ZONING PERMIT APPLICATION

(please do not write in shaded areas)

DATE 6-4-99 APPROVED DENIED	PERMIT# 25579
NAME DENNIS CLINTON TELE#	PARCEL# 29-0-017205
MAILING ADDRESS 11400 JEFFERSON ST. NE. BLAINE, MN 55434	RECEIPT# 0221
TOWNSHIP SHAMROCK CONFORMING SEPTIC	YES P# NO NEW
LEGAL DESCRIPTION 1.25AC LOT 3 IN DOC.# 153729	SEC 9 TWP 49 RGE 23

ZONING DISTRICT & FLOOD PLAIN

ZONING DISTRICT S/L
LAKE/STREAM/RIVER NAME BIG SANDY
LAKE/RIVER ID NUMBER 01-0062
LAKE/RIVER/STREAM CLASSIF. GD
PARCEL LOCATED IN FLOOD PLAIN? Y____ N X
10/100 YR FLOOD ELEVATION ____
LOWEST FLOOR ELEVATION ____
ELEV. CERTIFICATE REQUIRED Y____ N X
BEFORE CONSTRUCTION Y____ N X
AFTER CONSTRUCTION Y____ N X
"ATTACH COPY OF ELEVATION CERTIFICATES"

STRUCTURE SETBACK DISTANCE REQUIREMENTS
(Measure from eaves or overhang)

OHW TO LAKE/RIVER/STREAM ____
PROPERTY LINE SETBACK ____
SETBACK TO ROAD R-O-W ____
SETBACK TO BLUFF ____

SEPTIC SYSTEM SETBACK DISTANCES

SETBACK TO STRUCTURES 10' TANK 20' DF
OHW TO LAKE/RIVER 50'
PROPERTY LINE SETBACK 10'
SETBACK TO ROAD R-O-W 10'

(circle) RESIDENTIAL COMMERCIAL ACCESSORY NEW BUILDING ALTERATION

DATA FOR BUILDING CONSTRUCTION: CONTRACTOR ____

SIZE OF ALL BUILDINGS COVERED BY THIS APPLICATION ____

COMMENTS: ____

DATA FOR SEWER CONSTRUCTION: INSTALLER BAUER #BEDROOMS/GPD 4/600

SOIL BORINGS 5 SEPTIC DESIGN SAND FILTER GARBAGE DISP/HOT TUB
PERK RATES ____ DEPTH TO RESTRICTING LAYER ____ YES____ NO X
MIN SIZE SEPTIC TANK 1000 GAL MIN SIZE PUMP TANK 600 GAL
DRAINFIELD: MINIMUM SQ.FT 250 WITH ____ INCHES ROCK BELOW PIPE
MOUND: MINIMUM ROCK BED SQ.FT ____ WITH 9 INCHES ROCK BELOW PIPE
MIN.UPSLOPE SAND WIDTH ____ MIN.DOWNSLOPE SAND WIDTH ____ END SAND WIDTHS ____
RECOMMENDATIONS: SAND FILTER SYSTEM

☞ **PLEASE ATTACH ANY ADDITIONAL INFORMATION TO THIS PERMIT**

TOWNSHIP OR CITY USE ONLY:
RECOMMEND: APPROVAL ____ DENIAL ____ COMMENTS: ____

SIGNATURE: TOWNSHIP/CITY CLERK ____ DATE ____

The undersigned hereby makes application for permit to construct as herein specified, agreeing to do all such work in strict accordance with the Ordinances of the County of Aitkin, Minnesota; Minnesota Individual Sewage Disposal Code Minimum Standards set forth by Minnesota Department of Health; and Shoreland Management Standards set forth by Minnesota Department of Natural Resources. Applicant agrees that plot plan, sketches and specifications submitted herewith and which are approved by the Zoning Official, shall become a part of the permit. **APPLICANT FURTHER AGREES THAT NO PART OF THE SEWAGE SYSTEM SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED AND ACCEPTED.** It shall be the responsibility of the applicant for the permit to notify the Zoning Office (at least 24 hours in advance) that the septic system is ready for inspection.

SIGNATURE APPLICANT/AGENT	$ 150.00 FEE	RECEIVED BY	6-4-99 DATE

$50.00 Pre On-Site: ____ Yes ____ No

(Space for Required Sketch on Reverse Side)

EXPIRES IN ONE YEAR

Aitkin County Zoning, Courthouse — AITKIN, MINNESOTA 56431 — Telephone 218/927-7342

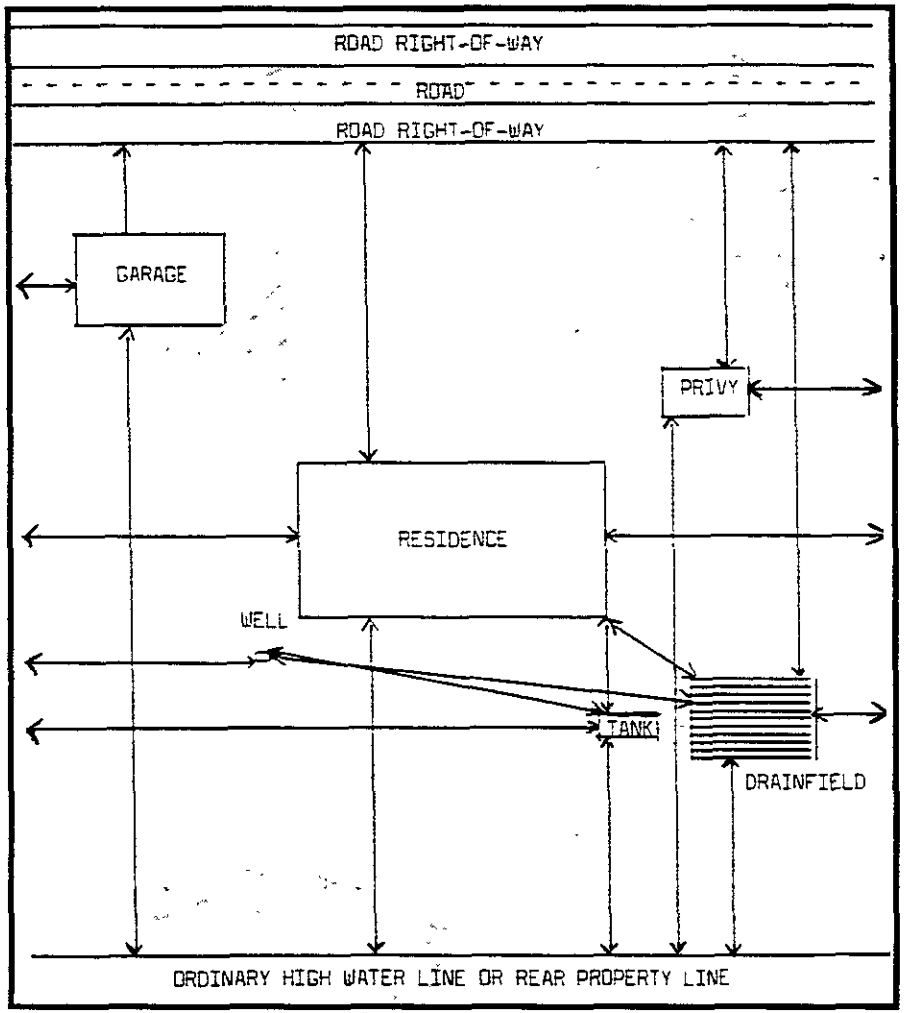
White - County Yellow - Township Pink - Applicant Ver. 9/97

25579

USE THIS SPACE FOR YOUR OVERVIEW SKETCH
(Be sure to show your setbacks)

ALL SETBACKS INDICATED IN SHADED AREAS ARE MANDATORY
SETBACK REQUIREMENTS WILL BE STRICTLY ENFORCED
STATE OF MINNESOTA WELL PERMITS REQUIRED
STATE OF MINNESOTA ELECTRICAL PERMITS REQUIRED

SAMPLE DRAWING



1. Be sure to show distances from property lines, roads, lakes or rivers.
2. Be sure to show distance of septic system from well, residence, road and also side property lines.
3. Also include the depth of well.
4. The elevation of the property is very important in regard to the septic system and privy (outhouse).

This type of drawing is required on the back of the original application for permit. Place only the items you're installing or building.

Inspected by _____ Date _____ Inspected by _____ Date _____

A. M. & Associates, Inc.
RR 2, Box 2468
Pallsade, MN 56469
(218) 768-4430

Michael D. O'Keeffe
Annette M. O'Keeffe
SEPTIC SYSTEMS
DESIGNER / INSPECTOR
MPCA #1357

THE ENCLOSED INDIVIDUAL SEWAGE TREATMENT SYSTEM (ISTS)
IS DESIGNED SPECIFICALLY FOR:

Bud Dropps & Dennis Clinton
8535 Central Ave. NE
Blaine, MN 55434

For properties located on Maple Road, Big Sandy Lake
Parcel ID#: 29-0-017705

November 9, 1998

A NEW ISTS SITE EVALUATION WILL BE REQUIRED IF SYSTEM IS NOT INSTALLED WITHIN 1 YEAR FROM ABOVE DATE

This ISTS design is for a 24 x 20 Orenco Systems Inc., Sand Filter for a flow of 600 gallons per day.

- Pump Selection should be as per OSI's specifications for the Lift and Sand Filter.
- Timed Dosing with OSI controls to Geoflow Drip Line.
- Geoflow Drip Line overdose will return to Sand Filter.
- Geoflow specifications are for 231 linear feet of Drip Line, actual amount will be 300 linear feet, consisting of (12) 10 foot laterals and (9) 20 foot laterals.

Please be advised that the attached ISTS Design is considered an Experimental System, therefore A.M. & Associates, Inc. accepts no liability for the hydraulic performance of this system.

EXPERIMENTAL ISTS 5 YEAR MONITORING AND MAINTENANCE PLAN

The Homeowners acknowledges and accepts that the design for this ISTS (Individual Sewage Treatment System) is an Experimental System.

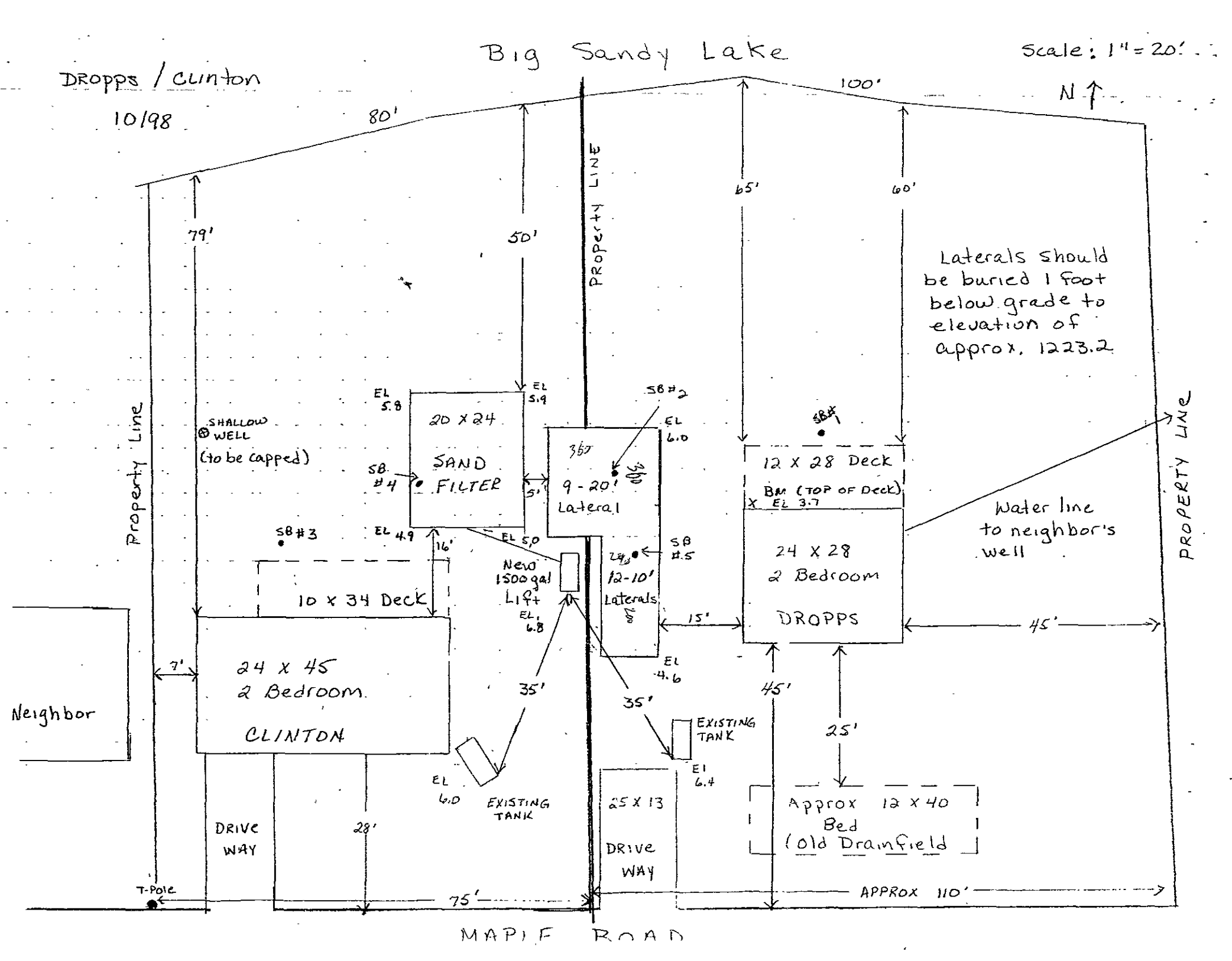
The Homeowner also accepts the responsibility for annually monitoring and maintaining the system, which shall include but not limited to; (1) *a Visual Inspection*, (2) *Flushing the Sand Filter Laterals*, (3) *Performing a Squirt Test*, and (4) *Checking the Pump Operation* as recommended by OSI to ensure that the system is functioning properly. Either the homeowner or an ISTS Licensed Contractor can perform this. You must report to the permitting authority of any problems discovered. A Video and Maintenance Manual will be provided by the Manufacturer (OSI).

