

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: 2-23-24 ONSITE SEWAGE DISPOSAL SYSTEM P 575797

APPROVAL DATE: 9/25/2024 (SP/mj) PERMIT: NEW CONSTRUCTION A

PROPERTY ADDRESS: 2896 Ordway Drive

SUBDIVISION: Onyewu Property LOT: P314 TAX ID:

CONTRACTOR: J+A Construction Services Inc. EMAIL: jacobson@j+aconstruction.com

CONTRACTOR ADDRESS: 7991 Bennett Branch Rd, Mount Airy, MD 21777 PHONE: 410-635-2484

PROPERTY OWNER: Zabihulla Sajid EMAIL:

OWNER ADDRESS: 7307 Carved Stone, Columbia, MD 21045 PHONE:

SEPTIC TANK SIZE (GALLONS): 1500 TANK MANUFACTURER: Babylon

PUMP MODEL: Goulds WE10H PUMP SIZE: PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: [X] GRAVITY [] PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

Table with 2 columns: Field Name (TRENCHES, LOCATION, NOTES) and Field Value (Linear feet required: 169, Inlet depth: 4, etc.)

ISSUED BY: Melave Esterbanj ISSUE DATE: 3/24/24 EXPIRATION DATE: 2-23-25

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

NOT TO SCALE

See separate sheet
for As built

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	3.5-4'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH		170
ABSORPTION AREA		510
DISTRIBUTION BOX LEVEL		
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL yes

MANUFACTURER Babylon

CAPACITY 1500 GAL

SEAM LOC top

TANK LID DEPTH 1'-1.5'

BAFFLES 6" front + 4" back

BAFFLE FILTER ---

MANHOLE LOC front + back

6" PORT LOC ---

WATERTIGHT TEST ---

SLOTTED YES

DATE ON LID 3/18/2024

PUMP/SEPTIC TANK LEVEL yes

MANUFACTURER Babylon

CAPACITY yes GAL

SEAM LOC top

TANK LID DEPTH 3'-1.5'

BAFFLES 4" front

BAFFLE FILTER ---

MANHOLE LOC front + back

6" PORT LOC ---

WATERTIGHT TEST ---

SLOTTED ---

DATE ON LID 12/11/2023

SEPTIC CONTRACTOR ONSITE INSTALLING SYTEM: Jason Poe
SEPTIC CONTRACTOR ONSITE LICENSED WITH THE STATE OF MD: YES/NO

PRE-CONSTRUCTION NOTES:

9/23/2024 - final manual per plan, septic tank & pump tank moved slightly due

to tree removed for excavation requiring disturbing L&D. space w/ engineer, engineer stated ok to move pump tank
SDA showed trench lengths @ 85', distance between trenches 10'-12'. upper trench moved slightly down to be closer
to center, elevation 3'-1" diff. lower trench has 1"-4" difference elevation. ok to start 2nd work. (S)

INSTALLATION NOTES:

9/24/2024 - on seen near foundation. SEND 40 PPL used @ front line, adequate fall. both tanks had 4' cover
septic tank slotted & has 6" front & 4" back baffles. ok to backfill both tanks & pour line. (S)

finished part of FM installed, upper trench finished, inlet @ 4'-3.5', length @ 85'. start & finish ok. lower trench started,
inlet @ 3.5', distance between trenches 10'. ok to backfill upper trench (steep for lower trench, d-box, & FM. (S)

4/26/2024 installer arrive for inspection. FM finished, line goes into d-box is 4" gully @ a slope. length inside d-box
sections finished, length @ 85', distance between trenches 10', inlet @ 3.5'-4'. ok to backfill. (S)

9/25/2024 - Rhombus alarm installed inside basement, audible ok. pump on successfully sends water to d-box. (S)

FINAL INSPECTOR S. Page / M. Burns DATE OF APPROVAL 9/25/2024

CONTROL PANEL DATA

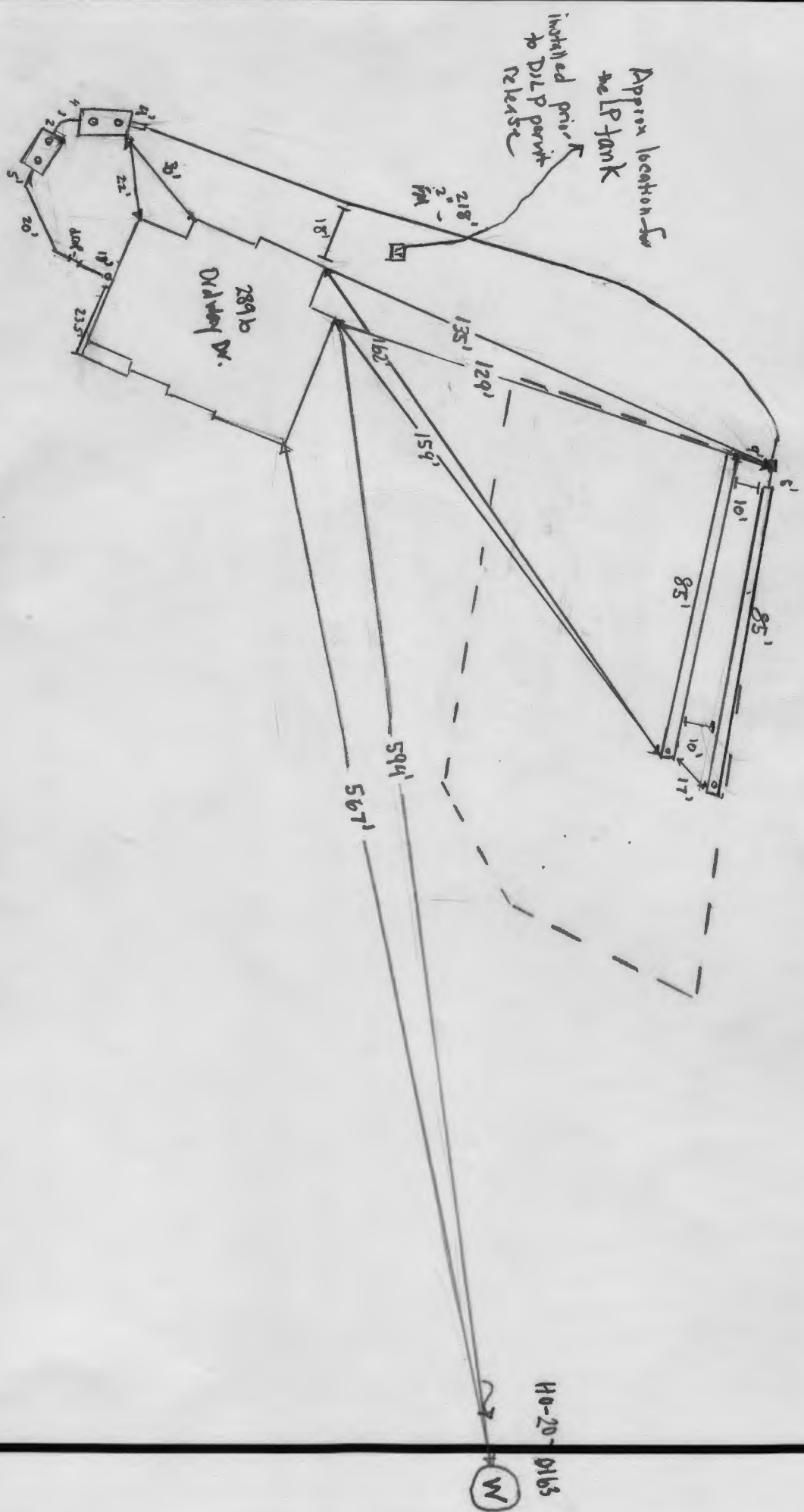
CONTROL PANEL HEIGHT > 30"
(MIN 30")

INSPECTION DATE 9/25/2024

INSPECTION PASS/FAIL (CIRCLE ONE)

1" ≈ 40'

~~NOT TO SCALE~~



NOTES:

1. THE LEVEL OF ACCURACY SETBACK DISTANCES IS ONE TENTH OF A FOOT, MORE OR LESS.
2. THIS PLAT WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT

CONSERVATION EASEMENT
192,819 SF. OR 4.4265 AC.±

POURED
CONCRETE
FOUNDATION
SEE INSET
FOR DETAILS

EX.
SEWAGE
DISPOSAL
AREA

PARCEL
314

ONYEWU PROPERTY
LIBER 21382, FOLIO 275
(304,407 SF.±)

*Wall Check
OK 2-23-24
DB*

MD STATE PLAIN
NAD 83/91

N 47°51'20" E
573.89'

186.2'

133.5'

S 37°39'39" E
870.95'

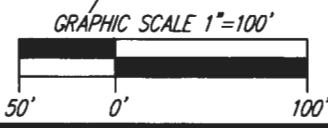
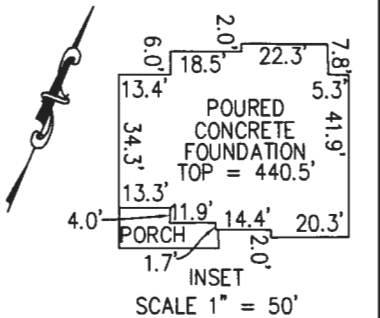
N 66°06'27" W

236.0'

990.07'

110.00'
S 18°44'25" W

N. ORDWAY
DRIVE
(50' R.O.W.)
N 66°06'27" W
18.68'



STATE OF MARYLAND
M. NAJIB ROSHAN
PROFESSIONAL LAND SURVEYOR
11049
FEB 12, 2024
M.N. ROSHAN, L.S. DATE
MD REG. No. 11049

WALL CHECK SURVEY
PARCEL 314
TAX MAP 16, GRID 19
LIBER 21382, FOLIO 275
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 100' DATE: FEB. 8, 2024

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

Oswald, Hank

From: Oswald, Hank
Sent: Monday, October 17, 2022 1:47 PM
To: 'roshannj@aol.com'
Cc: 'Gregory Phillips'
Subject: OSDS Plan_2896 Ordway Drive

Hi Mr. Roshan:

Good afternoon. The OSDS Plan for 2896 Ordway Drive has been reviewed with the following comments:

- 5/10/23
- ✓ 1. Add well tag # next to existing well.
 - ✓ 2. Add well field verification note.
 - ✓ 3. Match elevation #s on building dimension plan with elevation #s printed inside house footprint.
 - ✓ 4. Replace the words "septic reserve area" with "sewage disposal area" inside SDA.
 - ✓ 5. What does B-1 & B-2 next to house footprint represent? Add legend symbol if necessary.
 - ✓ 6. Add sq. ft. within SDA.
 - ✓ 7. Add elevation #'s next to each perc test hole.
 - ✓ 8. Add a blow up image of area around directional boring for the well line installation. Include elevation #, profile or other info. useful for the install.
 - ✓ 9. Show sleeve for water line under driveway near house.
 - ✓ 10. Under pump capacity calculations, change the wording for "one day dose" to "one day reserve volume".
 - ✓ 11. When pumping up to a d-box, you have the ability to raise the trench invert to between 18 – 24 inches in keeping with proper system design and performance unless the site won't allow it.
 - ✓ 12. Add note to fence-off SDA on side of proposed stock pile prior to construction to prevent fill-dirt from being accidentally dumped on the SDA. Add this note to building permit site plan.
 - ✓ 13. Replace 90 degree elbow before tank with something less restrictive like a 45.
 - ✓ 14. Are you able to move the tanks to the opposite side of the house or were they placed there for gravity purposes? The septic line that runs across the back of the house may interfere with future home improvements like a deck, pool etc.

