HOME SEWAGE TREATMENT SYSTEMS (HSTS)

INSTALLATION OR SEWER TAP-IN

GENERAL SPECIFICATIONS PACKET

FOR THE

SENECA COUNTY 2025 HSTS REPAIR/REPLACEMENT PROGRAM

ADMINISTERED BY:
SENECA COUNTY GENERAL HEALTH DISTRICT (SCGHD)

OHIO ENVIRONMENTAL PROTECTION AGENCY (EPA)
FUNDED PROJECT

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SECTION A BID FORMS

SUMMARY OF DOCUMENTS REQUIRED

BIDS SHALL CONTAIN:

- The Technical Specifications for a HSTS Installation or Sewer Tap-in System
- A completed and signed bid proposal with the signature and title of the person submitting the bid proposal. If the signature is not legible, print the name under the signature of the person signing the bid proposal.
- A completed, signed and notarized Non-collusion Affidavit
- In the case of corporations not chartered in Ohio, a proper certificate from the Secretary of State, certifying that such corporation is authorized to do business in Ohio.

TECHNICAL SPECIFICATIONS

HSTS Installation or Sewer Tap-in System

Client Name & Address	**Barbara Neikirk- 4877 E SR 18- Tiffin**
Client Phone Number	**419-366-9181 Tony is contact**
Design Completed By	**Geophyta- Pressurized Sand Mound**
Estimated Cost	**$28,000**
Bid Proposal Due Date & Time	**May 1, 2026 @ 4:00 pm**

Bid Proposal Requirements:

1. The bid proposal shall include all costs including labor, materials and equipment to complete the Installation or Sewer Tap-in System on the project site identified above for the Seneca County 2025 HSTS Repair/Replacement Program:

2. The labor, materials and equipment for the Installation or Sewer Tap-in System as designed, needs to meet current standards and requirements of the SCGHD, the Ohio Department of Health and the Ohio EPA.

3. On behalf of the homeowner, purchase a septic permit ($511.00) from the SCGHD or pay the sewer tap-in fee from the required entity, as determined by the entity.

4. List as an itemized price on the bid proposal, any electrical or plumbing upgrades or alterations necessary to achieve a fully functional Installation or Sewer Tap-in System as indicated in the approved Installation or Sewer Tap-in System design.

5. The abandonment of the existing Installation or Sewer Tap-in System as indicated on the approved Installation or Sewer Tap-in System design or as indicated by the SCGHD.

6. For final approval, site must be rough graded and seeded upon completion. This contract is with the SCGHD and not with the homeowner so any deviation from this will require a Contract Change Order following the guidance provided in the contract packet. The SCGHD and the Ohio EPA will have to approve the requested Contract Change Order which can take as long as three to four (3-4) weeks for approval. No invoices are accepted for any portion of payment until all Contract Change Orders are fully approved.

7. Upon completion, provide the required as-built drawings to the SCGHD.

Please note that all materials and/or equipment specified within the approved Installation or Sewer Tap-in System design can be installed as specified or with comparable materials/equipment as approved and acceptable by the SCGHD. Any questions relating to acceptable materials and/or equipment, contact the SCGHD.

Please note the following exceptions as specified by the Water Pollution Control Loan Fund Home Sewage Treatment System Principal Forgiveness Program. The following items are not fundable and should not be included in the bid proposal:

a. Abandonment of Drinking Water Wells.
b. Administration Costs
c. Annual Contractor Permit Fees
d. Insurance Costs
e. Operation and Maintenance Permit Fees
f. Performance and Payment Bond Costs
g. Taxes

Contract completion will be within ninety (90) days from the Notice to Proceed with the understanding that this needs to be completed as early as possible to ensure grant funds are expended.

Please submit bids by one of the following:

mail to:
Seneca County General Health District
Attn: Matt Beckman
92 E. Perry St. Tiffin, OH 44883

email to:
mbeckman@senecahealthdept.org

BID PROPOSAL

Property Address: **4877 E SR 18- Tiffin**

Pricing For:		Cost
Septic Permit		$511.00
Tap-in Fee		$0.00
Electrical Upgrades		
Plumbing Upgrades		
Tank Abandonment		
System Install or Tap-in		
Other:		
Bid Grand Total:		

Company Name		
Company Address		
Phone Number		
Email		
Signature & Title		**Date**

NON-COLLUSION AFFIDAVIT

State of: Ohio

County of: Seneca

Bid Proposal Property Address: _____

Contractor: _____, being first duly sworn, deposes and says that he is _____ (sole owner, a partner, president, secretary, etc.) of _____, the company making the foregoing bid proposal; that such bid proposal is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such bid proposal is genuine and not collusive or sham; that said Contractor has not directly or indirectly induced or solicited any other Contractor to put in a false or sham bid proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Contractor or anyone else to put in a sham bid proposal, or that anyone shall refrain from bidding; that said Contractor has not in any manner, directly or indirectly, sought by contract, communications or conference with anyone to fix the bid proposal of said Contractor or of any other Contractor, or to fix any overhead, profit, or cost element of such bid proposal, or of that of any other Contractor, or to secure any advantage against the owner awarding the contract or anyone interested in the proposed contract; that all statements contained in such bid proposal are true; and, further, that said Contractor has not, directly or indirectly, submitted his bid proposal or any breakdown thereof, or the contents thereof, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said Contractor in his general business.

_____

Contractor Signature

Subscribed and sworn to before me this ____ day of _____, 20____.

_____

Notary Public Signature

GEOPHYTA

Onsite Septic System Site Evaluation And Replacement System Design

For:

Barbara Neikirk (WPCLF)

4877 East State Route 18
Tiffin, OH 44883

Property Location:

4877 East State Route 18
Tiffin, OH 44883

Clinton Township, Seneca County

SYSTEM TYPE:

Engineered Sand Mound

BY:

Nathan Wright (Soil Scientist)
Caleb Layne (Soil Scientist Apprentice)
Seth V. Layne (Septic System Designer)

Geophyta, Inc.
2685 C.R. 254
Vickery, OH 43464
419-547-8538

June 15th, 2025

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

To The Homeowner:

A septic system is designed based on all the information you provide and Geophyta Inc collects at the site. It must be accurate. This information includes local soil limits and topography, plus existing and future locations of your home, number of bedrooms, out buildings, driveways, drinking water wells, ponds, septic systems, and property lines. Geophyta Inc. relies on this information to construct detailed design drawings that must meet local health department regulations before installation.

Any design changes required by the local health department to meet existing regulations are the responsibility of Geophyta Inc.

Any information changes made by you after the initial site inspection are your responsibility and will result in additional charges to you above the original quote for services. These charges may include additional site inspection work, system redesign, and resubmitted drawings.

To The Installer:

The registered installer of this septic system design is responsible for preparing an "as-built" record, as stated in the Ohio Administrative Code Chapter 3701-29-09, Par. F (p.32) of the "Sewage Treatment System Rules," Ohio Department of Health, January 1, 2015. Additionally, the installer is responsible for measuring and recording distal pressure head and float switch settings as baseline measures for future operation and maintenance of any pressure distribution system (3701-29-15, Appendix B, Par. V(p.93) of above referenced rules.

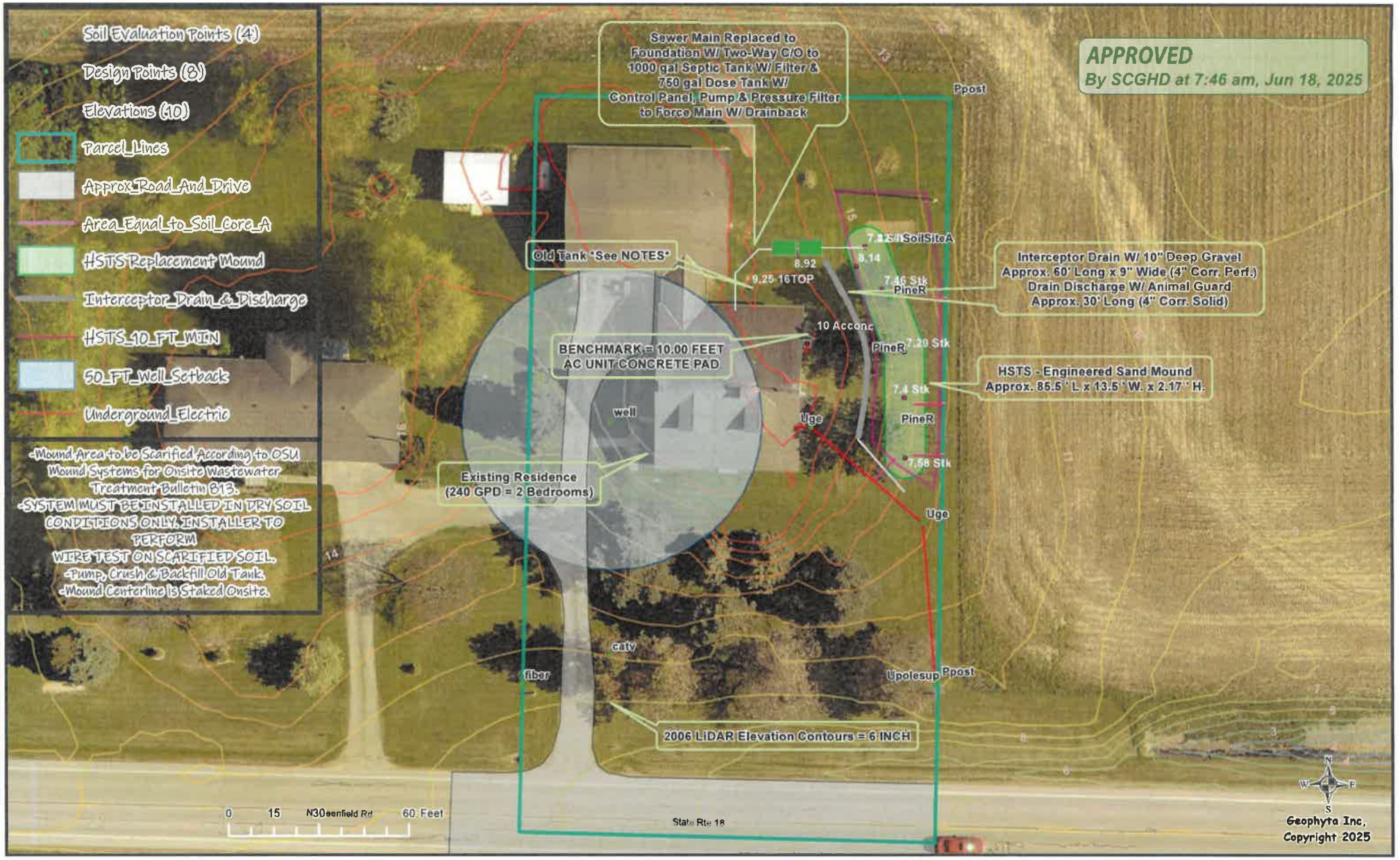
If the installer requests "as-built" record creation from Geophyta Inc., additional charges will be billed to the installer by Geophyta Inc. and must be arranged prior to installation.

Geophyta Inc. must assume that any registered installer has the knowledge, equipment, ability, and experience to properly layout, install, and create as-built drawings for any septic system design approved by a local board of health. This includes the ability to read detailed design prints with an associated bill of materials. For this reason, any Geophyta Inc project supervision prior to or during installation will be billed to the installer.

Any product substitution made by the installer that is not specifically permitted in the design prints may result in Health Dept. disapproval and will result in additional re-design costs billed to the installer.

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

HSTS Replacement Layout - 4877 East State Route 18



Site and Soil Evaluation for Sewage Treatment and Dispersal

County: **Seneca**
Township / Sec.: **Clinton**
Property Address: **4877 E SR 18**
OR Location: **Tiffin, OH 44883**
Applicant Name: **Barbara Neikirk**
Address: **4877 E SR 18**
Tiffin, OH 44883
Phone #: **419-618-0620**
Lot #:
Test Hole #: **A**
Latitude/Longitude: **83°4'36.335"W 41°7'29.867"N**
Method: ____ Pit ___ Auger **X** Probe; 1 1/4" dia.

Land Use / Vegetation: **Residential Turf**
Landform: **Glacial Till Plain**
Position on Landform: **Hillslope**
Percent Slope: **3-4**
Shape of Slope: **Linear - Linear**
Approximate Soil Type: **Blount SiL**

Date: **20-May-25**
Evaluator: **Nathan Wright**
Geophyta, Inc.
2685 C.R. 254
Vickery, OH 43464
Phone#: **419-547-8538**

Control #: **25- SEN - 27A - 163**

CPSS
Certified Professional Soil Scientist

Certification #: **19395**

Signature: Nathan Wright

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							
		Munsell Color (hue, value, chroma)										
			Redoximorphic Features		Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features
A	0.0-15.0	10YR 2/1	none	none	SiL	20	0	3-strong	med	gb	friable	
Bt	15.0-33.0	10YR 4/4	none	15% 10YR 5/2	SiCL	30	0	2-med	med	sbk	firm	
C	33.0-48.0	10YR 4/6	none	20% 10YR 5/1	CL	30	5	1-weak	coarse	sbk	firm	

Limiting Conditions	Depth to (in.)	Descriptive Notes	Remarks / Risk Factors: Values For ATL
Perched Seasonal Water Table	15.0	Restricted in: Bt & C	Tyler Table: A horizon (9.0 - 15.0) ILR: SiL , HLLR: SiL
Apparent Water Table	>48		ILR(>30mg/L) = 0.6 gal/day/ft^2, ILR(<30mg/L) = 0.8 gal/day/ft^2
Highly Permeable Material	>48		HLLR = 2.7 gal/day/ft
Bedrock	>60	By Tile Probe	2 bedroom min. required absorption area = 400 sq.ft.
Other Restrictive Layer	>48		5xW Soil Absorption Box: 23' W x 89' L

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

Landforms
Upland*
Terrace
Flood Plain
Lake Pain
Beach Ridge
*Includes glacial till plain and end moraine

Position on Landform
Depression
Flat
Knoll
Crest
Hillslope
Footslope

Shape of Slope
Convex
Concave
Linear
Complex

Horizon Nomenclature

Master Horizons

O	Predominantly organic matter (litter & humus)
A	Mineral, organic matter (humus) accumulation, loss of Fe, Al, clay
E	Mineral, loss of Si, Fe, Al, clay, organic matter
B	Subsurface accumulation of clay, Fe, Al, Si, humus; sesquioxides; loss of $CaCo_3$; subsurface soil structure
C	Little or no pedogenic alteration, unconsoilidated earthy material, soft bedrock
R	Hard bedrock

Horizon Suffixes

a	Highly decomposed organic matter
b	Buried genetic horizon
d	Densic layer (physically root restrictive)
e	Moderately decomposed organic matter
g	Strong gley
i	Slightly decomposed organic matter
p	Plow layer or artificial disturbance
r	Weathered or soft bedrock
t	Illuvial accumulation of silicate clay
w	Weak color or structure within B
x	Fragipan characteristics

Horizon Modifiers

Numerical Prefixes: Used to denote lithologic discontinuities.

Numerical Suffixes: Used to denote subdivisions within a master horizon.

Soil Texture

Texture Class Abbreviations	
Course Sand	cos
Sand	s
Fine Sand	fs
Very Fine Sand	vfs
Loamy Coarse Sand	lcos
Loamy Sand	ls
Loamy Fine Sand	lfs
Loamy Very Fine Sand	lvfs
Coarse Sandy Loam	cosl
Sandy Loam	sl
Fine Sandy Loam	fsl
Very Fine Sandy Loam	vfsl
Loam	l
Silt Loam	sil
Silt	si
Sandy Clay Loam	scl
Clay Loam	cl
Silty Clay Loam	sicl
Sandy Clay	sc
Silty Clay	sic
Clay	c

Textural Class Modifiers	
Gravelly	GR
Fine Gravelly	FGR
Medium Gravelly	MGR
Coarse Gravelly	CGR
Very Gravelly	VGR
Extremely Gravelly	XGR
Cobbly	CB
Very Cobbly	VCB
Extremely Cobbly	XCB
Stony	ST
Very Stony	VST
Extremely Stony	XST
Bouldery	BY
Very Bouldery	VBY
Extremely Bouldery	XBY
Channery	CN
Very Channery	VCN
Extremely Channery	XCN
Flaggy	FL
Very Flaggy	VFL
Extremely Flaggy	XFL

*Estimate approximate clay percentage within 5 percent

Soil Structure

Grade		Size		Type (Shape)	
Structureless	0	Very Fine	vf	Granular	gr
Weak	1	Fine	f	Angular Blocky	abk
Moderate	2	Medium	m	Subangular Blocky	sbk
Strong	3	Coarse	co	Platy	pl
		Very Coarse	vc	Prismatic	pr
		Extr. Coarse	ec	Columnar	cpr
		Very Thin*	vn	Single Grain	sg
		Thin*	tn	Massive	m
		Thick*	tk	Cloddy	CDY
		Very Thick*	vk		

* The sizes Very Thin, Thin, Thick, and Very Thick, are used when describing platy structure only. Substitute thin for fine, and thick for coarse when describing platy structure.

Moist Consistence	
Loose	l
Very Friable	vfr
Friable	fr
Firm	fi
Very Firm	vfi
Extremely Firm	efi

For a more detailed explanation on describing and sampling soils, please refer to the "Field Book for Describing and Sampling Soils" Schoeneberger, P.J., Wysocki, D.A., Benham, E.C., and Broderson, W.D. (editors) 2002. Field book for describing and sampling soils, version 2.0. Natural Resources Conservation Service, USDA, National Soil Survey Center, Lincoln, NE.

