SEWAGE TREATMENT SYSTEM DESIGN

FOR:
Terry Bernhardt
4918 E Miami River Rd
Cleves, OH 45002
Hamilton County
0570-0141-0142
0.24 acres

BY:
Cindaco Design
P.O. Box 19684
Cincinnati, OH 45219
513-909-4768
mmorris@cindaco.com
Site Visit Date: August 2024

PERMITTING:
Hamilton County Public Health

DESIGN DETAILS:
Sybr-Aer FT-1400 with F2-UV and pump lockout to NPDES permitted discharge

DESIGN RATIONALE:
This sewage treatment system is a replacement STS for a 2 bedroom existing home. For this design, a bedroom is defined as a room with at least 70 sf, multiple means of egress which is not through another room, a closet or area that can be easily finished as a closet, a door or opening that can be easily finished with a door. Each room that meets all four criteria is counted as a bedroom. For every two rooms that meet three of four criteria an additional bedroom will be added to the total count, because these rooms have a high likelihood to be used as a bedroom in the future. 120 gallons per day (gpd) per bedroom is used to calculate the Daily Design Flow per OAC 3701-29-11 (B)(1).

Daily Design Peak Flow: 240 gpd. Peak flow should not be reached on a routine basis.

Average Flow: 144 gpd can be accommodated routinely with typical residential wastewater strength as specified in OAC 3701-29 for households.

Soil Conditions: Insufficient area and/or length of suitable soil for an on-site STS is available at the property, therefore necessitating an NPDES permitted discharge. OWNER MUST OBTAIN AND MAINTAIN AN NPDES PERMIT FROM OHIO EPA.

SYSTEM COST INFORMATION:
The property owner has been informed of system options and associated costs. Cindaco Design estimates the system costs as follows
Installation Cost: $30,000-35,000
Annual Operation Cost: $500-1,000
*This is a general estimate of system cost based on prior experience and is not a bid for installation

CHANGES AND USE OF THIS DESIGN:
This plan is the sole ownership of the designer and may not be altered, changed, used, or manipulated without approval of designer and the permitting health department. Cindaco Design is available to answer questions about design and make adjustments as needed.

SYSTEM INSTALLATION, OPERATION, AND MAINTENANCE:
All system components must be installed, operated, and maintained in accordance with manufacturer specifications, Ohio Department of Health (ODH) product approval, and permitting health department permit terms and conditions. If conflicts exist, consult Cindaco Design.
Installation, operation and maintenance manuals:
Health Department Installation Manual:
https://www.hamiltoncountyhealth.org/wp-content/uploads/HSTS-Manual-Part-1.pdf
Pretreatment Unit: www.cindaco.com/design/resources
Control Panel(s): www.cindaco.com/design/resources
General operation/maintenance: https://www.epa.gov/septic/how-care-your-septic-system

It is the installation contractor's responsibility to verify that the system can be installed as designed based on the preliminary layout by designer. It is the installation contractor's and property owner's responsibility to inform designer of any changes in site conditions that could effect the installation, operation, or maintenance of the STS. Soil disturbances may affect the performance of soil absorption components(if applicable), cause the system to fail, or necessitate relocation. If changes are required to the design, redesign fees will apply. It is the owner and installation contractor's responsibility to locate underground utilities. If utilities interfere with with the designed system, construction shall not proceed without approval from designer and the permitting authority. No clearwater connections (downspouts, pool/spa water, foundation drains, cisterns, etc.) shall be connected to the STS. All system components must meet horizontal isolation distances in OAC 3701-29-06 (G)(3)

SYSTEM PROTECTION
Excavation shall conform to the permitting health department's installation manual. Keep wheeled vehicles off of soil absorption areas at all times. After installation, no paint, chemicals, bleach, etc. shall enter system. See https://www.epa.gov/septic/how-care-your-septic-system for general system care instructions.

DISCLAIMER:
This plan set is not a site plan to be used for constructing anything other than the STS. If an accurate legal site plan is required, contact a professional surveyor. This plan offers no guarantee as to the accuracy of the of the information provided. This plan offers no guarantee for site stability. If site stability may be an issue, consult a geotechnical engineer. This plan is only as accurate as the information provided by the property owner to the designer. If no survey is provided, local GIS is used for the basis of the plan. Easements, right-of-ways, hidden objects, or information not communicated to the designer invalidates the design. It is the property owner's responsibility to review this plan and information provided to verify all site conditions and deign assumptions are correct. If conflicts are found or additional information must be supplied, the owner shall not proceed until the approval is granted. This design shall in no way be taken as a guarantee that the system will function in a satisfactory manor for any given period of time, or that Cindaco Deisgn or any of its agents or employees assume any liability for damages, consequential or direct, which are caused, or which may be caused by a malfunction of the STS.

