

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) FILL IN THIS FORM COMPLETELY PLEASE TYPE COUNTY NUMBER PERMIT NO. FROM "PERMIT TO DRILL WELL" **OK 8/7/15SC HO-95-2602**

ST/CO USE ONLY DATE Received MM DD YY 02 27 14 DATE WELL COMPLETED MM DD YY 11 20 14 Depth of Well 22 350 x 26 3 (TO NEAREST FOOT) OWNER **CRUGAN, ED AND ANN** last name first name WELL SITE ADDRESS **2883 EVELQUIN CT** TOWN **WEST FRIENDSHIP** SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
topsoil	0	2	
brown rocky mica	2	47	
Limestone	47	201	
Gray Mica	201	350	

GROUTING RECORD yes no **Y N**
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL (Circle one) CEMENT **CM** BENTONITE CLAY **BC**
NO. OF BAGS ^{45 46} 26 NO. OF POUNDS ^{45 46} 1300
GALLONS OF WATER ^{45 46} 598
DEPTH OF GROUT SEAL (to nearest foot) from ⁴⁸ 0 ft. to ⁵⁸ 350 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL **CO** CONCRETE
PL PLASTIC **OT** OTHER

MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)
50 **6** **80**
60 61 63 64 66 70

OTHER CASING (if used)
diameter inch depth (feet) from to
5+ **10** **+** **20**

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL **BR** BRASS **HO** OPEN HOLE
PL PLASTIC **OT** OTHER

C 2 DEPTH (nearest ft.)
1 2
E 1 8 9 11 15 17 21
A 2 23 24 26 30 32 36
H 3 38 39 41 45 47 51
S
R
E
N
SLOT SIZE 1 2 3
DIAMETER OF SCREEN (NEAREST INCH) 56 60
from to

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 **PUMPING TEST**
HOURS PUMPED (nearest hour) 8 9
PUMPING RATE (gal. per min.) 11 15
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (distance from land surface) BEFORE PUMPING 17 20 ft. WHEN PUMPING 22 25 ft.
TYPE OF PUMP USED (for test) **A** air **P** piston **T** turbine **C** centrifugal **R** rotary **O** other (describe below) **J** jet **S** submersible

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
PUMP HORSE POWER 37 41
PUMP COLUMN LENGTH (nearest ft.) 43 47
CASING HEIGHT (circle appropriate box and enter casing height) **+** above LAND SURFACE **-** below 2 (nearest) foot

LATITUDE 39.292475
LONGITUDE 76.932554
(DEFAULT COORD. WGS 84)
NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0
WELL HYDROFRACTURED yes no **Y N**

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. **MWD 040**
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. **WFD 040**

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

B 1 15072

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO - 95 - 2602

545159 12502

please type

fill in this form completely

Date Received (APA)

100213

OWNER INFORMATION

GROGAN

ED AND ANNE

15 Last Name Owner First Name 34

2883 EVERGREEN COURT

36 Street or RFD 55

COLUMBIA MD 21044

57 Town 70 State 72 Zip 76

B 3

LOCATION OF WELL

Howard

8 COUNTY 21

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

West Friendship

52 NEAREST TOWN 71

DRILLER INFORMATION

George F. Easterday MW 640

L. Franklin Easterday, Inc.

9285 Brown Church Rd., Mt. Airy, Md. 21771

Address

Signature: George F. Easterday Date: 10/1/13

B 4

SOURCES OF DRILLING WATER

- 1. wells
2.
3.

