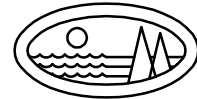




APPLICATION – PERMIT

DELAWARE DEPARTMENT OF
NATURAL RESOURCES

DIVISION OF WATER RESOURCES

ON-SITE WASTEWATER SYSTEM

Clean Water – for Today and Tomorrow

AND ENVIRONMENTAL CONTROL

Owner's Name: PINE RIDGE MHP LLC & PINE CREST PROPERTIES LLC C/O TONY HERRERA MGR.
Phone: 302-727-8670Address: 1080 PITTSFORD VICTOR ROAD, SUITE 202 PITTSFORD, NY 14534Project Location: HOMESTEAD MHP COMMUNITY AREA LOTS 1-37 AND LOT 44Tax Map #: 133-9.00-28.00
& 133-9.00-50.00Application Preparer: MICHAEL COTTEN P.E. DNREC License #: 4483Preparer's Address: 10087 CONCORD RD SEAFORD DE 19973Phone: (302)628-9164

I hereby affirm that the information provided on this document is accurate and complete.

Preparer's Signature

Date 11/11/2025

SEPTIC DESIGN CRITERIA –

(Please check all boxes that apply)

Type of Construction:

- ☒ Replacement
☐ New Construction
☐ Component Replacement
☐ Repair to Existing System
☐ Authorization to Use Existing System
☐ Modification to Existing System

System Type:

- ☐ Low Pressure Pipe (FD)
☒ Elevated Sand Mound
☐ Pressure Dose (FD)
☐ Holding Tank
☐ Gravity (FD)
☐ Std. Pressure Dose (FD)
☐ Std. Pressure Dose (CF)

CF=Cap & Fill / FD=Full Depth

- ☐ Low Pressure Pipe (CF)
☐ Wisconsin At-Grade
☐ Pressure Dose (CF)
☐ Subsurface Micro Irrigation
☐ Gravity (CF)
☐ Other: _____

☒ Bed or ☐ TrenchSand-lined ☒ Yes ☐ No☐ Gravelless Chamber or ☒ Stone/GravelExisting System Malfunctioning ☒ Yes ☐ No ☐ N/A☐ Other _____

Pre-Treatment Units

- ☐ Bio-Clear ☐ Klargester
☒ Septic Tank ☐ Recirculating Sand Filter
☒ Other: PURASYS 1.2 B
PURA ACE PA-68

of Bedrooms: 40 MOBILE HOME DWELLINGSAverage Percolation Rate: 50 MPIGallon Per Day Flow: 12,000 GPD AVGMinimum Square Ft. Required: 35,639 SFSquare Ft. Proposed: 12 BEDS 25'X100' + 8 BEDS 30'X70'=46,800 SFCentral Water Available ☒ Yes ☐ No(If yes, please state Utility Name: HOMESTEAD MHP COMMUNITY WATER)

PINE RIDGE MHP LLC
TAX MAP1-33-009-0028
25.65 AC +-
OFFICE TR

PROPOSED MONITORING WELL

PINE CREST PROPERTIES
MHP LLC
TAX MAP1-33-009-0050
20.57 AC +-
DITCH

LOW AREA

LEGEND

- POINT
- IRON REBAR TO BE SET
- IRON PIPE FOUND
- EXISTING PROPERTY LINE / EXISTING R.O.W. LINE
- PROPOSED PROPERTY LINE / PROPOSED R.O.W. LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING ROAD CENTERLINE
- EXISTING GRAVEL DRIVE
- BUILDING RESTRICTION LINE
- UTILITY POLE
- DWELLING TO BE CONNECTED TO NEW COMMUNITY SYSTEM
- PROPOSED ESM
- TEST PIT 2025 BY KAUFFMAN

SITE DATA

OWNER:
PINE RIDGE PROPERTIES LLC 133-9.00-28.00 C/O KEN BURNHAM
PINE CREST PROPERTIES LLC 133-9.00-50.00 C/O KEN BURNHAM
1080 PITTSFORD VICTOR ROAD, SUITE 202
PITTSFORD, NY 14534

1. TAX MAP NUMBER 133-9.00-28.00 & 50.00
2. CURRENT ZONING GR
3. TOTAL AREA 25.65±AC
PARCEL 28.00
PARCEL 50.00 20.57±AC

4. USE EXISTING MOBILE HOME PARK
PROPOSED: NO CHANGE

5. SEWER PERMIT C4009-93 MIXED, COMMUNITY LOTS 1-37 & LOT 44

6. WATER PRIVATE COMMUNITY ON-SITE

DESIGN

REPLACEMENT COMMUNITY SYSTEM FOR 40 MOBILE HOMES WITHIN THE PARK

AVERAGE FLOW FOR TREATMENT = 300 GPD / DWELLING
CAPACITY = 12,000 GPD WITH POTENTIAL FOR EXPANSION

TREATMENT REQUIREMENTS ARE TO MEET PSN3

ON-SITE RECLAMATION =
12 EA. NEW SAND LINED ELEVATED SAND MOUNDS
25'X100' WITH CAPACITY OF 840 GPD EA. = 10,080 GPD
AND
8 EA. RE-CLAIMED SAND MOUNDS. REMOVE THE COVER, INFILTRATORS AND BIOMAT, AND REPLACE WITH 12" STONE FILL AND COVER. = 5,200 GPD
TOTAL DISPOSAL CAPACITY = 15,280 GPD

SITE DESIGN BASED UPON DELMARVA ENVIRONMENTAL REPORT # 572648
LZ= 37', 50' MFL, 4/22/2025

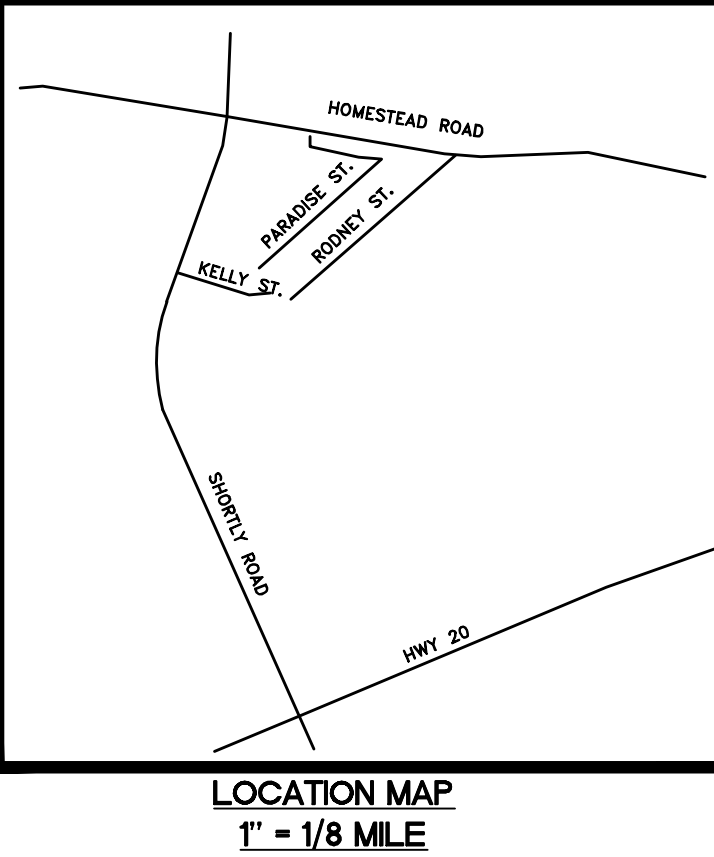
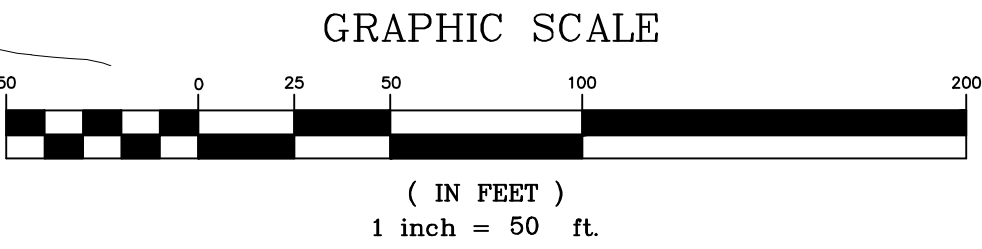
LOT 44, INSTALL NEW 3K3 CONCRETE LIFT TANK WITH GOULDS WSO311B AND TANK ALERT AND NEW TRANSMISSION LINE TO MAN HOLE BY LOT 37. SEPTIC TANK TO REMAIN.

CONTRACTOR SHALL PUMP AND INSPECT EACH SEPTIC TANK FOR LOTS 1-37. REPLACE BROKEN RISERS AND INSTALL NEW.