STS PLANS APPROVED
JUN 06 2025
HCPH-Water Quality Division

OHIO811.org Before You Dig

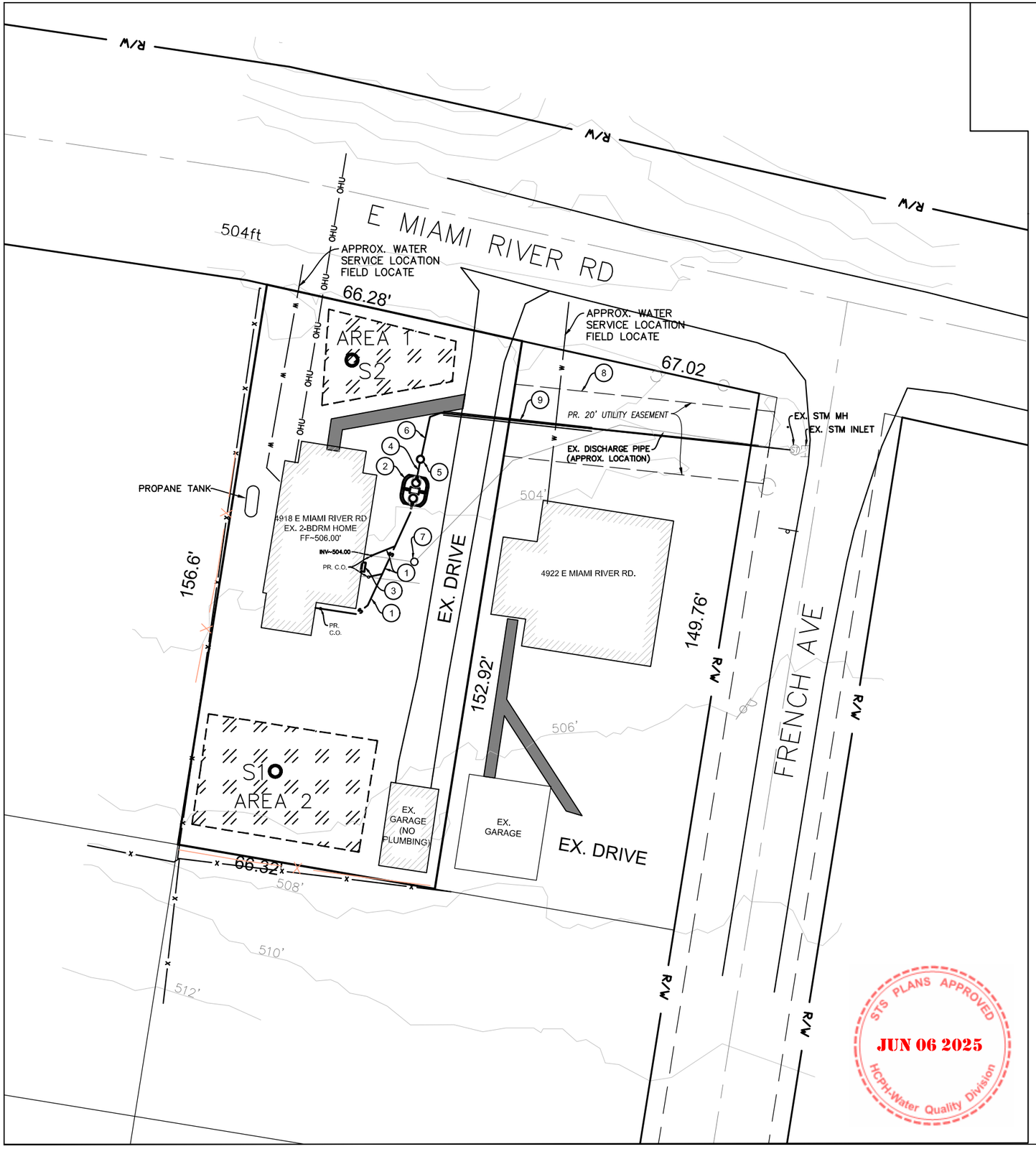
E Miami River Rd - Replacement - Bernhardt
COVER SHEET
4918 E Miami River Rd, Cleves, OH 45002

CINDACO design
513-909-4768
P.O. BOX 19684
CINCINNATI, OH 45219

DRN BY:	MAM
JOB #	D24-033
DATE:	Jun. 5, 2025
SHEET:	COVER

E Miami River Rd - Replacement - Bernhardt

4918 E Miami River Rd, Cleves, OH 45002



STS PLANS APPROVED
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GENERAL NOTES:

1. Unless notes otherwise, all piping is pressure rated schedule 40 PVC (ASTM D2665/D1785), all stainless steel is Grade 304, all sand is ODOT C-33 concrete sand. Refer to plans for other aggregate specs.
2. All piping shall be bed in gravel or firm in-situ soil, well supported, and backfilled with gravel or native soil in a manor to minimize settling. Maintain 12" min cover.
3. Installer must verify system can be installed per design prior to commencement of installation.
4. Any modifications proposed by the installer must be approved by the designer and permitting body, and must be noted on the final as-built.
5. Wheeled vehicles and heavy equipment are prohibited from traveling over the soil absorption and reserve area(s).
6. All STS components must maintain a minimum of 10' from property lines, easements, right of way, buildings, hardscapes, driveways, geothermal horizontal closed loop systems, properly sealed wells, intermittent streams, swales, irrigation lines, gray water recycling systems, and utilities.
7. All STS Components must maintain 50' from surface water, cut banks, perennial streams/rivers, wetlands, and vertical open and closed loop geothermal heating/cooling systems.
8. Building sewer shall be a minimum of 10' from water service lines, except when within 5' of the foundation where they enter the building and where lines must cross. Where water service lines and sewer lines cross, provide 12" minimum vertical separation with preference of sewer below water service. Keep pipe joints at least 10' from crossing where possible, and sleeve sewer with 20' of larger diameter Sch 40 pipe with sealed ends. Building sewers and other gravity piping, unless noted otherwise, shall be installed at 1-20% slope (2-10% preferred). Installations which require more than 20% slope shall include drop manholes every 50 ft maximum to maintain a slope not more than 20%, zig-zagged down the slope, or anchored at every joint.
9. Clearwater connections to STS are prohibited (downspouts, foundation drains, drain tiles, cistern overflows, stormwater drains, garage floor drains, exterior floor drains, etc.). Clearwater discharges must be routed away from STS components. Existing connections on replacement systems must be disconnected and rerouted.
10. A professional site survey was not performed as a basis for this design. FF and LL elevations are provided for reference only.

LEGEND

	Soil boring location
	Steep slope
—X—	Fence
—E—	Electric service
—W—	Water service
—G—	Gas service
—S—	Sanitary sewer lateral
—SF—	Silt fence
PR.	Proposed
EX.	Existing
FF	First floor
LL	Lower level
BM	Benchmark
R/W	Right of way
CB	Catch basin
YD	Yard drain
O.C.	On center
T/W	Top of wall
B/W	Bottom of wall
E/	Edge of
C/L	Centerline
EG	Existing grade
FG	Finished grade
TYP	Typical for all
ADF	Average daily flow
DDF	Daily design flow
GPD	Gallons per day