2883 Evergreen Court

11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



50 34 635 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39

TAX MAP: 16 BLK: 19 PARCEL 317

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 8 500 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
I INDUSTRIAL, COMMERCIAL, DEWATERING
P PUBLIC WATER SUPPLY-WELL
T TEST, OBSERVATION, MONITORING
O OPEN LOOP GEOTHERMAL
C CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A34787 COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 11/4/13 CO SIGNATURE EXP. DATE 11/4/14

APPROXIMATE DEPTH OF WELL 350 x 3 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
D THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

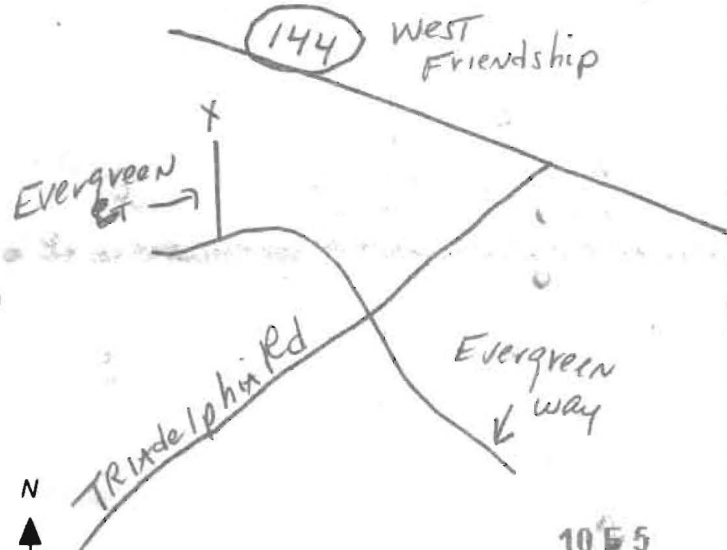
APPROX. PERMIT NUMBER G

PERMIT No. HO-95-2602

SPECIAL CONDITIONS

Grant bore hole bottom to top.

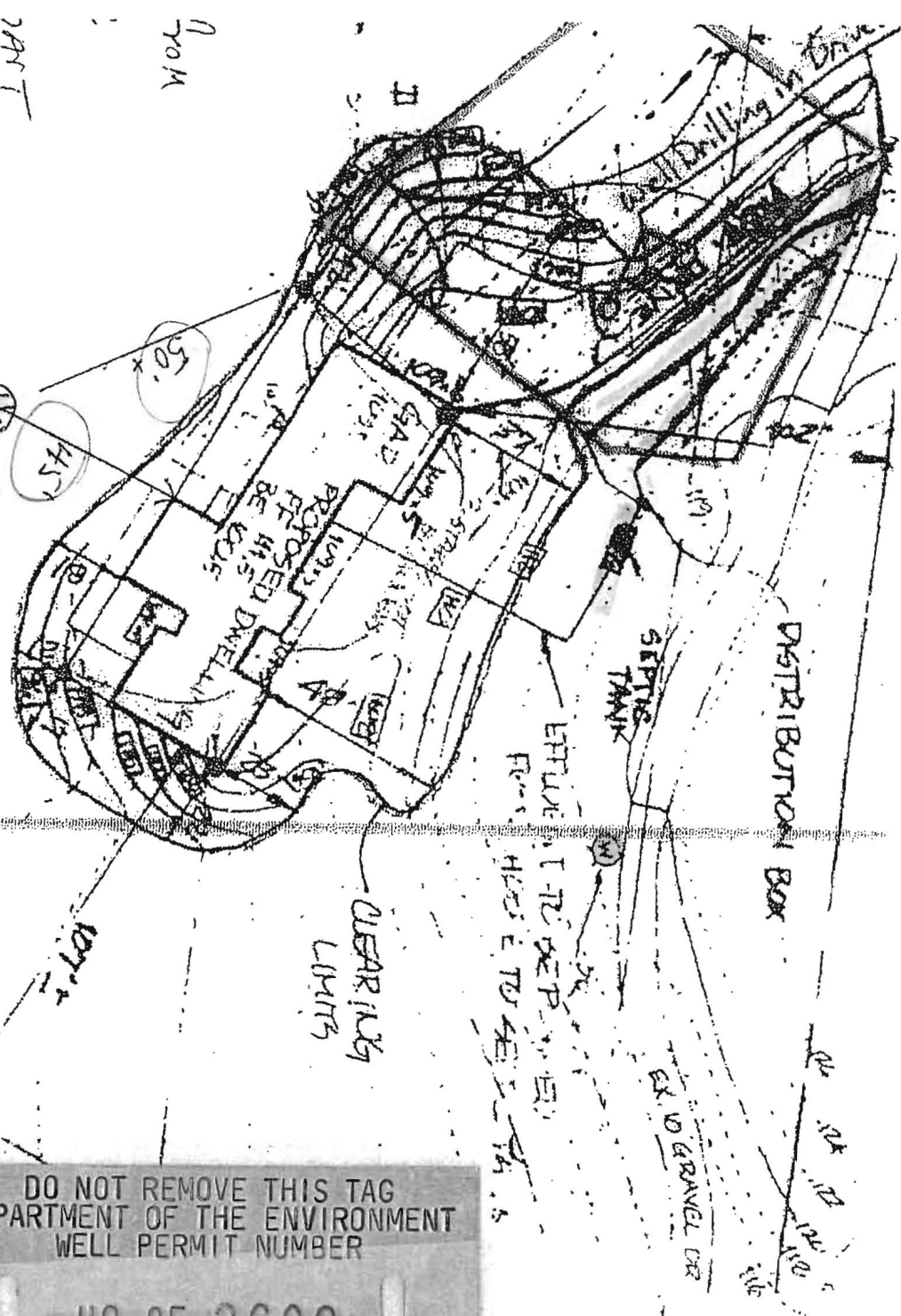
PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



