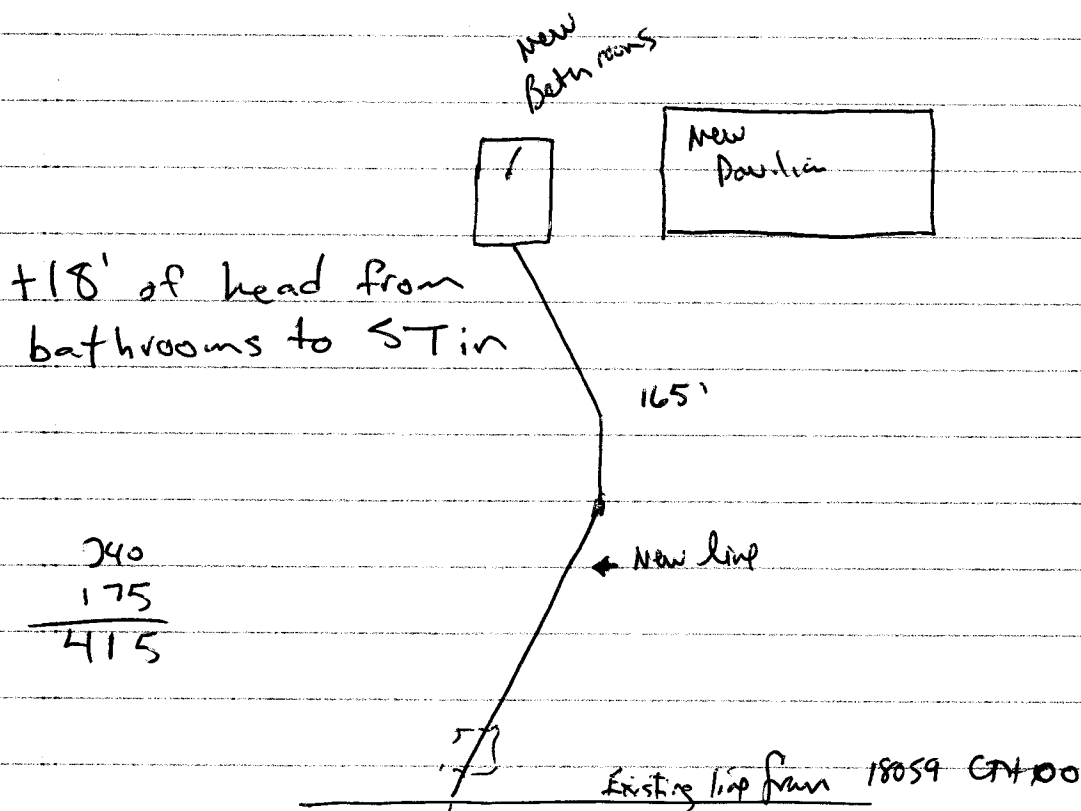


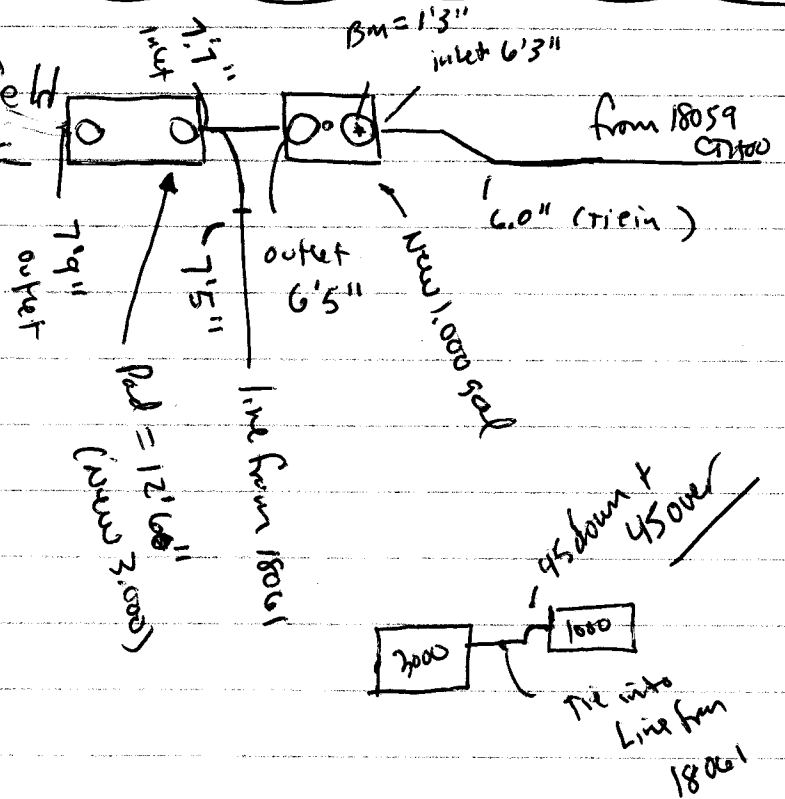
06-14-2016 - White's Wild Wood

Drug



$$\begin{array}{r} 240 \\ - 175 \\ \hline 415 \end{array}$$

415' to drainfield
from dose tank



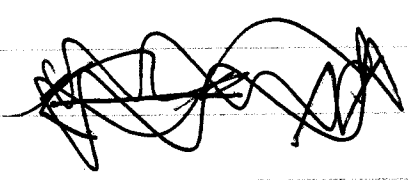
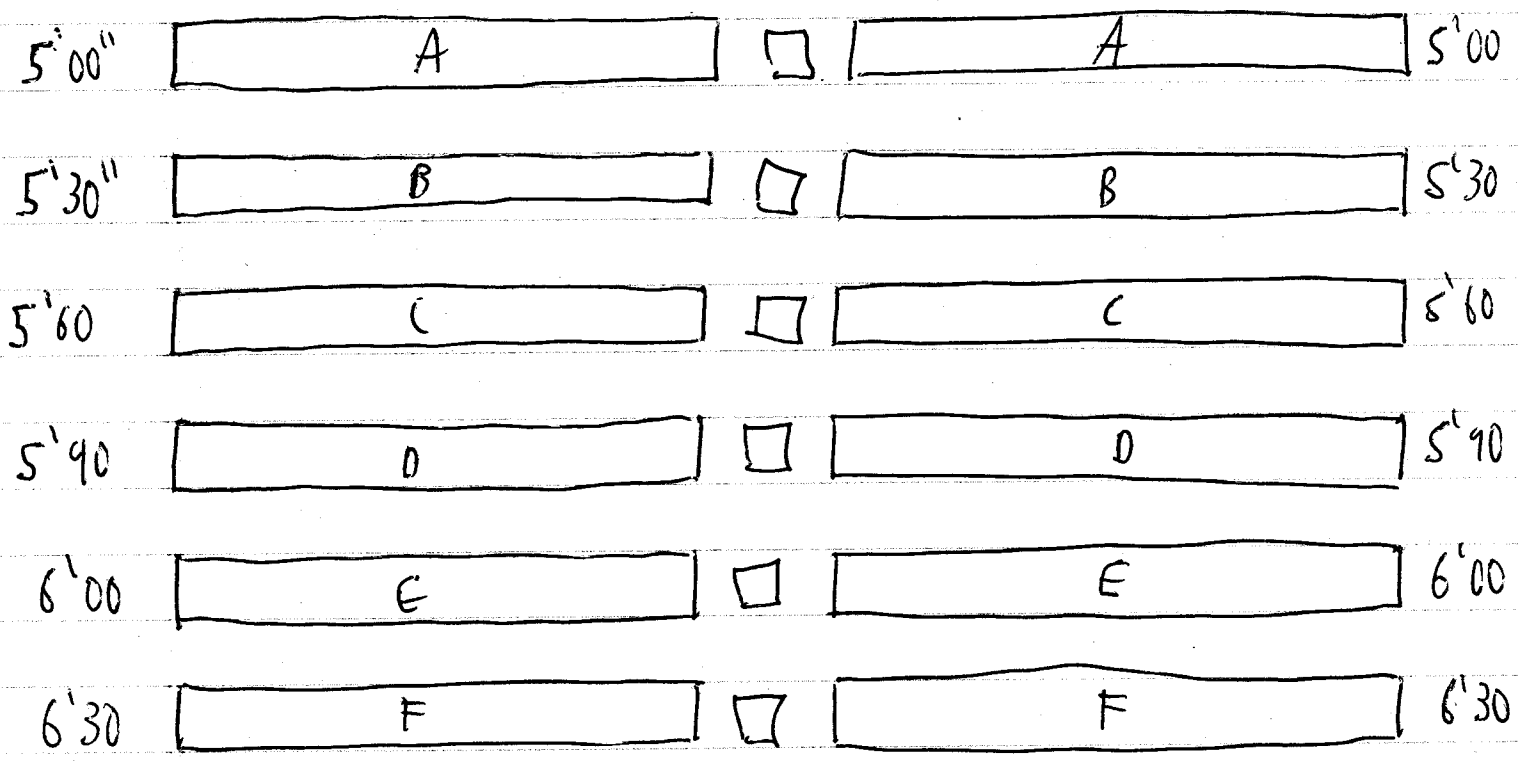
6/15/16
Whites Wildwood
AT

- * Drop Box's Not Installed
- * Sewer line to DF not installed
- * Observation pipes not installed

* Well +100'



- BM = 3'00
- Grade = 3'11





Industry Services Division
1400 E Washington Ave
P.O. Box 7162
Madison, WI 53707-7162

County
CHIPPEWA

Sanitary Permit Number (to be filled in by Co.)