OHIO811.org Before You Dig

GRAPHIC SCALE

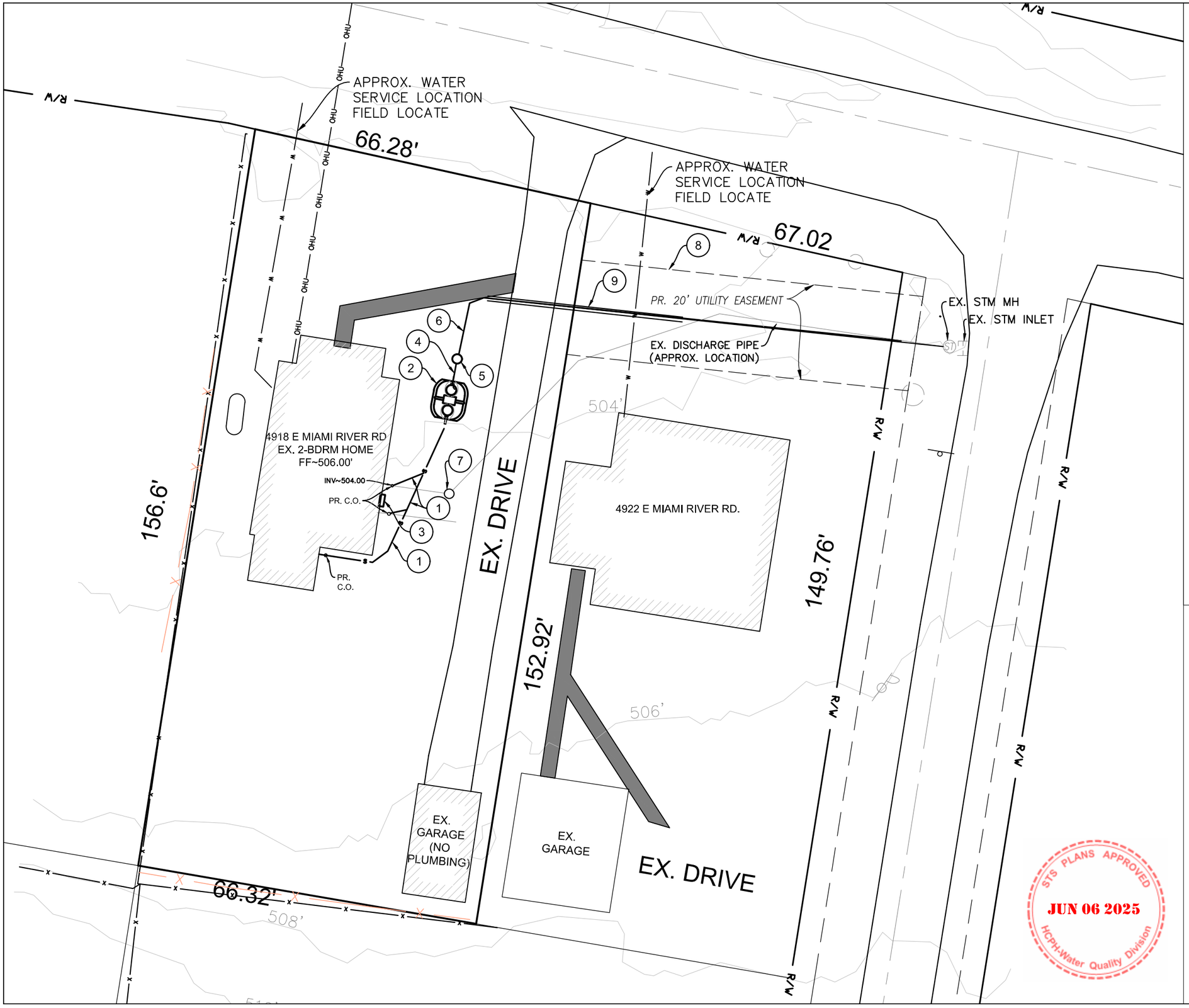
15 0 7.5 15 30 60

(IN FEET)
1 inch = 30 ft.

E Miami River Rd - Replacement - Bernhardt
STS SITE PLAN
4918 E Miami River Rd, Cleves, OH 45002

CINDACO design
513-909-4768
P.O. BOX 19684
CINCINNATI, OH 45219

DRN BY:	MAM
JOB #	D24-033
DATE:	Jun. 5, 2025
SHEET:	C-1



KEY NOTE LEGEND:

1. PROPOSED SANITARY SEWER. 4" SCH 40 PVC @ 1% MIN. CONNECT TO EXISTING SEWER, EXISTING GRAY WATER SEWER, AND EX. LAUNDRY DISCHARGE WITHIN 3' OF BUILDING FOUNDATION. INSTALL CLEANOUT(S) AT CONNECTION.
2. SYBR-AER FT-1400 WITH F2-UV FOR NPDES DISCHARGE. SEE C-3
3. PROPOSED CONTROL PANEL, SEE DETAILS ON C-3
4. 1.5" FORCE MAIN. DRAIN BACK TO TANK OR MAINTAIN 24" COVER.
5. PROPOSED REAERATION AND SAMPLE WELL, SEE DETAILS ON C-3
6. PROPOSED GRAVITY DISCHARGE PIPE. 4" SCH 40 PVC @ 1% MIN FALL. CONNECT TO EXISTING DISCHARGE POINT IN CATCH BASIN.
7. EXISTING SEPTIC TANK. ABANDON PER OAC 3701-29-21 AND COUNTY PERMITTING AND REPORTING REQUIREMENTS.
8. PROPOSED 15' WIDE SANITARY EASEMENT (BY OTHERS)
9. SLEEVE DISCHARGE PIPE WITH 6" SCH 40 PVC UNDER DRIVEWAY AND OVER WATER SERVICE, EXTEND 5' BEYOND PAVEMENT AND 10' BEYOND WATER SERVICE. SEE GENERAL NOTE 8.

