responsibility of the homeowner.
- In 2007, the monthly service rate is anticipated to be \$99.20 per home. This includes monitoring costs, operating costs, maintenance costs and capital replacement of the common portion of the septic system. Each year, the monthly fee is anticipated to increase by 2% and is dependant upon a number of unknown variables.
- The monthly service rate will be assessed to all property owners (homeowners, builders, lot owners, etc.).
- Site visits to perform services on your system may be as often as once a month, depending upon the service needed.
- The control panels are designed with a telemetry system. This is a system that uses the phone line and calls out to the service provider for 24/7 emergency

services in the event that a pump fails or other problems occur with the system. If a problem does occur, an operator will be dispatched to the home to perform diagnostics on the system and to provide maintenance. Please let your homeowners know that this could occur in the middle of the night depending upon the nature of the problem.

- An ordinance has been established for all members of the community. The ordinance controls how the homeowners use the system and set forth a process for budgets and rates. A copy of the ordinance is attached.
- The homeowners own all of the wastewater equipment on their lot (tanks, control panels, pipes, etc.).
- In the event that problems occur on the lot itself (i.e. panel malfunctions, filter breaks, electrical issues), the homeowner is financially responsible for the repair of those parts. Any repair to the common portion of the system (forcemain in the road right of way, centralized treatment system or mound system) is covered under the monthly service fee.

Section H3 - Homeowners Manual

HOMEOWNER'S MANUAL

Onsite Wastewater Collection & Treatment Systems



*Preventive Maintenance for
Homes with Onsite Wastewater
Collection and Treatment
Systems*



Orenco Systems[®]
Incorporated

*Changing the Way the
World Does Wastewater[®]*

1-800-348-9843
www.orenco.com



Congratulations!

Your home includes reliable, carefully engineered equipment — manufactured by Orenco Systems®, Inc. — for the collection and/or treatment of household wastewater.

When properly designed and installed, onsite wastewater treatment does a terrific job of decomposing household waste and recycling precious water resources. Our systems frequently outperform municipal sewage treatment plants. And the treated effluent is often returned harmlessly to the soil, where it receives final polishing and filtration for groundwater recharge. There's no degrading of our nation's rivers and oceans . . . which is so often the case with municipal sewage.

As with any engineered system, such as your car or your heat pump, your onsite wastewater system will work better and last longer if it is regularly maintained by a qualified service provider. Your service provider should be present during installation, so he or she is familiar with your system, especially those service

lines, conduits, and connections that get buried. And your service provider should have a copy of this manual. (Call 1-800-348-9843 and we'll send you another.)

Your system will also work better and last longer if you learn what can go into it — and what can not. Little effort is required. Just read and practice the "do's and don'ts" that follow. Every member of your household should be familiar with these. And if you have guests who want to "help out in the kitchen," be sure to tell them, too. With this preventive maintenance, along with periodic inspections, your onsite wastewater system should function for decades. And you'll save water and energy, too!

There's a place on the back of this Homeowner's Manual to record "Important System Facts." If those have not been filled in for you, please record those now, before you file this Manual away. And give a copy of these facts to your service provider, especially if your service provider changes. You'll be glad you did.

Preventive Maintenance for Homes with Onsite Wastewater Collection and Treatment Systems

DO'S AND DON'TS FOR INSIDE THE HOUSE



DON'T flush dangerous and damaging substances into your wastewater treatment system. (Please refer to the "Substitutes for Household Hazardous Waste," on page 4) Specifically, do not flush . . .

- Excessive amounts of bath or body oils
- Water softener backwash
- Flammable or toxic products
- Household cleaners, especially floor wax and rug cleaners
- Chlorine bleach, chlorides, and pool or spa products
- Pesticides, herbicides, or agricultural chemicals or fertilizers



DON'T use special additives that are touted to enhance the performance of your tank or system. Additives can cause major damage to your drainfield and other areas in the collection system. The natural microorganisms that grow in your system generate their own enzymes that are sufficient for breaking down and digesting nutrients in the wastewater.



DO use your trash can to dispose of substances that cause maintenance problems and/or increase the need for septage pumping. Dispose of the following with your trash:

- Egg shells, kitty litter, coffee grounds, tea bags, cigarette butts, chewing tobacco
- Paper towels, newspapers, sanitary napkins, diapers, gum, candy wrappers
- Cooking grease
- Rags, large amounts of hair



DO collect grease in a container and dispose with your trash. And avoid using garbage disposals excessively. Compost scraps or dispose with your trash, also. Food byproducts accelerate the need for septage pumping and increase maintenance.

There are a number of do's and don'ts that will help ensure a long life and minimal maintenance for your system. As a general rule, nothing should be disposed into any wastewater system that hasn't first been ingested, other than toilet tissue, mild detergents, and wash water. Here are some additional guidelines.

DO'S AND DON'TS FOR INSIDE THE HOUSE



DON'T leave interior faucets on to protect water lines during cold spells. A running faucet can easily increase your wastewater flow by 1,000 to 3,000 gallons per day and hydraulically overload your system. Instead, properly insulate or heat your faucets and plumbing.

DON'T use excessive amounts of water. (50 gallons per person per day is typical. If your household does not practice any of the "water conserving tips" below, you may be using too much water.)



DO conserve water:

- Take shorter showers or baths with a partially filled tub.
- Don't let water run unnecessarily while washing hands, food, teeth, dishes, etc.
- Wash dishes and clothes when you have a full load.
- When possible, avoid doing several loads in one day.
- Use water saving devices on faucets and showerheads.
- When replacing old toilets, buy low-flush models.

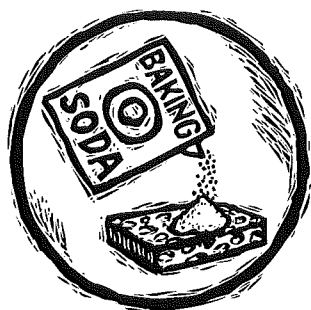


DON'T ignore leaky plumbing fixtures; repair them. A leaky toilet can waste up to 2,000 gallons of water in a single day. That's 10-20 times more water than a household's typical daily usage. Leaky plumbing fixtures increase your water bill, waste natural resources, and overload your system.



DO keep lint out of your wastewater treatment system by cleaning the lint filters on your washing machine and dryer before every load. Installing a supplemental lint filter on your washing machine would be a good precautionary measure. (This normally takes just a few minutes. Lint and other such materials can make an extreme difference in the frequency and cost of pumping out your primary treatment tank.)

DO'S AND DON'TS FOR INSIDE THE HOUSE



DO use substitutes for household hazardous waste. Replace the following hazardous products with products that are less environmentally harmful. The hazardous cleaners are listed below, followed by the suggested substitute.

Ammonia-based cleaners: Sprinkle baking soda on a damp sponge. For windows, use a solution of 2 tbs. white vinegar to 1 qt. water. Place the mixture into a spray bottle.

Disinfectants: Use borax: 1/2 cup in a gallon of water; deodorizes also.

Drain decloggers: Use a plunger or metal snake, or remove and clean trap.

Scouring cleaners & powders: Sprinkle baking soda on a damp sponge or add 4 tbs. baking soda to 1 qt. warm water. Or use Bon Ami; it's cheaper and won't scratch.

Carpet/upholstery cleaners: Sprinkle dry cornstarch or baking soda on, then vacuum. For tougher stains, blot with white vinegar in soapy water.

Toilet cleaners: Sprinkle on baking soda or Bon Ami, then scrub with a toilet brush.

Furniture/floor polishes: To clean, use oil soap and warm water. Dry with soft cloth. Polish with 1 part lemon juice and 2 parts oil (any kind), or use natural products with lemon oil or beeswax in mineral oil.

Metal cleaners: Brass and copper: scrub with a used half of lemon dipped in salt. Stainless steel: use scouring pad and soapy water. Silver: rub gently with toothpaste and soft wet cloth.

Oven cleaners: Quickly sprinkle salt on drips, then scrub. Use baking soda and scouring pads on older spills.



Laundry Detergents: Choose one with a zero phosphate content or use soap flakes with 1/3 cup of washing soda. (Before switching, wash clothes in pure washing soda to remove residues.)

