

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: 5-19-23 **ONSITE SEWAGE DISPOSAL SYSTEM** P SP4136

APPROVAL DATE: 7/18/23 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 1110 Henryton Rd. Marriottsville 21104

SUBDIVISION: n/a LOT: n/a TAX ID: 03298604

CONTRACTOR: Jeff Allens Backhoe Rentals EMAIL: _____

CONTRACTOR ADDRESS: 13100 Frederick Road, Woodbine, MD 21797 PHONE: 410-707-9028

PROPERTY OWNER: David Tyler Fields EMAIL: Tyler@dtfields.com

OWNER ADDRESS: 1100 Henryton Rd. Marriottsville MD, 21104 PHONE: 443-542-8670

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Mayer Bros

PUMP MODEL: Zoeller Model 152 PUMP SIZE: 0.4hp PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.6

| | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| TRENCHES: | LINEAR FEET REQUIRED: <u>170</u> | INLET DEPTH: <u>3</u> |
| | TRENCH WIDTH: <u>3</u> | MAXIMUM BOTTOM DEPTH: <u>8</u> |
| | MINIMUM SPACE BETWEEN TRENCHES: <u>11</u> | EFFECTIVE AREA BEGINNING DEPTH: <u>4</u> |
| LOCATION: | PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION. | |
| NOTES: | | |

ISSUED BY: Robert Freemon ISSUE DATE: 5/22/23 EXPIRATION DATE: 5/19/23

- 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
 ELECTRICAL PERMIT ISSUED E E22000402
- 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 Asbuilt

(Long White Sheet of paper)

ROAD NAME

TRENCH/DRAINFIELD DATA

| | | |
|-------------------------|-------|----------------------|
| WIDTH | INLET | BOTTOM |
| 3' | 3' | 8' |
| NUMBER OF TRENCHES | | 4 |
| TOTAL LENGTH | | 172' |
| ABSORPTION AREA | | 516 sqft + side wall |
| DISTRIBUTION BOX LEVEL | | yes |
| DISTRIBUTION BOX BAFFLE | | yes |
| DISTRIBUTION BOX PORT | | yes |

SEPTIC TANK DATA

| | |
|---------------------|--------------------|
| SEPTIC TANK 1 LEVEL | yes |
| MANUFACTURER | Babylon |
| CAPACITY | 2000 GAL |
| SEAM LOC | top |
| TANK LID DEPTH | 12"-18" |
| BAFFLES | front 6" / back 4" |
| BAFFLE FILTER | - |
| MANHOLE LOC | front / back |
| 6" PORT LOC | - |
| WATERTIGHT TEST | - |
| SLOTTED | yes |
| DATE ON LID | 4/10/23 |

| | |
|------------------------|--------------|
| PUMP/SEPTIC TANK LEVEL | yes |
| MANUFACTURER | Mayer Bros |
| CAPACITY | 2000 GAL |
| SEAM LOC | top |
| TANK LID DEPTH | 12"-18" |
| BAFFLES | - |
| BAFFLE FILTER | - |
| MANHOLE LOC | front / back |
| 6" PORT LOC | - |
| WATERTIGHT TEST | - |
| SLOTTED | - |
| DATE ON LID | 3/6/23 |

PRE-CONSTRUCTION:

5/30/2023 - Met contractor onsite. House connection stubbed out, Contractor started digging front line, did not lay pipe yet. Started digging FM, steeved under driveway. S&W stakes for tanks; 45' from garage. Septic + Pump tank staked. SPA staked trenches staked. 13' between trenches. All on contour, trenches @ 42.5' or 43'. Did not see any wells near Ex. building RR/SP

INSTALLATION: 6/2/23 - site inspection, contractor not onsite, SHC completed, sewer line to tanks installed, both tanks are in the ground, about 400' of force main has been installed, site & ditches are full of boulders & rocks, tree contractor on site to remove the tree in the SDA, sleeve installed on the FM under the driveway closest to the tank. FM stopped at the lower driveway crossing location, spoke to contractor on the phone, he plans on bedding all the lines w/ 5" stone, before backfilling, he also needs to secure the hole in the tank for the FM outlet, will use a clamp to prevent debris from getting into the pump tank, & to continue RR/SP 6/5/23 - contractor onsite working on the drainfield, 3 trenches only partially completed, stone ok & onsite, geotextile fabric onsite, dbox set, fm not fully completed but a large section was backfilled before inspection, requested that it be exposed for inspection.

OK to continue! RR/SP 6/7/23 - trenches complete (x4) - looks good, stone ok, geotextile fabric in place, dbox levelled w/ levels, observation ports installed, pic of buried work from 6/5/23 was provided - see file - permispect for Pump & Alarm. RR/SP

FINAL INSPECTOR R. Reppaport DATE OF APPROVAL 7/18/23

7/5/23 - Upon arrival the pump & alarm were not installed yet electric (qfi outlet) set near the septic tank, spoke to contractor about putting the alarm in a location that can be seen from the house, agreed to install it in the detached garage near the circuit breaker which does have dedicated circuits for both the septic pump & septic alarm. Reinspect RR/SP 7/14/23 - Alarm ok but no battery in the hole, & best pump to them, inspect RR/SP 7/18/23 - alarm & pump RR/SP