09-2016-SAN-0119

Sanitary Permit Application

In accordance with SPS 383.21(2), Wis. Adm. Code, submission of this form to the appropriate governmental unit is required prior to obtaining a sanitary permit. Note: Application forms for state-owned POWTS are submitted to the Department of Safety and Professional Services. Personal information you provide may be used for secondary purposes in accordance with the Privacy Law, s. 15.04(1)(m), Stats.

State Transaction Number

Project Address (if different than mailing address)
18051 CTH OO

I. Application Information - Please Print All Information

Property Owner's Name
WHITE'S WILDWOOD RETREAT

Parcel #
22808-2644-01250000

Property Owner's Mailing Address
18051 CTH OO

Property Location

City, State
CHIPPEWA FALLS, WI

Zip Code
54729

Phone Number
715.225.7116

Govt. Lot
SE 1/4, SE 1/4, Section 26
(circle one)
T 28 N8; R W E or W

II. Type of Building (check all that apply)

☐ 1 or 2 Family Dwelling - Number of Bedrooms _____

☒ Public/Commercial - Describe Use TOURIST HOUSING & HALL

☐ State Owned - Describe Use _____

Lot #

Block #

CSM Number

Subdivision Name

☐ City of
☐ Village of
☒ Town of LAFAYETTE

III. Type of Permit: (Check only one box on line A. Complete line B if applicable)

A. ☐ New System ☒ Replacement System ☐ Treatment/Holding Tank Replacement Only ☐ Other Modification to Existing System (explain)

B. ☐ Permit Renewal Before Expiration ☐ Permit Revision ☐ Change of Plumber ☐ Permit Transfer to New Owner List Previous Permit Number and Date Issued

IV. Type of POWTS System/Component/Device: (Check all that apply)

☒ Non-Pressurized In-Ground ☐ Pressurized In-Ground ☐ At-Grade ☐ Mound \geq 24 in. of suitable soil ☐ Mound $<$ 24 in. of suitable soil
☐ Holding Tank ☐ Other Dispersal Component (explain) ☐ Pretreatment Device (explain)

V. Dispersal/Treatment Area Information:

Design Flow (gpd)
7185/7 = 1026

Design Soil Application Rate(gpdsf)
0.5

Dispersal Area Required (sf)
2052

Dispersal Area Proposed (sf)
2455.2

System Elevation
VARIES

VI. Tank Info

	Capacity in Gallons		Total Gallons	# of Units	Manufacturer	Prefab Concrete	Site Constructed	Steel	Fiber Glass	Plastic
	New Tanks	Existing Tanks								
Septic or Holding Tank	1000	2250	3250	3	HUFFCUTT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dosing Chamber	3000	0	3000	1	HUFFCUTT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VII. Responsibility Statement- I, the undersigned, assume responsibility for installation of the POWTS shown on the attached plans.

Plumber's Name (Print)
ERIC SCHOENBERG

Plumber's Signature
Eric Schoenberg

MP/MPRS Number
222022

Business Phone Number
715.723.3243

Plumber's Address (Street, City, State, Zip Code)
20382 75TH AVENUE - CADOTT, WI 54727

VIII. County/Department Use Only

☒ Approved ☐ Disapproved ☐ Owner Given Reason for Denial

Permit Fee
\$ 422.00

Date Issued
6/6/16

Issuing Agent Signature
Supra Dume

IX. Conditions of Approval/Reasons for Disapproval

* system elevation between 96.4' + 101.1' *

Attach to complete plans for the system and submit to the County only on paper not less than 8 1/2 x 11 inches in size

EISA Ratings March 1, 2007

SYSTEM ELEVATION AND SIZING CALCULATIONS**Below Grade Soil Absorption Systems**

Whites Wildwood Retreat

Owner's Name

6/6/2016

Review Date

Infiltrator Quick 4 Standard-W Chamber

Distribution Cell Media

No Fabric Unit EISA Modification

1	Effluent 1 or 2
3	ft Vertical Separation Required

8.00	ft Maximum Cover Depth
1.00	ft Unit Height
4.00	ft Laying Length
2052.00	ft ² Min. Aggregate Area
20.00	Unit EISA ft ²
96.00	Number of Units
24	Number of Quick 4 Endcaps

1026	gpd Design Flow
0.5	gpd/ft ² Wastewater Application Rate
96.50	ft Proposed Cell Elevation

Soil Boring Number	Surface Grade Elevation (ft)	Soil Limitation Depth (in)	Distribution Cell Elevation (ft)		Acceptable System Elevation?	Finished Grade EL (ft)	
			Lowest	Highest		Minimum	Maximum
1	102.10	75	98.85	101.10	No	98.50	107.50
2	99.50	63	97.25	98.50	No		
3	99.70	76	96.37	98.70	Yes		

EISA Ratings March 1, 2007

SYSTEM ELEVATION AND SIZING CALCULATIONS**Below Grade Soil Absorption Systems**

Whites Wildwood Retreat	Owner's Name	6/6/2016	Review Date
Infiltrator Quick 4 Standard-W Chamber			Distribution Cell Media
No Fabric	Unit EISA Modification		

1	Effluent 1 or 2	8.00	ft Maximum Cover Depth
3	ft Vertical Separation Required	1.00	ft Unit Height
		4.00	ft Laying Length
		2052.00	ft ² Min. Aggregate Area
1026	gpd Design Flow	20.00	Unit EISA ft ²
0.5	gpd/ft ² Wastewater Application Rate	96.00	Number of Units
96.50	ft Proposed Cell Elevation	24	Number of Quick 4 Endcaps

Soil Boring Number	Surface Grade Elevation (ft)	Soil Limitation Depth (in)	Distribution Cell Elevation (ft)		Acceptable System Elevation?	Finished Grade EL (ft)	
			Lowest	Highest		Minimum	Maximum
1	102.10	75	98.85	101.10	No	98.50	107.50
2	99.50	63	97.25	98.50	No		
3	99.70	76	96.37	98.70	Yes		



Soil Testing, Septic Designs & Inspections
Serving North Western Wisconsin since 1994
(715) 577-6838 WastewaterPros.com

Client: WHITE'S WILDWOOD RETREAT
18051 CTH OO – Chippewa Falls, WI

**NON-PRESSURIZED CONVENTIONAL SOIL ABSORPTION COMPONENT
USING GRAVELLESS LEACHING CHAMBERS**

Reference Component Manual

In-ground Absorption Component Manual (VERSION 2.0)

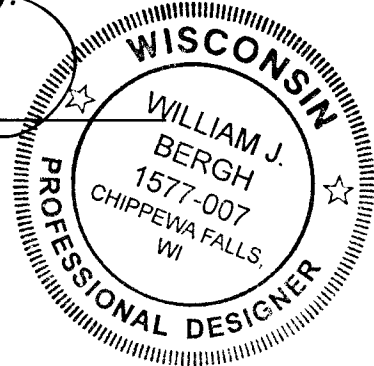
Location: **18051 CTH OO**

SE ¼, SE ¼ Sec. 26 T 28 N, R 08 W
Town: LAFAYETTE
County: CHIPPEWA

Designer's information: William J. Bergh (License No. 1577-007)

*I the undersigned state that these plans were designed
and submitted under my authority.*

Designer's Signature:



Contents

Page 1	Cover sheet
Page 2	Design data & system overview
Page 3	POWTS site plan
Page 4	Treatment tank cross-section
Page 5	Flow Equalization tank cross-section
Page 6	Dose Pump specifications
Page 7	Distribution cells (cross-section & plan view)
Page 8	Drop Box detail
Page 9	Leaching chamber manufacturer specifications
Page 10	O&M
Page 11	O&M

Wedding facility pavillion added in 2016. Pavillion only to be used one day per week. All flows will be equalized over a seven day period using timed dosing effluent application.

The POWTS design will incorporate as much of the existing infrastructure as possible. The existing installation has separate tourist housing each with their own septic tank. The effluent conveyance piping combines approximately 350' downslope of each building and this is the proposed location for the new treatment tanks.

The building sewer from the new restroom will connect near the outlet of the existing Huffcutt 1250 gallon septic tank that was installed in 2005. The combined wastewater will flow through to a new Huffcutt 1000 gallon septic tank.

