



**Howard County
Health Department**

Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 2/20/25 **ONSITE SEWAGE DISPOSAL SYSTEM** P 587968

APPROVAL DATE: 9/22/25 **PERMIT: NEW CONSTRUCTION** A _____

PROPERTY ADDRESS: 13625 Highland Road

SUBDIVISION: _____ LOT: Par 314 TAX ID: _____

CONTRACTOR: Valley Road Enterprises, LLC EMAIL: _____

CONTRACTOR ADDRESS: 6990 O'Connor Road, Hanover, MD 21076 PHONE: 443-927-6063

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER: Norweco

PROPERTY OWNER: Merchant Rizwan EMAIL: _____

OWNER ADDRESS: 2475 Jostaberry Way, Odenton, MD 21113 PHONE: 443-370-7858

BAT UNIT MODEL: Norweco TNT 750 PUMP SIZE: 1/3 PUMP TANK CAPACITY: 2000

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: 6/14/24 DATE RECORDED: 6/14/24

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>114</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5</u>

LOCATION: **SYSTEM TO BE STAKED BY DESIGNER AND VERIFIED BY APPROVING AUTHORITY DURING PRE-CONSTRUCTION INSPECTION.**

NOTES:

ISSUED BY: Spencer Freeman ISSUE DATE: 2/20/25 EXPIRATION DATE: 2/20/26

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION

NOTE: CONTRACTOR REGISTERED WITH THE STATE OF MD ON-SITE WASTEWATER PROFESSIONALS BOARD: CONFIRMED 01071

NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING

NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.

NOTE: WATERTIGHT SEPTIC TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

ELECTRICAL PERMIT ISSUED E 24006696

NOTE: THE HCHD DOES NOT WARRANT ANY SYSTEM AND CANNOT GUARANTEE THE PERFORMANCE OF THIS SYSTEM AS DESIGNED. BY ACCEPTING THIS PERMIT, THE OWNER AND/OR APPLICANT ACKNOWLEDGE THAT THE SPECIFICATIONS DETAILED IN THIS DESIGN ARE ONE POSSIBLE OPTION AND THAT THE HCHD WILL REVIEW OTHER PROPOSALS. YOU HAVE THE OPTION TO SEEK THE ADVICE OF A QUALIFIED DESIGN CONSULTANT OR PROFESSIONAL ENGINEER FOR FURTHER GUIDANCE.

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

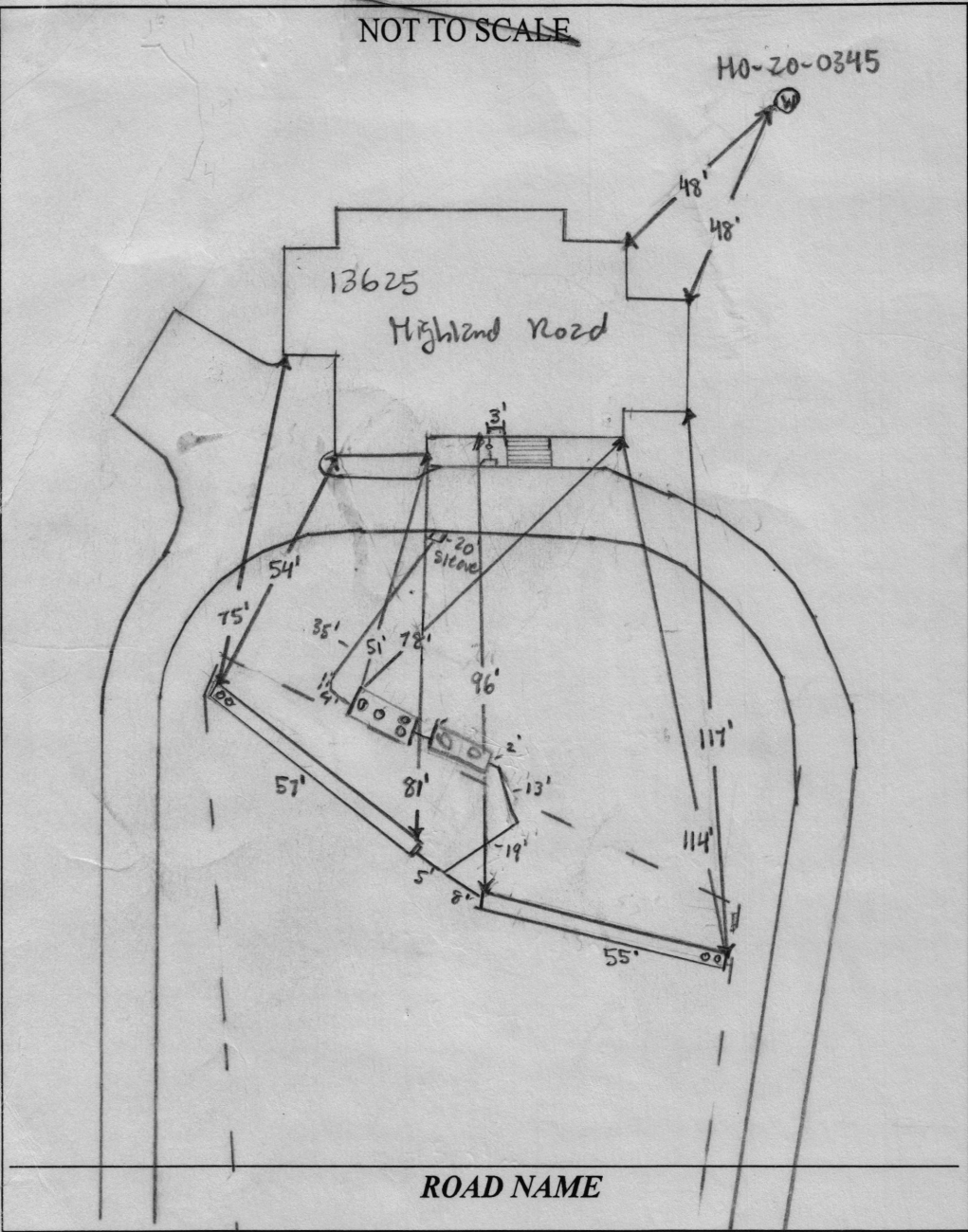
1" = 40'

NOT TO SCALE

H0-20-0345

13625

Highland Road



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH		112
ABSORPTION AREA		336 ft ² SW
DISTRIBUTION BOX LEVEL		—
DISTRIBUTION BOX BAFFLE		—
DISTRIBUTION BOX PORT		—

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	yes
MANUFACTURER	BANK RIVER
CAPACITY	750 GAL
SEAM LOC	Top
TANK LID DEPTH	4'-5" - 7
BAFFLES	—
BAFFLE FILTER	—
MANHOLE LOC	Front, middle, & back
6" PORT LOC	—
WATERTIGHT TEST	—
SLOTTED	—
DATE ON LID	5/22/2024

PUMP/SEPTIC TANK LEVEL

PUMP/SEPTIC TANK LEVEL	yes
MANUFACTURER	BANK RIVER
CAPACITY	2000 GAL
SEAM LOC	Top
TANK LID DEPTH	5'-6" - 7
BAFFLES	—
BAFFLE FILTER	—
MANHOLE LOC	Front & back
6" PORT LOC	—
WATERTIGHT TEST	—
SLOTTED	—
DATE ON LID	12/16/2024

SEPTIC CONTRACTOR ONSITE INSTALLING SYTEM: Chris Eby
 SEPTIC CONTRACTOR ONSITE LICENSED WITH THE STATE OF MD: YES/NO

PRE-CONSTRUCTION NOTES:
 2/24/2025 - Installer onsite for pre-con for 2 tanks sewer coming out 10.5' below FF. Tanks will have 4' of cover. Installer planning on putting over tank & cutting around driveway, ensure no overlap over tank -> reinspect for grading before 100% SP/MBS 6/24/2025 - Installer onsite for pre-con,