Should you have any questions, please don't hesitate to ask.

Respectfully,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Bureau of Environmental Health
Howard County Health Department
8930 Stanford Blvd. Columbia, MD 21045
(410) 313 - 1786
www.hchealth.org

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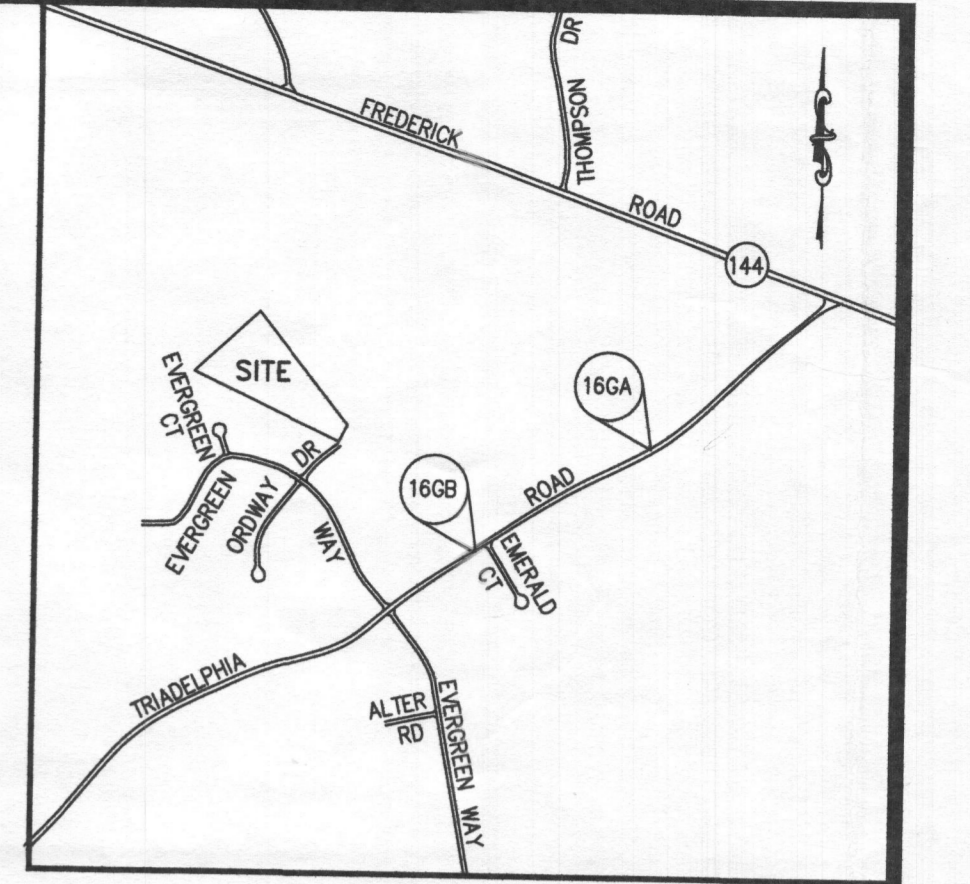
LEGEND	
	EX. SIGN
	EX. WETLAND FLAG
	EX. POWER POLE
	EX. GUY WIRE ANCHOR
	EX. LIGHT POLE
	EX. WOOD POST
	EX. DECIDUOUS TREE
	EX. SPECIMEN TREE
	EX. TREE TO BE REMOVED
	PROP. SPOT ELEVATION
	PROP. CONTOUR
	PROP. SUPER SILT FENCE
	PROP. SILT FENCE
	PROP. LIMIT OF DISTURBANCE
	PROP. WATER TAP LINE
	EX. STREAM BANK BUFFER
	EX. DELINEATED WETLANDS LINE
	EX. WETLAND BUFFER
	PROP. DIVERSION FENCE
	PROP. STABILIZED CONSTRUCTION ENTRANCE AND RIP-RAP
	EX. SEWAGE DISPOSAL AREA
	PROP. FOREST CONSERVATION EASEMENT
	EXISTING WETLANDS
	EX. SOIL TYPE BORDER
	PROP. SURFACE FLOW DIRECTION
	EXISTING EDGE OF WOODS
	PROPOSED EDGE OF WOODS
	EXISTING PASSED PERCOLATION TEST
	EXISTING FAILED PERCOLATION TEST
	PROP. SAND BAG DIVERSION
	100 YEAR FLOODPLAIN LINE
	PROP. FOREST CONSERVATION SIGN
	PROP. TREE (MITIGATION)
	EX. SOIL BORING

SEPTIC TRENCH INFO, INITIAL SYSTEM						
TRENCH	TRENCH LENGTH	TRENCH WIDTH	EX. TOP OF GROUND	TOP OF GRAVEL	INV. INTO TRENCH	BOTTOM OF TRENCH
1	85'	2'	445.7±	443.0	442.5	437.7
2	85'	2'	445.0±	442.3	441.8	437.0

A-INITIAL SEPTIC SYSTEM CALCULATIONS:
 APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 4'-8"
 DRAINFIELD AREA: 5 BEDROOMS AT 750 gpd / 0.8 ABSORPTION RATE=837.5 SQ. FT.
 SIDEWALL REDUCTION CREDIT: $\frac{WIDTH+2(DEPTH)}{24+1(2C)}$ $\frac{2+2}{24+1(2C)}$ $\frac{4}{11}$ \rightarrow 0.36
 LENGTH OF TRENCHES: $\frac{837.5 \times 0.36}{2}$ = 159 LINEAR FEET
 2 TRENCHES, 2 FOOT WIDE, 85 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED

B-FIRST REPLACEMENT SEPTIC SYSTEM CALCULATIONS:
 APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 5'-8"
 DRAINFIELD AREA: 5 BEDROOMS AT 750 gpd / 0.8 ABSORPTION RATE=837.5 SQ. FT.
 SIDEWALL REDUCTION CREDIT: $\frac{WIDTH+2(DEPTH)}{24+1(2C)}$ $\frac{2+2}{24+1(2C)}$ $\frac{4}{9}$ \rightarrow 0.44
 LENGTH OF TRENCHES: $\frac{837.5 \times 0.44}{2}$ = 208 LINEAR FEET
 3 TRENCHES, 2 FOOT WIDE, 89 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED

C-SECOND REPLACEMENT SEPTIC SYSTEM CALCULATIONS:
 APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 5'-8"
 DRAINFIELD AREA: 5 BEDROOMS AT 750 gpd / 0.8 ABSORPTION RATE=837.5 SQ. FT.
 SIDEWALL REDUCTION CREDIT: $\frac{WIDTH+2(DEPTH)}{24+1(2C)}$ $\frac{2+2}{24+1(2C)}$ $\frac{4}{9}$ \rightarrow 0.44
 LENGTH OF TRENCHES: $\frac{837.5 \times 0.44}{2}$ = 208 LINEAR FEET
 3 TRENCHES, 2 FOOT WIDE, 89 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED



VICINITY MAP
 SCALE: 1" = 2000'
 ADC MAP PAGE 18, F-5

WATER AND SEPTIC SYSTEM NOTES:

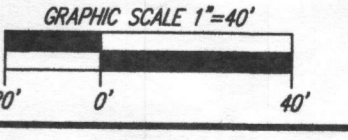
- ANY CHANGES TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- ALL EXISTING WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN ON THIS PLAN.
- THE TOPOGRAPHY SHOWN ON THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY BY NJR & ASSOCIATES PERFORMED ON AUGUST OF 2021.
- THIS SURVEY IS TIED TO MARYLAND STATE PLANE NAD 83/91 COORDINATE SYSTEM.
- THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
- TRACER TAPE SHALL BE INSTALLED ALONG THE PROPOSED WATER TAP LINE AND THE SEPTIC LINE.
- BOTH SEPTIC AND PUMP TANKS MUST BE WATER TIGHT TESTED AT THE TIME OF INSTALLATION.
- THE EXISTING WELL (TAG#10-20-0163) HAS BEEN FIELD LOCATED BY NJR & ASSOCIATES.
- THE PROPOSED DIVERSION FENCE IS TO BE INSTALLED PRIOR TO ACCUMULATING THE STOCKPILE SOIL TO PROTECT THE SEWAGE DISPOSAL AREA.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
 HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT. DATE

- GENERAL NOTES**
- PARCEL 314, TAX MAP 16, GRID 19.
 - DEED REF: L20855, F. 309.
 - ELECTION DISTRICT: 5.
 - ZONING: RR-DEO.
 - PROPOSED SEWER - PRIVATE; PROPOSED WATER - PRIVATE.
 - THE PLAN IS BASED ON A FIELD RUN BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY NJR & ASSOCIATES IN AUGUST OF 2021.
 - THERE IS A FLOODPLAIN ON THIS SITE AS SHOWN.
 - THERE IS A STREAM AND A 100 FOOT STREAM BANK BUFFER ON SITE AS SHOWN.
 - THERE ARE NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES ON SITE.
 - TOTAL AREA WITHIN 100' = 41,240 SQ.FT.
 - WATERSHED = PATENT RIVER
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - CONTRACTOR TO MAINTAIN POSITIVE SLOPE AWAY FROM THE FOUNDATION OF THE HOUSE.
 - TO THE BEST OF OUR INFORMATION, NP CEMETERY OR HISTORIC STRUCTURE EXIST ON THIS SITE.
 - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - THE FLAGS FOR THE DELINEATED WETLANDS ARE FIELD LOCATED BY NJR & ASSOCIATED, LLC, AND THE LINES ARE SHOWN ACCURATELY ON THIS PLAN.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

Approved Septic System Plan
 Howard County Health Department
 Signature: *Mark Oswald* Date: 5.10.23

SHEET INDEX	
DESCRIPTION	SHEET No.
ON SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN	1 OF 2
PROFILE AND DETAILS	2 OF 2



PARCEL 317
 PROPERTY OF GORBAN
 LIBER 335 FOLIO 606
 ZONING: RR-DEO

PARCEL 87
 PROPERTY OF STRICKER
 LIBER 1638 FOLIO 173
 ZONING: RR-DEO

PARCEL 314
 ONYEWU PROPERTY
 LIBER 21382, FOLIO 275
 6.988 AC.±
 (304,407 SF.±)
 ZONING: RR-DEO

PARCEL 315
 PROPERTY OF TAMBI INNOCENT MANYA & JARRETT AYODEUJ
 LIBER 18637, FOLIO 97
 ZONING: RR-DEO

PARCEL 284
 PROPERTY OF WINEBRENNER
 LIBER 13385, FOLIO 203
 ZONING: RR-DEO

LOT 29
 GREENHEDGE
 P.B. 13, P. 19
 ZONING: RR-DEO

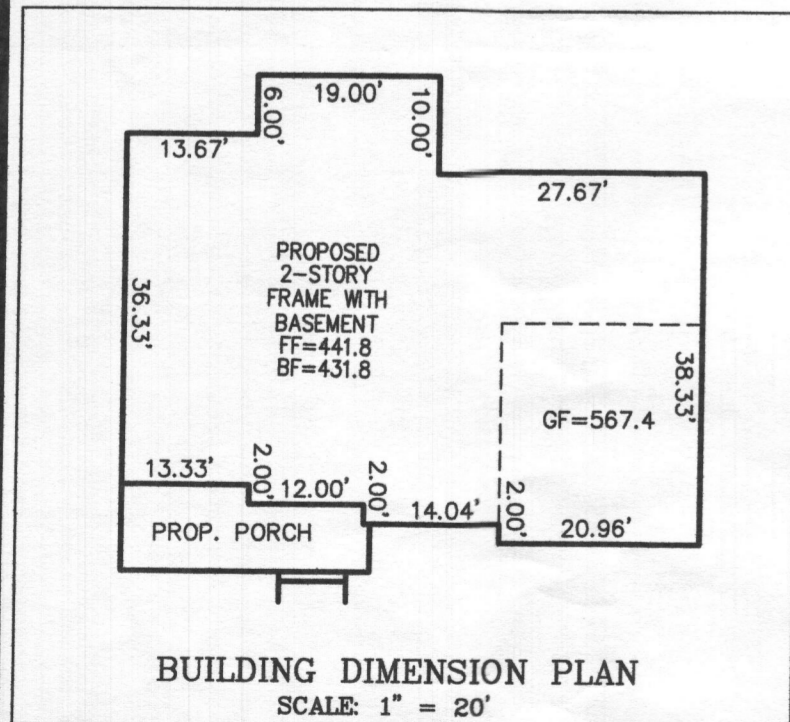
LOT 30
 GREENHEDGE
 P.B. 13, P. 19
 ZONING: RR-DEO