The effluent from the new 1000 gallon septic tank will combine with the effluent from the 2005 tourist retreat in a new Huffcutt 3000 gallon Flow Equalization tank. The flow equalization tank will have a timed dosing effluent pump installed and calibrated to dose 1200 GPD to the new absorption area (upslope of existing absorption trenches).

<u>Source</u>	<u>Type</u>	<u>Units</u>	<u>EWF</u>	<u>DWF</u>
Tourist (2005)	room	5	65	487.5
Floor Drain	drain	1	25	37.5
Tourist (2008)	room	3	65	292.5
Floor Drain	drain	1	25	37.5
Total Existing				855
4000 ft ² Hall	per 10ft ²	400	2	1200
Total DWF				2055

<u>Weekday</u>	<u>DWF</u>	<u>DWF + storage</u>	<u>Daily dose</u>	<u>Storage</u>
Saturday	2055	2055	1200	855
Sunday	855	1710	1200	510
Monday	855	1365	1200	165
Tuesday	855	1020	1200	-180
Wednesday	855	675	1200	-525
Thursday	855	330	1200	-870
Friday	855	-15	1200	-1215

EXISTING
~350' - 4" ASTM 3034 PVC
SEWER LINE (w/cleanouts)
2005 INSTALL - 600 GPD DWF)

EXISTING
~350' - 4" ASTM 3034 PVC
SEWER LINE (w/cleanouts)
2008 INSTALL - 450 GPD DWF)

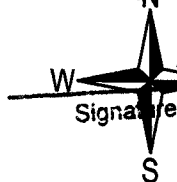
INSTALL
HUFFCUTT 1000
SEPTIC TANK FOR
PAVILLION RESTROOMS
(w/approved outlet filter
connected to existing system)
PRIVATE SEWAGE SYSTEM

Conditionally
APPROVED
HUFFCUTT 1000
FLOW EQUALIZATION TANK
(w/approved outlet filter
connected to existing system)
(w/approved outlet filter
connected to existing system)

EXISTING 2008 INSTALL
4" ASTM 3034 PVC
SEWER LINE (w/cleanouts)

**JUNCTION BOX ON EXISTING
POWTS WITH SEPARATE CIRCUITS
FOR PUMP AND HWA**

CHIPPEWA COUNTY-AGENT



Signature

SCALE

0 15 30
(UNLESS SHOWN OTHERWISE)

WILLIAM J. BERGH
WISCONSIN CERTIFIED SOIL TESTER
DESIGNER OF ENGINEERING SYSTEMS
CUSTOMER ID 227819

**ABANDON EXISTING SEWER
PIPING AT THIS POINT**

INSTALL
~75' - 4" ASTM 3034
PVC SEWER LINE

ABSORPTION AREA SIZING CALCULATIONS

PUBLIC FACILITY SIZING = 1250 GPD DWF

$1200 / 0.5 = 2400 \text{ ft}^2$

**** install 12 trenches ****

**** pair of endcaps = 4.6 ft^2 each ****

$2400 - (4.6 * 12) = 2344.8 \text{ ft}^2$

**** EISA rating per chamber = 20.0 ft^2 ****

$2344.8 / 20 = 117.2$

round up to **118 chambers minimum**

**18" CONCRETE
DISTRIBUTION DROP BOX**

(12) NON-PRESSURIZED DISTRIBUTION CELLS
EACH CELL USES (10) LEACHING CHAMBERS
(MODEL - INFILTRATOR QUICK 4LP)
EISA RATING = 20.0 PER CHAMBER
SYSTEM ELEVATION = 24" DEEP
SEE POWTS PLAN

BUILDING SEWER MUST COMPLY
WITH SPS 382.30 WAC (11)

LOCATION OF WELL MUST COMPLY
WITH WDNR CHS. NR 811 & 812

- ⊕ BENCHMARK ELEVATION = 100.0'
- TOP OF DIVERTER VALVE
- △ LOCATION OF SOIL BORING(S)
- LOCATION OF SOIL PIT(S)
- * NO APPARENT SPS 383.43 SETBACKS
- Ⓟ DESCRIBED LOCATION OF LOT LINE
- Ⓢ LOCATION OF RIGHT-OF-WAY
- Ⓒ CENTERLINE OF DESCRIBED ROAD

**2008 INSTALL - 450 GPD
32 QUICK 4LP UNITS**

**2005 INSTALL - 600 GPD
46 QUICK 4LP UNITS**

POWTS COMPONENTS ARE DESIGNED IN
ACCORDANCE WITH THE SPECIFIED SPS
POWTS COMPONENT MANUAL(S).

POWTS COMPONENT ARE NOT DESIGNED TO
RECEIVE THE ADDITIONAL WATER GENERATED
FROM ANY WATER TREATMENT DEVICES.

REUSE OF DOCUMENTS

This document has been developed for a specific
application and not for general use. Therefore it may
not be used without the written approval of
Geo Tech, LLC. Unapproved use is the sole
responsibility of the unauthorized user

GEO TECH, LLC
11091 30TH AVENUE
CHIPPEWA FALLS, WI 54729
PH: (715)577-6838 FAX: (888)466-8573
email: billy@wastewaterpros.com

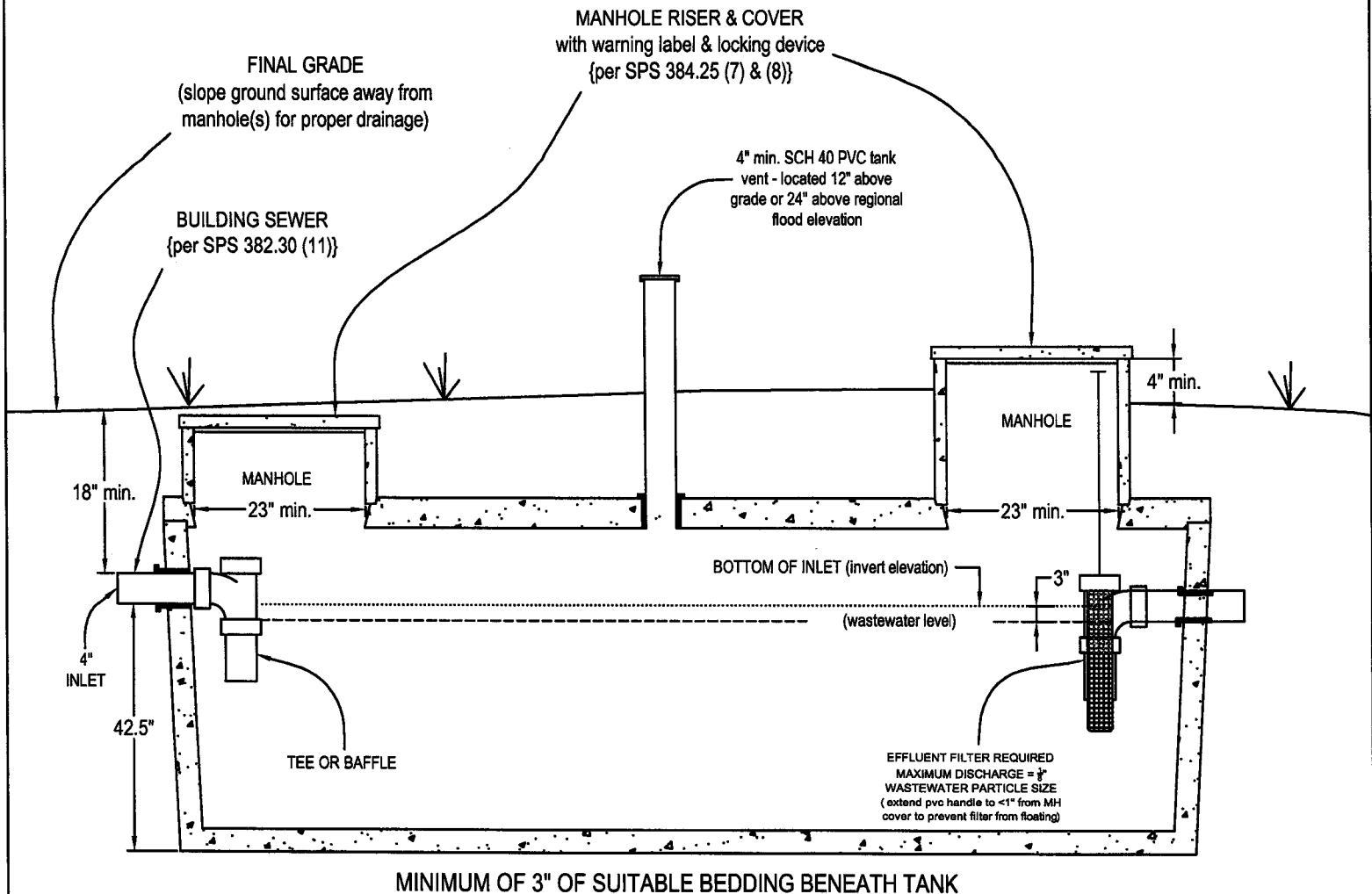
JOB SITE INFORMATION:
WHITE'S WILDWOOD RETREAT
18051 CTH OO
CHIPPEWA FALLS, WI

SE-SE-26-28-08W
LAFAYETTE TOWNSHIP
CHIPPEWA COUNTY, WI
PARCEL DESCRIBED AS ___ AC.