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MOUND CALCULATIONS - HSTS

	CLIENT / LOCATION	NEIKIRK	4877 EAST STATE ROUTE 18			
1	TOTAL NUMBER OF BEDROOMS IN HOME		2			BR
2	DAILY DESIGN FLOW PER 3701-29 *(NUMBER OF BEDROOMS * 120 GALLONS)*		240			GPD
3	SOIL BOUNDARY OR CORE LOCATION USED FOR MOUND DESIGN		SOIL SITE A			
4	MOST IMPACTFUL LIMITING CONDITION		PERCHED SEASONAL WATER TABLE			
5	DEPTH TO LIMITING CONDITION			15.0		IN
6	LOCAL HEALTH DEPARTMENT / 3701-29 MINIMUM SEPARATION			12.0		IN
7	SAND DEPTH OF MOUND ON UPSLOPE SIDE		AVG	6.0		IN
8	TOTAL INFILTRATION DEPTH OF SAND & IN-SITU SOIL			21.0		IN
9	WILL THIS SYSTEM UTILIZE PRETREATMENT TECHNOLOGIES?		NO			
10	SOIL INFILTRATION LOADING RATE *(MOST LIMITING IN SITU SOIL LAYER WITHIN SIX INCHES OF THE INFILTRATIVE SURFACE PER 3701-29)*		TEXTURE		SIL	
11			STRUCTURE (GRADE)		3	
12	HYDRAULIC LINEAR LOADING RATE *(MOST RESTRICTIVE SOIL HORIZON WITHIN THE INFILTRATIVE DISTANCE SHALL BE USED PER 3701-29)*		TEXTURE		SIL	
13			STRUCTURE (GRADE)		3	
14			LAND SLOPE		0	%
15			INFILTRATIVE DISTANCE		12-24 INCHES	
16	CHOSEN SOIL INFILTRATION LOADING RATE		0.6			GPD/FT.²
17	CHOSEN HYDRAULIC LINEAR LOADING RATE		3.0			GPD/FT.
18	SAND FILL LOADING RATE PER 3701-29 *(OSU EXT. BULLETIN 813 STEP 4)*		1.0			GPD/FT.²
19	DETERMINE BASE DISTRIBUTION AREA WIDTH (BOX 17 / BOX 18) *(OSU EXT. BULLETIN 813 STEP 5)*		3.0			FT.
20	DETERMINE BASE DISTRIBUTION AREA LENGTH (BOX 2 / BOX 17) *(OSU EXT. BULLETIN 813 STEP 6)*		80.0			FT.
21	ADJUSTED LENGTH **10% LENGTH REDUCTION ONLY ALLOWED ON NEW BUILD PRIOR TO PARCEL CREATION 2007. 30% MAX ON REPLACEMENTS*		72	10%	72	FT.
22				30%	56	FT.
23	ADJUSTED DISTRIBUTION AREA WIDTH		3.67	(2) 2' INFILTRATOR CHAMBERS		FT.
24	DETERMINE MIN. SOIL INFILTRATION AREA WIDTH (BOX 17 / BOX 16) *(OSU EXT. BULLETIN 813 STEP 8)*		5.0			FT.
25	DETERMINE MOUND SYSTEM SAND FILL DOWNSLOPE DEPTH (BOX 7 + BOX 14 * BOX 23) *(OSU EXT. BULLETIN 813 STEP 10)*		6.0			IN
26	DISTRIBUTION AREA AGGREGATE DEPTH *(OSU EXT. BULLETIN 813 STEP 11)*		8.0			IN
27	MOUND SIDE SLOPE CAP TOPSOIL DEPTH **SILT LOAM, SANDY LOAM OR LOAMY SAND* (OSU EXT. BULLETIN 813 STEP 11)*		6.0			IN
28	DISTRIBUTION AREA MOUND CAP TOPSOIL DEPTH **SILT LOAM, SANDY LOAM OR LOAMY SAND* (OSU EXT. BULLETIN 813 STEP 11)*		12.0			IN
29	DISTRIBUTION UPSLOPE WIDTH *3 * (BOX 7+BOX 25+BOX 26) * UPSLOPE CORRECTION FACTOR (OSU EXT. BULLETIN 813 STEP 12)*		5.0			FT.
30	DISTRIBUTION DOWNSLOPE WIDTH *3 * (BOX 24+BOX 25+BOX 26) * DOWNSLOPE CORRECTION FACTOR (OSU EXT. BULLETIN 813 STEP 13)*		5.0			FT.
31	DETERMINE APPROX. END SLOPE LENGTH *3 * (AVG OF BOX 7 & 25+BOX 26+BOX 28) (OSU EXT. BULLETIN 813 STEP 14)*		6.5			FT.
32	APPROX. OVERALL MOUND SYSTEM LENGTH *(BOX 21/22 + 2 * BOX 31) (OSU EXT. BULLETIN 813 STEP 15)*		85.0			FT.
33	APPROX. OVERALL MOUND SYSTEM WIDTH *(BOX 23 + BOX 29 + BOX 30) (OSU EXT. BULLETIN 813 STEP 15)*		13.7			FT.
34	APPROX. OVERALL MOUND HEIGHT *(BOX 7 + BOX 26 + BOX 28)*		2.17			FT.
35	MIN. REQUIRED SOIL ABSORPTION AREA (BOX 2 / BOX 16)		400.0			FT.²
36	APPROX. PROVIDED SOIL ABSORPTION AREA AFTER 3:1 SLOPES (BOX 21/22 * BOX 33)		984.2			FT.²
37	APPROX. PROVIDED DISTRIBUTION AREA FOR LATERALS **MUST MEET OR EXCEED GPD/DDF** (BOX 21/22 * BOX 23)		264.2			FT.²
38	*COMMENTS*					
39						

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

LOW PRESSURE PIPE & DOSING CALCULATIONS - HSTS

CLIENT / LOCATION	NEIKIRK	4877 EAST STATE ROUTE 18

LATERAL DESIGN & SIZING

1	SAND DISTRIBUTION AREA LENGTH	72	Distribution Area Length (FT)
2	SAND DISTRIBUTION AREA WIDTH	3.67	Distribution Area Width (FT)
3	APPROX. PROVIDED DISTRIBUTION AREA FOR LATERALS	264.2	Provided Distribution Area (FT^2)
4	MAXIMUM AREA PER ORIFICE PER 3701-29	6	Max Area Per Orifice (FT^2)
5	HOW MANY LATERALS WILL MOUND DESIGN HAVE?	2	Total Laterals
6	ORIFICE QUANTITY *(BOX 3 / BOX 4 *MROUND DIVISIBLE BOX 5*)*	44	Total Orifices
7	EACH LATERAL LENGTH	72	Each Lateral Length (FT)
8	TOTAL LATERAL LENGTH *(BOX 5 * BOX 7)*	144	Total Lateral Length (FT)
9	ORIFICE SEPARATION **MUST BE LESS THAN OR EQUAL TO 4 FT.* (BOX 8 / BOX 6)*	3.27	Orifice Separation (FT)
10	ORIFICE DIAMETER	0.125	Orifice Diameter (IN)
11	LATERAL DIAMETER	1.25	Lateral Diameter (IN)
12	WILL THE SYSTEM OPERATE WITH LESS THAN 10% DISTAL END HEAD LOSS?	YES	< 10% Distal Loss?
13	TARGET HEAD AT DISTAL LATERAL END	5.0	Distal Lateral Head (FT)
14	FLOW RATE PER ORIFICE (Otis et al, 1978)	0.41	Flow Rate Per Orifice (GPM)
15	FLOW RATE PER LATERAL *(BOX 6 / 5) * BOX 14*	9.02	Flow Rate Per Lateral (GPM)
16	FLOW RATE TOTAL FOR TARGETED MOUND OPERATION *(BOX 6 * BOX 14)*	18.0	Operational GPM
17	GALLONS PER FOOT OF PIPE (Clemons, 1991)	0.078	Volume Per Foot (GAL)
18	TOTAL LATERAL VOLUME *(BOX 8 * BOX 17)*	11.23	Lateral Volume (GAL)

FORCE MAIN DESIGN & SIZING

19	FORCE MAIN DIAMETER	1.50			IN
20	LENGTH OF FORCE MAIN	15			FT
21	GALLONS PER FOOT OF PIPE (Clemons, 1991)	0.106			GALLONS
22	TOTAL FORCE MAIN VOLUME *(BOX 20 * BOX 21)*	1.59			GALLONS
23	NUMBER OF 90 DEGREE ELBOWS	5	40	Length EQ.	FT
24	NUMBER OF 45 DEGREE ELBOWS	0	0		FT
25	NUMBER OF STANDARD TEE'S	1	9		FT
26	NUMBER OF CHECK VALVES	0	0		FT
27	NUMBER OF QUICK DISCONNECTS	1	1		FT
28	NUMBER OF GATE VALVES	0	0.0		FT
29	TOTAL LENGTH EQUIVALENT OF FORCE MAIN & FITTINGS	65.0			FT
30	HEAD LOSS PER 100 FEET (Otis et al, 1978)(Zoeller)	2.03			Per 100 FT
31	TOTAL MAIN HEAD LOSS	1.32			FT

MANIFOLD DESIGN & SIZING

32	MANIFOLD DIAMETER	1.25			IN
33	LENGTH OF MANIFOLD	0			FT
34	GALLONS PER FOOT OF PIPE (Clemons, 1991)	0.078			GALLONS
35	TOTAL MANIFOLD VOLUME *(BOX 32 * BOX 33)*	0.00			GALLONS
36	NUMBER OF 90 DEGREE ELBOWS	0	0	Length EQ.	FT
37	NUMBER OF 45 DEGREE ELBOWS	0	0		FT
38	NUMBER OF STANDARD TEE'S	0	0		FT
39	NUMBER OF CHECK VALVES	0	0		FT
40	NUMBER OF QUICK DISCONNECTS	0	0		FT

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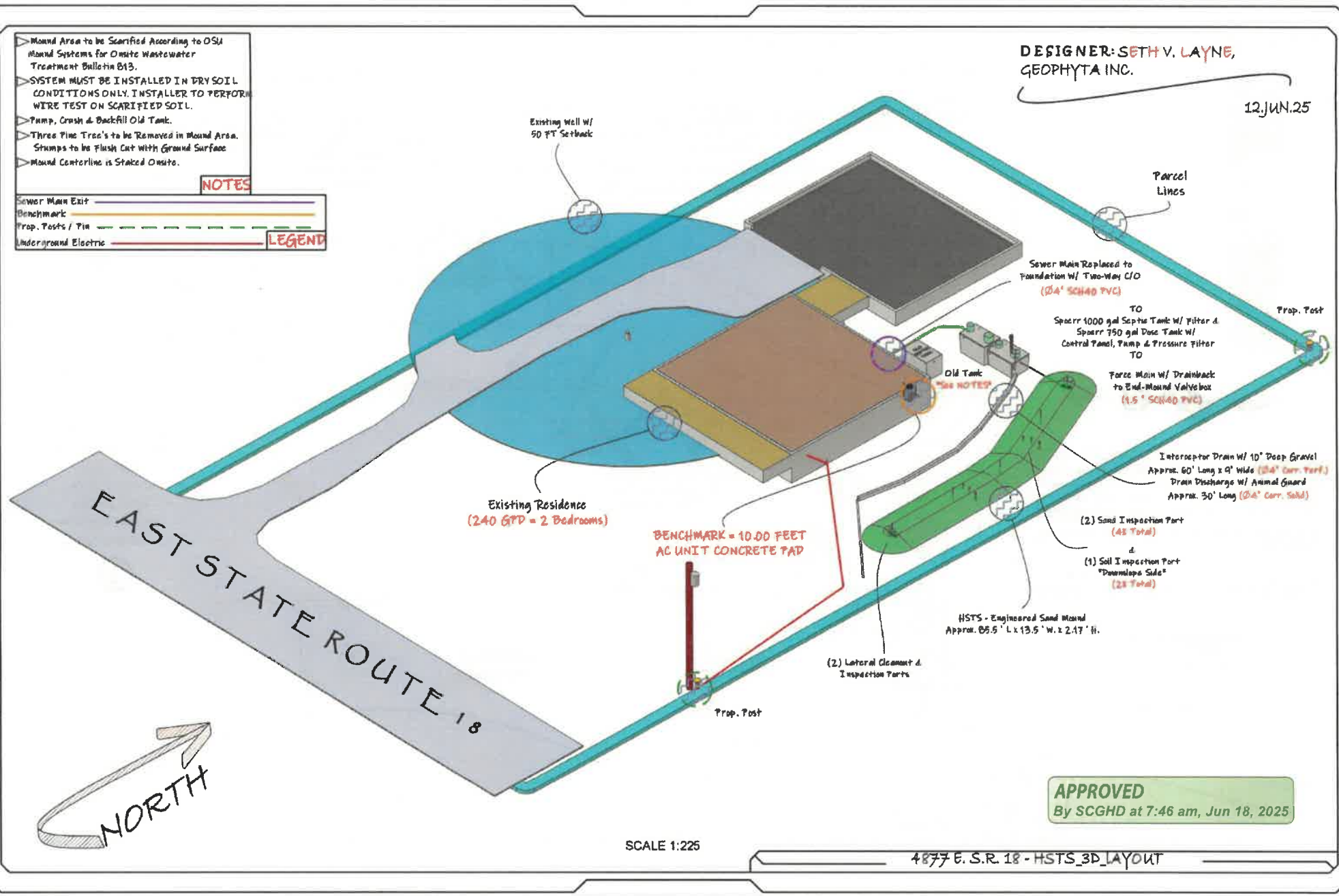
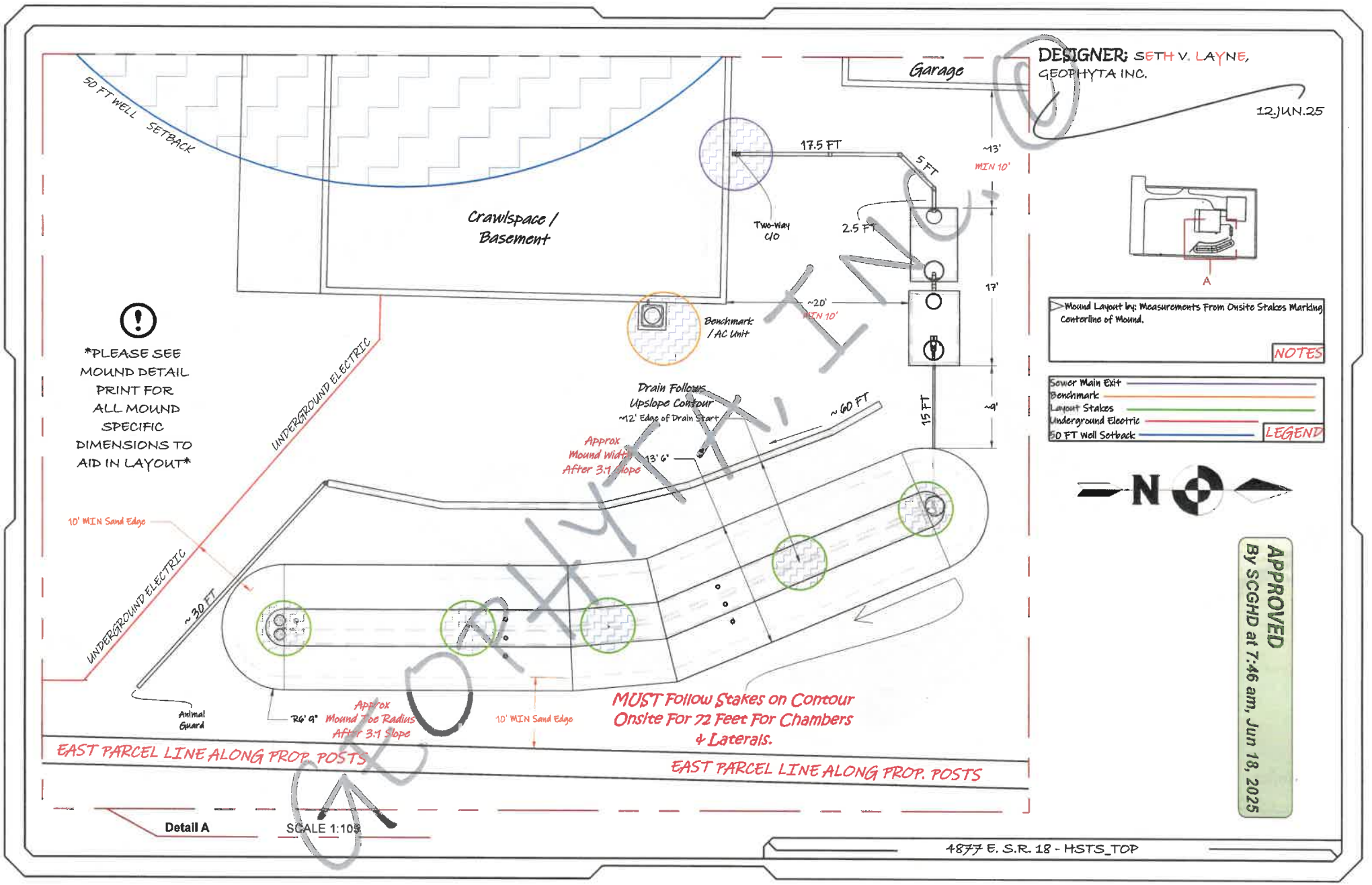
V1 01.27.25 CREATED BY: S.V.L.

