

**STATE OF MARYLAND
WELL COMPLETION REPORT**

FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

DATE RECEIVED
MM DD YY
8 13

DATE WELL COMPLETED
MM DD YY
09 04 15

Depth of Well
22 320' 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
9/11/15
OK (KRW)
HO-15-0127
28 29 30 31 32 33 34 35 36 37

OWNER Frank Christopher
WELL SITE ADDRESS 3222 Evergreen Way TOWN St. Louis City
SUBDIVISION _____ SECTION _____ LOT 21

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	
Must shaft Reddish Brown m-f Sandy Micaceous silt	0	25	
Weathered Rock	25'	60'	
Rock	60'	320'	
2x Geotextile			

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box)
yes Y N no
44 44
TYPE OF GROUTING MATERIAL (Circle one)
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 14 NO. OF POUNDS 220
GALLONS OF WATER 336
DEPTH OF GROUT SEAL (to nearest foot)
from 0' TOP 48 ft. to 320' BOTTOM 58 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)
60 61 63 64 66 70

OTHER CASING (if used)

E A C H C A S I N G	diameter (inch)		depth (feet)	
	inch	from	to	

SCREEN RECORD

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

DEPTH (nearest ft.)

E A C H S C R E E N	1		2		3	
	8	9	11	15	17	21

NUMBER OF UNSUCCESSFUL WELLS: _____
WELL HYDROFRACTURED 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. 1 M WD 5800
DRILLERS SIGNATURE _____
(MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. 1 D

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

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 or NO) 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 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 (nearest foot)
 - below }

LATITUDE 39.282366
LONGITUDE 76.918816
(DEFAULT COORD. WGS 84)
NOTES:

B 1 35132
1 2 3 6

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO - 15 - 0127

70 fill in this form completely 79

please type

Date Received (APA)

08/15/15

OWNER INFORMATION

8 MM DD YY 13
15 Last Name: Frank Owner: Christopher First Name: Christopher 34
36 Street or RFD: 3222 Evergreen Way 55
57 Town: Ellicott City MD State: MD Zip: 21042 76

B 3 LOCATION OF WELL

8 COUNTY: Howard 21
23 SUBDIVISION: _____ 42
SECTION: _____ LOT: 21
44 46 48 50
52 NEAREST TOWN: Ellicott City 71

DRILLER INFORMATION

Driller's Name: Edward Gross License No.: MLW D 580 76 81
Firm Name: Long Green Drilling 410-409-2200
Address: 12238 Long Green Pike Suite A Glen Burnie MD 21057
Signature: [Signature] Date: 8/13/15

B 4 SOURCES OF DRILLING WATER

1. Public
2.
3.

3222 Evergreen Way
11 STREET ADDRESS 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH [] WEST [] EAST [] SOUTH [X]
34 52 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39
TAX MAP: 23 BLK: 2 PARCEL 92

B 2 WELL INFORMATION

1 2 APPROX. PUMPING RATE (GAL. PER MIN) _____ 8 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)
- 22 I INDUSTRIAL, COMMERCIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- O OPEN LOOP GEOTHERMAL
- C CLOSED LOOP GEOTHERMAL 20 Geothermal

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME (13) COUNTY NO. _____
STATE SIGNATURE _____ INSERT S → 41
DATE ISSUED: 8/26/15 CO SIGNATURE: [Signature] EXP. DATE: 8/26/16
43 MM DD YY 48

APPROXIMATE DEPTH OF WELL 320' 24 28 FEET

APPROXIMATE DIAMETER OF WELL 6" NEAREST INCH

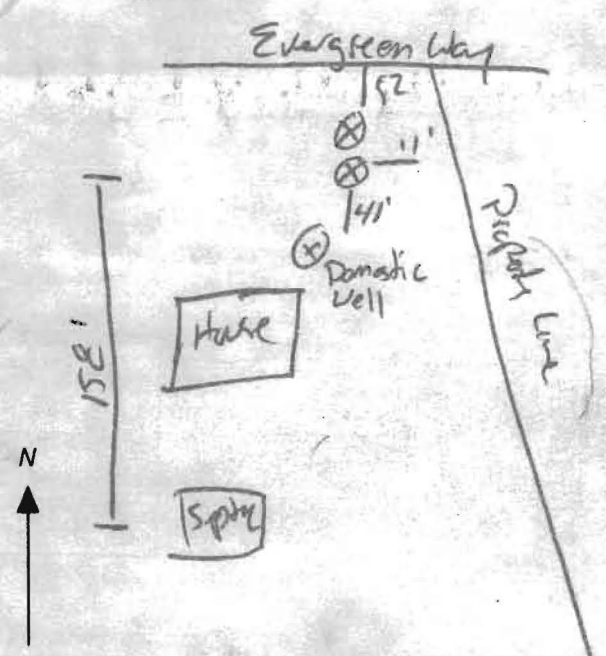
METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
37 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
 - 39 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

