



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: 9/16/21

ONSITE SEWAGE DISPOSAL SYSTEM

APPROVAL DATE: 11/22/21 SP

PERMIT: CONSTRUCTION

P 570153

A

PROPERTY ADDRESS: 3415 Shady Lane

SUBDIVISION: THE KNOWS A ESB LOT 1

LOT: 4

TAX ID:

04-347277

CONTRACTOR: Whitworth Excavating

EMAIL:

CONTRACTOR ADDRESS: 12680 Clarksville Pike, Clarksville, MD 21029

PHONE: 410-531-5033

PROPERTY OWNER: Kevin and Lynette Mitchell

EMAIL:

OWNER ADDRESS: 9110 Dunloggin Road, Ellicott City, MD 21042

PHONE: 443-280-0332

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER:

PUMP MODEL: Goulds WF054

PUMP SIZE

1/2 HP

PUMP TANK CAPACITY: 1500

DISTRIBUTION SYSTEM: ☒ GRAVITY

☐ PRESSURE DOSED

BEDROOMS: 6

APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>188</u>	INLET DEPTH: <u>3</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</u>
	LOCATION: PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	2 TRENCHES AT 94 FEET	

ISSUED BY: Hank Oswald

ISSUE DATE: 9-16-21

EXPIRATION DATE: 9-16-22

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 DOWNGRADE 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 20003764

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

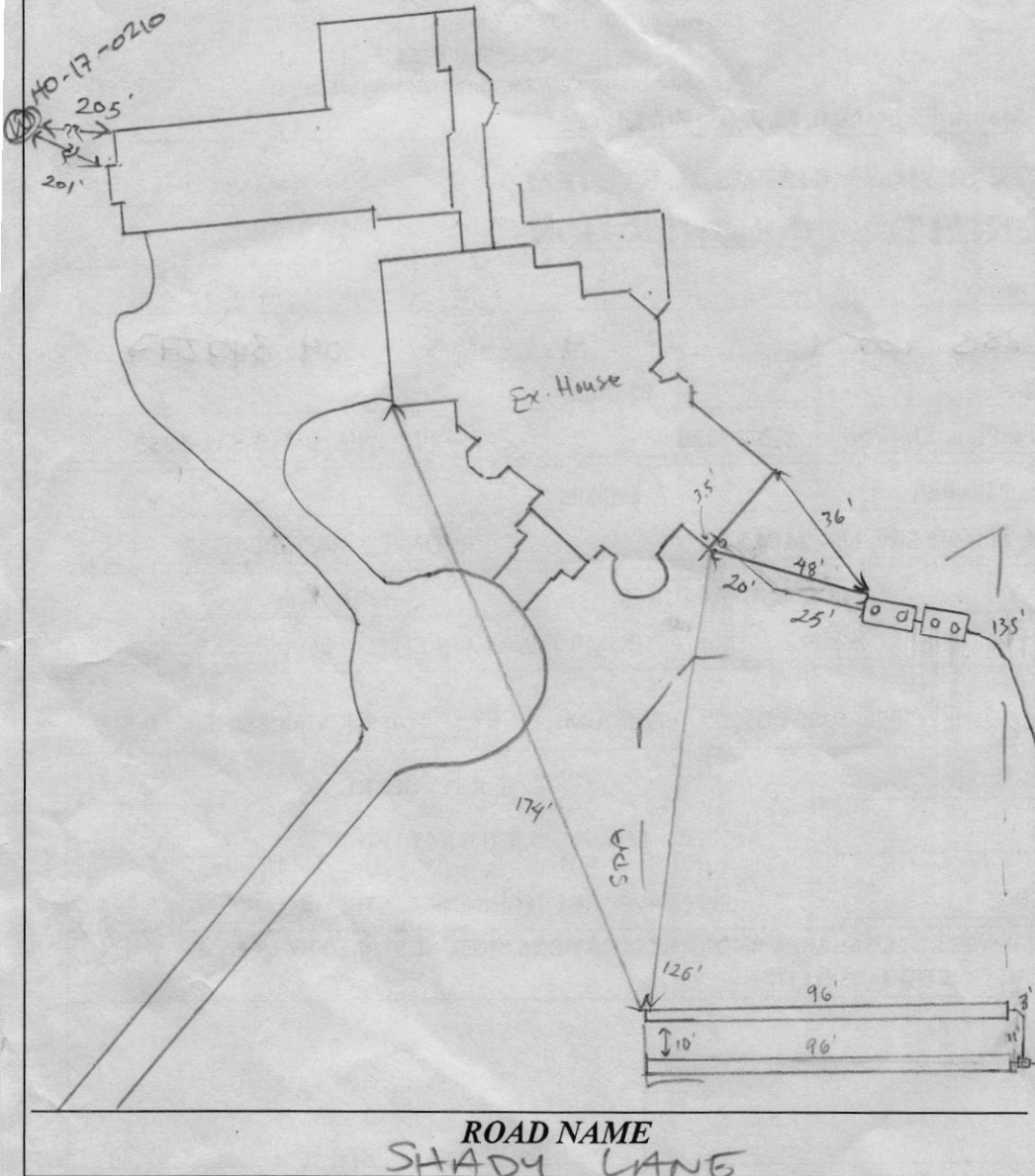
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE

~1/150

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	3'	6'
NUMBER OF TRENCHES		2
TOTAL LENGTH		192'
ABSORPTION AREA		576 sq ft + Sidewalk
DISTRIBUTION BOX LEVEL		N/A
DISTRIBUTION BOX BAFFLE		yes
DISTRIBUTION BOX PORT		yes

SEPTIC TANK DATA**SEPTIC TANK 1 LEVEL**

MANUFACTURER Babylon
 CAPACITY 2000 GAL
 SEAM LOC top
 TANK LID DEPTH 3'
 BAFFLES inlet + outlet
 BAFFLE FILTER -
 MANHOLE LOC inlet + outlet
 6" PORT LOC -
 WATERTIGHT TEST -
 SLOTTED yes
 DATE ON LID 9-13-21

PUMP/SEPTIC TANK LEVEL

MANUFACTURER Babylon
 CAPACITY 1500 GAL
 SEAM LOC top
 TANK LID DEPTH 3'
 BAFFLES inlet
 BAFFLE FILTER -
 MANHOLE LOC inlet + outlet
 6" PORT LOC -
 WATERTIGHT TEST -
 SLOTTED -
 DATE ON LID 9-17-21

PRE-CONSTRUCTION:

09/22/2021 Laid out 2x 97' TR. ONLY NEEDED 2x 94'. MET w/ BUILDER AND OWNER, TO RELOCATE TANKS. (S)

INSTALLATION: 9/29/21 2x 96' trenches under construction. (S) 09/29/2021 (PM)

C/O INSTALL Clear out at DISTAL ENDS OF TRENCH; PERF THROUGH AGGREGATE SOLID ABOVE; DIG UP WOVEN FILTER FABRIC AND INSTALL SPVN. (S) 9/30/21 Obs ports installed, correct filter fabric used D-box set and FM installed (S)
 10/25/21 Tanks set and SHC and SL constructed. Connected to FM. (S)
 11/22/21 Alarm and pump obs to be on separate circuits. Alarm located in basement obs. to work. Septic pump (with on float and off float) obs to work, water obs to flow in d-box. (S)

