

B 1 29048  
1 2 3 6

SEQUENCE NO.  
(MDE USE ONLY)

STATE OF MARYLAND  
APPLICATION FOR PERMIT TO DRILL WELL  
please type

STATE PERMIT NUMBER

40-14-0052  
70 fill in this form completely 79

Date Received (APA)

6/18/14  
8 MM DD YY 13

OWNER INFORMATION

Counts Reginald-Debra  
15 Last Name Owner First Name 34  
11741 Farside Road  
36 Street or RFD 55  
Ellicott City MD 21042  
57 Town 70 State 72 Zip 76

B 3

LOCATION OF WELL

Howard  
8 COUNTY 21  
Farside  
23 SUBDIVISION 42  
SECTION 44 46 LOT 35 48 50  
Ellicott City  
52 NEAREST TOWN 71

DRILLER INFORMATION

C John Hess MW D 553  
76 Driller's Name License No. 81  
Allied Environmental Services  
Firm Name  
P.O. Box 69 Annapolis Junction MD 20701  
Address  
C John Hess  
Signature Date 06/18/14

B 4

SOURCES OF DRILLING WATER

1. Public  
2.  
3.

11741 Farside Rd  
11 STREET ADDRESS 30  
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
NORTH  
WEST EAST  
SOUTH  
34 37  
DISTANCE FROM ROAD  
ENTER FT OR MI 38 39  
TAX MAP: 0023 BLK: 0021 PARCEL 0126

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12  
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- INDUSTRIAL, COMMERCIAL, DEWATERING
- PUBLIC WATER SUPPLY WELL
- TEST, OBSERVATION, MONITORING
- OPEN LOOP GEOTHERMAL
- CLOSED LOOP GEOTHERMAL 4 loops

NOT TO BE FILLED IN BY DRILLER  
HEALTH DEPARTMENT APPROVAL

Howard 13  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S  
DATE ISSUED 7/1/14 H. Oswald 7/1/15  
43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL 375 FEET  
24 28

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

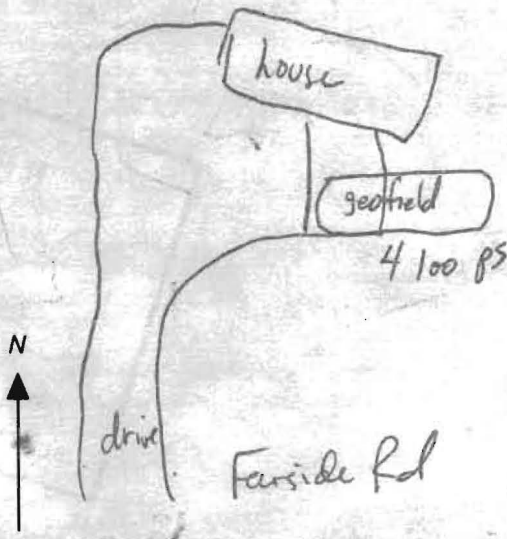
REPLACEMENT OR DEEPEMED WELLS  
(CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
  - THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
  - THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
  - THIS WELL WILL DEEPEM 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)

APPROP. PERMIT NUMBER G  
PERMIT No. 40-14-0052  
70 71 72 73 74 75 76 77 78 79

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



SPECIAL CONDITIONS All wells must be grouted from bottom to top

C1 20791

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM DD YY 07 31 14

DATE WELL COMPLETED MM DD YY 7-8-14

Depth of Well 22 30 320 10 480 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 81 29 14 HO-14-0052

OWNER Prints, Reginald J Debra WELL SITE ADDRESS 11741 Farside Ave TOWN Ellicott City MD SUBDIVISION Farside SECTION LOT

WELL LOG

Not required for driven wells

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

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten entries for 3@ 320' and 1@ 480' with formation types like Dirt, Brn Pitt/Sand, Brn Rock, Gray Rock, White Limestone.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 49 NO. OF POUNDS 2450 GALLONS OF WATER 1225 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 30 320 ft.

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) diameter inch depth (feet) 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.)