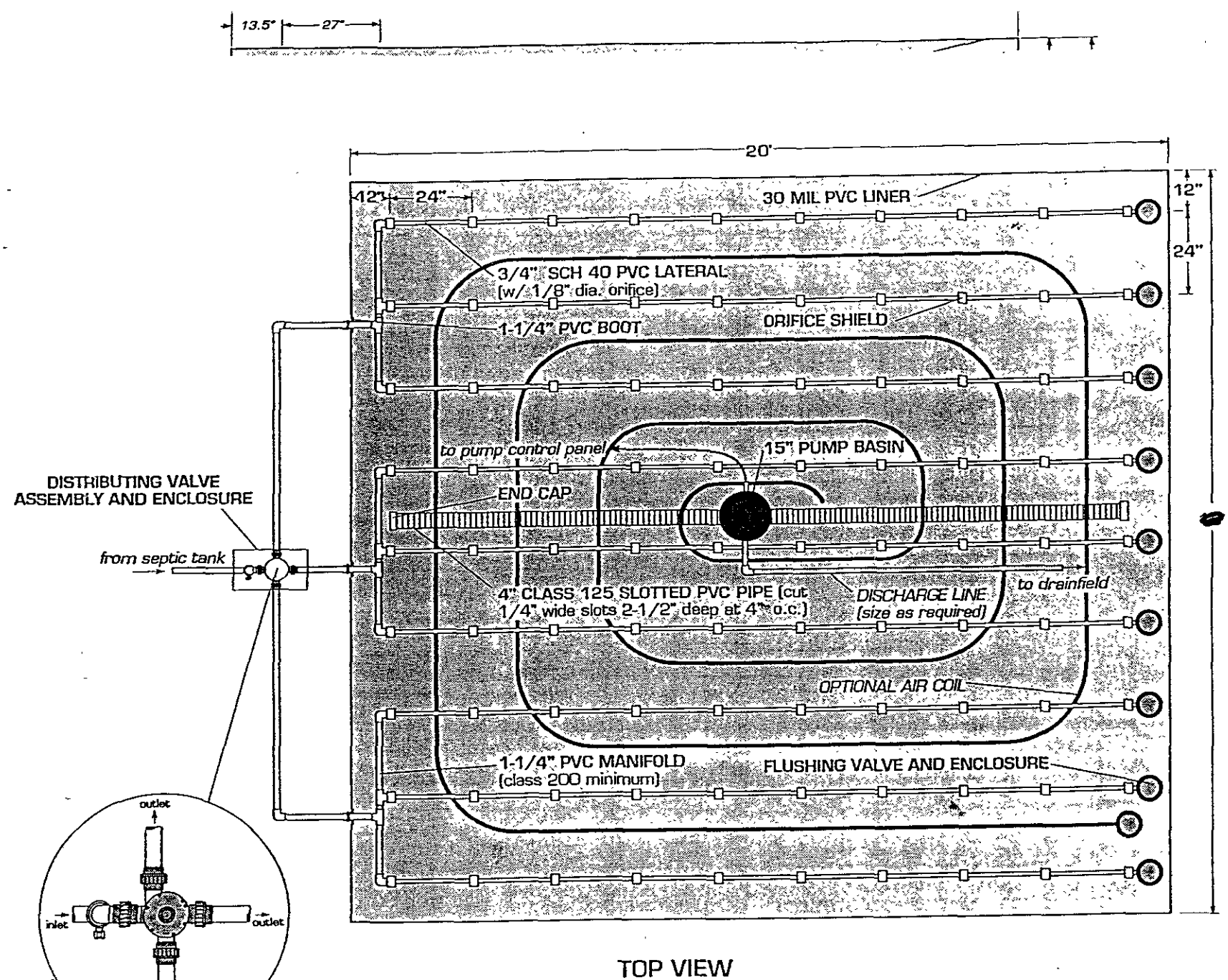
EXPERIMENTAL ISTS MITIGATIVE PLAN

In the event that this Experimental ISTS should fail, a mitigative plan would be to install Holding Tanks, to be pumped on a regular basis.

Note to Installer:

1. **CLINTON'S SHALLOW WELL MUST BE CAPPED.**
2. **A WATER METER MUST BE INSTALLED.**
3. **Pump & inspect existing Tanks, *reuse* if they are good and *replace* if bad.**
4. **Install new 1500 gallon lift.**
5. **For better quality effluent, we recommend the installation of an Orenco System Inc. Biotube Effluent Filter FT 0436.**
6. **Please verify all measurements on jobsite.**
7. **Scarify or roughen all smearing.**
8. **Contact Designer for any changes or questions.**


Big Sandy Lake
Scale: 1" = 20'
DROPPS / CLINTON
10/98
N
100'
80'
65'
60'
79'
50'
PROPERTY LINE
Laterals should be buried 1 foot below grade to elevation of approx. 1223.2
EL 5.8
EL 5.9
20 X 24
SAND FILTER
SB #4
SHALLOW WELL
(to be capped)
SB #2
EL 6.0
9 - 20' Lateral
5'
12 X 28 Deck
BM (TOP OF DECK)
X EL 3.7
SB #1
Water line to neighbor's well
PROPERTY LINE
Property Line
SB #3
EL 4.9
EL 5.0
16'
10 X 34 Deck
New 1500 gal Lift
EL 6.8
SB #5
12-10' Laterals
24 X 28
2 Bedroom
DROPPS
15'
45'
7'
24 X 45
2 Bedroom
CLINTON
Neighbor
35'
35'
45'
EXISTING TANK
EL 6.4
EL 4.6
25'
EL 6.0
EXISTING TANK
25 X 13
DRIVE WAY
Approx 12 X 40
Bed
(old Drainfield
DRIVE WAY
28'
T-Pole
75'
APPROX 110'
MAPLE ROAD