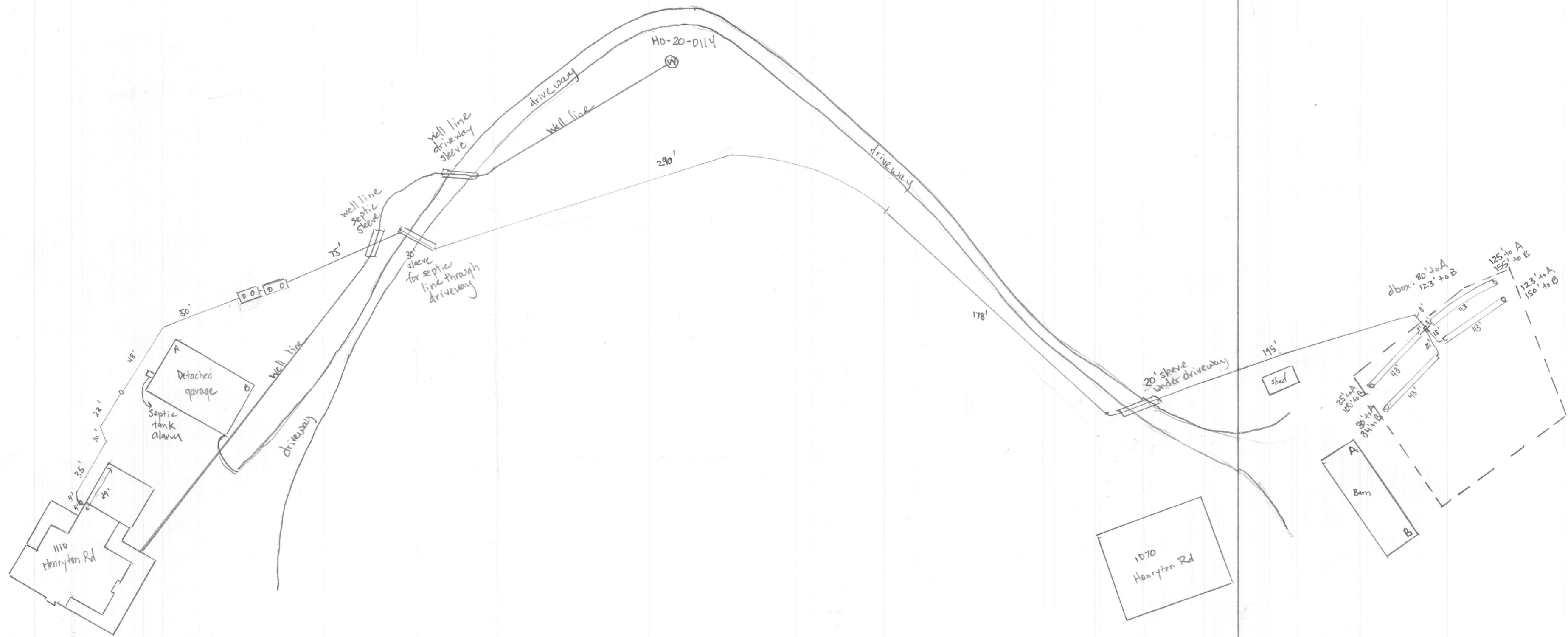


110 Henryton Rd. - work buried before
inspection (under driveway)

6/7/23



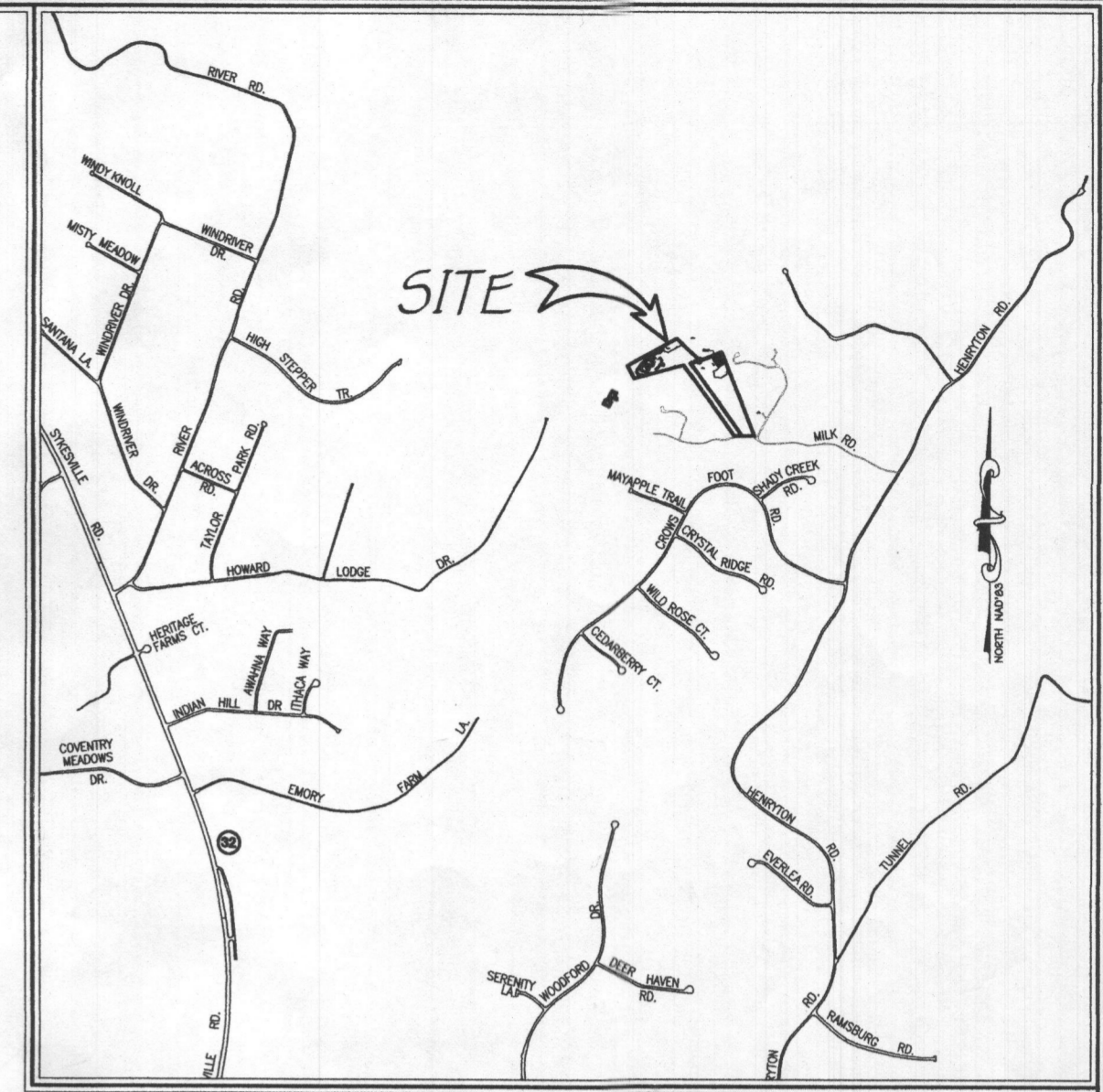
1" = 50'