Grogan
 11/4/13
 Proposed gas lines
 OK. Staked by
 Driller.
 (Kenny)

an driveway

7014
 PART



1"=50'
 5/8/09
 455

GROGAN RESIDENCE

DO NOT REMOVE THIS TAG
 DEPARTMENT OF THE ENVIRONMENT
 WELL PERMIT NUMBER
 HO-95-2602
 INFORMATION-GIVE NUMBER AND WRITE
 1800 WASHINGTON BLVD.
 BALTIMORE, MARYLAND 21230

Cont. Log: 2/17/14
 on site w/ Driller.

ORDER
 SYSTEM
 TRENCH

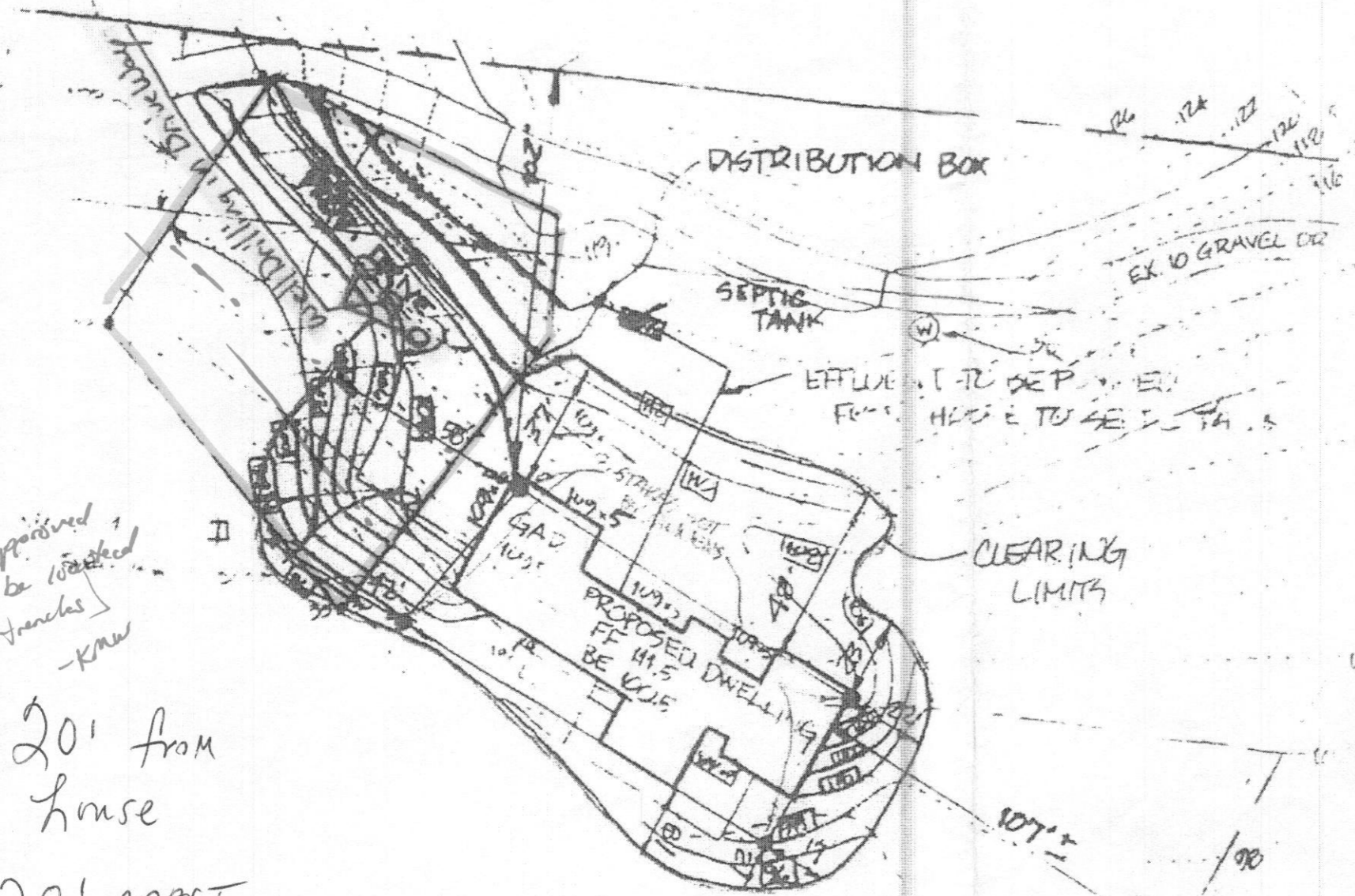
1"=50'

Plan Not Approved.
 Proposed Geobones are located inside approved SRA. (Bones look to be located on top of existing trenches)
 -KMR

20' from house

20' APART

3 wells in driveway



116
 112
 111
 108
 106
 104

NOTE: OWNER MUST VERIFY SYSTEMS ARE ALLOWED TRENCHES ARE CON

1"=50'

1"=50'
 5/9/09
 475
 GROGAN RESIDENCE

Wolf, Kevin

From: Wolf, Kevin
Sent: Thursday, October 10, 2013 4:22 PM
To: 'Sara Easterday'
Subject: 2883 Evergreen Way geothermal
Attachments: 2883_evergreem_ct_geo.pdf

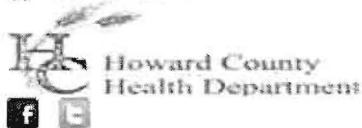
Sara,
The above referenced permit has been placed on hold. Your site plan is incomplete. The bore locations shown are located within the properties' approved Septic Reserve Area (SRA). We must stay 50' up gradient or 100' if down gradient from the existing SRA. Please see the attached well/septic file for this property. Remember that you can always file a PIA request from our office on any property to find information on the well and septic. This can also speed up the approval process.

You also need to submit a site plan showing the cross-sectional diagram of the intended geobores along with the intended grout mix (i.e., ratio, grout manufacturer, u-bend diameter, borehole diameter, etc...).

Please review the above and resubmit. Any questions please feel free to contact me.

Thanks,

Kevin M. Wolf, R.S., R.E.H.S.
Bureau of Environmental Health
Well & Septic Program
Groundwater Mgmt. Sec.
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.