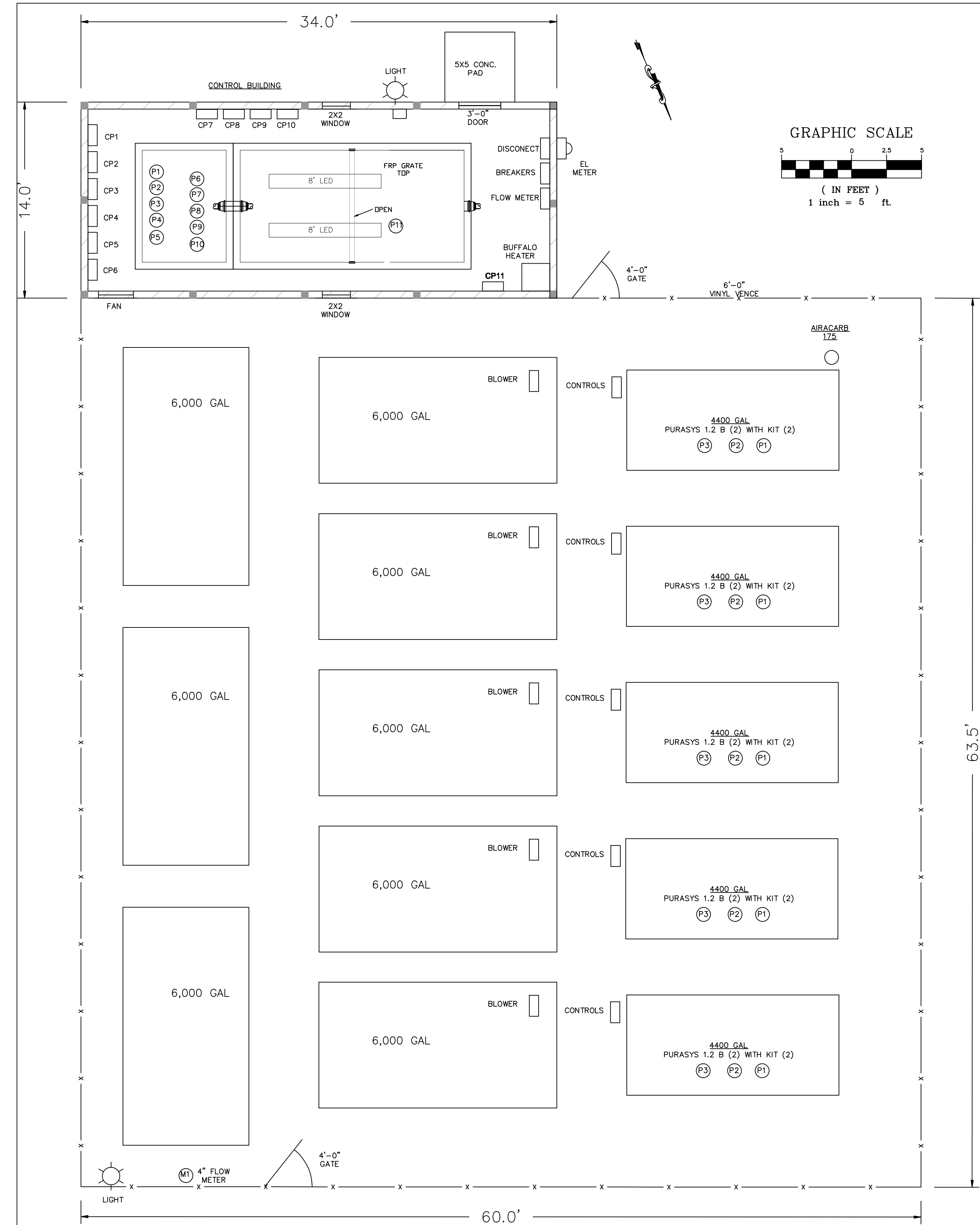
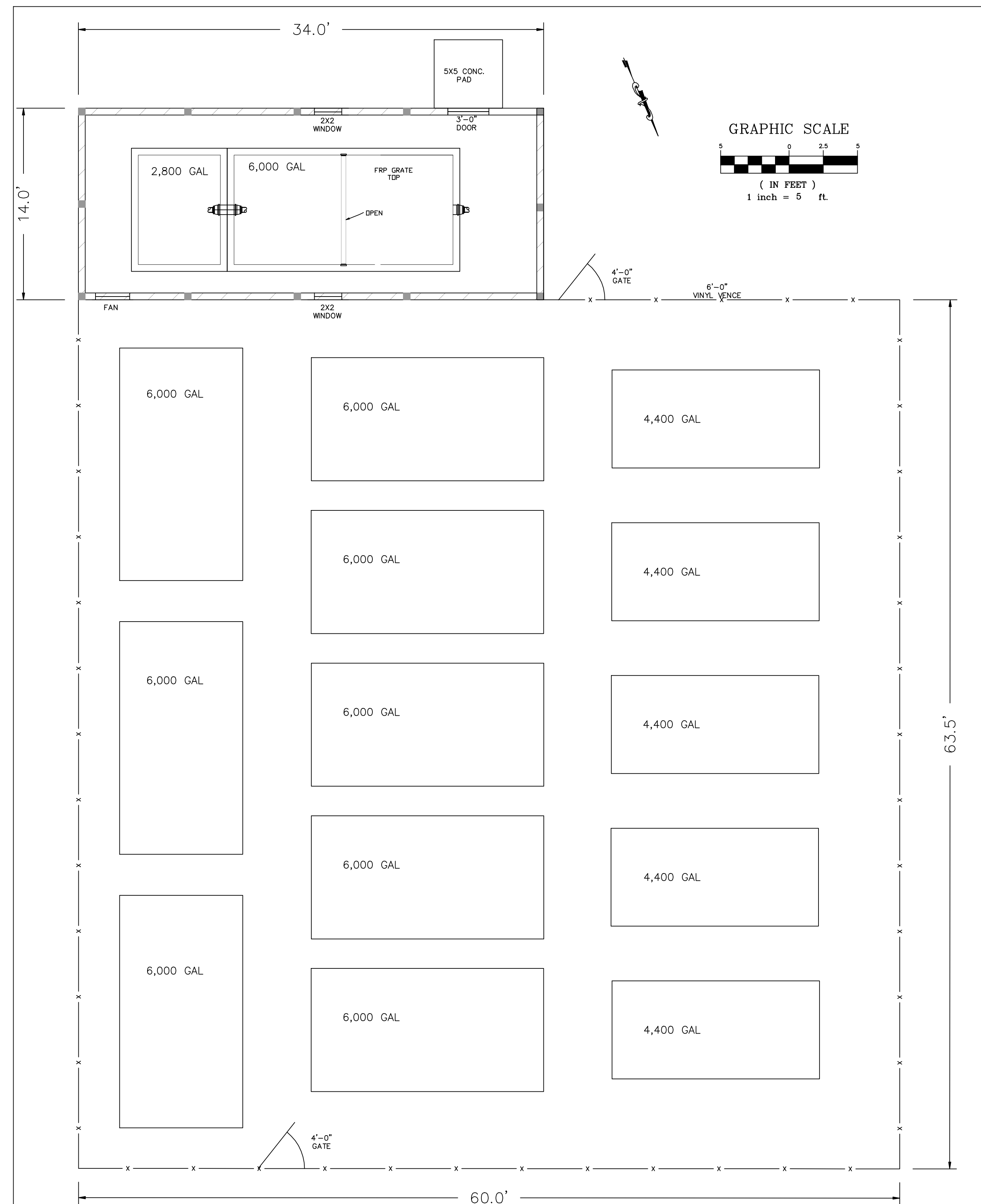
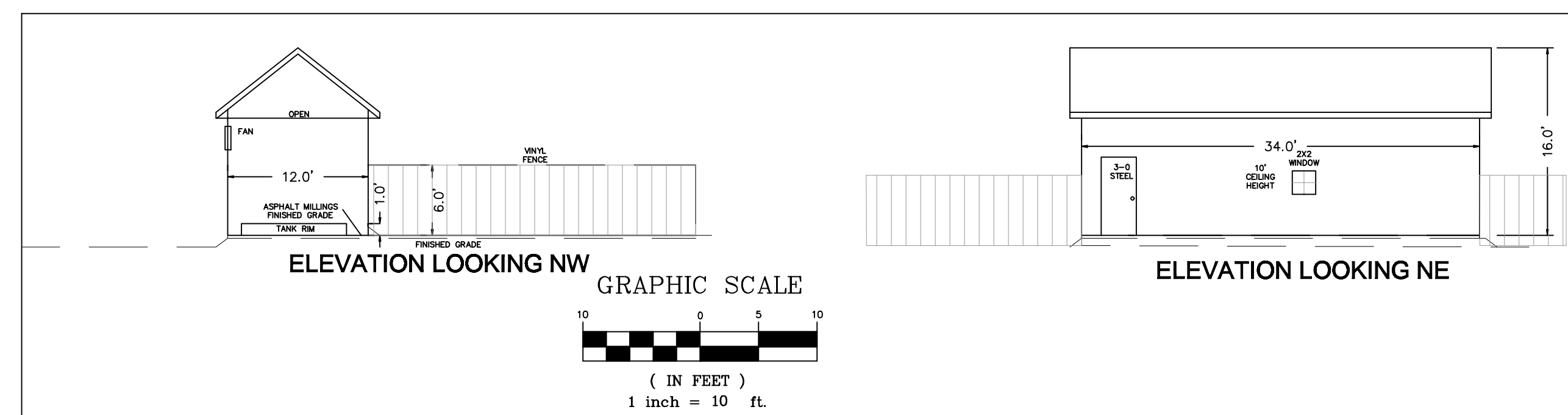
CONTRACTOR SHALL CONTACT SOIL SCIENTIST TO PROCTOR THE ESM EXCAVATIONS PRIOR TO BACK FILL. SPARE BEDS SHALL BE SAND LINED ESM IN AREA OF INITIAL OR ALTERNATE SYSTEM IN RESIDUAL AREAS.