**POWTS
PLAN**

HUFFCUTT 1000 X-SECTION

(DRAWING NOT TO SCALE)



TANK SPECIFICATIONS

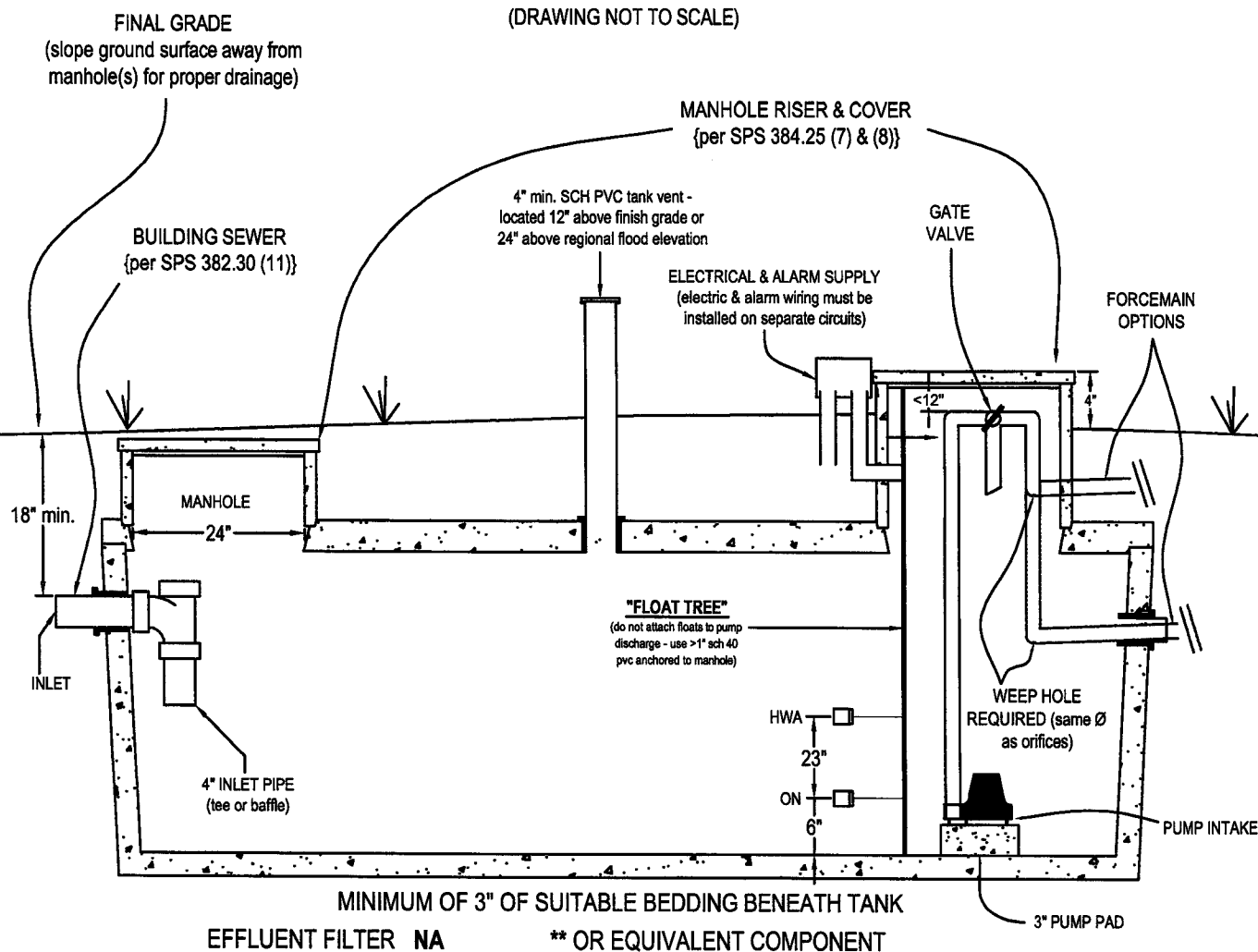
Max Length	=	90.25"
Max Width	=	78"
Liquid depth	=	44.0"
Gallons/inch	=	24.9 gpi
Max capacity	=	1095.6 gallons

ANCHORING MAY BE REQUIRED PER SPS 383.43 (8)(g)

MAXIMUM DEPTH OF BURY IS 96"

HUFFCUTT MODEL 3000 X-SECTION

(DRAWING NOT TO SCALE)



Flow Equalization manufacturer/model—**HUFFCUTT 3000**
 Trash tank time dosing pump/model—**Zoeller 57**
 Pump discharge rate (rated minimum)—**80 GPM @ 5.0' HEAD**
 Type of float switch—**Mechanical**
 Total Dynamic Head (TDH)—**<6.0'**
(friction losses are considered insignificant)

trash tank capacities

Reserve capacity above alarm float—26.0"—1365.0 gallons
 Alarm float above pump/timer on float—23.0"—1207.5 gallons
 Pump/timer off float above bottom of tank—6.0"—315.00 gallons
 Total septic tank capacities—55.0"—3047.2 gallons

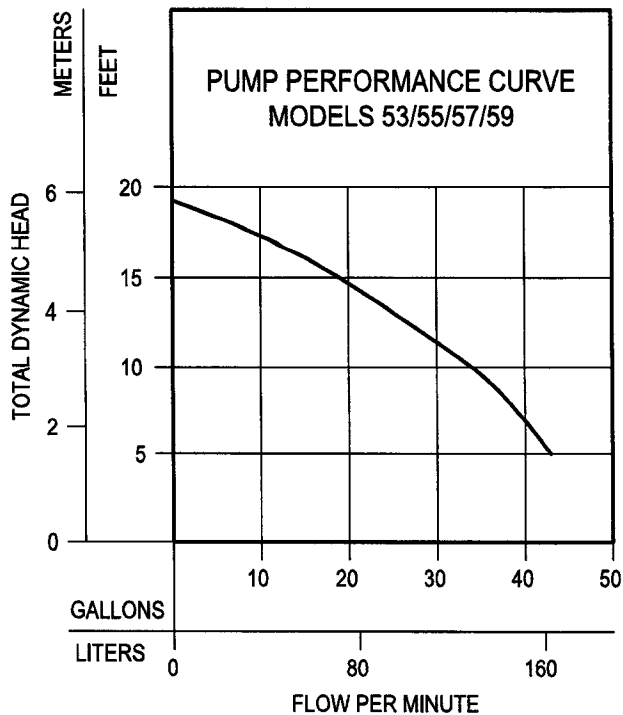
The timer is set to engage the pump every 30 minutes and run the pump for 3 minutes.

During this period the pump will transfer 25 gallons to the distribution cells
(gate valve will be metered on-site to ensure the specified dosing amount is applied).

25 gallons/dose x 48 doses/day = 1200 GPD

Tank Dimensions

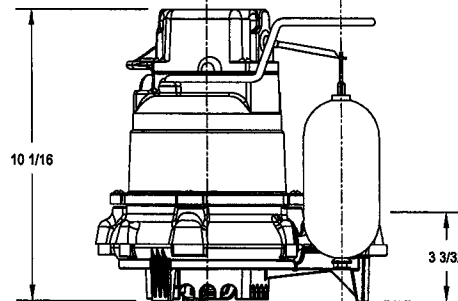
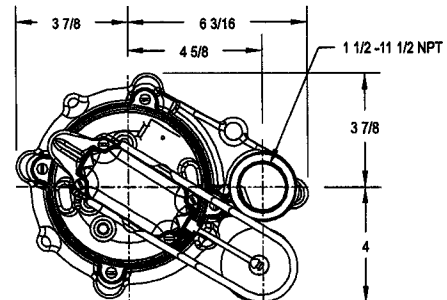
Length	78.00"	Width	59.00"
Liquid depth	55.00"	Gallons per inch	52.50



TOTAL DYNAMIC HEAD/FLOW PER MINUTE EFFLUENT AND DEWATERING

MODEL		53/55/57/59	
Feet	Meters	Gal.	Liters
5	1.5	43	163
10	3.0	34	129
15	4.6	19	72
Shut-off Head:		19.25 ft.(5.9m)	

009897



SK858

CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Variable level float switches available.
- Variable level long cycle systems available.
- Available with special cord lengths of 15', 25', 35' and 50'.
- Alarm systems available.
- Duplex systems available.