Septic permit Asbuilt
Scale - 1" = 50'

1. 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.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL HO-20-0114 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. ALL 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.

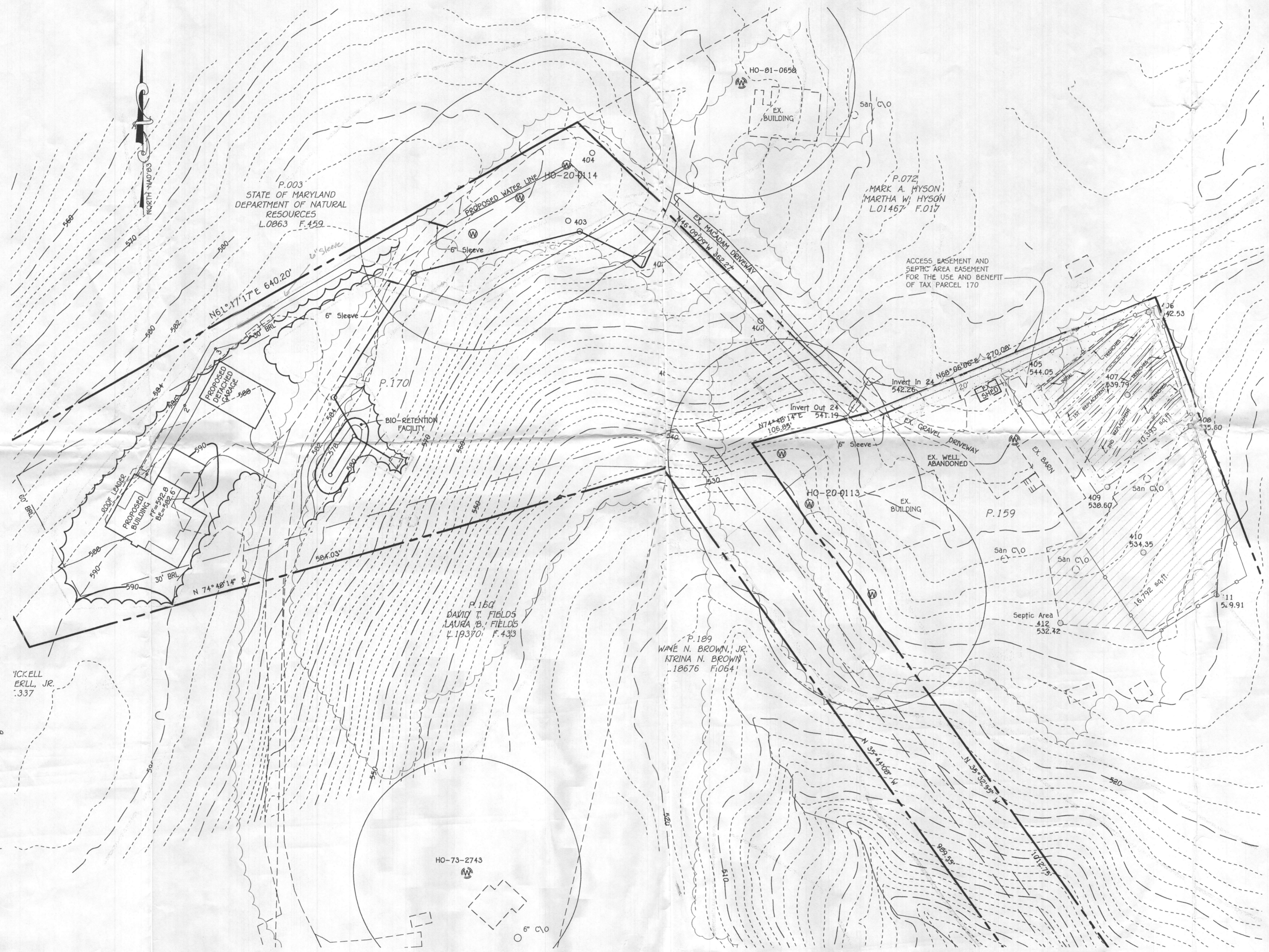
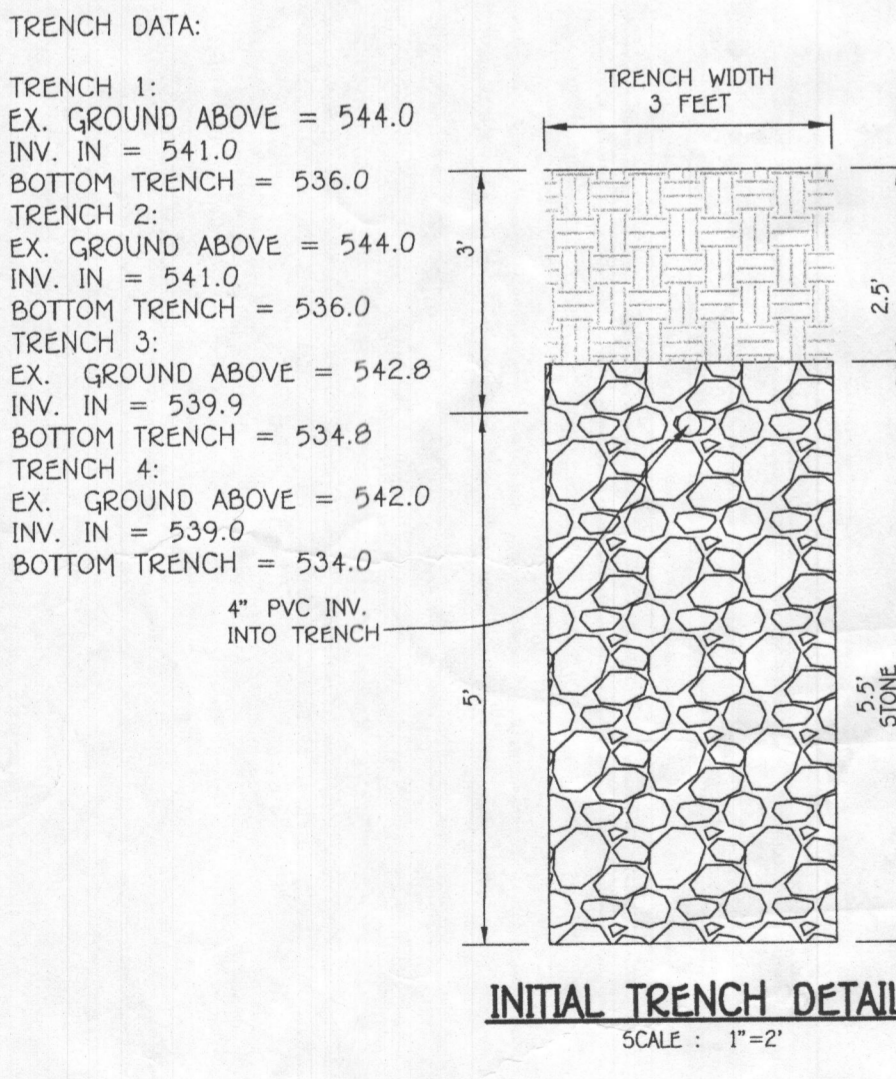
| SOILS LEGEND | | |
|--------------|------------------------------------------------------------------|-------|
| SOIL | NAME | CLASS |
| GgB | Glenelg loam, 3 to 8 percent slopes | B |
| GgC | Glenelg loam, 8 to 15 percent slopes | B |
| GmC | Glenville silt loam, 8 to 15 percent slopes | C |
| LeB | Legore silt loam, 3 to 8 percent slopes, stony | C |
| LeC | Legore silt loam, 8 to 15 percent slopes, stony | C |
| LrD | Legore-Relay gravelly loams, 15 to 25 percent slopes, very stony | B/C |
| MaD | Manor loam, 15 to 25 percent slopes | B |