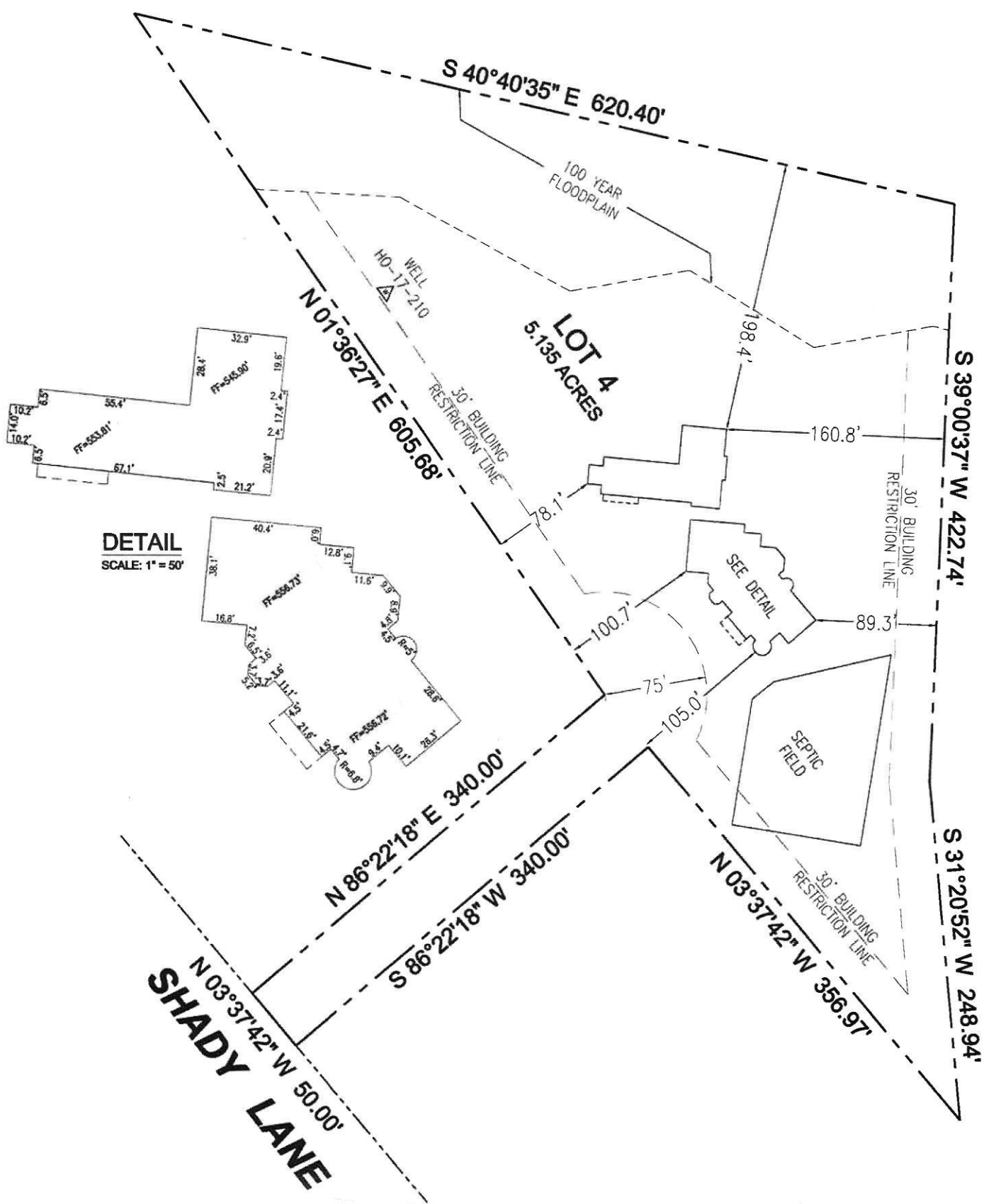
FINAL INSPECTOR

Juan Thomas


DATE OF APPROVAL

11/22/21

THIS WALL CHECK DRAWING CONTAINS A HORIZONTAL TOLERANCE IN ACCURACY OF 0.1' AND A VERTICAL TOLERANCE IN ACCURACY OF 0.2'



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE IMPROVEMENTS ARE LOCATED AS SHOWN AND THAT THERE ARE NO ENCROACHMENTS EXCEPT AS SHOWN. THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.


ERICK R. QUINTANILLA
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 21408
EXP. DATE: JUNE 15, 2021
DATE 05/27/2020



SCALE 1" = 100'	DATE 5/4/2020	VOGEL ENGINEERING + TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com	WALL CHECK DRAWING
DRAWN BY J.A.P.	CHECKED BY E.R.Q.		3415 SHADY LANE LOT 4
PLAT NUMBER 7734	JOB NUMBER 17-17		THE KNOLLS PLAT NO. 7734 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

MEMORANDUM

TO: Robert H. Vogel Engineering
8407 Main Street
Ellicott City, MD 21043

FROM: Hank Oswald, L.E.H.S.
Well & Septic Program

RE: Mitchell Residence
3415 Shady Lane

Date: May 16, 2018

The following comments pertain to the review of the OSDS Plan for 3415 Shady Lane:

- 1.) Add existing well to plan along with well tag number HO-17-0210
- 2.) Add well field location note to plan.
- 3.) Match pump tank detail to proposed tank manufacturer specs (i.e. man hole riser at center vs. end of tank)
- 4.) Add float positions to tank detail
- 5.) Abandon existing well near SDA
- 6.) Plot TDH = 24 correctly on pump curve

Oswald, Hank

From: Oswald, Hank
Sent: Wednesday, May 16, 2018 7:59 AM
To: Rob Vogel (rvogel@vogeleng.com); Rob Vogel (Rob.Vogel@timmons.com)
Subject: OSDS Plan_Mitchell Residence_3415 Shady Lane
Attachments: OSDS Memo__Vogle_2018.pdf

Hello Rob:

Attached, please find plan review comments to the OSDS Plan for 3415 Shady Lane.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

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Oswald, Hank

From: Jeremiah Reynolds <Jeremiah.Reynolds@timmons.com>
Sent: Wednesday, June 06, 2018 8:28 AM
To: Oswald, Hank
Subject: RE: OSDS Plan_3415 Shady Lane_

Hank,

I agree. Sorry about that. If you could just change it by hand there, that would be great. I really appreciate it. I will change it in AutoCAD here.

Thank you sir!

Jeremiah Reynolds
Designer

VOGEL ENGINEERING + TIMMONS GROUP | www.timmons.com
3300 North Ridge Road, Suite 110 | Ellicott City, MD 21043
Office: 410.461.7666 | Fax: 410.461.8961
<https://www.linkedin.com/company/timmons-group>
Your Vision Achieved Through Ours

To send me files greater than 20MB [click here](#).

From: Oswald, Hank <hoswald@howardcountymd.gov>
Sent: Wednesday, June 06, 2018 8:08 AM
To: Jeremiah Reynolds <Jeremiah.Reynolds@timmons.com>
Subject: OSDS Plan_3415 Shady Lane_

Hello Jeremiah:

Good morning. The point on the graph exceeds the pump curve for WE03M. WE05H should be a better fit. What do you think? I can redline it.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