LOT 31
 GREENHEDGE
 P.B. 13, P. 19
 ZONING: RR-DEO

LOT 33
 GREENHEDGE
 P.B. 10, P. 98
 ZONING: RR-DEO

LOT 34
 GREENHEDGE
 P.B. 10, P. 98
 ZONING: RR-DEO

LOT 35
 GREENHEDGE
 P.B. 10, P. 98
 ZONING: RR-DEO



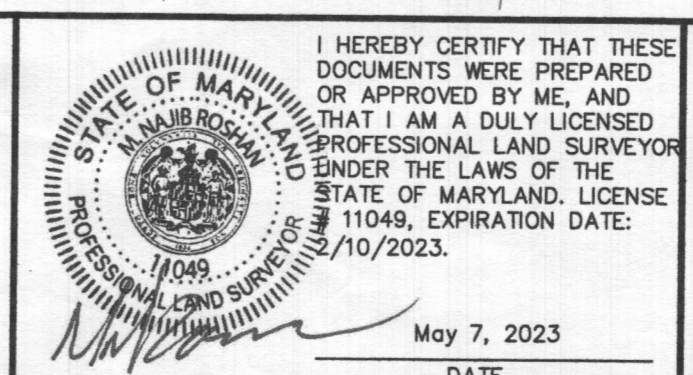
SITE ANALYSIS DATA CHART

TOTAL LOT AREA	= 6.988 ACRES (304,407)
LOT AREA "PROP. TO B DISTURBED"	= 0.947 ACRE (41,240 SF.)
TOTAL LOT IMPERVIOUS AREA PROPOSED	= 0.337 ACRE (14,693 SF.)
TOTAL PROPOSED GREEN AREA	= 6.651 ACRES (289,714 SF.)
SITE AREA WITHIN WETLAND	= 1.711 ACRES
SITE AREA WITHIN 25' WETLAND BUFFER	= 3.193 ACRES
SITE AREA OF STEEP SLOPES	= 0 ACRE
SITE AREA OF ERODIBLE SOILS	= 0 ACRE
SITE AREA WITHIN 100'-R FLOODPLAIN	= 1.836 ACRE
SITE AREA WITHIN 100' STREAM BUFFER	= 5.774 ACRES

SOIL DESCRIPTION CHART

UNIT SYMBOL	UNIT NAME	HYDROLOGIC SOIL GROUP	K-FACTOR
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	A	0.28
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	A	0.28
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENVILLE SILT LOAMS, 3 TO 8 PERCENT SLOPES	C/D	0.37
Ha	HATBORO-CODRUS LOAMS, 0 TO 3 PERCENT SLOPES	B/D	0.37

PLAN PREPARED BY:
NJR & ASSOCIATES
 Land Surveying and Planning
 2770 TERRAPIN RUN
 WEST FRIENDSHIP, MD 21794
 TEL: (240) 508-3200
 Email: ROSHANNJ@AOL.COM



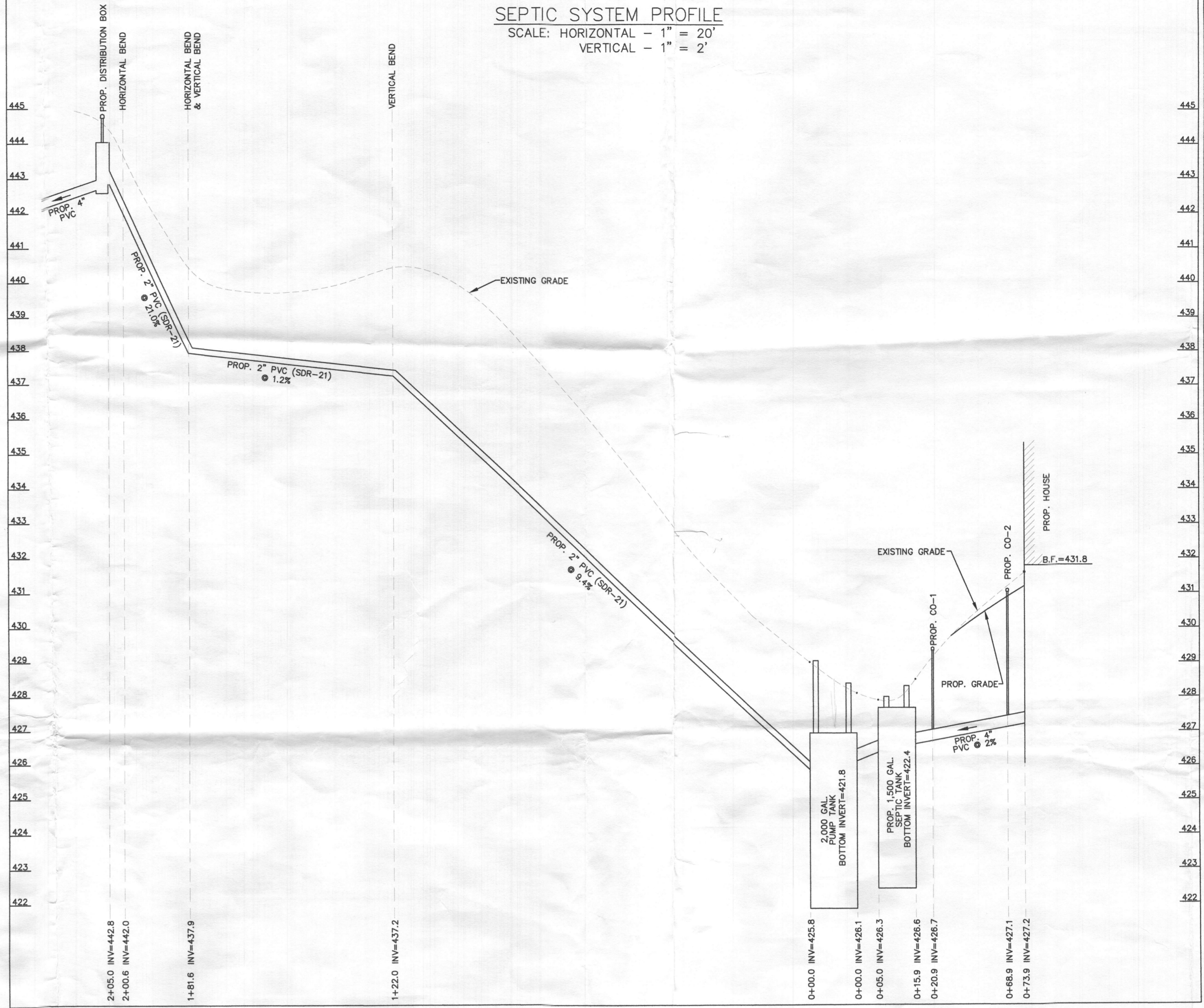
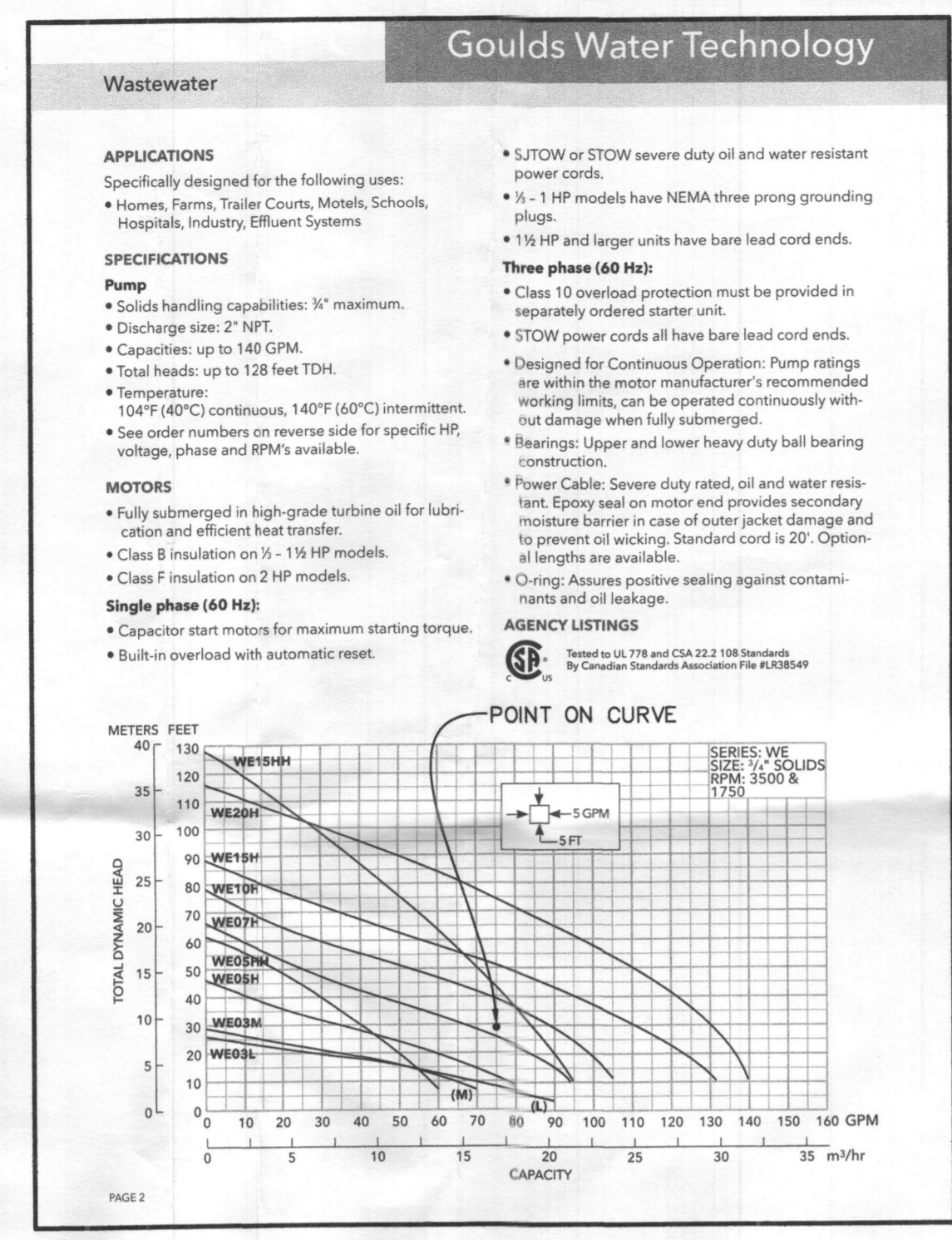
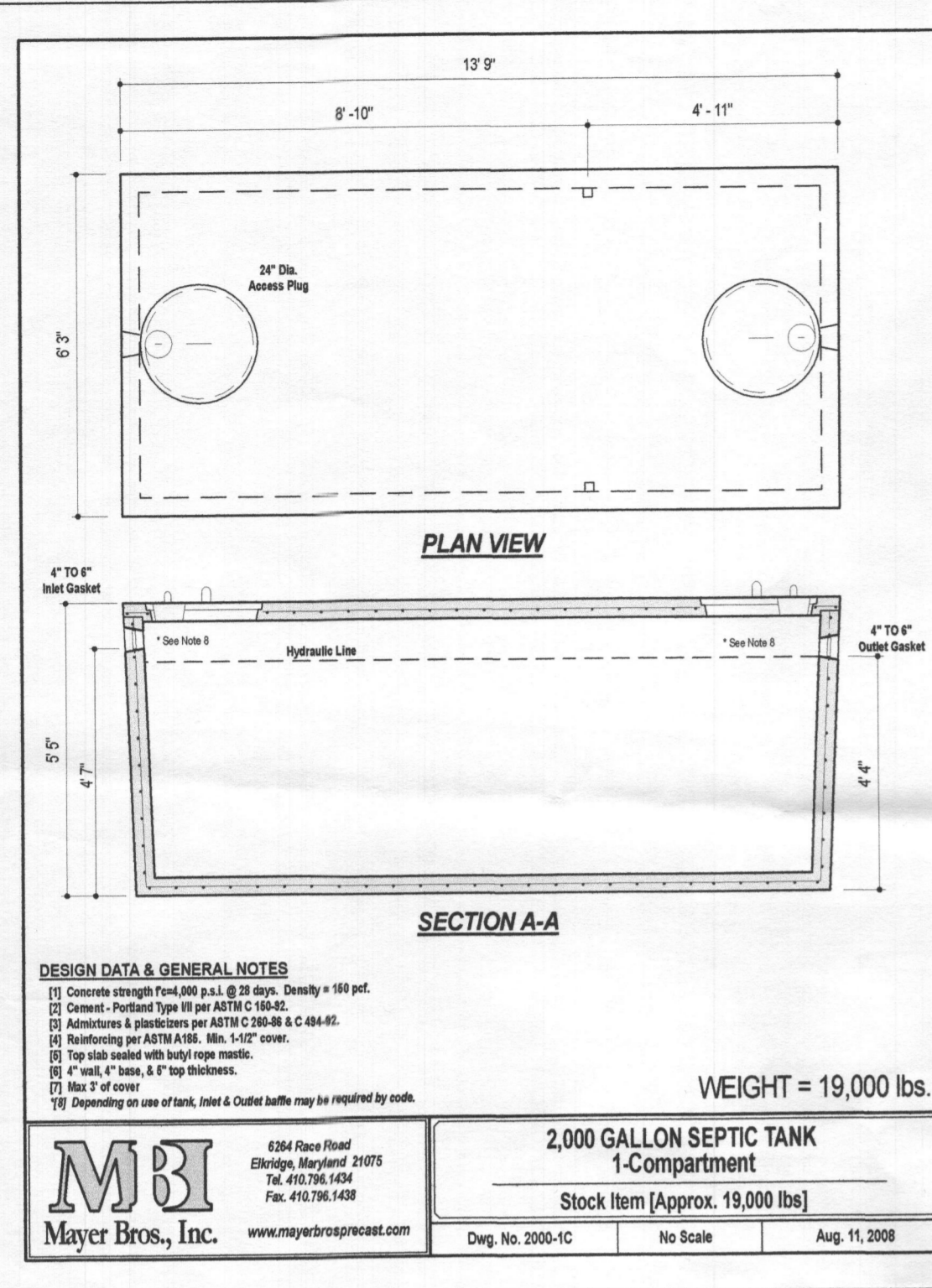
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 11049, EXPIRATION DATE: 1/10/2023.