INSTALLATION NOTES:
 2/20/2025 - Onsite while tank hole excavated. bottom is leveled. AM & PM ins. 2/21/2025 - onsite while gas set, tank has 4'-6" of cover. Bottom & sides in good condition. PM inspection done on onsite while gas set. Tank in good condition & 5'-6" of conc. Reinspect for final break on manhole. OK to pull in all work. 3/16/2025 - 110 installed out of sewer. 3/11/2025 - onsite during installation of solid pipe from foundation to septic tank. Installer wasn't steaming pipe under driveway. told installer to use sleeve. conducted 3 more inspections during day. installer finished around 2 pm. set 10 90 pvc w/ 1 1/2" fill & 8" sleeve under driveway. 6/25/2025 - AM 124 out of drainfield. reinspect trenches makes plan & zone on center. Dashed stone used onsite. SP/MBS

CONTROL PANEL DATA

CONTROL PANEL HEIGHT	(MIN 30")
INSPECTION DATE	—
INSPECTION: PASS/FAIL (CIRCLE ONE)	—

FINAL INSPECTOR R. Rappaport DATE OF APPROVAL 9/22/25



BACK RIVER PRE-CAST, LLC
 PO BOX 329
 GLYNDON, MD 21071
 PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: RIZWAN MERCHANT	INSTALLATION COMPANY: VALLEY ROAD
ADDRESS: 13625 HIGHLAND RD.	CERTIFIED INSTALLER: CHRIS EBY
CITY, ZIPCODE & COUNTY: CLARKSVILLE, HOWARD, 21029	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 2-21-25
750 GPD CONCRETE	START-UP DATE: 9-19-25
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 42"	BURIAL DEPTH OF TANK: 36"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: NO
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 30"	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK:
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	NO
ISTHE INSIDE OF THE CONDUIT ENTERING THE CONTROL PANEL(S) AND AERATION RISER(S) SEALED WITH DUCT SEAL: YES	

ON 2ND PAGE MAKE A ROUGH SKETCH OF THE HOUSE ,WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED , WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singlair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

September 19, 2025

Signature of BRP Representative

Vice-President

Date

March 3, 2025- AM inspection of solid pipe from foundation to septic tank, Chris Eby and helper onsite. Solid pipe installed under driveway not sleeved, told installer solid pipe needs to be sleeved under driveway. Installer refused, stated sleeve is not on the plan. Inspector called plan reviewer, Spencer, to ask if solid pipe needs to be sleeved. Spencer stated pipe does need to be sleeved. Installer sleeved solid pipe under driveway. Cussed out inspector, Spencer, and flipped off inspector. Spoke out against regulations. SP

June 25, 2025- AM Layout of drain field, Chris Eby onsite. Verified trenches match plan and are on contour. Inspected stone and stated majority of pile looks larger than 2.5". Installer stated stone is #2 and should be allowed. Chris Eby stated if county does not approve stone, he will be using anyways. Chris Eby stated he will sue the county. Cursed out and flipped off inspectors. SP/MB

PARCEL 341

S 85°09'55" E
220.16'

LOT 1

EX. WELL
HO-20-0345

60' B.R.L.

103.7' ±

64.7' ±

12.0'

22.0'

22.0'

20.3'

4.0'

43.7'

6.0'

14.0'

6.0'

14.0'

23.9'

14.0'

6.0'

14.0'

23.9'

14.0'

6.0'

14.0'

23.9'

14.0'

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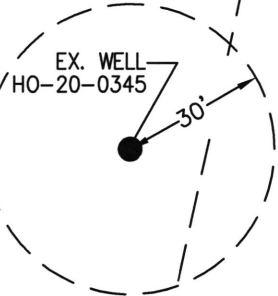
23.9'

14.0'

6.0'

14.0'

POURED CONC.
FOUNDATION
TOP WALL=511.1



LOT 2

30' B.R.L.

EXISTING
SEWAGE
DISPOSAL AREA

N 12°54'35" E
510.00'

30' B.R.L.

280.9' ±

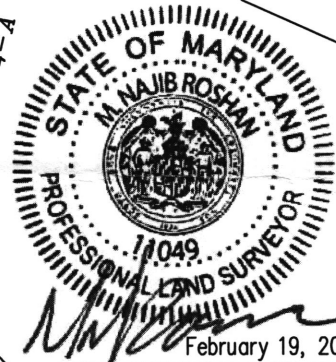
441.38'
S 12°17'00" W

LOT 3

LOT 4-A

224.56'
S 57°29'10" W

30' B.R.L.



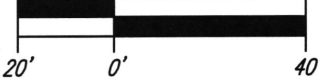
February 19, 2025

2/20/2025

Wall Check approved - *(Signature)*

PARCEL 314
TAX MAP 34, GRID 8
RIZWAN MERCHANT
& SINTIA R. JANUARINI
L. 21959, F. 64
2.976 ACRES ±

GRAPHIC SCALE 1"=40'



WALL CHECK SURVEY
PARCEL 314
TAX MAP 34, GRID 8
RIZWAN MERCHANT
& SINTIA R. JANUARINI
L. 21959, F. 64
13625 HIGHLAND ROAD
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DESIGNED BY:	NJ
CHECKED BY:	WR
SCALE:	1" = 40'
DATE:	OCT. 3, 2024
PROJECT No.	3760
SHEET:	1 OF 1

PREPARED BY:



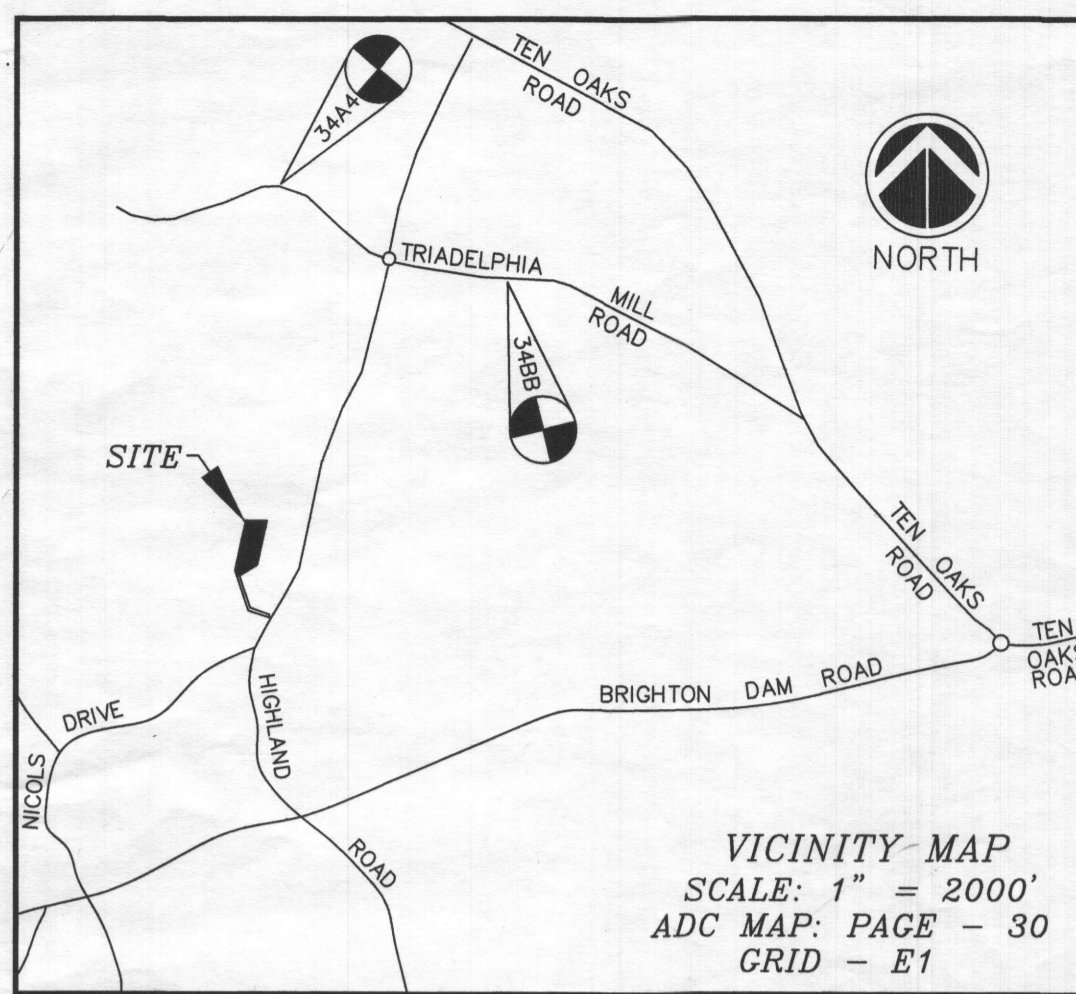
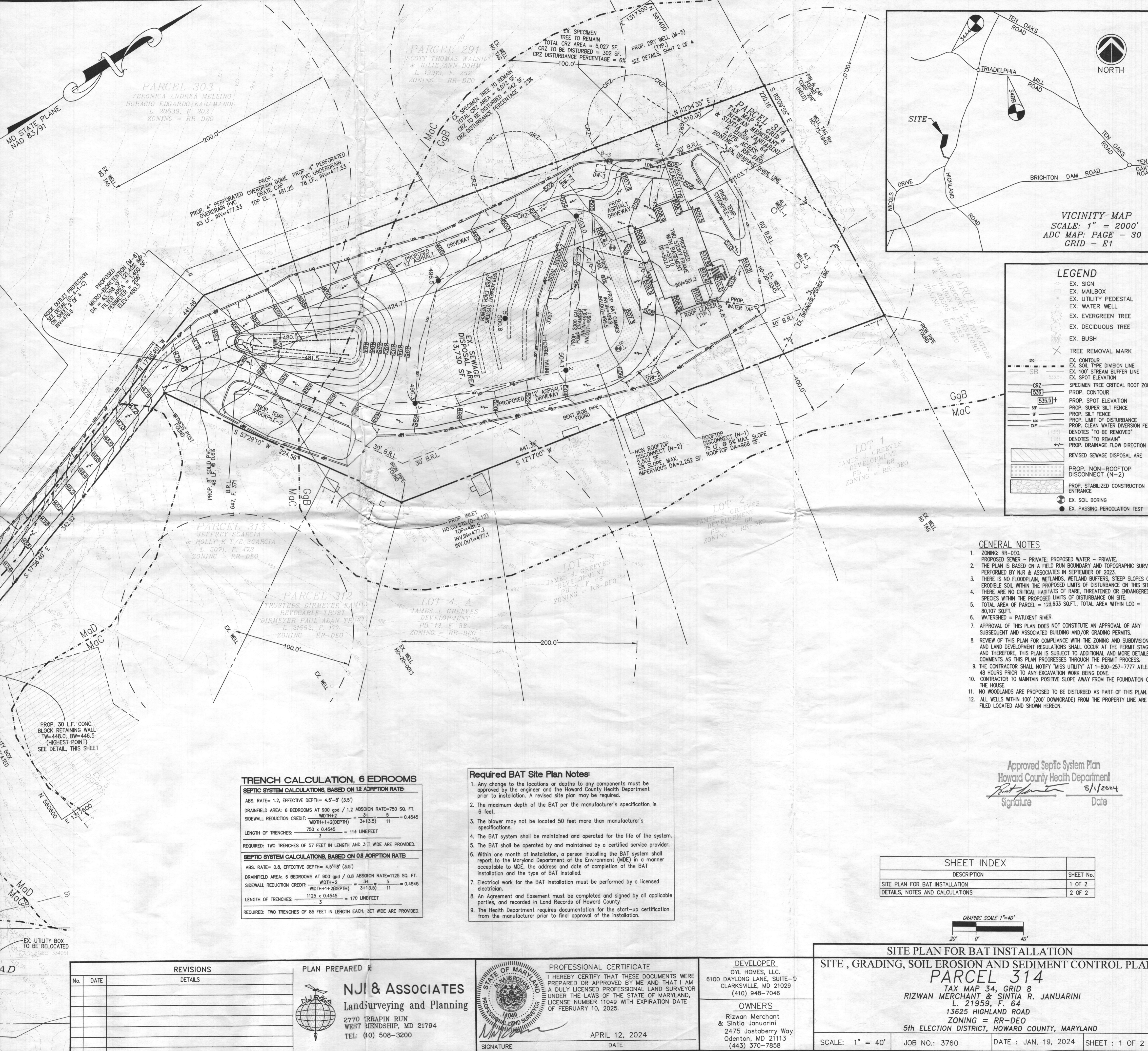
NJR & ASSOCIATES, LLC.
LAND SURVEYING AND PLANNING
2770 TERRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (240) 508-3200

SITE ANALYSIS DATA CHART

TOTAL LOT AREA	= 2.976 ACRES
LOT AREA "PROP. TO BE DISTURBED"	= 1.839 ACRES
LOT AREA "PROP. TO BE DISTURBED"	(80,107 SF.)
TOTAL LOT IMPERVIOUS AREA PROPOSED	= 0.534 ACRES
	(23,263 SF.)
LOD AREA WITHIN WETLAND	= 0 ACRE
LOD AREA WITHIN 25' WETLAND BUFFER	= 0 ACRE
LOD AREA OF STEEP SLOPES	= 0 ACRE
LOD AREA OF ERODIBLE SOILS	= 0 ACRE
LOD AREA WITHIN 100-YR FLOODPLAIN	= 0 ACRE
LOD AREA WITHIN 100' STREAM BUFFER	= 0.029 ACRES
LOD TOTAL FORESTED AREA	= 0 ACRE

SOIL TABLE

SYMBOL	NAME/DESCRIPTION	TYPE	HYDROLIC	K-FACTOR
GgB	Glenelg loam, 3 to 8% slope	B	No	0.24
MoC	Manor loam, 8 to 15 percent slopes	B	No	0.28
MoD	Manor loam, 15 to 25 percent slopes	B	No	0.28
Ha	Hatboro-Cadorus loam 0 to 8 percent slopes	B/D	No	0.37



LEGEND

- EX. SIGN
- EX. MAILBOX
- EX. UTILITY PEDESTAL
- EX. WATER WELL
- EX. EVERGREEN TREE
- EX. DECIDUOUS TREE
- EX. BUSH
- TREE REMOVAL MARK
- EX. CONTOUR
- EX. SOIL TYPE DIVISION LINE
- EX. 100' STREAM BUFFER LINE
- EX. SPOT ELEVATION
- CRZ - SPECIMEN TREE CRITICAL ROOT ZONE
- PROP. CONTOUR
- PROP. SPOT ELEVATION
- PROP. SUPER SILT FENCE
- PROP. SILT FENCE
- PROP. LIMIT OF DISTURBANCE
- PROP. CLEAN WATER DIVERSION FENCE
- DEVOTES "TO BE REMOVED"
- DEVOTES "TO REMAIN"
- PROP. DRAINAGE FLOW DIRECTION
- REVISED SEWAGE DISPOSAL ARE
- PROP. NON-ROOFTOP DISCONNECT (N-2)
- PROP. STABILIZED CONSTRUCTION ENTRANCE
- EX. SOIL BORING
- EX. PASSING PERCOLATION TEST

- GENERAL NOTES**
- ZONING: RR-DEO.
 - PROPOSED SEWER - PRIVATE; PROPOSED WATER - PRIVATE. THE PLAN IS BASED ON A FIELD RUN BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY N&A & ASSOCIATES IN SEPTEMBER OF 2023.
 - THERE IS NO FLOODPLAIN, WETLANDS, WETLAND BUFFERS, STEEP SLOPES OR ERODIBLE SOIL WITHIN THE PROPOSED LIMITS OF DISTURBANCE ON THIS SITE.
 - THERE ARE NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WITHIN THE PROPOSED LIMITS OF DISTURBANCE ON SITE.
 - TOTAL AREA OF PARCEL = 129,633 SQ.FT., TOTAL AREA WITHIN LOD = 80,107 SQ.FT.
 - WATERSHED = PATIENT RIVER.
 - APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMITS.
 - REVIEW OF THIS PLAN FOR COMPLIANCE WITH THE ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE PERMIT STAGE, AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THIS PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 ATLEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - CONTRACTOR TO MAINTAIN POSITIVE SLOPE AWAY FROM THE FOUNDATION OF THE HOUSE.
 - NO WOODLANDS ARE PROPOSED TO BE DISTURBED AS PART OF THIS PLAN.
 - ALL WELLS WITHIN 100' (200' DOWNSLOPE) FROM THE PROPERTY LINE ARE FILED (LOCATED) AND SHOWN HEREON.