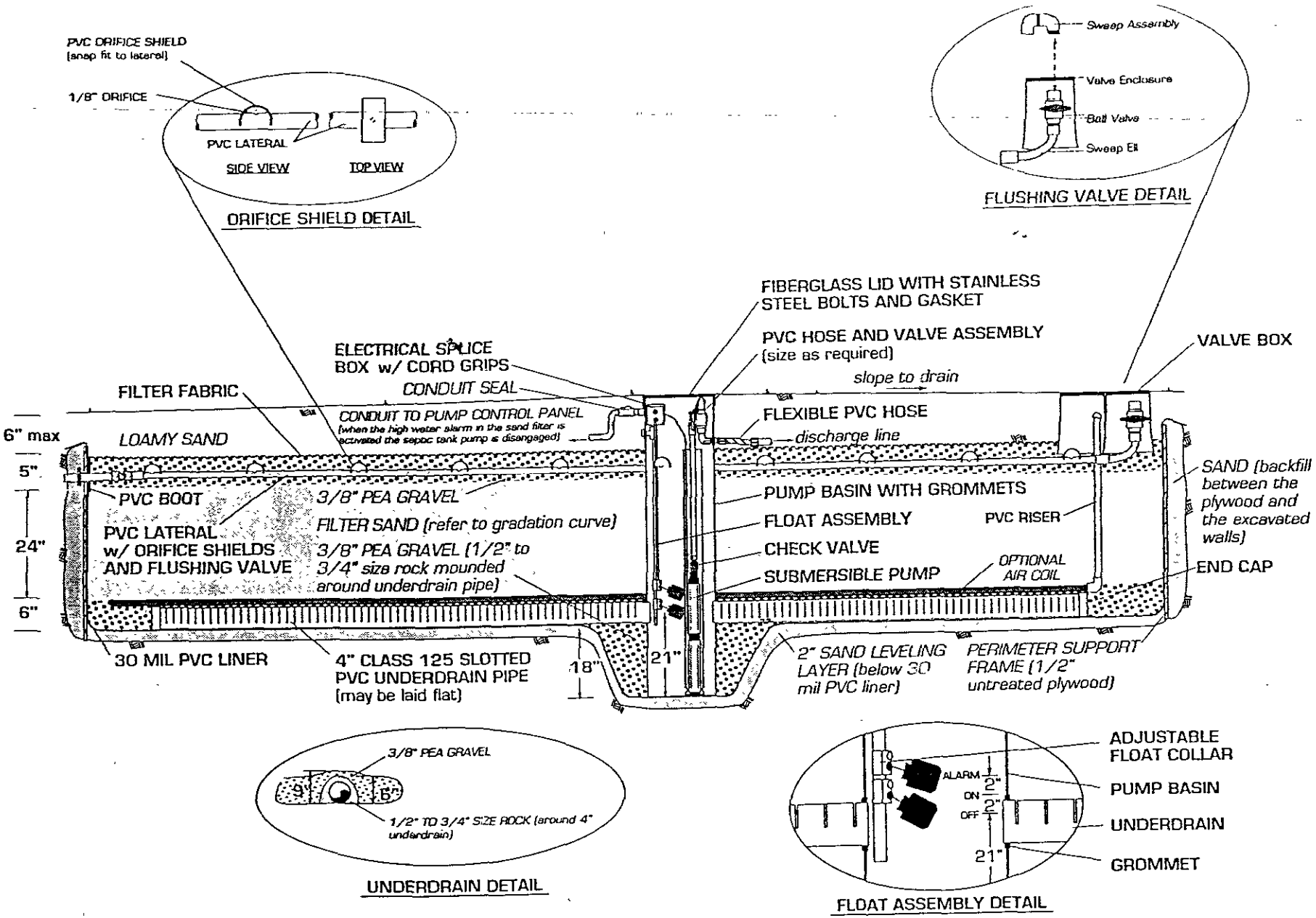


Orenco Systems®
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

TELEPHONE
(541) 459-4449

FACSIMILE
(541) 459-2884



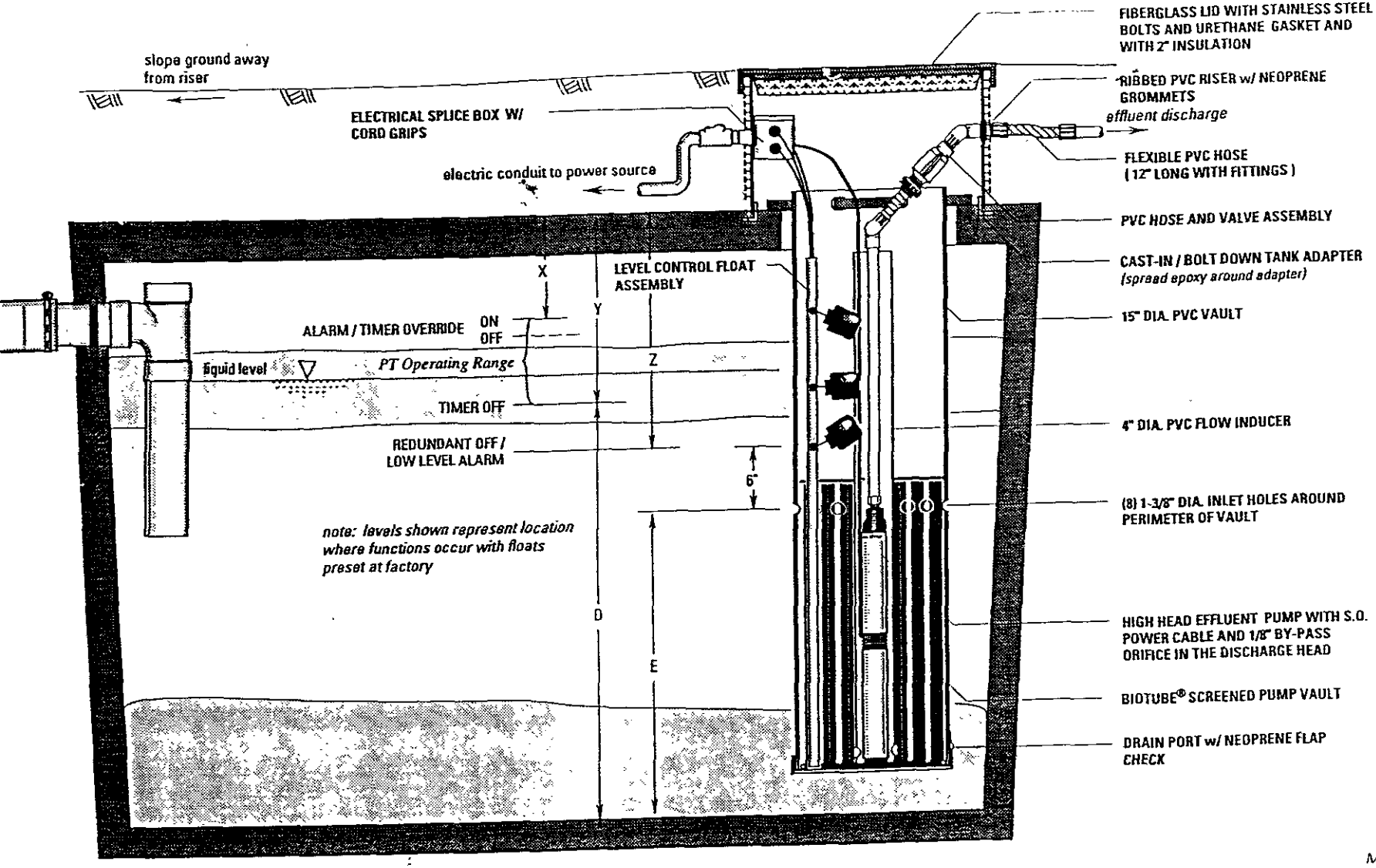
SIDE VIEW *(NTS)*

18' x 20' SAND FILTER w/ PUMP BASIN

High Head Pump Package w/ Programmable Timer Control

DRAIN BACK HOSE AND VALVE DISCHARGE ASSEMBLY

Orenco Systems® Incorporated
814 AIRWAY AVENUE
SUTHERLIN OREGON
97479 9012
TELEPHONE
(541) 459-4449
FACSIMILE
(541) 459 2884



TYPICAL SETTINGS*:
D -
E -
X -
Y -
Z -

** SEE PROGRAMMABLE TIMER SETTING PAPER FOR MORE INFO ON FLOAT AND TIMER SETTTINGS*

SAND FILTER DOSING SEPTIC TANK PACKAGE WITH PROGRAMMABLE TIMER CONTROL

SIDE VIEW TYPICAL 1500 GALLON TANK W/ MF-2ER LEVEL CONTROL FLOAT ASSEMBLY

NOTE: Items in bold included with sand filter package

**Drawing not to scale*

Methods of use covered by patent numbers
#4,439,323
#5,492,635
#5,531,894

SFPTCW

EDW 1SF-TANK 1CW
REV 1.0 © 8/13/96
PAGE 1

Geo flow

Table # 1

$77 \times 6 = 462$

$462 \div 2 = 231$

Calculation

600 flow * 1.3 = 462 sq ft disposal field

462 ÷ 2 = 231 linear feet

total Emitters 231 ÷ 2 = 115

Emitter flow 1.32 gph @ 20psi Table 2

Total flow 1150 x 1.32 = 152 gph

152 gph

÷ 60

2.5 gpm

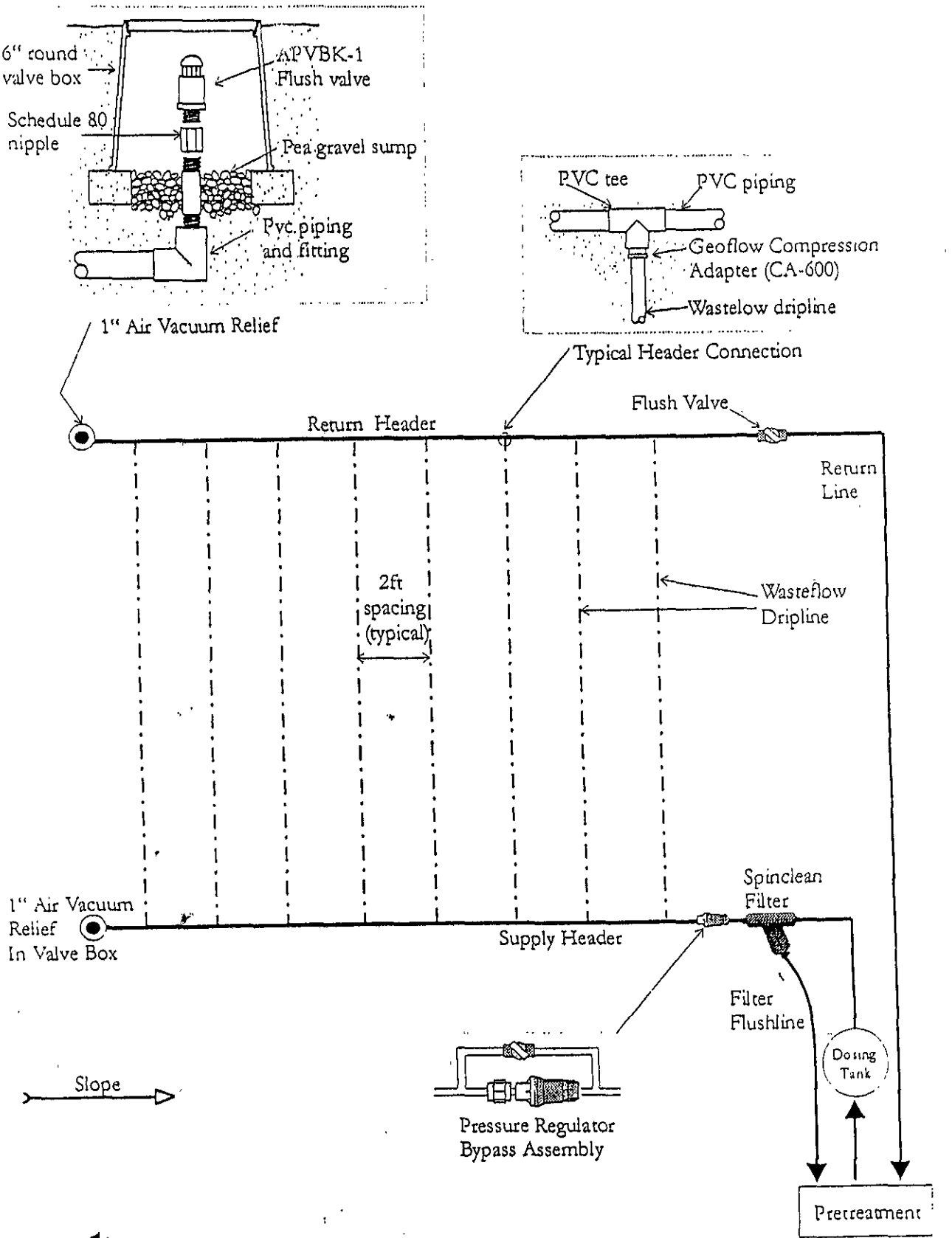
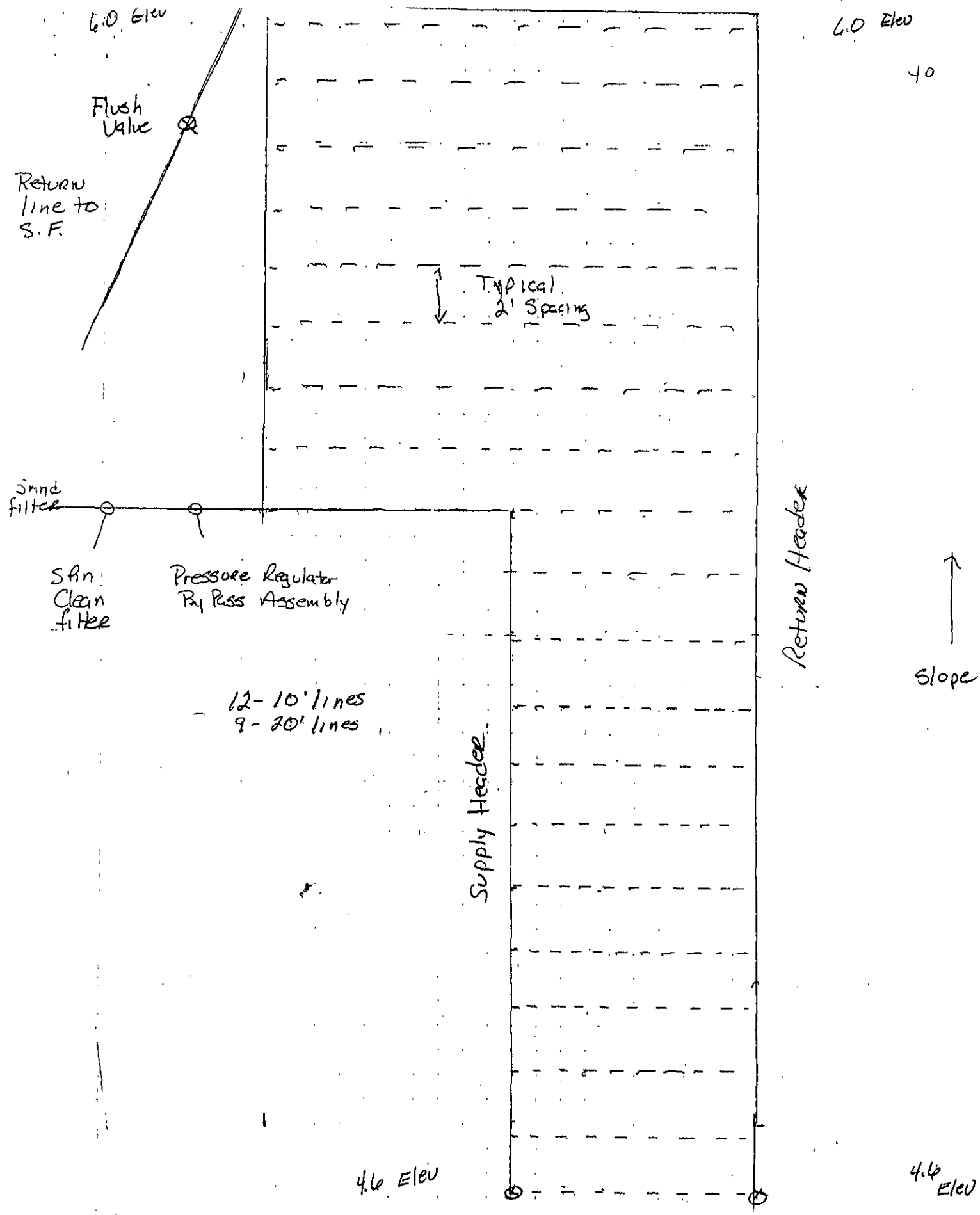