DO'S AND DON'TS FOR OUTSIDE THE HOUSE



DON'T dig without knowing the location of your wastewater treatment system. As much as possible, plan landscaping and permanent outdoor structures before installation. But easily removable items, such as bird baths and picnic tables, are OK to place on top of your system.



DON'T drive over your tank or any buried components in your system, unless it's been equipped with a special traffic lid. If the system is subject to possible traffic, put up a barricade or a row of shrubs.



DON'T dump RV waste into your wastewater treatment system and tanks. It will increase the frequency of required septage pumping. When dumped directly into the pumping vault, RV waste clogs or fouls equipment, causing undue maintenance and repair costs. (Some RV waste may contain chemicals that are toxic or that may retard the biological digestion occurring within the tank.)

DON'T ever connect rain gutters or storm drains to the sewer or allow surface water to drain into it. The additional water will increase costs, reduce the capacity of the collection and treatment systems, and flood the drainfield.

DO keep the tank access lid secure to the riser at all times. If bolts are lost or damaged, call Orenco Systems immediately for replacement: 1-800-348-9843.



DON'T enter your tank. Any work to the tank should be done from the outside. Gases that can be generated in the tank and/or oxygen depletion can be fatal.

OUTSIDE THE HOUSE

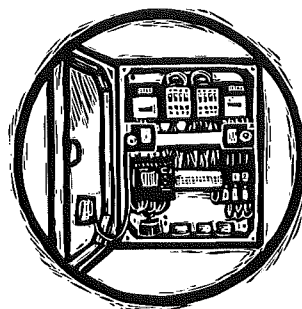


DO make arrangements with a reliable service person to provide regular monitoring and maintenance. Place the service person's phone number on or in your control panel!

DO keep a file copy of your service provider's sludge and scum monitoring report and pumpout schedule. This information will be beneficial for real estate transactions or regulatory visits.

DO keep an "as built" system diagram in a safe place for reference.

AT THE CONTROL PANEL



DO locate your electrical control panel where it will be protected from potential vandalism and have unobstructed access.

DO familiarize yourself with the location of your wastewater treatment system and electrical control panel. Refer to the panel's model number (on the back of this booklet) when reporting a malfunction in the system.

DO take immediate action to correct the problem in the event of an alarm condition. Call your system operator or maintenance company immediately whenever an alarm comes on; it sounds like a smoke alarm.



DO remember that the audible alarm can be silenced by pushing the lighted button located directly above the "Push to Silence" label on the front of the electrical control panel. With normal use, the tank has a reserve storage capacity good for 24-48 hours.

DON'T turn off the main circuit breaker to the wastewater pumps when going on vacation. If there is any infiltration or inflow into the system, the pumps will need to handle it.

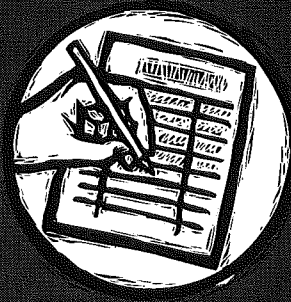
Important! **Caution!**

Only a qualified electrician or authorized installer/operator should work on your control panel. Before anyone does any work on either the wiring to the level control floats and pumps in the vault or on the control panel itself, it is imperative to first switch the isolation fuse/breaker and the circuit breakers in the panel to the "Off" positions, then switch "Off" the power to the system at the main breaker!

ON SITE HOMEOWNER'S MANUAL



AdvanTex®
Treatment System
AXN Models meet
the requirements
of ANSI-NSF
Standard 40 for
Class I Systems.



DO keep accurate records of maintenance and service calls. Make sure whoever services your tank keeps a complete record, and ask for a copy for your records.

IMPORTANT SYSTEM FACTS

Distributor or Dealer:

Please fill out the following important information before giving out this Homeowner's Manual:

Dealer Name

Regulatory Agency

Dealer Address

Regulatory Contact Name

Dealer Phone Number(s)

Regulatory Contact Phone Number(s)

Authorized Service Provider Name

Permit # (if applicable)

Authorized Service Provider Phone Number(s)

Property Address

Authorized Installer Name

Property Owner Name(s)

Authorized Installer Phone Number(s)

Start-Up Date

Engineer Name (if applicable)

AdvanTex® Model #

Engineer Phone Number(s)

AdvanTex® Serial # (on filter pod)

Control Panel Model #



Orenco Systems®
Incorporated

*Changing the Way the
World Does Wastewater®*

1-800-348-9843
www.orenco.com

Section H4 - Ordinance

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CREDIT RIVER TOWNSHIP

SCOTT COUNTY, MINNESOTA

ORDINANCE NO. 2006 -0_

**ORDINANCE GOVERNING THE "STONEBRIDGE" SUBORDINATE SERVICE
DISTRICT
WASTE WATER COLLECTION SYSTEM(S)**

**THE TOWN BOARD FOR THE TOWN OF CREDIT RIVER, SCOTT COUNTY,
MINNESOTA, HEREBY ORDAINS:**

SECTION ONE

AUTHORITY

The Credit River Township Board of Supervisors, pursuant to authority granted under Minnesota Statutes, Chapter 365A, Chapter 115.50, and Chapter 444 enacts the following Rules and Regulations to govern the Stonebridge Subordinate Service District for the health, safety and welfare of the users and members of Credit River Township.

SECTION TWO

INTRODUCTION

The Stonebridge Subordinate Service District was created on 27th day of July, 2004 hereinafter called DISTRICT, under Minnesota Statutes, Chapters 365A, 115.50, and 444.

The Stonebridge Subordinate Service District (DISTRICT) will operate for the residents in that area described herein below and graphically depicted on the attached Exhibit A:

LEGAL DESCRIPTION

The Northeast Quarter (SE 1/4 of NE 1/4) and the East Half of the Southeast Quarter (E 1/2 of SE 1/4) of Section 33, Township 114, Range 21, Scott County, Minnesota, lying Southerly of County Road No. 8, Excepting there from the 4 following described parcels:

Parcel No. 1:

That part of the Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4) and the East Half of the Southeast Quarter (E 1/2 of SE 1/4) of Section Thirty Three (33), Township One Hundred Fourteen (114), Range Twenty One (21), Scott County, Minnesota described as follows:
Commencing at the Southeast corner of said Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4); thence North along the east line thereof 264.47 feet to the center line of County State Aid Highway No. 8; thence South 68 degrees 05 minutes 30 seconds West along said center line

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665.00 feet to the point of beginning of the tract to be described; thence South 193.40 feet; thence South 82 degrees 05 minutes 47 seconds West 177.45 feet; thence North 146.90 feet; thence North 68 degrees 05 minutes 30 seconds East 189.45 feet to the point of beginning. Subject to County State Aid Highway No. 8.

Parcel No. 2:

That part of the South 429.00 feet of the Southeast Quarter (SE 1/4) of Section Thirty Three (33), Township One Hundred Fourteen (114), Range Twenty One (21), Scott County, Minnesota, described as follows: Beginning at a point on the South line of said Southeast Quarter distant 568.50 feet West of the Southeast corner of said Southeast Quarter; thence West along said South line a distance of 609.75 feet; thence northerly parallel with the West line of said Southeast Quarter of the Southeast Quarter to the North line of said South 429.00 feet; thence East parallel with said South line to its intersection with a line bearing North (as measured at right angles) from the point of beginning; thence South along said line a distance of 429.00 feet to the point of beginning.

Parcel No. 3:

That part of Section 33, Township 114 North, Range 21 West, described to-wit: Commencing at the Southeast corner of said Section 33; thence Westerly along the South line of said Section 33, a distance of 1178.25 feet to the point of beginning; thence on said line continued a distance of 165.00 feet to the West line of the Southeast One-Quarter (SE 1/4) of the Southeast One-Quarter (SE 1/4) of said Section 33; thence Northerly along said West line a distance of 132.00 feet; thence Easterly parallel with said South line of said Section 33, a distance of 165.00 feet; thence Southerly a distance of 132.00 feet to the point of beginning.