TRENCH CALCULATION, 6 EDROOMS

SEPTIC SYSTEM CALCULATIONS, BASED ON 12 ADOPTION RATE

ABS. RATE= 1.2, EFFECTIVE DEPTH= 4.5'-8" (3.5')

DRAINFIELD AREA: 6 BEDROOMS AT 900 gpd / 1.2 ABSORPTION RATE=750 SQ. FT.

SIDEWALL REDUCTION CREDIT: $\frac{WIDTH+2}{DEPTH} = \frac{3+11}{11} = 0.4545$

LENGTH OF TRENCHES: $750 \times 0.4545 = 114$ LINEFEET

REQUIRED: TWO TRENCHES OF 57 FEET IN LENGTH AND 3 FT WIDE ARE PROVIDED.

SEPTIC SYSTEM CALCULATIONS, BASED ON 0.8 ADOPTION RATE

ABS. RATE= 0.8, EFFECTIVE DEPTH= 4.5'-8" (3.5')

DRAINFIELD AREA: 6 BEDROOMS AT 900 gpd / 0.8 ABSORPTION RATE=1125 SQ. FT.

SIDEWALL REDUCTION CREDIT: $\frac{WIDTH+2}{DEPTH} = \frac{3+11}{11} = 0.4545$

LENGTH OF TRENCHES: $1125 \times 0.4545 = 170$ LINEFEET

REQUIRED: TWO TRENCHES OF 85 FEET IN LENGTH EACH, SET WIDE ARE PROVIDED.

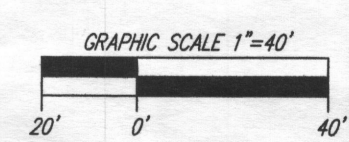
Required BAT Site Plan Notes:

- Any change to the locations or depths to any components must be approved by the engineer and the Howard County Health Department prior to installation. A revised site plan may be required.
- The maximum depth of the BAT per the manufacturer's specification is 6 feet.
- The blower may not be located 50 feet more than manufacturer's specifications.
- The BAT system shall be maintained and operated for the life of the system.
- The BAT shall be operated by and maintained by a certified service provider.
- Within one month of installation, a person installing the BAT system shall report to the Maryland Department of the Environment (MDE) in a manner acceptable to MDE, the address and date of completion of the BAT installation and the type of BAT installed.
- Electrical work for the BAT installation must be performed by a licensed electrician.
- An Agreement and Easement must be completed and signed by all applicable parties, and recorded in Land Records of Howard County.
- The Health Department requires documentation for the start-up certification from the manufacturer prior to final approval of the installation.

Approved Septic System Plan
Howard County Health Department
[Signature] 8/1/2024
Signature Date