41	NUMBER OF GATE VALVES				2	1.8	FT
42	TOTAL LENGTH EQUIVALENT OF MANIFOLD & FITTINGS				1.8		FT
43	HEAD LOSS PER 100 FEET (Otis et al, 1978)(Zoeller)				4.29		Per 100 FT
44	TOTAL MANIFOLD HEAD LOSS				0.08		FT
	DOSE VOLUME						
45	TOTAL LATERAL VOLUME *(BOX 18)*				11.23		Total Lateral Volume (GAL)
46	TOTAL FORCE MAIN VOLUME *(BOX 22)*				1.59		Total Force Main Volume (GAL)
47	TOTAL MANIFOLD VOLUME *(BOX 35)*				0.00		Total Manifold Volume (GAL)
48	TOTAL MAXIMUM DRAINBACK VOLUME *(BOX 45 + BOX 46 + BOX 47)*				12.82		Total Drainback Volume (GAL)
49	MIN. LATERAL VOLUME	5X	PER DOSE *(BOX 45 * 5X)*	ACTUAL VOLUME FACTOR 5.34 X	60.0		Dose to Field (GAL)
50	TOTAL DOSED VOLUME PER CYCLE *(BOX 48 + BOX 49)*				72.80		Total Volume Per Dose (GAL)
51	IS LATERAL DOSE LESS THAN OR EQUAL TO A QUARTER OF 240 GALLONS PER DAY?				YES		<= 1/4 DDF?
52	IS LATERAL DOSE LESS THAN OR EQUAL TO AN EIGHTH OF 240 GALLONS PER DAY?				NO		<= 1/8 DDF?
	TOTAL DYNAMIC HEAD						
53	STATIC LIFT - LATERAL HEIGHT ABOVE MOUND GROUND SURFACE				6		Sand Height (IN)
54	STATIC LIFT - DEPTH TO PUMP OFF BELOW NATIVE GROUND SURFACE				4.42		FT
55	STATIC LIFT - ELEVATION DIFFERENCE - PUMP GROUND SURFACE TO MOUND GROUND SURFACE				-1.33		FT
56	TOTAL PIPE & FITTINGS HEAD LOSS *(BOX 44 + BOX 58)*				1.40		FT
57	NETWORK LOSS (5 FEET HEAD X 1.3) (INCLUDES LATERALS)				6.50		FT
58	TOTAL HEAD LOSS FOR SYSTEM OPERATION				11.5		Total Head Loss (FT)
	DOSE TANK PARAMETERS						
59	DOSE TANK MANUFACTURER & GALLONS				SPOERR 750 GAL		
60	APPROX. LIQUID LEVEL				33.5		IN
61	GALLONS PER INCH IN TANK				22.3		GALLONS/ IN
	TIME DOSE SETTINGS						
62	TOTAL GALLONS PER PUMP CYCLE WITH DRAINBACK *(BOX 50)*				72.80		Flow Per Cycle (GAL)
63	DRAWDOWN PER PUMP CYCLE *(BOX 62 / BOX 61)*				3.26		Cycle Drawdown (IN)
64	TOTAL PUMP CYCLES PER 24 HOUR PERIOD *(DAILY DESIGN FLOW / BOX 49)*				4.0		Cycles Per 24 Hour
65	TOTAL PUMP ON TIME PER CYCLE *(BOX 62 / BOX 16 * 60)*				242		Total Pump ON (SECONDS)
66	TOTAL PUMP OFF TIME PER CYCLE *(24 / BOX 64) - (BOX 65 / 60 / 60)*				5.93		Pump OFF Per Cycle (HOURS)
67	REDUNDANT OFF HEIGHT FROM TANK BOTTOM				10.0		IN
68	TIMER ENABLE HEIGHT FROM TANK BOTTOM *(BOX 67 + BOX 63)*				13.3		IN
69	HIGH LEVEL ALARM HEIGHT FROM TANK BOTTOM *(BOX 60 - ((DDF*1.5X)/BOX 61)*				17.4		IN
70	TOTAL PROVIDED SURGE VOLUME *((BOX 69 - BOX 67) * BOX 61)*			164.1 GALLONS	0.7 X		DDF
71	TOTAL PROVIDED RESERVE VOLUME *((BOX 60 - BOX 69) * BOX 61)*			360.0 GALLONS	1.5 X		DDF
72	*COMMENTS*						
73							

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025


NOTES
Mound Area to be Scarified According to OSU Mound Systems for Onsite Wastewater Treatment Bulletin 813.
SYSTEM MUST BE INSTALLED IN DRY SOIL CONDITIONS ONLY. INSTALLER TO PERFORM WIRE TEST ON SCARIFIED SOIL.
Pump, Crush & Backfill Old Tank.
Three Pine Tree's to be Removed in Mound Area. Stumps to be Flush Cut with Ground Surface
Mound Centerline is Staked Onsite.
LEGEND
Sewer Main Exit
Benchmark
Prop. Posts / Pin
Underground Electric
DESIGNER: SETH V. LAYNE, GEOPHYTA INC.
12.JUN.25
Existing Well W/ 50 FT Setback
Parcel Lines
Sewer Main Replaced to Foundation W/ Two-Way C/O (Ø4" SCH40 PVC)
TO
Spearr 1000 gal Septic Tank W/ Filter & Spearr 750 gal Dose Tank W/ Control Panel, Pump & Pressure Filter
TO
Force Main W/ Drainback to End-Mound Valvebox (1.5" SCH40 PVC)
Prop. Post
Old Tank "See NOTES"
Interceptor Drain W/ 10" Deep Gravel Approx. 60' Long x 9' Wide (Ø4" Corr. Perf.) Drain Discharge W/ Animal Guard Approx. 30' Long (Ø4" Corr. Solid)
Existing Residence (240 GPD = 2 Bedrooms)
BENCHMARK = 10.00 FEET AC UNIT CONCRETE PAD
(2) Sand Inspection Port (4" Total)
&
(1) Soil Inspection Port "Downslope Side" (2" Total)
HSTS - Engineered Sand Mound Approx. 85.5' L x 13.5' W. x 2.17' H.
(2) Lateral Cleanout & Inspection Ports
Prop. Post
EAST STATE ROUTE 18
NORTH
APPROVED
By SCGHD at 7:46 am, Jun 18, 2025
SCALE 1:225
4877 E. S.R. 18 - HSTS_3D_LAYOUT



GEOPHYTA, INC.

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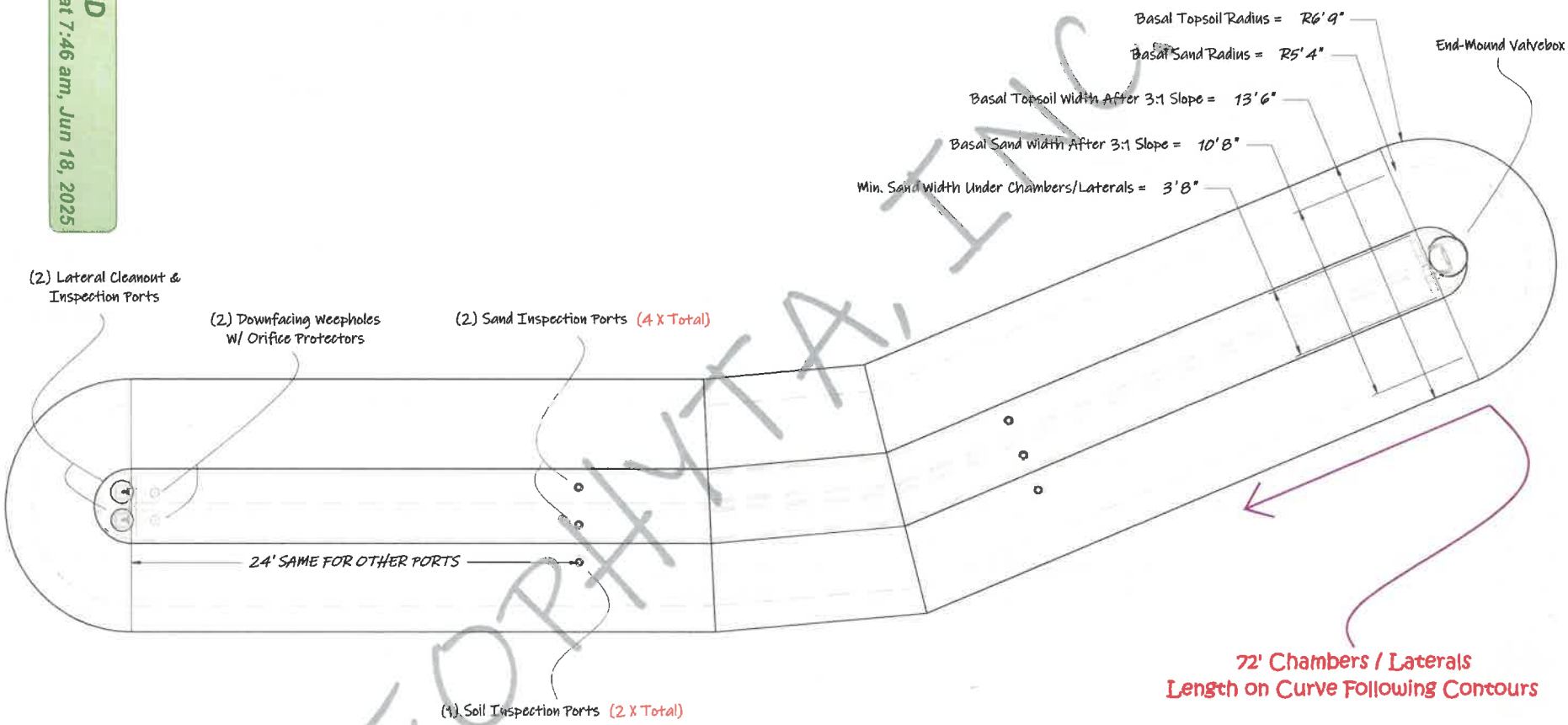
By SCGHD at 7:46 am, Jun 18, 2025

DESIGNER: SETH V. LAYNE, GEOPHYTA INC.

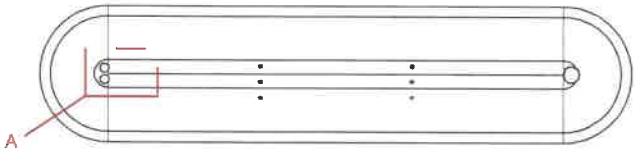
12.JUN.25



GEOPHYTA, INC ©

SCALE 1:65

HSTS - MOUND_DETAIL



DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 22.DEC.21

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By SCGHD at 7:46 am, Jun 18, 2025

Lateral Diameters Are Determined From Each Individual Design And Can Be Found In The Calculations Pages As Well As Bill Of Materials.

6 O'Clock, End Drain Orifice With Orifice Protector

12 O'Clock Orifices For Remainder of Laterals

1' 0" MIN

X' X" (Orifice Spacing Per Design)

Lateral Cleanouts & Sand Inspection Ports. Entire Lateral Lengths Are Covered With Gravelless Chambers As Effluent Diffusers.

1' 6" = Approx. Lateral Separation

Stagger Orifices in Diamond Pattern Across Laterals, as Best as Possible. *Number of Orifices Per Lateral Takes Priority Over Exact Spacing*
1/2 X' X" (Orifice Spacing Per Design)

Can be Adjusted to Help With Stagger

1' 0" MIN

6 O'Clock, End Drain Orifice With Orifice Protector

12 O'Clock Orifices For Remainder of Laterals

Detail A SCALE 1:10

HSTS-Mound_Laterals_Detail

Geophyta, Inc ©

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 19.SEP.22

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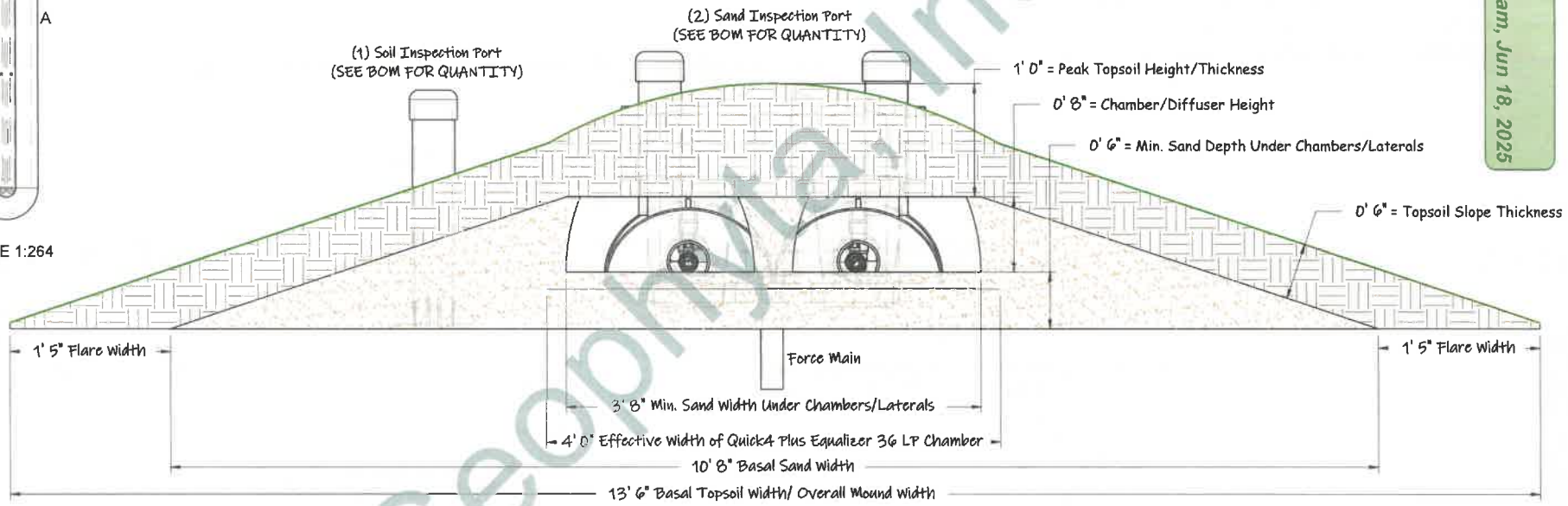
By SCGHD at 7:46 am, Jun 18, 2025

SCALE 1:264

C-33 Natural Sand

Silt Loam or Better



Section A-A

SCALE 1:11

HSTS_Mound_Cross-Section

Geophyta, Inc. ©

- Sand Depths Under Mound Centerline Due To Soil Unevenness:
  Avg. = 7.8 " Range = 6.0 " - 9.5 "
- Sewer Main MIN Fall 1% or 0.125" / 1'
- Force Main MIN Drainback Fall 0.1% or 1.2" / 100'
- Interceptor Drain & Discharge MIN Fall 0.1 % or 1.2" / 100 '

NOTES

Native Soil Surface

Zero Elevation Reference

LEGEND

ELEVATION VIEW - SOUTH TO NORTH

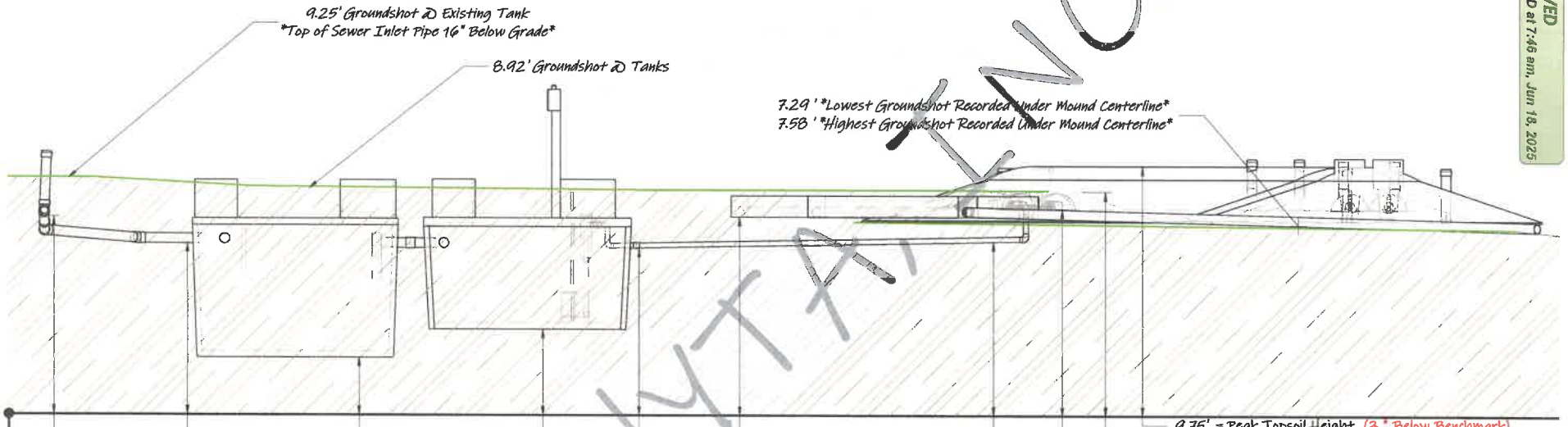
WEST

DESIGNER: SETH V. LAYNE,
GEOPHYTA INC.