Diagram 1:
Typical Disposal Field Layout


6.0 Elev
6.0 Elev
40
Flush Valve
Return line to S.F.
Typical 2' Spacing
Sand filter
SAN Clean filter
Pressure Regulator By Pass Assembly
12- 10' lines
9- 20' lines
Supply Header
Return Header
Slope
4.6 Elev
4.6 Elev
1" Air Vacuum Relief IN Valve Box
1" Air Vacuum Relief

SOIL BORING LOG

PROPERTY OWNER: Dropps / Clinton DATE 10-27-98

SITE ADDRESS: Maple Road Big Sandy Lake

DISTURBED / COMPACTED SOIL? Y N TYPE OF OBSERVATION: Probe Pit (Boring)

SOIL BORING # 1

DEPTH (Inches)	TEXTURE	COLOR
0-4	Top	
4-23	Sandy loam	10yr 4/4
23-30	Sandy loam	10yr 5/3
Mottles At		30"

SOIL BORING # 2

DEPTH (Inches)	TEXTURE	COLOR
0-4	Top	
4-14	Sandy loam	10yr 4/4
14-30	Sandy loam	10yr 5/4
Mottles At		30"

SOIL BORING # 3

DEPTH (Inches)	TEXTURE	COLOR
0-6	Top	
6-30	Clay loam	10yr 4/3
Mottles At 30"		

SOIL BORING # 4

DEPTH (Inches)	TEXTURE	COLOR
0-6	Top	
6-30	Clay loam	10yr 4/3
Mottles At 30"		

SOIL BORING # 5

DEPTH (Inches)	TEXTURE	COLOR
0-4	Top	
4-23	Sandy loam	10yr 4/4
23-30	Sandy loam	10yr 5/3
Mottles At		30"

SOIL BORING # 6

DEPTH (Inches)	TEXTURE	COLOR

Comments: _____

SOIL BORING LOG

PROPERTY OWNER: Dropps / Clinton DATE_____

SITE ADDRESS: from Inspection Sheet.

DISTURBED / COMPACTED SOIL? Y N TYPE OF OBSERVATION: Probe Pit Boring

SOIL BORING # 1

DEPTH (Inches)	TEXTURE	COLOR
0-2	Top	
2-24	Sandy loam	10YR 6/4
24-30	Mottles	

SOIL BORING # 2

DEPTH (Inches)	TEXTURE	COLOR
0-2	TOP	
2-18	Fill	
18-38	Sandy loam	10YR 6/4
38+	mottles	

SOIL BORING # 3

DEPTH (Inches)	TEXTURE	COLOR

SOIL BORING # 4

DEPTH (Inches)	TEXTURE	COLOR

SOIL BORING # 5

DEPTH (Inches)	TEXTURE	COLOR

SOIL BORING # 6

DEPTH (Inches)	TEXTURE	COLOR

Comments: _____

Table 1 shows the recommended hydraulic loading rates for various soil conditions, using a safety factor of 12 with regard to the equilibrium saturated hydraulic conductivity rate of the soil. These loading rates assume a treated effluent with BOD and TSS values of less than 20 mg/l is produced in the pre treatment system.

Table 1. Minimum surface area required to dispose of 100 gpd
Secondary Treated effluent

Soil Type	Soil Absorption Rates		Design Hydraulic Loading Rate gal / sq. ft. per day	Total Area Required sq. ft./ 100 gallons per day
	Est. Soil Perc. Rate minutes/in	Hydraulic Conductivity inches/hr		
Coarse- sand	<5	>2	2.0	50
Fine sand	5-10	1.5-2	1.6	63
Sandy loam	10-20	1.0-1.5	1.3	77
loam	20-30	0.75-1.0	0.9	112
Clay loam	30-45	0.5-0.75	0.6	167
Silt-clay loam	45-60	0.3-0.5	0.4	250
Clay non-swell*	60-90	0.2-0.3	0.2	500
Clay - swell*	90-120	0.1-0.2	0.1	1000
Poor clay*	>120	<0.1	0.075	1334

Surface area of disposal field. Design flow divided by loading rate = total square feet area of disposal field.

NOTES:

1) States and Counties may have regulations that are different from the Table 1 above. See the equivalent Tables for Georgia and Texas on Pages 15 and 16 of this manual.

2) WASTEFLOW may be spaced closer than the standard 24" apart in heavy clay soils where water movement is restricted.

Soil layers and types.

The quality and homogeneity of the soil may present a problem. If the soil was not properly prepared and there are pieces of construction debris, rocks and non-uniform soils, it is very difficult to obtain a uniform water spread. In all cases, but particularly if the soil is compacted, soil properties can be greatly improved by ripping and disking, sifting the coarser material and laying it down first. The ideal soil is 12" to 18" deep, uniform, has an equal amount of fine sand, loam and clay, and is on top of a deep layer of pea gravel and coarse sand that provides drainage.

A system will usually have emitter lines placed on 2 foot (600 mm.) centers with a 2 foot emitter spacing such that each emitter supplies a 4 sq. ft (0.36 m^2) area . These lines are best placed at depths of 6-10 inches (150 - 250 mm) below the surface. This is a typical design for systems on sandy and loamy soils with a cover crop of lawn grass. Closer line spacings of 15 to 18 inches may be used on heavy clay soils where lateral movement of water is restricted. This will not reduce the size of the field.

The shallow depth of installation is an advantage of the trickle irrigation system since the topsoil or surface soil is generally the most permeable soil for accepting water. The topsoil also dries the fastest after a rainfall event and will maintain the highest water absorption rate.

Calculation Example

A 450 GPD system is to be designed. The system is to be located on a silty clay loam soil with an estimated hydraulic loading rate of .4 gallons / square foot / per day . System operating pressure is 20 psi. The site is level.

a) Field area required (Table 1)

450 gpd divided by .4 gallons / ft^2 / day = 1125 square foot of disposal field

b) Emitter line spacing = 24" (typical)

c) Emitter line required = 1125 / 2 ft = 563 ft

c) Emitter spacing = 24" (typical)

d) Total number emitters = 563ft / 2ft = 281 emitters

e) Emitter flow rate = 1.32 GPH @ 20psi (Table 2)

f) Total flow = 281 x 1.32 GPH = 371 GPH
(371/60) GPM = 6.2 GPM

g) Daily pump time if one sector
450 GPD / 6.2 GPM = 72 minutes per day
If a 56 gallon dosing volume were used for an average flow of 450 gallons per day, 8 cycles per day each lasting about 9 minutes would be required.

Beware of high points, siphoning and slopes.

A potential problem with buried drip lines is siphoning dirt in when the system is switched off. For this reason:

a) Drip lines should have a fairly constant slope. If possible run lines along a contour.

b) A vacuum breaker valve should be provided at the highest point in each sector.

c) Check actual flows against maximum available flow rate and if necessary break the system into sectors to divide the flow. Here is where solenoid valves and irrigation controllers become useful.

d) Drip lines should be connected at the end to a common return line with a flush valve.

e) Avoid installing lines along rolling hills where you have high and low points along the same line. If this is the case, connect all the high points together and install a vacuum breaker valve.

Disposal Field Design

Flow and pressure drop calculations.

The best way to calculate the water requirements of your disposal system is to make a sketch of the various areas to be watered. A drawing to scale with contour lines is desirable

a) Determine the total area required from Table 1 above.

b) Calculate how many emitters are in each area. Multiply the number of emitters times the emitter flow rate at the design pressure. These flows can be obtained from Table 2 below.

c) Check maximum recommended drip line length FOR WASTEFLOW from Table 3 below. If drip lines are too long, the pressure loss is too high and hence the flow through the emitters is uneven. As a rule of thumb for WASTEFLOW Classic, to get a ±5% to ±7.5% flow uniformity, the maximum allowable loss from the point of pressure control to the furthest emitter should not exceed 7 to 11 feet of water head (4 to 6 psi).

d) Check the layout of the main lines going into the disposal plot, so that the maximum lateral length is not exceeded.

e) Check the design for flows, select pipe diameters for submains, select filters and valves.

f) Do a complete list of materials and specify all the requirements for the installation.

g) For more precise calculations on slopes use the curves given in Appendix 1 and 2 at the end of this manual.

Table 2. Wasteflow Standard Emitter Flow Rates.

PRESSURE PSI	WASTEFLOW CLASSIC GPH		WASTEFLOW PC GPH	
	12"	24"	12"	24"
10.0	0.93	0.93	0.53	1.02
15.0	1.13	1.13	0.53	1.02
20.0	1.30	1.30	0.53	1.02
30.0	1.62	1.62	0.53	1.02

12-15 PSI
1 gal per Emitter

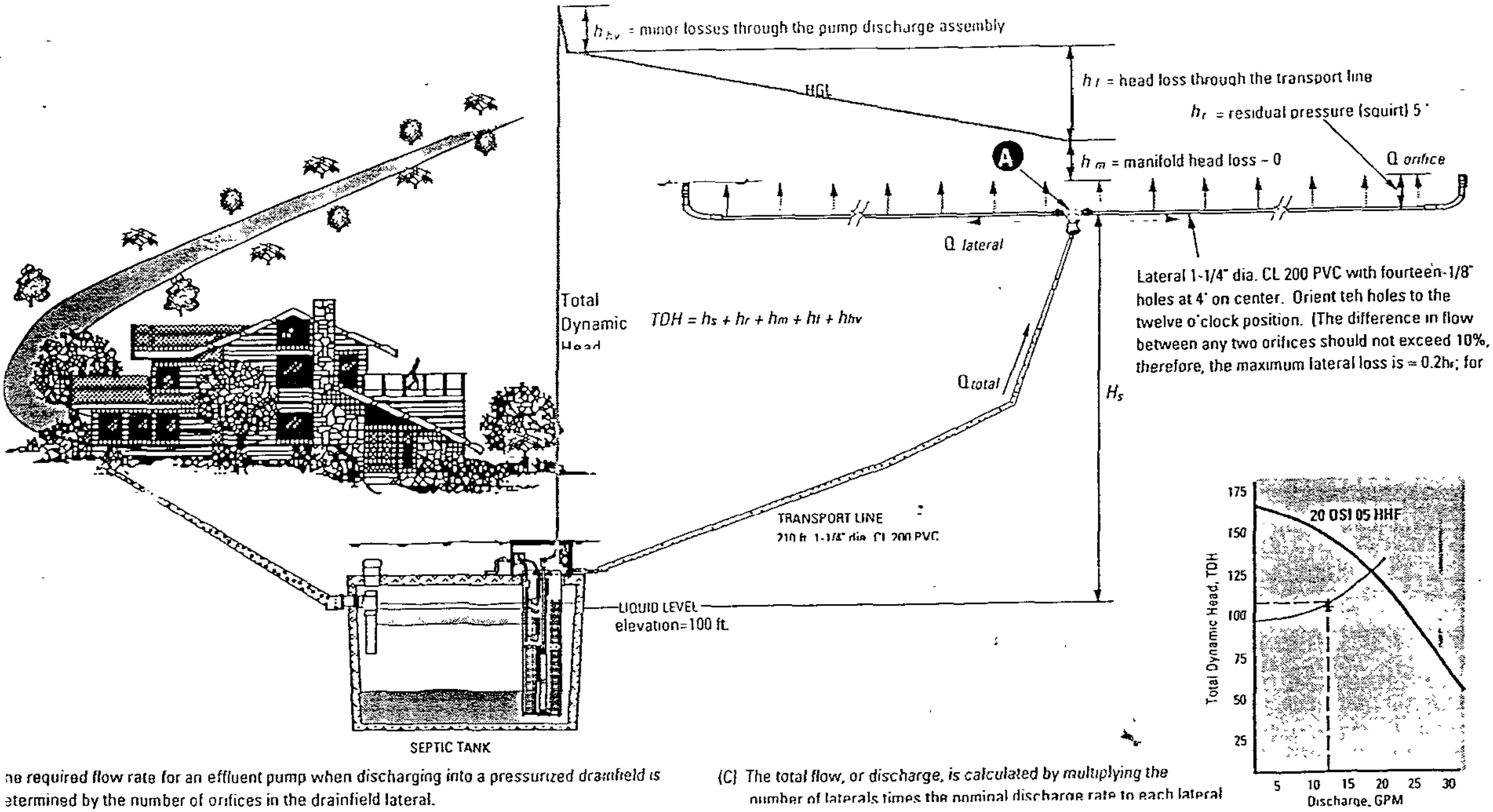
Table 3. Maximum Recommended Length of Run