SHEET INDEX

DESCRIPTION	SHEET No.
SITE PLAN FOR BAT INSTALLATION	1 OF 2
DETAILS, NOTES AND CALCULATIONS	2 OF 2



REVISIONS

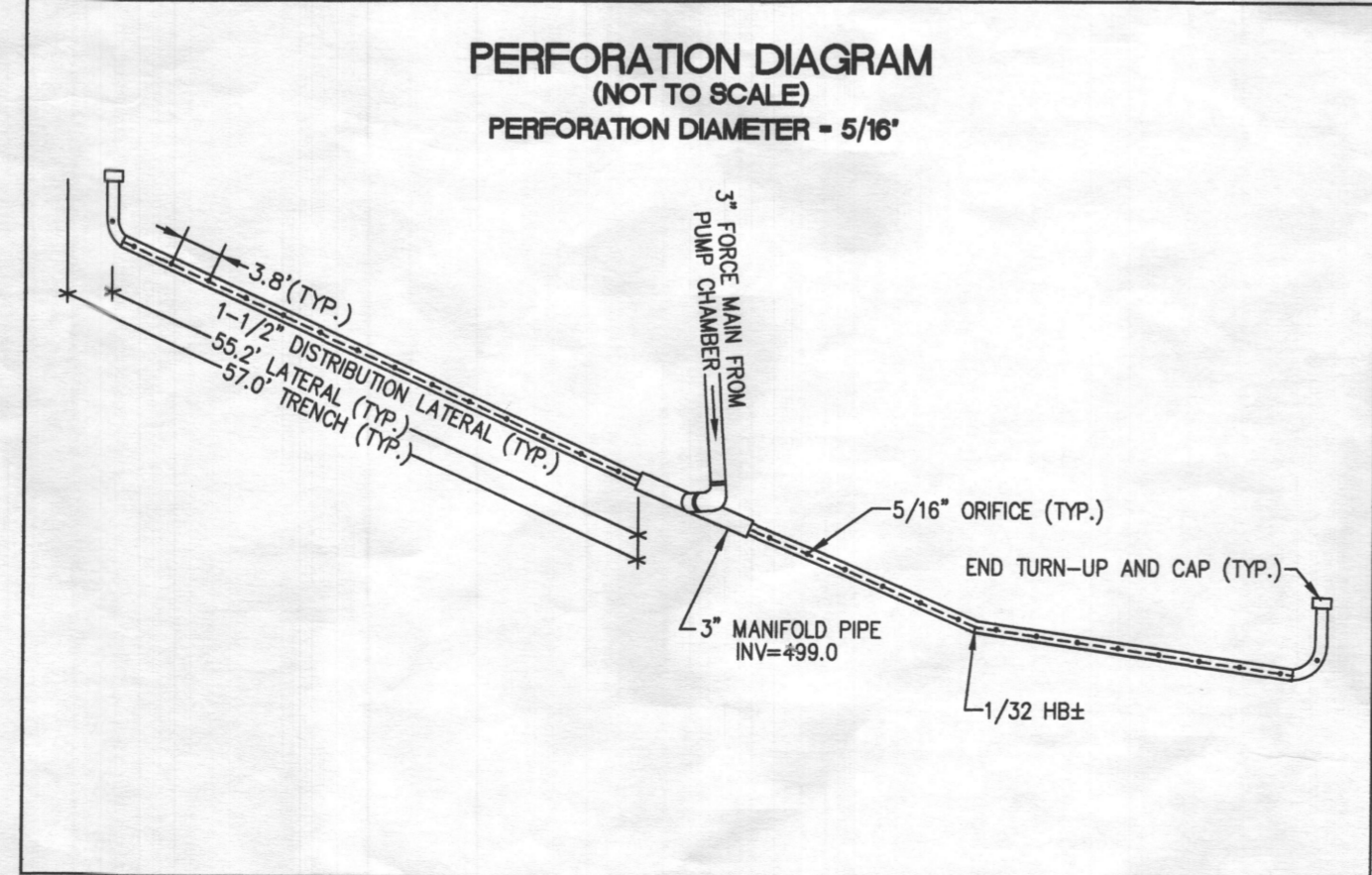
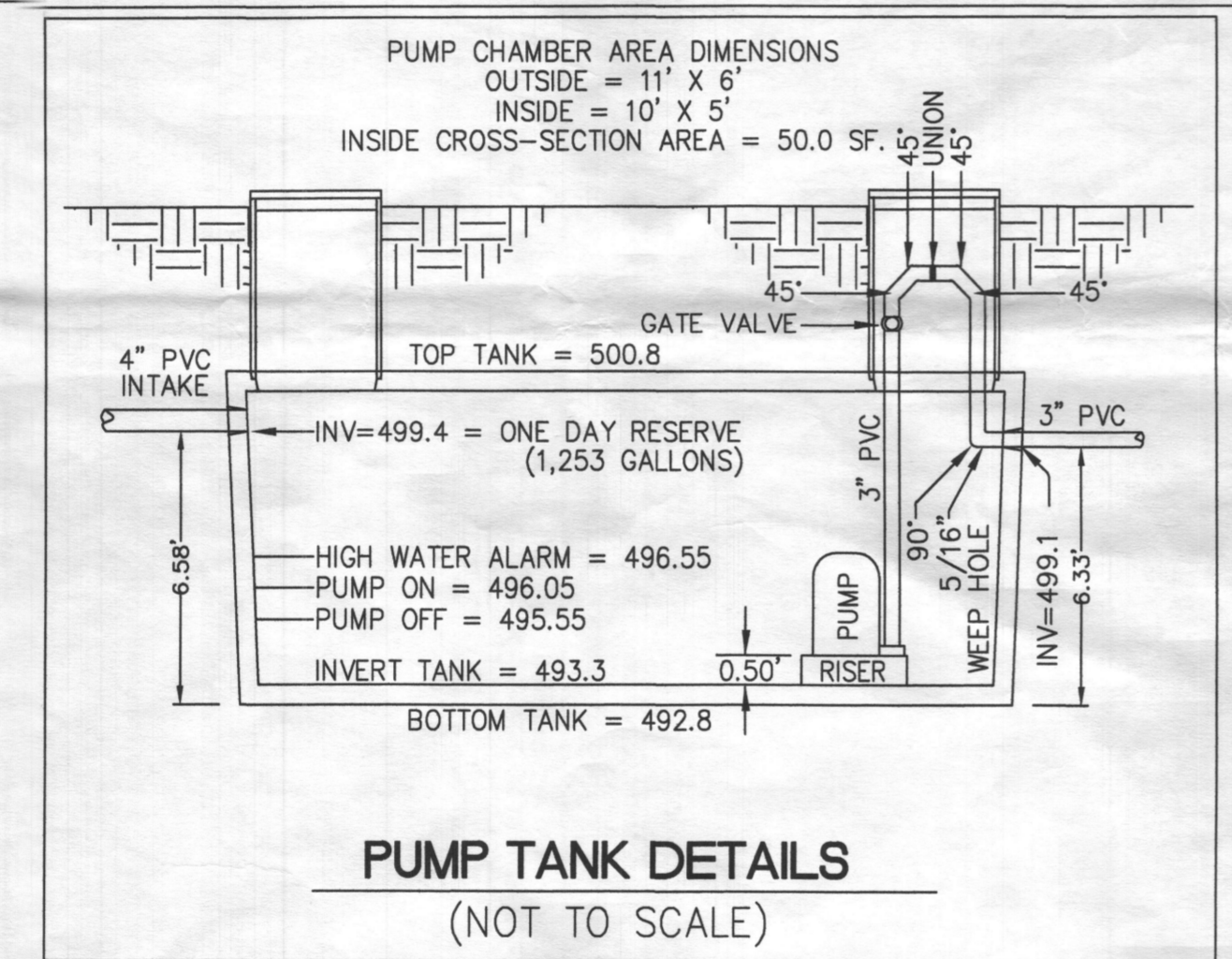
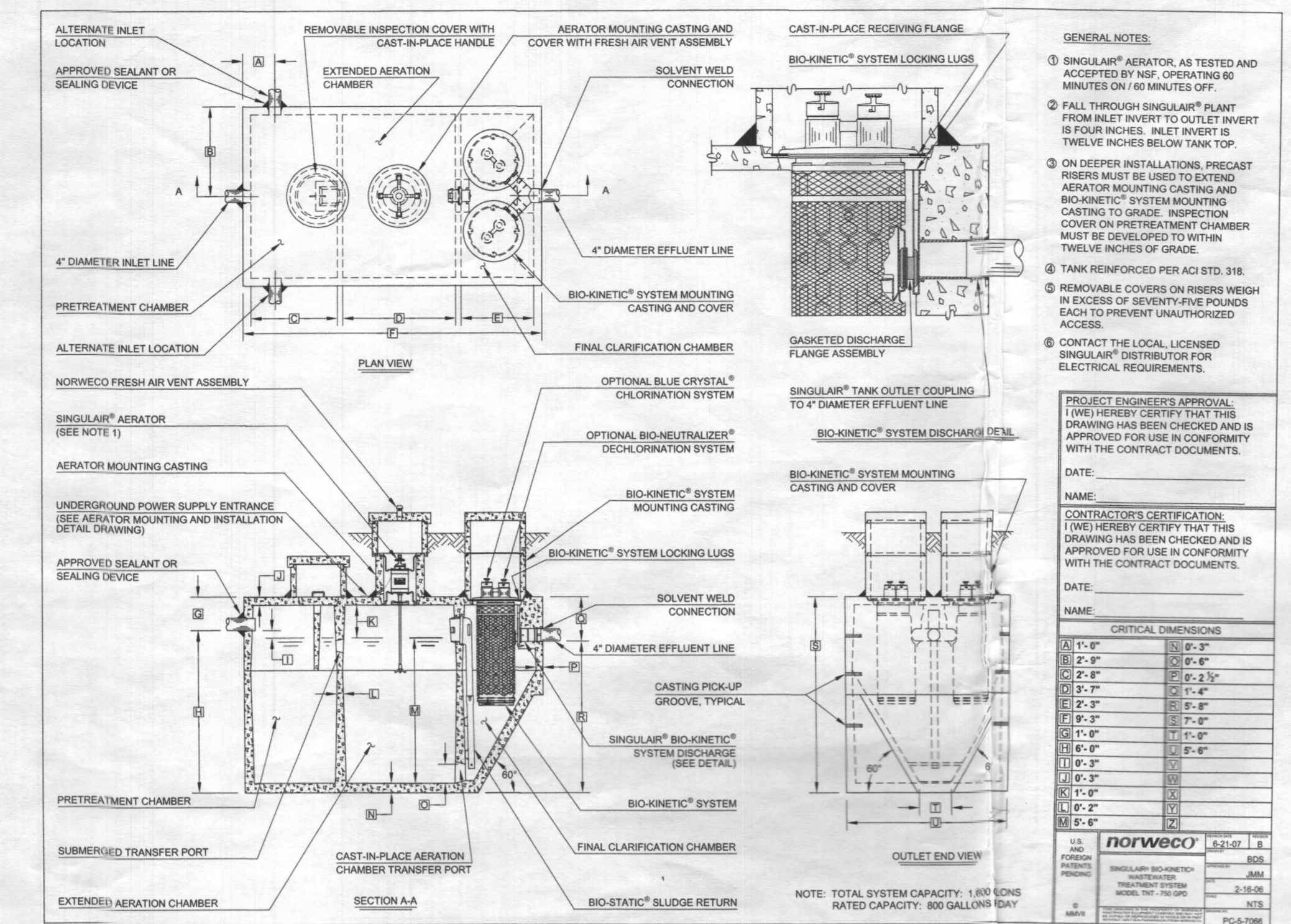
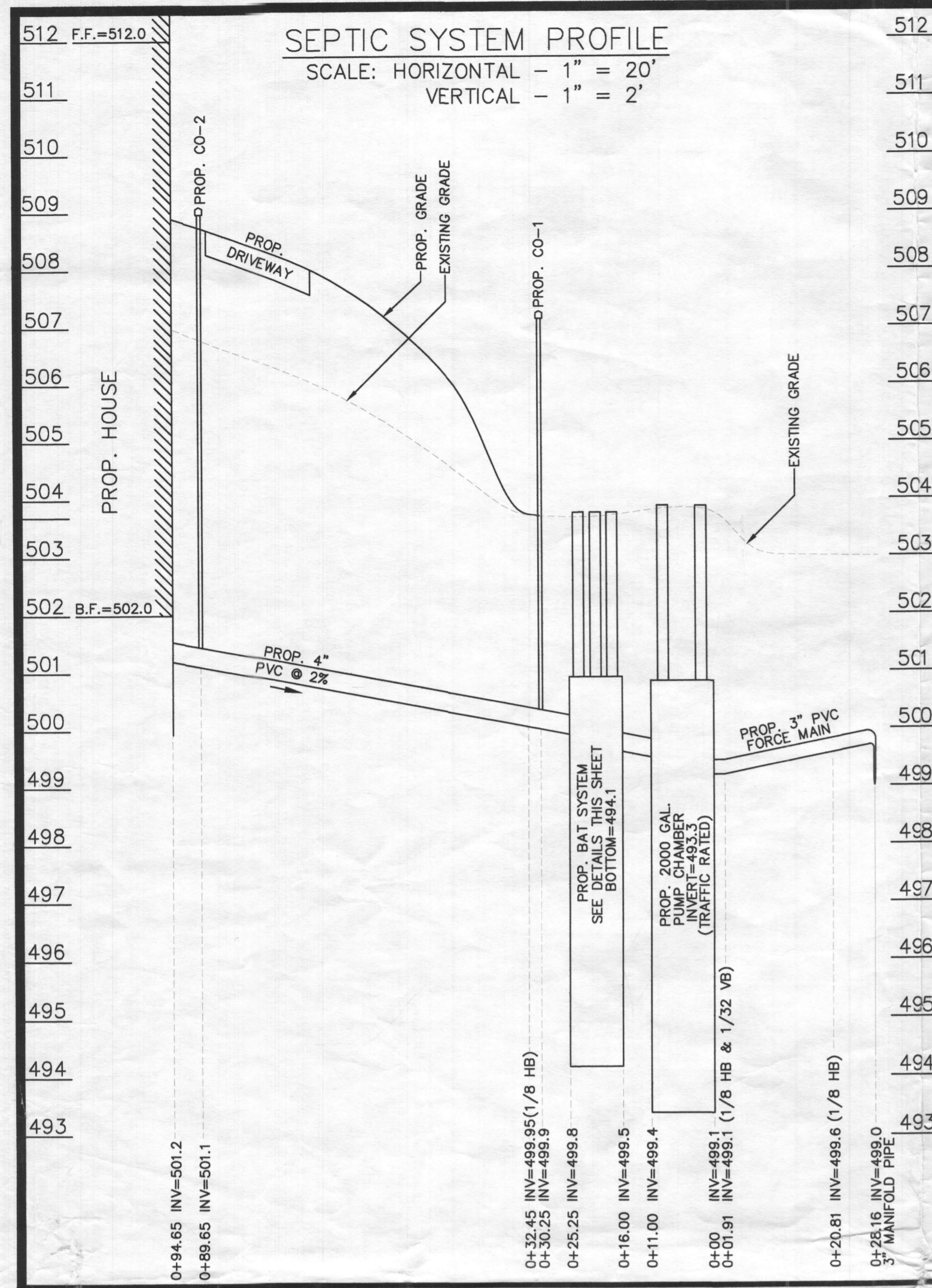
No.	DATE	DETAILS