Parcel No. 4:

That part of the Southeast Quarter of the Northeast Quarter and the East Half of the Southeast Quarter of Section 33, Township 114, Range 21, Scott County, Minnesota described as follows: Commencing at the Southeast corner of said Southeast Quarter of the Northeast Quarter; thence North assumed bearing along the east line of said Southeast Quarter of the Northeast Quarter a distance of 264.47 feet to the centerline of County Road No. 8; thence South 68 degrees 05 minutes 30 seconds West along said centerline a distance of 516.65 feet to the point of beginning of the land to be described; thence South 01 degrees 46 minutes 40 seconds West a distance of 346.98 feet; thence South 84 degrees 56 minutes 50 seconds West a distance of 675.36 feet; thence North 05 degrees 03 minutes 41 seconds West a distance of 185 feet more or less to the centerline of said County Road; thence northeasterly along said centerline to the point of beginning.

Excepting there from that portion of the above described property previously purchased and described as follows: Returning to the above described point of beginning; thence South 68 degrees 05 minutes 30 seconds West along said centerline a distance of 148.35 feet to the point of beginning of the land to be described; thence South a distance of 193.40 feet; thence South 82 degrees 05 minutes 47 seconds West a distance of 177.45 feet; thence North 146.90 feet; thence North 68 degrees 05 minutes 30 seconds East 189.45 feet to the point of beginning.

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The DISTRICT is under the control and management of the Credit River Township Board of Supervisors (BOARD).

SECTION THREE

DEFINITIONS

The following words and phrases when used in the definitions in this Section and when otherwise used in this document shall have the meanings ascribed to them in this Section, unless the context otherwise clearly indicates. The following words shall have these meanings; “may” or “should” mean permissive and “shall” or “will” are required.

- 3.1.1. ADDITIVES – Product(s) added to the wastewater or to the SYSTEM(S) with the intent to improve the performance of an individual’s sewage treatment system(s).
- 3.2. BOARD - The Credit River Township Board of Supervisors.
- 3.3. COMMON PORTION -The common wastewater collection system(s); that portion which begins at the shut-off valve at each property for the connection of each USER thereafter includes all equipment, pumps, sewer lines and appurtenances, treatment and disposal SYSTEM(S) portions of the DISTRICT CSTS SYSTEM(S) which are located in a public easement, or which is located on land owned by Credit River Township. This excludes all SYSTEM(S) components between the dwelling and shut-off valve.
- 3.4. CONNECTION CHARGE(S) – Reasonable charges for those properties that connect to the DISTRICT CSTS SYSTEM(S). Example of said charges would be the administration and permit fees as well as construction oversight and inspections for connection to the DISTRICT CSTS SYSTEM(S).
- 3.5. CONTRACTOR(S) - Independent person(s), entity (entities), party (parties) contracted, by the BOARD, to administer, manage, operate, inspect, pump, repair, and enforce or maintain the DISTRICT CSTS SYSTEM(S).
- 3.6. CSTS – Means Community Sewage Treatment System(s).
- 3.7. DESIGNATED REGISTERED PROFESSIONAL – Means an individual who is included on the Minnesota Pollution Control Agency’s ISTS professional register with specialty area endorsements that correspond to the license, which has been designated by the individual’s employer as its representative for work to be done on an individual sewage treatment SYSTEM(S), and who is subject to the obligations of a license.
- 3.8. DISTRICT -The Stonebridge Subordinate Service District created under M.S. § 365A, 115.50 & 444.
- 3.9. “DISTRICT” CSTS – The “COMMON PORTION” of the DISTRICT CSTS SYSTEM(S) (Community Wastewater Treatment SYSTEM(S) which includes all equipment, pumps,

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sewer lines, treatment and disposal SYSTEM(S) portions, and any and all appurtenances of the SEWER SYSTEM(S) which are located in a public easement or which are located on land owned by Credit River Township, as well as the "PRIVATE SYSTEM(S)" portion of the DISTRICT CSTS SYSTEM(S) to the extent that it is managed and maintained by the DISTRICT.

- 3.10. DWELLING – Means any building or place used or intended to be used by human occupants as a single-family residence and consists of one or more rooms which are arranged, designed or used for human habitation. The term "residence" shall have the same meaning as defined herein.
- 3.11. EFFLUENT BIO-FILTER – Filtering system, which is placed before a pump, or in a line, and filters particles from the effluent either within or through a wastewater line, pump station, and/or septic tank. Another term for this is "effluent screen" which means a device that filters solid materials from sewage tanks before discharge to a treatment system(s).
- 3.12. HOLDING TANK – Means a tank for storage of sewage until it can be transported to a point of treatment and disposal.
- 3.13. INSPECTOR – Party contractually employed by the BOARD which holds the necessary current licensures as a DESIGNATED REGISTERED PROFESSIONAL by the MPCA and is licensed to do Inspections under an Inspector or Designer I license.
- 3.14. ISTS – Individual Sewage Treatment System(s). Means an individual sewage treatment SYSTEM(S), or part thereof, serving a dwelling, and using sewage tanks followed by both soil treatment and disposal or using advanced treatment devices that discharge below final grade.
- 3.15. MPCA 7080 STANDARDS - The minimum standards promulgated by the following Agencies: Minnesota Pollution Control Agency and contained in Minnesota Rules, Chapter 7080, the Scott County Sewage and Wastewater Treatment Ordinance, Scott County Shoreland Management Ordinance, and this ORDINANCE, as amended from time to time.
- 3.16. PRIVATE PORTION OF SYSTEM(S) - That portion of the wastewater collection SYSTEM(S) that resides within the individual parcel and lot boundaries of the USERS in the DISTRICT CSTS SYSTEM(S) which begins with the septic and pump tanks and which ends at a point called the shut-off valve leaving their property.

This PRIVATE PORTION connects to that part called the "COMMON PORTION" portion of the DISTRICT CSTS SYSTEM(S) and contributes effluent to the DISTRICT CSTS SYSTEM(S).
- 3.17. SEPTAGE – Means solids and liquids removed during periodic maintenance of the

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USER'S individual wastewater system(s), or solids and liquids that are removed from toilet waste treatment devices and/or septic tanks.

- 3.18. SEPTIC TANK – Means any watertight, single or double compartmented and covered receptacle (sometimes inclusive of a pump tank) designed and constructed to receive the discharge of raw sewage from a building sewer, separate solids from liquid, digest organic matter, store liquids through a period of detention, and allow the effluent to discharge to a treatment SYSTEM(S).
- 3.19. SEWER - Means a system(s) that carries wastewater.
- 3.20. ORDINANCE - Means the rules and regulations imposed and enforced by Credit River Township (BOARD).
- 3.21. USER - Means a resident, inhabitant, owner of land or dwelling that is causing or permitting the discharge of wastewater to the DISTRICT CSTS SYSTEM(S).

SECTION FOUR

GENERAL PROVISIONS AND CONDITIONS

- 4.1. The DISTRICT is created as an organizational, financing and management tool to operate and administrate the Community Sewage Treatment Collection SYSTEM(S) on behalf and for the landowners (USERS) encompassed by this DISTRICT pursuant to Minnesota Statutes Chapter 365A, Chapter 115.50, and Minnesota Statute Chapter 444, authorizing the powers herein.
- 4.2. The BOARD is responsible for the management of the DISTRICT, construction oversight, operations and maintenance, repairs, system(s) upgrades, renovations, inspections, and administration of the wastewater collection system(s) (DISTRICT CSTS SYSTEM(S)) within the DISTRICT pursuant to the rules and standards imposed by the Minnesota Pollution Control Agency, Minnesota Rules Chapter 7080, the Scott County Sewage and Wastewater Treatment Ordinance, the Scott County Shoreland Management Ordinance, and this ORDINANCE, as amended from time to time.
- 4.3. The DISTRICT CSTS SYSTEM(S), as defined in Section 3, are any and all appurtenances, inclusive of treatment, disposal and secondary sites and all easements necessary, presently existing or hereinafter acquired, as are found necessary for completion of such SEWER SYSTEM(S) in operating condition adequate to collect and transmit all wastewater effluent into the SYSTEM(S), and for the proper treatment and disposal of such wastewater.
- 4.4. PERMANENT ACCESS MAINTENANCE EASEMENT. The BOARD, its agents or CONTRACTOR(S) have the right, through a permanent access maintenance easement consistent with the terms and conditions of Article X, Section 2 of the Declaration of

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Covenants, Conditions, Restrictions and Easements for Stonebridge (Doc. No. A 679930 filed on November 24, 2004), to enter in and upon private property at all times reasonable under the circumstances for the purpose of monitoring, inspecting, pumping, repairs, and replacement required on the DISTRICT CSTS SYSTEM(S), or any part thereof. This right of entry is in relationship to performing these tasks in the PRIVATE SYSTEM(S) PORTION area when reasonable and necessary to ensure the proper functioning and maintenance care of the SEWER SYSTEM(S). Such examples of maintenance would include the annual cleaning, repairs and/or emergency replacement of the tank filter and pump, control panel inspections and monitoring, checking the septic tank for sludge and scum, and needed septic tank septage maintenance and removal.