Inlet Pressure PSI	Maximum Recommended Length of Run (in feet)			
	WASTEFLOW CLASSIC		WASTEFLOW PC	
	12"	24"	12"	24"
15	110	210	174	211
20	110	210	215	250
25	110	210	260	315
35	110	210	313	379
45	110	210	354	429

Smallest lift

Pump Selection for Pressurized Drainfields

Orenco Systems® Incorporated



ne required flow rate for an effluent pump when discharging into a pressurized drainfield is etermined by the number of orifices in the drainfield lateral.

xample: The elevation of the tank liquid level is 100 ft., the elevation of the lateral is 188 ft. The ansport line is 210 ft. from the tank to point *A*, the Hazen-Williams coefficient is 150; the pump

(A) *The rate at which effluent is discharged through each orifice in a lateral is computed* using the orifice equation, where *d* = diameter of orifice in inches (typically 1/8") and *h* = feet of pressure head at the orifice (A minimum of 5' is required)

$$Q_o = 12.4d^2\sqrt{h} = 12.4\,(0.125)^2\sqrt{5} = 0.433\ gpm/orifice$$

(B) The nominal flow into each lateral may be calculated by multiplying the number of orifices (n) times t[illegible] harge rate of each orifice

[illegible]

(C) *The total flow, or discharge, is calculated by multiplying the* number of laterals times the nominal discharge rate to each lateral

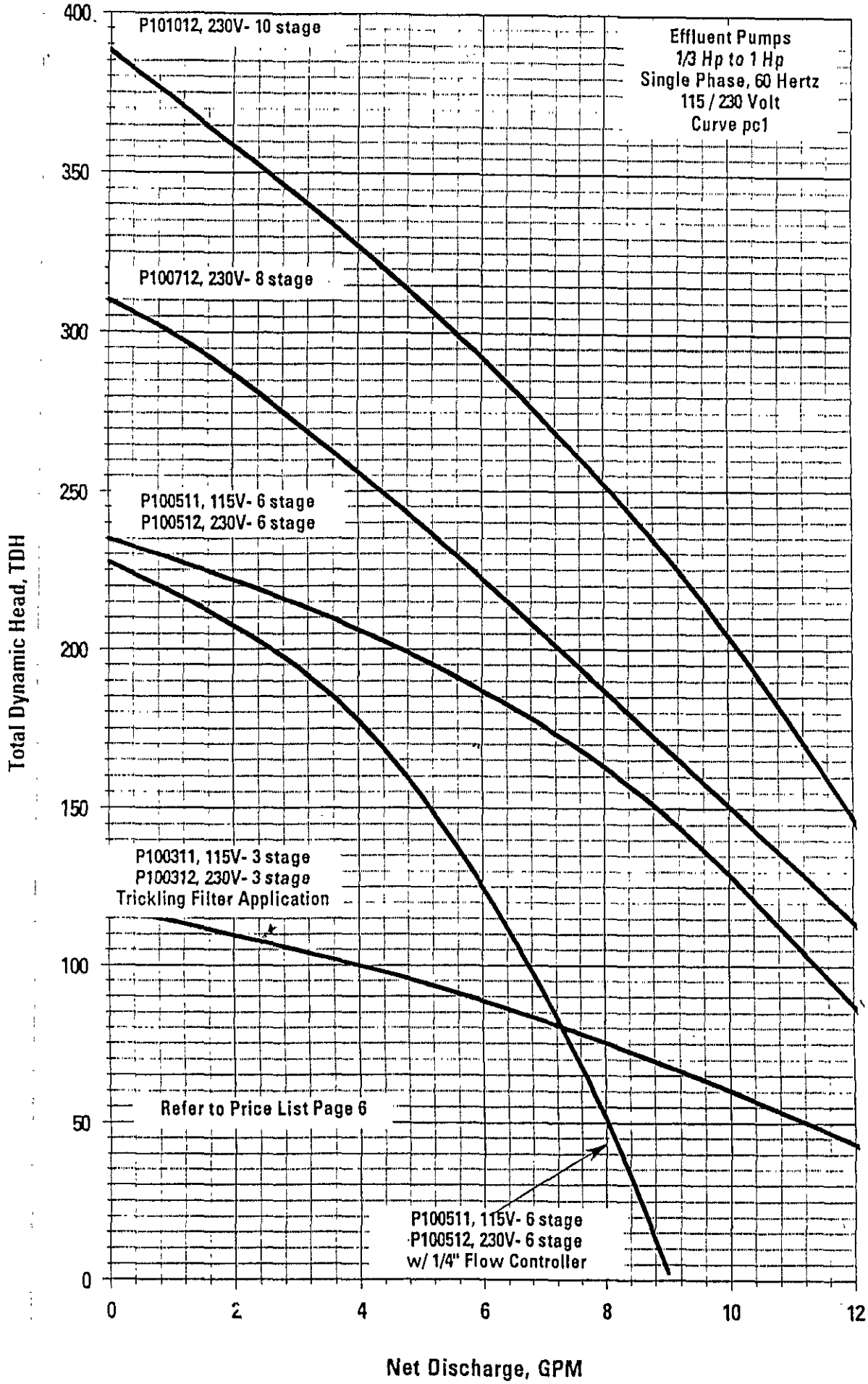
$$Q_t = 2(6.06\ gpm/lateral) = 12.1\ gpm$$

(D) The hydraulic grade line is established by the elevation of the pressure residual (h_r) of the highest lateral. The manifold and lateral head loss may range from 0 to 0.2h_r, for this example h = ~0.1' *(refer to drawing 29 and or lateral sizing chart)*

$$TDH = h_s + h_r + h_m + \frac{4.7271}{D^{4.87}}\left(\frac{Q}{C}\right)^{1.85} + 0.023\,Q^2$$

$$= (188 - 100) + 5 + 0.1 + \frac{0.000995\,(210)}{(1.189)^{4.87}}(12.1\ gpm)^{1.85} + 0.023\,(12.1\ gpm)^2 = 105.5$$

The pump selec[illegible] this application is a 1/2 Hp Model 20 OSI 05 HHF *(refer to [illegible])* [illegible]



Orenco Systems®
Incorporated

814 AIRWAY AVENUE

SUTHERLIN, OREGON

97479-9012

TELEPHONE.

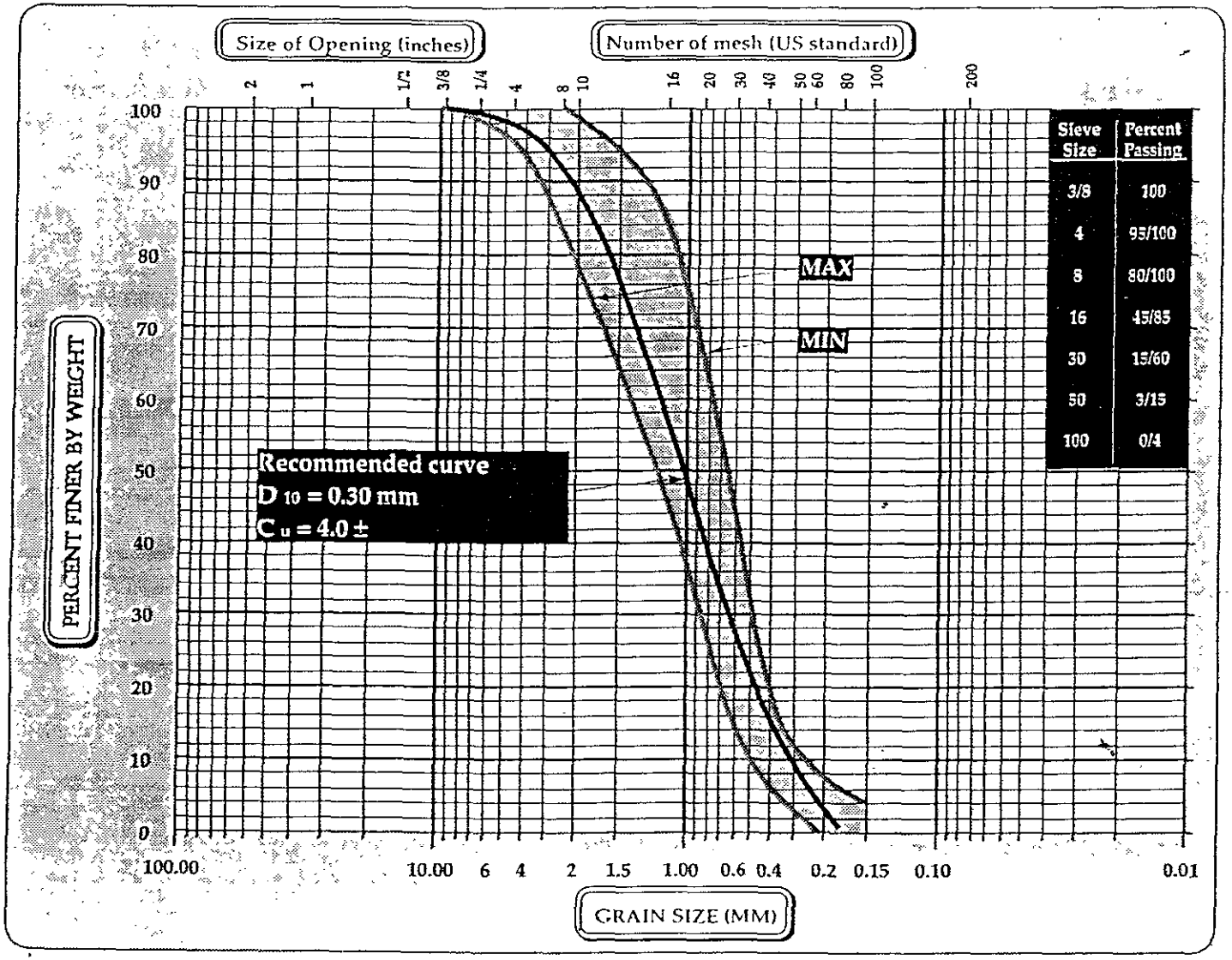
(541) 459-4449

FACSIMILE

(541) 459-2884

Recommended Sand Gradation
For Intermittent Sand Filter Systems Loaded at 1.25 gpd/sq. ft.*

*Actual flows applied with timer controlled pump



Note:

Sand used in intermittent sand filters must be well washed. The presence of excessive fines can cause premature plugging of the filter. A sample of sand can be sent to OSI for evaluation. Care must be exercised during placement of the sand so that segregation does not occur (pumping sand into the filter in a slurry will cause segregation of the particles). The moisture concentration of the sand must, however, be sufficient to ensure adequate compaction.