PLAN PREPARED BY
NJI & ASSOCIATES
Land surveying and Planning
27710 BRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (410) 508-3200

PROFESSIONAL CERTIFICATE
HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 11049 WITH EXPIRATION DATE OF FEBRUARY 10, 2025.
[Signature]
APRIL 12, 2024
DATE

DEVELOPER
OYL HOMES, LLC.
6100 DAYLONG LANE, SUITE-D
CLARKSVILLE, MD 21029
(410) 948-7046
OWNERS
Rizwan Merchant
& Sintia Januarini
2475 Jostaberry Way
Odenton, MD 21113
(443) 370-7858

SITE PLAN FOR BAT INSTALLATION
SITE, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN
PARCEL 314
TAX MAP 34, GRID 8
RIZWAN MERCHANT & SINTIA R. JANUARINI
L. 21959, F. 64
13625 HIGHLAND ROAD
ZONING = RR-DEO
5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 40'
JOB NO.: 3760
DATE: JAN. 19, 2024
SHEET: 1 OF 2



SEPTIC TRENCH INFORMATION, INITIAL SYSTEM

TRENCH	TRENCH LENGTH	EX. TOP OF GROUND	TOP OF GRAVEL	INV. INTO TRENCH	BOTTOM OF TRENCH	DEPTH OF STONE	SURFACE TO TOP OF STONE	START OF EFFECTIVE DEPTH	EFFECTIVE TRENCH DEPTH	TRENCH TRENCH WID. SPACING
1	57'	503.0±	499.5	499.0	495.0	4.5'	3.5'	498.5	3.5'	8.0'
2	57'	503.0±	499.5	499.0	495.0	4.5'	3.5'	498.5	3.5'	10.0'

REVISIONS

No.	DATE	DETAILS

PLAN PREPARED BY: **Land Surveying and Planning**
2770 RRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (410) 508-3200

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 11049 WITH EXPIRATION DATE OF FEBRUARY 10, 2025.

JANUARY 12, 2024

DEVELOPER: OYL HOMES, LLC
6100 DAYLONG LANE, SUITE-11
CLARKSVILLE, MD 21029
(410) 948-7046

OWNERS: Rizwan Merchant & Sintia Januarini
2475 Jostaberry Way
Odenton, MD 21113
(443) 370-7858

SITE PLAN FOR BAT INSTALLATION

SITE, GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN

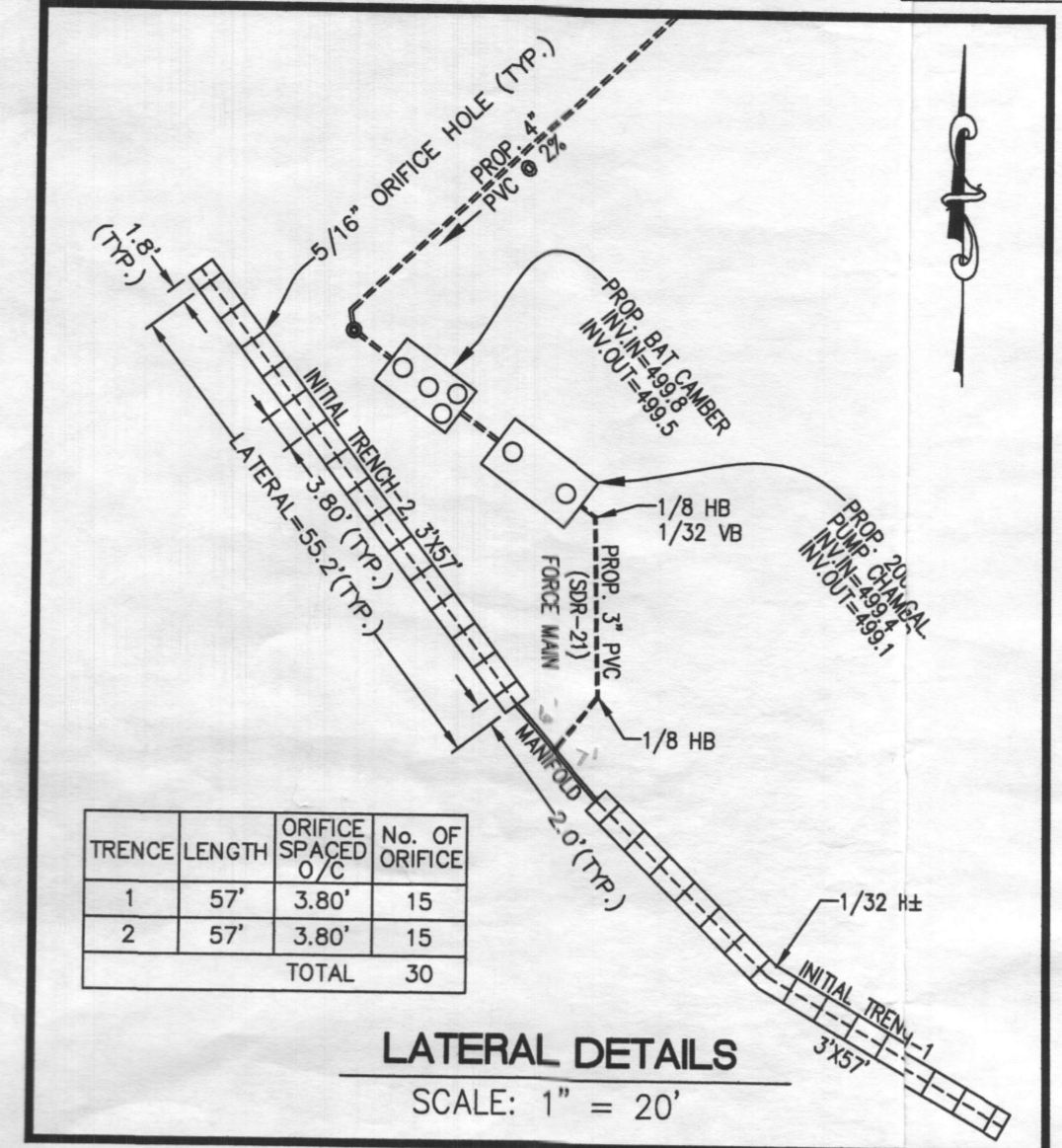
PARCEL 314

TAX MAP 34, GRID 8
RIZWAN MERCHANT & SINTIA R. JANUARINI
L. 21959, F. 64
13625 HIGHLAND ROAD
ZONING = RR-DEO
5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1" = 40'
JOB NO.: 3760
DATE: JAN. 19, 2024
SHEET: 2 OF 2