- 4.5. USERS will be billed individually for any repairs and/or replacement of portions of their PRIVATE SYSTEM(S) when found to be failing through maintenance operations. Such parts shall include, but are not limited to the following: the sewer line, pump tank, pump, bio-filter, control panel which includes the event counter, run time meter and electronic components, and all necessary parts required to maintain said SYSTEM(S) in operating compliance.
- 4.6. Ownership, of all COMMON SYSTEM PORTION pumps, lines, mains, extensions and appurtenances, treatment and disposal sites thereto of the DISTRICT CSTS SYSTEM(S) shall remain with the BOARD. Those parts referred to as the PRIVATE SYSTEM(S) PORTION of the DISTRICT CSTS SYSTEM(S) are located on private property, belong to, and are under the ownership of the individual USER, but will be under the operations and management of the BOARD.
- 4.7. It is hereby declared that no USER or other parties, other than authorized personnel are allowed to use or to drive on property used by the BOARD for treatment and disposal of wastewater from the DISTRICT CSTS SYSTEM(S) unless it is for the stated repair and/or maintenance of the wastewater treatment SYSTEM(S) or for the purposes of required inspections by County and public officials or viewing as authorized by the BOARD.
- 4.8. The BOARD and/or their duly authorized representatives, along with the invitation of the Scott County Environmental Health Department, the Service Management Contractor(s), and any USERS, will annually inspect the physical portion of the DISTRICT CSTS SYSTEM(S), review maintenance and operation logs, and receive a yearly status report; the report will become public record for all to examine.
- 4.9. No person shall engage in an act intentionally or carelessly which results in breaking, damaging, destroying, uncovering, defacing, or tampering with any structure, appurtenances or equipment that is part of the DISTRICT CSTS SYSTEM(S). Closure of the shut-off valve at a USERS site may be initiated to protect the integrity and safety as well as public health of the USERS in the DISTRICT CSTS SYSTEM(S).
- 4.10. All present and future USERS within the DISTRICT CSTS SYSTEM(S) will be subject

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to the applicable rules and regulations inclusive of the DISTRICT'S ORDINANCE, as amended, the MPCA Chapter 7080 rules, as amended, and Scott County's regulations for individual sewage treatment systems, as amended from time to time.

SECTION FIVE

RATES, CHARGES AND CONNECTION TO THE DISTRICT CSTS SYSTEM(S)

- 5.1. The BOARD may set such rates, fees and charges, as it deems appropriate. No such resolution setting such fees shall be adopted before a public hearing has been held thereon.
 - 5.1.1. Notice of adoption of said rates, fees and charges by resolution, after a public hearing, shall be kept on file and open to inspection in the office of the Credit River River Township Clerk and shall be uniformly enforced.
- 5.2. All funds collected from such rates, fees and charges will remain with the DISTRICT'S funds, as dedicated fund accounts, and will be used to reduce costs allocated to the usage, repair, renovation, system(s) upgrades, and replacement of the DISTRICT CSTS SYSTEM(S).
- 5.3. The BOARD may, under Minnesota Statutes 366.012 and 429.101, certify each year to the Scott County Auditor, any unpaid service charges, costs, and fees, which shall then be collected together with property taxes levied against the property. The BOARD must serve written notice to the USER(S) of its intention to certify the charge to the Scott County Auditor. Any unpaid charges will be subject to the same penalties, interest, and other conditions provided for in the collection of regular property taxes.
- 5.4. **INDIVIDUAL SEWAGE TREATMENT SYSTEM(S) IS REQUIRED TO CONNECT TO THE DISTRICT CSTS SYSTEM(S).** All landowners within the DISTRICT will be required to connect to the DISTRICT CSTS SYSTEM(S) upon completion of the COMMON PORTION.

Those landowners that are exempted due to an empty parcel will be required to connect into the DISTRICT CSTS SYSTEM(S) when said exemption is no longer valid.

- 5.5. **PROCEDURES FOR INDIVIDUAL SEWAGE TREATMENT SYSTEM(S) INSIDE THE DISTRICT THAT CONNECT.** The property owner will comply with the following steps:
 - 5.5.1. **STEP ONE. Written Application**
When a USER wishes to build a home, expand, add a bedroom or additional water appliances to present home such as but not limited to the following: garbage disposal, iron filter, heat pumps, whirlpool tubs, etc, said USER will complete a building permit application, as required by the Scott County Environmental

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Health Department, the Scott County Shoreland Ordinance, and a determination as to the effect of said permit on the DISTRICT'S CSTS will be completed before approval of said permit. Landowner will notify the Credit River Township Subordinate Service District Administrator requesting service hook-up to the COMMON PORTION of the DISTRICT CSTS SYSTEM(S).

5.5.2. STEP TWO. Design Flow Considerations prior to approval of Permit.

Before approval, the BOARD and a licensed Engineer, with a current Designated Registered Professional license by the MPCA, will review and contact the Scott County Environmental Health Department and Township Engineer for consideration of design flow and hook-up to the collection SYSTEM(S). If SYSTEM(S) design is sufficient and there is adequate capacity within the DISTRICT CSTS SYSTEM(S), approval to go forward will be given. Design work will be done pursuant to MN Chapter 7080 code, Scott County Sanitary Code and the requirements of this ORDINANCE, as amended from time to time, and in conformance with the general design considerations of the CSTS as determined by the BOARD.

5.5.3. STEP THREE. Submittal of All Necessary Permits.

Upon approval and the necessary permits acquired from the Scott County Environmental Health Department and BOARD, the property owner will submit the following to the BOARD to be placed on file with Scott County and Credit River Township BOARD:

- 5.5.3.1. A copy of any and all required permits with application and completed design. This is inclusive of all building, accessory, well, and wastewater permits prior and for hook-up, etc.

5.5.4. STEP FOUR. PERMANENT ACCESS MAINTENANCE EASEMENT.

Prior to final approval and at time of submittal in Step Three above, a PERMANENT ACCESS MAINTENANCE EASEMENT, from the landowner of record, is to be submitted on a form and a legal description acceptable to the Township Attorney and which conveys said easement to the BOARD. Said easement will allow for the following, but not be limited to; construction access, management & perpetual maintenance of any and all portions of the PRIVATE SYSTEM(S) PORTION of the DISTRICT CSTS SYSTEM(S) which are deemed necessary to adequately serve the proposed USER with the DISTRICT'S CSTS SYSTEM(S).

5.5.5. STEP FIVE. USER Connection to DISTRICT CSTS SYSTEM(S).

Once approved by the BOARD, the Township Engineer, and the Scott County Environmental Health Department, the proposed USER will connect to the SYSTEM(S) under the following conditions:

- On-going supervision, by a licensed INSPECTOR, will be done to insure that the

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hook-up to the DISTRICT'S SEWER SYSTEM(S) is secure, and will not jeopardize any portion of the present SYSTEM(S). Certificate of Compliance by Scott County to be issued and a copy provided to the Credit River Town Board of Supervisors upon completion of the hook-up and prior to a Certificate of Occupancy. A copy of the as-built drawings as well as any and all necessary pictures to identify the treatment components and location will be submitted to all the necessary parties (County, BOARD and/or BOARD designated Representatives) by the licensed Engineer with current DESIGNATED REGISTERED PROFESSIONAL licensure, showing the final location and construction details for the hook-up to the DISTRICT CSTS SYSTEM(S).