DEVELOPER
 CARUSO HOMES
 2120 BALDWIN AVENUE,
 STE 200
 CROFTON, MD 21144
 (301) 261-0277

OWNER
 Zohihilla Sajid
 7307 Carved Stone
 Columbia, MD 21045
 (747) 270-0100

ON SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN
PARCEL 314
 TAX MAP 16, GRID 13
 ONYEWU PROPERTY
 LIBER 21382, FOLIO 275
 N ORDWAY DRIVE, ELLICOTT CITY, MARYLAND 21042
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 40' JOB NO.: 3665 DATE: APR. 10, 2022 SHEET: 1 OF 2



PUMP CAPACITY CALCULATIONS

DOSE = 150 gpm
2" PVC MAIN f = 3.98' / 100'

FORCE MAIN VOLUME:
FORCE MAIN (2") 204.3 X 17.4 GAL/100 LF. = 35.55 GAL.

PUMP CHAMBER:
ONE DAY RESERVE VOLUME = 1,204 GALLONS

TDH: (FITTINGS)

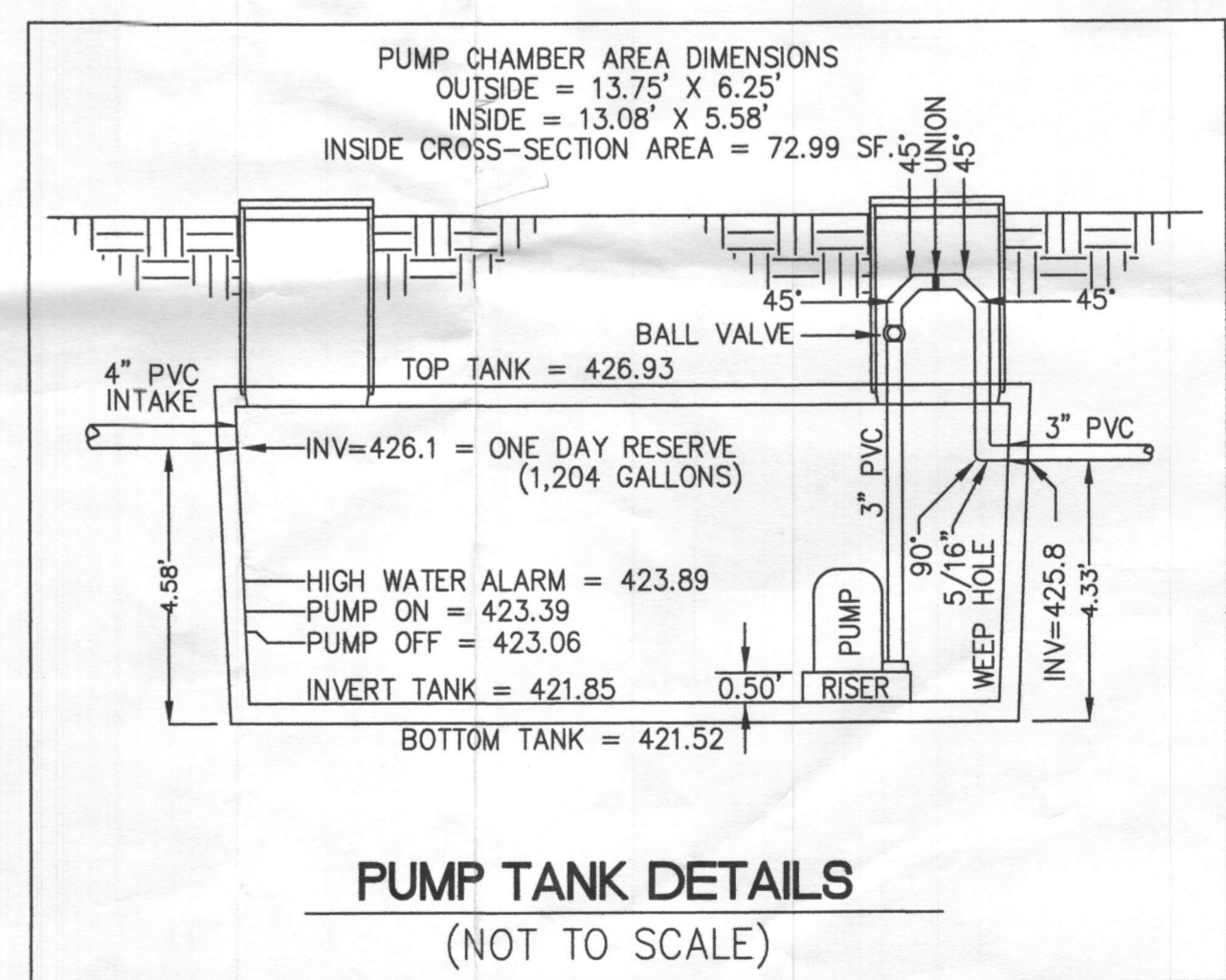
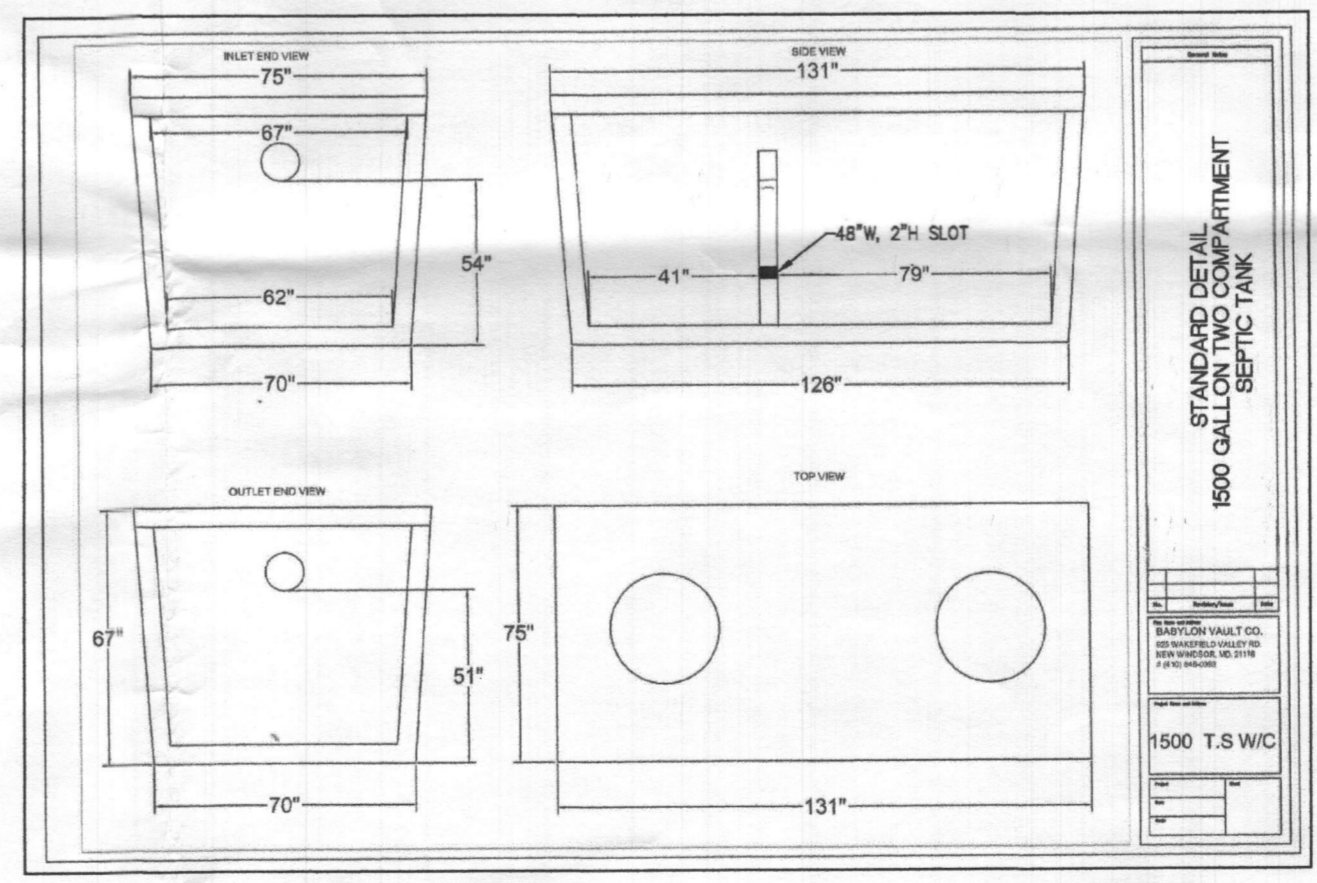
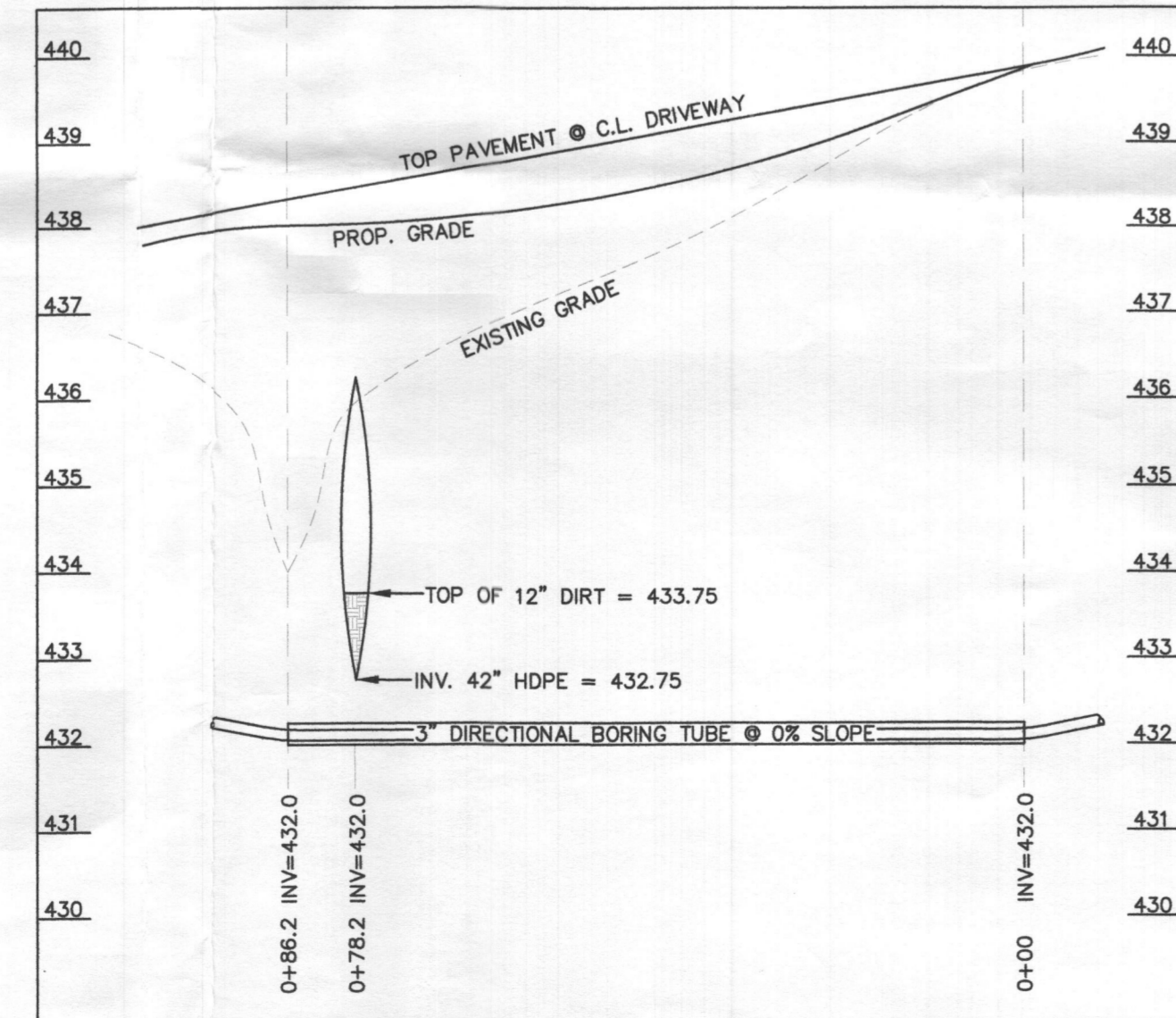