5 NOV 1990 AM
(11/2/90) 12 noon
11-13-90 7-19-90
A.M. P.M. A.S.A.P.

03-289168 (Need to see pumps work before approved file) 11/5/90 P.C.O. - Tanks out
C.B. ✓ P.C.O. Not ready. C.B. ✓
11/7/90 P 46488
P.M. 11/13/90 P.C.O. C.B. ✓
A 34787

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

DISTRICT 3rd

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH

481-9933

INDEX - TIME EXPIRED

DATE 10/15/90

FOR F.C.O.P COMPLIANCE

DATE SYSTEM APPROVED 7/19/91

INDEXED

7/14/93
C. Williams / C.B.

INSPECTOR C.B.

C. S. Zabel, Inc. IS PERMITTED TO INSTALL ALTER

ADDRESS _____ PHONE 875-2964

SUBDIVISION Greenhange LOT Parcel 2&3 ROAD 2883 Evergreen Court

PROPERTY OWNER Edward T. Grogan

ADDRESS _____

SEPTIC TANK CAPACITY 1250 GALLONS

*** 1000 Gal. Capacity pump tank and dual effluent pumps with alarms required. Contractor to supply pump specification prior to issuance of septic permit.

NUMBER OF BEDROOMS 4

180 SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED 240

TRENCHES - Trench to be 3 feet wide. Inlet 2.5 feet below original grade. Effective area begins at 2.5 feet below original grade. 1.5 feet of stone below distribution pipe. Bottom maximum 16"

11/2/90 - 1 Trench in progress near house. No pipe not ready.

LOCATION - Place the first trench 1080 feet up the left lot line and 60 feet off the same lot line as seen when facing the lot from Evergreen Way. Run trenches on contour toward the left front corner.

NOTE - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank. 10-19-90 JEN

PLANS APPROVED BY C. Williams DATE 10/25/89

COVER NO WORK UNTIL INSPECTED AND APPROVED

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

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° ELBOWS NOT ACCEPTABLE.

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(ES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(ES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET, MANHOLE TO GRADE REQUIRED.

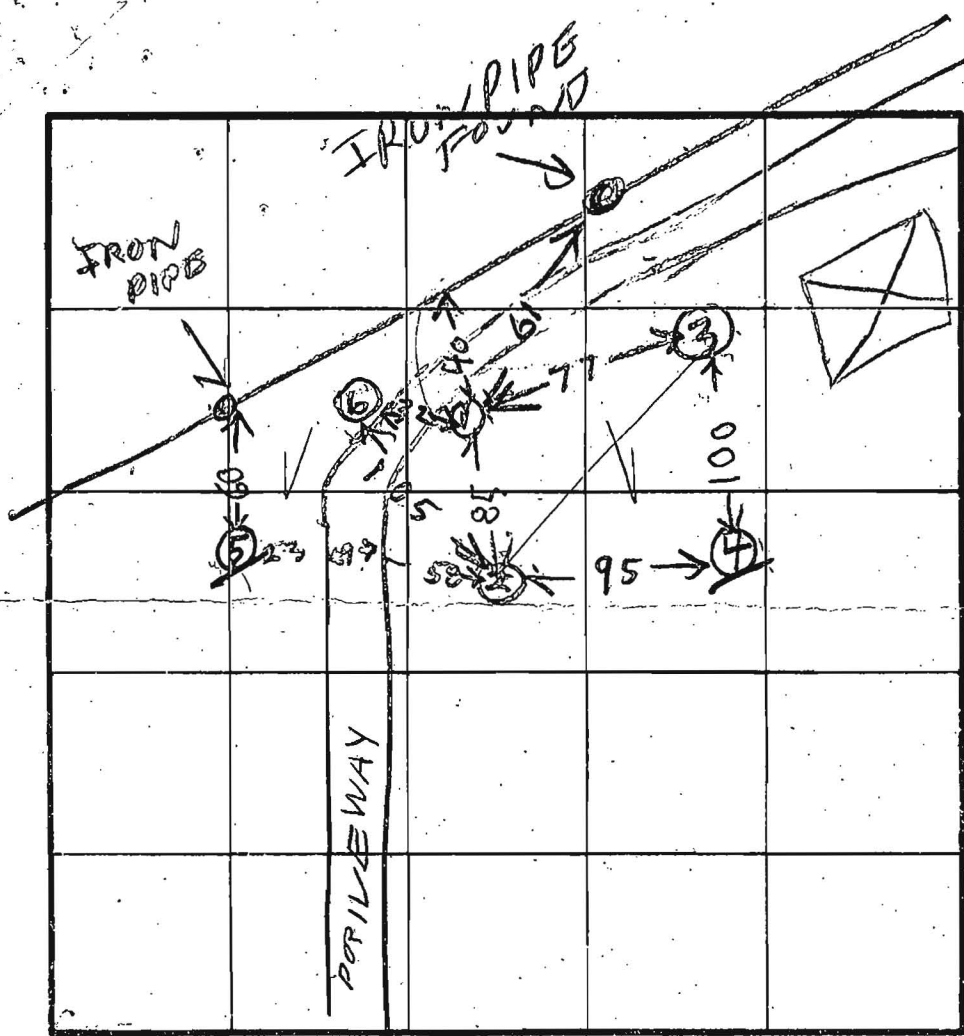
NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

*INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT

34787

③
SOIL PROFILE

TOPSOIL
BROWN SAND LOAM



⑤
CLAY SAND LOAM
WATER

⑤ = LOWEST
④ = NEXT LOWEST
② = LOW
③ = HIGHEST
① = NEXT HIGHEST

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

13
① ② ③
TOPSOIL
BROWN SAND LOAM

12
④
CLAY
BROWN SAND LOAM
WATER

⑥
TOPSOIL
BROWN SAND LOAM

DATE	TEST NO	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
4/2/85	1 S	3	147	150	150	153	0
	1 V	12	LOOKS OK				
	2 S	3 1/2	151	152	152	153	1
	2 V	12	LOOKS OK				
	3 S	2 1/2	201	204	204	207	3
	3 V	13	LOOKS OK				
	4 S	3	210	211	211	214	0
	4 V	10	WATER		9 1/2 FT.		
	5 V	9	WATER		UNSATISFACTORY		
	6 V	11 1/2	LOOK OK		OK		
					7 1/4		
					7 1/4		

2
X = 5 min
Inlet = 3.0 ft.
Bottom = 5.0
3 ft wide

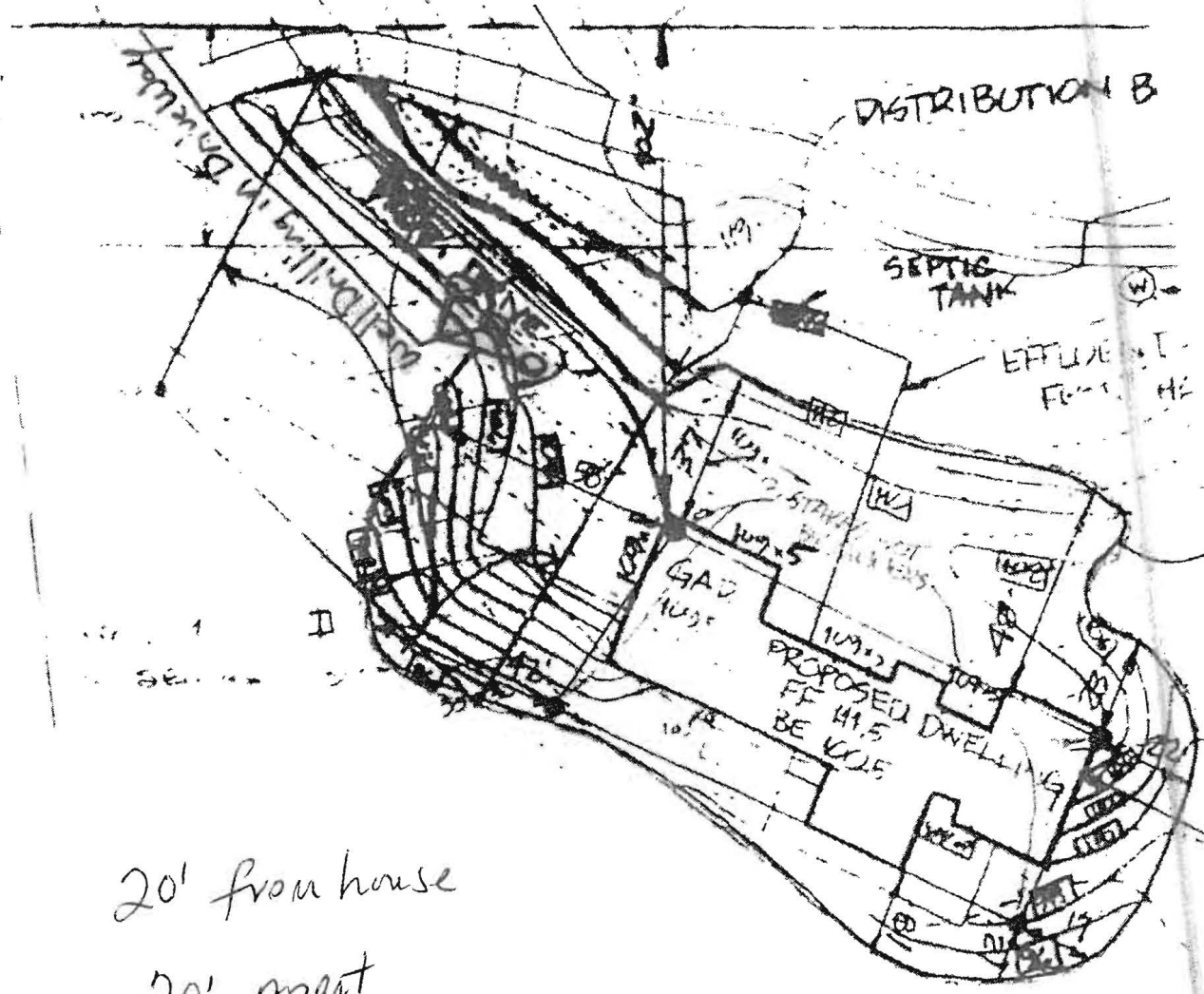
REMARKS

TYPE OF SOIL

B HODGES

ALSO PRESENT
SK. MR & MRS GROGAN
OF P. V. O. R. CO.

EH 12-1079



20' from house

20' Apart

3 wells in driveway

1"=50'
5/8/04
4

Wolf, Kevin

From: Sara Easterday [saraeasterday@verizon.net]
Sent: Wednesday, October 23, 2013 9:49 AM
To: Wolf, Kevin
Cc: Sandi; Jason Moxley; Kelly Wilson
Subject: Fw: 2883 Evergreen way

Hi Kevin,

I know that sounds all well and good but as you know being on site and seeing the situation with the challenges of setting up a drill rig and looking at a piece of paper are entirely different. It would be best if we could meet on site and try to help figure out where we can put these. Let's try to help this home owner out if we can. Please let me know what works for you.

Have a great day,

Sara

*Sara V Easterday
Administrative Assistant
L. Franklin Easterday, Inc.
Easterday Well & Pump
9265 Brown Church Road
Mt. Airy, Md. 21771
301-829-1640
301-829-2667-fax*

Saraeasterday@verizon.net

----- Forwarded Message -----

From: "Wolf, Kevin" <KWolf@howardcountymd.gov>
To: Sara Easterday <saraeasterday@verizon.net>
Sent: Wednesday, October 23, 2013 8:07 AM
Subject: RE: 2883 Evergreen way

Completely booked today. There is no need to meet onsite. As long as you place the geo bores as noted with the current regulations setbacks, resubmit a site plan showing the new bore locations for approval.