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



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

APPROP. PERMIT NUMBER _____ G _____
PERMIT No. HO - 15 - 0127
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- Notify Health Department of drilling + grouting

SECTION C

EVERGREEN VALLEY
ESTATES
PROFESSIONAL DISTRICT
HOWARD COUNTY, MD

EVERGREEN WAY
S 0° 31' W

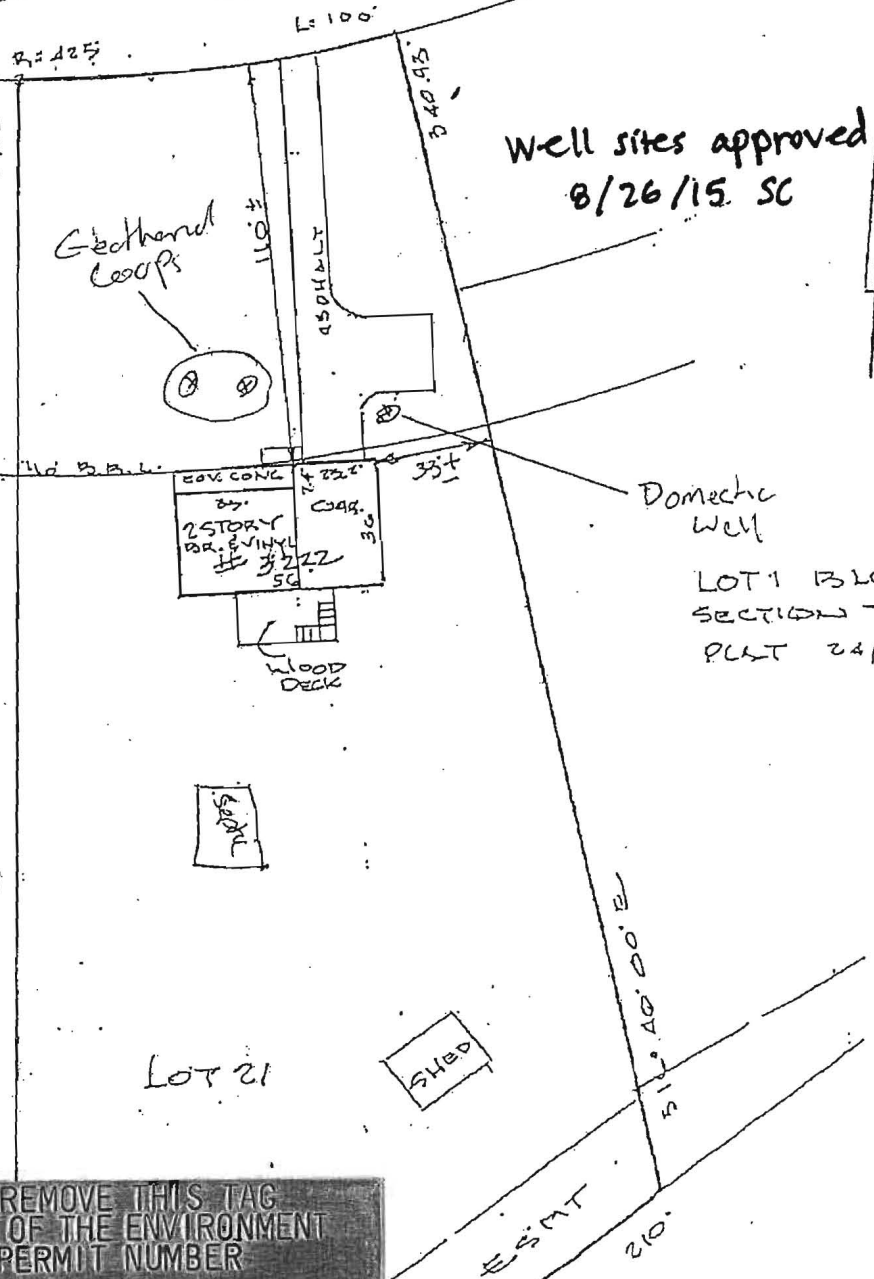
PLAT BOOK 18 F. CT

* Leaps are:

- 40' OFF Domestic well
- 110' OFF Septic
- 85' OFF Road.