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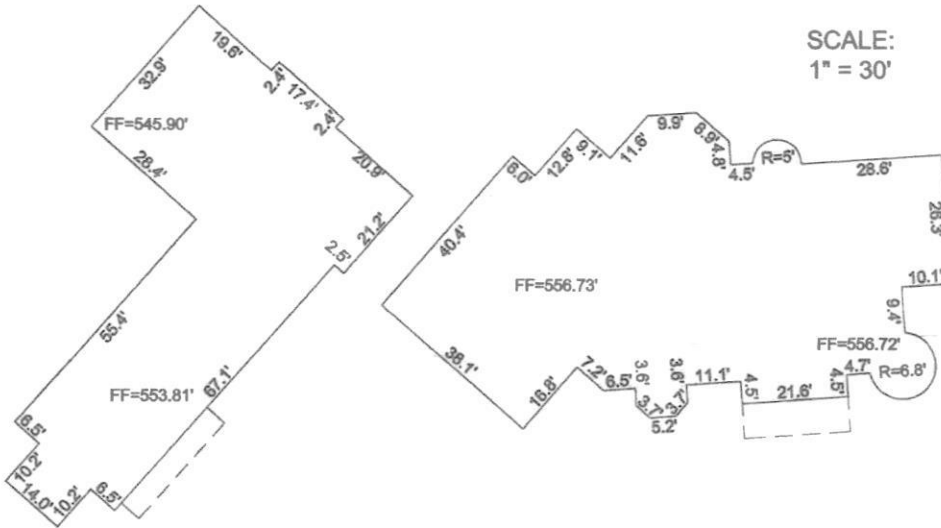
PLAT (#7734) DATUM - NAD27

SCALE:
1" = 150'



Note
Written
on
BACK!

SCALE:
1" = 30'



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Erick R. Quintanilla
ERICK R. QUINTANILLA
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 21408
EXP. DATE: JUNE 15, 2021

05/04/2020
DATE



SCALE 1" = 30'	DATE 5/4/2020
DRAWN BY J.A.P.	CHECKED BY E.R.Q.
PLAT NUMBER 7734	JOB NUMBER 17-17

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
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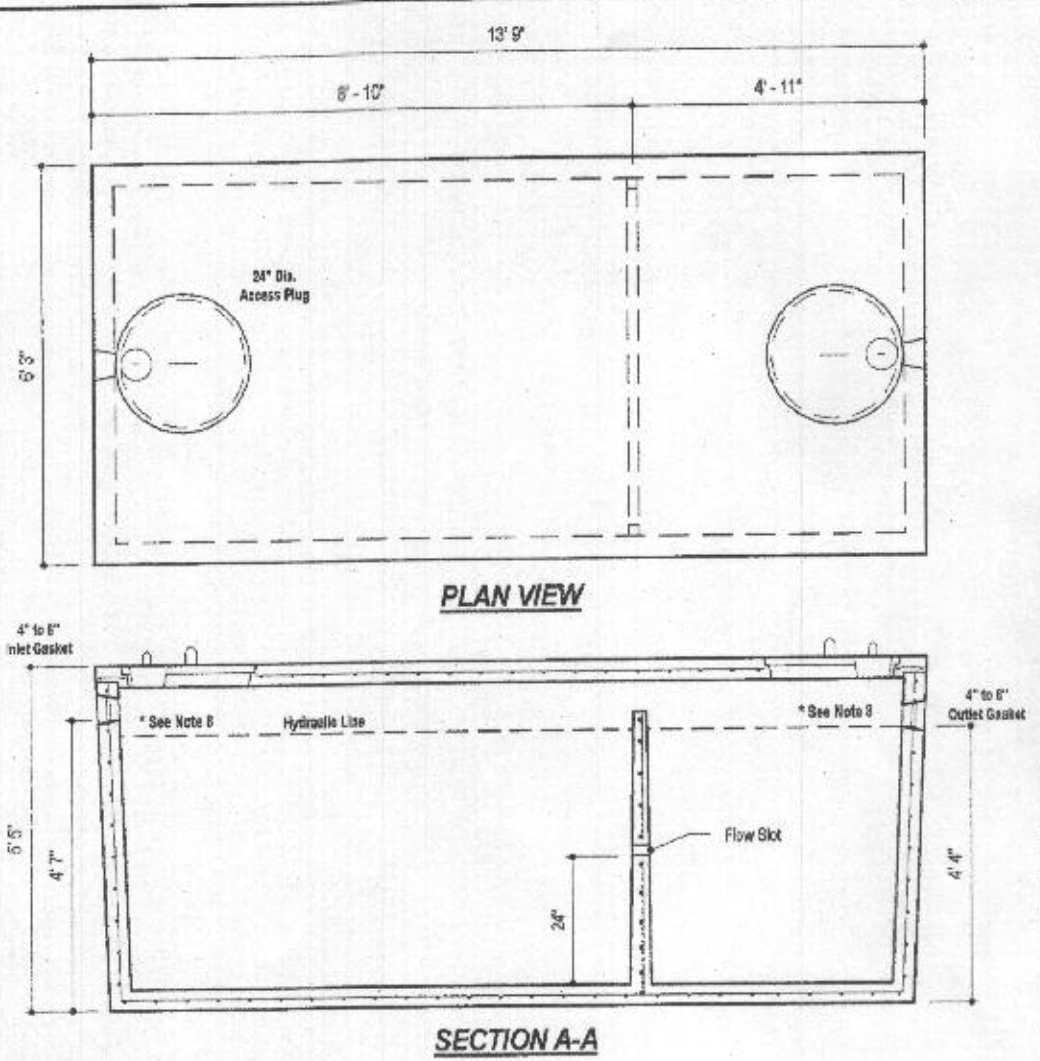
WALL CHECK DRAWING
3415 SHADY LANE
LOT 4
THE KNOLLS
PLAT NO. 7734
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