INITIAL SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.6
 EFFECTIVE SIDEWALL BEGINS AT 4 FEET
 TRENCH DEPTH = 8 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 4)) = 0.41$
 TRENCH LENGTH = 416.67 SF x 0.41 = 170.83 FEET (USE 4 TRENCHES AT 42.71 LF.)
 TRENCH SPACING = $2D+W = ((2 \times 4) + 3) = 11'$ USE 11'

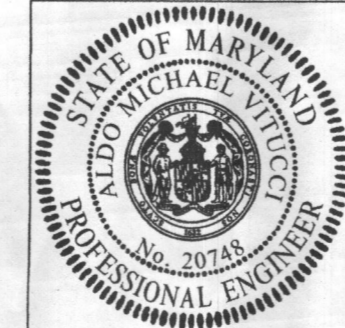
1ST REPLACEMENT SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.6
 EFFECTIVE SIDEWALL BEGINS AT 4 FEET
 TRENCH DEPTH = 8 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 4)) = 0.41$
 TRENCH LENGTH = 416.67 SF x 0.41 = 170.83 FEET (USE 4 TRENCHES AT 42.71 LF.)
 TRENCH SPACING = $2D+W = ((2 \times 4) + 3) = 11'$ USE 11'

2ND REPLACEMENT SYSTEM
 SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.6
 EFFECTIVE SIDEWALL BEGINS AT 4 FEET
 TRENCH DEPTH = 8 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 4 FEET
 SF OF DRAINFIELD = 750 GPD / 0.6 = 1250 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 4)) = 0.41$
 TRENCH LENGTH = 416.67 SF x 0.41 = 170.83 FEET (USE 4 TRENCHES AT 42.71 LF.)
 TRENCH SPACING = $2D+W = ((2 \times 4) + 3) = 11'$ USE 11'