Orenco Systems' Incorporated

814 AIRWAY AVENUE

SUTHERLIN, OREGON

97479-9012

TELEPHONE

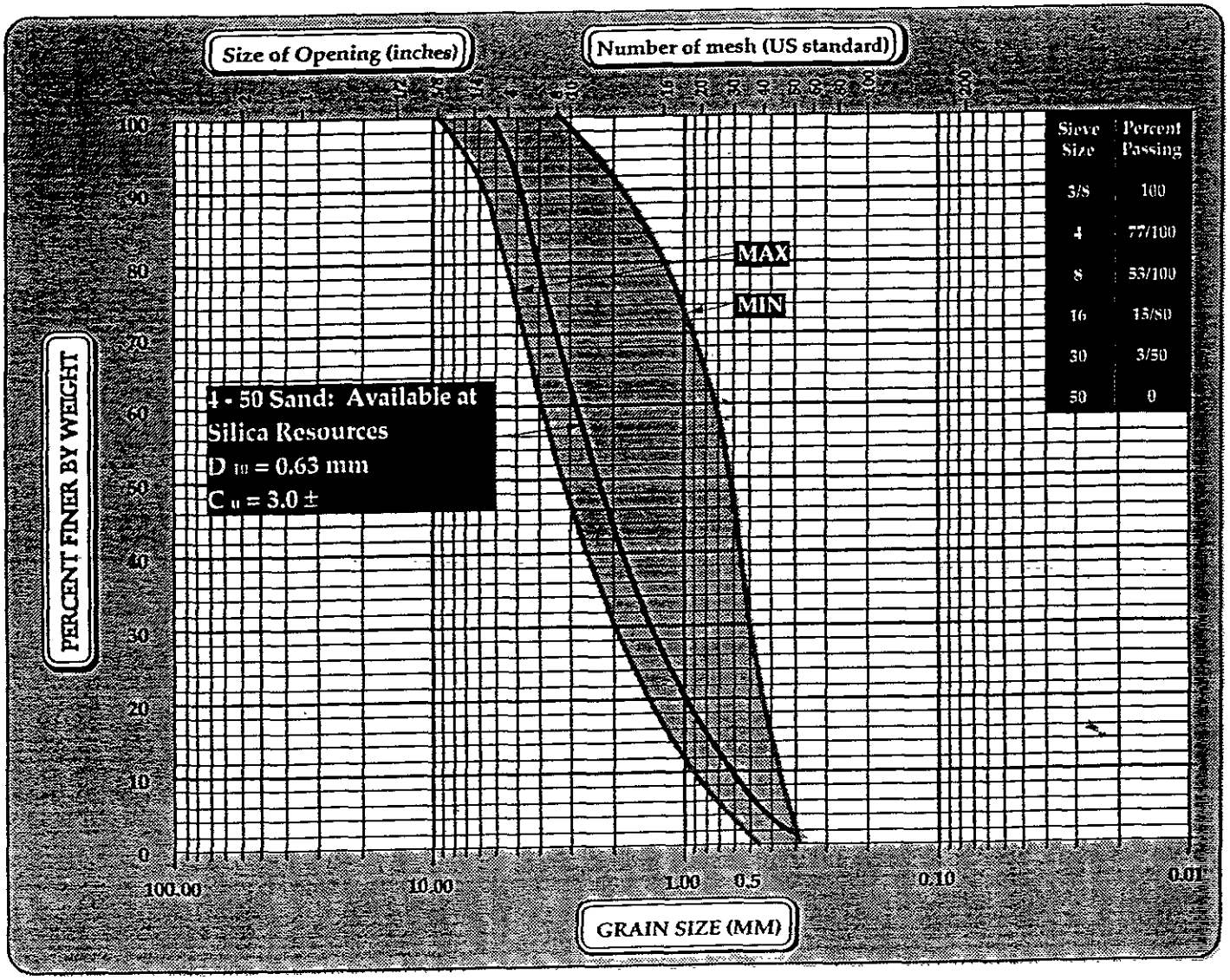
(541) 459-4449

FACSIMILE

(541) 459-2884

Recommended Sand Gradation
For Intermittent Sand Filter Systems Loaded at 2.5 gpd/sq. ft.*

*Actual flows applied with timer controlled pump



Note:
Sand used in intermittent sand filters must be well washed. The presence of excessive fines can cause plugging of the filter. A sample of sand can be sent to OSI for evaluation.
The 4-50 sand is available at Silica Resources in Marysville California (phone (916) 741-0290).
The 4-50 sand should be dosed 24 times per day when loaded at 2.5 gpd/sq.ft.
Care must be exercised during placement of the sand so that segregation does not occur (pumping sand into the filter in a slurry will cause segregation of the particles). The moisture concentration of the sand must, however, be sufficient to ensure adequate compaction.

Orenco Systems' Incorporated

814 ...WAY AVENUE
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TELEPHONE:
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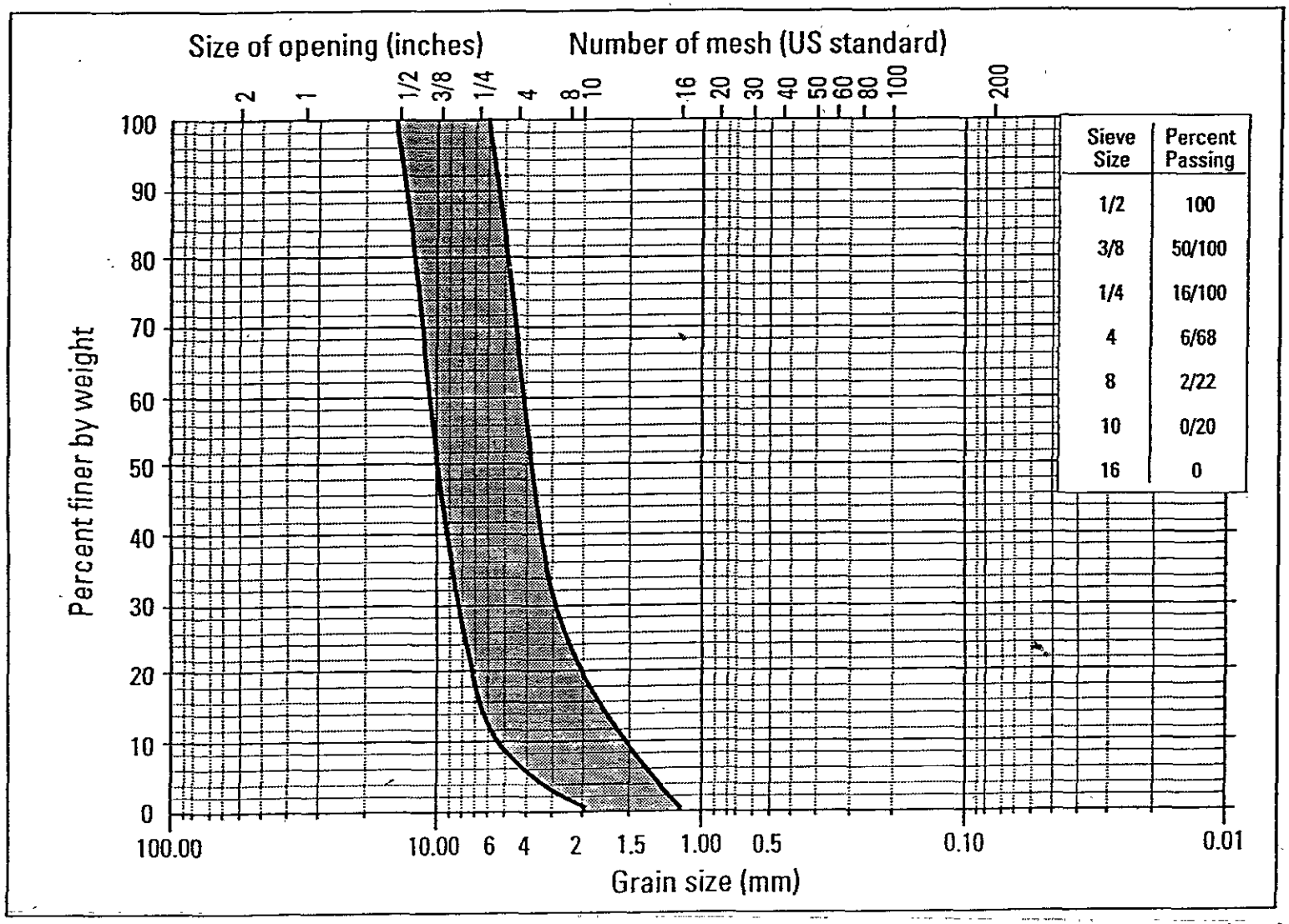
(541) 459-2884

Pea Gravel Gradation for Sand Filter Underdrain Media



Sieve Size	Percent Passing
1/2	100
3/8	50/100
1/4	16/100
4	6/68
8	2/22
10	0/20
16	0

Note: Gravel and sand used in sand filters must be well washed. The presence of excessive fines can cause premature plugging of the filter. A sample of sand can be sent to OSI for evaluation. Care must be exercised during placement of the sand so that segregation does not occur (pumping sand into the filter in a slurry will cause segregation of the particles). The moisture concentration of the sand must, however, be sufficient to ensure adequate compaction.

Orenco Systems®
Incorporated

814 [illegible]AY AVENUE

SUTHERLIN, OREGON

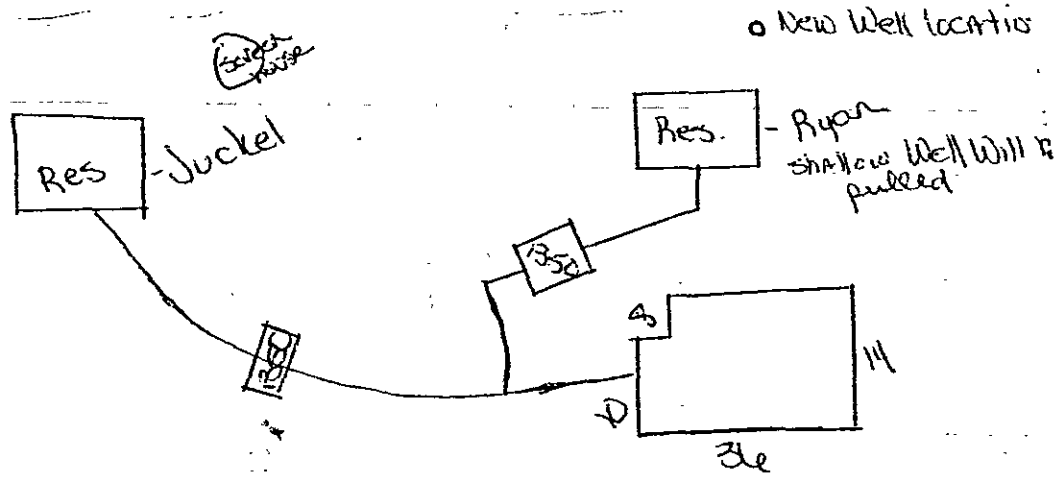
97479-9012

TELEPHONE:

(541) 459-4449

FACSIMILE:

(541) 459-2884



Ryan, James
6437 Evergreen Lane N
Maple Grove, MN 55369

No. 7588

Shamrock
7-21-80
GD

.28 AC Lot 3 in Doc # 158846
Sec. 8, Twp. 49, Range 23
Parcel No. 29-0-0177706

Septic: Perc 5 2brs
750 gal septic
250 sq ft drain

Inspection: DMF 1-7-82

DSPPRCL1 **Display Parcel Description** 6/04/99 08:36:43

Parcel number/Tax year: **29-0-017705** **2000** Reference parcel#: **00229000017705**
Owner(s): **2535**
CLINTON, DENNIS & PATRICIA
11400 JEFFERSON ST NE
BLAINE MN 55434-1803

Taxpayer: **2535** FALCO: **1 F.O.**
CLINTON, DENNIS & PATRICIA
11400 JEFFERSON ST NE
BLAINE MN 55434-1803

Alternate taxpayer:

Parcel type : **RE** Hold tax stmt:
Com district: **4** Misc1/2: **2-14-95**
Escrow agent:
Mortgage hld:
UTA: Twp/City School **** **** **** ****
029 0004 00 00 00 00
TIF district: **000 000**
Lake#/name : **1-0062 BIG SANDY**
Property adr:

Emergency# :
Twp/City Plt: **SHAMROCK TWP**
Sec/twp/rge : **8 49.0 23** Acres: **.25**
Plat:
Description: Lot/Block . :
.25 AC LOT 3 IN DOC 153729

Press Enter to continue or enter new parcel/tax year. **29-0-017705** **2000**
F1=Full desc F2=Trans hist F3=Exit F6=Prcl hist F7=Backward F9=Escrow hist
F12=Cancel F17=Display notes F18=Rebate

TANK COMPLIANCE INSPEC REPORT

WE RITTER & RITTER SEWER SERVICE
TO THE BEST OF OUR KNOWLEDGE WHILE SERVICING SAID SEPTIC SYSTEM

FOR: Bud Dropps REALTOR: _____

INSPECTOR: _____ DATE 11-25-98

THE TANK IS IN SAID CONDITION

TYPE: PLASTIC - PRECAST - OTHER _____

TANK SIZE APPROXIMATELY: 1200 GAL. LIFT TANK _____ GAL.