5.6. CONNECTION COSTS.

- 5.6.1. All costs of connection shall be borne by the USER(S) connecting to the DISTRICT CSTS SYSTEM(S). New USER(S) will be required to pay for all construction costs encountered for and on their PRIVATE SYSTEM(S) PORTION, [i.e. septic tank, control panel, building sewer lines, lift pump, lift stations, easement condemnations, etc., when and where necessary] as well as any additional costs that might be required in order to connect into the DISTRICT'S CSTS SYSTEM(S).
- 5.6.2. The USER will enter into a contract with the BOARD to reimburse the BOARD for all costs incurred in connecting said USER to the DISTRICT CSTS SYSTEM(S) including, but not limited to, legal, planning, engineering, and inspection expenses incurred in connection to the DISTRICT CSTS SYSTEM(S). Said costs will be reimbursed to the BOARD within thirty days (30 days) of billing, unless alternate arrangements are made in writing and approved by the BOARD.

SECTION SIX

DAMAGE TO DISTRICT SYSTEM(S) PROHIBITED

- 6.1. It shall be unlawful for any USER to discharge upon, in or under the ground or to any natural outlet within the service DISTRICT areas any wastewater other than to the DISTRICT CSTS SYSTEM(S).
- 6.2. It shall be unlawful for any USER to discharge or cause to be discharged any unpolluted waters such as storm-water, groundwater, roof runoff, subsurface drainage, drain tile lines, swimming pools, into the DISTRICT'S SEWER SYSTEM(S) by means of a sump pump, or otherwise.
- 6.3. All USERS must comply with the provisions of 7080.0065, subp. 3., Chapter 7080, Minnesota Pollution Control Agency's rules, which are incorporated herein and stated as such; "Products containing hazardous waste and hazardous substances must not be discharged to a SYSTEM(S) other than in normal amounts of household products and

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cleaners designed for household use. Substances not intended for use in household cleaning, including solvents, pesticides, flammables, photo finishing chemicals, dry cleaning chemicals, and hair salon chemicals must not be discharged to the SYSTEM(S)".

- 6.4. It shall be unlawful for any USER to discharge liquids or solids into the wastewater of the DISTRICT CSTS SYSTEM(S) that has concentrations or quantities that will harm the collection and treatment portions of the DISTRICT CSTS SYSTEM(S), endanger lives, or constitute a public health risk or nuisance, or to create any hazard in the receiving waters of the SYSTEM(S). Examples of such materials that are harmful include, but are not limited to the following:
 - 6.4.1. Backwash from Iron Filter systems or other water treatment systems, excluding water softeners. Except as to those homes that have been issued a building permit prior to the adoption of this Ordinance, all backwash water or other flushed water shall be prohibited from being discharged to the individual septic tanks and CSTS system. Excessive iron can precipitate in the treatment or disposal system causing accelerated breakdown and associated operational and maintenance costs. Iron filter systems and other water treatment systems will need to have their backwash discharged to a secondary (onsite) location or be a non backwashing unit (such units manufactured by Culligan, U.S. Filter, or an approved equal)."
 - 6.4.2. Any gasoline, antifreeze, fuel oil, latex paint, oil and/or chemical solvents, other hazardous oils, or other flammable or explosive liquids, solids or gas. Any waters containing toxic or poisonous solids or liquids, which alone or by interaction with other wastes could release noxious gases, form suspended solids, which interfere with the DISTRICT'S CSTS SYSTEM(S), or create a condition deleterious to structures, appurtenances, and treatment processes.
 - 6.4.3. Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow or proper operation of the wastewater collection SYSTEM(S) such as, but are not limited to, ashes, asphalt, bones, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, and other similar items, tar, plastics, disposable diapers, wood, ground or un-ground garbage, whole blood, paper dishes, napkins, cups, milk containers, sanitary napkins and tampons and other similar items as well as the containers for such items.
- 6.5. The DISTRICT CSTS SYSTEM(S) has been designed to exceed typical household wastewater flows observed in the region. Nevertheless, should water consumption exceed flow design for the DISTRICT CSTS SYSTEM(S), BOARD will initiate any and all water conservation practices including but not limited to the following: prohibiting further water appliances, reduction of water usage, installation of water meters and monitoring of flows with rate changes to reduce water usage until such time as a new design can be completed to address added flows.
- 6.6. Volumes (flows) of wastewater discharged into the SYSTEM(S) will be considered to be

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in violation for an individual home when these monitored flows are exceeded:

- a. Any weekly flow which exceeds 4,200 gallons which is a 600 gallon per day average
- b. Any monthly flow which exceeds 13,500 gallons which is a 450 gallon per day average
- c. Any quarterly flow which exceeds 30,000 gallons which is a 335 gallon per day average

The homeowner will be contacted by the BOARD when any such volumes are exceeded. The homeowner will be responsible for immediate action to reduce their flows when contacted. If the homeowner fails to promptly address the excess flows, then the BOARD may take any actions deemed necessary to protect the integrity and safety of the DISTRICT SEWER SYSTEM(S).

- 6.7. Within the DISTRICT, USERS will be required to shut off their main water supply when their home is not occupied for a period exceeding four (4) consecutive days. Upon written request from a USER, the Credit River Township Clerk may grant an exception for a necessity [i.e. when a water supply cannot be shut off].
- 6.8. USERS will be required to install, repair and maintain water conserving plumbing fixtures and appliances to reduce daily water use. Therefore, the following appliances and fixtures shall be installed to promote and sustain water conservation practices to protect the integrity and long-term effectiveness of the DISTRICT'S CSTS: clothes washing machines using 25 gallons or less per load; toilets with 1.6 gallons or less water usage per flush; automatic dishwashers that use less than 5.5 gallons of water per load; shower heads with flow rates less than 2.5 gallons per minute; and faucets with flow rates of 2.2 gallons or less per minute. Please note that each of these fixture flow limits is also required per the state building code.
- 6.9. All required installation of said USER plumbing appliances and fixtures must be inspected and verified by a licensed professional plumber. Should the licensed professional plumber determine by his inspection that a home does not have the requisite low flow appliances and fixtures, Scott County shall not issue a Certificate of Occupancy until such time as the home does comply.
- 6.10. A garbage disposal will be allowed in a new home with the proper design considerations approved by the required permitting authorities that will insure and protect the integrity of the DISTRICT CSTS SYSTEM(S).
- 6.11. All USERS must further comply with the provisions of Minnesota Rules, Chapter 7080.0175, subp.5, which are referenced and incorporated herein. Individual wastewater treatment SYSTEM(S) additives that contain hazardous substances must not be used in their septic tanks.

SECTION SEVEN

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VIOLATION(S) ARE A MISDEMEANOR

- 7.1. Any person who willfully or negligently violates any provisions of the Minnesota Pollution Control Agency, Chapter 7080 Rules, the Scott County Sewage and Wastewater Treatment Ordinance, and/or the provisions of the ORDINANCE contained herein will be subject to notification of violation(s).
- 7.2. ENFORCEMENT.
This ORDINANCE shall be administered and enforced by the BOARD, or its authorized representative(s). The duly authorized representative(s) may institute appropriate action for any violation(s) of this ORDINANCE at the direction of the BOARD and through the Township Attorney as deemed necessary. Any USER or person who violates a Section, Subdivision, paragraph, or provision of this ORDINANCE when he or she performs an act or becomes a public nuisance which is hereby prohibited, or declared unlawful or fails to do an act required, or fails to act when such failure is thereby prohibited or declared unlawful, and upon conviction thereof, shall be subject to a misdemeanor fine not to exceed \$1000 and/or imprisonment not to exceed 90 days plus the costs of prosecution. Each day of non-compliance with any of the terms of this ORDINANCE shall be considered a separate violation and a separate criminal act.
- 7.3. ENFORCEMENT OF ORDINANCE PROCEDURES.
- 7.3.1. EMERGENCY AND/OR HAZARDOUS WASTE VIOLATIONS.
In the case where a USER knowingly violates the DISTRICT CSTS SYSTEM(S) by discharging waste deleterious or harmful to said DISTRICT CSTS SYSTEM(S) and causes emergency conditions to exist, the BOARD and its duly authorized representatives shall exercise their authorities to close the shut-off valve at the end of the COMMON PORTION and deny further use to offending USER of the DISTRICT CSTS SYSTEM(S) until said violation(s) has been resolved, fines paid and repair of the DISTRICT CSTS SYSTEM(S) have been completed.
- 7.3.2. WRITTEN NOTICE.
Upon a violation of this ORDINANCE or an emergency closure of shut-off valve to a USER, said USER will receive a written Notice notifying them of the facts. The notice shall be served in person or by certified or registered mail.
- If the property is not occupied and ownership of the property cannot be ascertained, or in the event that personal service cannot be made, or re-certified or registered mail is returned, notice is deemed served when posted on the property or deposited in the U.S. Mail. A written notice shall specify the steps to be taken to correct the violation(s), and the time, not to exceed thirty days (30 days), within which the violation(s) must be corrected. If the violation(s) is not corrected within the time specified within the notice, then the BOARD may abate the violation(s) itself after conducting a hearing.