STS PLANS APPROVED
JUN 06 2025
HCPH-Water Quality Division

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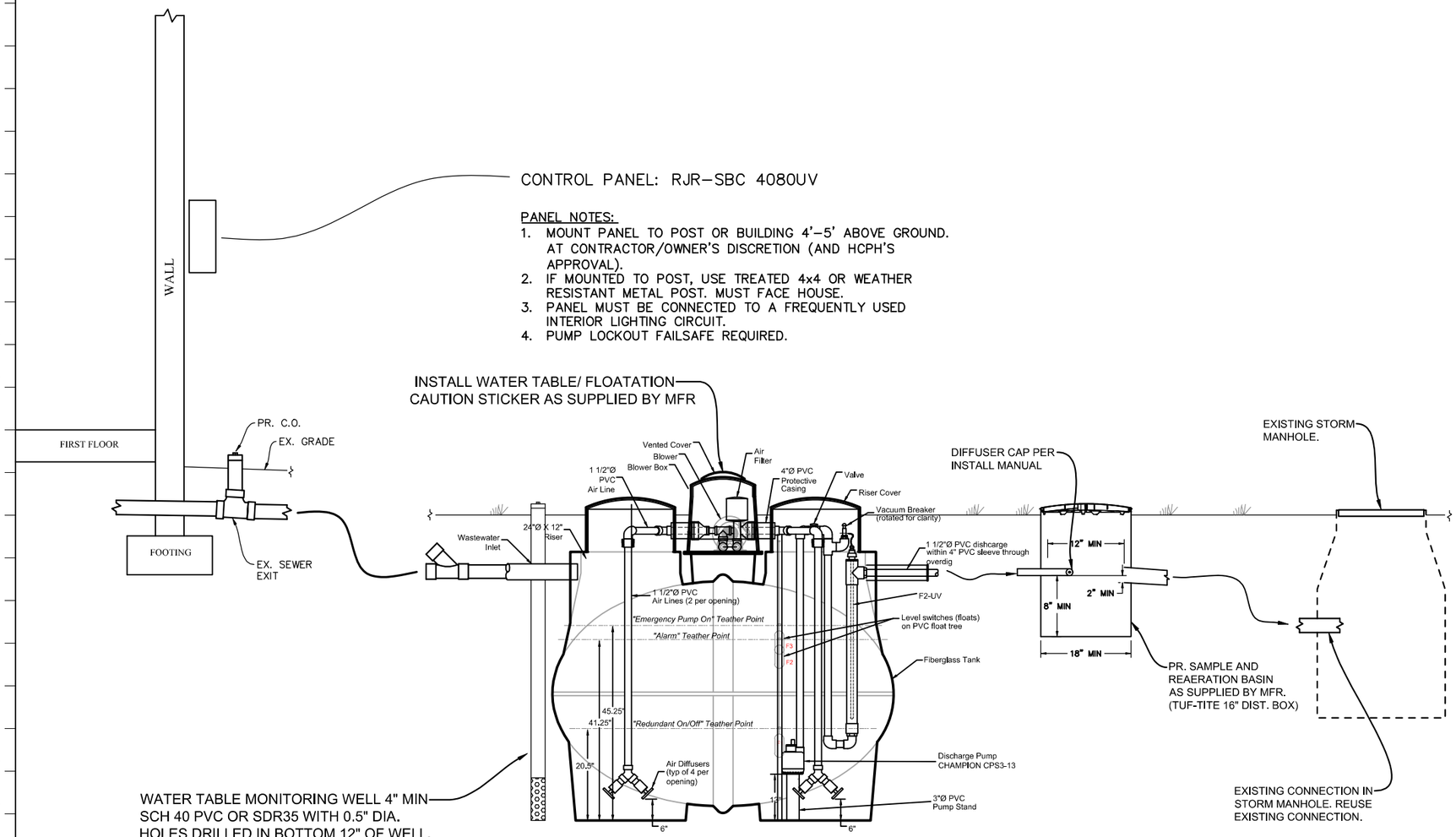
GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.

E Miami River Rd - Replacement - Bernhardt
STS LAYOUT
4918 E Miami River Rd, Cleves, OH 45002

CINDACO design
513-909-4768
P.O. BOX 19684
CINCINNATI, OH 45219

DRN BY:	MAM
JOB #	D24-033
DATE:	Jun. 5, 2025
SHEET:	C-2



AEROBIC TREATMENT UNIT

1) ATU: SYBR–AER FT–1400 WITH F2–UV.
2) WATERTIGHT RISERS TO GRADE (24" max height)
3) INSTALL PER MANUFACTURER INSTRUCTIONS
4) WATERTIGHT CONNECTIONS AT ALL PENETRATIONS
5) BED AND BACKFILL WITH AGGREGATE PER MANUFACTURER INSTRUCTIONS. NO ROUND AGGREGATE ALLOWED.
6) TANK SHALL PASS WATERTIGHT TEST WITNESSED BY HCPH INSPECTOR

STS PLANS APPROVED
JUN 06 2025
HCPH-Water Quality Division

E Miami River Rd - Replacement - Bernhardt
STS PROFILE
4918 E Miami River Rd, Cleves, OH 45002

CINDACO design
513-909-4768
P.O. BOX 19684
CINCINNATI, OH 45219

DRN BY:	MAM
JOB #	D24-033
DATE:	Jun. 5, 2025
SHEET:	C-3

Soil and Site Evaluation for Sewage Treatment and Dispersal

County: Hamilton
Township/Sec.: Miami
Property Address/Location: 4918 E Miami River Rd.
Cleves,OH 45002
Parcel # / Subdiv. Lot #: #57001410142
Applicant Name: Terry Bernhardt
Address: c/o Cindaco, P.O Box 19684
Cincinnati, OH 45219
Phone #: 513-909-4768
Lot #:
Test Hole #: S2
Latitude/Longitude: N39.19789 W-84.73573
Method: _____Pit __X__Auger __X__ Probe

Land Use/Vegetation: grass
Landform: floodplain
Position on Landform: side slope
Percent Slope: 1%
Shape of Slope: linear
Coord. Method/Accuracy: GPS - 1ft.