LOW PRESSURE DOSING SYSTEM

TRENCH	PIPE INVERT ELEVATION	TRENCH LENGTH	LATERAL ASSUMED HEAD	ORIFICE DIAMETER	ORIFICE FLOW RATE	ORIFICE SPACING	ORIFICE NUMBER	PW RATE	FLOW RATE TRENCH
1	499.0	57'	55.2'	2.0"	5/16"	1.63 gpd	3.80'	15	0.38 24.45 GPM
2	499.0	57'	55.2'	2.0"	5/16"	1.63 gpd	3.80'	15	0.38 24.45 GPM
TOTAL									48.90 GPM



MINIMUM SYSTEM DISCHARGE RATE = 48.90 gpm
3" PVC MAIN f = 0.58' / 100'
3" MANIFOLD

DOSE:
(5 X LATERALS) + MANIFOLD + MAIN
1.5" LATERALS: 5 X 2 X 55.2 X 10.6 / 100 = 58.51 GAL.
FORCE MAIN 28.16 X 38.4 GAL/100 L.F. = 10.81 GAL.
MANIFOLD 12.9 X 38.4 GAL/100 L.F. = 4.95 GAL.
74.27 GAL.

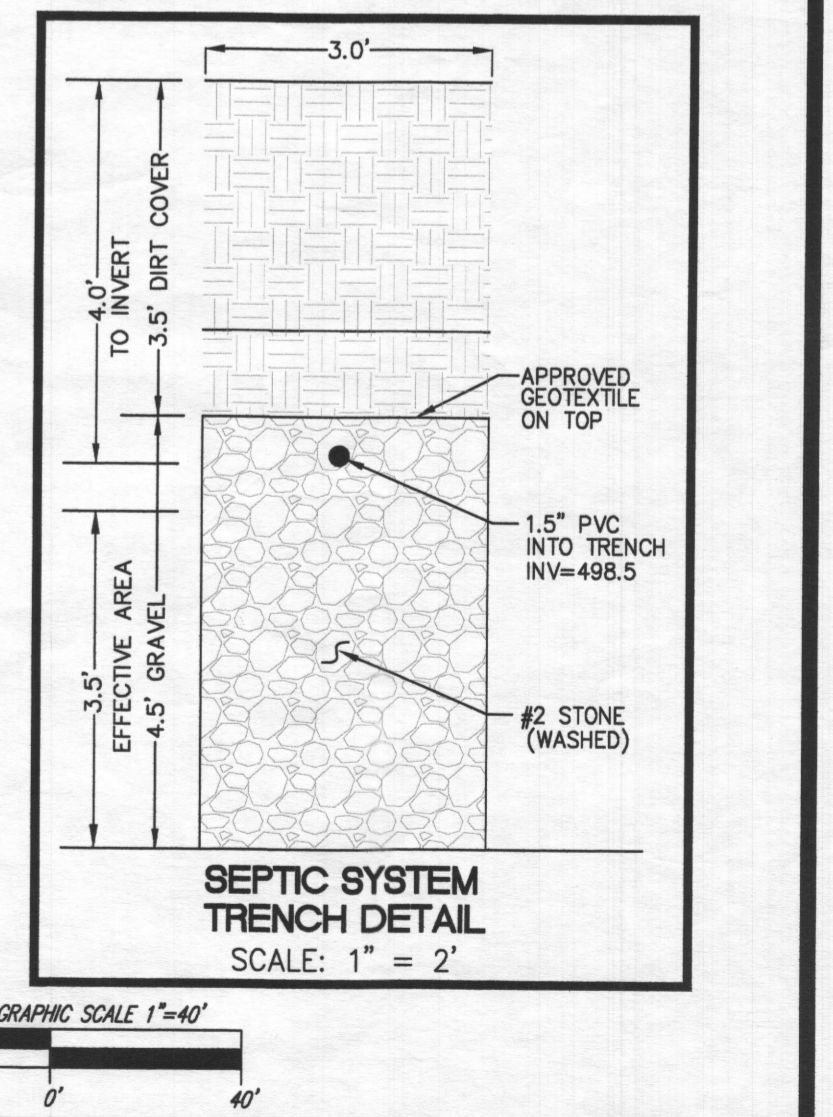
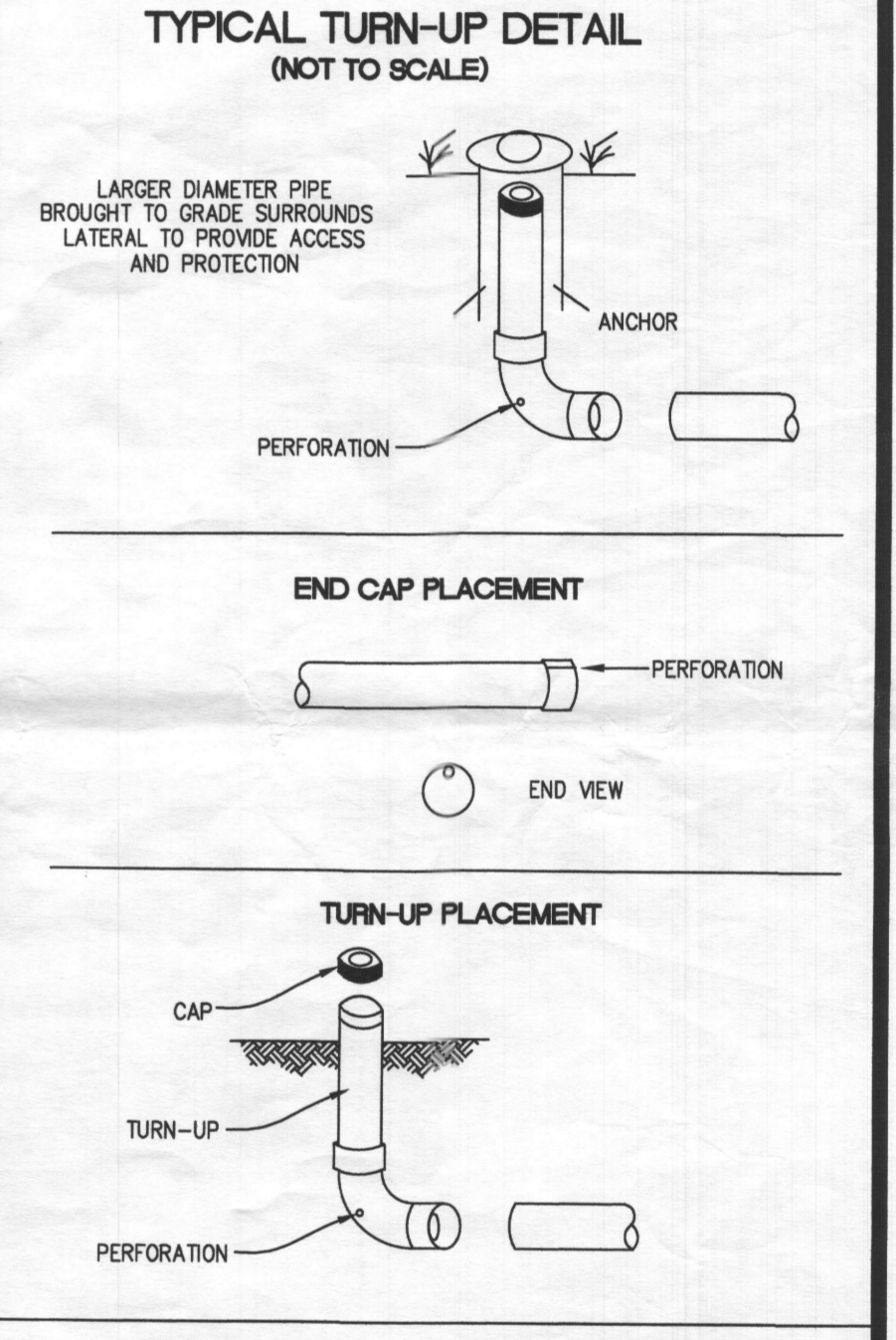
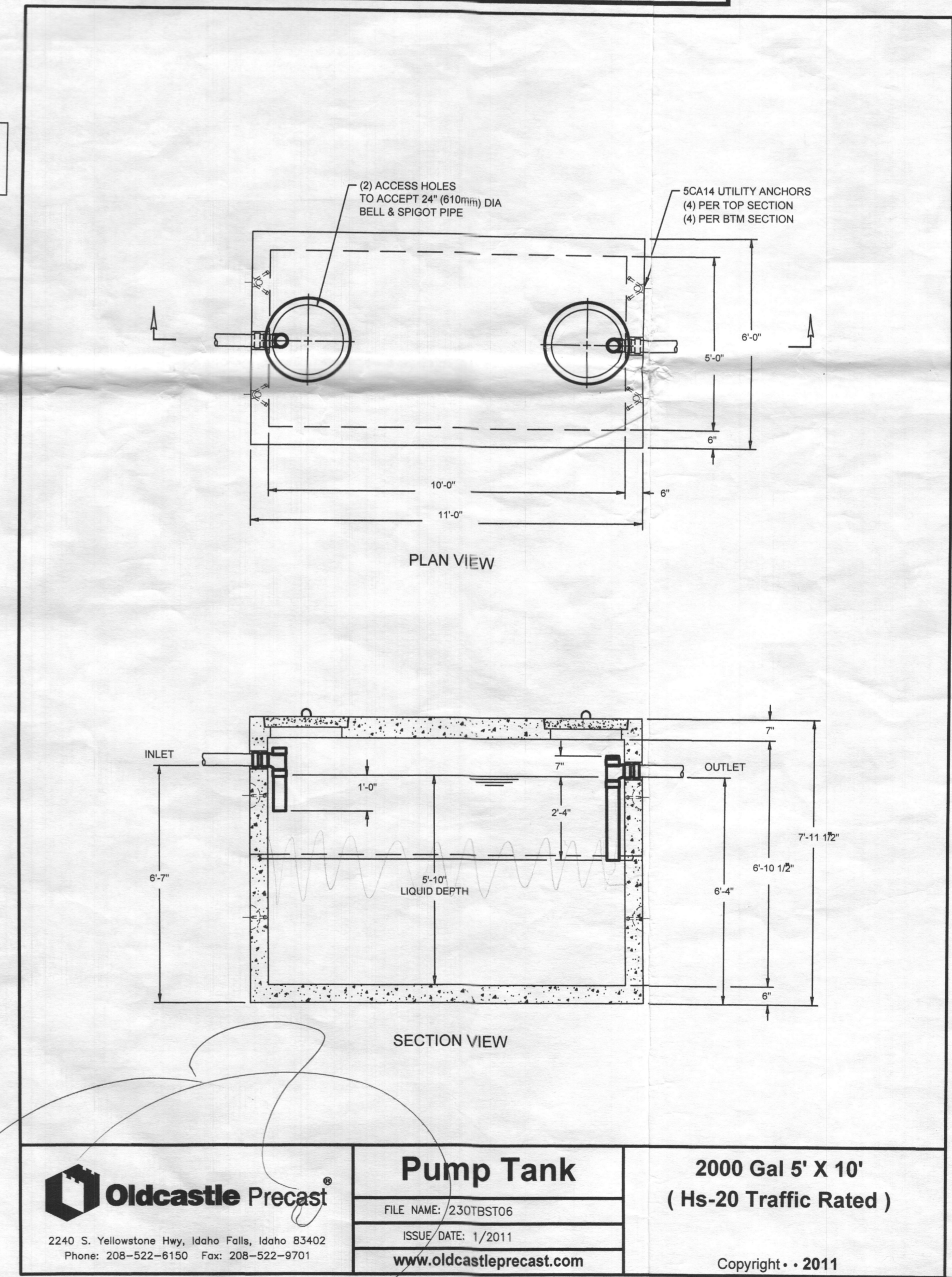
1/6 X 900 GAL = 150 GALLONS > 74.27 => (150 GAL = MIN. DOSE)
RUNTIME = 1.5 MIN.