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7.3.3. HEARING.

A hearing notice shall be served in the same manner as described above and shall be given at least ten days (10 days) prior to the date of the hearing before the BOARD. In order to expedite matters the BOARD may in its discretion, include notice of the aforementioned hearing in the original notice of violation(s).

7.3.4. If after conducting a hearing on the matter, the BOARD determines that the correction of the violation(s) is necessary to protect the public health, safety and welfare of the DISTRICT USERS, then the BOARD may correct the violation(s), or cause the same to occur, in any manner and using any method that it finds appropriate.

7.4. COSTS TO CORRECT VIOLATION(S).

The cost of and correction of the violation(s) shall be borne by the offending USER(s). If the BOARD undertakes with the correction of said violation(s), it shall bill the landowner and/or USER, for all cost and disbursements associated, including repairs and disposal fees, service fees and attorneys' fees. If the USER does not pay such bill, then the BOARD shall certify such unpaid amounts to Scott County to be assessed against the property and to be collected with property taxes, pursuant to 366.021 and/or 429.101.

7.5. BOARD RIGHT TO SEEK ALL AVENUES OF RELIEF.

The BOARD reserves the right to prosecute in criminal court and/or civil court for any remedies, including injunctive relief and reimbursement of all costs and disbursements, including Attorney's fees expended by the Township in enforcing of this ORDINANCE. Each right or remedy accruing to the Township under this ORDINANCE or at law is separate and distinct and may, in the Township's discretion, be exercised independently or simultaneously with any other right or remedy.

SECTION EIGHT

AMENDMENTS OR CHANGES

The BOARD may from time to time amend this ordinance.

8.1. Notice of adoption of said changes by resolution, after a public hearing, shall be kept on file and open to inspection in the office of the Credit River Township Clerk and shall be uniformly enforced.

SECTION NINE

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VALIDITY AND SEVERABILITY

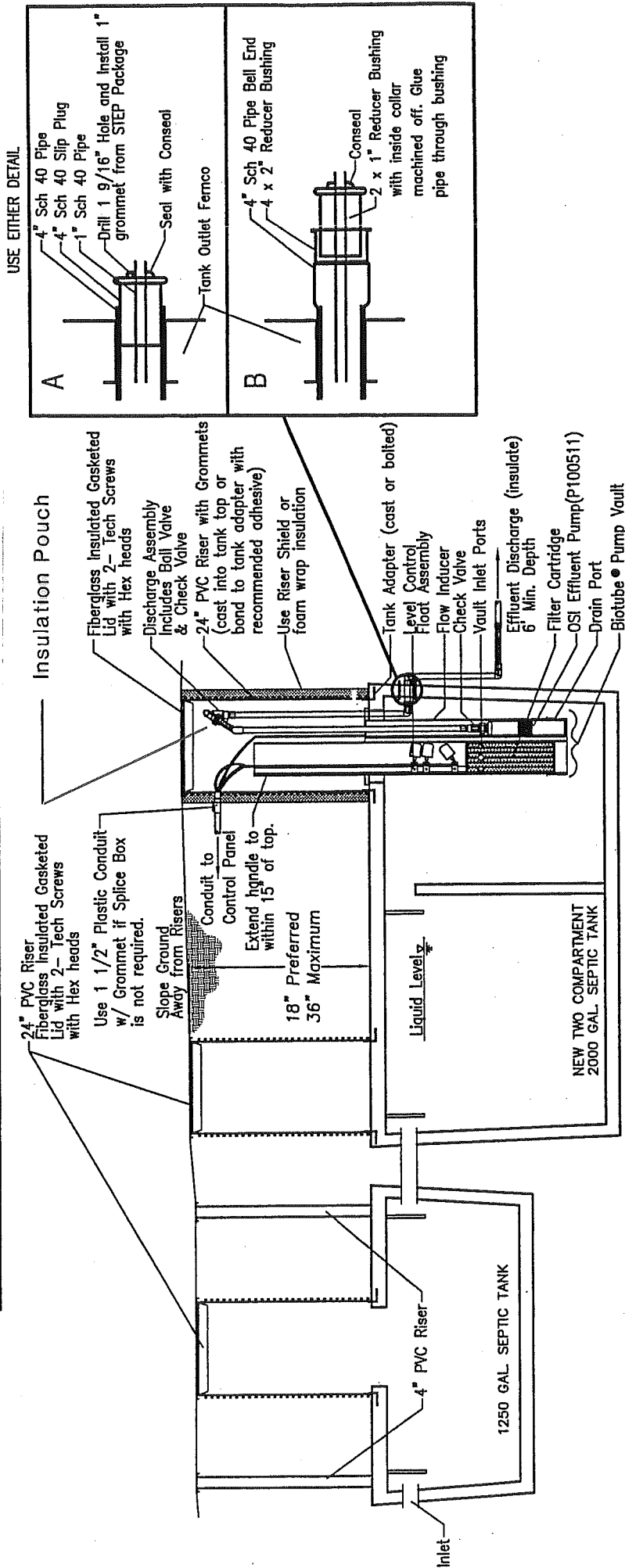
The invalidity of any Section, clause, sentence or provision of this ORDINANCE shall not affect the validity of any other part of this ORDINANCE, which can be given effect without such invalid part or parts.

SECTION TEN

EFFECTIVE DATE

This ORDINANCE, its rules and regulations for the Stonebridge Subordinate Service DISTRICT shall take effect and be in full force immediately following its adoption and publication by the Credit River Town Board of Supervisors.

Scott County Individual Hookups to C.S.T.S. For Homes with Garbage Disposals Effluent Pumping System for Cold Weather Applications (cw style)



NOTE:
-USE TWO COMPARTMENT SEPTIC TANKS
-ANY TANK WITH LESS THAN 2' COVER SHALL HAVE 2" OF INSULATION ON TOP OF TANK

Monterey Heights/South Passage Wastewater Update

Introduction to Your Wastewater System

Wastewater from your home goes into a septic tank where the solids settle out. The water flows into a pumping chamber where it is pumped to a pipe that leads to the community treatment system and is safely treated and disposed.

Monterey Heights and South Passage both have unique Community wastewater treatment systems. The systems, known as recirculating sand filters, clean your wastewater before it is released to the soil. These types of systems are popular throughout Minnesota and are gaining popularity nationwide as developments such as Monterey Heights and South Passage are being proposed.

Why is The Gray Panel on my Property?

The gray control panel on your property, as well as the green covers on top of the ground are a part of your wastewater treatment system. The gray box houses the controls that operate the pump. Service personnel may need to access the control panel and open up the green lids periodically for maintenance purposes. As landscaping is completed on your property, please **do not cover the lids** with mulch, dirt or other materials.

The Township anticipates pumping out of the green lids to remove the solids that have accumulated in the tank. The Township will determine when the tanks need to be pumped during their routine system checks, which are performed in September/October. The Township pays for one septic tank pumping event every three years. If you misuse the system, more frequent pumping may be necessary to protect the system which will be charged to the homeowner.

Have a Problem? – You May Not Know...

The control panel at your house has a telemetry system built in. A telemetry system is a micro-computer that calls to the Township's service provider in the event an alarm condition is occurring. If the pump or control panel component fails, the control panel's telemetry system will immediately call the service provider. The Homeowner will not be notified unless the alarm is not responded to within 24 hours. At that time an audible alarm will sound alerting the homeowner that there is a problem that needs to be addressed. If this occurs, please contact your service provider.

Who Should you Contact if there is a Problem?