15.JUN.25

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

****All Elevation Values Pointing to Surface Are of Native Grade****



9.75' = Peak Topsoil Height (3 " Below Benchmark)

8.75' = Top of Chambers/Sand Edge (15 " Below Benchmark)

8.08' = Top of Sand Under Chambers/Laterals (23 " Below Benchmark)

6.83' = BOP Force Main Into Valvebox Pipe Elbow (3 " Drainback Fall @ 1.6 %)

7.75' = BOP & Bottom of Drain Start of 10" Gravel *North Side*
(27" Below Benchmark) ~6" Fall to Outlet to Work With*

6.58' = BOP Dose Into Force Main (41 " Below Benchmark)

3.37' = Bottom of Spoerr 750 gal Dose Tank (79.5 " Below Benchmark)

2.29' = Bottom of Spoerr 1000 gal Septic Tank (92.5 " Below Benchmark)

6.75' = BOP Sewer Main Into Septic Tank (10" Fall @ 3.3 % or 4" / 10')

7.58' = BOP Tap Into Sewer Main (Flow Line Approx. 29 " Below Benchmark)

*ZERO ELEVATION REFERENCE | BENCHMARK = 100.0 FEET;
AC UNIT CONCRETE PAD | SEE LAYOUT MAP

SCALE 1:46

1877 EAST STATE ROUTE 18 - HSTS_ELEVATION

GEOPHYTA INC

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

BILL OF MATERIALS - ENGINEERED SAND MOUND

OWNER / ADDRESS — 4877 EAST STATE ROUTE 18

SECTION	DIA(IN)	PIPE MATERIAL	TYPE	LENGTH (FT)	QUANTITY	COMMENT
SEWER MAIN	4 IN	SCH40	2-WAY C/O	-	1	TWO-WAY CLEANOUT
			CAP	-	1	
			PIPE	2 FT	1	
			COUPLER	-	1	TOTAL LENGTH ~ 25 FT
			45 ELBOW	-	2	
			PIPE	2.5 FT	1	
				5 FT	1	
				7.5 FT	1	
				10 FT	1	
TREATMENT TANK	-	-	-	-	1	SPOERR 1000 GAL SEPTIC TANK OR EQUIV. W/ 18 " RISERS
SEPTIC TO DOSE	-	SCH40	COUPLER	-	1	
			PIPE	3 FT	1	
DOSE ASSEMBLY	-	-	TANK	-	1	SPOERR 750 GAL TANK AS DOSE TANK OR EQUIV. W/ 18 " RISER
			PANEL	-	1	OHIO ELECTRIC ECP-TD-11 OR EQUIV. (SEE DETAIL PRINT)
			WIRE	50 FT	1	2 CONDUCTOR W/ GRD 14 GAUGE UG WIRE FOR PUMP CIRCUIT; STANDALONE 15A BREAKER
			WIRE		1	2 CONDUCTOR W/ GRD 14 GAUGE UG WIRE FOR ALARM CIRCUIT: ADD TO EXISTING CIRCUIT
			CONDUIT		1	PLASTIC CONDUIT TO CONTAIN 6-14 GAUGE
	2 IN		PUMP	-	1	CHAMPION CPE4-12 OR EQUIV.
			FILTER	-	1	SIMTECH PRESSURE FILTER STF-100 OR EQUIV.
	2 IN	SCH40	PIPE	1 FT	1	WITH QUARTER INCH WEEP HOLE IN 6 O'CLOCK POSITION
				26 IN	1	SEE DETAIL PRINT
				3 IN	2	
				6.5 IN	1	
			90 ELBOW	-	2	
			MNPT	-	1	
			UNION		1	
	1 IN		PIPE	5 FT	1	
FORCE MAIN WITH DRAINBACK	2X1.5 IN	SCH40	REDUCER	-	1	TOTAL LENGTH ~ 15 FT
	1.5 IN		COUPLER	-	1	
			90 ELBOW	-	1	
			PIPE	5 FT	1	
				10 FT	1	
VALVEBOX ASSEMBLY	4 IN	SCH40	PIPE	1 FT	2	SEE DETAIL PRINT
	1.5 IN		TEE	-	1	
			PIPE	3 IN	2	
				1 FT	1	
	2X1.25 IN		REDUCER	-	2	
	1.25 IN		90 ELBOW	-	2	
			PIPE	2.5 IN	4	
			BALL VALVES	-	2	
	-	-	END CAP	-	2	INFILTRATOR QUICK 4 PLUS END CAP MODIFIED FOR MOUND VALVEBOX
	-	-	BOX	-	1	POLYLOK 24 INCH D-BOX W/ CONCRETE BASE W/ 6 INCH RISER OR EQUIV.
MOUND CONSTRUCTION	-	-	SAND	-	1	~ 20.0 yd.³ @ 35.0 Tons (ASTM C-33 Natural Sand)
	-	-	TOPSOIL	-	1	~ 23.0 yd.³ @ 40.25 Tons (Silt Loam Or Better)
	-	-	CHAMBERS	4X2	36	Infiltrator Quick 4 Plus Equalizer 36 Low Profile Chambers
LATERALS	1.25 IN	SCH40	PIPE	72 FT	2	44 TOTAL 0.125 DIA. ORIFICES WITH SPACING 3 FEET 3 INCH
	-	-	SHIELD	-	2	ORIFICE PROTECTORS STF-106D OR EQUIV.
SAND INSPECTION PORT	4 IN	SCH40	COUPLER	-	4	SEE DETAIL PRINT
			CAP	-	4	
			PIPE	1 FT	4	
				4 IN	4	
SOIL INSPECTION PORT	4 IN	SCH40	CAP	-	2	SEE DETAIL PRINT
			FLANGE	-	2	
			PIPE	2 FT	2	
LATERAL CLEANOUT AND INSPECTION PORT	4 IN	SCH40	PIPE	6 IN	2	SEE DETAIL PRINT
	1.25 IN		COUPLER	-	2	
			FIPT	-	2	
			HEX PLUG	-	2	
			90 LONG ELBOW	-	2	
	-	-	END CAP	-	2	INFILTRATOR QUICK 4 PLUS END CAP MODIFIED FOR MOUND CLEANOUT
	-	-	BOX	-	2	POLYLOK 12 INCH D-BOX W/ 12 IN RISER & LID ADAPTED FOR MOUND CLEANOUT
SEEDING OF SYSTEM	-	-	SEED	-	-	2 lbs./1000 ft.² K. Bluegrass | ~ 1250 ft.² @ 2.5 lbs.
	-	-	STRAW	-	-	Homeowner's Choice | ~ 1250 ft.²
	-	-	FERTILIZER	-	-	10 lbs. 20-10-10/1000 ft.² | ~ 1250 ft.² @ 12.5 lbs.
INTERCEPTOR DRAIN	4 IN	CORR. PERF.	PIPE	60 FT	1	SEE DETAIL PRINT
	-	-	GRAVEL	60 FT	1	~ 1.9 yd.^3 @ 2.5 Tons #57 Washed Stone
DRAIN DISCHARGE	4 IN	CORR. SOLID	PIPE	30 FT	1	LENGTH MAY VARY
		-	GUARD	-	1	ANIMAL GUARD ON OUTLET

ADDITIONAL NOTES

Mound Area to be Scarified According to OSU Mound Systems for Onsite Wastewater Treatment Bulletin 813.

SYSTEM MUST BE INSTALLED IN DRY SOIL CONDITIONS ONLY. INSTALLER TO PERFORM WIRE TEST ON SCARIFIED SOIL.

Pump, Crush & Backfill Old Tank.

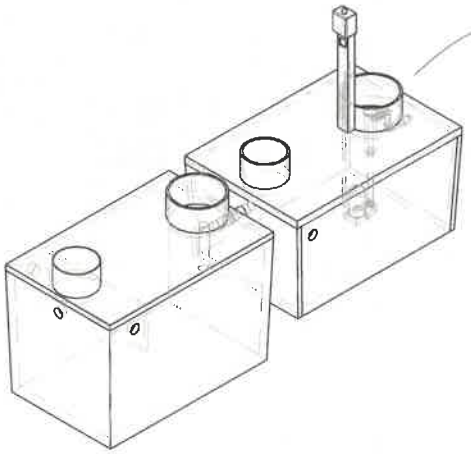
Three Pine Tree's to be Removed in Mound Area. Stumps to be Flush Cut With Ground Surface

****Call OUPS before you dig.****

Installer substitution of materials not specified in this Bill Of Materials may void Health Dept. approval of this design and will result in a re-design fee and is the sole responsibility of the installer.

Design Prints Take Precedence Over this Bill of Materials. This is a best estimate of materials required and is provided as a convenience to installers. This BOM is not required for design approval.

GEOPHYTA INC. ©



Total Extent of Width = 5' 6"

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 02.JUN.22

Control Panel

SEE BILL OF MATERIALS FOR COMPONENT DETAILS

All Risers as Grade
Requires: 12", 18", 24" or 36"

End Riser
(May Not be Needed if No UV Disinfection is Required. See Individual Design)

SCALE 1:50

End Riser

End Riser

End Riser

Pressure Filter

Union Quick Disconnect

Float Tree

Force Main

Effluent Filter

Effluent Pump

1/4" Dia. Weep Hole For Drainback in 6 O'Clock Position

Spoerr 1000gal Septic Tank

Spoerr 750gal Dose Tank

Approx. 17 FEET

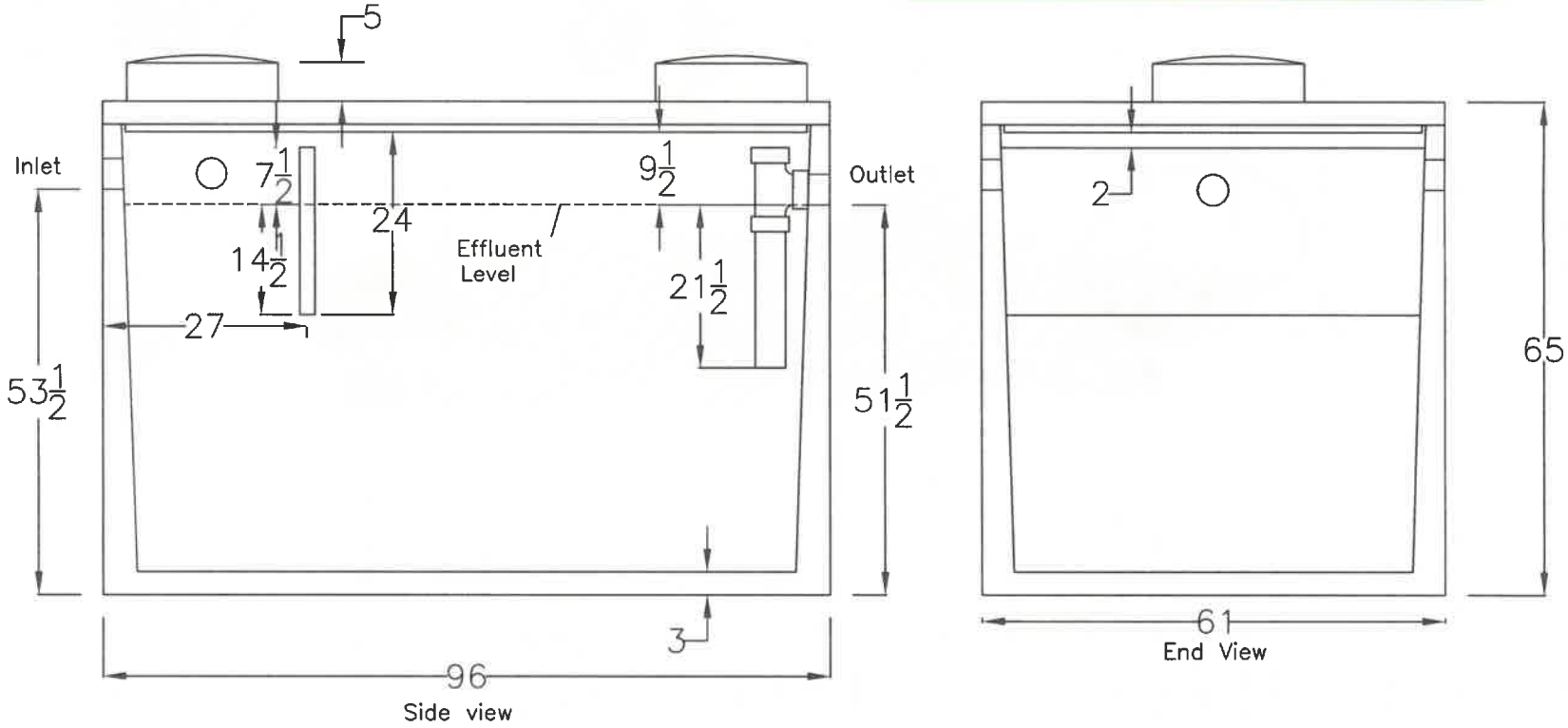
APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

SCALE 1:18

Spoerr 1000gal Septic Tank & Spoerr 750gal Dose Tank With Control Panel, Pump & Filters

Geophyta, Inc. ©

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025



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Spoerr Precast Concrete Inc.
2020 Caldwell St
Sandusky, OH 44870
800-252-5205

Concrete 5000 PSI @ 28 Days
All Dimensions in Inches
Max cover on top of tank 48"
Minimum cover 6"
Inlet/Outlet boots for 4" pipe
Boots: Meet ASTM C923
Sealant: Meets ASTM C990
Outlet Filter: Meets ANSI/NSF 46

1000 Gallon Septic Tank
Excavation 6' x 9'

11/26/15

POLYLOK Inc.
Innovations in Precast, Drainage & Wastewater Products
Zabel® A Division of Polylok Inc.

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

PL-122 Filter

The PL-122 was the original Polylok filter. It was the first filter on the market with an automatic shut-off ball installed with every filter. When the filter is removed for regular servicing, the ball will float up and prevent any solids from leaving the tank. Our patented design cannot be duplicated.

Features:

- Offers 122 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Has a flow control ball that shuts off the flow of effluent when the filter is removed for cleaning.
- Has its own gas deflector ball which deflects solids away.
- Installs easily in new tanks, or retrofits in existing systems.
- Comes complete with its own housing. No gluing of tees or pipe, no extra parts to buy.
- Has a modular design, allowing for increased filtration.

PL-122 Installation:

Ideal for residential waste flows up to 1,500 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

1. Locate the outlet of the septic tank.
2. Remove the tank cover and pump tank if necessary.
3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
4. Insert the PL-122 filter into tee.
5. Replace and secure the septic tank cover.

PL-122 Maintenance:

The PL-122 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

1. Do not use plumbing when filter is removed.
2. Pull PL-122 cartridge out of the tee.
3. Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
4. Insert filter back into tee/housing.

Polylok offers the only filter on the market where you can get more GPD by simply snapping our filters together!

1 Filter = 1500 GPD
2 Filters = 3000 GPD
3 Filters = 4500 GPD

Patent Numbers
6,015,488 & 5,871,640

1/16" Filtration Slots

1,500 GPD

NSF

Filter Ready Adapter
Connects to Septic Tank Wall

Outdoor SmartFilter® Alarm
Polylok, Zabel & Best filters accept the SmartFilter® switch and alarm.

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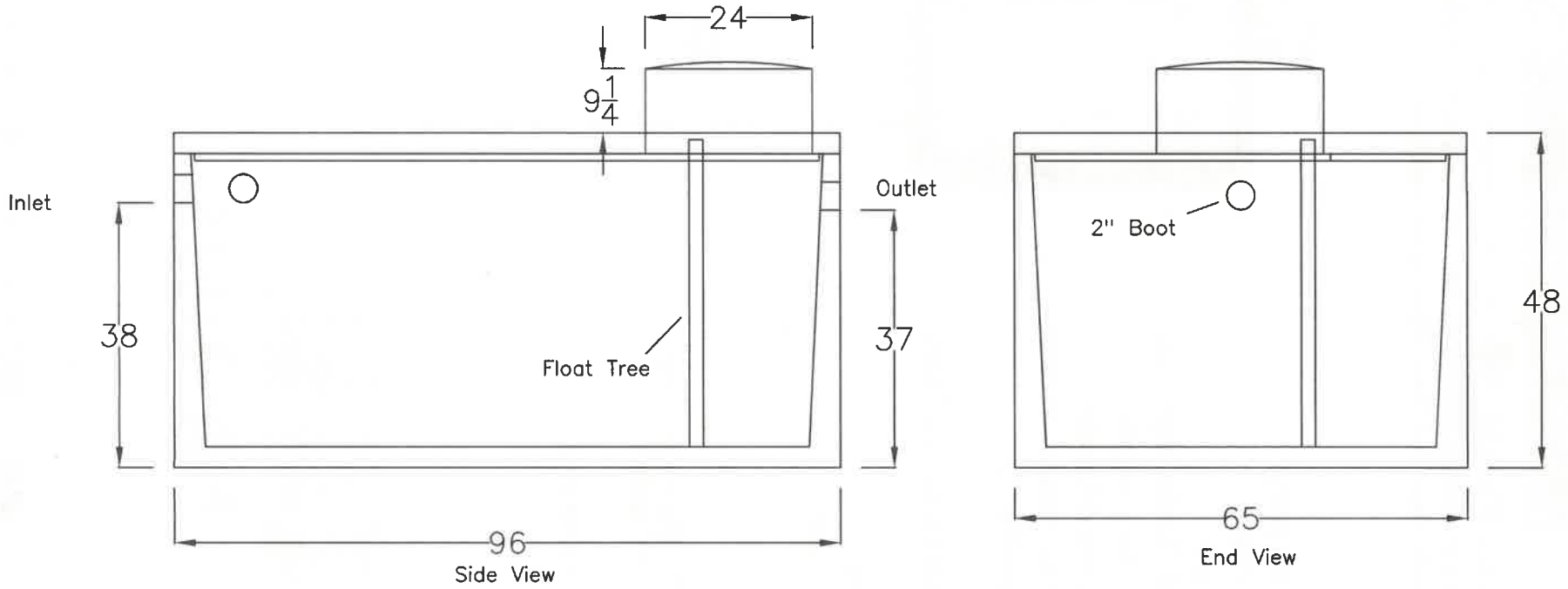
By SCGHD at 7:46 am, Jun 18, 2025



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Spoerr Precast
Concrete Inc.
2020 Caldwell St
Sandusky, OH 44870
800-252-5205

Concrete 5000 PSI @ 28 Days
All Dimensions in Inches
Max cover on top of tank 48"
Minumum Cover 6"
Inlet boot for 4" pipe
Outlet boot for 2" Pipe
Boots meet ASTM C923
Sealant: Meets ASTM C990
22.3 Gallons/inch

750 Gallon Pump Tank
Excavation 6' 6" x 9'

		11/26/15

OHIO ELECTRIC CONTROL, INC.

ECONOMY SERIES CONTROL PANELS

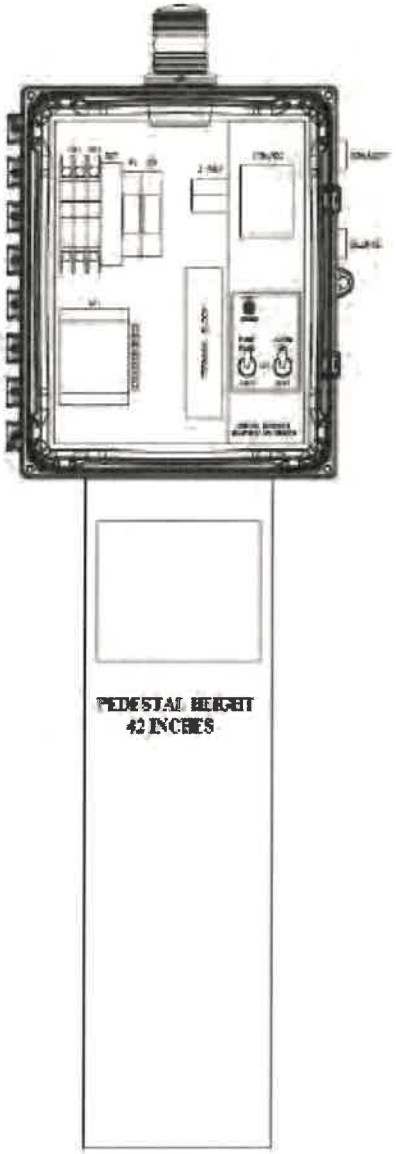
Economy Series Control Panels

Time Dose Control Panel

For single phase residential and commercial lift stations and holding tanks
Float activated pump controllers for time dose applications

Features

- Circuit breaker for each pump
- Audible alarm with silence
- 360 degree visual alarm
- 3 float operation: Off, Enable, High level
- Externally mounted silence switch
- UL Type 4X enclosure padlockable
- Separate power feed for Pump and Control
- Clearly labeled terminal blocks
- Easy to use timer
- Individually adjustable On and Off Times
- DP Rated contactor
- ETM and Cycle Conter
- All components UL Listed



Specifications

Voltage Input: 115VAC/230VAC 60Hz, single phase
Pump ratings: 115VAC/230V – 2HP at 20FLA, single phase
Enclosure: UL Type 4X rated, polycarbonate
1 year limited warranty

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

ECP-TD-11

Phone: (419) 289-1553 Fax (419) 289-5555 E-mail: oecinc@oecinc.net
www.oecinc.net

Champion Pump

CPE

4/10 - 1/2HP
EFFLUENT

Every pump tested in water to ensure pump meets peformance curve.