DRAWING INDEX

SITE PLAN	1 OF 7
BUILDING	2 OF 7
PROCESS FLOW	3 OF 7
EQUIPMENT	4 OF 7
EQUIPMENT	5 OF 7
EQUIPMENT	6 OF 7
DETAIL SITE PLAN	7 OF 7

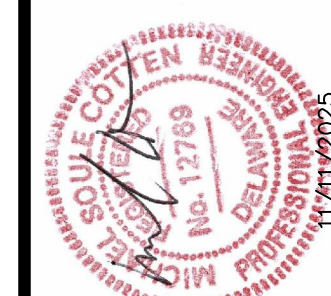


COTTEN ENGINEERING, LLC CIVIL ENGINEERING, ENVIRONMENTAL PLANNING CONSULTANTS 1000 PITTSFORD VICTOR ROAD, SUITE 202 PITTSFORD, NY 14534 PH: 516.652.9944 FAX: 516.652.9944					
SHEET NO. 1 OF 7					



BUILDING PLAN

COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
10007 CONCORD RD
SEAFORD, DE. 19773
PH: (302) 639-9164
FAX: (302) 639-9164

MICHAEL S. COTTEN, P.E.
LICENSE# 12769

**HOMESTEAD MHP
LOTS 1-37, 44**

SCALE: NONE

DESIGNED: CE

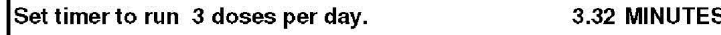
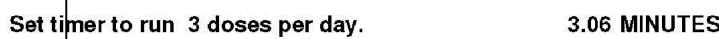
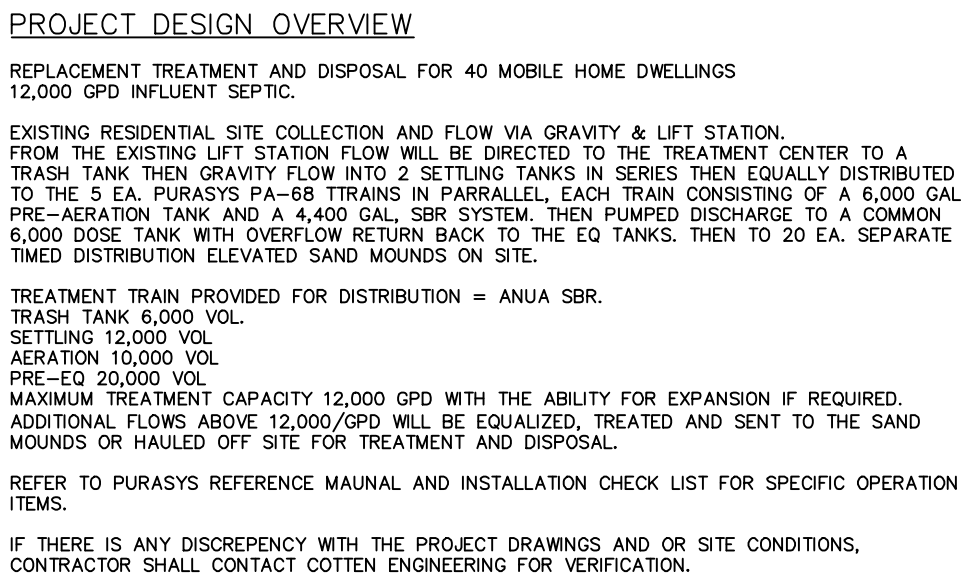
PLANNED: CE

DRAWN: CE

APPROVED: MC

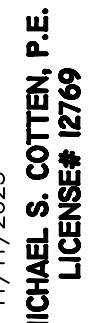
JOB: 07-039 DATE: 9/8/25

SHEET NO. 2 OF 7



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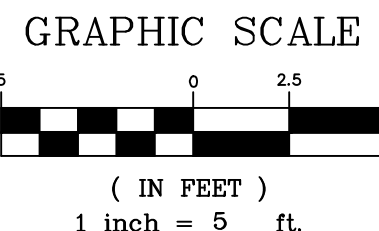
COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
10067 CONCORD RD. PR. 5302 628-9164.



DAGSBORO HUNDRED
1# 133-9.00-28.00 & 50.00
SUSSEX COUNTY
DAGSBORO, DELAWARE

0001 01 001

SHEET NO. 3 OF 7



MODEL TD Control Panel

Single phase, simplex timed dosing pump control. OR EQUAL

The Model TD control panel provides a reliable means of controlling one single phase pump in onsite septic installations. A programmable timer activates a magnetic motor contactor to turn the pump on and off. A low level cutout float overrides the timer to prevent the pump from running dry. An alarm float activates the audio/visual alarm system indicating a high liquid level. Common applications include sand filter systems, pressure distribution systems, mound systems, or any application requiring a timed dose.

PANEL COMPONENTS

1. Enclosure measures 10 x 8 x 4 inches (25.40 x 20.32 x 10.16 cm) NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use).
2. Magnetic Motor Contactor controls pump by switching electrical lines.
3. HOA Switch for manual pump control.
4. Control Fuse
5. Alarm Fuse
6. Float Switch Terminal Block
7. Incoming Power Terminal Block
8. Programmable Timer with separate variable controls allows for setting the on and off times from .05 seconds to 30 hours.
9. Circuit Breaker provides pump disconnect and branch circuit protection.
10. Spare Fuse
11. Backplate Label includes diagram of float, pump, and power connections.
12. Ground Lug

NOTE: Timer Installation Label and Pump/Float Switch Installation Specification Label are located inside the panel on enclosure cover.

STANDARD ALARM PACKAGE

13. Red Alarm Beacon provides 360° visual check of alarm condition.
14. Alarm Horn provides audio warning of alarm condition (85 to 85 decibel rating).
15. Exterior Alarm Test/Normal/Silence Switch allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition is cleared.
16. Horn Silence Relay (mounted under bracket).

FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes two 20" SJE float switches
- Complete with step-by-step installation instructions
- Five-year limited warranty

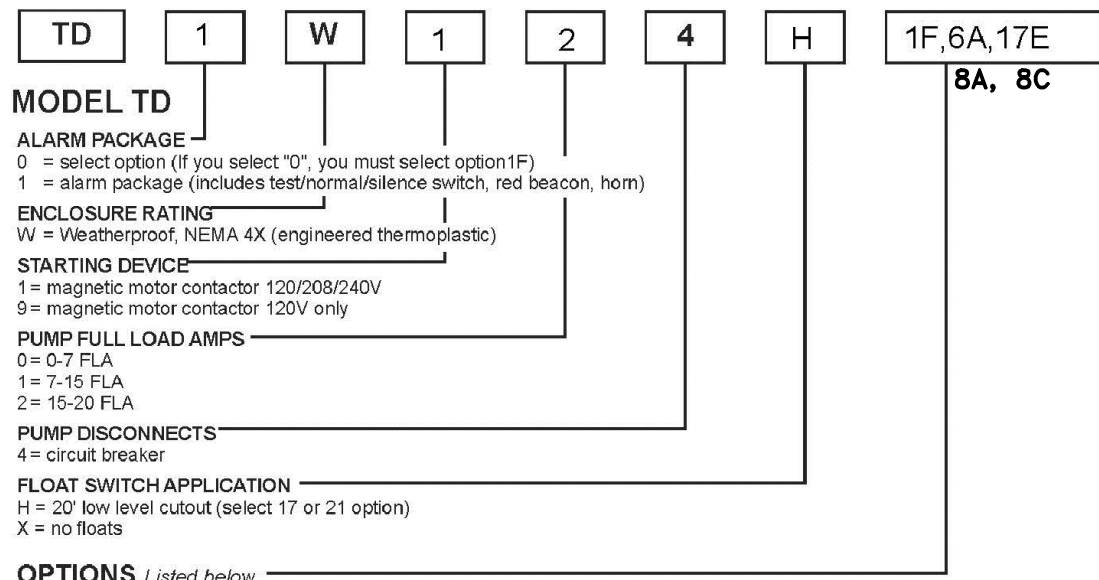
OPTIONAL FEATURE

- 34" (86.36cm) Panel Mounting Post (Factory Installed). Includes Duplex Installation Kit (Enclosure upsized to 10" x 8" x 6" (25.4 x 20.32 x 15.24 cm). Max. Enclosure size 14" x 12" x 6" (35.56 x 30.48 x 15.24 cm).

SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS

SIE Rhombus
PO Box 1708, Detroit Lakes, MN 56502
1-888-CJAL-SJE-1-218-847-1317
1-218-847-4817 Fax
email: customer.service@sierhombus.com

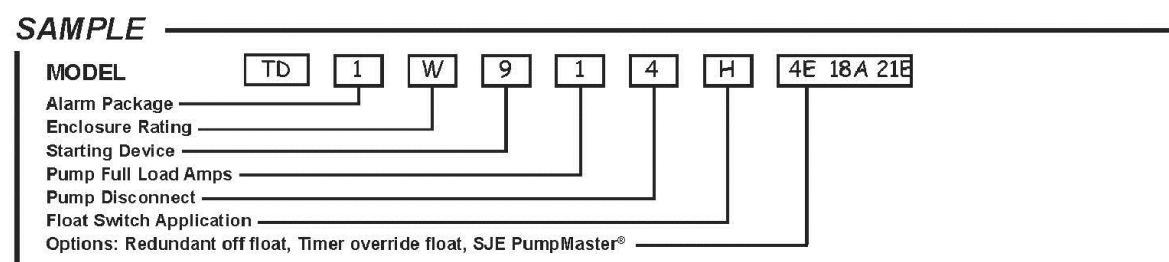
Model Shown TD1W914X



CODE	DESCRIPTION	CODE	DESCRIPTION
☒ 1F	Door mounted alarm indicator with horn and test/normal/silence switch (must select "1" as an alarm package)	☐ 10E	Lockable latch
☐ 4B	Red redundant off indicator and alarm (must select option "4D" if floats included)	☐ 10K	Anti-condensation heater
☐ 4D	Redundant off float, alarm activation	☐ 10P	Panel Mounting Post (Factory Installed. Includes Duplex Install Kit/End upsized to 10x8x6 Max 14x12x6)
☐ 4E	Redundant off float, alarm activation	☐ 16A	10' cord in lieu of 20' (per float)
☐ 16B	15' cord in lieu of 20' (per float)	☐ 16C	30' cord in lieu of 20' (per float)
☐ 16D	40' cord in lieu of 20' (per float)	☒ 17E	Sensor Float® Mini (redundant off, high level alarm) ▲ (per float)
☒ 17E	Sensor Float® Mini (redundant off, high level alarm) ▲ (per float)	☐ 18A	Timer override float (20 SJE PumpMaster®) ●
☒ 18A	Timer override float (20 SJE PumpMaster®) ●	☐ 19X	Door mounted pump run indicator
☐ 19X	Door mounted pump run indicator	☐ 21E	SJE PumpMaster® (redundant off, high level alarm) ● (per float)
☒ 21E	SJE PumpMaster® (redundant off, high level alarm) ● (per float)		

● Mechanically-activated ▲ Mercury-activated

If additional features are required, call the factory for a quote on an Engineered Custom control panel.