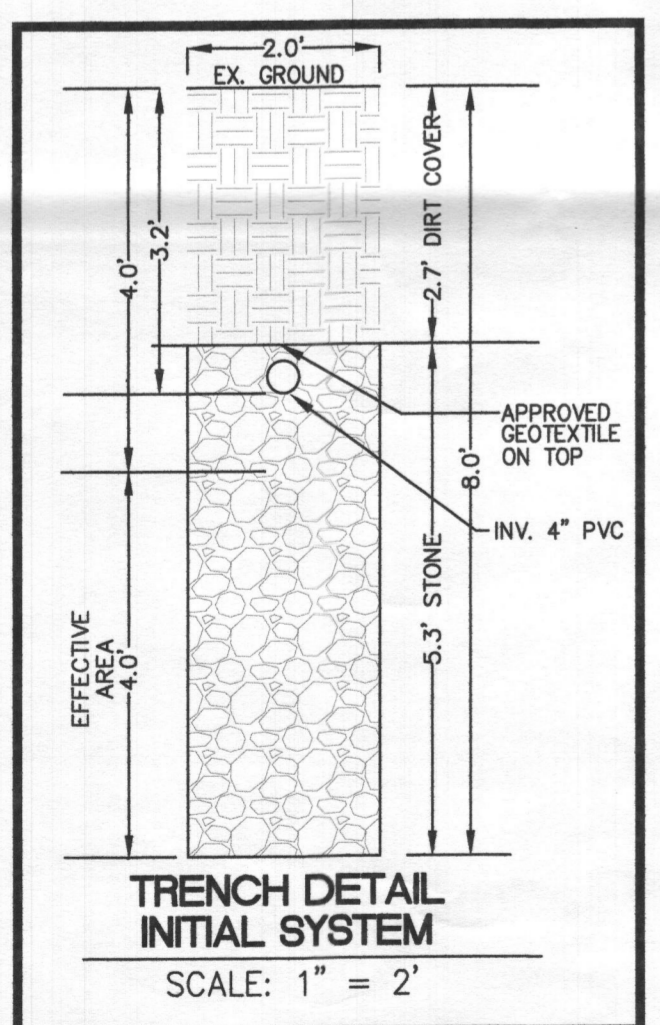
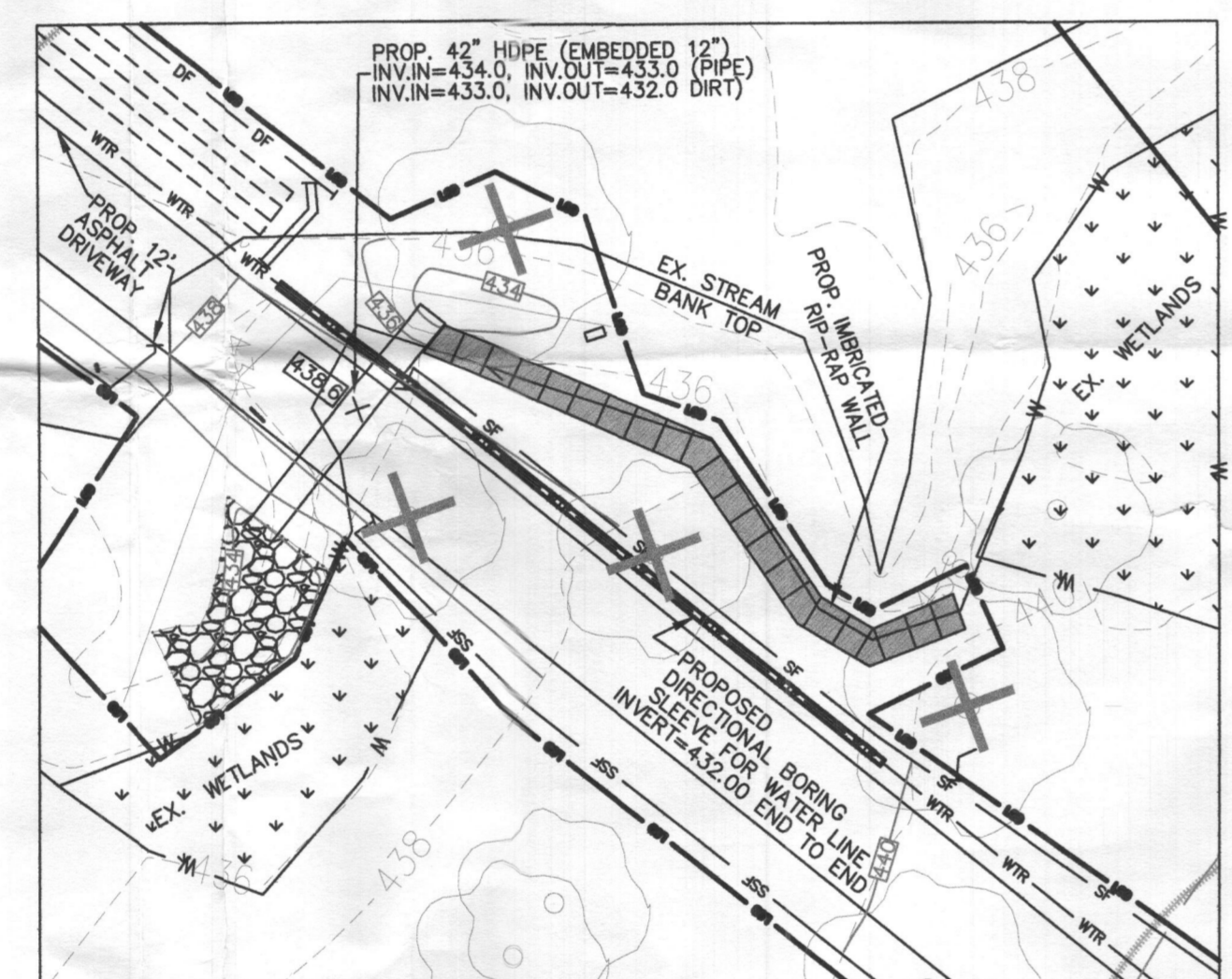
DISCONNECT :	1 X 2.0	= 2.0
45' :	8 X 4.0	= 32.0
90' :	1 X 10.0	= 10.0
TOTAL =		44.0

FRICION:
MAIN + FITTINGS = 204.3 + 44.0 = 248.3
248.3 (3.98/100) = 9.88

STATIC:
(INVERT IN DISTRIBUTION BOX - PUMP OFF) 442.80 - 423.06 = 19.74

TDH (TOTAL DYNAMIC HEAD) (9.88 + 19.74) = 29.62 @ 150 GPM
RT (PUMP RUN TIME) (2.5-3 MINUTES @ 75 GPM)

USE GOULDS PUMP MODEL (WE10H)



MISS UTILITY

CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

PLAN PREPARED BY:

NJR & ASSOCIATES
Land Surveying and Planning

2770 TERRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (240) 508-3200
Email: ROSHANN@AOL.COM

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 # 11049. EXPIRATION DATE: 10/2023.