SSPMA CERTIFIED

FEATURES/BENEFITS

PERFORMANCE
Heads up to 65' TDH
Flows up to 86 GPM

MOTOR
High efficient, 115v or 230v, oil filled, permanent split capacitor motor with upper and lower ball bearings and thermal overload protection
- Constant bearing lubrication
- Maximum motor cooling
- Runs cooler and lasts longer
- Internal overload protection
- Quiet operation
- Fasteners and shaft made from rugged, corrosion resistant stainless steel

SEAL DESIGN
Type 21 inboard seal design with secondary exclusion seal
- Rotating components of seal are in the motor housing, being lubricated by the motor oil preventing foreign matter from wrapping around the seal components
- Seal will last longer if the pump runs dry
- Secondary exclusion seal keeps debris from entering the seal cavity

IMPELLER DESIGN
Non-clog style, cast-iron vortex impeller (CPEH Thermoplastic Vortex)
- Designed to help reduce clogging by foreign material

POWER CORD
Sealed entry quick disconnect power cords
- Prevents water from entering the motor housing through a cut cord
- Easy to replace in the field
- Available in lengths up to 100'

SWITCH
Piggy-back switch design
- Defective switches can be diagnosed over the phone
- Pump can be operated manually or supplied with other piggy-back switches
- Switch can be replaced without having to replace the pump

APPLICATIONS
Dewatering, septic systems, residential and commercial developments, elevator pits and STEP systems

Vertical Float

Wide-Angle Float

4/10-1/2 HP submersible pumps that handle up to 3/4" solids with 2" discharge

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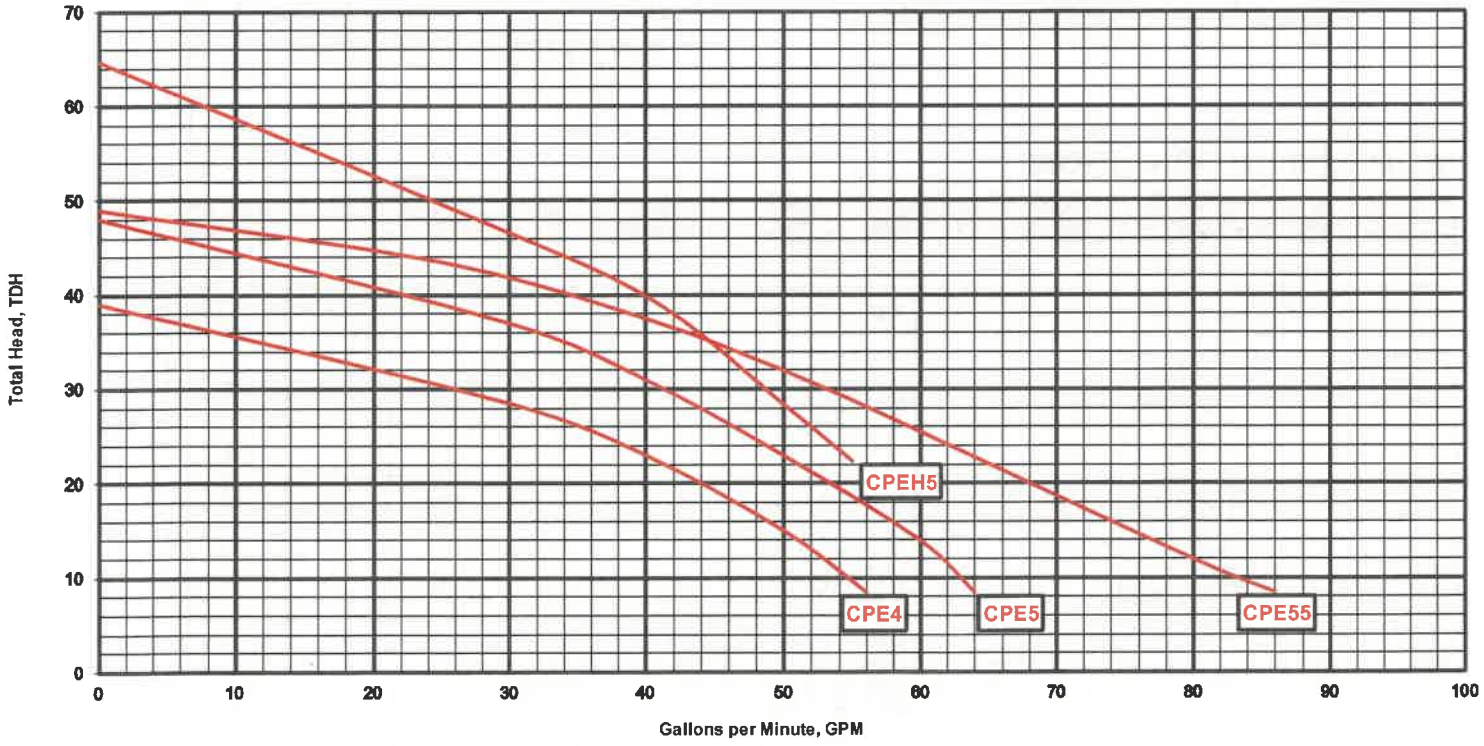
By SCGHD at 7:46 am, Jun 18, 2025

PERFORMANCE CURVE

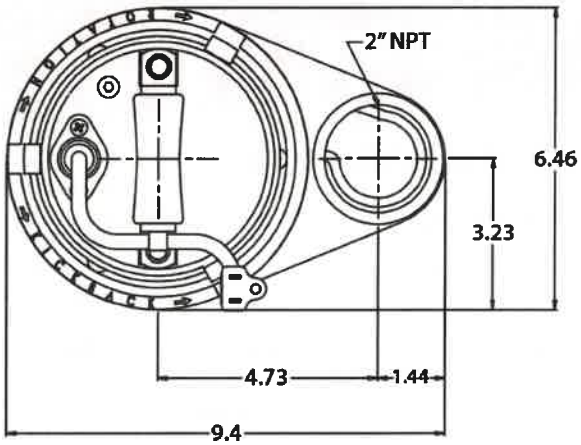


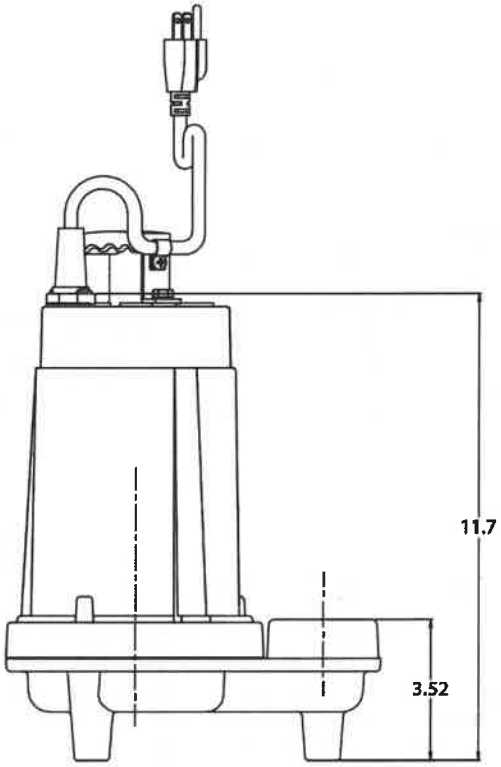
Champion Pump Company, Inc • P.O. Box 528 • Ashland, OH 44805
Phone 419-281-4500 • Fax 419-616-1100 • www.championpump.com

REV 1017

TECHNICAL DATA

DISCHARGE	2" NPT. vertical standard
LIQUID TEMPERATURE	140 Degrees F. (Intermittent)
MOTOR HOUSING	Cast Iron
VOLUTE	Cast Iron
SEAL PLATE	Cast Iron
IMPELLER	Cast Iron / Vortex (CPEH thermoplastic vortex)
SOLIDS HANDLING	3/4"
SHAFT	Stainless Steel
SHAFT SEAL (SINGLE SEAL)	Inboard mechanical with secondary exclusion V-Seal, carbon rotating face, ceramic stationary face, Buna-N elastomer, 300 series stainless steel hardware
BEARINGS (UPPER & LOWER)	Single row, ball, oil lubricated
HARDWARE	300 Series stainless steel
O-RINGS	Buna-N
CORD	20' Length standard. Up to 100' available. (UL/CUL) Listed 16 AWG, Type SJTW
MOTOR (SINGLE PHASE)	4/10-1/2 HP 3450 RPM, 60 Hz, NEMA L Includes Overload Protection in the motor, oil filled, class B permanent split capacitor
WEIGHT	37 lbs. (Manual)





APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

MODEL(S) INFORMATION

MODEL	HP	VOLTS	PHASE	AMPS	CORD LENGTH	SWITCH
CPE4-12 / CPE5-12 / CPE55-12 /CPEH5-12	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	20'	Manual
CPE4-13 / CPE5-13 / CPE55-13 / CPEH5-13	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	30'	Manual
CPE4-15 / CPE5-15 / CPE55-15 / CPEH5-15	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	50'	Manual
CPE4A-12 / CPE5A-12 / CPE55A-12 / CPEH5A-12	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	20'	Wide-Angle Float
CPE4A-13 / CPE5A-13 / CPE55A-13 / CPEH5A-13	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	30'	Wide-Angle Float
CPE4V-12 / CPE5V-12 / CPE55V-12 / CPEH5V-12	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	20'	Vertical Float
CPE4V-13 / CPE5V-13 / CPE55V-13 / CPEH5V-13	4/10 - 1/2	115	1	6.6 / 8.5 / 10.5 / 11.5	30'	Vertical Float
CPE4-22 / CPE5-22 / CPE55-22 / CPEH5-22	4/10 - 1/2	230	1	3.3 / 4.3 / 5.75 / 5.75	20'	Manual
CPE4A-22 / CPE5A-22 / CPE55A-22 / CPEH5A-22	4/10 - 1/2	230	1	3.3 / 4.3 / 5.75 / 5.75	20'	Wide-Angle Float
CPE4V-22 / CPE5V-22 / CPE55V-22 / CPEH5V-22	4/10 - 1/2	230	1	3.3 / 4.3 / 5.75 / 5.75	20'	Vertical Float

Champion Pump Company, Inc • P.O. Box 528 • Ashland, OH 44805
Phone 419-281-4500 • Fax 419-616-1100 • www.championpump.com

Essential Components for Pressurized Systems

SIM/TECH offers many performance products engineered to protect effluent treatment systems and prevent costly repairs. From our pressurized filter, to the best orifice shield in the industry, we keep your systems performing at 100% efficiency.

Sometimes the simplest ideas are the best, so depend on a time proven leader.... protecting effluent treatment systems is our busines - SIM/TECH Filter.

STF-100 Sim/Tech Filter

Pressure system filter - molded in tough PVC plastic, with installed stainless steel screen.

Installs easily onto effluent pump in holding tank. The vortex scrubbing action helps keep the filter clean.

The last line of defense before the laterals.

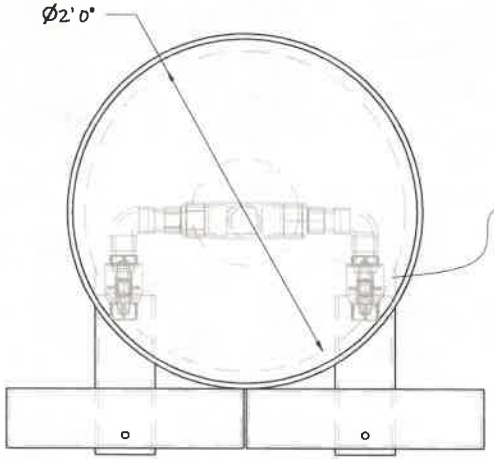
STF-102 Filter Screen
STF-104 Filter Sock

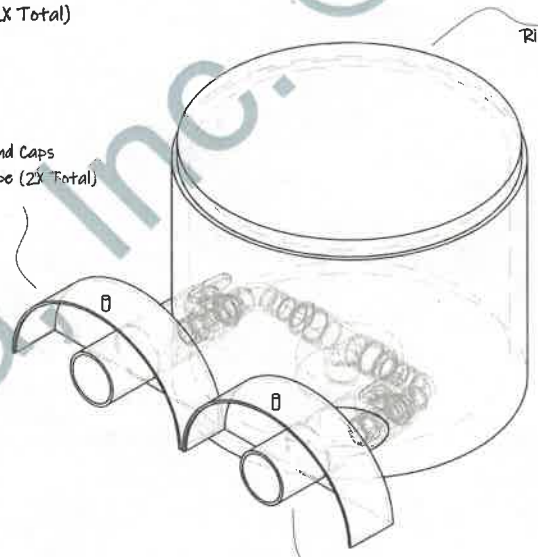
Optional filter socks can lower the acceptable TSS size from .023 inches to .0039 inches, depending on the application.

Our standard stainless steel screen will filter .062" in diameter. (1/16 o an inch)

Socks easily install inside stainless steel screen.

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 26.MAY.22





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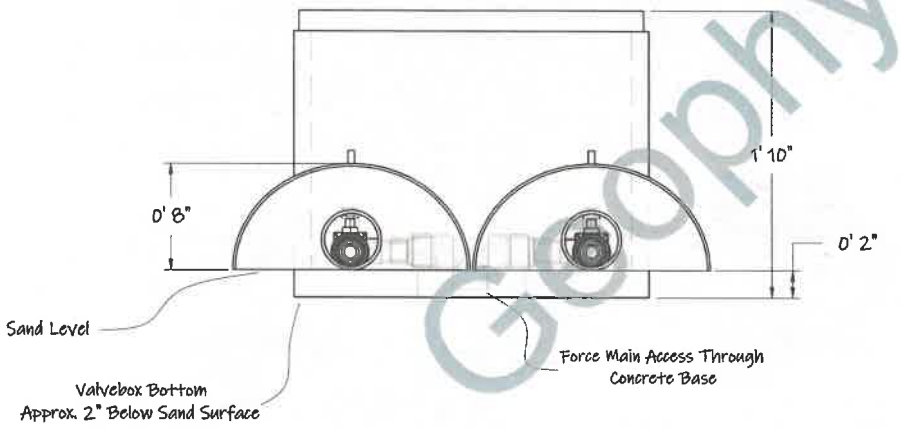

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APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

SEE BILL OF MATERIALS FOR ALL PIPE FITTINGS SIZING

End-Mound Dual Lateral Valvebox

Geophyta, Inc. ©

INFILTRATOR
water technologies

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

Quick4 PLUS CHAMBER SYSTEMS

The Quick4® Plus Equalizer 36 Low Profile (LP) Chamber

Quick4 Plus™ Series

The Quick4 Plus Equalizer 36 Low Profile (LP) offers maximum strength through its two center structural columns. This chamber can be installed in a 24-inch-wide trench. It is 4 inches shorter in height than other Equalizer 36 model chambers, allowing for shallower installation. Like the original line of Quick4 chambers, it offers advanced contouring capability with its Contour Swivel Connection™, which permits turns up to 15°, right or left. The Quick4 Plus All-in-One 8 and Quick4 Plus Endcaps provide increased flexibility in system design and configurations.