PUMP CHAMBER:
ONE DAY RESERVE = 1,253 GALLONS

TDH: (FITTINGS)
DISCONNECT: 1 X 3 = 3
11.25": 2 X 2.5 = 5
45": 6 X 6 = 36
90": 1 X 10 = 10
GATE VALVES: 1 X 2 = 2

FRICITION: TOTAL = 56
MAIN + FITTINGS = 28.16 + 56 = 84.16
84.16 (0.58/100) = 0.49

STATIC:
(INVERT OF MANIFOLD - PUMP OFF) 499.00 - 495.55 = 3.45
DISTAL HEAD = 2.0'
TDH (0.49 + 3.45 + 2.0) = 5.94 @ 48.90 GPM
USE GOULDS MODEL (WE03L), 1/3 HP



Wastewater

Goolds Water Technology

Specifically designed for the following uses:
• Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

APPLICATIONS

SPECIFICATIONS

Pump

- Solids handling capabilities: 3/4" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on 1/2 - 1 1/2 HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.

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.
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- Bearings: Upper and lower heavy duty ball bearing construction.
- 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.
- O-ring: Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards
By Canadian Standards Association File #LR3549

POINT ON CURVE
5.94 TDH @ 48.90 GPM

FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
7/30/2025	<p>Installer onsite for AM inspection. Portion of right trench dug, bottom @ 8' per plan.</p> <p>Discussed lateral hole sizing & spacing. New stone looks adequate, (see attached pics)</p> <p>Morn inspection done. Inspected laterals, hole spacing 3.75" apart instead of 3.9' apart, too many holes installed. Told installers new laterals need to be drilled.</p> <p>All of right trench dug, bottom @ 8'.</p> <p>PM inspection done. Installer finishing digging left trench. Bottom @ 8'. (SP)</p>
7/31/2025	<p>AM inspection done. Installer started stoning right trench. New laterals not drilled yet.</p> <p>Morn inspection done. Entire right trench stoned. Lateral hole spacing 3.9' per plan w/ hole @ 90° elbow. obs part @ end of trench. Trench inlet @ 4' per plan.</p> <p>PM inspection done. Light rain started. 2/3 of left trench finished w/ stone. Portion of trench w/ stone inlet @ 4' per plan. Laterals spacing & hole size per plan. Installer ran out of stone, backfilling end of trench due to impending rain. Reinspect for left trench end. (SP)</p>
8/5/2025	<p>AM inspection done. Manifold connected to trenches. 3" SCHD 40 PSI used.</p> <p>Laterals installed per plan. Stone ok, inlet per plan. obs part not installed. Installer needs to put obs part under stone.</p> <p>Needs to dig up stone & install obs part.</p> <p>Obs part installed by afternoon - ok to backfill. (SP)</p>
9/16/2025	<p>Installer onsite for P+A. Alarm malfunctioning, installer needs new floats. Pump successfully goes to drain when float lifted.</p> <p>Laterals stone hard @ 5'. Reinspect for alarm. (P)</p>
9/22/25	<p>Alarm tested w/ contractor - ok - installation completed. (P)</p>