SSSA Certification #30586 Certified Soil Scientist

Date: 8/6/2024
Evaluator: Dan Michael
903 North Broadway
Lebanon, OH 45036

Certification Stamp or Certification# #30586
Signature: Dan Michael, CPSS
Phone # : 513-934-1040

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
Ap	0 - 8	10YR 4/2 dark grayish brown			fine sandy loam	15%	0%	3 - strong	f	gr	friable	
Bw1	8 - 40	10YR 4/4 dark yellowish brown			sandy clay loam	27%	0%	1- weak	co	SBK	friable	
Bw2	40 - 96+	10YR 4/4 dark yellowish brown			sandy clay loam	29%	0%	1- weak	co	SBK	friable	

Limiting Conditions	Depth to (in.)	Descriptive notes	Remarks/Risk Factors:
Perched Seasonal Water Table	>96 in.		This soil report represents area 1 in the front yard.
Ground Water/Aquifer	>96 in.		
Highly Permeable Material (range)	>96 in.		
Bedrock	>96 in.	Fractured - Karst (circle one) Unfractured	
Highly Weathered Soil	N/A		
Flow Restrictive Layer	>96 in.	N/A	
Fractured Glacial Till	N/A		
Other High Risk Limiting Conditions	>96 in.		

STS PLANS APPROVED JUN 06 2025 HCPH-Water Quality Division

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

ODH-2006

Table 3. Soil Infiltration Loading Rates. *4918 E Miami River Rd. Lot# Soil#-S2*

Soil Characteristics			Soil Infiltration Loading RRate (gpd/ft2)		
Texture	Structure		CBOD5		
	Shape	Grade	>25mg/L (septic tank effluent)	<=25mg/L (pretreated effluent)	Row
COS, S, LCOS,LS	--	0SG	0.8	1.6	1
FS, VFS, LFS, LVFS	--	0SG	0.4	1	2
CSL, SL	--	0M	0.2	0.6	3
	PL	1	0.2	0.5	4
		2, 3	0	0	5
	PR/BK/GR	1	0.4	0.7	6
		2, 3	0.6	1	7
FSL, VFSL	--	0M	0.2	0.5	8
	PL	1,2,3	0	0	9
	PR/BK/GR	1	0.2	0.6	10
		2,3	0.4	0.8	11
L	--	0M	0.2	0.5	12
	PL	1,2,3	0	0	13
	PR/BK/GR	1	0.4	0.6	14
		2,3	0.6	0.8	15
SIL	--	0M	0	0	16
	PL	1,2,3	0	0	17
	PR/BK/GR	1	0.4	0.6	18
		2,3	0.6	0.8	19
SCL, CL, SICL	--	0M	0	0	20
	PL	1,2,3	0	0	21
	PR/BK/GR	1	0.2	0.3	22
		2,3	0.4	0.6	23
SC, C, SIC	--	0M	0	0	24
	PL	1,2,3	0	0	25
	PR/BK/G	1	0	0	26
		2,3	0.2	0.3	27

Soil Characteristics			Hydraulic Linear Loading Rate (gpd/ft)									
			Slope 0-4%			Slope 5-9%			Slope >10%			
Texture	Structure		Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			
	Shape	Grade	8 - 12	12-24	24-48	8 - 12	12-24	24-48	8 - 12	12-24	24-48	Row
COS, S, LCOS,LS	--	0SG	4.0	5.0	6.0	5.0	6.0	7.0	6.0	7.0	8.0	1
FS, VFS, LFS, LVFS	--	0SG	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	2
CSL, SL	--	0M	3.0	3.5	4.0	3.6	4.1	4.6	5.0	6.0	7.0	3
	PL	1	3.0	3.5	4.0	3.6	4.1	4.6	4.0	5.0	6.0	4
		2, 3										5
	PR/BK/ GR	1	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	6
		2, 3	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	7
FSL, VFSL	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	2.7	3.2	3.7	8
	PL	1,2,3										9
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	10
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	11
L	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	3.2	3.2	3.7	12
	PL	1,2,3	-	-	-	-	-	-	-	-	-	13
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	14
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	15
SIL	--	0M	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	16
	PL	1,2,3										17
	PR/BK	1	2.4	2.7	3.0	2.7	3.0	3.3	3.0	3.5	4.0	18
	GR	2,3	2.7	3.0	3.3	3.0	3.5	4.0	3.3	3.8	4.3	19
SCL, CL, SICL	--	0M										20
	PL	1,2,3										21
	PR/BK	1	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	22
	GR	2,3	2.4	2.9	3.4	2.7	3.0	3.3	3.0	3.5	4.0	23
SC, C, SIC	--	0M										24
	PL	1,2,3										25
	PR/BK	1										26
	GR	2,3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	27