50 scale

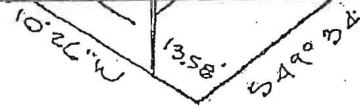
3222 Evergreen Way
Ellicott City, MD.

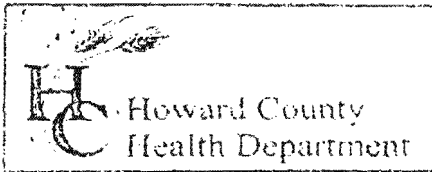


DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-15-0127

INFORMATION-GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND, 21230





3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

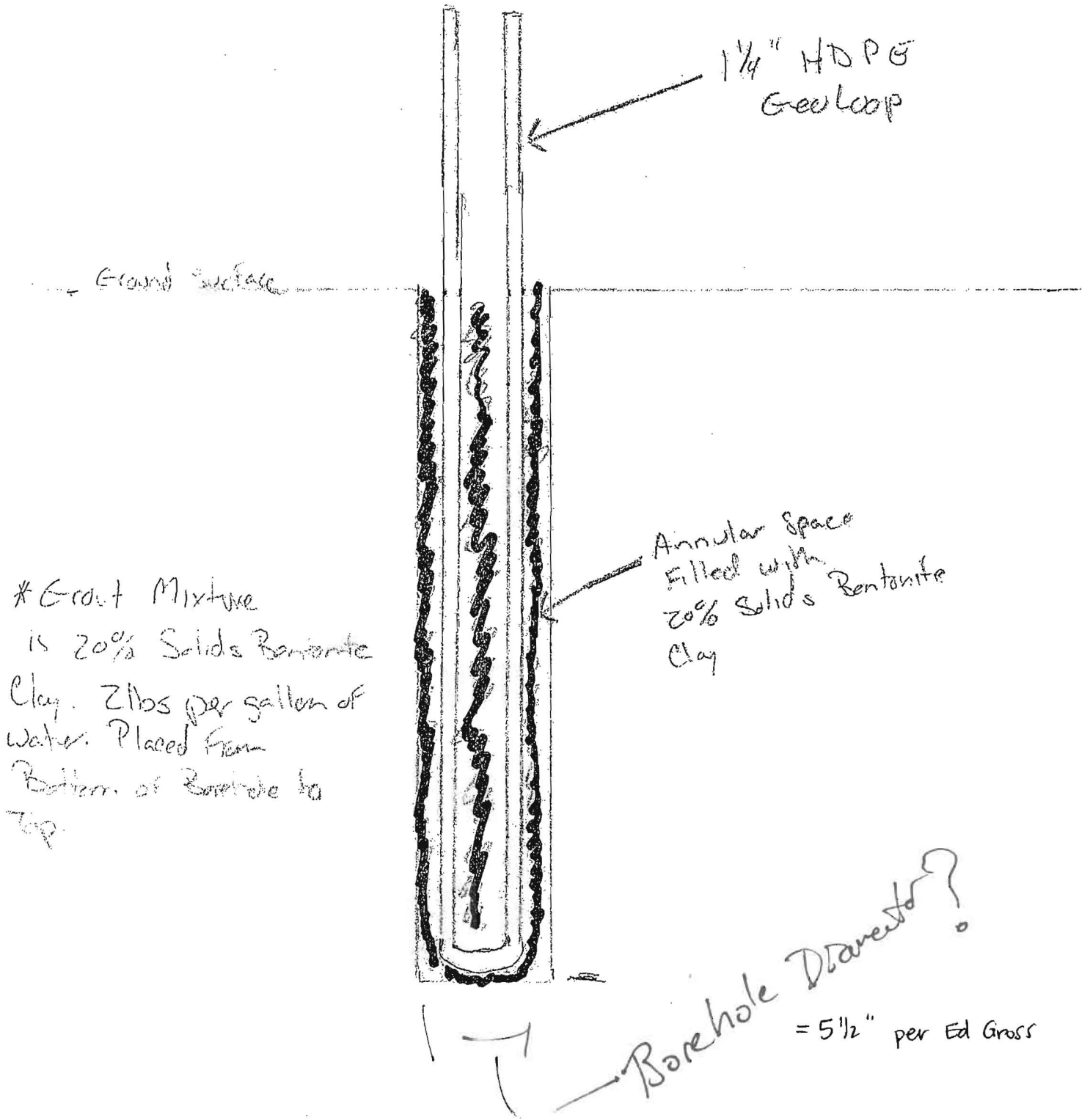
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Well Driller,
(professional land surveyor or company employing professional land surveyors)
on 8/13/15 (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 6/10/03

Borehole Cross Section



1 1/4" HDPE
GeoLoop

Ground Surface

Annular Space
Filled with
20% Solids Bentonite
Clay

* Grout Mixture
is 20% Solids Bentonite
Clay. 2 lbs per gallon of
water. Placed from
Bottom of Borehole to
Top.