The Township currently contracts with EcoCheck, Inc., a professional wastewater operations company to perform routine operations and maintenance of the system. If you think there is a problem with the system, contact EcoCheck at the following contact numbers:

Normal and After Business Hours – 651-255-5075

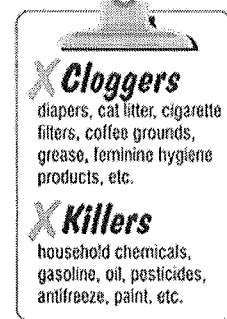
For other routine non-emergency questions regarding the system, contact the Credit River Town Hall at 952-440-5515

Tips for Homeowners

The two wastewater systems serving the development need to be professionally operated. Wastewater operators visit the sites several times a month to ensure the system is operating properly. To minimize service calls and to protect the users of the systems from potential back-ups, all users of the system need to know what can and cannot be discharged to the wastewater systems. Below are tips every user of the system should know:

- Chlorine-treated water from swimming pools and hot-tubs shall **not** be put into the system.
- No paints, solvents, antifreeze or chemicals shall be discharged to the wastewater system. Dispose of all solvents, paints, antifreeze, and chemicals through local recycling and hazardous waste channels.
- Minimize the amount of hair, grease and food materials that go down your drains.
- Use minimal amounts of mild cleaners and only use as often as needed.
- Garbage disposals need to be carefully used with septic systems. Vegetable, meat, fat, oil, and other food products add large amounts of sludge. A result is more frequent tank cleaning. These materials are difficult for bacteria in the septic tank to break down.
- Hazardous waste products shall **not** be put into the system. This includes even small amounts of latex paint rinsed off rollers or brushes. Dispose of all solvents, paints and chemicals through local recycling and hazardous waste channels. Consult local solid waste officials for proper methods. These materials kill valuable bacteria in the system.
- Unwanted medications shall **not** be flushed down the toilet or poured down the drain. They will kill beneficial bacteria in the septic tank.
- Do **not** flush facial tissue, paper towels, cigarette butts, disposable diapers or personal hygiene products.
- Iron filters and water softeners should be placed on minimum regeneration rates. Excessive regeneration can cause problems with the system.

Not in My Septic System!



Monterey Heights/South Passage Wastewater Update

Iron Filters Causing Concerns

The Township is dealing with an issue that we would like to communicate with the residents who use the community sewage treatment system (CSTS) in Monterey Heights and South Passage. Iron filters are being installed in many homes in the developments. The iron filters discharge brine water directly to your septic tank on your property and eventually to the CSTS.

The operator of the system (EcoCheck) has experience with other wastewater projects where iron filters have caused premature system failure. It is the Township's goal to provide residents with a long-term CSTS that will safely treat wastewater while preventing premature repair needs.

Because the Township wants to protect your wastewater by proactively identifying issues before they arise, an ordinance was recently adopted by the Township. The new ordinance prohibits new homes from discharging brine discharge from iron filters to the CSTS system. *Existing homes are not required to disconnect their iron filter from wastewater discharge pipes; however, the Township encourages residents to consider doing so to help protect the wastewater system.*

Typical Operation of Iron Filters

Iron filters remove iron from tap water and prevent rust staining on water fixtures, concrete and other surfaces. The iron filter produces a brine (concentrated water containing iron and salts) that periodically needs to be discharged. Homeowners on septic systems typically place this brine using a sump that pumps the water to their yard or a small underground drainfield.

Typically, the iron filters discharge brine water late at night or early morning at set intervals. A normal cycle is completed every 10 days to 3 weeks, depending upon the concentration of the iron in the water.

How do Iron Filters Affect the Wastewater System?

Iron filter backwash complicates the management of your wastewater system for two reasons. First, the system has to treat additional wastewater flow. Secondly, the discharge water is rich in iron, which can cause operational problems and premature failure of your system.

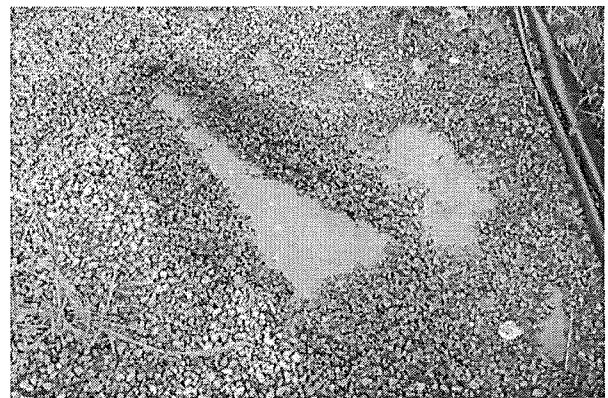
The additional flow added to your wastewater system is between 150-400 gallons per back flush event (some may be combined with water softeners). This additional water totals 200,000 – 500,000 gallons per year! This water does not need to be treated in the wastewater treatment system because it is *not* considered wastewater. Eliminating this source of water from your system will result in less pump wear and less electrical usage over time.

A 50-unit development with iron filters that discharge all water to the CSTS system (compared to a development that re-routes the brine discharge) results in 10% more pump wear and tear and a 5% increase in electrical costs. Brine water distributed to the CSTS system results in a need to treat up to 10% extra flow.

Also, the discharge of iron-rich water allows iron to remain in suspension. This means is that the iron can be pumped out of your septic tank and to the CSTS system. When this occurs, the

iron precipitates out in the sand, causing the system to plug. This results in water surfacing (see photo below) and significantly increases operation and maintenance costs. Eventually, iron plugging becomes a problem. The operator can make temporary fixes to the system, but if iron-rich water is continually discharged to the system, it will have to be replaced at the homeowners' cost.

A capital replacement cost is included in your monthly wastewater fee. However, the Township wants to minimize capital replacement events. If the time period between capital replacement events can be extended, monthly wastewater fees can be lowered. If capital replacement is needed sooner than planned, higher rates can result.



Water surfacing in a CSTS due to problems with iron-rich water.

Why Are Iron Filters Not a Problem in Big Cities?

In municipalities, many homeowners discharge the water to their municipal sewer. The large municipal wastewater treatment systems are designed to handle this type of flow because they are planned for future growth for up to 50 years into the future. Also, the quantity of wastewater dilutes the iron rich water, so it is not as concentrated.

For your wastewater system, it is designed only for the homes within the development. Your treatment system does not have built-in capacity to expand for future growth or special treatment devices. Because your system is designed for only the homes in the development, there is less flow available to dilute the brine water, and the iron can cause operational issues.

As more and more people move from the city to the country, the practice of discharging brine from iron filters to septic systems is an increasing problem. Distributors of this equipment may not be fully educated on the potential effects of the brine discharge to wastewater treatment systems for individual homes and small developments. If you plan to have these types of systems installed, please make sure you are educated on the new ordinance amendment. A copy is available at the township office.

If you have any questions regarding iron filters, feel free to contact the Township or EcoCheck.

**CREDIT RIVER TOWNSHIP
SCOTT COUNTY
STATE OF MINNESOTA**

To: Credit River Residents with CSTS systems
Date: December 7, 2006
Re: Water Softeners and Iron Filtration Units

Issue:

The Township's CSTS operator has raised a concern regarding water softener and iron filtration units used by landowners in the Credit River CSTS Systems. The concern related to large flow dumps into the CSTS system at one time by backwash of water softeners and iron filter systems. This could cause potential plugging of treatment and disposal sites on the CSTS systems which would be problematic and costly for the Township to fix. In response to these concerns, the Town Board directed township staff to review these concerns and come back with recommendations for the use of water softeners and iron filtration units in CSTS systems.

Recommendation by Staff:

1. **Water Softeners.**

Credit River staff recommended to the Town Board that they continue to allow water softeners but that future CSTS Systems to be designed for water softener flows with future designs being done with the backflush going to a separate drain field since this is water that does not need treatment. In addition, staff recommended more education to the property owners regarding using lower levels and discharging only when needed can be done through the homeowner packets, etc. The Town Board adopted this recommendation.