Maximum Strength

Quick4 Plus Equalizer 36 LP Chamber Specifications

Size 22"W x 53"L x 8"H (559 mm x 1346 mm x 203 mm)
Effective Length 48" (1219 mm)
Louver Height 6.3" (160 mm)
Storage Capacity 20 gal (76 L)
Invert Height 3.3" (84 mm), 9.6" (244 mm)

Quick4 Plus Equalizer 36 Low Profile (LP) Chamber Benefits:

- Low profile design makes this chamber ideal for shallow applications
- Reduces imported fill needed for cap and fill systems
- Two center structural columns offer superior strength
- Advanced contouring connections
- Latching mechanism allows for quick installation
- Four-foot chamber lengths are easy to handle and install
- Supports wheel loads of 16,000 lbs/axle with 12" of cover

Quick4 Plus All-in-One Periscope Benefits:

- Allows for raised invert installations
- 180° directional inletting
- 12" raised invert is ideal for serial applications

Quick4 Plus All-in-One 8 Endcap Benefits:

- May be used at the end of chamber row for an inlet/outlet or can be installed mid-trench
- Mid-trench connection feature allows center feed inletting of chamber rows
- Center-feed connection allows for easy installation of serial distribution systems
- Variable pipe connection options allow for side, end or top inletting
- Piping drill points are set for gravity or pressure pipe

Quick4 Plus Endcap Benefits:

- Simple, flat design
- Allows installation of a pipe from the end only
- Piping drill points are set for gravity or pressure pipe

Certified by the International Association of Plumbing and Mechanical Officials (IAPMO)

IAPMO R&T

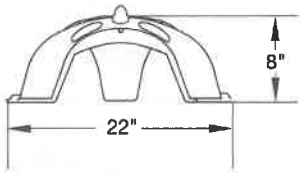
APPROVED in _____

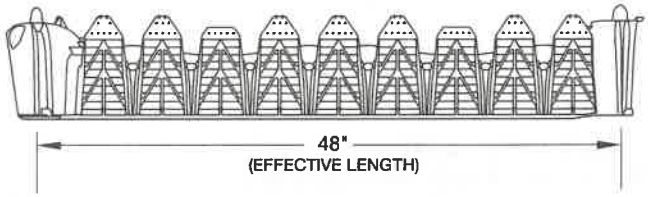
Quick4 Plus™ Series

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

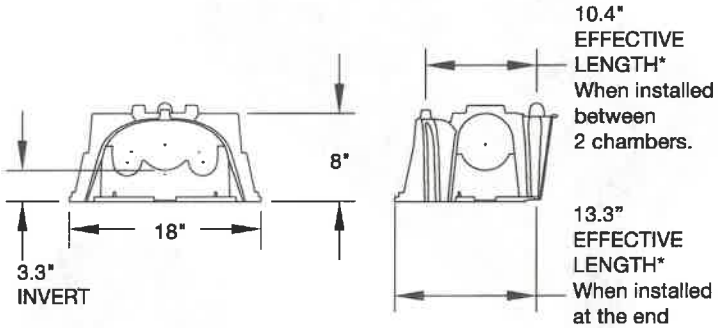
Quick4 Plus CHAMBER SYSTEMS

Quick4 Plus Equalizer 36 Low Profile Chamber

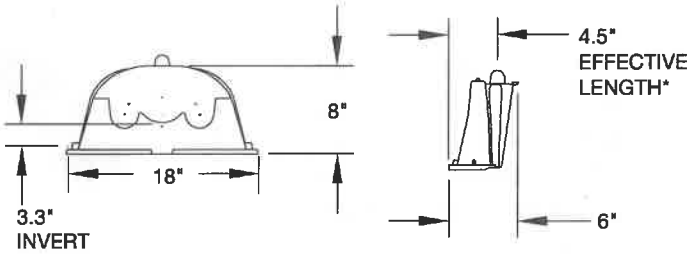




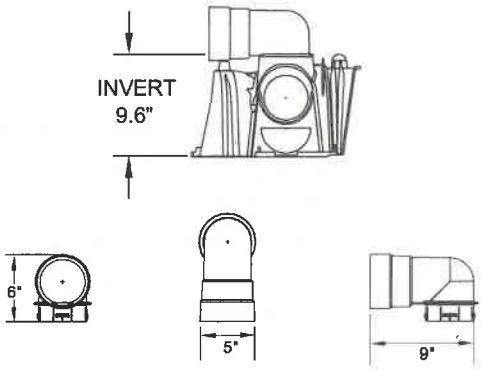
Quick4 Plus All-in-One 8 Endcap



Quick4 Plus Endcap



Quick4 Plus All-in-One Periscope



INFILTRATOR WATER TECHNOLOGIES STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, endcap 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
water technologies

4 Business Park Road
P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 • Fax 860-577-7001
1-800-221-4436
www.infiltratorwater.com
info@infiltratorwater.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending.
Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies.
PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.
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Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

Sim/Tech Filter
1455 Lexamar Drive
Boyne City, MI 49712
Office: 231-582-1020

Website: www.gag-simtech.com
Email: sales@gag-simtech.com
Fax: 231-582-7324
Toll Free: 888-999-3290

Orifice Shields

Why Use Orifice Shields?

Sim/Tech Filter orifice shields are designed to protect the discharge holes in pressurized systems from the outside. Most of these systems are designed with specific flow-rates, pressure heads, etc. to obtain "even distribution" in the drain field and thus allow for proper treatment. Much like our pressure filter prevents debris from obstructing the discharge holes from the inside, our orifice shields prevent blockage on the outside. As shown in the top picture to the left, drain media can block the small discharge holes, throwing the whole design and operation of a system out of whack. The bottom picture to the left shows our standard orifice shield installed on the lateral piping of a system. The orifice shield creates a protective void between the drain media and the discharge hole. The design allows the discharge hole to spray effluent into the shield where the much larger open area of the shield keeps the hole discharging at its designed flow rate.

Why Use Sim/Tech Filter Orifice Shields?

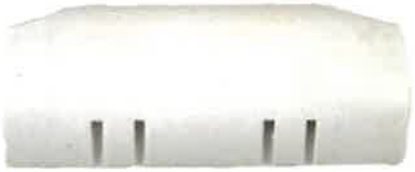
They have a large open area, 9 inches of gripping surface and a simple, but very effective design. The large open area of the interior of the shield prevents it from becoming easily blocked if you are not using a Sim/Tech pressure filter on your system. There is also a large open area for allowing effluent to drain from the shield. There are various slots depending upon the configuration you desire and both ends of the shield also have open area for drainage.

Styles and Sizes Available

Sim/Tech Filter currently offers two orifice shield designs. The STF-106D is designed for systems that have discharge holes that point down. The STF-106TDS is designed for systems that have discharge holes that point up. Both versions of the Sim/Tech Filter orifice shield are available in four different sizes to fit the pipe sizes 3/4", 1", 1-1/4" & 1-1/2" and 2". A 3" size is also available as a special custom order.

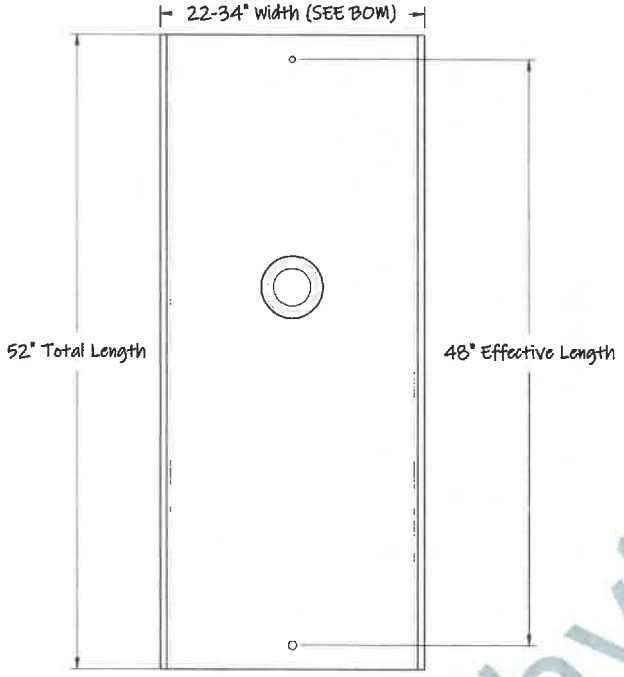
US Patent 6,167,914

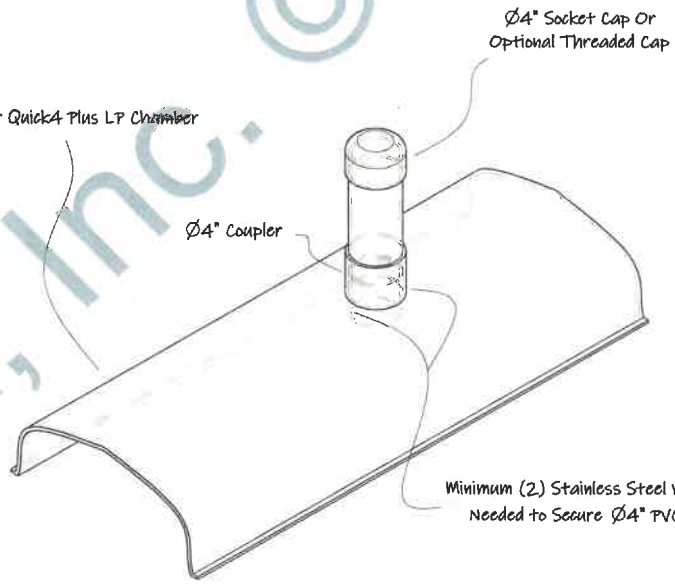
STF-106D



STF-106TDS

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 17.MAY.22





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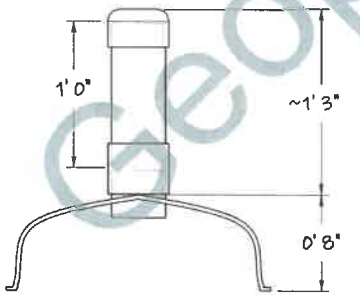

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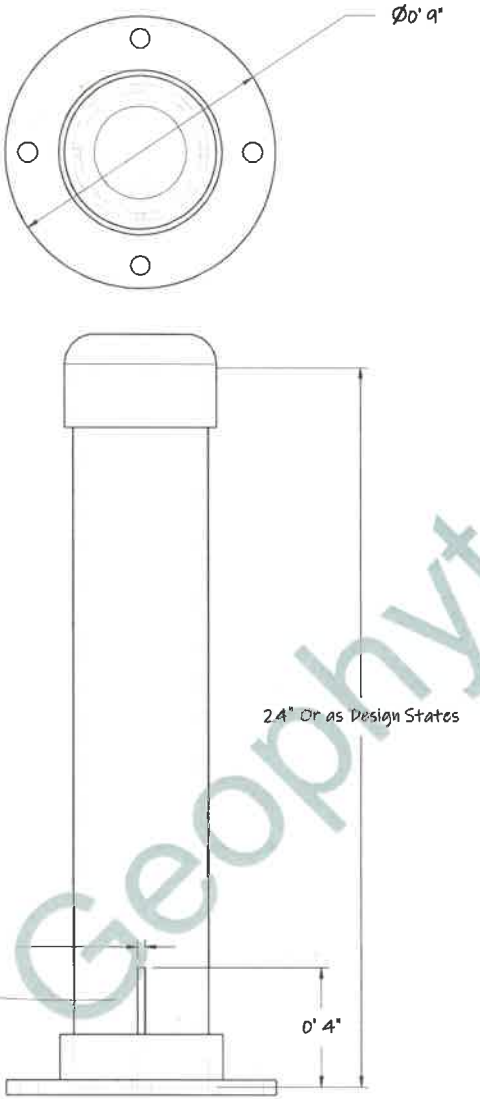
APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

Sand Inspection Port For
Engineered Sand Mounds

Geophyta, Inc. ©

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 17.MAY.22



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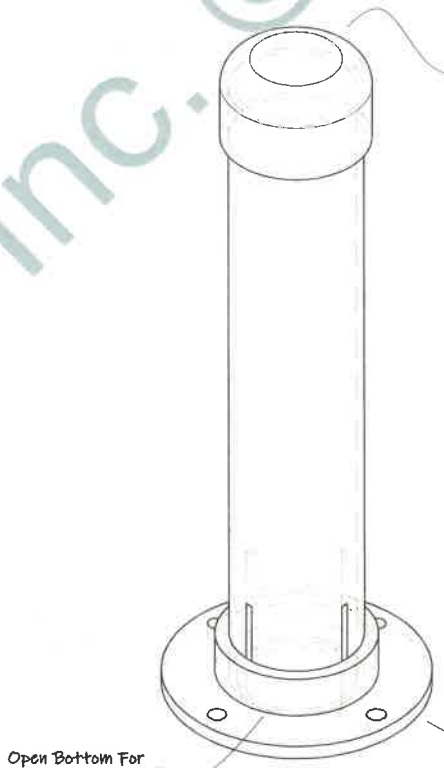

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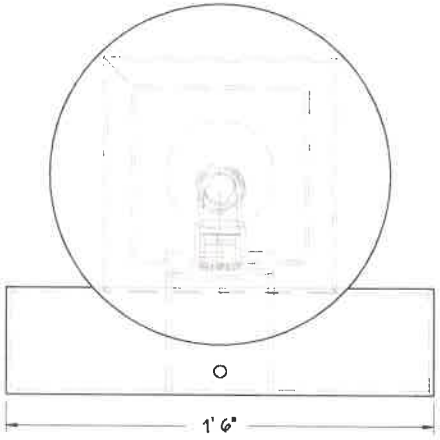
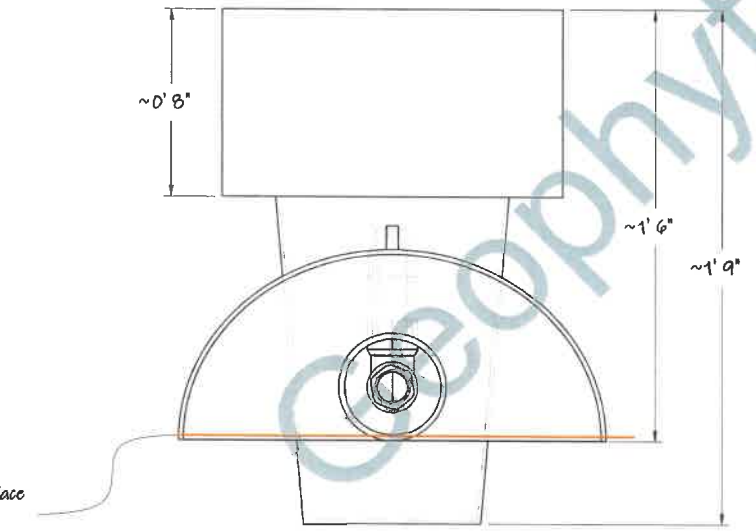
Sand/Soil Inspection Port

Geophyta, Inc.©

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 17.MAY.22





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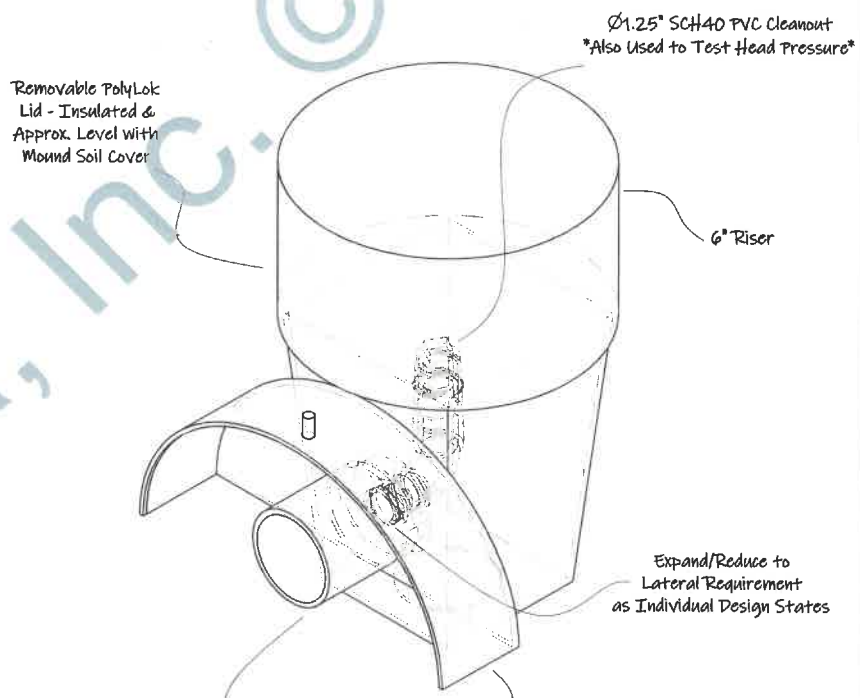

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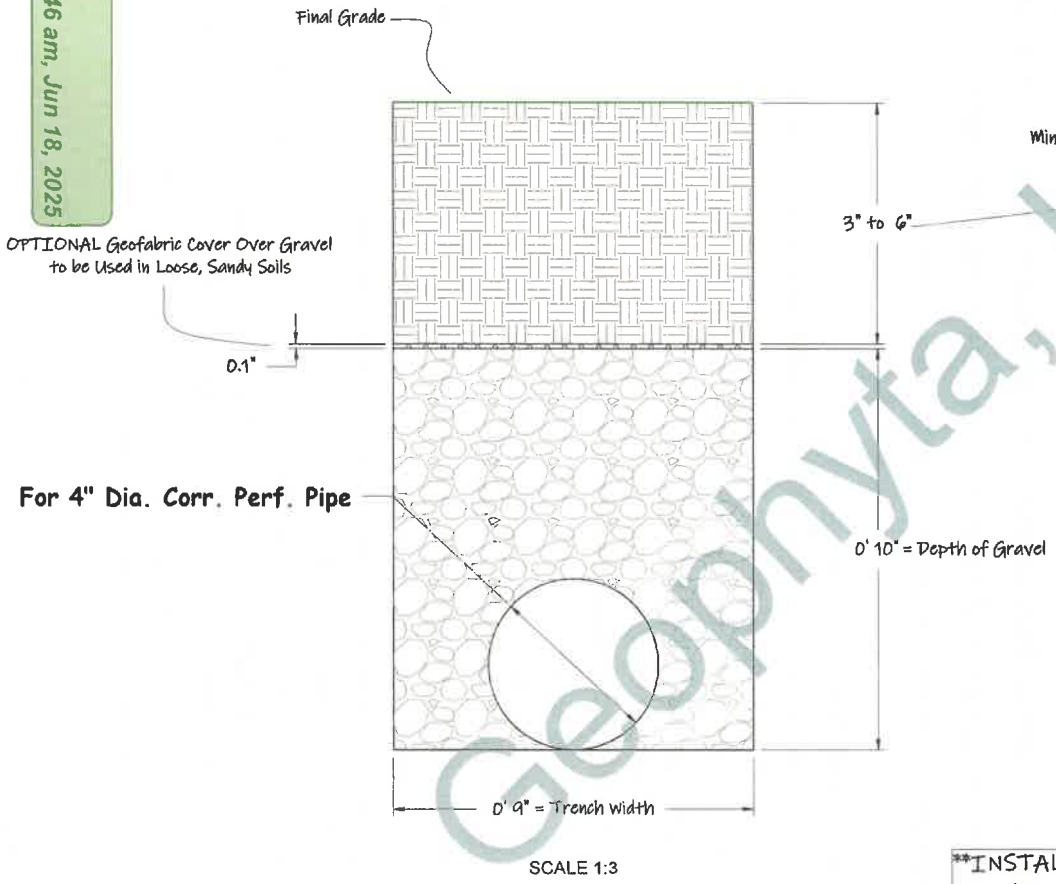
Lateral Cleanout & Inspection Port For
Engineered Sand Mounds

Geophyta, Inc. ©

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

DESIGNER: SETH V. LAYNE, GEOPHYTA INC. 23.MAY.22



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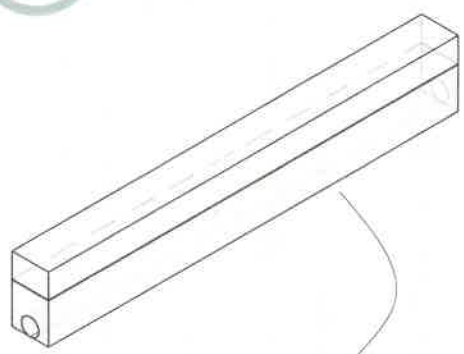

Trench Bottom Minimum Slope =
1.2" Per 100' or 0.1%

INSTALLER MUST RECORD ACTUAL TRENCH DIMENSIONS & COMPONENTS ON AS-BUILT DRAWINGS SUBMITTED TO HEALTH DEPARTMENT

Trencher Dug Interceptor, Perimeter &
Engineered Drain With 10 Inch Deep Gravel

Geophyta, Inc. ©

APPROVED
By SCGHD at 7:46 am, Jun 18, 2025

Operation and Maintenance Procedures

Home Septic Treatment Systems With Effluent Distribution Through A Sand Mound

Home septic treatment systems are biologically based systems. They rely on both anaerobic and aerobic microorganisms to process human waste. These systems utilize processing, storage, and pumping tanks. A sand/soil absorption component, the mound, also processes, treats, and disperses septic effluent. Any abuse of this biological treatment system will result in less efficient sewage treatment and early failure of your new system.