Table with columns: E A C H S R E E N, 1 2, 8 9 11 15 17 21, 23 24 26 30 32 36, 38 39 41 45 47 51, 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 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA 70 72 74 75 76

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. 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 - below LAND SURFACE (nearest foot) 49 50 51

LATITUDE 37.25416 LONGITUDE 76.91759 (DEFAULT COORD. WGS 84) NOTES:

NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED YES Y NO 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. M W D 553

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. A W D 942

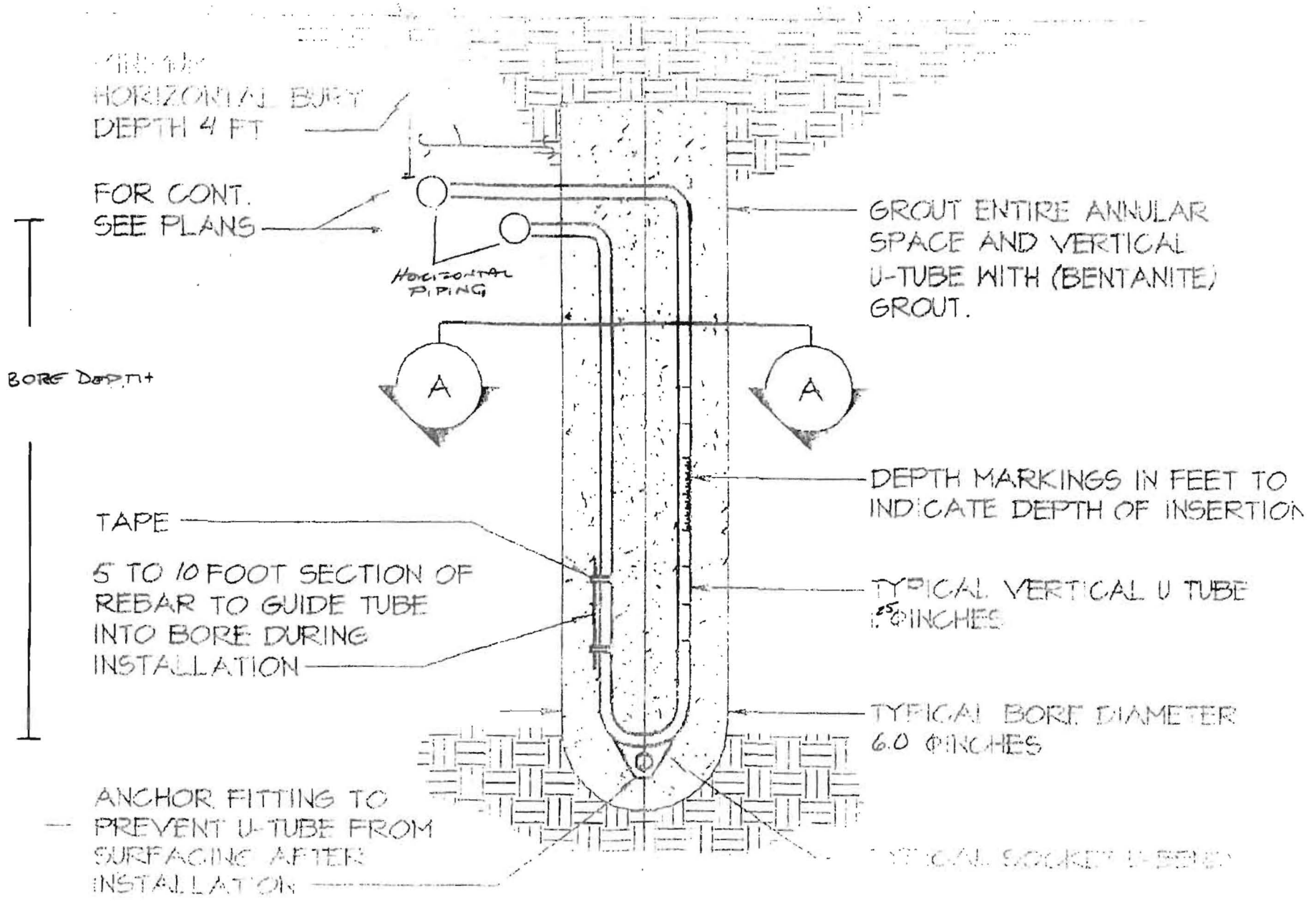
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

## **HOWARD COUNTY GROUTING PROCEDURE**

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than  $2.5 \text{ E}(-08) \text{ cm/sec}$ . Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants.