Borehole Diameter?
= 5 1/2" per Ed Gross

EVERGREEN VALLEY
ESTATES'
3 RELECTION DISTRICT
HOWARD COUNTY, MD

EVERGREEN WAY
S 0° R 1° W

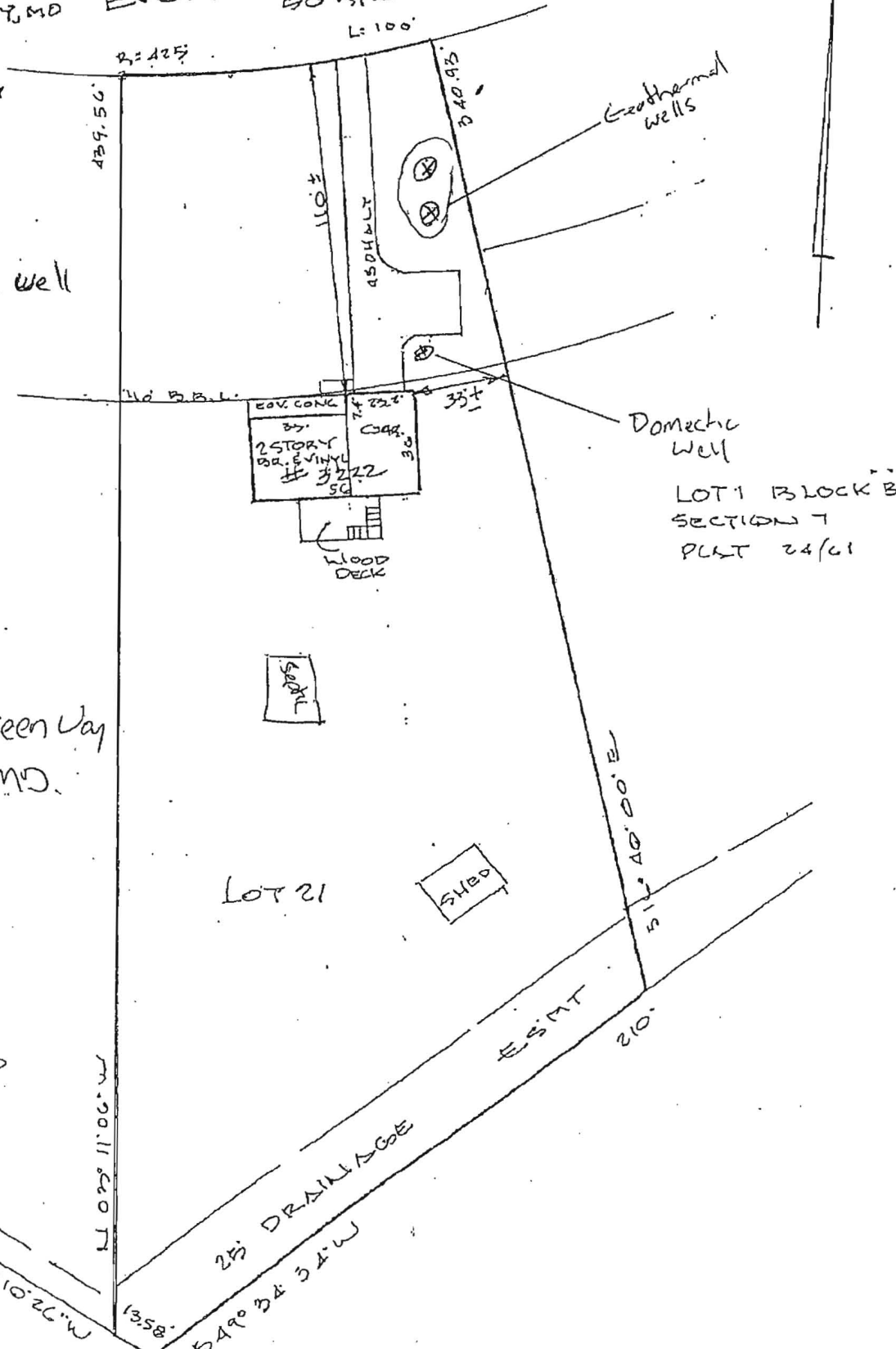
PLAT BOOK 18 F. 67

Leaps are:

- 42' OFF Domestic well
- 150' OFF Septic
- 43' OFF Road

50 scale

3222 Evergreen Way
Ellicott City, MD.



LOCATION DETERMINED

FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
8/25/15	Verified stakes. Setbacks are as listed on well exhibit.
	Electric and cable marked, enters property on western edge near lot line. Septic tank cleanout in the area labeled 'septic'. No tag on well. (SC)
8/26/15	→ 3160 Emerald Valley Rd. Found neighbor's septic is in their front yard and would be
	< 50' from loops located near driveway. Driller will drill in
	front of house. (SC)

DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3430 COURT HOUSE DRIVE ELLCOTT CITY, MD 21043 PERMITS (410) 313-2455 INSPECTIONS (410) 313-1850	HOWARD COUNTY RESIDENTIAL HEATING-VENTILATION-AIR CONDITIONING AND REFRIGERATION PERMIT APPLICATION	HVACR PERMIT # <u>MIS00831</u> BUILDING PERMIT #
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BUILDING ADDRESS: <u>3222 Evergreen way Ellicott City, MD</u> SUBDIVISION: <u>0006</u> CENSUS TRACT: _____ SECTION: _____ AREA: <u>21042</u> LOT: <u>21</u> TAX MAP: <u>0023</u> PARCEL: <u>0092</u> BLOCK: _____ ZONE: _____	OWNERS NAME: <u>Christopher Frink</u> ADDRESS: <u>3222 Evergreen way</u> CITY: <u>Ellicott City</u> STATE: <u>MD</u> ZIP CODE: <u>21042</u> HOME PHONE: <u>410-531-1415</u> WORK PHONE: _____
PROPERTY ID: <u>286298</u> MAP COORDINATES: _____	
TYPE OF IMPROVEMENTS: _____ USE: _____	

CHECK ONE	HOW MANY	
SINGLE FAMILY DWELLING <input checked="" type="checkbox"/>	<u>1</u>	ZONES
SINGLE FAMILY TOWNHOUSE <input type="checkbox"/>	_____	ZONES
MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/>	_____	ROOMS
ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/>	_____	ROOMS

COMPANY NAME: Ground Loop Heating & Air Cond., Inc.
LICENSEE NAME: Michael E. Cullum
ADDRESS: 1701 Whiteford Road
CITY: Darlington
STATE: MD ZIP CODE: 21034
PHONE: 410-836-1706 HVACR LICENSE NO: 6539

New
 Heating and Air Conditioning
 Geo Thermal System
 Heating System Only
 Ductless Mini Splits
 Other Work (Describe):
 Thru The Wall Systems

Replacement
 Heating
 Air Conditioning
 Heating and Air Conditioning

Equipment: water furnace
4ton NDZ049

Additions and Alterations
 Heating
 Air Conditioning
 Heating and Air Conditioning

****Replacement Geo Thermal Systems are not required; However, if a tax credit is being sought a permit is required****

Zones	Rooms
Permit Fee = # of Zones x \$40 = <u>40.00</u>	Permit Fee = # of Rooms x \$80 = _____
Technology Fee (10% of Permit Fee) = <u>4.00</u>	Technology Fee (10% of Permit Fee) = _____
Plus Application Fee <u>\$50.00</u>	Plus Application Fee \$50 <u>\$50.00</u>
Total Fees Due = <u>94.00</u>	Total Fees Due = _____

I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

Michael Cull 8/11/15
SIGNATURE OF LICENSEE DATE

Michael Cullum
PRINT NAME OF LICENSEE

linda @ ground loop . com
Email Address

Validation

Check Number: 23026

Cash: _____

Receipt Number: 413504

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

Word doc: T:\Updated Forms\hvac application
Rev:10.2009

well + Septic
Vertical loops

Michael E. Cullum LEHS



HOWARD COUNTY HEALTH DEPARTMENT

56588

DATE 8/18/15

W5
945312-5159

Received From

Long Green Energy

PHONE #

For

Well Permit / 3222 Edgemoor way

CASH

CHECK

NO.

1955

One hundred sixty H Dollars

\$

100.00

Received By

J King