- FFE 592.8
- BSE 582.6
- INV. OUT OF HOUSE = 587.01
- PROP. GROUND AT CLEANOUT #1 = 588
- INV. INTO CLEANOUT = 586.91
- INV. OUT OF CLEANOUT = 586.81
- PROP. GROUND AT CLEANOUT #2 = 586.9
- INV. INTO CLEANOUT = 585.41
- EX. GROUND AT CLEANOUT = 585.31
- PROP. GROUND AT CLEANOUT #3 = 585.5
- INV. INTO CLEANOUT = 584.2
- EX. GROUND AT SEPTIC TANK = 586.0
- PROP. GRADE ABOVE SEPTIC TANK = 586.0
- TOP OF SEPTIC TANK = 584.48
- INTO SEPTIC TANK = 583.48
- INV. OUT OF SEPTIC TANK = 583.23
- EX. GROUND AT PUMP TANK = 586.0
- PROP. GRADE ABOVE PUMP TANK = 586.0
- TOP OF PUMP TANK = 584.17
- INV. INTO PUMP TANK = 583.17
- EX. GROUND AT DISTRIBUTION BOX = 544
- INV. INTO DISTRIBUTION BOX = 541.1
- INV. OUT OF DISTRIBUTION BOX = 541.0

PLAN
 SCALE: 1" = 50'



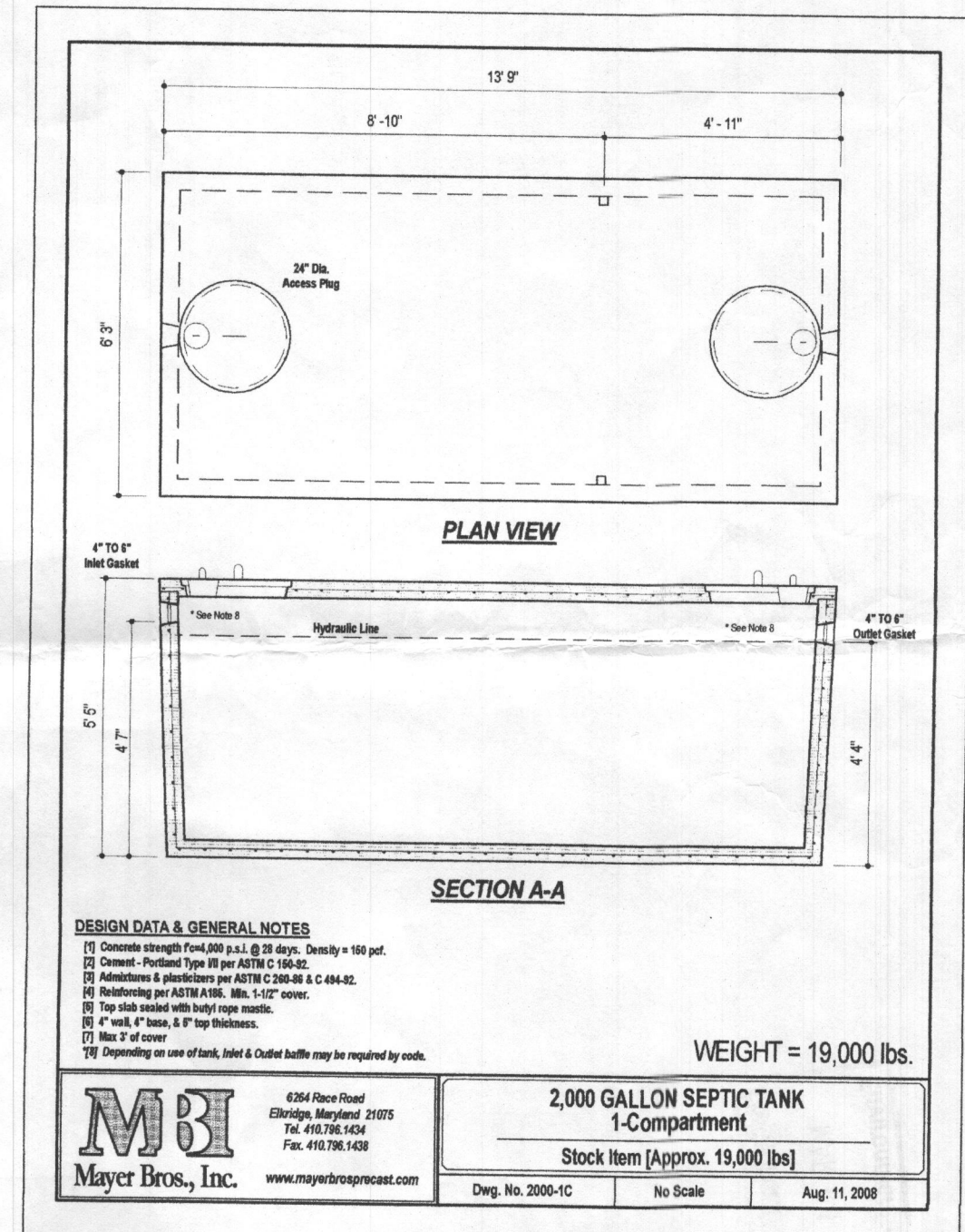
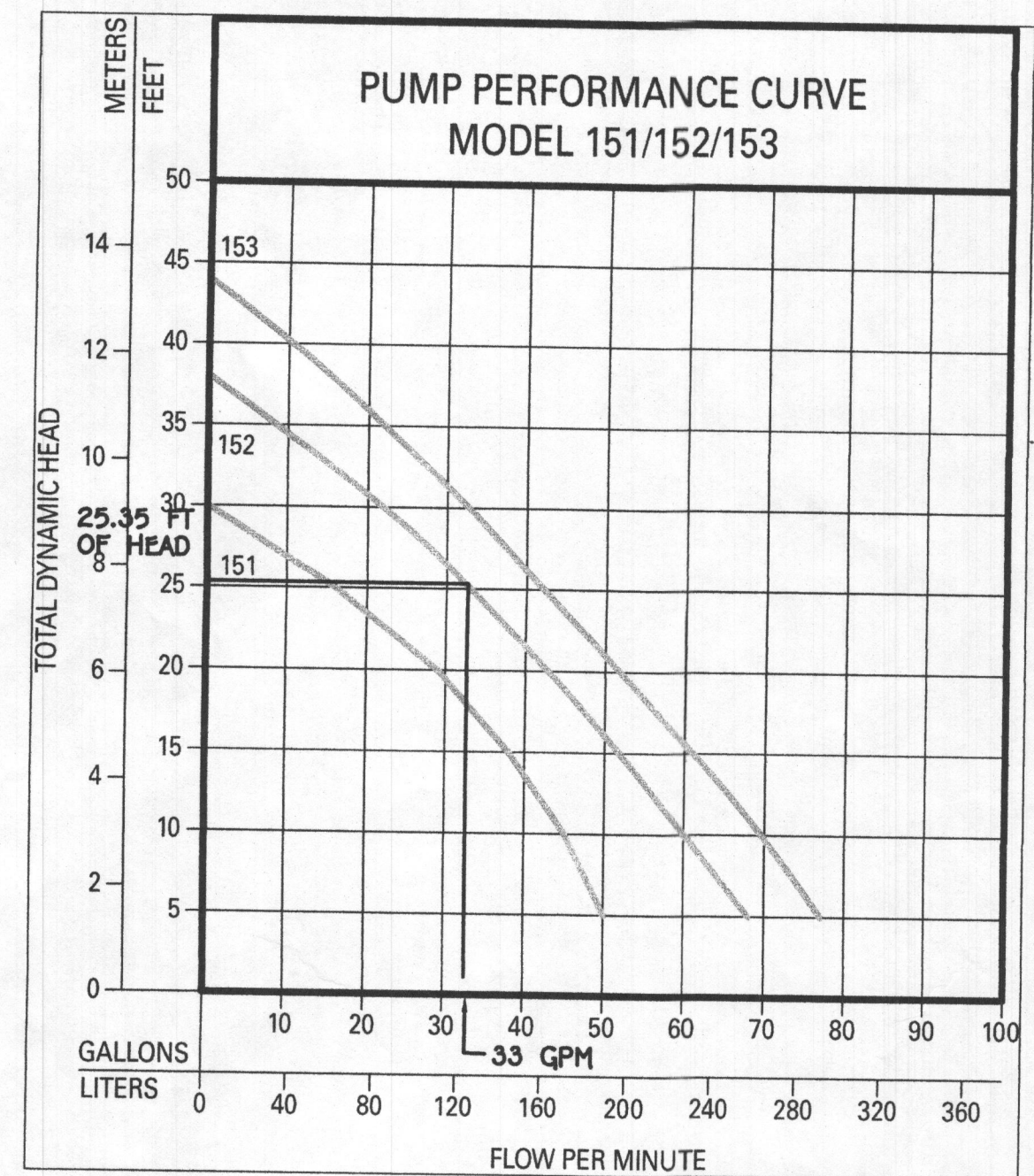
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2023.