Will Check emailed to Jeff Williams
+ Kevin Wolf 5-28-20

Please email me a copy of the permit
specifications khatfieldahatfieldsequipment.com

Nor Septic

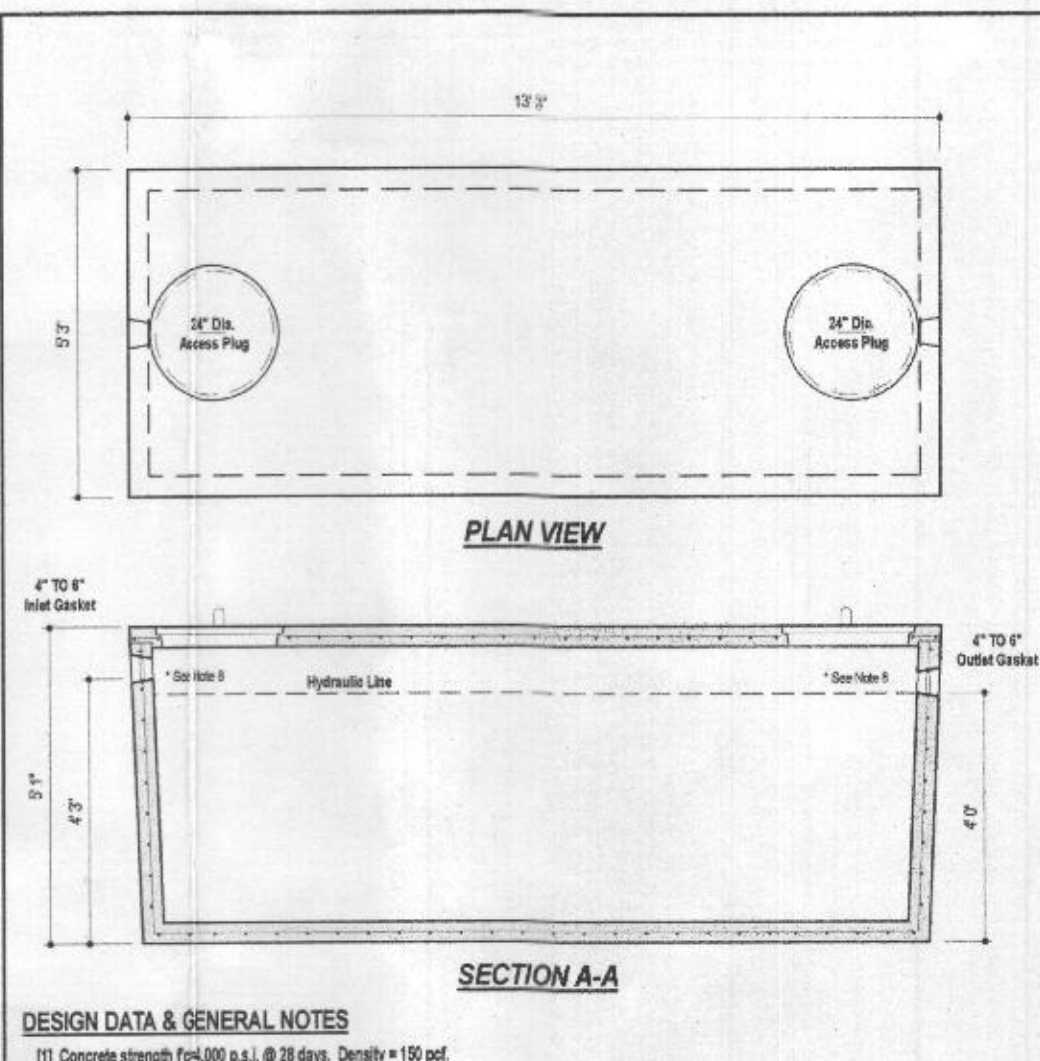




DESIGN DATA & GENERAL NOTES

- Concrete strength F_{cm} 4,000 p.s.i. @ 28 days. Density = 150 pcf.
- Concrete: Portland Type III per ASTM C 150-92.
- Admixture & plasticizer per ASTM C 494-01.
- Reinforcing per ASTM A631, Min. 1-1/2" cover.
- Top side coated with hot bitumen.
- 4" wall, 4" base, 4" top thickness.
- Max 7" of cover.
- Depending on use of tank, inlet & outlet baffles may be required by code.