2. **Iron Filters.**

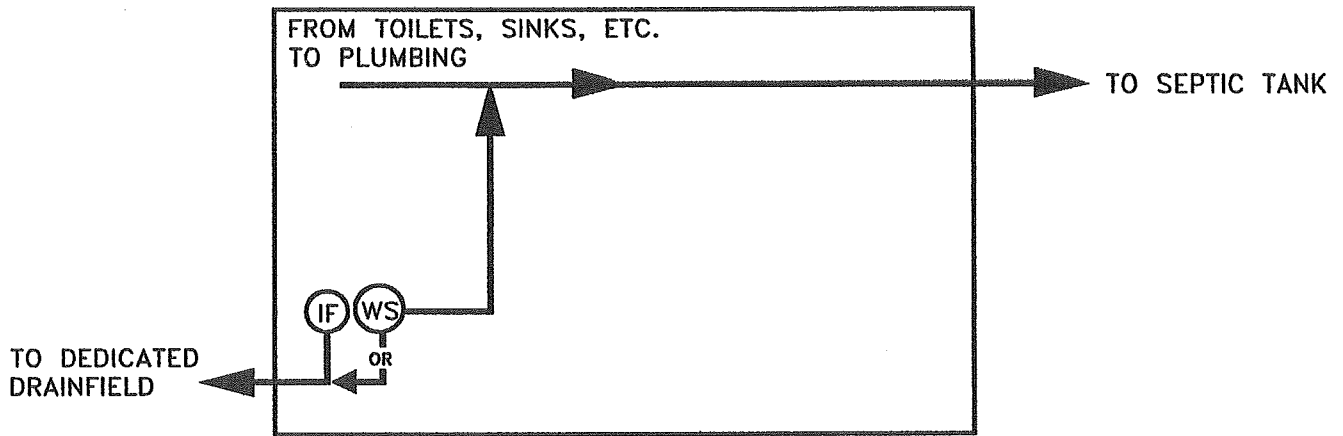
Credit River staff recommended to the Town Board that Iron Filters should be prohibited from entering the CSTS Systems. Iron Filters pose a serious clogging problem. In response the Town Board amended its CSTS ordinances to insert the following language:

6.4.1 Backwash from iron filter systems or other water treatment systems, excluding water softeners. All backwash water or other flushed water shall be prohibited from being discharged to the individual

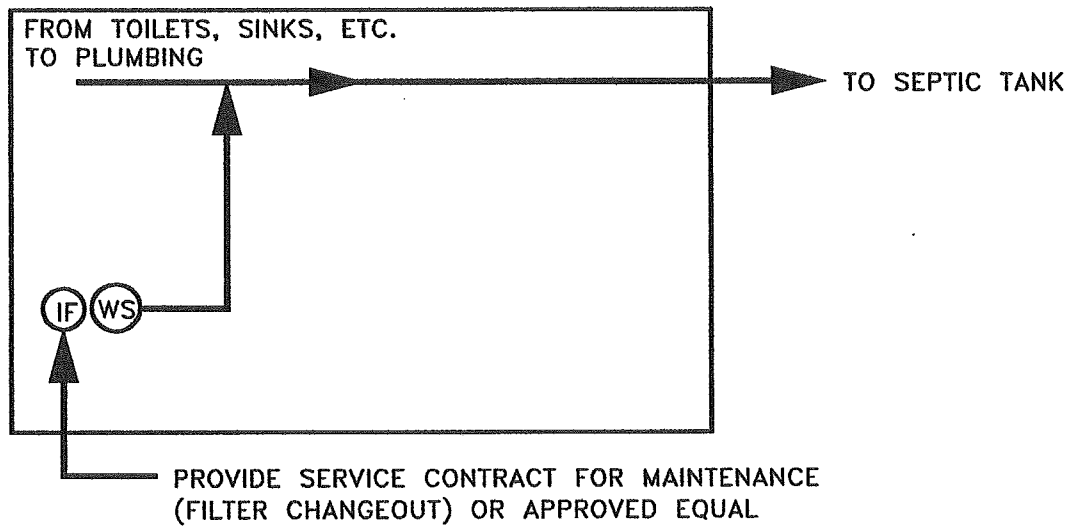
septic tanks and CSTS system. Excessive iron can precipitate in the treatment or disposal system causing accelerated breakdown and associated operational and maintenance costs. Iron filter systems and other water treatment systems will need to have their backwash discharged to a secondary (onsite) location or be a non backwashing unit (such as units manufactured by Culligan, U.S. Filter, or an approved equal)."

It is hoped that by adopting this change that the Township can avoid future costly repairs which would be paid by residents using the CSTS system.

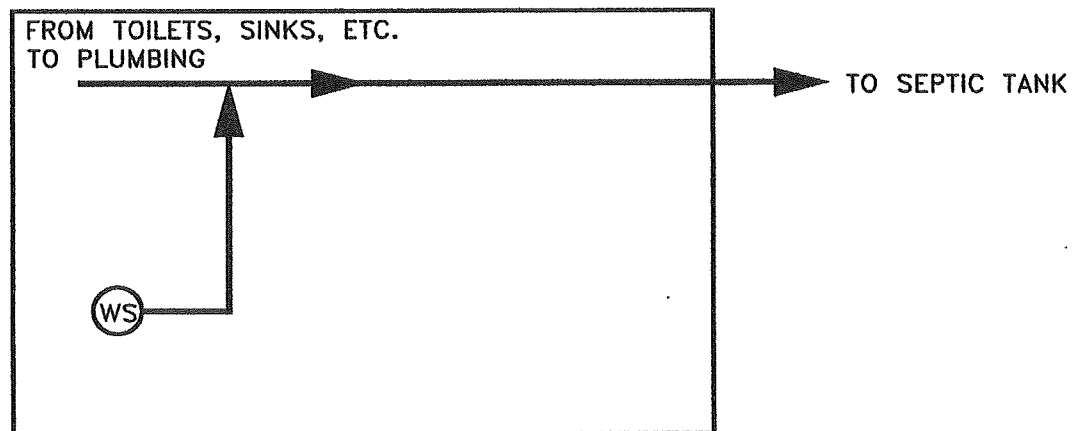
OPTION A - WITH IRON FILTER BACKWASH SYSTEM



OPTION B - WITH IRON FILTER BACKWASH SYSTEM



OPTION C - NO IRON FILTER INSTALLED



LEGEND

IF DENOTES IRON FILTER SYSTEM

WS DENOTES WATER SOFTENER SYSTEM

CREDIT RIVER TOWNSHIP
RESIDENTIAL OPTIONS FOR
PLUMBING WITH CSTS SYSTEMS

HOUSEHOLD HAZARDOUS WASTE AND YOUR WASTEWATER SYSTEM

Your wastewater treatment system is designed to remove organic matter, pathogens, and nutrients normally found in household sewage. Non-degradable items such as plastic, rags, towels or trash should never be discharged to any septic system, because these materials clog the system and reduce its effectiveness.

Septic systems are not designed to remove volatile organic compounds (VOC' s) or other types of Household Hazardous Waste (HHW). VOC' s can result in explosive conditions in the sewage collection system. VOC' s kill the bacteria that is provided to treat the wastewater to the levels safe enough to be discharged back to the environment. If the bacteria are not healthy, then the water may not be able to be treated adequately enough.

Further, these pollutants can pass through the system and can contaminate surface and groundwater. This is why items like solvents, paints, oils, antifreeze, or household hazardous waste should never be dumped into the system.

WHAT IS HOUSEHOLD HAZARDOUS WASTE?

Household Hazardous Waste, or HHW, is waste material that can be harmful to human health or the environmental if it is used, stored or disposed of improperly. These wastes can be the leftovers from common products that are found in most homes and garages. When the product is no longer usable or wanted, it becomes household hazardous waste.

To protect our environment, do not dispose of household hazardous products in the trash, down the sewer, or on the ground. Improper disposal of HHW is not only illegal; it can also contaminate our drinking water supplies and pollute our lakes and streams.

WHAT ARE VOC'S?

Volatile organic compounds (VOC' s) are petroleum based chemicals such as gasoline, kerosene, paint, acetone, and diesel fuel. Materials that include VOC' s specify them on canisters and labels. They must be disposed of in accordance with State regulations and should never be placed in the wastewater system.

WHERE CAN YOU DISPOSE OF VOC'S AND OTHER WASTES?

Homeowners should follow state and local ordinances for disposal of these materials. Please bring these items to the Scott County HHW Collection Facility so they may be reused, recycled, reprocessed, or properly disposed of. The facility location is identified at the red star on the map below.