TANK BAFFELS: INLET ok OUTLET ok

TANK CONDITION: good

SIGNS OF LEAKS: none

MANHOLE DEAPTH: 1 ft

TANK REPAIRS THAT ARE NEEDED

BAFFELS: _____

STAND PIPES: _____

MANHOLE RISER: TANK _____ LIFT TANK _____

MANHOLE COVER: TANK _____ LIFT TANK _____

OTHER: _____

TANK INSPECTED BY: KEMP RITTER D.R.P. LICENSE #723
PHONE # 218-426-4121 OR 1-800-450-4121

RITTER & RITTER SEWER SERVICE
P.O. BOX 126
MCGREGOR MN 55760

612-720-3855

TANK COMPLIANCE INSPEC REPORT

WE RITTER & RITTER SEWER SERVICE
TO THE BEST OF OUR KNOWLEDGE WHILE SERVICING SAID SEPTIC SYSTEM

FOR: Dennis Clinton REALTOR: _____

INSPECTOR: _____ DATE 11-25-98

THE TANK IS IN SAID CONDITION

TYPE: PLASTIC - (PRECAST) - OTHER _____

TANK SIZE APPROXIMATELY: 1200 GAL. LIFT TANK _____ GAL.

TANK BAFFELS: INLET ok OUTLET ok

TANK CONDITION: good

SIGNS OF LEAKS: none

MANHOLE DEAPTH: 35"

TANK REPAIRS THAT ARE NEEDED

BAFFELS: _____

STAND PIPES: _____

MANHOLE RISER: TANK _____ LIFT TANK _____

MANHOLE COVER: TANK _____ LIFT TANK _____

OTHER: _____

TANK INSPECTED BY: KEMP RITTER O.R.P. LICENSE #723
PHONE # 218-426-4121 OR 1-800-450-4121

RITTER & RITTER SEWER SERVICE
P.O. BOX 126
MCGREGOR MN 55760

AITKIN COUNTY
CERTIFICATE OF COMPLIANCE/NOTICE OF NONCOMPLIANCE

This certificate of compliance/notice of noncompliance has been issued this 27 day of July, 19 99 to certify compliance\noncompliance with Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No. 1. The premises covered by this certificate are legally described as: .25 AC Lot 3 in Doc #153729 - Parcel # 29-0-017705 & 29-0-017706
Section 8 Township 49 Range 23 Lake Big Sandy
PERMIT NO. 2559 Owner Name Dennis Clinton - Bud Droppo (Edina)
Address 11400 Jefferson St. NE Blaine, MN 55434
Installer Name Bud Droppo / Jim Droppo
Type of System Inspected Sand filter with drip irrigation

The certificate of compliance/notice of noncompliance was based on, No 1 of the following:

1) Inspection of the installation or construction as in accordance with the above referenced permit and application design. - Limited inspection, Sand filter covered at inspection - series of questions asked to Bud Droppo - sand installed as designed. Drip system partially covered at inspection. This certificate also assumes all materials meet specified requirements.

2) Review of as-built plans submitted in accordance with Subdivision 4.21 C. Of Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No. 1.

If the above permitted individual sewage treatment system is in noncompliance with Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No. 1, then the following shall serve as a Notice of Violation:

1) Statement of the findings of fact through inspections or investigations: _____

2) List of specific violations of Ordinance: _____

3) Requirements for correction or removal of violations: _____

4) Time schedule for compliance: _____

Failure to correct or remove the above violations will result in this matter being turned over to the Aitkin County Attorney's Office for further legal action which may result in revocation of licenses or registrations, fine's and/or imprisonment.

INSPECTOR SIGNATURE _____

c:\wp61\terry.dir\certform.doc

20K911 fileh

INDIVIDUAL SEWAGE TREATMENT SYSTEM INSPECTION FORM
AITKIN COUNTY, MINNESOTA

Township Shamrock   Date of Inspection sand filter 7-12-99 Dripfield - 7-19-99 Installed   Permit Number 25519

Owner Dennis Clinton / Bud Dropps   Parcel Number 29-0-017705

Project Address 11400 Jefferson St. NE ~~Blaine~~   Installer Self - J.B. Diggers - sand filter

City Blaine   Zip Code 55434   New ____   Repair X

DIST. or DROP BOX & TYPE ____

SETBACKS:
Buildings to tank(s) 10'
Buildings to drainfield 16' to sand filter
Well(s) 50' or 100' 50'+
Lake/Creek/Wetland 50'

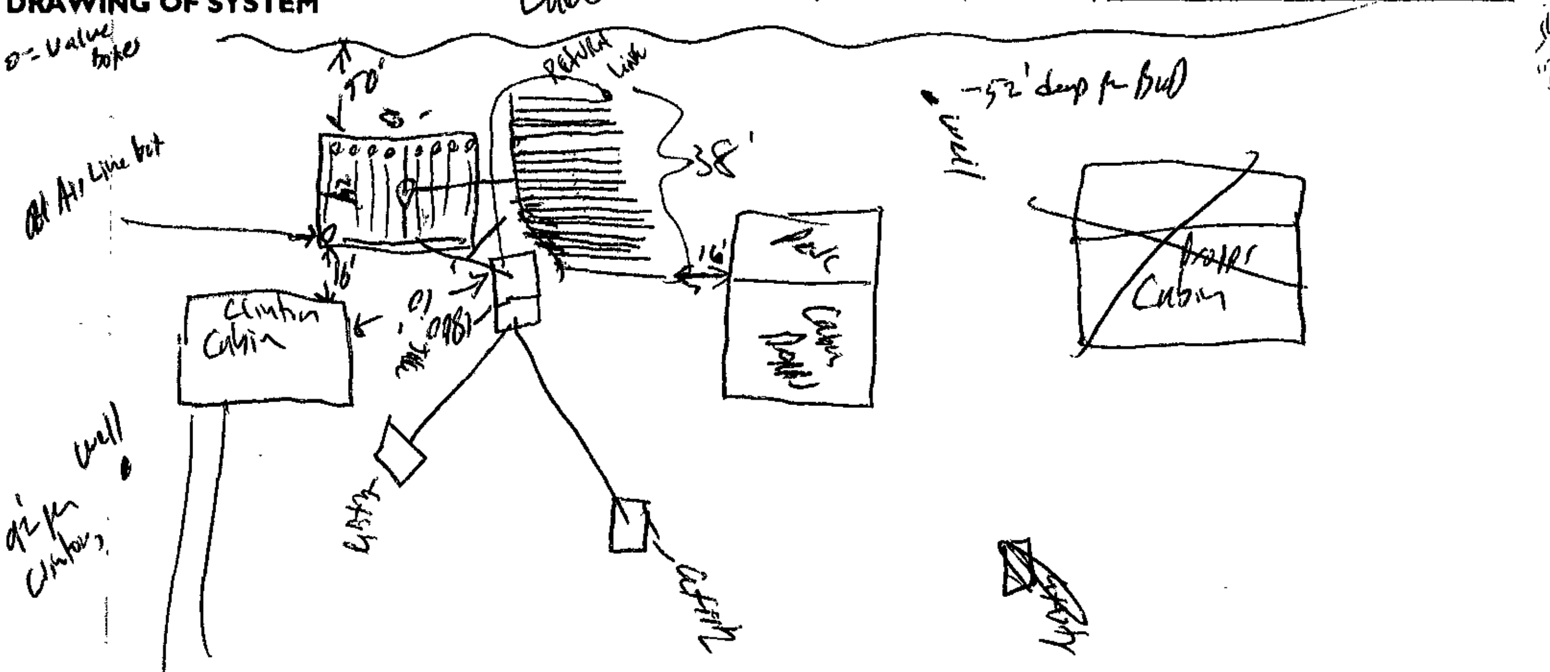
SEPTIC TANKS:
Liquid capacity 1860/2 compartment
Manufacturer & type Joe PRE CAST
Type of baffle PlASTIC
Inspection pipes 3 @ 4"
Manholes access 24"
No. & height of risers 1 @ 36" & 1 @ 48"

MOUNDS:
Percent slope ____
Upslope dike width ____
Downslope dike width ____
Sideslope dike width ____
Drainfield rock below pipe ____
Depth of sand below rock 24" 20'x24' Sand filter.
Perforation size & spacing as per design
Pipe size & spacing Drip field 1/2" (19 LINES) @ 24"
Dimensions of rock bed ____
Dimensions of sand base ____
Final cover @ 12" Geotextile cover on rock

TRENCHES, BEDS, OR GRAVELLESS LEACHFIELD:
Trench depth ____
Trench length 9 @ 20' & 10 @ 10'
Trench bottom width ____
Trench bottom level ____
Trench spacing 24"
Drainfield rock below pipe —
Size of gravelless pipe —
Depth of backfill 6"
Absorption area: square feet ~~[illegible]~~ 560-580
lineal feet ~~[illegible]~~ 280

PUMPS:
Tank capacity Vault in Sand filter
Tank manufacturer & type ____
No. & height of risers ____
Pump manufacturer & model# ____
Horsepower & GPM ____
Feet of head ____
Cycles per day ____
Gallons per cycle ____
Size of discharge line ____
Type of electrical hookup ____
Type & location of alarm ____
Cycle counter (commercial) ____

DRAWING OF SYSTEM



Inspector's Comments Filter installed as per diagram - sand filter parts came as kit from pump co. Sand from Brothers pit. Bud sand tested and about 1/16 of fines on sand - may not meet spec's? Air Line is installed for future use. Filter covered at time of inspection.

Corrective Action Required ____

Inspector's Signature sand filter [signature] / Troy Fairchild Dripfield   Installer's Signature [signature]

White-County   Yellow-Applicant   Pink-Installer

Not in OP database- system has a sand filter

12/19/2018

Septic Check

6074 Keystone Rd
Milaca, MN 56353

320-983-2447
Fax: 320-983-2151

PROPERTY INFORMATION

Dennis Clinton / Edwin Swanson
Location: 20752 & 20 508th Lane
McGregor
Tax ID: 29-0-017705 /

Use: Residential, Multi Family
System Design Flow: 600
GENERAL SYSTEM TYPE: Sand 1x Yr No Test

Mail To: Dennis Clinton
20752 508th Ln
McGregor, MN
55760

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ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Fold Here

Inspected: 10/01/2018 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company:	Work Performed By:	Submitted 12/19/2018 by:
Septic Check	Blesener Dave	Angie Tvedt

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
Components accessible for service:	YES
All required service performed (if no - specify omitted inspection items in notes):	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (structures/impervious surfaces); cover; or settling problems observed:	NO

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20752

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	4"	
Pumping recommended:	NO	

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20734

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	6"	
Pumping recommended:	NO	

TANK: Septic Tank - 2 Compartment -1,860 Gal Pump Tank

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	4"	
Compartment 2 Scum accumulation (Inches, if other specify):	0	
Compartment 2 Sludge accumulation (Inches, if other specify):	2"	
Pumping recommended:	NO	

Panel: Control - 1 Pump - Sandfilter Dose Panel		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	N/A	
Pump 1: off hours (override in parentheses - If present):	N/A	
Pump 1: gallons per dose (override in parentheses - if present):	N/A	
Pump 1: ETM hours (override in parentheses - if present):	N/A	
Pump 1: Cycle Count (override in parentheses - if present):	N/A	
Pump: Effluent Pump - Sandfilter Dose Pump		
This component was:	Fully Inspected	
Controls functioning:	YES	
Tested gallons per minute flow:	N/A	
Media Filter: Recirculating Sand Filter -20'x24' Sand Filter		
This component was:	Fully Inspected	
Ponding present? If YES explain in comments:	NO	
Average squirt height (if performed) (feet, if other specify):	N/A	
Lateral lines flushed:	NO	
Drainfield (disposal): Drip Irrigation - 231' Drip Line - 12-10' laterals & 9-20' laterals		
Manufacturer: Geoflow, Inc.		
This component was:	Fully Inspected	
Pressure gauges indicate normal operation:	YES	

Septic Check

Not in system

6074 Keystone Rd
Milaca, MN 56353

320-983-2447
Fax: 320-983-2151

PROPERTY INFORMATION

Dennis Clinton / Edwin Swanson
Location: 20752 & 20 508th Lane
McGregor
Tax ID: 29-0-017705 /

Use: Residential, Multi Family
System Design Flow: 600
GENERAL SYSTEM TYPE: Sand 1x Yr No Test