Single Seal		Control Selection					Listings	
Model	Volts	Phase	Mode	Amps	Simplex	Duplex	CSA	UL
M53/55 & M57/59	115	1	Auto	9.7	1	—	Y	Y
N53/55 & N57/59	115	1	Non	9.7	2	3 or 4 & 5	Y	Y
* BN53	115	1	Auto	9.7	*	—	Y	Y
* BN57	115	1	Auto	9.7	*	—	N	Y
* BE53/57	230	1	Auto	4.8	*	—	Y	Y
D53/55 & D57/59	230	1	Auto	4.8	1	—	Y	Y
E53/55 & E57/59	230	1	Non	4.8	2	3 or 4 & 5	Y	Y

* Single piggyback switch included.

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. Single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
3. Mechanical alternator "M-Pak" 10-0072 or 10-0075.
4. See FM0712 for correct model of Electrical Alternator.
5. Variable level control switch 10-0225 used as a control activator, with Electrical Alternator (3) or (4) float system.

For information on additional Zoeller products refer to catalog on Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Sump/Sewage Basins, FM0487; and Single Phase Simplex Pump Control/Alarm Systems, FM0732.

CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.



<http://www.zoeller.com>

ZOELLER
PUMP CO.

MAIL TO: P.O. BOX 16347
Louisville, KY 40256-0347
SHIP TO: 3649 Cane Run Road
Louisville, KY 40211-1961
(502) 778-2731 • 1 (800) 928-PUMP
FAX (502) 774-3624

Manufacturers of..

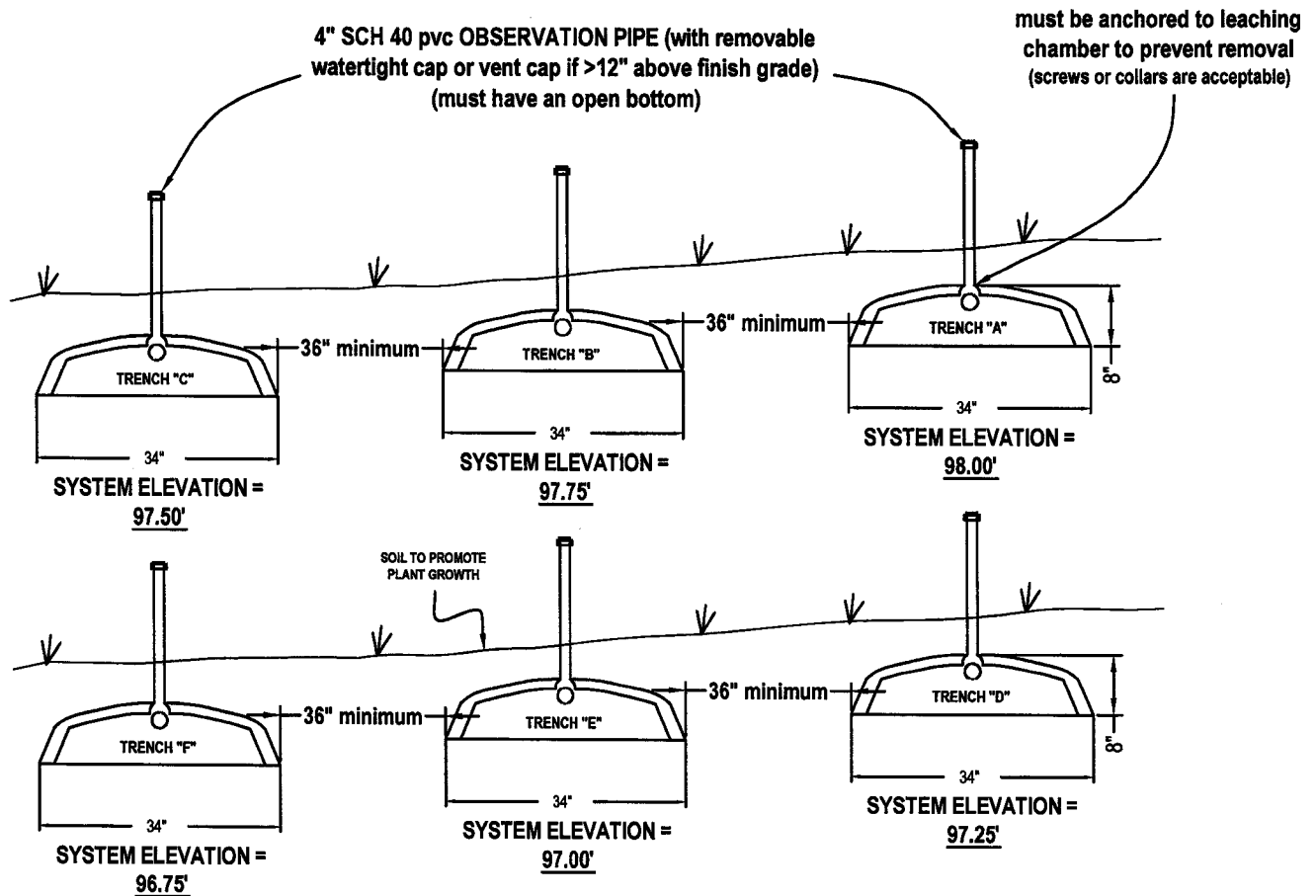
"QUALITY PUMPS SINCE 1939"

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INFILTRATOR QUICK 4LP LEACHING CHAMBER (typical)

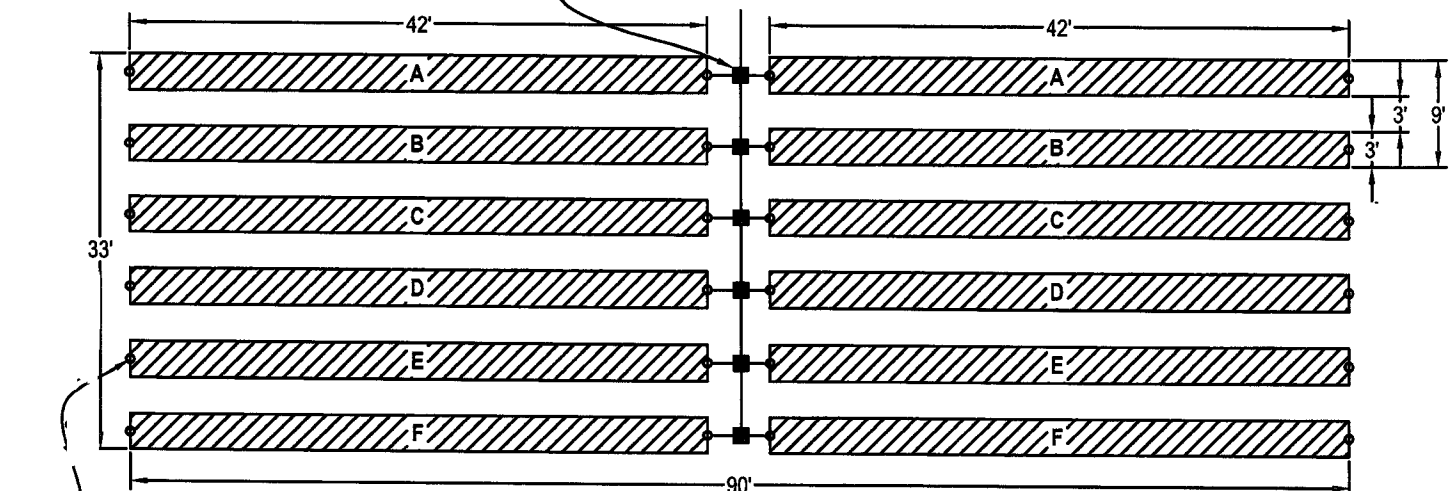
installations requires additional cells (not shown here)

"DRAWING NOT TO SCALE"



DROP BOX
(SEE DETAIL)

10	NUMBER OF LEACHING CHAMBERS (per cell)
12	NUMBER OF CELLS
120	TOTAL NUMBER OF LEACHING CHAMBERS (all cells)



4" OBSERVATION PIPE
(typical installation)

INFILTRATOR QUICK 4 LP CHAMBER - OPEN BOTTOM AREA = 16.1 SQFT
INFILTRATIVE SURFACE PER CHAMBER BASED ON EISA RATING = 20.0 SQFT
QUICK 4 STANDARD END CAPS PER PAIR EISA RATING = 4.6 SQFT