Thanks,

Kevin M. Wolf, R.S., R.E.H.S.
Bureau of Environmental Health
Well & Septic Program
Groundwater Mgmt. Sec.
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.

From: Sara Easterday [<mailto:saraeasterday@verizon.net>]
Sent: Tuesday, October 22, 2013 11:18 AM
To: Wolf, Kevin
Subject: 2883 Evergreen way

Hi Kevin,

We would like arrange a time to meet on site at 2883 Evergreen Way.

George is available tomorrow afternoon between 1:00 and 2:00 or most anytime on Monday the 28th. Please let me know your availability.

Thanks,

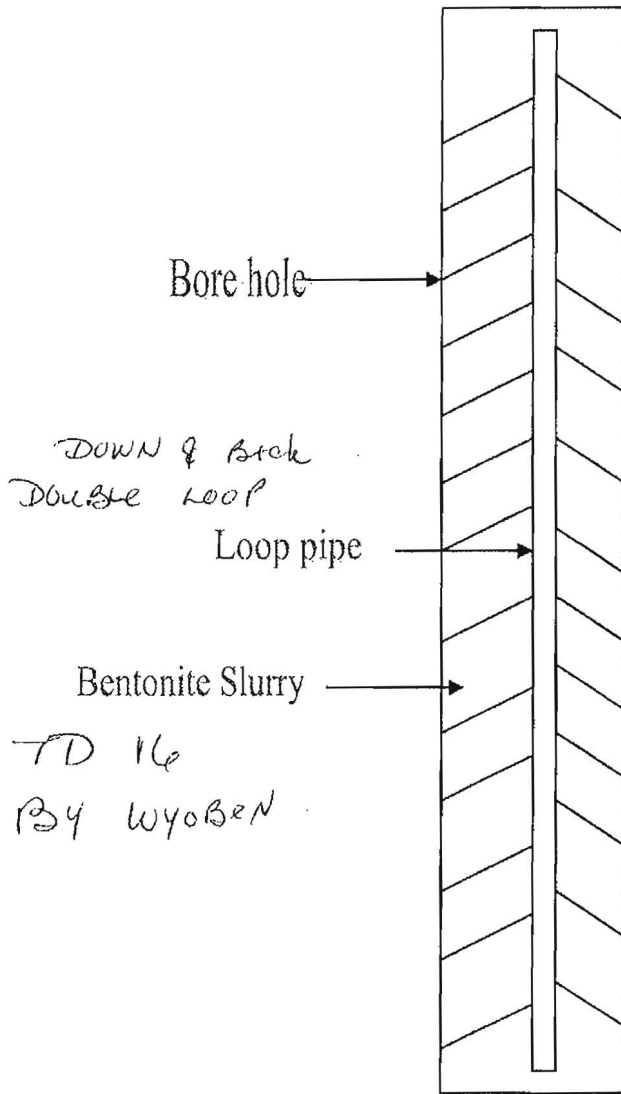
Sara

*Sara V Easterday
Administrative Assistant
L. Franklin Easterday, Inc.
Easterday Well & Pump
9265 Brown Church Road
Mt. Airy, Md. 21771
301-829-1640
301-829-2667-fax*

Saraeasterday@verizon.net

GEOHERMAL WELL DESIGN

L. FRANKLIN EASTERDAY, INC



Owner Ed & Anne Grogan

Location 2883 Evergreen Court

Number of wells 3

Depth 350 Loop Size 1 1/4

Grout Material-----Bentonite Slurry from bottom to G.L.



HOWARD COUNTY HEALTH DEPARTMENT

45159

CODES

DATE
10/21/13

WS

CASH

CHECK

Received From L. Franklin Easterday

For Well Permit - 2883 Ewig

NO. 24358

One hundred sixty four Dollars

\$ 160 | 00

Received By J King