Sim/Tech Filter
1455 Leamur Drive
Boyne City, MI 49712
Office: 231-562-1120



Website: www.gag-simtech.com
Email: sales@gag-simtech.com
Fax: 231-562-1324
Toll Free: 888-999-3290

Introducing the STF-100A4 4" pressure filter

Introducing the new high volume pressure filter for systems that have horizontal space restrictions.

To accommodate higher flows, multiple STF-100 filters were put together into a manifold. In instances where horizontal space was an issue there was not enough room for the manifold. Now Sim/Tech offers a new alternative, the STF-100A4. The purpose of the 100A4 is to use the vertical space of the pump chamber. The filter is rated at about 250 gallons per minute at 2 psi. It measures about 7-1/2" at its widest point and is 42-1/2" tall before you add your desired length of tail piece piping and threaded coupler to attach it to your pump. The inlets and outlets are 4" slip fittings. The filter screen inside is composed of 2 of the standard screens stacked on top of each other. The filtering area is therefore twice that of one of the standard screens. Now, even if you lack the space to put in multiple 2" filters there is the STF-100A4 to handle your commercial size flow requirements.

A more economical plastic screen (STF-100P4) can instead be used, but socks are required to be used in conjunction with this screen. The filter socks are available for use with the screen to filter down to 600, 190, or 100 microns (.024", .007", .004"). The finer filtration can require more frequent service, but there is a large difference in cost between the stainless steel version and the plastic version.

We will also work with customers on custom designs to meet other special needs they may have. Just call or e-mail

Toll Free: 888-999-3290

or

sales@gag-simtech.com



HORNEY INDUSTRIAL ELECTRONICS, INC.
P.O. Box 700
Bridgeville, DE 19933

www.horneyonline.com

EIN #

52-1836183

Phone #

302-337-3600

Fax #

302-337-8560

Bill To Cotten Engineering 1087 Coward Rd. Seaford, DE 19973	Ship To Grants Way MHP
---	---------------------------

P.O. No.	Terms	Due Date	Ship Date
	Net 20	11/18/2013	11/19/2013
Qty	Item	Description	
2	7ME6910-1AA10..	Transmitter: MAG 5000: Display, for compact and wallmounting; IP67/NEMA 4X, fire-glass reinforced polyamide; 115/230 V AC, 50/60 Hz	
2	7ME6580-3T114..	Flow Tube: MAG 5100W: 4", Ebonite liner, NSF & WRc drinking water approvals	
2	FDK-08510220	Siemens Submersible Kit	
2	FDK-08511053	Siemens Mounting Bracket	
60	015TCAB	Siemens Cable	
60	C2356	Cable 2 Cond. 16 GA Shielded 500'	
1	AM2068RT	Allied Moulded 20X16X8 raised lid hinged enclosure twist lock	
1	HF2166	Allied Moulded Hinged front panel 20X16	
1	PLA206	Back Panel Allied Moulded	
1	VR18-4600-011-66	BrainChild Paperless recorder	
6	STA Disc.	6 analog inputs Expandable to 18 inputs/output; Labor Start Up & Calibration Traceable to N.I.S.T. Good Customer Discount if paid within net 20	

FLOW METER NOTES:

1 EA. 7ME6910-1AA10 TRANSMITTER: MAG 5000; DISPLAY FOR COMPACT AND WALL MOUNTING; IP67/NEMA 4X, FIBRE-GLASS REINFORCED POLYAMIDE; 115 V AC 50/60 Hz

1 EA. 7ME6580-3T114 FLOW TUBE MAG 5100: 4" EBONITE LINER, NSF & WRc DRINKING WATER APPROVALS

1 EA. ALLIED MOULDED 20X16X8 RAISED LID HINGED ENCLOSURE TWIST LOCK

1 EA. ALLIED MOULDED HINGED FRONT PANEL 20X16

1 EA. BRAINCHILD PAPERLESS RECORDER.

CONTRACTOR SHALL INSTALL FLOW TUBES CONDUIT AND MOUNTING LOCATION FOR ENCLOSURE AND PROVIDE 120 V POWER

AiraCarb™

Odors are a concern for owners and operators of on-site treatment systems, decentralized systems, small treatment plants, and municipal collection systems. Hydrogen sulfide and VOC's create odors, are corrosive, cause air pollution, and are detrimental to health.

Why Choose AiraCarb Odor Control Systems?

- Low capital cost
- Ease of installation
- Small footprint
- Low maintenance
- Proven technology

Technical Specifications

Model	Diameter	Height	Airflow	Shipping Weight	Media Capacity
AiraCarb 15	22"	38"	75CFM	200lbs	6 ft ³
AiraCarb 175	26"	38"	175CFM	320lbs	6 ft ³

Standard Features

- Corrosion proof vessel with removable lid
- Packaged with carbon media to treat H₂S and other odorous compounds
- Airflow ranges: 75 CFM to 175 CFM
- Passive design (no fan)
- 4" dia. PVC inlet and outlet
- 0.5" dia. PVC condensate drain with ball valve

Available Options

- Specialized carbon medias
- Top-mounted cast-aluminum blower with 120V direct-drive motor
- Start-up, commissioning, or training services



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336.547.9338 • anuainternational.com

EQUIPMENT

COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
10407 CONCORD RD
SEAFORD DE 19773
PH: (302) 459-9164
FAX: (302) 562-9165

MICHAEL S. COTTEN, P.E.
11/17/2025
LICENSE# 12769

HOMESTEAD MHP LOTS 1-37, 44

DAGSBORO HUNDRED
T4# 135-9-00-28-00 & 90-00
SUSSEX COUNTY
DAGSBORO, DELAWARE

SCALE: NONE

DESIGNED: CE

PLANNED: CE

DRAWN: CE

APPROVED: MC

JOB: 07-039 DATE: 9/8/25

SHEET NO. 4 OF 7



WS_B Series Model 3886

SUBMERSIBLE SEWAGE PUMP

TECHNICAL BROCHURE B3886



Goulds Water Technology

Wastewater

FEATURES

- Impeller: Cast iron, semi-open, dynamically balanced, non-clog with pump out vanes for mechanical seal protection. Optional Silicon bronze impeller available.
- Casing: Cast iron volute type for maximum efficiency. Designed for easy installation on A10-20 guide rail or base elbow rail systems.
- Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE sealing faces for superior abrasive resistance, stainless steel metal parts, BUNA-N elastomers.
- Shaft: Corrosion-resistant stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering/Effluent
- Water transfer

SPECIFICATIONS

Pump

- Solids handling capabilities: 2" maximum
- Discharge size: 2" NPT
- Capacities: up to 185 GPM
- Total heads: up to 38 feet TDH
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent

MOTORS

- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer. All ratings are within the working limits of the motor.
- Class B insulation

Single phase (60 Hz):

- All single phase models feature capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or SJTOW severe duty oil and water resistant power cords
- ½ - 1 HP models have NEMA three prong ground- ing plugs.

PAGE 2

Fasteners: 300 series stainless steel.

Capable of running dry without damage to components.

Designed for continuous operation when fully submerged.

EXTENDED WARRANTY AVAILABLE FOR RESIDENTIAL APPLICATIONS.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards
By Canadian Standards Association
File #UR38549

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

- Bearings: Upper and lower heavy duty ball bearing construction

- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

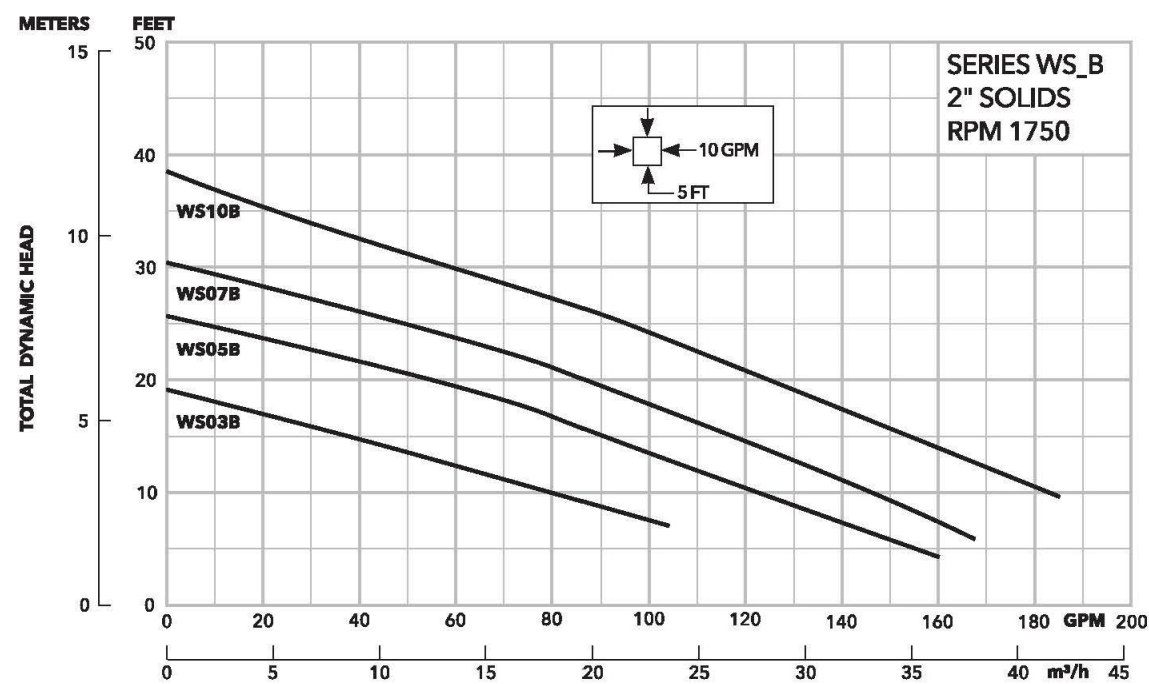
- Power Cable: Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

- Motor Cover O-ring: Assures positive sealing against contaminants and oil leakage.