ALL MATERIAL AND PIPING SPECIFICATIONS AS PER THE CONVENTIONAL SOIL ABSORPTION COMPONENT MANUAL

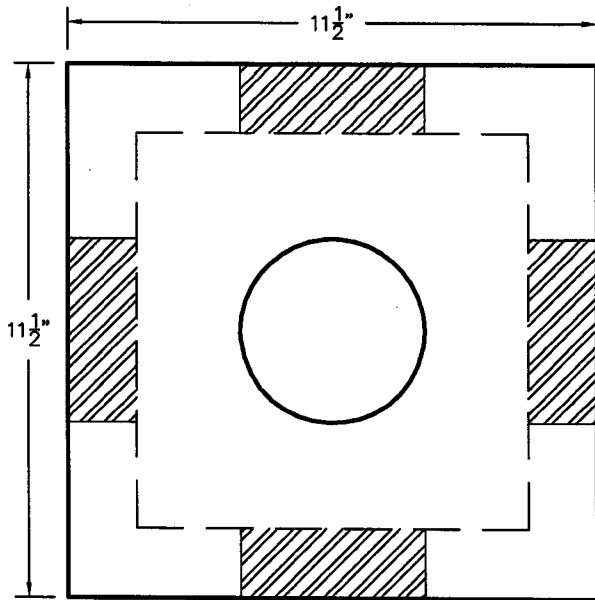
DETAIL 16A DROP BOX

DIMENSIONS:

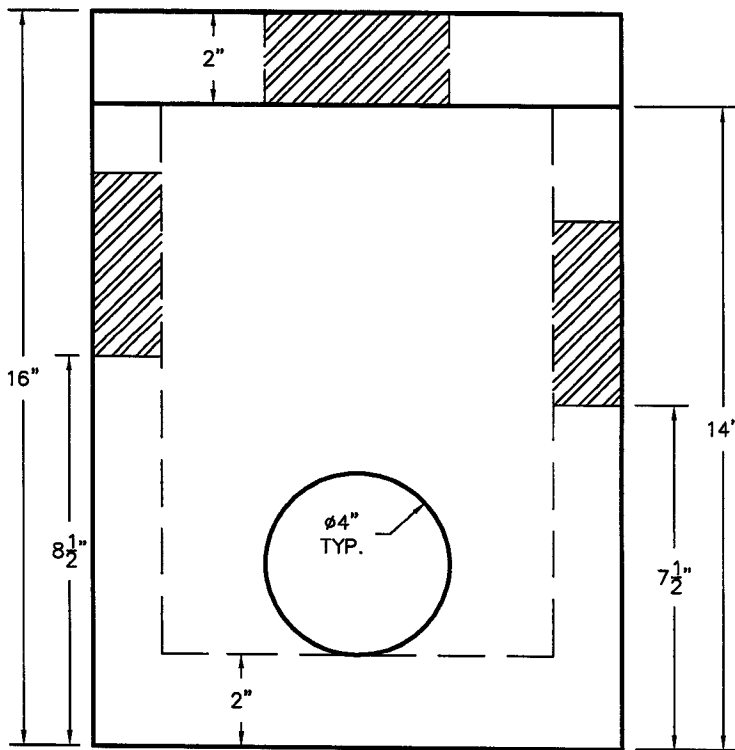
HEIGHT: 16" O.D.
LENGTH: 11 1/2" O.D.
WIDTH: 11 1/2" O.D.
BELOW INLET: 8 1/2" O.D.

WEIGHT: 108 LBS.

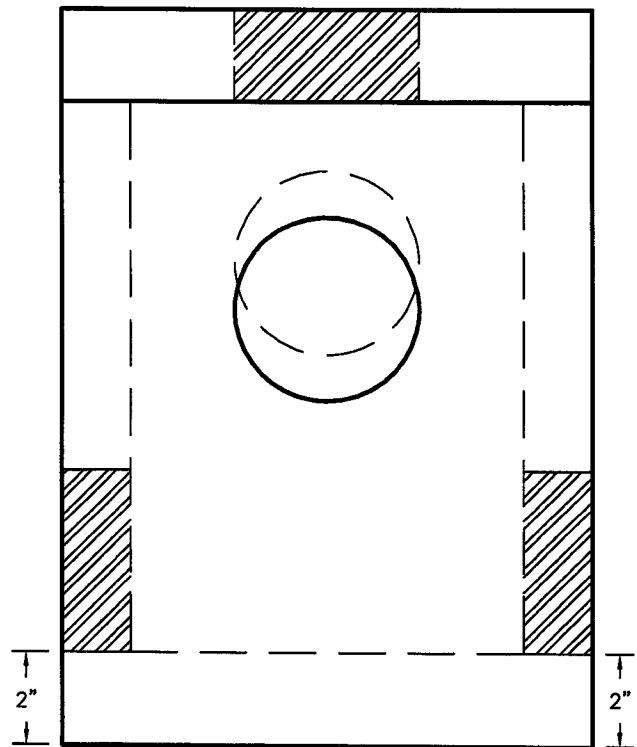
INLET AND OUTLET:
4" CAST-A-SEAL BOOT OR EQUAL



TOP VIEW



SIDE VIEW

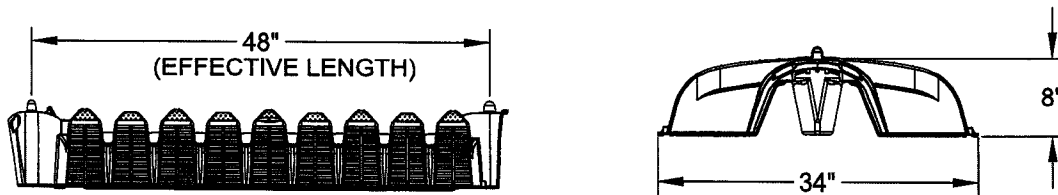


END VIEW

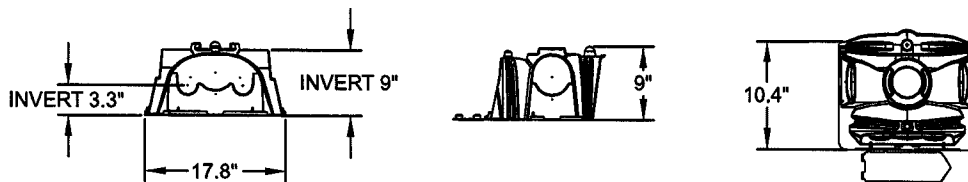
<div>1 OF 1</div> <div>SHEET NO.</div>	<div>DROP BOX</div> <div>SEPTIC MANUAL</div>	<div>WIESER CONCRETE</div> <div>W3716 US HWY 10 MAIDEN ROCK, WI 54750</div> <div>800-325-8456</div>	DRAWN BY: WCP		SCALE: 3" = 1'-0"	PRE-POUR:
			DATE: 00/00/00		REV.	POST-POUR:
			FILE: SHEET 16A		DATE:	

THE QUICK4 PLUS STANDARD LP CHAMBER

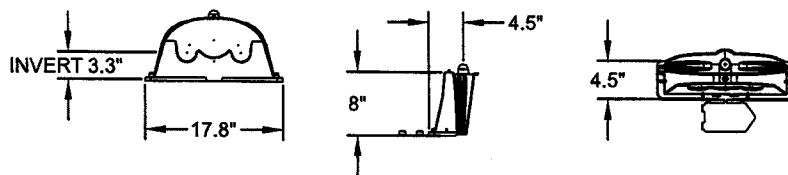
Quick4 Plus Standard LP Chamber Side and End Views



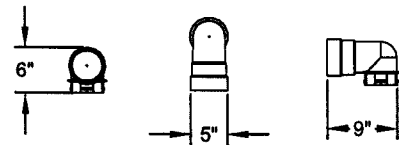
Quick4 Plus All-in-One End Cap Front, Side and End Views



Quick4 Plus End Cap Front, Side and End Views



Quick4 Plus All-in-One Periscope



Quick4 Plus Standard Chamber Specifications

Size (W x L x H)	34" x 53" x 8" (86 cm x 122 cm x 20 cm)
Effective Length	48" (122 cm)

Invert Height	0.6", 3.3", 7", 8" (1.52 cm, 8.4 cm, 18.5 cm, 22.6 cm)
---------------------	---

INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

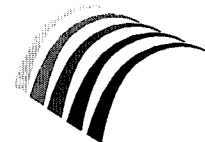
(a) The structural integrity of each chamber, and cap and other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.



INFILTRATOR®
systems inc.

6 Business Park Road • P.O. Box 768
Old Saybrook, CT 06475
860.577.7000 • FAX 860.577.7001

800.221.4436
www.infiltratorsystems.com

For technical assistance, installation instructions or customer service, call Infiltrator Systems at 800.221-4436

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,611,903; 5,716,163; 5,588,778; 5,839,844
Canadian Patents: 1,329,959; 2,004,564 Other patents pending.

Infiltrator, Equalizer, Quick4 and Quick4 Plus are registered trademarks of Infiltrator Systems Inc. Infiltrator is a registered trademark in France. Infiltrator Systems Inc. is a registered trademark in Mexico. Contour Swivel Connection is a trademark of Infiltrator Systems Inc. © 2009 Infiltrator Systems Inc. Printed in U.S.A.