	2,000 GALLON SEPTIC TANK 2-Compartment Stock Item (Approx. 19,900 lbs)	
	Dwg. No. 2000-2C	No Scale Aug 11, 2009



DESIGN DATA & GENERAL NOTES

- Concrete strength F_{cm} 4,000 p.s.i. @ 28 days. Density = 150 pcf.
- Concrete: Portland Type III per ASTM C 150-92.
- Admixture & plasticizer per ASTM C 494-01.
- Reinforcing per ASTM A631, Min. 1-1/2" cover.
- Top side coated with hot bitumen.
- 4" wall, 4" base, 4" top thickness.
- Max 7" of cover.
- Depending on use of tank, inlet & outlet baffles may be required by code.

	1,500 GALLON SEPTIC/PUMP TANK 1-Compartment NON-Traffic MAX 3 ft. of COVER WEIGHT = 16,000 lbs.	
	Dwg. No. 1900-1C	No Scale Aug 11, 2009

Wastewater

APPLICATIONS

Specifically designed for the following uses:

- Homes, Farms, Trailer Courts, Hotels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump

- Solids handling capabilities: 3/4" maximum
- Discharge size: 2" NPT
- Capabilities 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.

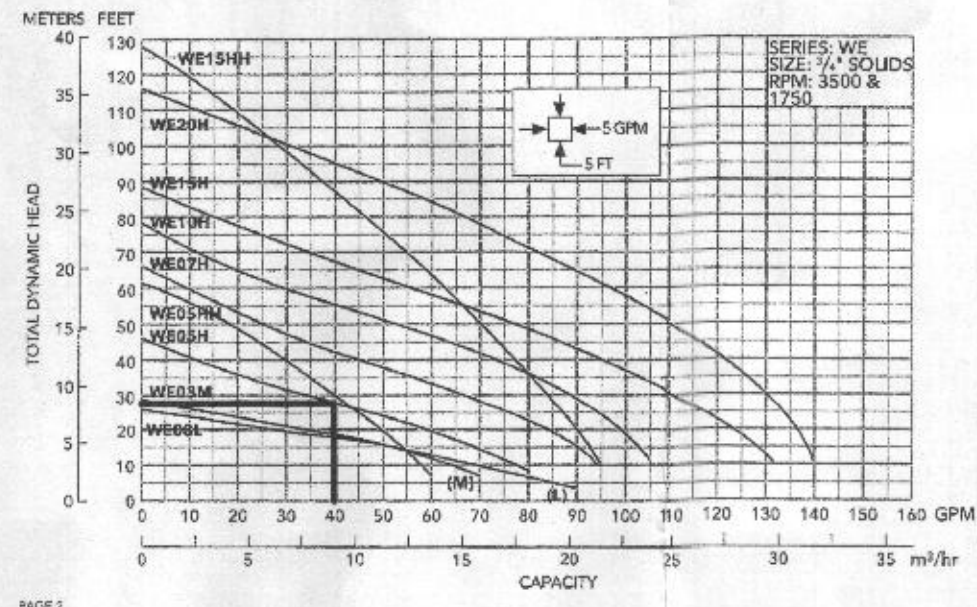
- S/TOW or STOW severe duty oil and water resistant power cords.
- 1/2-1 HP models have NEMA three prong grounding plugs.
- 1 1/2 HP and larger units have bare lead cord ends.

Three phase (60 Hz)

- Class D 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.
- Chiming: Assures positive sealing against contaminants and oil leakage.

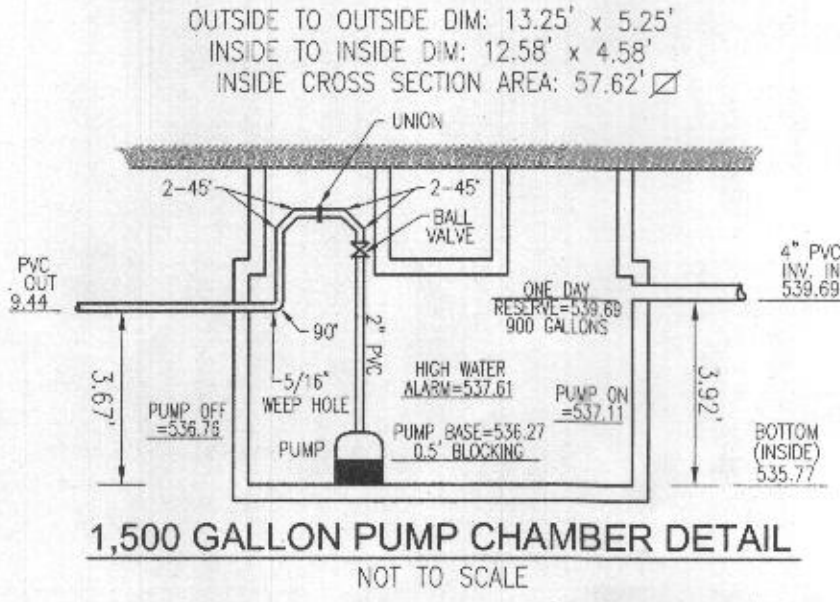
AGENCY LISTINGS

Tested to UL779 and CSA 22.2-108 Standards
By Canadian Standards Association File #635949



NOTE 2

FLOW: 40 GPM
H=27.71'
USE GOULDS WE05H

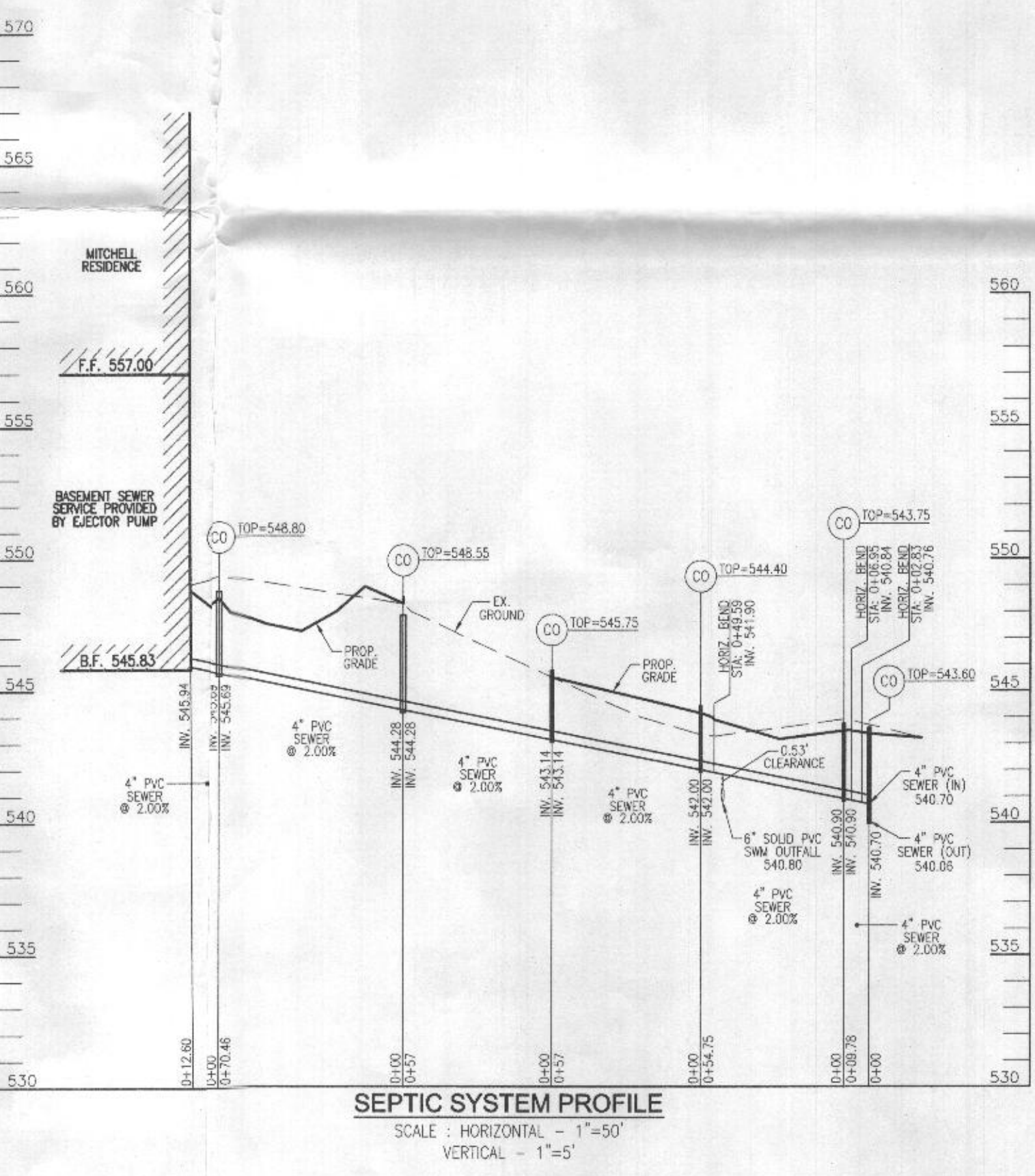
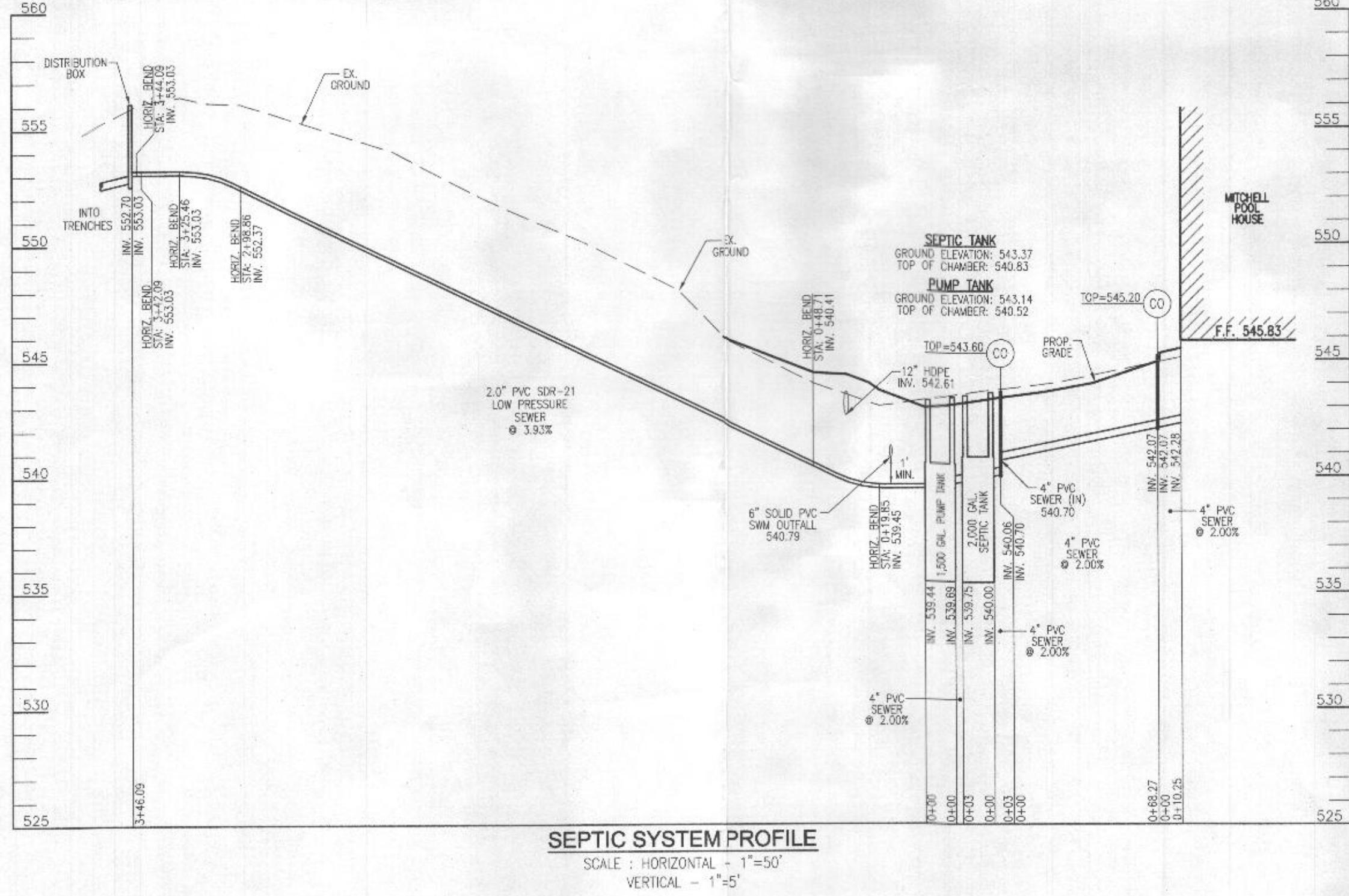