May 7, 2023
DATE

DEVELOPER
CARUSO HOMES
2120 BALDWIN AVENUE,
Ste 200
CROFTON, MD 21144
(301) 261-0277

OWNER
Zabihulla Sajid
7307 Carved Stone
Columbia, MD 21045
(747) 270-0100

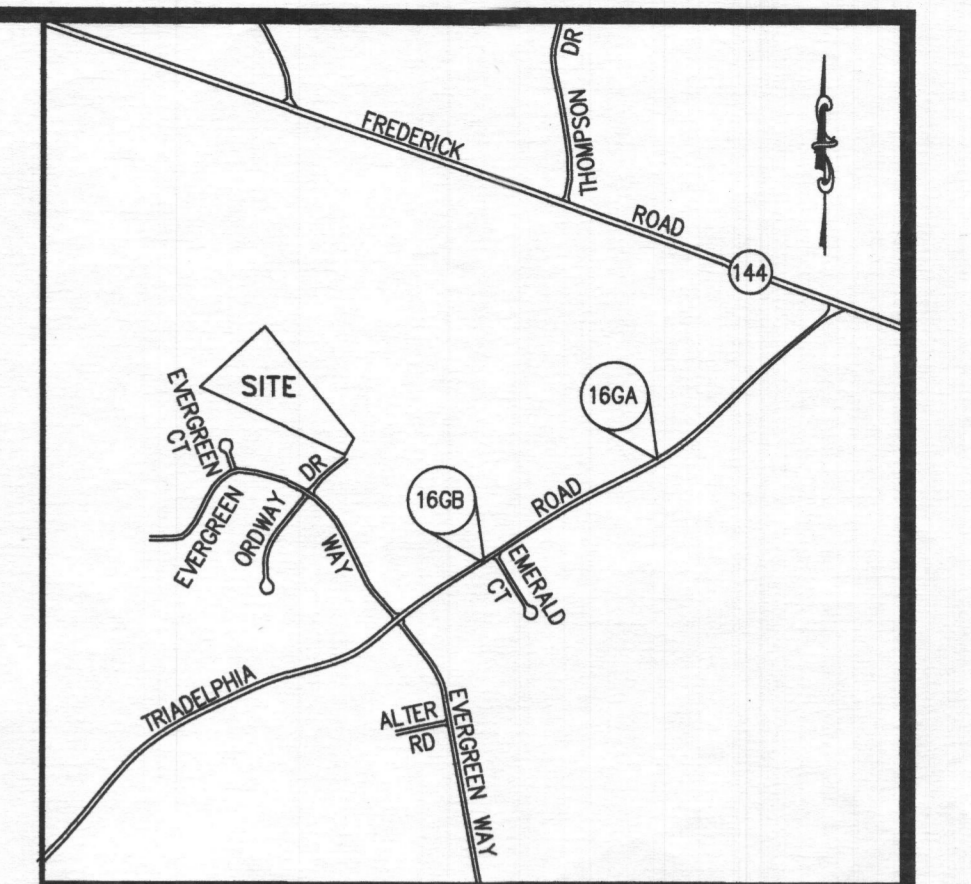
ON SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

PARCEL 314
TAX MAP 16, GRID 13
ONYEWU PROPERTY
LIBER 21382, FOLIO 275
N ORWAY DRIVE, ELLICOTT CITY, MARYLAND 21042
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 40' JOB NO.: 3665 DATE : APR. 10, 2022 SHEET : 2 OF 2

LEGEND	
	EX. SIGN
	EX. WETLAND FLAG
	EX. POWER POLE
	EX. GUY WIRE ANCHOR
	EX. LIGHT POLE
	EX. WOOD POST
	EX. DECIDUOUS TREE
	EX. TREE TO BE REMOVED
	PROP. SPOT ELEVATION
	EX. CONTOUR
	PROP. CONTOUR
	PROP. SUPER SILT FENCE
	PROP. SILT FENCE
	PROP. LIMIT OF DISTURBANCE
	PROP. WATER TAP LINE
	EX. STREAM BANK BUFFER
	EX. DELINEATED WETLANDS LINE
	EX. WETLAND BUFFER
	PROP. DIVERSION FENCE
	PROP. STABILIZED CONSTRUCTION ENTRANCE AND RIP-RAP
	EX. SEWAGE DISPOSAL AREA
	PROP. FOREST CONSERVATION EASEMENT
	EXISTING WETLANDS
	EX. SOIL TYPE BOARDER
	PROP. SURFACE FLOW DIRECTION
	EXISTING EDGE OF WOODS
	PROPOSED EDGE OF WOODS
	EXISTING FAILED PERCOLATION TEST
	EXISTING PASSED PERCOLATION TEST
	PROP. SAND BAG DIVERSION
	100 YEAR FLOODPLAIN LINE

A-INITIAL SEPTIC SYSTEM CALCULATIONS	
APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 4'-8'	
DRAINFIELD AREA: 5 BEDROOMS AT 750 GPD / 0.8 ABSORPTION RATE=937.5 SQ. FT.	
SIDEWALL REDUCTION CREDIT: $\frac{1070 \times 2}{2+1+2(4)} = \frac{214}{11} = 0.38$	
LENGTH OF TRENCHES: $\frac{937.5 \times 0.38}{2} = 189$ LINEAR FEET	
2 TRENCHES, 2 FOOT WIDE, 66 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED	
B-FIRST REPLACEMENT SEPTIC SYSTEM CALCULATIONS	
APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 5'-8'	
DRAINFIELD AREA: 5 BEDROOMS AT 750 GPD / 0.8 ABSORPTION RATE=937.5 SQ. FT.	
SIDEWALL REDUCTION CREDIT: $\frac{1070 \times 2}{2+1+2(3)} = \frac{214}{9} = 0.44$	
LENGTH OF TRENCHES: $\frac{937.5 \times 0.44}{2} = 208$ LINEAR FEET	
3 TRENCHES, 2 FOOT WIDE, 69 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED	
C-SECOND REPLACEMENT SEPTIC SYSTEM CALCULATIONS	
APPLICATION RATE = 0.8, EFFECTIVE DEPTHS = 5'-8'	
DRAINFIELD AREA: 5 BEDROOMS AT 750 GPD / 0.8 ABSORPTION RATE=937.5 SQ. FT.	
SIDEWALL REDUCTION CREDIT: $\frac{1070 \times 2}{2+1+2(3)} = \frac{214}{9} = 0.44$	
LENGTH OF TRENCHES: $\frac{937.5 \times 0.44}{2} = 208$ LINEAR FEET	
3 TRENCHES, 2 FOOT WIDE, 69 FEET IN LENGTH, 10 FOOT SPACED ARE PROVIDED	



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP PAGE 18, F-5

NOTES:

- ANY CHANGES 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 EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- ALL EXISTING WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN ON THIS PLAN.
- THE TOPOGRAPHY SHOWN ON THIS PLAT IS BASED ON AN ACTUAL FIELD RUN SURVEY BY NJR & ASSOCIATES PERFORMED ON AUGUST OF 2021.
- THIS SURVEY IS TIED TO MARYLAND STATE PLANE NAD 83/91 COORDINATE SYSTEM.
- THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT ARE AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
- TRACER TAPE SHALL BE INSTALLED ALONG THE PROPOSED WATER TAP LINE AND THE SEPTIC LINE.
- BOTH SEPTIC AND PUMP TANKS MUST BE WATER TIGHT TESTED AT THE TIME OF INSTALLATION.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT. DATE

- GENERAL NOTES**
- PARCEL 314, TAX MAP 16, GRID 19.
 - DEED REF: L20855, F. 308.
 - ELECTION DISTRICT: 5.
 - ZONING: RR-DEO.
 - PROPOSED SEWER - PRIVATE; PROPOSED WATER - PRIVATE.
 - THE PLAN IS BASED ON A FIELD RUN BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY NJR & ASSOCIATES IN AUGUST OF 2021.
 - THERE IS FLOODPLAIN ON THIS SITE AS SHOWN.
 - THERE IS A STREAM AND A 100 FOOT STREAM BANK BUFFER ON SITE AS SHOWN.
 - THERE ARE NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES ON SITE.
 - TOTAL AREA WITHIN LDD = 41,240 SQ.FT.
 - WATERSHED = PATUENT RIVER
 - 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.
 - TO THE BEST OF OUR INFORMATION, NP CEMETERY OR HISTORIC STRUCTURE EXIST ON THIS SITE.
 - NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
 - THE FLAGS FOR THE DELINEATED WETLAND LINES ARE FIELD LOCATED BY NJR & ASSOCIATED, LLC. AND THE LINES ARE SHOWN ACCURATELY ON THIS PLAN.
 - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

PARCEL 317
PROPERTY OF
GORGAN, FOLIO 606
LIBER 555, FOLIO 606
ZONING= RR-DEO

PARCEL 87
PROPERTY OF
SVRICEK, FOLIO 173
LIBER 1668, FOLIO 173
ZONING= RR-DEO

PARCEL 314
ONYEWU PROPERTY
LIBER 21382, FOLIO 275
6.988 AC.±
(304,407 SF.±)
ZONING= RR-DEO

PROP. FOREST
CONSERVATION EASEMENT
192,819 SF. OR 4.4265 AC.