May add 3.0 to value since soil is deep or over highly permeable material. Rule 3701-29-15(N)(2)(e)(iii)

Soil and Site Evaluation for Sewage Treatment and Dispersal

County: Hamilton
Township/Sec.: Miami
Property Address/Location: 4918 E Miami River Rd.
Cleves,OH 45002
Parcel # / Subdiv. Lot #: #57001410142
Applicant Name: Terry Bernhardt
Address: c/o Cindaco, P.O Box 19684
Cincinnati, OH 45219
Phone #: 513-909-4768
Lot #:
Test Hole #: S1
Latitude/Longitude: N39.19789 W-84.73573
Method: _____Pit _____Auger __X__ Probe

Land Use/Vegetation: grass
Landform: old floodplain
Position on Landform: side slope
Percent Slope: 2-4%
Shape of Slope: linear
Coord. Method/Accuracy: GPS - 1ft.

SSSA Certification #30586 Certified Soil Scientist

Date: 8/6/2024
Evaluator: Dan Michael
903 North Broadway
Lebanon, OH 45036

Certification Stamp or Certification# #30586
Signature: Dan Michael, CPSS
Phone # : 513-934-1040

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
Ap	0 - 8	10YR 4/2 dark grayish brown			silt loam	15%	0%	3 - strong	f	gr	friable	
Bw	8 - 32	10YR 4/4 dark yellowish brown			silt loam	25%	0%	2- moderate	co	SBK	friable	
2Bt1	32 - 46	10YR 4/4 dark yellowish brown	10YR 3/1 1%	10YR 5/2 10%	silty clay loam	35%	0%	2- moderate	m	SBK	firm	
2Bt2	46 - +	10YR 4/4 dark yellowish brown	10YR 3/1 1%	10YR 5/2 20%	silty clay	44%	0%	1- weak	co	SBK	very firm	

Limiting Conditions	Depth to (in.)	Descriptive notes	Remarks/Risk Factors:
Perched Seasonal Water Table	32 in.		This soil report represents area 2 in the backyard.
Ground Water/Aquifer	>60 in.		
Highly Permeable Material (range)	>60 in.		
Bedrock	>60 in.	Fractured - Karst (circle one) Unfractured	
Highly Weathered Soil	N/A		
Flow Restrictive Layer	46 in.	higher clay	
Fractured Glacial Till	>60 in.		
Other High Risk Limiting Conditions	>60 in.		