PLUS010709AG-0

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Owner/Agent:
POWTS Maintainer:
Local Regulatory Authority:
POWTS Installer:
Septage Servicing Operator

WHITE'S WILDWOOD RETREAT – 18051 CTH OO
Geo Tech Soil & Site Evaluation – Chippewa Falls, WI 715-577-6838
Chippewa County Zoning Department Chippewa Falls, WI 715.726.7940
Eric Schoenberg – Schoenberg Services Inc. – Cadott, WI 715.720.9901

DESIGN PARAMETERS

Influent/Effluent quality (values typical for domestic (non-commercial wastewater and septic tank effluent)
Fats, Oil and greases (FOG) <30 mg/L, Biochemical Oxygen Demand (BOD) <220 mg/L, Total Suspended Solids (TSS) <150 mg/L **Soil Loading Rate (SLR) = 0.5 (eff #1)**

SYSTEM SPECIFICATIONS

The components of this septic system are intended to serve two retreats and pavilion with no kitchen facilities. The components include **two existing Huffcutt septic tanks (with filters)**, install a **Huffcutt 1000 septic tank (with filter)** and a **Huffcutt 3000 gallon flow equalization tank with a timed dosing Zoeller 57 effluent pump**, alarm and control float. Install (12) non-pressurized distribution cells using Infiltrator Quick4LP leaching chambers. Install a minimum of **120** leaching chambers when applying an EISA rating of **20.0** as specified by SPS. All parts of the components must comply with WI Adm. Code SPS 384 and be installed per manufacturer specifications and approval letters.

DESIGN CRITERIA

- ✓ In ground Soil Absorption component Manual Version 2.0

MAINTENANCE & MANAGEMENT

Inspect the condition of the treatment tank(s) and dispersal cell(s) a minimum of every three years. The septic tank contents must be removed in accordance with Chapter NR 113, WI Adm. Code when the combined sludge and scum equals one-third (1/3) the tank volume. The effluent filter should be inspected annually to ensure maximum performance. At a minimum the filter must be cleaned every three years when the tank is pumped. Immediately following the tank pumping the effluent filter should be properly removed and thoroughly flushed with a hose or other suitable means so that any debris accumulated on the filter have been properly removed. Upon successful removal of all foreign matter replace the filter so that it is properly "seated" in the filter housing canister. Refer to individual filter manufacturer specifications for additional information about specific products.

START UP

For new construction prior to use of the POWTS check treatment tank(s) for presence of painting products or other chemicals that may impede the treatment process and/or damage the dispersal cell(s). If high concentrations are detected have the contents of the tank(s) removed by a septage-servicing operator prior to use.

OPERATION

The property owner is responsible for the operation and maintenance of the POWTS and submission of required reports. The quantity and quality of wastewater will affect the performance and longevity of your POWTS. The installation of water-saving appliances and fixtures along with prompt repair of leaks reduces the wastewater volume. Also, the brine or waste from water softeners, iron removal units, and other clear water treatment devices and foundation drains should be discharged to the ground surface whenever possible. Note: this does not include laundry waste, showers, dishwasher, etc.

The system is designed to handle domestic strength wastewater, however the disposal of food based greases and oils, vegetable/fruit peels and seeds, bones, and food solids such as those produced by a garbage disposal should be minimized. Toilet tissue is the only paper that should be discharged into the system. Other non-biodegradable items such as baby wipes, tampons, sanitary napkins, condoms, cigarette butts, dental floss, and cotton swabs should not enter the system. Chemicals such as petroleum products, paint, disinfectants, pesticides, antibiotics (medications), solvents, etc., should not be flushed into the system as they can seriously damage your POWTS and contaminate your drinking water supply.

Maintain regular steady flow by spreading the laundry washing throughout the week. Avoid vehicle traffic over all system components. Compaction of snow over the unit may cause it to freeze up.

INSPECTIONS

Inspections shall be made by a person carrying one of the following licenses or certifications: Master Plumber, Master Plumber Restricted Sewer, POWTS Maintainer or Septage Servicing Operator (per the attached Maintenance Schedule)

✓ **Septic Tank**

Tank inspections must include a visual inspection of the tank to identify any missing or broken hardware, identify any cracks or leaks, measure the volume of combined sludge and scum and to check for any backup or surface discharge of effluent. Access openings used for service of assessment shall be sealed and/or locked upon completion of service. Any defects shall be promptly corrected. Exposed openings greater than 8 inches in diameter shall be secured with an effective locking device to prevent accidental or unauthorized entry into the tank.

The outlet (effluent) filter(s) shall be inspected and cleaned to remove any accumulated solids according to manufacturer's specifications. Provisions are to be made to retain solids in the tank during cleaning. Filter cleaning may be necessary at more frequent intervals than stated in the maintenance schedule to keep the system operating properly.

✓ **Flow Equalization Tank**

The inspection must include a test of all electrical equipment such as pumps, alarms and floats. A visual check must be made for leaks, backups, surfacing, missing or broken security devices and other hardware and the condition of the filter. Any service needs or repairs shall be promptly taken care of.

✓ **In-Ground Gravity Component dispersal Cells**

The inspection shall include recording the levels of ponding, if any in the observation tubes and a visual inspection for any evidence of surface seepage or discharge. Any discharge to the ground must be promptly reported to the regulatory authority. Ponding greater than 75% of the height of the component may indicate overloading or impending hydraulic failure necessitating more frequent monitoring.

○ **Divertor Valve**

The divertor valve shall be switched to serve the opposing distribution component every three years (when the septic tank is due for its regular maintenance). However, if ponding is observed in the observation/vent pipe of any cell, the divertor valve shall be switched to the opposing component. Furthermore, ponding greater than 75% of the height of the component may indicate overloading or impending hydraulic failure necessitating more frequent monitoring.

REPORTS

Reports for maintenance, inspection, and monitoring shall be submitted in accordance with SPS 383.55 Wisconsin Administrative Code.

ABANDONMENT

When the POWTS fails and/or is permanently taken out of service the following steps shall be taken to ensure that the system is properly and safely abandoned in compliance with Ch. SPS 383.33, Wisconsin Administrative Code.

- All piping to tanks and pits shall be disconnected and the abandoned pipe opening sealed.
- The contents of all tanks and pits shall be removed and properly disposed of by a Septage Servicing Operator.
- After pumping, all tanks and pits shall be excavated and removed or their covers removed and the void space filled with soil, gravel or other inert solid material.

CONTINGENCY PLAN

If the POWTS fails and cannot be repaired the following measures have been, or must be taken, to provide a code compliant replacement system.

- A suitable replacement area has been evaluated and may be utilized for the location of a replacement soil absorption system. The replacement area should be protected from disturbance and compaction and should not be infringed upon by required setbacks from existing and proposed structure(s), lot lines and wells. Failure to protect the replacement area will result in the need for a new soil and site evaluation to establish a suitable replacement area. Replacement systems must comply with the rules in effect at that time.
- A suitable replacement area is not available due to setback and/or soil limitations. Barring advances in POWTS technology a holding tank may be installed as a last resort to replace the failed POWTS.
- ✓ The site has not been evaluated to identify a suitable replacement area. Upon failure of the POWTS a soil and site evaluation must be performed to locate a suitable replacement area. If no replacement area is available a holding tank may be installed as a last resort to replace the failed POWTS.

WARNING

SEPTIC, PUMP AND OTHER TREATMENT TANKS MAY CONTAIN LETHAL GASES AND/OR INSUFFICIENT OXYGEN. DO NOT ENTER A SEPTIC, PUMP OR OTHER TREATMENT TANK UNDER ANY CIRCUMSTANCES. DEATH MAY RESULT. RESCUE OF A PERSON FROM THE INTERIOR OF A TANK MAY BE DIFFICULT OR IMPOSSIBLE.



SOIL EVALUATION REPORT

#2985

Department of Safety and Professional Services

Page 1 of 3

Division of Safety and Professional Services

Geo Tech Soil & Site Evaluation, LLC

in accordance with Comm 85, Wis. Adm. Code

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and location and distance to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

County	Chippewa
Parcel I.D.	22808-2644-01250000
Reviewed By	AS Date 6/6/16

Property Owner WHITE'S WILDWOOD RETREAT	Property Location Govt. Lot SE1/4, SE1/4, S26, T28N, R8W
Property Owner's Mailing Address 18051 CTH OO	Lot # Block # Subd. Name or CSM# 27 ACRES
City State Zip Code Phone Number CHIPPEWA FALLS WI 54729 715.225.7116	<input type="checkbox"/> City <input type="checkbox"/> Village <input checked="" type="checkbox"/> Town Nearest Road Lafayette CTH OO

<input type="checkbox"/> New Construction	Use: <input type="checkbox"/> Residential / Number of bedrooms 0	Code derived design flow rate 2055	GPD
<input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> Public or commercial - Describe: TOURIST HOUSING & DANCE HALL		

Parent material LOAMY FINE RESIDUUM Flood plain elevation, if applicable NA ft.