PARCEL 284
PROPERTY OF
WINEBRENER
LIBER 15385, FOLIO 203
ZONING= RR-DEO

LOT 29
GREENHENGE
P.B. 13, P. 19
ZONING= RR-DEO

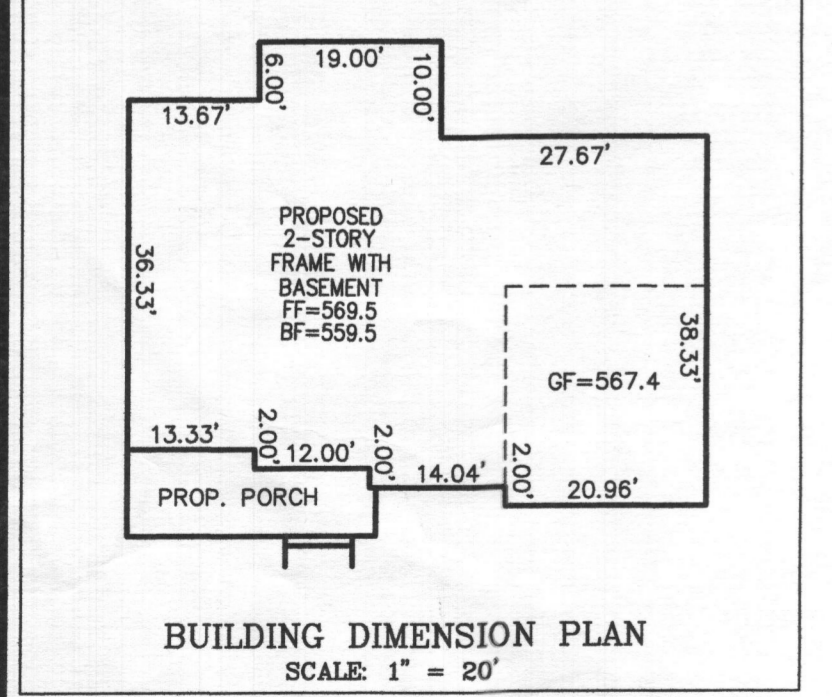
LOT 30
GREENHENGE
P.B. 13, P. 19
ZONING= RR-DEO

LOT 31
GREENHENGE
P.B. 10, P. 98
ZONING= RR-DEO

LOT 33
GREENHENGE
P.B. 10, P. 98
ZONING= RR-DEO

LOT 34
GREENHENGE
P.B. 10, P. 98
ZONING= RR-DEO

LOT 35
GREENHENGE
P.B. 10, P. 98
ZONING= RR-DEO



SITE ANALYSIS DATA CHART

TOTAL LOT AREA	= 6.988 ACRES (304,407)
LOT AREA "PROP. TO BE DISTURBED"	= 0.947 ACRE (41,240 SF.)
TOTAL LOT IMPERVIOUS AREA PROPOSED	= 0.337 ACRE (14,693 SF.)
TOTAL PROPOSED GREEN AREA	= 6.651 ACRES (289,714 SF.)
SITE AREA WITHIN WETLAND	= 1.711 ACRES
SITE AREA WITHIN 25' WETLAND BUFFER	= 3.193 ACRES
SITE AREA OF STEEP SLOPES	= 0 ACRE
SITE AREA OF ERODIBLE SOILS	= 0 ACRE
SITE AREA WITHIN 100-YR FLOODPLAIN	= 1.836 ACRE
SITE AREA WITHIN 100' STREAM BUFFER	= 5.774 ACRES

SOIL DESCRIPTION CHART

UNIT SYMBOL	UNIT NAME	HYDROLOGIC SOIL GROUP	K-FACTOR
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	A	0.28
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	A	0.28
GnB	GLENNVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENNVILLE SILT LOAMS, 3 TO 8 PERCENT SLOPES	C/D	0.37
Hc	HATBORO-CODORUS LOAMS, 0 TO 3 PERCENT SLOPES	B/D	0.37

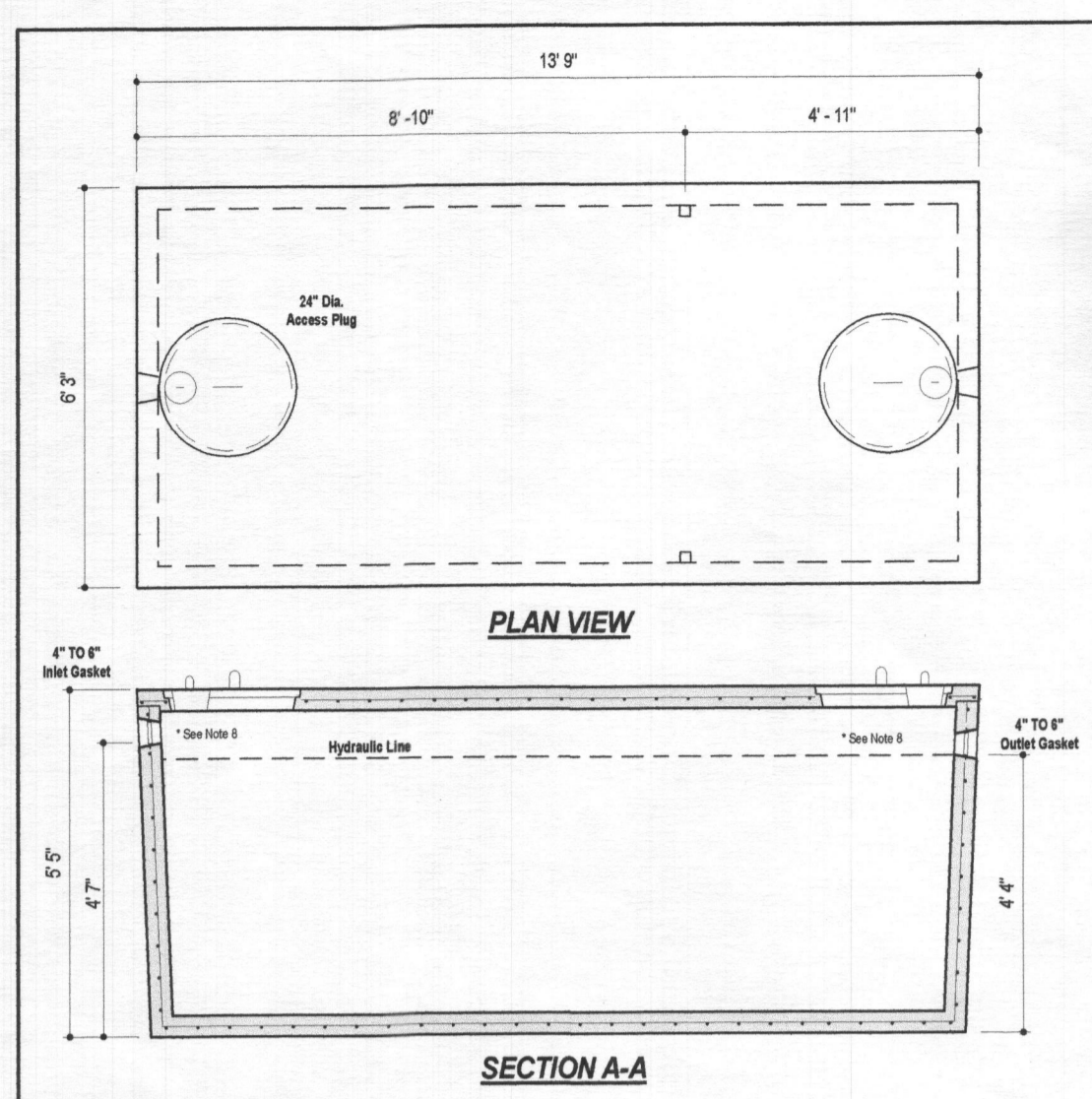
PLAN PREPARED BY:
NJR & ASSOCIATES
Land Surveying and Planning
2770 TERRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (240) 508-3200
Email: ROSHANN@AOL.COM

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 # 11049, EXPIRATION DATE: 10/10/2023.
October 10, 2022
DATE

DEVELOPER
CARLUCCI HOMES
2120 BALDWIN AVENUE,
Ste 200
CROFTON, MD 21114
(301) 281-0277
OWNER
Zabihulla Sajid
7307 Corvid Stone
Columbia, MD 21045
(747) 270-0100

ON SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN
PARCEL 314
TAX MAP 16, GRID 13
ONYEWU PROPERTY
LIBER 21382, FOLIO 275
5N ORWAY DRIVE, ELLICOTT CITY, MARYLAND 21042
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' JOB NO.: 3665 DATE: APR. 10, 2022 SHEET: 1 OF 2

MISS UTILITY
CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.



DESIGN DATA & GENERAL NOTES

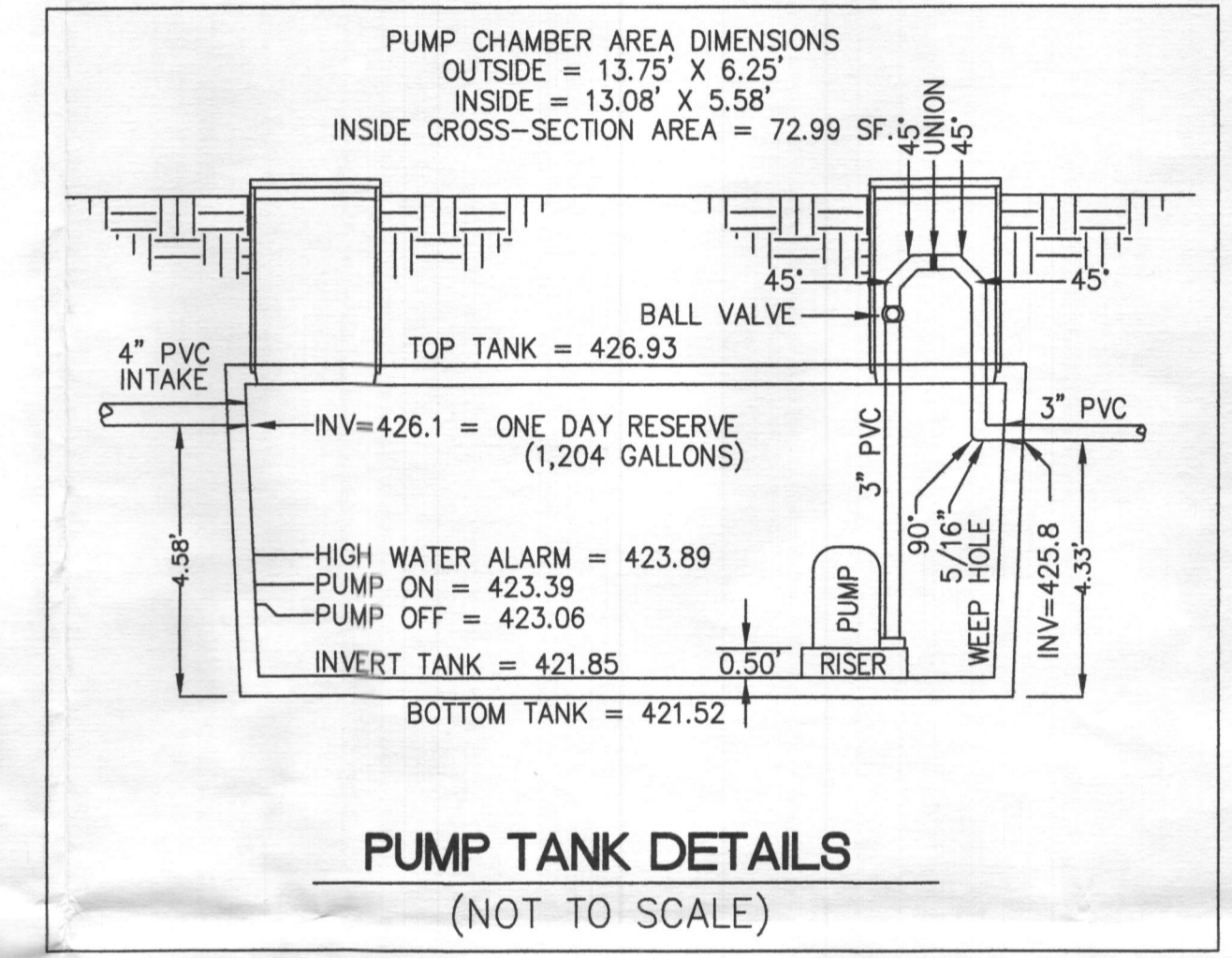
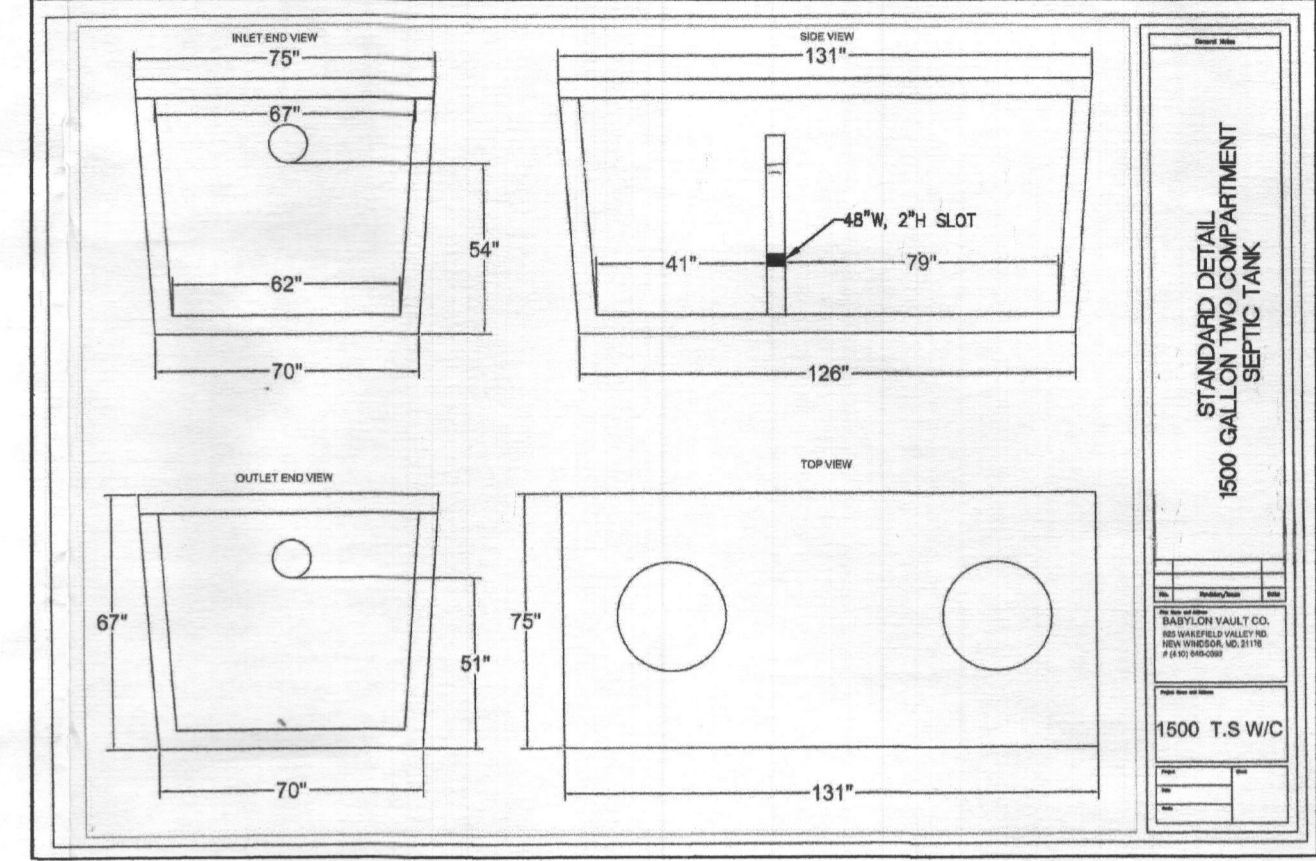
- Concrete strength: F_{cm} 2800 p.s.i., 28 days, Density = 150 pcf.
- Concrete - Portland Type III per ASTM C 150-04.
- Reinforcing per ASTM A 618, Min. 3/16" cover.
- Top slab finished with light gray marble.
- 6" x 6" wall, 4" base, 8" top thickness.
- Max. 2" of cover.
- Depending on use of tank, inlet & outlet risers may be required by code.