Mail To: Dennis Clinton
20752 508th Ln
McGregor, MN
55760

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Inspected: 06/29/2020 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company:	*Work Performed By:*	*Submitted 07/08/2020 by:*
Septic Check	Blesener Dave	Heather Johnson

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
Components accessible for service:	YES
All required service performed (if no - specify omitted inspection items in notes):	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (structures/impervious surfaces); cover; or settling problems observed:	NO

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20752

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	4	
Pumping recommended:	NO	

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20734

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	5	
Pumping recommended:	NO	

TANK: Septic Tank - 2 Compartment -1,860 Gal Pump Tank

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	1	
Compartment 2 Scum accumulation (Inches, if other specify):	0	
Compartment 2 Sludge accumulation (Inches, if other specify):	8	
Pumping recommended:	NO	

Panel: Control - 1 Pump - Sandfilter Dose Panel		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	NA	
Pump 1: off hours (override in parentheses - if present):	NA	
Pump 1: gallons per dose (override in parentheses - if present):	NA	
Pump 1: ETM hours (override in parentheses - if present):	3643	
Pump 1: Cycle Count (override in parentheses - if present):	2663.48	
Pump: Effluent Pump - Sandfilter Dose Pump		
This component was:	Fully Inspected	
Controls functioning:	YES	
Tested gallons per minute flow:	NA	
Media Filter: Recirculating Sand Filter -20'x24' Sand Filter		
This component was:	Fully Inspected	
Ponding present? If YES explain in comments:	NO	
Average squirt height (if performed) (feet, if other specify):	NA	
Lateral lines flushed:	NO	
Drainfield (disposal): Drip Irrigation - 231' Drip Line - 12-10' laterals & 9-20' laterals		
Manufacturer: Geoflow, Inc.		
This component was:	Fully Inspected	
Pressure gauges indicate normal operation:	N/A	

AITKIN COUNTY ENVIRONMENTAL SERVICES

OPERATING PERMIT FOR WASTEWATER TREATMENT AND DISPERSAL

OPERATING PERMIT #: 774
ZONING PERMIT #: 25519
PARCEL #: 29-0-017705
PERMITTEE: Nathan & Melissa Roback

ORIGINAL DATE ISSUED: 1 /12/2022
RENEWAL PERIOD: ANNUAL
EXPIRATION: 5 /31/2023

MAILING ADDRESS: 12640 53rd St N
Stillwater, MN 55082

PROPERTY ADDRESS:
20752 508th Ln
McGregor, MN 55760

TELEPHONE: (612) 306-9503
LEGAL: .25 AC LOT 3 IN DOC 464583, S8, T49, R23.
FEE PAID: **DATE PAID:** **RECEIPT:** **CK #:**

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above. This permit and the authorization to treat and disperse from the above system shall expire on the above expiration date. The Permittee is not authorized to discharge after the above date of expiration. The Permittee shall submit such monitoring information as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

I hereby certify with my signature as the Permittee that I understand the provisions of this operating permit including maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the operating permit.

_____ _____
Signature of Permittee **Date**

_____ _____
Signature of Permitting Authority **Date**

If you have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Type IV system with a 24x20 Orenco Systems Inc, Sand Filter for a flow of 600 gallons per day. Pump selection should be per OSI's specifications for the lift and Sand Filter. Timed Dosing with OSI controls to Geoflow Drip Line. Geoflow Drip Line overdose will return to Sand Filter. Geoflow specifications are for 231 linear feet of Drip Line, actual amount will be 300 linear feet, consisting of (12) 10 foot laterals and (9) 20 foot laterals.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the results must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENC
Flow	600 GPD	Water Meter	Monthly by owner	Record on a Log Sheet	ANNUALLY to Aitkin Co.

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY
Flush the sand filter laterals	Sand Filter	ANNUALLY
Inspect for surfacing/leaking	Dispersal System	ANNUALLY
Inspect pump controls	Sand Filter Dose Panel	ANNUALLY
Perform a Squirt Test	Sand Filter	ANNUALLY
Pumps, Floats & Alarms	Pump Chamber	ANNUALLY
Solids Removal & Water Tightness	Septic tank(s)	ANNUALLY

D. MONITORING AND REPORTING REQUIREMENTS:

Monitoring results obtained during each calendar year shall be submitted no later than May 31st of that year to:

Aitkin County Environmental Services
307 2nd Street NW, Room 219
Aitkin, MN 56431

The monitoring reports shall be signed by the Permittee. Copies are to be retained by the Permittee. Any sampling and laboratory testing procedures shall be performed in accordance with Standard Methods at a Minnesota Department of Health approved laboratory. All sampling and testing costs shall be the responsibility of the Permitte. Monitoring plans may be modified as necessary and reapproved by Aitkin County Environmental Services.

The Permittee shall ntoify Aitkin County Environmental Services within thirty (30) days when monitoring results do not meet the monitoring plan requirements of this permit.

The owner has secured the services of **Septic Check** as the Service Provider or qualified individual for this system. The Service Provider or qualifed individual is hereby authorized to report the required monitoring data and routine maintenance service records to Aitkin County Environmental Services.

E. MITIGATION PLAN:

In the event that this Experimental SSTS should fail, a mitigative plan would be to install Holding Tanks to be pumped on a regular basis.

Septic Check

6074 Keystone Rd
Milaca, MN 56353

320-983-2447
Fax: 320-983-2151

PROPERTY INFORMATION

Nathan Roback Joe Molde/ Christina Welch
Location: 20752 & 20 508th Lane
McGregor
Tax ID: 29-0-017705 /

Use: Residential, Multi Family
System Design Flow: 600
GENERAL SYSTEM TYPE: Sand 1x Yr No Test

Mail To: Nathan Roback
12640 53rd Street N
Stillwater, MN
55082

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Inspected: 06/30/2022 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company:	*Work Performed By:*	*Submitted 07/11/2022 by:*
Septic Check	Lucas Caldwell	Heather Johnson

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COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
Components accessible for service:	YES
All required service performed (if no - specify omitted inspection items in notes):	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (structures/impervious surfaces); cover; or settling problems observed:	NO

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20752

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	1	
Compartment 1 Sludge accumulation (Inches, if other specify):	8	
Pumping recommended:	NO	

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20734

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	1	
Compartment 1 Sludge accumulation (Inches, if other specify):	7	
Pumping recommended:	NO	

TANK: Septic Tank - 2 Compartment -1,860 Gal Pump Tank

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	4	
Compartment 2 Scum accumulation (Inches, if other specify):	0	
Compartment 2 Sludge accumulation (Inches, if other specify):	3	
Pumping recommended:	NO	

Panel: Control - 1 Pump - Sandfilter Dose Panel		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	-	
Pump 1: off hours (override in parentheses - if present):	-	
Pump 1: gallons per dose (override in parentheses - if present):	-	
Pump 1: ETM hours (override in parentheses - if present):	3170.19	
Pump 1: Cycle Count (override in parentheses - if present):	4337	
Pump: Effluent Pump - Sandfilter Dose Pump		
This component was:	Fully Inspected	
Controls functioning:	YES	
Tested gallons per minute flow:	-	
Media Filter: Recirculating Sand Filter -20'x24' Sand Filter		
This component was:	Fully Inspected	
Ponding present? If YES explain in comments:	NO	
Average squirt height (if performed) (feet, if other specify):	-	
Lateral lines flushed:	NO	
Drainfield (disposal): Drip Irrigation - 231' Drip Line - 12-10' laterals & 9-20' laterals		
Manufacturer: Geoflow, Inc.		
This component was:	Fully Inspected	
Pressure gauges indicate normal operation:	YES	

SAMPLING REPORT

Location: 20752 & 20 508th Lane
McGregor
29-0-017705 / 29-0-017706

Owner: Nathan Roback
Use: Multi Family

Service Company:

Septic Check
6074 Keystone Rd
Milaca, MN 56353
320-983-2447

Sample Date: 06/30/2022 **Sample entered by: Heather Johnson** **Report submitted: 08/10/2022**

Notes:

ONSITE SEWAGE SYSTEM SAMPLING DETAIL

COMPONENT	TYPE	SAMPLE	LIMIT	RESULT
Control - 1 Pump - Sandfilter Dose Panel	Effluent	Flow	600	104

Septic Check

6074 Keystone Rd
Milaca, MN 56353

320-983-2447
Fax: 320-983-2151

Mail To: Nathan Roback
12640 53rd Street N
Stillwater, MN
55082

PROPERTY INFORMATION

Location: 20752 & 20 508th Lane
McGregor
Tax ID: 29-0-017705 /

Use: Residential, Multi Family
System Design Flow: 600
GENERAL SYSTEM TYPE: Sand 1x Yr No Test

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Inspected: 06/06/2023 - Inspection Type: ROUTINE - Correction Status: Corrections in progress

Company:	*Work Performed By:*	*Submitted 06/23/2023 by:*
Septic Check	Kyle Wade	Heather Johnson

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COMMENTS & GENERAL INSPECTION NOTES

Deficiencies Were Noted: Corrections are in progress.

I did see some effluent surfacing over the drainfield area . (4' north of the NW corner of the shed at 20734) ((((((We can monitor this at the next service visit OR our compliance team can come and take a look at it. PLEASE LET US KNOW WHAT YOU WOULD LIKE TO DO.)))))
The first septic at 20752 looks clean. No need for pumping.
The first septic at 20734 has 8" of scum on top and 18" of sludge in the bottom. ****This will require pumping.****
First compartment of the pump tank looks good, however the second should be cleaned out.

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected	
Components accessible for service:	YES	
All required service performed (if no - specify omitted inspection items in notes):	YES	
Surfacing effluent from any component (including mound seepage):	YES	*- In Progress*
Components appear to be watertight - no visual leaks:	YES	
Improper encroachment (structures/impervious surfaces); cover; or settling problems observed:	NO	

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20752

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	1	
Compartment 1 Sludge accumulation (Inches, if other specify):	7	
Pumping recommended:	NO	

TANK: Septic Tank - 1 Compartment -1,350 Gal Septic Tank - House 20734

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	8	
Compartment 1 Sludge accumulation (Inches, if other specify):	18	
Pumping recommended:	YES	

TANK: Septic Tank - 2 Compartment -1,860 Gal Pump Tank

Manufacturer: Local Manufacturer

This component was:	Fully Inspected	
Effluent level within operational limits (if NO explain in comments):	YES	
All required baffles in place (N/A = No baffles required):	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Compartment 1 Sludge accumulation (Inches, if other specify):	3	
Compartment 2 Scum accumulation (Inches, if other specify):	0	
Compartment 2 Sludge accumulation (Inches, if other specify):	9	
Pumping recommended:	YES	

Panel: Control - 1 Pump - Sandfilter Dose Panel		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	40 sec	
Pump 1: off hours (override in parentheses - if present):	1 hr	
Pump 1: gallons per dose (override in parentheses - if present):	-	
Pump 1: ETM hours (override in parentheses - if present):	3296.23	
Pump 1: Cycle Count (override in parentheses - if present):	4541	
Pump: Effluent Pump - Sandfilter Dose Pump		
This component was:	Fully Inspected	
Controls functioning:	YES	
Tested gallons per minute flow:	-	
Media Filter: Recirculating Sand Filter -20'x24' Sand Filter		
This component was:	Fully Inspected	
Ponding present? If YES explain in comments:	N/A	
Average squirt height (if performed) (feet, if other specify):	-	
Lateral lines flushed:	NO	
Drainfield (disposal): Drip Irrigation - 231' Drip Line - 12-10' laterals & 9-20' laterals		
Manufacturer: Geoflow, Inc.		
This component was:	Fully Inspected	
Pressure gauges indicate normal operation:	N/A	

SAMPLING REPORT

Location: 20752 & 20 508th Lane
McGregor
29-0-017705 / 29-0-017706

Owner: Nathan Roback
Use: Multi Family

Service Company:

Septic Check
6074 Keystone Rd
Milaca, MN 56353
320-983-2447

Sample Date: 06/06/2023 **Sample entered by: Heather Johnson** **Report submitted: 06/09/2023**

Notes:

ONSITE SEWAGE SYSTEM SAMPLING DETAIL

COMPONENT	TYPE	SAMPLE	LIMIT	RESULT
Control - 1 Pump - Sandfilter Dose Panel	Effluent	Flow	600	55.4