GRADE

EACH BORE HOLE (TYP.)



HORIZONTAL BURY DEPTH 4 FT

FOR CONT. SEE PLANS

HORIZONTAL PIPING

GROUT ENTIRE ANNULAR SPACE AND VERTICAL U-TUBE WITH (BENTANITE) GROUT.

BORE DEPTH

TAPE

5 TO 10 FOOT SECTION OF REBAR TO GUIDE TUBE INTO BORE DURING INSTALLATION

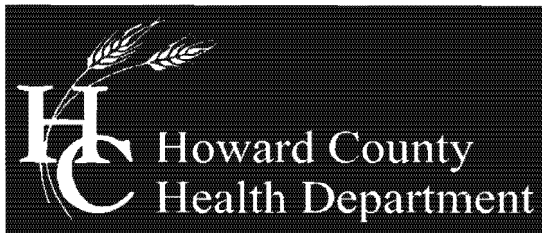
DEPTH MARKINGS IN FEET TO INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE 1.5 INCHES

TYPICAL BORE DIAMETER 6.0 INCHES

ANCHOR FITTING TO PREVENT U-TUBE FROM SURFACING AFTER INSTALLATION

TYPICAL SOCKET U-BEND



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

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

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June 30, 2014

Allied Environmental Services  
P.O. Box 129  
Annapolis Junction, MD 20701  
Attn: C John Hess

*Sent via email to: [dperez@alliedwells.com](mailto:dperez@alliedwells.com)*

**RE: Closed Loop Geothermal  
11741 Farside Road  
Ellicott City, MD 21042**

Mr. Hess:

This letter is in response to the closed loop geothermal well application for the above referenced property. From the site plan, the geothermal well appears to be too close to the existing drinking water well on the property. The setback requirement is 30 feet to a well and 50 feet upslope to a septic system.

Well permit application approval is being withheld until a copy of a scaled site plan meeting all of the setback requirements and a well permit application reflecting the newly proposed location on the property is forwarded to the Health Department. I may be reached at (410) 313-1786 if you would like to discuss the project.

Respectfully,

*Hank Oswald*

Hank Oswald, L.E.H.S.  
Bureau of Environmental Health  
Well & Septic Program

7/1/14 - Site inspection revealed that  
 bore holes meet all setback req. N.O.

(15' separation between bore holes)

HOUSE:  
 FIRST FLOOR 437.5  
 BASEMENT 428.5  
 INVERT 425.46  
 SEPTIC TANK:  
 EXISTING GRADE 429.0  
 PROPOSED GRADE 430.0  
 INVERT IN 424.83  
 INVERT OUT 424.58  
 DISTRIBUTION BOX:  
 EXISTING GRADE 426.9  
 PROPOSED GRADE 426.9  
 INVERT 423.90

TRENCHES:

	WIDTH	STONE	INVERT	BOTTOM	LENTH
#1	2'	5'	422.0	417.0	40'
#2	2'	5'	421.0	416.0	65'