General comments Supplemental soils evaluation for existing 2005 soil report. Site is suitable for a replacement non-pressurized POWTS. Maximum and recommendations: recommend SLR = 0.5 (eff #1). POWTS design will incorporate 7-day flow equalization. Stepped system elevations recommended.

1	Boring # <input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit	Ground surface elev. 102.10 ft.	Depth to limiting factor >75 in.	Soil Application Rate						
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	GPD/ft ²	
									*Eff#1	*Eff#2
1	0-4	10YR 2/2		LFS	--	--	--	--		
2	4-22	7.5YR 3/4		LFS	--	--	--	--		
3	22-38	10YR 4/4		LFS	--	--	--	--		
4	38-65	10YR 4/6		LFS	--	--	--	--		
5	65-75	10YR 5/6		LVFS	--	--	--	--		
No.3 with 7.5YR 3/3 massive LFS bands 1/4"- 1/2" wide. No.3 with ~10% sandstone fragments.										

2	Boring # <input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit	Ground surface elev. 99.50 ft.	Depth to limiting factor 63 in.	Soil Application Rate						
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	GPD/ft ²	
									*Eff#1	*Eff#2
1	0-8	10YR 3/3		LOAM	--	--	--	--		
2	8-15	7.5YR 3/4		LFS	--	--	--	--		
3	15-29	7.5YR 4/4		LFS	--	--	--	--		
4	29-63	10YR 4/4		LFS	--	--	--	--		
5	63-70	10YR 4/3	C1F 10YR 5/3 7.5YR 5/6	LVFS	--	--	--	--		
No.5 is moist, but not saturated.										

* Effluent #1 = BOD₅ > 30 ≤ 220 mg/L and TSS >30 ≤ 150 mg/L* Effluent #2 = BOD₅ ≤ 30 mg/L and TSS ≤ 30 mg/L

CST Name (Please Print) William J. Bergh	Signature: <i>William J. Bergh</i>	CST Number 227819
Address Geo Tech Soil & Site Evaluation, LLC 11091 30th Avenue Chippewa Falls, WI 54729	Date Evaluation Conducted 5/2/2016	Telephone Number 715-577-6838

SBD-8330 (R.11/11)

3Boring # ☒ Boring
☐ PitGround surface elev. 99.70 ft.Depth to limiting factor >76 in.

Soil Application Rate

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	GPD/ft²	
									*Eff#1	*Eff#2
1	0-5	10YR 3/2		LOAM	--	--	--	--		
2	5-18	7.5YR 3/4		LVFS	--	--	--	--		
3	18-32	7.5YR 4/4		LFS	--	--	--	--		
4	32-55	10YR 4/4		LFS	--	--	--	--		
5	55-76	10YR 5/4-6		LVFS	--	--	--	--		
No.5 with 7.5YR 3/3 massive LFS bands 1/4"- 1/2" wide.										

☐Boring # ☐ Boring
☐ Pit

Ground surface elev. _____ ft.

Depth to limiting factor _____ in.

Soil Application Rate

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	GPD/ft²	
									*Eff#1	*Eff#2

☐Boring # ☐ Boring
☐ Pit

Ground surface elev. _____ ft.

Depth to limiting factor _____ in.

Soil Application Rate

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	GPD/ft²	
									*Eff#1	*Eff#2

* Effluent #1 = BOD₅ > 30 ≤ 220 mg/L and TSS >30 ≤ 150 mg/L* Effluent #2 = BOD₅ ≤ 30 mg/L and TSS ≤ 30 mg/L

The Department of Safety and Professional Services is an equal opportunity service provider and employer. If you need assistance to access services or need material in an alternate format, contact the department at 608-266-3151 or TTY through Relay.

ABSORPTION AREA SIZING CALCULATIONS

PUBLIC FACILITY SIZING = 1250 GPD DWF

$$1200 / 0.5 = 2400 \text{ ft}^2$$

** install 12 trenches **

** pair of endcaps = 4.6ft² each **

$$2400 - (4.6 * 12) = 2344.8 \text{ ft}^2$$

** EISA rating per chamber = 20.0 ft² **

$$2344.8 / 20 = 117.2$$

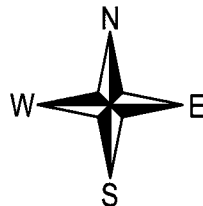
round up to 118 chambers minimum

2005 INSTALLATION FROM
HUFFCUTT 1000 SEPTIC TANK.

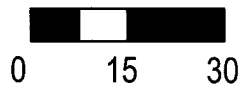
2008 INSTALLATION FROM
HUFFCUTT 1000 SEPTIC TANK.

MUST INSPECT EXISTING SEPTIC TANKS FOR
COMPLIANCE IN CAPACITY & INTEGRITY OR
ABANDON EXISTING TREATMENT TANK(S)
IN ACCORDANCE WITH SPS 383.33 WAC

2005 INSTALLATION OF 4" PVC
SEWER CONVEYANCE PIPING.
CLEANOUTS INSTALLED



SCALE



(UNLESS SHOWN OTHERWISE)

WILLIAM J. BERGH

WISCONSIN CERTIFIED SOIL TESTER

DESIGNER OF ENGINEERING SYSTEMS

CUSTOMER ID 227819

BUILDING SEWER MUST COMPLY
WITH SPS 382.30 WAC (11)

LOCATION OF WELL MUST COMPLY
WITH WDNR CHS. NR 811 & 812

- ⊕ BENCHMARK ELEVATION = 100.0'
- TOP OF DIVERTER VALVE
- △ LOCATION OF SOIL BORING(S)
- LOCATION OF SOIL PIT(S)
- * NO APPARENT SPS 383.43 SETBACKS
- Ⓢ DESCRIBED LOCATION OF LOT LINE
- Ⓡ LOCATION OF RIGHT-OF-WAY
- Ⓢ CENTERLINE OF DESCRIBED ROAD

2008 INSTALL - 450 GPD
32 QUICK 4LP UNITS

2005 INSTALL - 600 GPD
46 QUICK 4LP UNITS

POWTS COMPONENTS ARE DESIGNED IN
ACCORDANCE WITH THE SPECIFIED SPS
POWTS COMPONENT MANUAL(S).

POWTS COMPONENT ARE NOT DESIGNED TO
RECEIVE THE ADDITIONAL WATER GENERATED
FROM ANY WATER TREATMENT DEVICES.

REUSE OF DOCUMENTS

This document has been developed for a specific
application and not for general use. Therefore it may
not be used without the written approval of
Geo Tech, LLC. Unapproved use is the sole
responsibility of the unauthorized user

GEO TECH, LLC

11091 30TH AVENUE
CHIPPEWA FALLS, WI 54729
PH: (715)577-6838 FAX: (888)466-8573
email: billy@wastewaterpros.com

JOBSITE INFORMATION:

WHITE'S WILDWOOD RETREAT
18051 CTH OO
CHIPPEWA FALLS, WI

SE-SE-26-28-08W

LAFAYETTE TOWNSHIP
CHIPPEWA COUNTY, WI
PARCEL DESCRIBED AS ___AC.

SOIL TEST PLOT PLAN

CHIPPEWA COUNTY NO. 09-2016-SAN-0119

STATE SANITARY PERMIT

☐ TRANSFER / RENEWAL PREVIOUS NO. _____

OWNER: DEAN J & BETTY A WHITE

TOWN OF: LAFAYETTE

SECTION: 26, T28N, R08W

PARCEL NUMBER: 22808-2644-01250000

PROPERTY ADDRESS: 18051 COUNTY HWY 00

PLUMBER: ERIC SCHOENBERG

LICENSE #: 222022

Chapter 145.135(2) Wisconsin Statutes

- (a). The purpose of the sanitary permit is to allow installation of the private sewage system described in the permit.
- (b). The approval of the sanitary permit is based on regulations in force on the date of approval.
- (c). The sanitary permit is valid and may be renewed for a specified period.
- (d). Changed regulations will not impair the validity of a sanitary permit.
- (e). Renewal of the sanitary permit will be based on regulations in force at the time renewal is sought, and that changed regulations may impede renewal.
- (f). This sanitary permit is transferable.

History: 1977 C. 168; 1979 c. 34,221; 1981 c. 314

Note: If you wish to renew the permit, or transfer ownership of the permit, please contact Chippewa County.

ISSUED BY: _____

DATE: 6/6/2016

THIS PERMIT EXPIRES 6/6/2018 UNLESS RENEWED BEFORE THAT DATE

POST IN PLAIN VIEW

VISIBLE FROM THE ROAD FRONTING THE LOT DURING CONSTRUCTION