WEIGHT = 19,000 lbs.

2,000 GALLON SEPTIC TANK
1-Compartment
Stock Item (Approx. 19,000 lbs)

MBI Mayer Bros., Inc. 4354 New Road, Elkhart, Maryland 21025, Tel. 410.736.4524, Fax. 410.736.1433, www.mayerbrosgroup.com

Diag. No. 2000-1C No Scale Aug. 11, 2008



PUMP CAPACITY CALCULATIONS

DOSE = 150 gpm
2" PVC MAIN f = 3.98' / 100'

FORCE MAIN VOLUME:
FORCE MAIN (2") 204.3 X 17.4 GAL/100 LF. = 35.55 GALS.

PUMP CHAMBER:
ONE DAY DOSE = 1,204 GALLONS

TDH: (FITTINGS)

DISCONNECT :	1 X 2.0	= 2.0
45' :	8 X 4.0	= 32.0
90' :	1 X 10.0	= 10.0
TOTAL =		44.0

FRICITION:
MAIN + FITTINGS = 204.3 + 44.0 = 248.3
248.3 (3.98/100) = 9.88

STATIC:
(INVERT IN, DISTRIBUTION BOX - PUMP OFF) 442.80 - 423.06 = 19.74

TDH (TOTAL DYNAMIC HEAD) (9.88 + 19.74) = 29.62 @ 150 GPM
RT (PUMP RUN TIME) (2.5-3 MINUTES @ 75 GPM)

USE GOULDS PUMP MODEL (WE10H)

Wastewater

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

SPECIFICATIONS

Pump

- Solids handling capabilities: 1/2" 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):

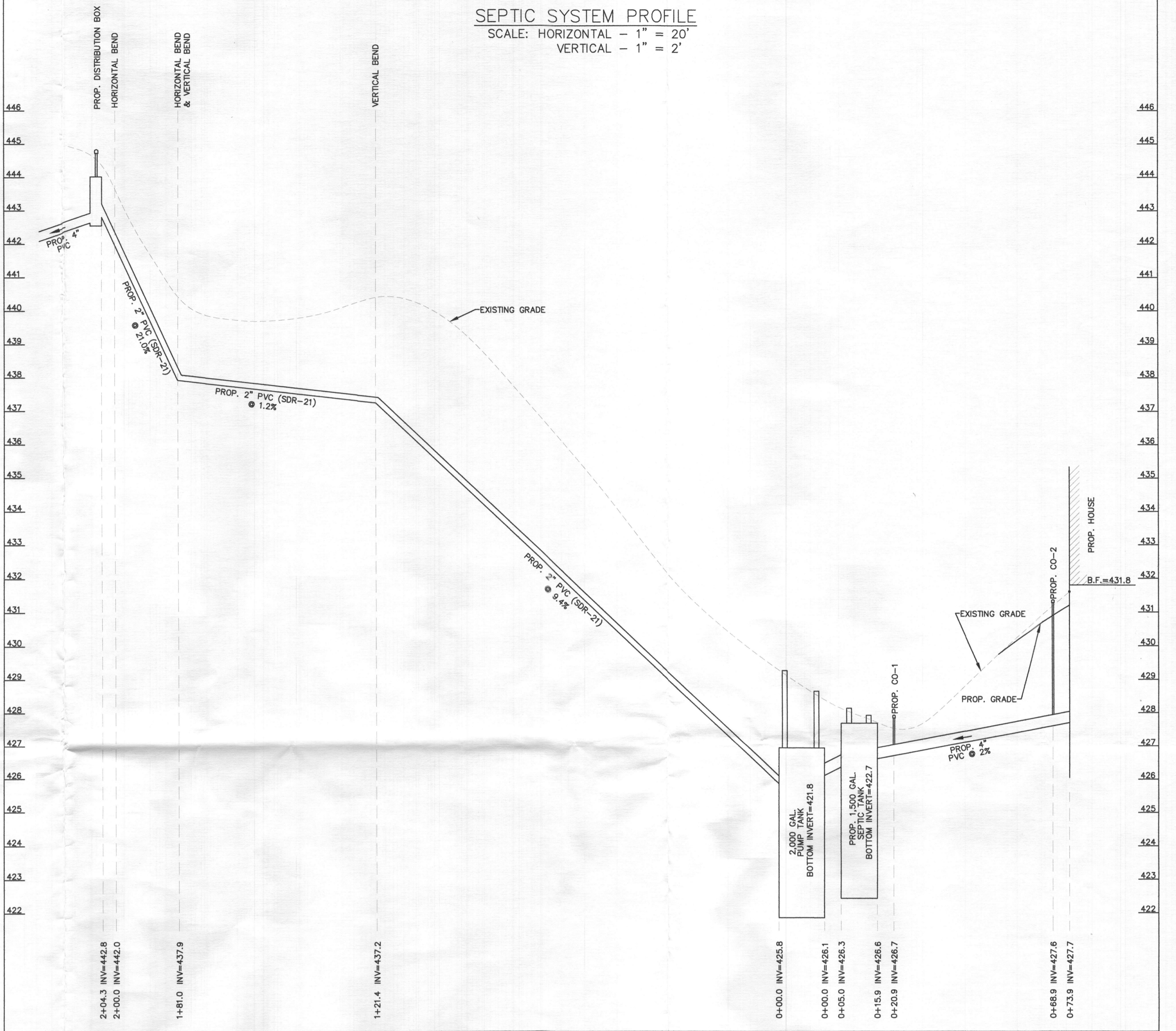
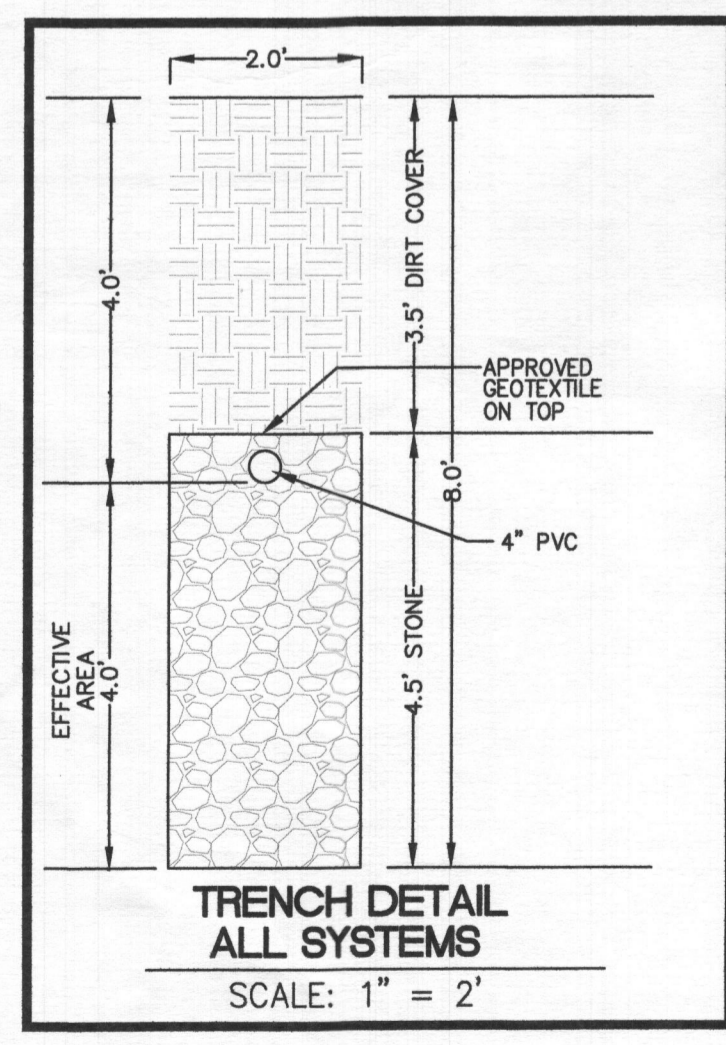
- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.

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 and 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
Based on UL 778 and CSA 21.2 108 Standards By Canadian Standards Association File #E23549

POINT ON CURVE



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