David Tyler Fields
 Signature of Professional Engineer

2/28/22
 DATE

Approved Septic System Plan
 Howard County Health Department
David Tyler Fields
 Signature Date 3/18/2022

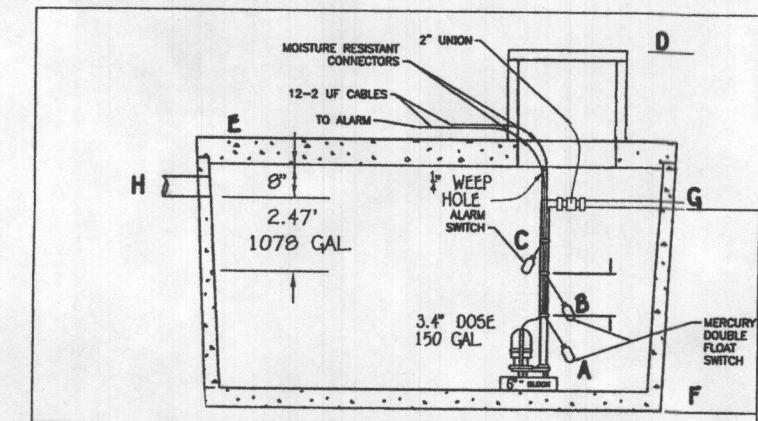
**SEPTIC SYSTEM
 INSTALLATION SITE PLAN**
DAVID TYLER FIELDS
 1110 Henryton Road
 PARCEL: 170
 TAX MAP #10
 3RD ELECTION DISTRICT
 SCALE: 1" = 50'
 HOWARD COUNTY, MARYLAND
 DATE: FEBRUARY 28, 2022



SEPTIC PROFILE
SCALE: 1"=50'

PUMP ALARMS / INFORMATION

- A PUMP OFF : 530.40
- B PUMP ON : 530.76
- C HIGH WATER ALARM : 531.26
- D TOP OF ACCESS COVER : 537.00
- E TOP OF TANK : 534.00
- F BOTTOM OF TANK : 528.25
- G DISCHARGE OUT OF TANK : 532.75
- H INVERT INTO TANK : 533.00



1078 + 150 = 1228 GALLONS EMERGENCY STORAGE.