Wastewater

MODELS

#	Order Number	HP	Phase	Volts	RPM	Impeller Dia. (in.)	Max. Amps	LRA	KVA Code	Full Load Motor Eff.	Resistance Start	Line-Line	Wt. (Lbs.)
	WS0311B	0.33	1	115	1750	4.69	10.7	30.0	M	54	11.9	1.7	63
	WS0318B	0.33	1	208	1750	4.69	6.8	19.5	K	51	9.1	4.2	63
	WS0312B	0.33	1	230	1750	4.69	4.9	14.1	L	53	14.5	8.0	63
	WS0511B	0.5	1	115	1750	5.00	14.5	31.1	J	55	9.3	1.4	65
	WS0518B	0.5	1	208	1750	5.00	8.0	19.5	K	51	9.1	4.2	65
	WS0512B	0.5	1	230	1750	5.00	7.3	16.5	J	54	11.7	5.6	65
	WS0538B	0.5	1	200	1750	5.00	3.8	12.3	K	75	NA	6.7	65
	WS0532B	0.5	1	230	1750	5.00	3.3	9.7	K	75	NA	9.9	65
	WS0534B	0.5	1	460	1750	5.00	1.7	4.9	K	75	NA	39.4	65
	WS0537B	0.5	1	575	1750	5.00	1.4	4.3	K	68	NA	47.8	65
	WS0718B	0.75	1	208	1750	5.38	11.0	39.0	K	65	2.6	1.4	85
	WS0712B	0.75	1	230	1750	5.38	9.4	24.8	J	57	4.8	2.3	85
	WS0738B	0.75	1	200	1750	5.38	4.1	21.2	H	74	NA	4.3	85
	WS0732B	0.75	1	230	1750	5.38	3.4	17.3	J	76	NA	5.6	85
	WS0734B	0.75	1	460	1750	5.38	1.8	8.9	J	76	NA	22.4	85
	WS0737B	0.75	1	575	1750	5.38	1.5	7.3	J	71	NA	29.2	85
	WS1018B	1	1	208	1750	5.75	14.0	39.0	K	65	2.6	1.4	85
	WS1012B	1	1	230	1750	5.75	12.3	30.5	H	60	4.3	1.8	85
	WS1038B	1	1	200	1750	5.75	6.0	21.2	H	74	NA	4.3	85
	WS1032B	1	1	230	1750	5.75	5.8	17.3	J	76	NA	5.6	85
	WS1034B	1	1	460	1750	5.75	2.9	8.9	J	76	NA	22.4	85
	WS1037B	1	1	575	1750	5.75	2.4	7.3	J	71	NA	29.2	85



PAGE 3

PERFORMANCE RATINGS (gallons per minute)

Order No.	WS03B	WS05B	WS07B	WS10B	
HP ▶	½	½	¾	1	
RPM ▶	1750	1750	1750	1750	
Total Head Feet of Water	10 ▶	80	122	145	183
	15	36	90	116	152
	20	-	50	86	123
	25	-	-	48	95
	30	-	-	-	58
	35	-	-	-	20

NOVAIR 200/600
SUBMERGED AERATOR
FOR SMALL WASTE
WATER TREATMENT SYSTEMS



NEW

GENERAL DATA

Applications

The submerged aerator is designed for liquid waste aeration in small waste treatment systems. Other fields of application include pond water aeration and fish farms.

Advantages

Thanks to its specific design, the new NOVAIR system guarantees optimal oxygenation of water treatment plants by means of a large and thick cloud of fine bubbles. The fluid dynamics study has been mainly focused on the impeller's blade profiles, with a view to avoid damaging microorganisms present in the water when starting operation. As the aerator is installed vertically, its body is supplied with a supporting base.

Technically speaking, motor cooling is guaranteed by large contact surfaces between motor casing and the liquid. The power cable is coated with resin against humidity and noise and cabling has been made easier, in order to favour maintenance operations and cable replacement. The excellent wear resistance of the stainless steel motor shaft, with ceramic bush around the sealing rings, guarantees long product durability.

Construction features

Pump body, cable cover and impeller in technopolymer. Two-pole asynchronous submergible type motor from 0.18 and 0.4 kW with built-in thermal protection and permanently connected capacitor installed in the cable compartment. Steel motor shaft mounted on oversized, greased sealed-for-life ball bearings with ceramic bush. Triple interposed ring seal with oil pre-chamber.

Operating range:

Protection level:

Insulating class:

Liquid temperature range:

Liquid quality requirements:

Standard voltage:

Power cable:

air delivery 2 - 17 m³/h for depths from 20 - 80 cm

IP68

F

from 0 °C to 35 °C according to EN 60335-2-41 standard for domestic use

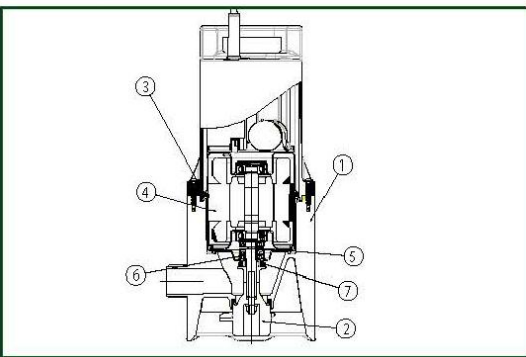
sewage from septic tank for: less and free from solids, and clear water.

single-phase 220 - 240 V 50 Hz

HO7RNFB-F of various lengths and SCHUKO plug available

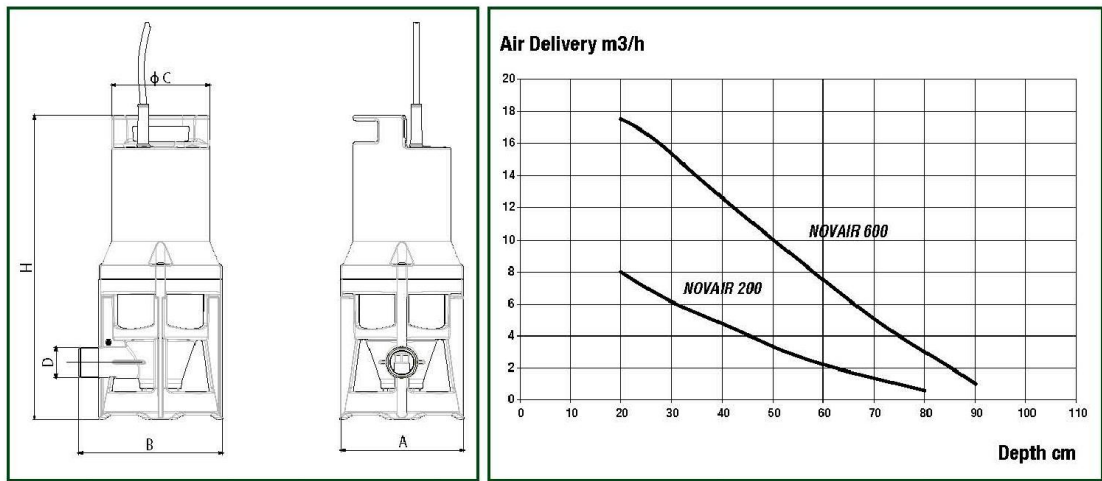
TECHNICAL DATA

N	DESCRIPTION	MATERIAL
1	PUMP BODY	TECHNOPOLYMER
2	GRANITE	TECHNOPOLYMER
3	O-ring SEAL	NBR 70
4	MOTOR CASING	ASI 304
5	SHAFT	ASI 416
6	CERAMIC BUSH	ASI 303 + CERAMIC
7	RADIAL SEAL	NBR 70
8	Y-RING	NBR 70 + GREASE



DAB PUMPS reserves the right to make modifications without notice.

NOVAIR 200/600
SUBMERGED AERATOR FOR SMALL WASTE
WATER TREATMENT SYSTEMS



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906

ELECTRICAL DATA AND PERFORMANCE

MODEL	VOLTAGE	P1 MAX		P2 NOMINAL		Amps	Ø INLET	CABLE	Air delivery MAX	Depth	
		W	KW	HP	A					cm	cm
NOVAIR 200	220-240 V	280	0.18	0.24	1.4	1"	1"	HO7RNFB-F	8	80	20
NOVAIR 600	220-240 V	630	0.40	0.54	3	1 1/4"	1 1/4"	HO7RNFB-F	17.5	80	20

DIMENSIONS AND WEIGHT

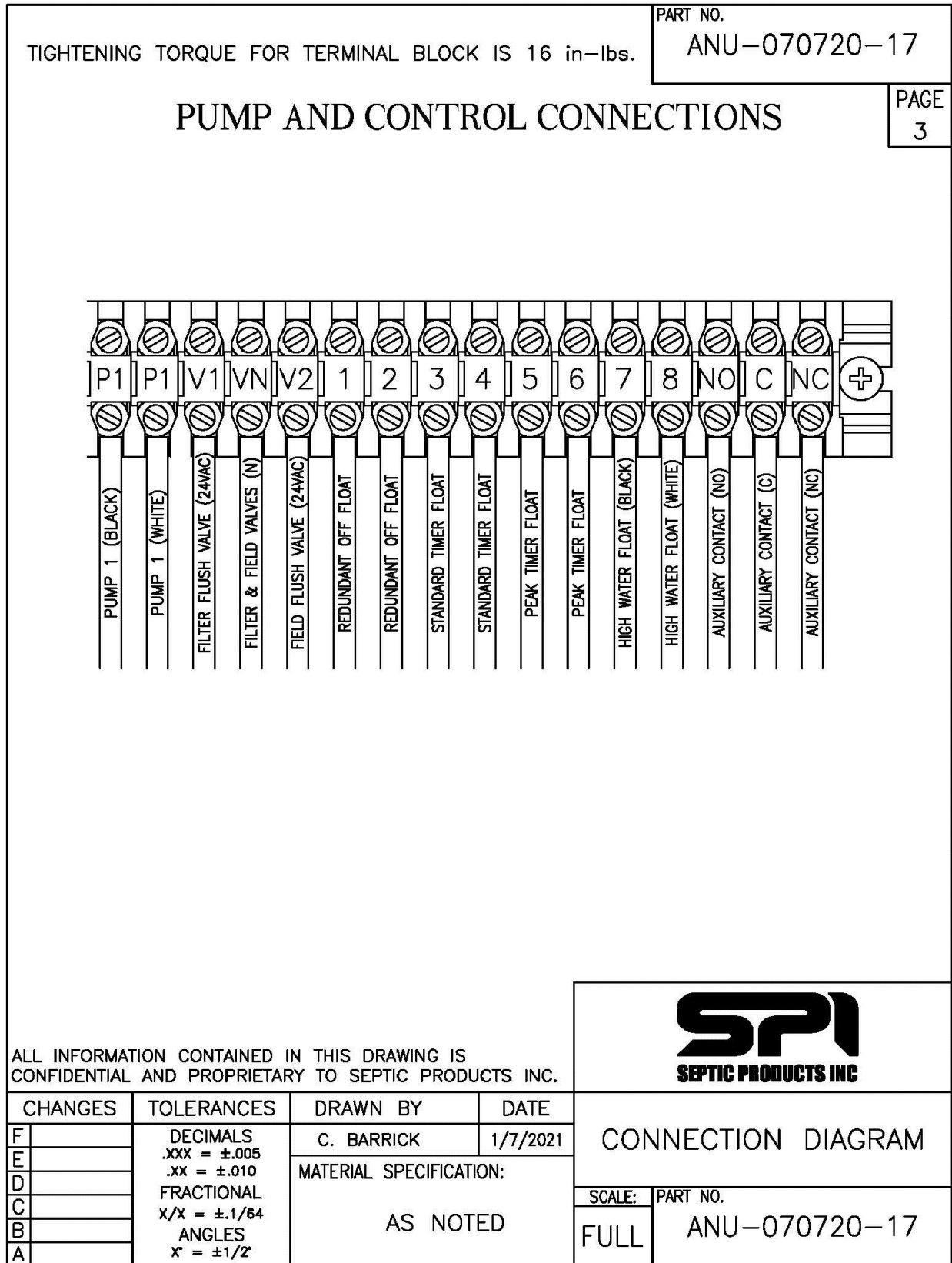
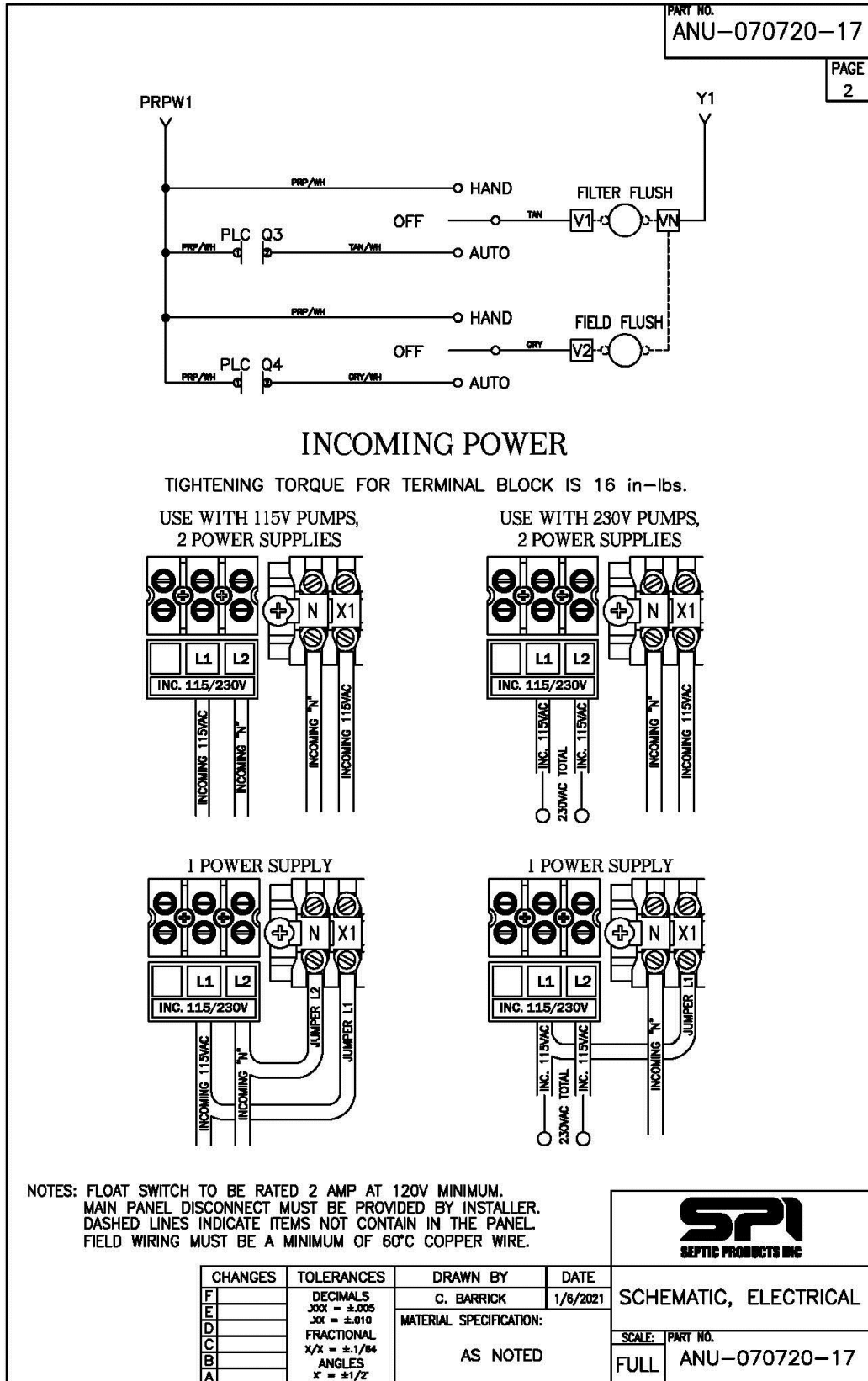
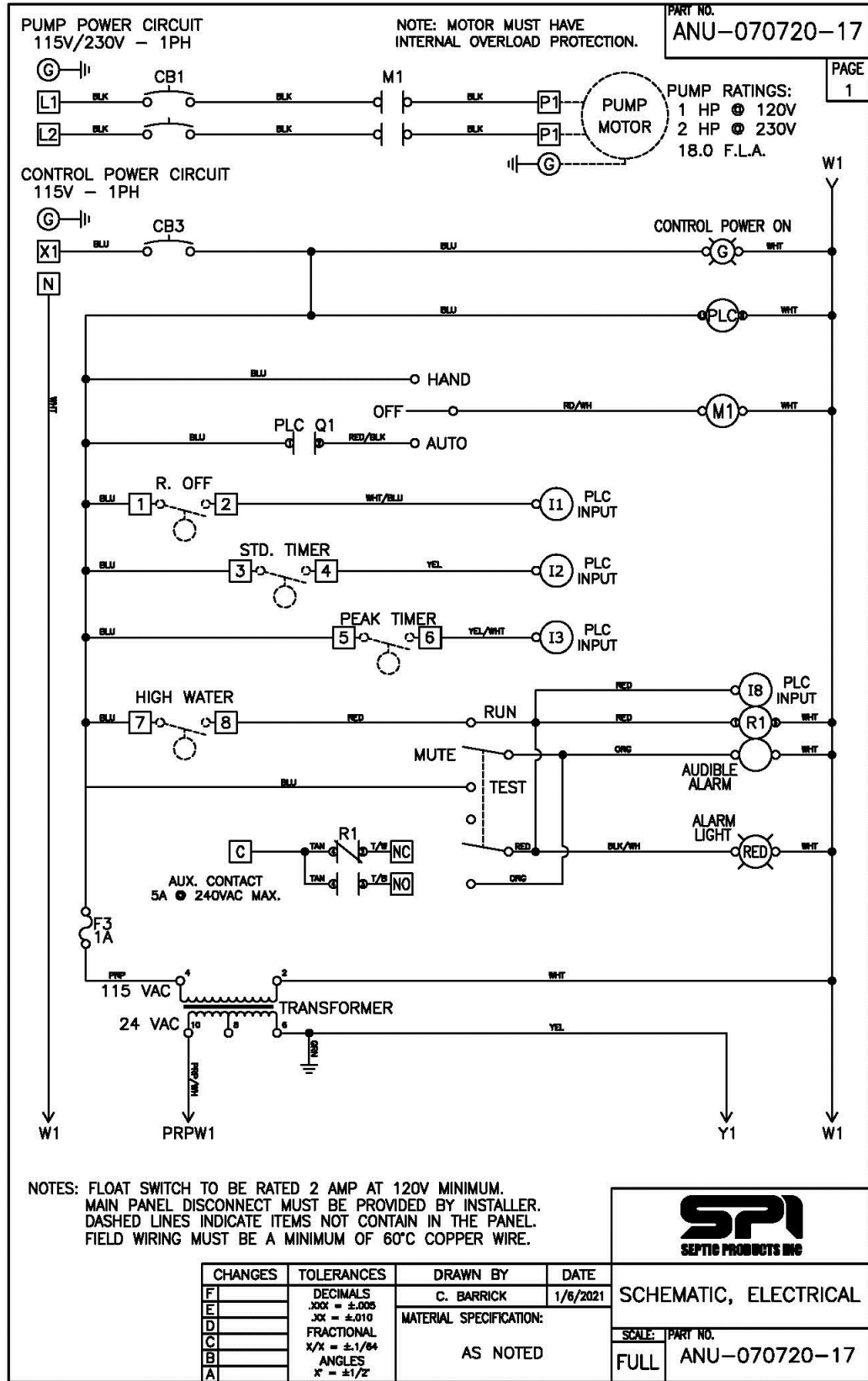
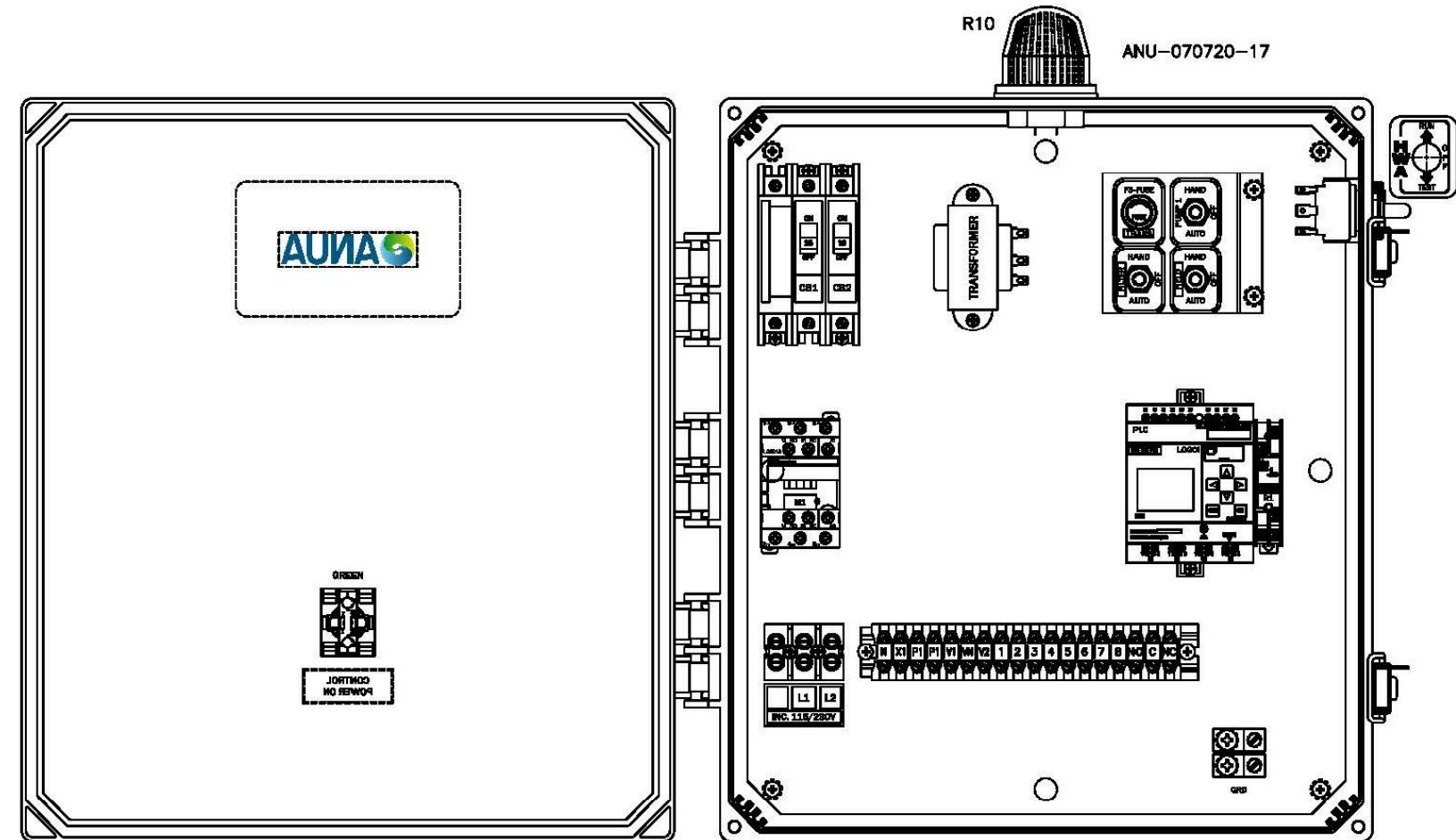
MODEL	H	A	B	ZC	D	PACK DIMENSIONS			WEIGHT
					G - NPT	L/A	L/B	H	Kg
NOVAR 200	329,5	130,5	158	106	1"	190	255	308	3,5
NOVAR 600	380,20	130,5	158	106	1 1/4"	190	255	308	5,4



DAB PUMPS reserves the right to make modifications without notice.

CONNECT EACH TO BREAKER PANEL.

PURASYS CONTROLS



HOMESTEAD MHP
LOTS 1-37, 44

DAGSBORO HUNDRED
TM# 135-9-00-28.00 & 50.00
SUSSEX COUNTY
DAGSBORO, DELAWARE

SCALE: NONE
DESIGNED: CE
PLANNED: CE
DRAWN: CE
APPROVED: MC
JOB: 07-039 DATE: 9/8/25

SHEET NO. 5 OF 7

EQUIPMENT

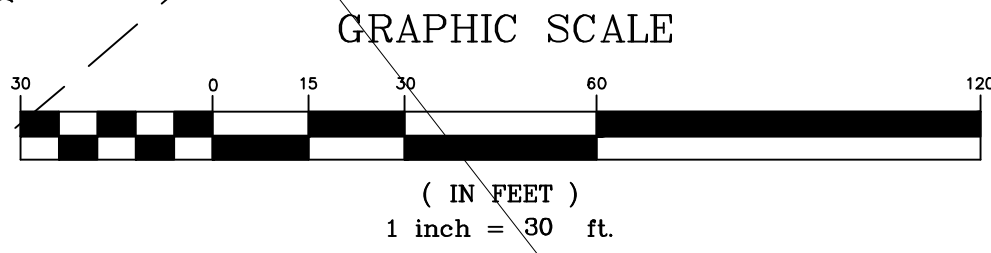
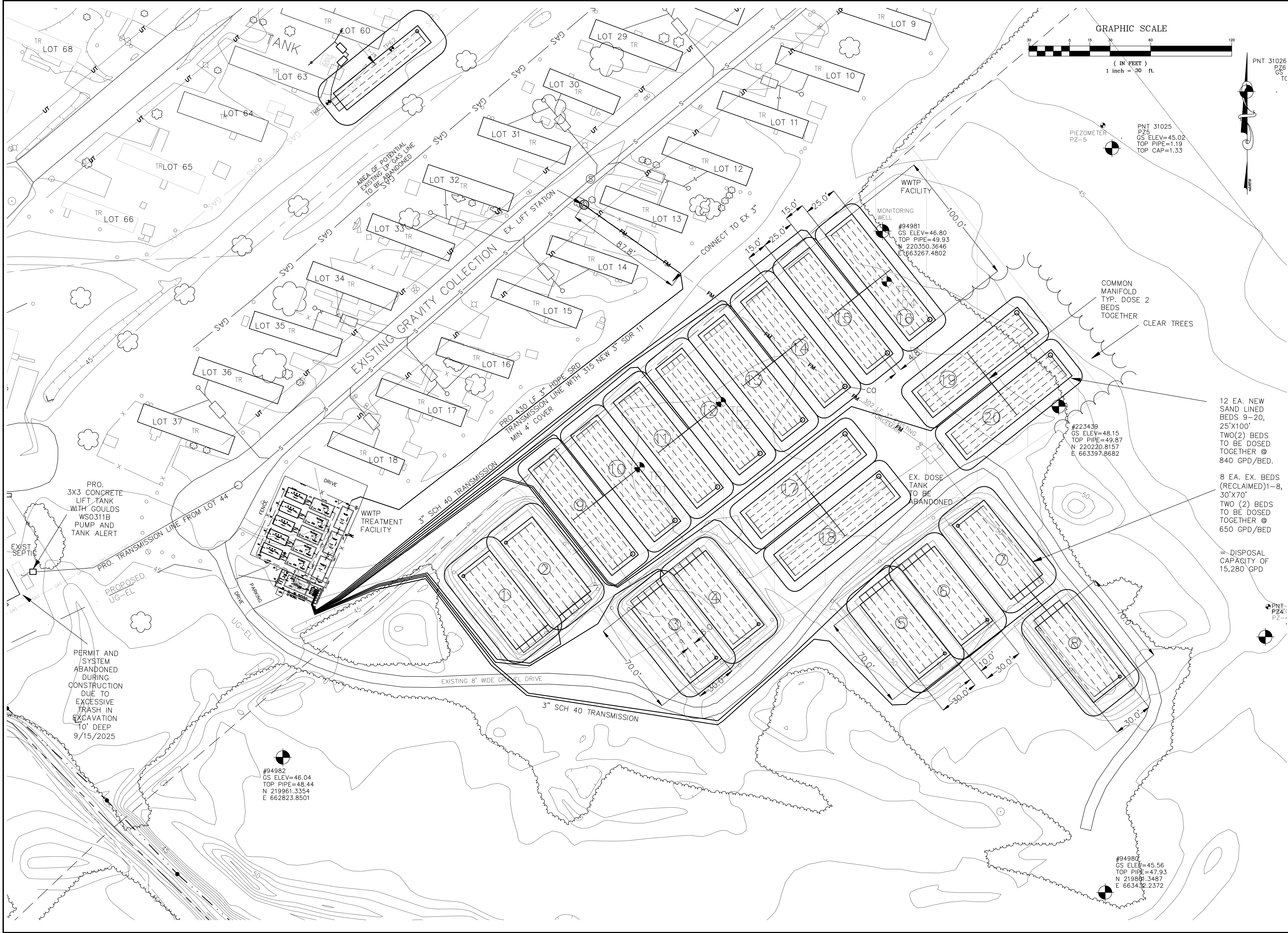
COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
10001 CONCORD RD
SEAFORD DE 19773
PH: (302) 658-9164
FAX: (302) 658-9164

9/8/2025
MICHAEL S. COTTEN, P.E.
LICENSE# 12769

SPECIFICATIONS FOR HIBLOW HP-200 UNIT

- 8.4 cfm (cubic feet per minute) Maximum Air Flow (@ 0 PSI)
- 200 LPM (Liters Per Minute) @ 2.90 PSI
- 4.3 PSI Maximum Continuous Operating Pressure
- 120 VAC, 60 Hz, 2.3A, 200 Watts
- 48 dBA Measured @ 1 Meter
- Dimensions: 10.1" L x 7.9" H x 8.8" H
- Condition: NEW
- Includes Rubber 90 with Hose Clamps
- Includes 1/8" Alarm Connection Fitting
- Fits many 1500 GPD Aerobic Treatment Systems (Sizing is Determined by Brand of Aerobic System)





PNT 31025
PZ5
GS ELEV=45.02
TOP PIPE=1.19
TOP CAP=1.33

COMMON
MANIFOLD
TYP. DOSE 2
BEDS
TOGETHER

CLEAR TREES

12 EA. NEW
SAND LINED
BEDS 9-20,
25'X100'
TWO(2) BEDS
TO BE DOSED
TOGETHER @
840 GPD/BED.

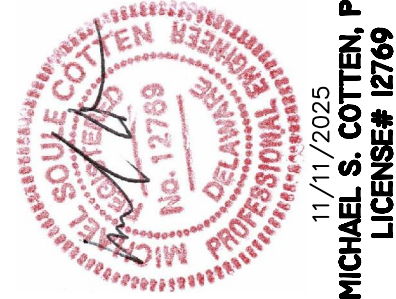
8 EA. EX. BEDS
(RECLAIMED)1-8,
30'X70'
TWO (2) BEDS
TO BE DOSED
TOGETHER @
650 GPD/BED

= DISPOSAL
CAPACITY OF
15,280 GPD

#	1.	2.	3.	4.	5.	6.

DETAILE SITE PLAN

COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
10007 CONCORD RD
SEAFORD DE 19773
PH: (302) 658-9164
FAX: (302) 658-9165

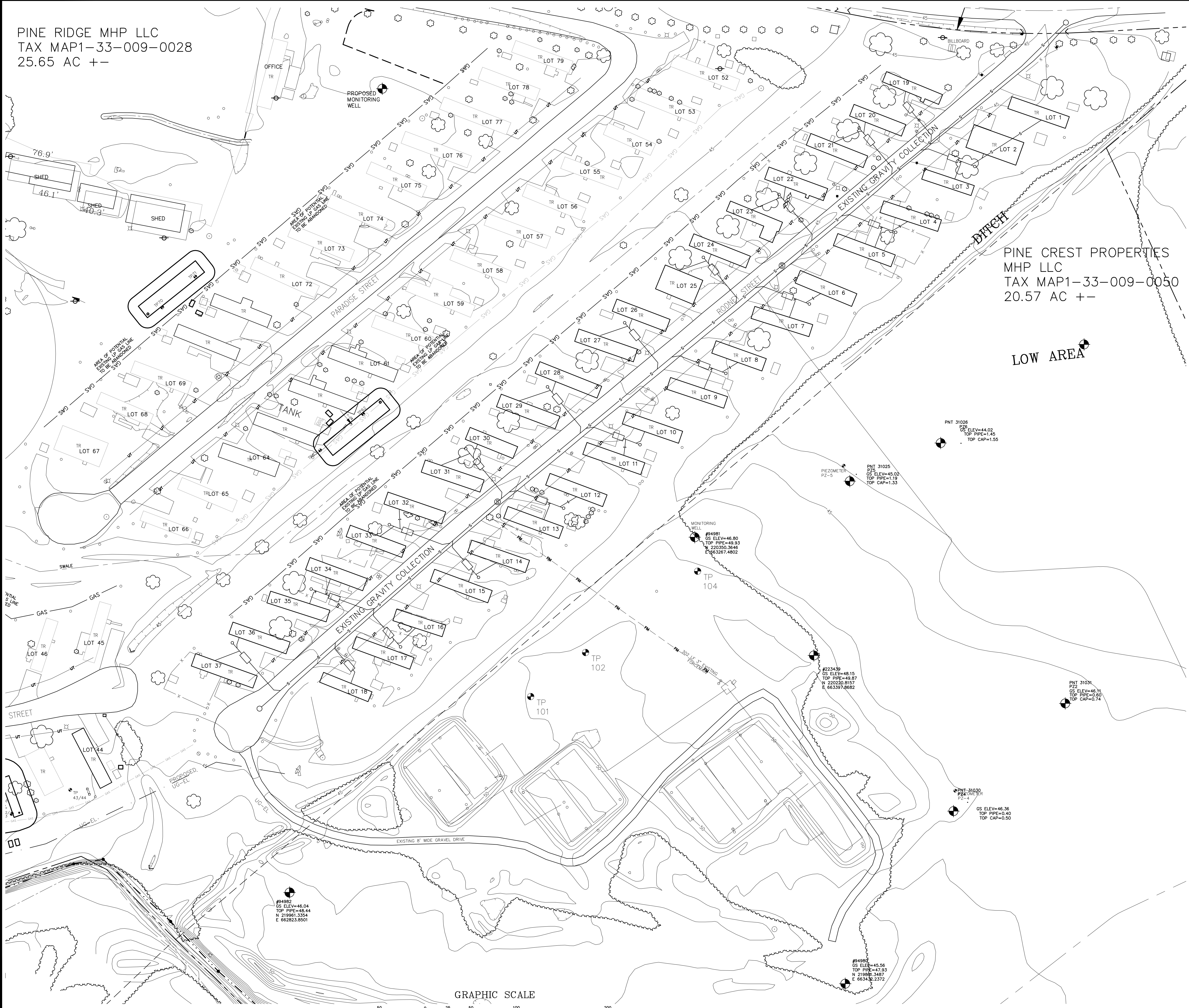


HOMESTEAD MHP
LOTS 1-37, 44

DAGSBORO HUNDRED
TM# 135-9.00-28.00 & 50.00
SUSSEX COUNTY
DAGSBORO, DELAWARE

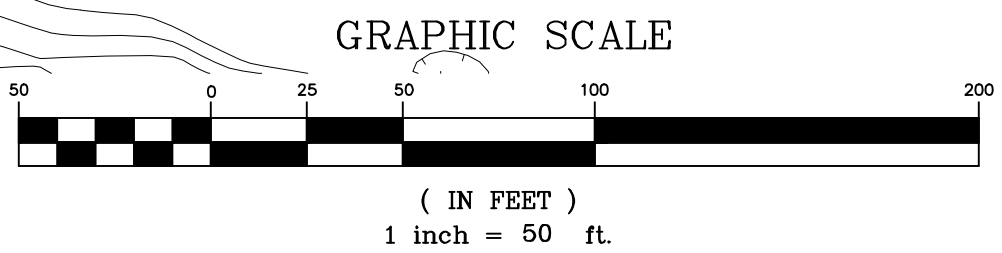
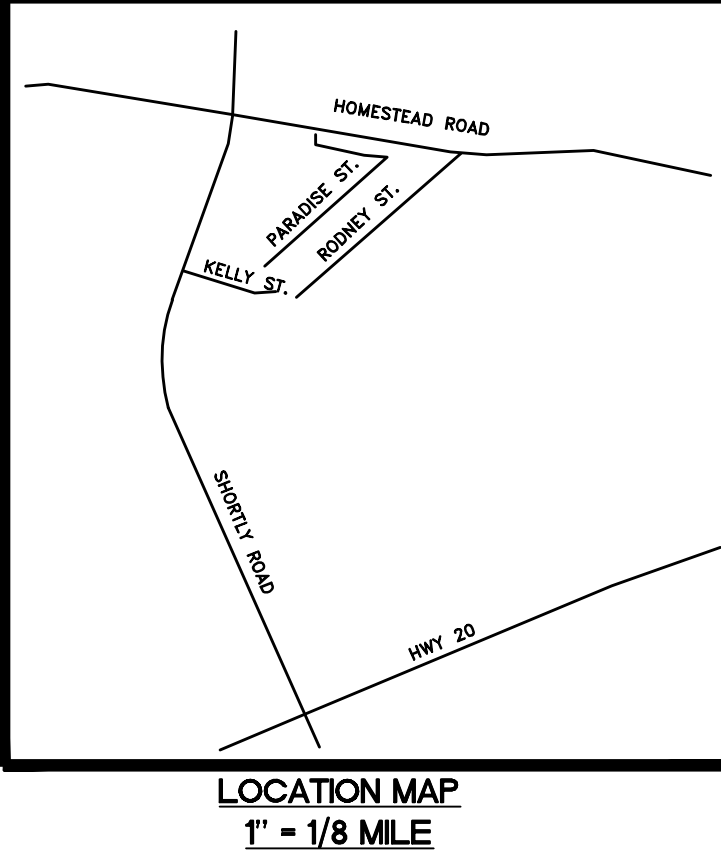
SCALE:	NONE
DESIGNED:	CE
PLANNED:	CE
DRAWN:	CE
APPROVED:	MC
JOB:	07-039
DATE:	9/8/25

PINE RIDGE MHP LLC
TAX MAP1-33-009-0028
25.65 AC +-
SHED
46.1'
76.9'



LEGEND

- POINT
- IRON REBAR TO BE SET
- IRON PIPE FOUND
- EXISTING PROPERTY LINE / EXISTING R.O.W. LINE
- PROPOSED PROPERTY LINE / PROPOSED R.O.W. LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING ROAD CENTERLINE
- EXISTING GRAVEL DRIVE
- BUILDING RESTRICTION LINE
- UTILITY POLE
- DWELLING TO BE CONNECTED TO NEW COMMUNITY SYSTEM
- PROPOSED ESM
- TEST PIT 2025 BY KAUFFMAN



#	1.	2.	3.	4.	5.	6.
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EXISTING CONDITIONS

REPLACEMENT COMMUNITY SANITARY PLAN

COTTEN ENGINEERING, LLC
CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PLANNING CONSULTANTS
P.O. BOX 658-944
DAGSBORO, DE 19924

11/11/2025
MICHAEL S. COTTEN, P.E.
LICENSE # 12769

HOMESTEAD MHP

LOTS 1-37, 44

DAGSBORO HUNDRED
TAX MAP 153-9-00-28.00 & 50.00
SUSSEX COUNTY
DAGSBORO, DELAWARE

SCALE:	NONE
DESIGNED:	CE
PLANNED:	CE
DRAWN:	CE
APPROVED:	MC
JOB:	07-039
DATE:	9/8/25

SHEET NO. 1 OF 1