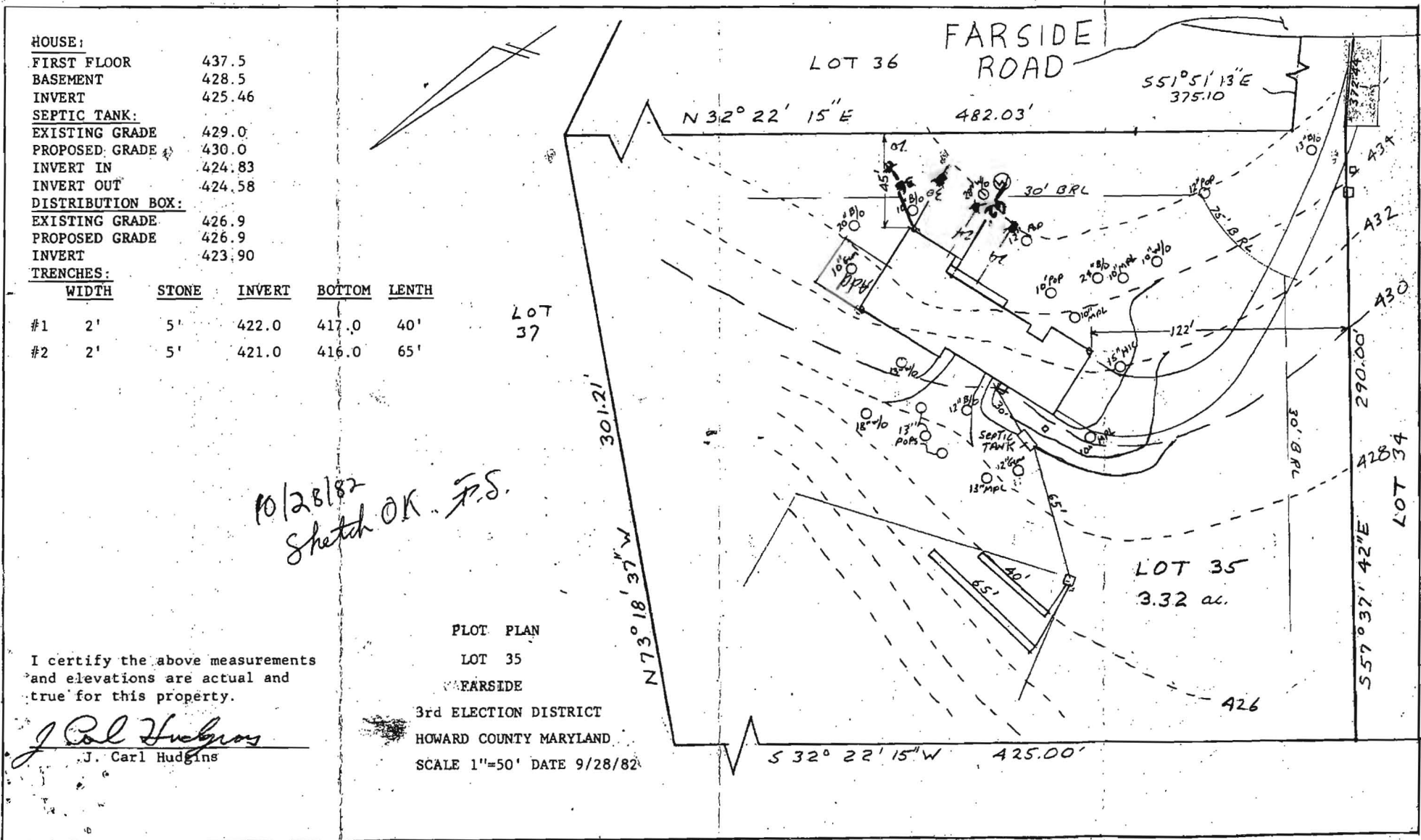
10/28/82  
 Sketch OK F.S.

PLOT PLAN  
 LOT 35  
 FARMSIDE  
 3rd ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 SCALE 1"=50' DATE 9/28/82

I certify the above measurements  
 and elevations are actual and  
 true for this property.

*J. Carl Hudgins*  
 J. Carl Hudgins

6/8 = 28/11/82



7/1/14 - site inspection revealed that  
 bore holes meet all setback req. = A.O.

(15' separation between bore holes)

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*J. Carl Hudgins*  
 J. Carl Hudgins

PLOT PLAN

LOT 35

FARSIDE

3rd ELECTION DISTRICT

HOWARD COUNTY MARYLAND

SCALE 1"=50' DATE 9/28/82

6/8 = 28/14