STS PLANS APPROVED JUN 06 2025 HCPH-Water Quality Division

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

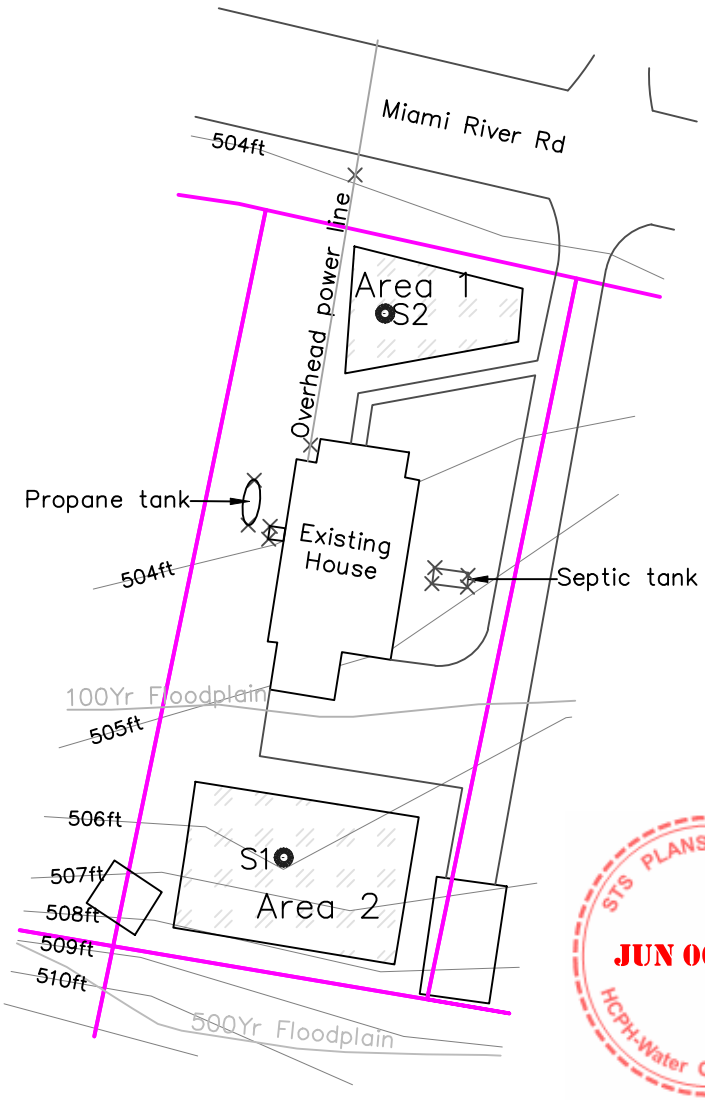
ODH-2006

Table 3. Soil Infiltration Loading Rates. *4918 E Miami River Rd. Lot# Soil#-S1*

Soil Characteristics			Soil Infiltration Loading RRate (gpd/ft2)		
Texture	Structure		CBOD5		
	Shape	Grade	>25mg/L (septic tank effluent)	<=25mg/L (pretreated effluent)	Row
COS, S, LCOS,LS	--	0SG	0.8	1.6	1
FS, VFS, LFS, LVFS	--	0SG	0.4	1	2
CSL, SL	--	0M	0.2	0.6	3
	PL	1	0.2	0.5	4
		2, 3	0	0	5
	PR/BK/GR	1	0.4	0.7	6
		2, 3	0.6	1	7
FSL, VFSL	--	0M	0.2	0.5	8
	PL	1,2,3	0	0	9
	PR/BK/GR	1	0.2	0.6	10
		2,3	0.4	0.8	11
L	--	0M	0.2	0.5	12
	PL	1,2,3	0	0	13
	PR/BK/GR	1	0.4	0.6	14
		2,3	0.6	0.8	15
SIL	--	0M	0	0	16
	PL	1,2,3	0	0	17
	PR/BK/GR	1	0.4	0.6	18
		2,3	0.6	0.8	19
SCL, CL, SICL	--	0M	0	0	20
	PL	1,2,3	0	0	21
	PR/BK/GR	1	0.2	0.3	22
		2,3	0.4	0.6	23
SC, C, SIC	--	0M	0	0	24
	PL	1,2,3	0	0	25
	PR/BK/G	1	0	0	26
		2,3	0.2	0.3	27

Soil Characteristics			Hydraulic Linear Loading Rate (gpd/ft)									
			Slope 0-4%			Slope 5-9%			Slope >10%			
Texture	Structure		Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			Infiltrative Distance, (Inches)			
	Shape	Grade	8 - 12	12-24	24-48	8 - 12	12-24	24-48	8 - 12	12-24	24-48	Row
COS, S, LCOS,LS	--	0SG	4.0	5.0	6.0	5.0	6.0	7.0	6.0	7.0	8.0	1
FS, VFS, LFS, LVFS	--	0SG	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	2
CSL, SL	--	0M	3.0	3.5	4.0	3.6	4.1	4.6	5.0	6.0	7.0	3
	PL	1	3.0	3.5	4.0	3.6	4.1	4.6	4.0	5.0	6.0	4
		2, 3										5
	PR/BK/ GR	1	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	6
		2, 3	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	7
FSL, VFSL	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	2.7	3.2	3.7	8
	PL	1,2,3										9
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	10
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	11
L	--	0M	2.0	2.3	2.6	2.4	2.7	3.0	3.2	3.2	3.7	12
	PL	1,2,3	-	-	-	-	-	-	-	-	-	13
	PR/BK	1	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	14
	GR	2,3	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	15
SIL	--	0M	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	16
	PL	1,2,3										17
	PR/BK	1	2.4	2.7	3.0	2.7	3.0	3.3	3.0	3.5	4.0	18
	GR	2,3	2.7	3.0	3.3	3.0	3.5	4.0	3.3	3.8	4.3	19
SCL, CL, SICL	--	0M										20
	PL	1,2,3										21
	PR/BK	1	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	22
	GR	2,3	2.4	2.9	3.4	2.7	3.0	3.3	3.0	3.5	4.0	23
SC, C, SIC	--	0M										24
	PL	1,2,3										25
	PR/BK	1										26
	GR	2,3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	27

Bernhardt Property
4918 E. Miami River Rd
Cleves, OH 45002
0.236 Acre



STS PLANS APPROVED
JUN 06 2025
HCPH-Water Quality Division

This is not a site plan. For a site plan with accurate feature locations, contact a professional surveyor.

1ft county GIS contours shown. No actual measurements taken. Other features are from GIS. For more accurate locations, contact a professional surveyor.

N
W
E
S

Scale
0 40 80
1" = 40'
Contour interval 1ft
Date: 7/30/2024
O—Soil Sample Locations