Improper operation and/or maintenance of your home septic treatment system will result in its failure.

Geophyta, Inc. strongly recommends that a homeowner hire a professional service provider to inspect and maintain your system. Your county health department has a list of registered service providers. Make sure that your service provider has "mound system" experience.

1) **Homeowner Responsibility:**
   a) The system owner is responsible for the continuous operation and maintenance of this home septic treatment system
   b) Your county health department may require third-party inspection and maintenance of your home septic treatment system.
   c) Home Interior Design & Appliance Selection:
      i) Install water conserving fixtures such as low flow shower heads, low flow toilets, and front loading washers.
      ii) Space out water use throughout the day and week. Avoid doing all laundry in one day.
      iii) Repair all water leaking fixtures.
      iv) Eliminate garbage disposals, or limit their use. Collect food scraps with sink strainers for disposal as trash or for composting; this includes coffee grounds.
      v) DO NOT pipe sump pump output into your sewer line.
   d) Home Landscaping Limitations:
      i) Do not pipe roof downspouts or any other rainwater drainage into the septic or dose tanks.
      ii) Divert all downspouts or other rainwater drainage away from your entire septic system.
      iii) Divert all downspouts or other rainwater drainage away from the sand/soil mound area.
      iv) Do not drive or park cars, boats, heavy equipment, or other vehicles on or near septic system tanks and sand/soil mounds.

SECTION B INSTRUCTIONS TO CONTACTORS

DEFINITIONS

The following may be used interchangeably in the General Specifications:

a. SCGHD/County/Seneca County/ Seneca County General Health District /Board
b. Bid/Bid Proposal/Proposal/Project/Work

BID PROPOSAL PACKET AND CONTRACT PACKET

Included in the bid proposal packet and contract packet are the Instructions to Contractors, General Specifications for the Seneca County 2025 HSTS Repair/Replacement Program, and related documents, which in aggregate are the specifications for the work to be performed.

INSPECTION OF SITE

Each Contractor shall visit the site of the proposed work and fully acquaint himself with the existing conditions there relating to the project, and should inform himself to the facilities involved, the difficulties and restrictions attending the performance of the contract. The Contractor shall thoroughly examine and familiarize himself with the Technical Specifications and all other contents of the bid proposal packet and the contract packet. The Contractor, by the execution of the contract, shall, in no way, be relieved of any obligation by his failure to familiarize himself with the bid proposal packet and the contract packet or the Contractor's failure to visit the site and acquaint himself with the conditions there existing and the SCGHD, will be justified in rejecting any claim based on facts regarding which he should have been on notice as a result thereof. A phone number for the client is provided, and we request the courtesy of notification before visiting the site.

ESTIMATE OF COST (*ONLY* FOR INSTALLATION AND SEWER TAP-IN SYSTEMS)

The estimated cost is included at the top of the Technical Specifications sheet that is provided with the bid proposal packet for each property.

WAGES AND SALARIES

These projects do ***NOT*** require prevailing wage.

NON-COLLUSION AFFIDAVIT

Each Contractor submitting a bid proposal to the SCGHD shall execute a Non-collusion Affidavit.

BID PROPOSALS

All bid proposals must be submitted on forms supplied by the SCGHD and shall be subject to all requirements of the General Specifications. All bid proposals must be regular in every respect. The SCGHD may consider as irregular any bid proposal on which there is an alteration for or departure from the original bid proposal and at its option may reject the same.

This requirement shall not operate to bar the Contractor from filing with his bid proposal a separate statement of any desired effect, which statement will be considered by the SCGHD, on its merits.

The bid proposal form included in the bid proposal packet shall be used by all Contractors. All blanks on the bid proposal need to be completed/filled in. Any interlineations, alteration or erasure on the bid proposal shall be initialed by the Contractor.

The contract will be awarded by the SCGHD to a responsible Contractor based on the lowest best bid for all work and materials, as listed in the bid proposal and being the most favorable to the SCGHD. The contract will require the completion of work in accordance with the General Specifications.

WITHDRAWAL OF BID PROPOSALS

Bid proposals may be withdrawn at any time prior to the time of bid proposal closing.

Prior to the contract approval the Contractor can withdraw their awarded bid.

LATE BID PROPOSALS

No bid proposals, regardless of the circumstances, will be accepted if submitted after the bid proposal due date and time. Such bid proposal will be returned unopened to the Contractor.

OPENING OF BID PROPOSALS

After all bid proposals are opened and read, the SCGHD will tabulate and evaluate bid proposals and the award will be made.

AWARD OF CONTRACT

The SCGHD further declares that they will award the contract for this project based on the lowest and best bid proposal. No single factor will control the SCGHD's decision to award, and the SCGHD reserves the right to exercise its full discretion. The contract will be awarded by the SCGHD in a timely manner after bid proposal opening, or, if necessary, rejected as provided by statute. All Contractors will receive a copy of the bid proposal tabulations.

ADDENDUM TO AWARDED CONTRACT

Any interpretation, correction or change in the plans and Technical Specifications will be made by an addendum. When an addendum is required, the SCGHD will forward it to the Contractor that was awarded the contract.

EXECUTION OF CONTRACT WITHIN TEN (10) DAYS

After the SCGHD awards a bid, the Contractor must enter into a proper contract in accordance with the bid proposal, plans, details, Technical Specifications, and bills of material within ten (10) days after receipt of the contract with the SCGHD.

Entering into a proper contract means that within ten (10) days after receipt of the contract with the SCGHD, the Contractor shall file the following documents exactly in the manner specified:

- A signed Contract for Construction Services
- A Certificate of Liability Insurance listing SCGHD as an additional insured with an authorized insurance representative signature (thirty (30) day written notice required for cancellation, policy lapse, material change or reduction of coverage)
- A Certificate of Ohio Workers' Compensation
- A signed Contractor Equal Employment Opportunity Certification

- A signed Certification Regarding Debarment, Suspension, and Other Responsibility Matters
- A completed and signed American Iron and Steel Acknowledgement **(*ONLY* for Installation and Sewer Tap-in Systems)**
- A signed and notarized Affidavit of Contractor or Supplier of Non-Delinquency of Personal Property Taxes
- The Contract Change Order form and Instructions **(*ONLY* to be completed if and when necessary)**
- A Performance and Payment Bond for one hundred (100) percent of the contract **(*ONLY* for Installation and Sewer Tap-in Systems)**

If the Contractor fails or refuses to enter into a proper contract or fails to file the documents listed above, in the form and manner specified by the SCGHD, within said ten (10) days after receipt of the contract with the SCGHD, the SCGHD will award the contract to the next Contractor's lowest best bid proposal or re-advertise for same.

SUBCONTRACTORS

Whenever applicable, the Contractor shall submit a list of Subcontractors which will be involved in this project.

Subcontractors at any tier are required to comply with the Insurance Specifications which, unless stated differently, are the same as those required of the Contractor.

EQUAL EMPLOYMENT OPPORTUNITY

Attention of Contractors is particularly called to the requirement ensuring that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, national origin, military status, disability, age, genetic information, or sexual orientation. The Contractor is to sign the Contractor Equal Employment Opportunity Certification included in Section C.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

A requirement of the Ohio EPA is the acknowledgement and signing of the Certification Regarding Debarment, Suspension, and Other Responsibility Matters form provided in Section C.

The Contractor is certifying that:

(a) They are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

(b) They have not within a three (3) year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) They are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with the commission of any of the offenses enumerated in (b) above.

(d) They have not within a three (3) year period preceding this application/proposal had one (1) or more public transactions (Federal, State, or local) terminated for abuse or default; and
(e) They will not utilize a Subcontractor or supplier who is unable to certify (a) through (d) above.

CONTRACT CHANGE ORDERS

All Contract Changes Orders under this contract must be submitted to the SCGHD, which will determine the necessity of the change and complete the Contract Change Order form which will be signed by the Contractor and the SCGHD prior to being submitted to the Ohio EPA for approval. No work may commence on work that requires a Contract Change Order until the completely executed form has been received by the SCGHD with Ohio EPA approval. The Contract Change Order form and the Change Order Instructions are provided in Section C.

COMMENCEMENT AND PROCEDURE

The Contractor shall begin work upon receipt of a Notice to Proceed issued by the SCGHD.

TIME OF COMPLETION

The Contractor shall complete the project work within forty-five (45) days after receipt of the Notice to Proceed for Septic System Designs.

The Contractor shall complete the project work within ninety (90) days after receipt of the Notice to Proceed for Installation and Sewer Tap-in Systems.

In those few instances when the completion date is not specified but solicited in the bid proposal such date shall be confirmed in the executed contract.

COMPLETION OF PROJECT

After SCGHD has reviewed and approved the Septic System Design, an itemized invoice for materials and labor matching the format submitted in the bid proposal needs to be submitted within ten (10) days of the project completion.

After SCGHD has inspected and approved the Installation or Sewer Tap-in System, an itemized invoice for materials and labor matching the format submitted in the bid proposal needs to be submitted within ten (10) days of the project completion.

BASIS OF PAYMENT

The payment method is provided in Section D.

BONDING REQUIREMENTS (*ONLY* FOR INSTALLATION AND SEWER TAP-IN SYSTEMS)

The Contractor shall furnish the SCGHD with a payment and performance bond in an amount at least equal to one (100) hundred percent of the contract price pursuant to ORC 153.54/ORC 307.89.

Attorneys-in fact, who sign bonds must file with each bond a certified and effectively dated copy of their power of attorney.

VIOLATING FACILITIES CLAUSES

The Contractor must agree to comply with all applicable standards, orders, or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

RELATED LAWS/REGULATIONS

It is expected that the Contractor is familiar with and will abide by all applicable Federal, State and local laws, ordinances, and regulations.

OHIO SALES TAX

The SCGHD is exempt from the payment of the Ohio Sales and Use Tax. Consequently, the cost of such is ***NOT*** to be included in the bid proposal.

PERMITS/FEES

The Contractor shall obtain and pay for all permits, fees, and licenses necessary for the performance of his work on the project, and the cost of such may must be included in the bid proposal if the costs are allowable funds.

LIQUIDATED DAMAGES

The SCGHD will suffer additional costs if the project is not substantially completed within the time specified. As a condition to the acceptance of the contract, each Contractor and its surety shall be liable for and pay the SCGHD liquidated damages in the amount of five hundred dollars ($500.00) for each day the project remains in an unfinished condition beyond the time for completion set forth in these Instructions to Contractors. Such amount may be deducted by the SCGHD from any payment due or to become due to said Contractor. Nothing under this section shall prohibit the SCGHD from recovery of damages for delay under other provisions of the contract documents.

The said amount is fixed because of the impracticability and extreme difficulty of determining and fixing the actual additional costs the SCGHD would in such event sustain, and said amount, is agreed to be the amount of damages which the SCGHD would sustain and shall not be treated as retainage.

Time is of the essence for each, and every portion of the project and of the General Specifications wherein a definite and certain length of time is fixed for the performance of any act. Where an additional time is allowed for the completion of any work, the new time fixed by such extension shall control.

The Contractor shall not be charged with liquidated damages when the SCGHD determines the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the SCGHD, providing the Contractor shall, within ten (10) days from the beginning of such delay, notify the SCGHD in writing, of the causes of delay.

All such extensions of time may need to be executed by Contract Change Orders.

UNDERGROUND UTILITY FACILITIES (SECTION 153.64 ORC)

The Contractor, so identified in the Underground Utility Facilities section of the General Specifications, shall, at least two (2) working days, excluding Saturdays, Sundays, and legal holidays,

prior to commencing construction operations in the project area which may involve underground utility facilities, cause notice to be given to the Registered Underground Utility Projection Services (Services) and the Owners of underground facilities shown on the plans and specifications who are not members of such Services, in writing, by telephone, or in person. Where notice is given in writing by certified mail, the return receipt, signed by any person to whom the notice is delivered, shall be conclusive proof of notice.

The Owner of the Underground Utility Facility shall, within forty-eight (48) hours, excluding Saturdays, Sundays, and legal holidays, after notice is received, stake, mark, or otherwise designate the location of the underground utility facilities in the construction area in such manner as to indicate their course together with the approximate depth at which they were installed. The marking or locating shall be coordinated to stay approximately two (2) days ahead of the planned construction.

The Contractor shall immediately notify the occupants of nearby premises as to any emergency that he may create or discover at or near such premises. The Contractor shall report immediately to the Owner or Operator of the Underground Utility Facility any break or leak on its lines or any dent, gouge, groove, or other damage to such lines or to their coating of cathodic protection, made or discovered during their excavation.

The Contractor, so identified in the contract, regardless of his Subcontractors at any tier, is solely responsible for complying with these requirements for underground utility facilities in the construction area.

SECTION C CONTRACT FORMS

SUMMARY OF DOCUMENTS REQUIRED

CONTRACTS SHALL CONTAIN:

- A signed Contract for Construction Services
- A Certificate of Liability Insurance listing SCGHD as an additional insured with an authorized insurance representative signature (thirty (30) days cancellation notice required)
- A Certificate of Ohio Workers' Compensation
- A signed Contractor Equal Employment Opportunity Certification
- A signed Certification Regarding Debarment, Suspension, and Other Responsibility Matters
- A completed and signed American Iron and Steel Acknowledgement
- A signed and notarized Affidavit of Contractor or Supplier of Non-Delinquency of Personal Property Taxes
- The Contract Change Order form and Instructions **(*ONLY* to be completed if and when necessary)**
- A Performance and Payment Bond for one hundred (100) percent of the contract

CONTRACT FOR CONSTRUCTION SERVICES

This contract made this _____ day of_____, 20_____ by and between: **{COMPANY NAME}**, hereinafter designated as "Contractor" and, the Seneca County General Health District, hereinafter designated as "SCGHD".

In consideration of their mutual promises contained herein, and for other good and valuable consideration, it is hereby agreed as follows:

1. The Contractor agrees to perform the following services, to-wit: The Contractor shall complete the installation of a **{TYPE OF INSTATLLATION OR TAP-IN}** and complete abandonment of the former home sewage treatment system (HSTS) which shall include all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, obtain all required permits, and perform and complete all work required for the service embraced in the project: namely the property of **{CLIENT NAME, CLIENT ADDRESS}**. This project shall be called the **WATER POLLUTION CONTROL LOAN FUND (WPCLF) HSTS CONTRACT #00-20_____ {YEAR}.**

2. The SCGHD shall pay the Contractor for the amount of **$ {NUMERIC DOLLAR AMOUNT}** {(**WRITTEN OUT DOLLAR AMOUNT AND 00/100**)} for the above-mentioned services – contract not to exceed **$ {NUMERIC DOLLAR AMOUNT}**.

3. All work shall be completed within ninety (90) days from the date of the Notice to Proceed and within SCGHD regulations. The final bill and required documentation will be due to the SCGHD no later than ten (10) days following final approval by the SCGHD, Division of Environmental Health, and completion of site work. The SCGHD agrees to pay the said assigned funds to the Contractor in accordance with the following method:

   a. The contract has been executed by all parties and a copy submitted to Ohio Environmental Protection Agency (EPA), and

   b. The installation of the HSTS has been inspected by the SCGHD and a final inspection been issued, and

   c. A payment request that documents the costs incurred for the individual HSTS improvements is submitted by the SCGHD to Ohio EPA (the payment request must be accompanied by the SCGHD final inspection certification) and,

   d. The Ohio EPA reviews and approves the submissions and directs the Ohio Water Development Authority to disburse of approved amounts to the SCGHD.

4. The Contractor shall perform said services in a professional manner to the satisfaction of the SCGHD and having passed a final inspection performed by the SCGHD, Division of Environmental Health.

5. It is further agreed by and between the parties hereto that the Contractor shall indemnify and hold the SCGHD and Seneca County, its officials, officers, agents, employees, and staff harmless from any and all occurrences, losses, claims, suits, actions, costs, expenses, judgments, subrogation's, contingent or direct liabilities or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to property of whatsoever nature of any person, firm, or corporation that may arise as a result of any errors, omissions, negligent acts or acts

that fail to be performed by the Contractor, including but not limited to the Contractor's agents and/or employees, Subcontractors, Sub-subcontractors, and others designated by the Contractor to perform work or services in, about, or attendant to, the work and services during the term or arising out of this contract.