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

NOTE: THIS DETAIL IS TO BE USED FOR FLOAT CONFIGURATION ONLY - SEE DETAIL ABOVE FOR TANK DIMENSIONS AND ACTUAL LOCATION OF ACCESS COVER.

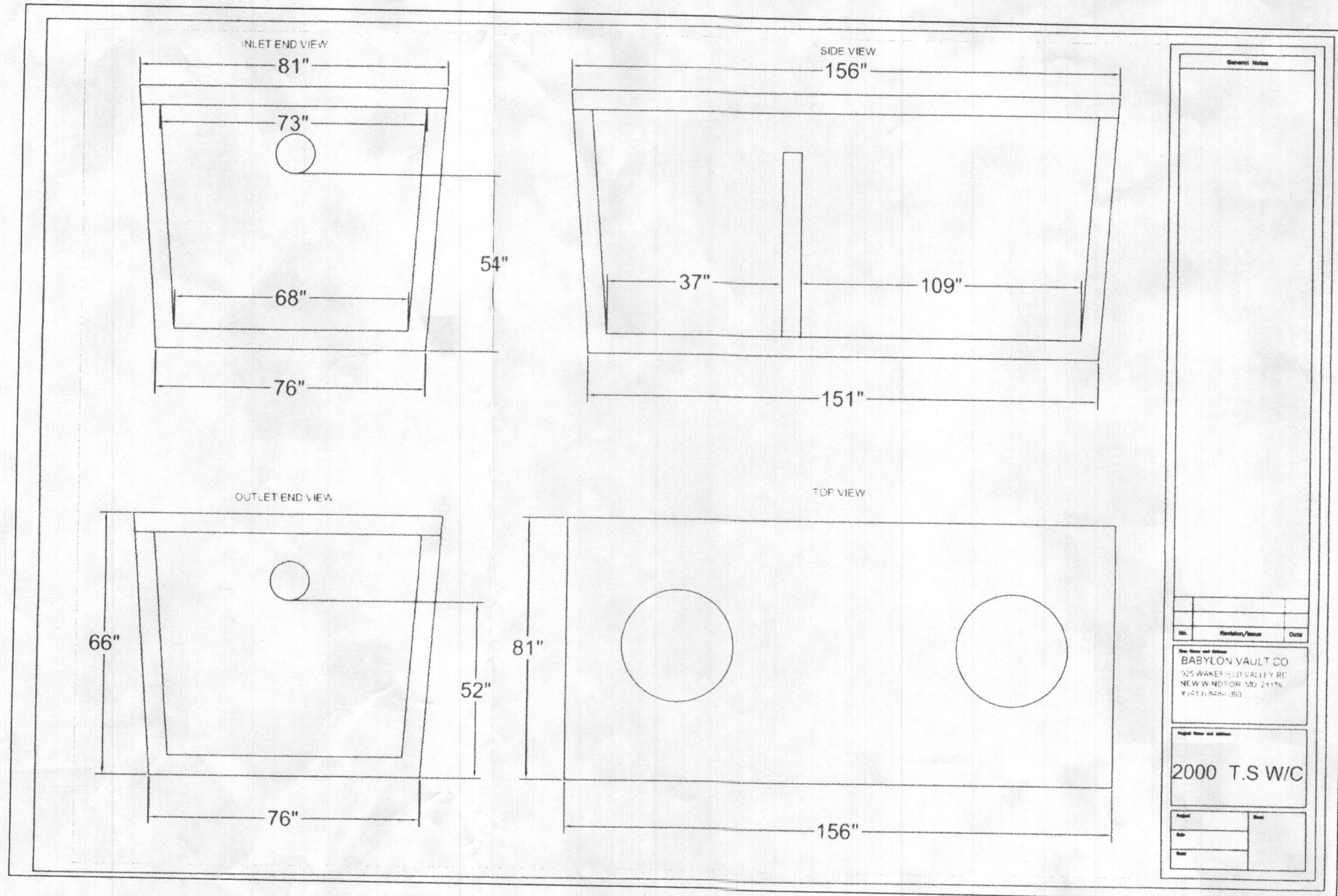
1 UNION @ 2" SCH. 40 PVC = 83.4 LF
6 1/8" HB @ 4 EQUIVALENT FEET = 2 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 85.4 LF

DYNAMIC HEAD
86.4 LF X 2.05 FT PER 100 LF OF 2" PIPE = 17.71 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 2.33 FT OF FRICTION HEAD
POINT IN SYSTEM TO HIGHEST ELEV. OF SYSTEM = 5.31 FT (PUMP OUT IS THE HIGHEST POINT)

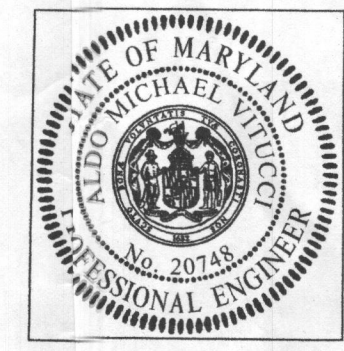
TOTAL DYNAMIC HEAD = 25.35 FT

1/6 DESIGN FLOW (750/6=150)
USE 150 GALLON DOSE (150 GALLON MINIMUM)
(RUN TIME = 4.6 MIN (33 GPM X 4.6 = 150 GALLON DOSE))

PUMP NEEDS TO HANDLE 33 GPM AT 25.35 FT OF HEAD
USE 0.4 HP (ZOLLER MODEL 152 PUMP)



| |
|--------------|
| 2000 T.S/W/C |
| DATE |
| BY |
| CHECKED |
| APPROVED |



PROFESSIONAL CERTIFICATION

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. 20748, EXPIRATION DATE: 02/22/2023.