NO. BEDROOMS = 6
DESIGN FLOW = 8(150 GPD) = 900 GPD
DOSE 1/8 DESIGN FLOW = 150 GPD
150 GALLONS/7.48 FT³/GAL = 20.05 FT³
20.05 FT³/57.61 SF = 0.35'
ONE DAY RESERVE: 900 GALLONS/7.48 FT³/GAL = 120.0 FT³
120.0 FT³/57.61 = 2.08 FT

TDH (FRICTION + STATIC)
FRICTION FITTINGS: UNION: 1x2 = 2
45° ELBOW (H+V): 10x8 = 80
90° ELBOW: 1x7 = 7
FITTING EQ. LENGTH: 88.0 LF
PIPE LENGTH: 346.1 LF
TOTAL LENGTH: 434.1 LF

FRICTION LOSS (40 GPM): (2.63)(435.1)/100 = 11.44'
STATIC: 553.03-535.76 (PUMP OFF) = 16.27'
TDH: 16.27+11.44 = 27.71'

USE GOULDS WE05H



OWNER
KEVIN MITCHELL
LYNETTE MITCHELL
9110 DUNLOUGH RD.
ELLCOTT CITY, MD 21042
(443) 280-0332

DEVELOPER
BETHEL DESIGN CONSTRUCT, INC.
4815 PRINCE GEORGE'S AVE., SUITE 204
BELTSVILLE, MD 20705
(301) 937-7500

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

MITCHELL RESIDENCE
THE KNOLLS - LOT 4
3415 SHADY LANE
GLENWOOD, MD 21738
5.13 AC.

L 16930 / F 495
4TH ELECTION DISTRICT
TAX MAP: 21 GRID: 5

PARCEL: 95
ZONED: RR-DEO
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



DESIGN BY: RHV
DRAWN BY: JMR
CHECKED BY: RHV
DATE: JUNE 2021
SCALE: AS SHOWN
W.O. NO.: 17-17

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE 08-27-2022

2 SHEET OF 2