6. *General Liability*: In addition to such fire and other physical damage insurance as the Contractor elects to carry for his own protection, he shall also secure and maintain in the name of the SCGHD, the government agency sponsoring the project, Subcontractors, the Consulting Engineer and any other parties having an interest in the project, as named insured as their interest may appear; a general liability policy for fire, extended coverage, vandalism and malicious mischief in the amount of one hundred percent (100%) of the value of the complete parts of the project and materials in storage, except that such coverage shall not be required in connection with sewer, water main or paving construction. Pump or lift station construction shall not be considered sewer or water main construction for purposes of this paragraph.

7. *Workers' Compensation*: The Contractor shall be responsible for Workers' Compensation Insurance for himself and any agents and/or employees engaged in the work who may come within the protection of the workers' compensation law, and, where applicable, the Contractor's General Liability Insurances for any agents and/or employees not so protected and shall require all Subcontractors to provide corresponding insurance.

The Contractor shall comply with the Ohio Workmen's Compensation Act for himself, any agents and/or employees engaged in work under this contract.

The Contractor shall provide a certificate to the SCGHD that workers' compensation is in effect during the term of this contract. Unemployment compensation is not available. It is the responsibility of the Contractor to provide their own unemployment compensation.

The Contractor shall indemnify the SCGHD and the Consulting Engineer against any, and all liabilities, costs, and expenses due to accidents or other occurrences covered by the workers' compensation law.

8. *Contractor's Motor Vehicle Bodily Injury and Property Damage Liability Insurance*: Insurance to cover liability arising from the use and operation of motor vehicles in connection with the performance of the contract (as customarily defined in liability insurance policies), whether they be owned, hired or non-owned by the Contractor, as follows:

a. Bodily Injury Liability: $500,000 for each person; limit of $1,000,000 for each occurrence.

b. Property Damage Liability: $500,000 for each occurrence.

9. *Contractor's Public Liability and Property Damage Liability Insurance*: Contractor's Public Liability Insurance providing a limit of not less than $500,000 for all damages arising out of bodily injuries, including accidental death to one (1) person, and a total limit of $1,000,000 for all damages arising out of bodily injuries, including accidental death, to two (2) or more persons in any one (1) occurrence. Contractor's Property Damage Liability Insurance providing for a limit on not less than $500,000 for all damages to or destruction of property.

Coverage under this policy shall include, to the limits indicated above, the collapse or damage to any structure, building or its contents, public or private utility, or pavement during construction and for two (2) years thereafter.

Whenever work under the contract is to be done in the vicinity of existing underground utilities or structures, coverage under the policy shall also include, to the limits indicated, all damages to said underground utilities or structures during construction and for a period of two (2) years thereafter. Whenever work under the contract is to be done by blasting, coverage under the policy shall also include, to the limits indicated above, all damages of any kind whatsoever caused by blasting.

10. *Contractor's Protective Public Liability and Property Damage Liability Insurance*: Contractor's Protective Public Liability and Property Damage Liability Insurance for operations performed by Subcontractors providing for coverage and limits corresponding to those described in subparagraph 9.

11. *Owner's Protective Public Liability and Property Damage Liability Insurance*: Regular Owner's Protective Public Liability and Property Damage Liability Insurance for operations performed by the Contractor or any Subcontractor providing for coverage and limits corresponding to those described in subparagraph 9.

This policy shall be written in the name of the Owner as a separate policy from those specified elsewhere herein.

12. *Railroad Protective Liability Insurance*: If any of the work under this contract is on railroad R/W, the Contractor shall at its sole cost and expense, procure and provide, for and on behalf of each railroad company. Protective Liability Insurance (AARAASHO form) with minimum limits per occurrence of not less than $2,000,000 for bodily injury, death and/or property damage, subject to an aggregate limit of $6,000,000 per annum. The policy shall name each railroad company as the insured and be issued to the Contractor. Each railroad company shall be provided with a copy of each policy of insurance prior to commencement of any work.

13. The Contractor shall not commence work under this contract until they have obtained all the insurance required herein, have submitted the appropriate Certificate of Liability Insurance to and received approval from the SCGHD as evidenced by a Notice to Proceed issued by the SCGHD.

The Contractor shall file a Certificate of Liability Insurance for all coverage required in these Insurance Specifications on the ACORD 25 Form and shall keep such Certificates of Liability Insurance current and on file with the SCGHD for the life of this contract.

All Certificates of Liability Insurance shall include an endorsement providing thirty (30) day written notice to the SCGHD of cancellation, policy lapse, material change or reduction of coverage. The Contractor shall cease operations on the occurrence of any such cancellation, policy lapse, material change, or reduction of coverage, and shall not resume operations until new insurance is in force, and a new Certificate of Liability Insurance is filed with and approved by the SCGHD and is again authorized to proceed.

Such a cessation of operations shall not excuse the Contractor's obligation to complete the work within the time specified in this contract.

These Insurance Specifications apply equally to all Subcontractors and Sub-subcontractors at any tier during the period of their work on the project.

The Contractor shall be solely responsible for the Subcontractor's liability if the Contractor permits the Subcontractor to work on the project without the Subcontractor having been issued a Notice to Proceed by the SCGHD.

14. *Performance and Payment Bonds:* Simultaneously with his delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Specifications included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the SCGHD. The bond or bonds shall be for one hundred percent (100%) of the contract price. A payment bond and performance bond are required. Attorneys-in-fact who sign bonds must file with each bond a certified and effectively dated copy of their power of attorney. Under certain conditions, and within the limits of State and local laws and regulations, the SCGHD may waive the requirement that the payment and performance bonds be underwritten by a surety company and may authorize in lieu thereof, a personal bond backed by a letter of credit from a local lending institution for the full value of the contract.

15. The Contractor shall at his own cost provide hospitalization or any other benefits he deems necessary for the benefit of himself, any agents, and/or employees and shall be liable for all Federal, State and local income taxes, and the reporting of same to the appropriate taxing agencies.

16. The Contractor and any agents and/or employees shall not be eligible for sick leave, vacation leave, hospitalization, or fringe benefits extended to regular employees of Seneca County.

17. When requested by the SCGHD, the Contractor shall provide paid receipts and waivers of lien, in an appropriate form, evidencing that all materials and supplies used in the project or provided by the Contractor for the project have been paid in full. The Contractor will only invoice the SCGHD after all work has been completed and all payments and waivers of lien for materials and supplies used in the project or provided by the Contractor for the project have been paid in full.

The SCGHD is authorized to withhold from the Contractor any, and all funds necessary to satisfy any claims brought against the SCGHD by any Subcontractor, materialmen or persons performing services under this contract.

18. The Contractor agrees to comply with all applicable standards, orders, or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

19. The signatories agree to ensure that the Director of the Ohio EPA (Director) or its duly authorized agents shall have the right at all reasonable times to enter upon the Project Site(s) and Project Facilities, and to examine and inspect the same and to exercise the Director's rights pursuant to the WPCLF Assistance Agreement.

20. In the event of a conflict between the contract and the WPCLF Assistance Agreement, the provisions of the WPCLF Assistance Agreement shall prevail.

This contract may be terminated by the SCGHD at their discretion.

If any provision of this contract shall be held by a court of competent jurisdiction to be illegal, invalid or unenforceable, the remaining provisions shall remain in full force and effect.

This is a contract for services to be provided by a Contractor. The SCGHD is not concerned with controlling method, manner and/or mode of the duties to be performed by the Contractor, but only the result of the Contractor's work. The parties hereto further agree that this is a Personal Service Contract as set forth under Ohio Revised Code Section 145.012(A)(1) and Ohio Administrative Code 145-1-42; said Contractor expressly waives for himself, any agents and/or employees any rights, claims, or demands that he, any agents and/or employees may have for any benefit under the Public Employees' Retirement System of the State of Ohio.

_____	_____
SENECA COUNTY GENERAL HEALTH DISTRICT HEALTH COMMISSIONER	CONTRACTOR AND COMPANY NAME

Approved as to form:
SENECA COUNTY PROSECUTOR

_____

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

INSTRUCTIONS

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a federal program or a sub-agreement thereunder for $25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or sub-agreement participant thereunder must complete the attached certification provide an explanation why they cannot. For further details, see 40 CFR 32.510, Participants' responsibilities, in the attached regulation.
Go to www.epls.gov to access the Excluded Parties List System (EPLS). The EPLS includes information regarding entities debarred, suspended, proposed for debarment, excluded, or disqualified under the non-procurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers, or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publish by the agency taking the action.

Where to Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to the appropriate EPA Headquarters, Regional office, or Ohio EPA, as required in the applications.

A prospective prime independent contractor must submit a complete certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a complete certification or explanation to the prime independent contractor for the project.

Applicants may reproduce these materials as needed and provide them to their prospective prime Independent Contractor, who, in turn, may reproduce and provide them to prospective sub-contractors.

Additional copies / assistance may be requested from:

Ohio EPA
Division of Environmental and Financial Assistance
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2798
www.epa.state.oh.us/defa/

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

(b) Have not within a three (3) year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal of State antitrust statues or commission if embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification.

(d) Have not within a three (3) year period preceding this application / proposal had one or more public transactions (Federal, State, or local) terminated for cause or default; and

(e) Will not utilize a subcontractor or supplier who is unable to certify (a) through (d) above.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to ten thousand dollars ($10,000) or imprisonment for up to five (5) years, or both.

_____

Type Name & Title of Authorized Representative

_____

Signature of Authorized Representative

☐ I am unable to certify to the above statements. My explanation is attached.

American Iron and Steel Acknowledgement

The Contractor acknowledges to and for the benefit of

_____

("Purchaser") and the State of Ohio (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

_____ _____

Signature Date

_____

Name and Title of Authorized Signatory, Please Print or Type

_____

Bidder's Firm

☐ Check here if the WPCLF or WSRLA applicant will be requesting an individual waiver for non- American made iron and steel products. Please note that the waiver box does not need to be marked for nationwide waivers.

AFFIDAVIT OF CONTRACTOR OR SUPPLIER OF NON-DELINQUENCY OF

PERSONAL PROPERTY TAXES

O.R.C. 5719.042

STATE OF OHIO:
SS:
TO: County of Seneca

The undersigned, being first duly sworn, having been awarded a contract by you for

2025 Seneca HSTS Repair/Replacement Program

hereby states that we are not charged at the time the bid was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which you as a taxing district have territory and that we were not charged with delinquent personal property taxes on any such tax list.

In consideration of the award of the above contract, the above statement is incorporated in said contract as a covenant of the undersigned.

_____

Business/Agent Representative Signature

Sworn to before me and subscribed in my presence this ____ day of _____, 20____.

_____

Notary Public Signature

EQUAL EMPLOYMENT OPPORTUNITY GUIDELINES

A. Activities and Contracts Not Subject to Executive Order 11246, as Amended

(Applicable to Federally assisted construction contracts and related subcontracts $10,000 and under)

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, military status, disability, age, genetic information, or sexual orientation. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, military status, disability, age, genetic information, or sexual orientation. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
2. **The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Owner setting forth the provisions of this non-discrimination clause.** The Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. Contractors shall incorporate foregoing requirements in all subcontracts.

B. Executive Order 11246 (Contracts/Subcontracts above $10,000)

1. Section 202 Equal Opportunity Clause

   During the performance of this contract, the Contractor agrees as follows:

   (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship. **The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Owner setting forth the provisions of this nondiscrimination clause.**

   (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration without regard to race, color, religion, sex, or national origin.

   (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contractor or understanding, a notice to be provided by the Owner advising the said labor union or workers' representatives of the contractor's commitment under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

   (4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

   (5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary

of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the Ohio Department of Development's Office of Local Government Services (OLGS), the U.S. Department of Labor and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and others.

(6) In the event of the contractor's non-compliance with the non-discrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the provisions of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Department may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Department, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

2. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246). (Applicable to contracts/subcontracts exceeding $10,000)

(1) The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

(2) The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trace on all construction work in the covered area, are as follows:

Goals for Minority Participation	……..…….Goals for Female Participation
10.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered areas. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer

of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

(3) The Contractor shall provide written notification to the Manager of the Office of Local Government Services, Ohio Department of Development, P.O. Box 1001, Columbus, OH 43266-0101 within 10 working days of award of any construction subcontract more than $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

(4) As used in this Notice, and in the contract resulting from this solicitation, the "covered area"_____ county Ohio.

3. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted.

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.

c. "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black: all persons having origins in any of the Black African racial groups not of Hispanic origin.

(ii) Hispanic: all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race.

(iii) Asian and Pacific Islander: all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands; and

(iv) American Indian or Alaskan Native: all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

(2) Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation, and which is set forth in the solicitations from which this contract resulted.

(3) If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved

Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

(4) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonable be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

(5) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

(6) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to the training programs approved by the U.S. Department of Labor.

(7) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source of community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be

documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority & female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor’s work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these

employees to seek or to prepare for, through appropriate training, etc. such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

q. Covered construction contractors performing contracts in geographical areas where they do not have a federal or federally assisted construction contract shall apply at the minority and female goals established for the geographical area where the contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting offices.

(8) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7q). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7q of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation shall not be a defense for the Contractor's non-compliance.

(9) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially desperate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

(10) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(11) The Contractor shall not enter any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

(12) The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

(13) The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed n paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

(14) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by OLGS and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

(15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

CONTRACTOR EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

During the performance of this contract, the undersigned agrees as follows:

1. The undersigned will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, military status, disability, age, genetic information, or sexual orientation. The undersigned will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, military status, disability, age, genetic information, or sexual orientation. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The undersigned agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this equal opportunity (federally assisted construction) clause.

2. The undersigned will, in all solicitations or advertisements for employees placed by or on behalf of the undersigned, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin, military status, disability, age, genetic information, or sexual orientation.

3. The undersigned will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the undersigned's commitment under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The undersigned will comply with all provisions of Executive Order No. 11246 of September 24, 1965; and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The undersigned will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the undersigned's non-compliance with the equal opportunity (federally assisted construction) clause of this contract of with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the undersigned may be declared ineligible for further Government contracts of federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as provided by law.

7. The undersigned will include this equal opportunity (federally assisted construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No 11246 of September 24, 1965, so that such provision will be binding upon each subcontract or vendor. The undersigned will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a sub-contractor or vendor, as a result of such direction by the administering agency the undersigned may request the United States to enter into such litigation to protect the interest of the United States.

_____

Contractor Name and Title, Printed

_____ _____

Contractor Signature Date

_____

Company Name

CHANGE ORDER INSTRUCTIONS:

All Change Orders for this work, regardless of costs, must be submitted to Ohio EPA for review.

Changes Requiring Prior Approval

Any change which substantially modifies the Project Facilities as specified in the Ohio EPA approved Facilities Plan and Final Permit to Install or Final Plan Approval (when applicable) or alters the direct or indirect impact of the Project Facilities upon the environment must be incorporated into a Change Order. One copy of the Change Order prior to execution is to be submitted to Ohio EPA for review and prior approval of the acceptability of the change. "Prior to execution" means before the Change Order is signed by the Owner.

Ohio EPA will review the Change Order and inform the Owner of the technical, environmental and operational acceptability of the change, and give the Owner permission to proceed with the proposed work.

All Other Changes

Change Orders not requiring prior approval as described above must be submitted to Ohio EPA within one
(1) month of the time at which they are approved by the Owner. Change Orders for WPCLF projects should be submitted to the Division of Environmental and Financial Assistance (DEFA).

Change Order Approval Process

After the Change Order is executed, one (1) copy of the Change Order, including the supporting documentation, is to be sent to Ohio EPA for final review. The HSTS Change Order form must have original signatures.

Health Departments should submit change orders electronically to the DEFA Engineer who reviewed and approved their project.

After the Change Order is accepted and eligible costs determined, Ohio EPA will return a signed copy of the HSTS Change Order form.

Payments for Change Order Work

The Owner is precluded from submitting to the OWDA payment requests for Eligible Project Costs associated with the Change Orders until the Ohio EPA's approval of the Change Orders has been obtained.

State of Ohio

WATER POLLUTION CONTROL LOAN FUND (WPCLF/SRF) HSTS

CONTRACT CHANGE ORDER

RECIPIENT _____ CHANGE ORDER NBR _____

LOAN NUMBER _____ CONTRACT _____

OWDA PROJECT No. _____ DATE _____

Description of Change
(include address):

APPROVED BY: _____ DATE: _____
(Health District Representative)

ACCEPTED BY: _____ DATE: _____
(Contractor)

_____
(Company)

Original Contract Amt		
Previous Changes (+ / --)		
This Change (+ / --)		
Adjusted Contract Amt		

Ohio EPA Acceptance	Date

NOTICE TO PROCEED

To: **{COMPANY NAME}**

{COMPANY ADDRESS}

Project Description: **{CLIENT NAME & CLIENT ADDRESS}**

You are hereby notified to commence work in accordance with the Contract dated _____, 20____, on or before _____, 20____, and you are to complete the work within forty-five (45) days thereafter. The date of completion of all work is therefore_____.

_____

Administrating Agency Authorized Representative, Signature

Administrating Agency: Seneca County General Health District

Administrating Agency Authorized Representative Name: Julie Richards

Administrating Agency Authorized Representative Title: Health Commissioner

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____ (Contractor Name) on this _____ day of _____, 20____.

Contractor Signature: _____

Contractor Name and Title, Printed: _____

SECTION D BASIS OF PAYMENT

Payment Method:

Contractors will be reimbursed for work performed only after:

1. the contract has been executed by all parties and a copy submitted to Ohio EPA, and
2. the Septic System Design of the HSTS has been approved and the contract has been fully executed by the SCGHD, and
3. a payment request that documents costs incurred for the individual HSTS improvements are submitted by the SCGHD to Ohio EPA (the payment request must be accompanied by the SCGHD final approval, and the signed contract page), and
4. The Ohio EPA reviews and approves the submissions and directs the Ohio Water Development Authority to disburse of approved amounts to the SCGHD.

This process may take up to four to six (4-6) weeks.

SECTION E GENERAL CONDITIONS

SCGHD regulations can be viewed at:
https://senecahealthdept.org/my-home/home-sewage-treatment-systems/

Technical Specifications are referenced in the local regulations. State technical requirements can be viewed at the Ohio Department of Health website:
https://odh.ohio.gov/know-our-programs/sewage-treatment-systems/welcome-to