Michael J. Vitvov
Signature Of Professional Engineer

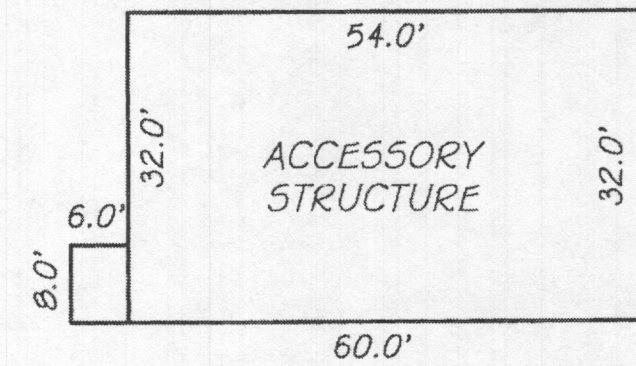
3/18/22
DATE

Approved Septic System Plan
Howard County Health Department
David Tyler Fields
Signature 3/18/2022
Date

SEPTIC SYSTEM
INSTALLATION SITE PLAN
DAVID TYLER FIELDS
1110 Henryton Road
TAX MAP #10 PARCEL: 170
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=50' DATE: FEBRUARY 28, 2022

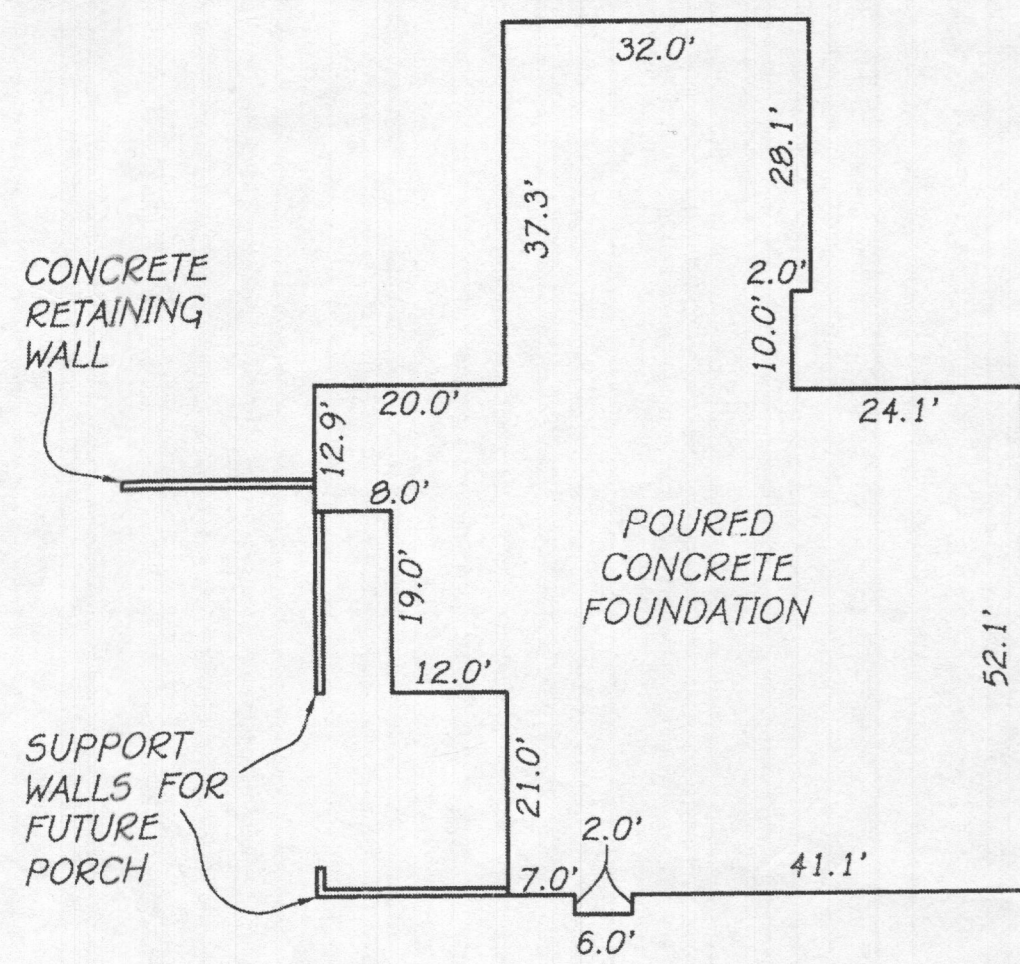
GENERAL NOTES:

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 2402200600 EFFECTIVE 11/05/2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 0.3'.
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-20-0114 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE 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, LICENSE NO. 21476, EXPIRATION DATE 7/14/2023.
- 7) BUILDING PERMIT NUMBER B-22001516.
- 8) B.R.L. = BUILDING RESTRICTION LINE.



Wall check
OK SP 5/30/2023

DETAIL:
1" = 20'



LOT ADDRESS: #1110 HENRYTON ROAD
TOP OF FOUNDATION ELEVATION = 593.6'

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 11/30/2022
FINAL LOCATION:
BOUNDARY SURVEY:
SCALE: 1" = 50' 1" = 100'
DATE: 12/13/2022
DRAWN BY: WAS
CHECKED BY: DM II
PROJECT No. 20164-6002

PROFESSIONAL LAND SURVEYOR DATE
REG. #21476

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461 - 2925



#1110 HENRYTON ROAD FOUNDATION LOCATION

TAX MAP No. 10 GRID No. 01 PARCEL No. 170
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND