

1 2 3 6  
 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3, 6 ON ALL CARDS)  
 FILL IN THIS FORM COMPLETELY PLEASE TYPE

ST/CO USE ONLY DATE RECEIVED MM DD YY 11 3 21  
 DATE WELL COMPLETED MM DD YY 8 19 21  
 Depth of Well 300 (TO NEAREST FOOT)  
 PERMIT NO. FROM "PERMIT TO DRILL WELL" HD-20-0221

OWNER Miller, Dori  
 WELL SITE ADDRESS last name 3641 first name Cameron TOWN Ellerslie (City) MD  
 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	
Brn Dirt	0	3	
3rd Gray Dirt	3	10	
Gray Rock	14	300	

**GROUTING RECORD** yes no  
 WELL HAS BEEN GROUDED  Y  N  
 TYPE OF GROUING MATERIAL (Circle one)  
 CEMENT  CM BENTONITE CLAY  BC  
 NO. OF BAGS 45 46 NO. OF POUNDS 45 46  
 GALLONS OF WATER 1125  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from 0 ft. to 300 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)**  
 diameter inch depth (feet) from to  
 E A C H C A S I N G

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

NUMBER OF UNSUCCESSFUL WELLS: 0  
 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 D 237  
 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)

**C 2** DEPTH (nearest ft.)

1	8	9	11	15	17	21
2	23	24	26	30	32	36
3	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

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 YES NO  
 (CIRCLE) (YES or 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 (nearest foot)  
 - below }

LATITUDE 39.26737  
 LONGITUDE 76.90583  
 (DEFAULT COORD. WGS 84)

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B 1 75166

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER 40-20-0121 79 fill in this form completely

OWNER INFORMATION Date Received (APA) 08/03/21 8 MM DD YY 13 Last Name Owner First Name 34 Street or RFD 55 Town 57 State 70 Zip 76

DRILLER INFORMATION Driller's Name M D License No. 76 Firm Name Address Signature Date

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) 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 3 loops

APPROXIMATE DEPTH OF WELL 24 28 FEET APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST

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

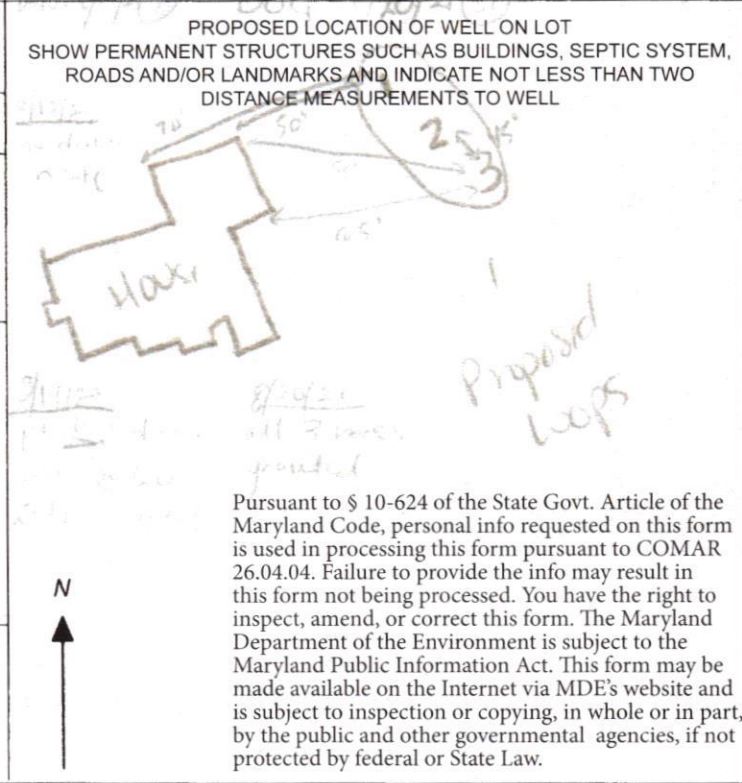
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER G PERMIT No. 40-20-0121 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

LOCATION OF WELL 8 COUNTY 21 23 SUBDIVISION 42 SECTION 44 46 LOT 48 50 52 NEAREST TOWN 71

SOURCES OF DRILLING WATER 1. 2. 3. 3416 Gordon Ct 11 STREET ADDRESS 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N WEST W EAST E SOUTH S 34 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 472 BLK: PARCEL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL COUNTY NAME Howard COUNTY NO. 13 STATE SIGNATURE INSERT S 41 DATE ISSUED 08/13/21 CO SIGNATURE EXP. DATE 2/13/22



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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

Twitter: HowardCoHealthDep

Dr. Maura J. Rossman, M.D., 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:

Well Site Location:

3641 Cameron Ct, Ellicott City

Subdivision/Property Name	Lot #	Road Name

The well site has been staked by Allred Well Drilling  
(professional land surveyor or company employing professional land surveyors)  
on 8/10/21 (date) and does not require a site inspection.

SAET  
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.

8/12/21 - well stakes in place onsite  
ok to continue. (RW)

GRADE

EACH BORE HOLE (TYP)

HORIZONTAL BURY  
DEPTH 4 FT

FOR CONT.  
SEE PLANS

BORE DEPTH

ANCHOR FITTING TO  
PREVENT U-TUBE FROM  
SURFACING AFTER  
INSTALLATION

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

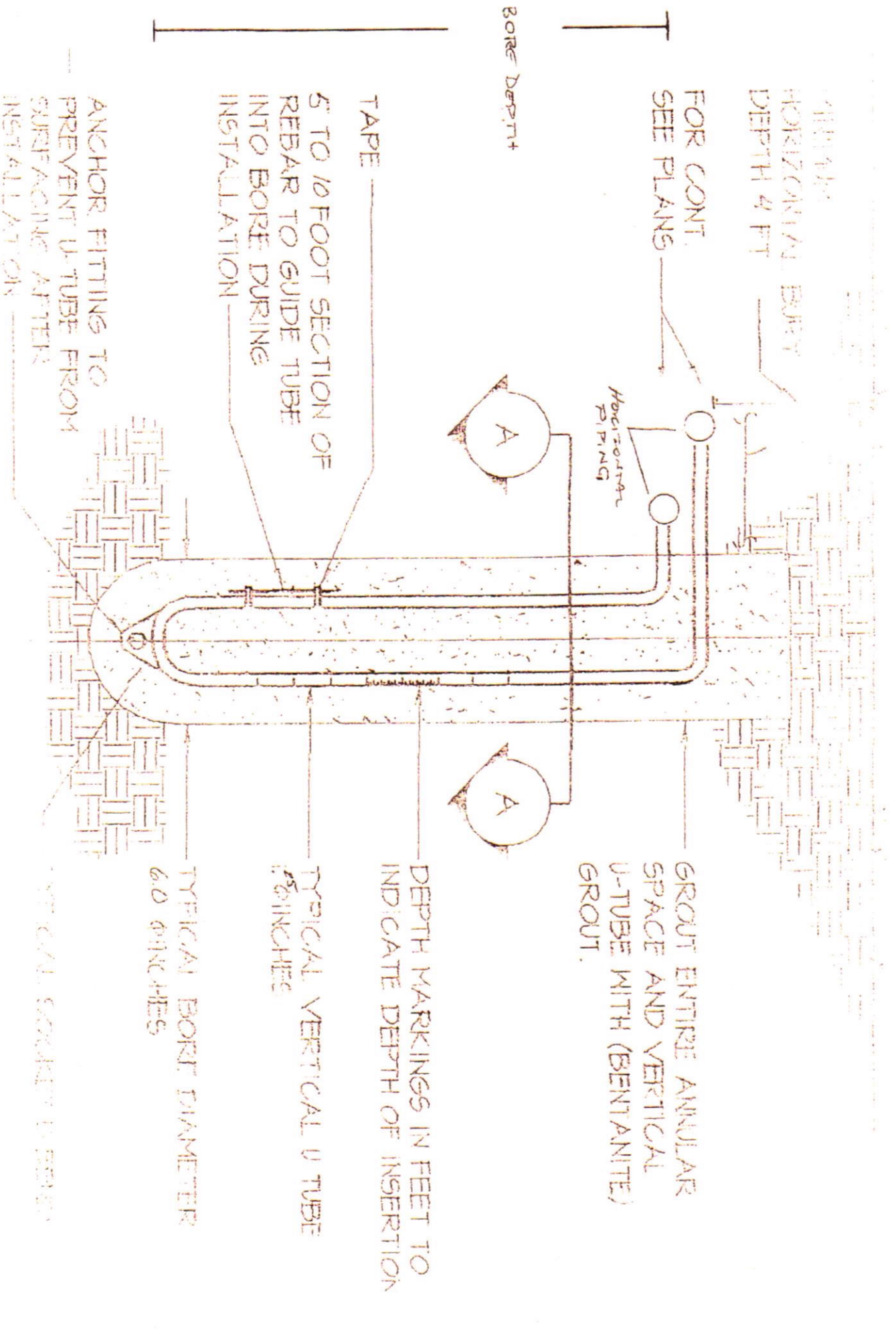
GROUT ENTIRE ANNULAR  
SPACE AND VERTICAL  
U-TUBE WITH (BENTONITE)  
GROUT.

DEPTH MARKINGS IN FEET TO  
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U-TUBE  
2 1/2 INCHES

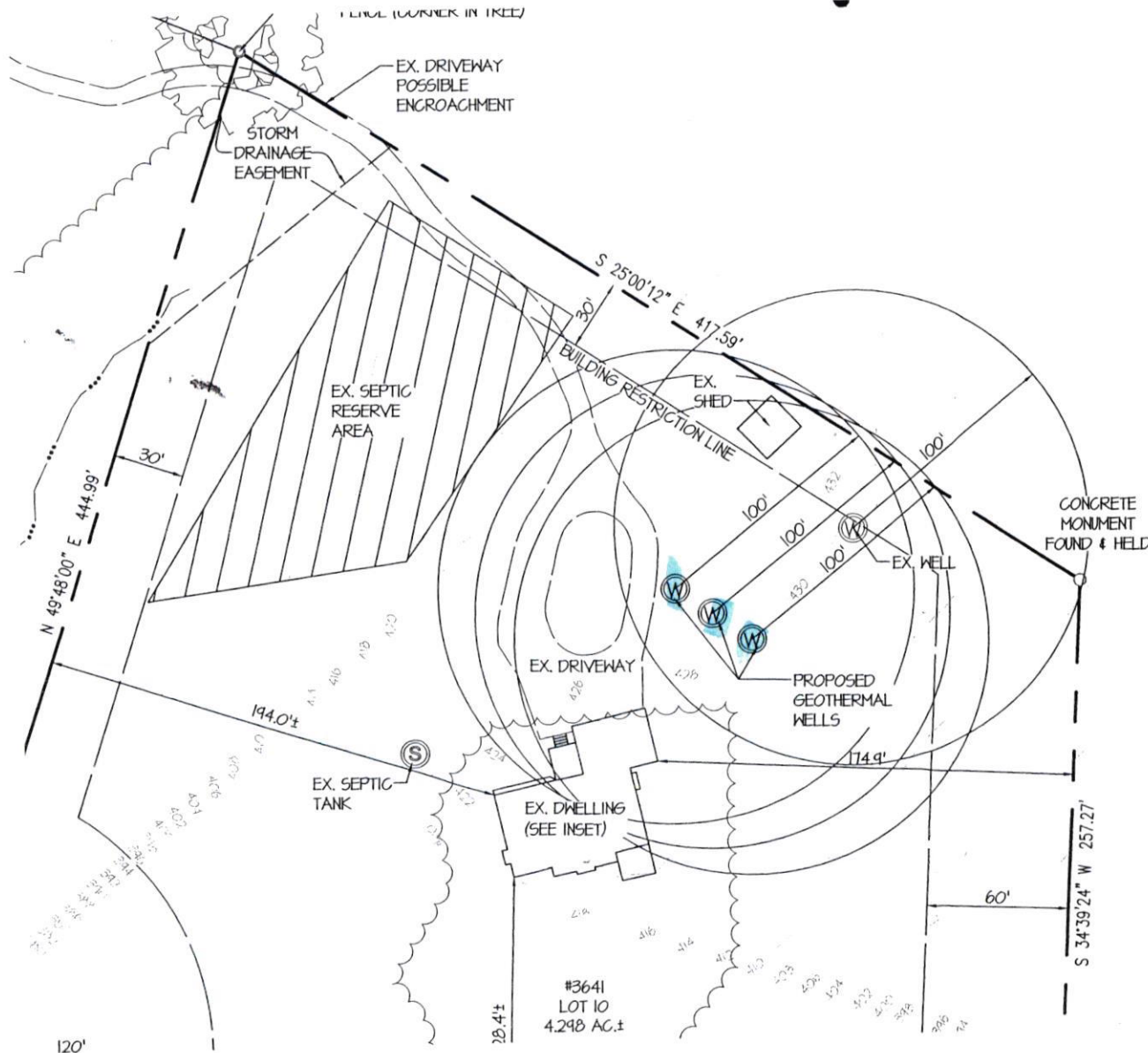
TYPICAL BORE DIAMETER  
6.0 INCHES

TYPICAL SOCKETED REBAR



## **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.



## SITE NOTES

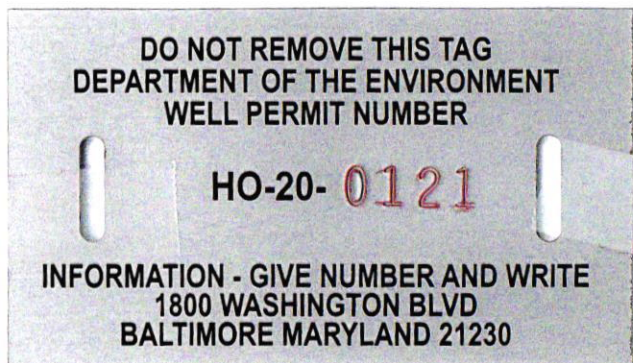
1. PROJECT NAME: CAMERON TRACT
2. OWNER/DEVELOPER:  
NEIL P. MILLER  
3641 CAMERON COURT  
ELLCOTT CITY, MD 21042  
443-995-4878  
NEIL.P.MILLER@GMAIL.COM

### PLAN PREPARED BY:

JRO ASSOCIATES, LLC  
3337 EDWARDS LANE  
MIDDLE RIVER, MD 21220  
JROASSOCIATESLLC@GMAIL.COM  
(410) 493-2809

3. GROSS SITE ACREAGE: 4.298 AC.
4. EXISTING ZONING: RC-DEO (RURA)
5. TAX ACCOUNT NUMBER: 03-3066
6. TAX MAP NUMBER: 230, PARCEL:
7. ELECTION DISTRICT: 3
8. DEED REFERENCE: 18110 / 462
9. PLAT REFERENCE: 4341
10. EXISTING / PRIOR USE: SINGLE-F
11. PROPOSED USE: SINGLE-FAMILY R
12. WATERSHED: MIDDLE PATUXENT R
13. BOUNDARY BASED ON A BOUNDAR  
JULY OF 2021.
14. TOPOGRAPHY AND OFF SITE PLAN
15. THE PURPOSE OF THIS SITE PLAN  
WELLS WHICH WILL BE USED FOR  
EXISTING DWELLING.

LEGEND



3641 Cameron Ct  
Approved 8/13/21 (SP)  
Staked by driller



<b>Department of Inspections Licenses and Permits</b>  3430 Court House Drive Ellicott City, MD 21043  Permits (410) 313-2455 Opt. #4 Inspections (410) 313-1840	<b>HOWARD COUNTY RESIDENTIAL HEATING-VENTILATION-AIR CONDITIONING AND REFRIGERATION PERMIT APPLICATION</b>	HVACR PERMIT # <u>M21000835</u>  BUILDING PERMIT #
--	--	--

SITE BUILDING ADDRESS: <u>3641 Cameron Ct.</u> SUITE/APT: _____ SUBDIVISION: _____ TYPE OF IMPROVEMENTS: <u>Remove old HVAC equip + install (1) 4 ton geothermal heat pump + (1) 2 ton geothermal heat pump</u> USE: <u>Heat pump</u>	OWNERS NAME: <u>Neil Miller</u> ADDRESS: <u>3641 Cameron Ct.</u> CITY: <u>Ellicott City</u> STATE: <u>MD</u> ZIP CODE: <u>21042</u> HOME PHONE: <u>443-995-4878</u> CELL PHONE: _____
---	--

<u>CHECK ONE</u>	<u>HOW MANY</u>	COMPANY NAME: <u>Total Comfort Heating &amp; A/C, Inc.</u>
SINGLE FAMILY DWELLING <input type="checkbox"/>	<u>2</u> ZONES	LICENSEE NAME: <u>James E. Aaron</u>
SINGLE FAMILY TOWNHOUSE <input type="checkbox"/>	____ ZONES	ADDRESS: <u>12009 Margaret Drive</u>
MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/>	____ ROOMS	CITY: <u>Hagerstown</u>
ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/>	____ ROOMS	STATE: <u>MD</u> ZIP CODE: <u>21742</u> PHONE: <u>301-745-3700</u> HVACR LICENSE NO: <u>5833-01</u>

<u>New Construction</u> <input type="checkbox"/> Heating and Air Conditioning <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating	<u>Additions and Alterations</u> <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating and Air Conditioning	<input checked="" type="checkbox"/> Geo Thermal System <input type="checkbox"/> Gas Conversion (Make and Model of Equipment) <input type="checkbox"/> Ductless Mini Splits <input type="checkbox"/> Thru The Wall Systems <input type="checkbox"/> Other Work (Describe):
<u>Replacement</u> <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input checked="" type="checkbox"/> Heating and Air Conditioning	<u>Install (2) geothermal heat pumps. Re-use existing ductwork. Vertical ground loop by Allied Well Drilling.</u>	
<b>**Make and Model of Equipment is required**</b> <b>****Replacement Geo Thermal Systems are not required; However, if a tax credit is being sought a permit is required****</b>		

<u>Zones</u> Permit Fee = # of Zones x \$40 = <u>80.00</u> Technology Fee (10% of Permit Fee) = <u>8.00</u> Plus Application Fee <u>\$50.00</u> <b>Total Fees Due = <u>138.00</u></b>	<u>Rooms</u> Permit Fee = # of Rooms x \$80 = _____ Technology Fee (10% of Permit Fee) = _____ Plus Application Fee \$50 <u>\$50.00</u> <b>Total Fees Due = _____</b>
---	---

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 HVAC LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

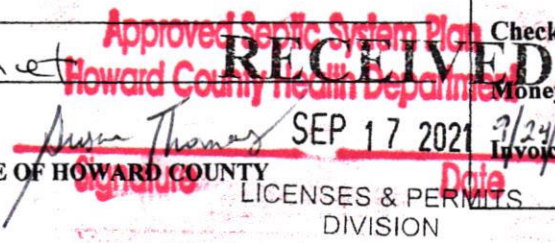
SIGNATURE OF LICENSEE: James E. Aaron DATE: 9/15/2021

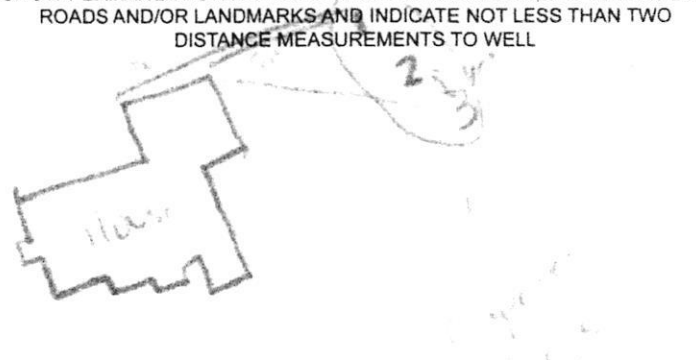
PRINT NAME OF LICENSEE: James E. Aaron

Email Address: Jim@tchvac.net

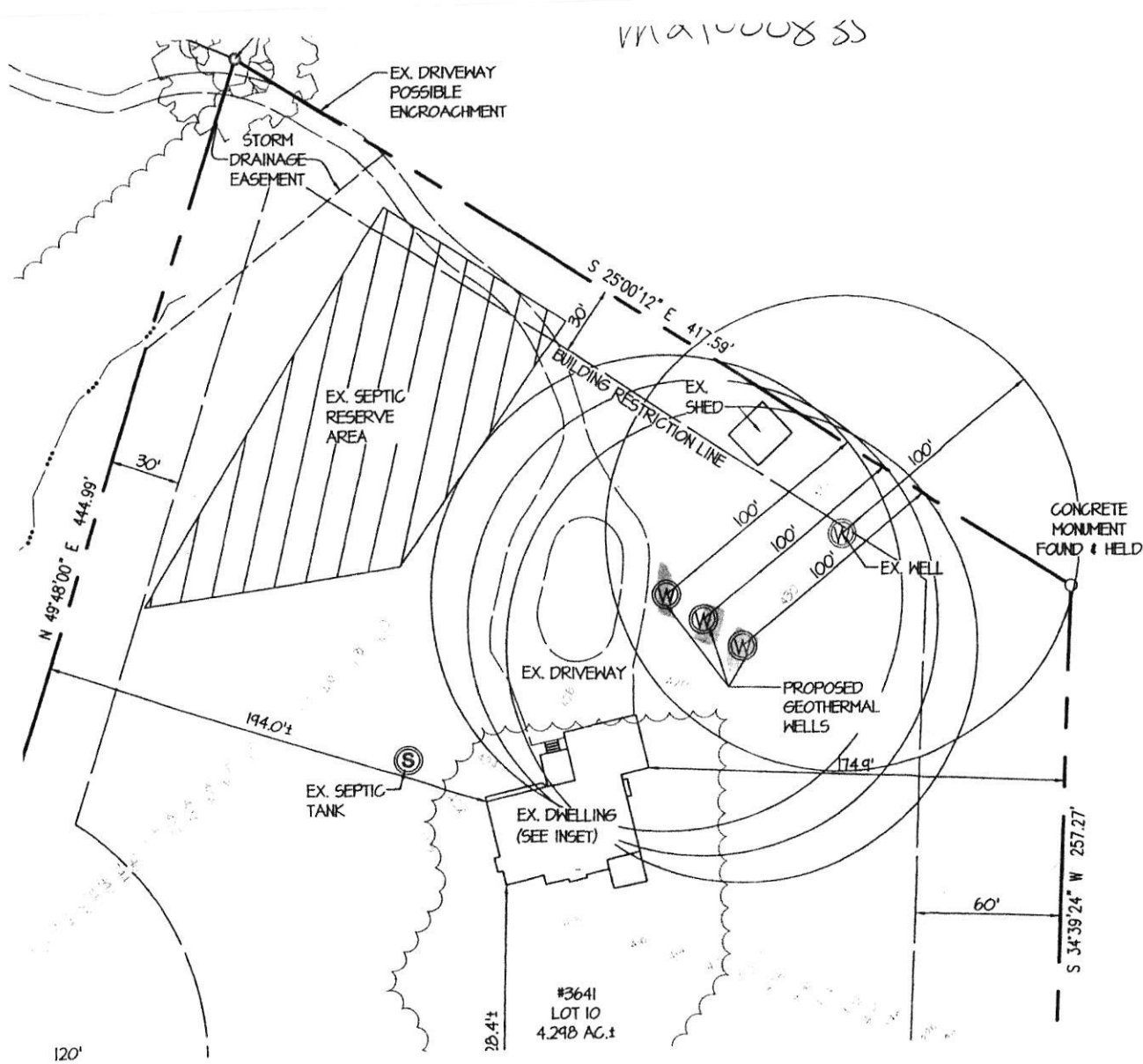
<b>Validation</b>	
Check Number: <u>10113</u>	Money Order#: _____
Invoice Number: <u>6075542</u>	Date: _____

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY



<b>B 1</b>	75108	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type	STATE PERMIT NUMBER <b>HD-20-0121</b> <small>fill in this form completely</small>
Date Received (APA) 8 MM DD YY 13 <u>Miller Neil</u> 15 Last Name Owner First Name 34 <u>3641 Cameron Ct</u> 36 Street or RFD 55 <u>Ellicott City MD 21042</u> 57 Town 70 State 72 Zip 76		<b>B 3</b> LOCATION OF WELL 8 COUNTY <u>Howard</u> 21 23 SUBDIVISION 42 SECTION <u>44 46</u> LOT <u>48 50</u> <u>Ellicott City</u> 52 NEAREST TOWN 71		
<b>DRILLER INFORMATION</b> Driller's Name <u>M D</u> 76 License No. 81 Firm Name _____ Address _____ Signature _____ Date _____		<b>B 4</b> SOURCES OF DRILLING WATER 1. <u>3641 Cameron Ct</u> 11 STREET ADDRESS 30 2. _____ 3. _____ ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N WEST 3 EAST S SOUTH 34 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: _____ BLK: _____ PARCEL _____		
<b>B 2</b> WELL INFORMATION 1 2 APPROX. PUMPING RATE (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20		<b>USE FOR WATER</b> (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input checked="" type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL <i>3 loops</i>		
APPROXIMATE DEPTH OF WELL <u>24</u> FEET APPROXIMATE DIAMETER OF WELL <u>6</u> INCH NEAREST INCH		<b>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</b> COUNTY NAME _____ COUNTY NO. _____ STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <u>10/13</u> 43 MM DD YY 48 CO SIGNATURE _____ EXP. DATE _____		
<b>METHOD OF DRILLING</b> (circle one) BORED (or Augered) JETTED Jetted & DRIVEN 30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) 37 CABLE REVerse-ROTary DRive-POINT other _____		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 		
<b>REPLACEMENT OR DEEPEINED WELLS</b> (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED 39 <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52		Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law.		
<b>Not to be filled in by driller</b> (MDE OR COUNTY USE ONLY) APPROP PERMIT NUMBER _____ <u>G</u> _____ PERMIT No. <u>40-20-0121</u> 70 71 72 73 74 75 76 77 78 79				
<b>SPECIAL CONDITIONS</b> NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED-				





## SITE NOTES

1. **PROJECT NAME:** CAMERON TRACT
2. **OWNER/DEVELOPER:**  
NEIL P. MILLER  
3641 CAMERON COURT  
ELLCOTT CITY, MD 21042  
443-995-4878  
NEIL.P.MILLER@GMAIL.COM

### PLAN PREPARED BY:

JRO ASSOCIATES, LLC  
3337 EDWARDS LANE  
MIDDLE RIVER, MD 21220  
JROASSOCIATESLLC@GMAIL.COM  
(410) 493-2809

3. GROSS SITE ACREAGE: 4.298 AC.
4. EXISTING ZONING: RC-DEO (RURAL)
5. TAX ACCOUNT NUMBER: 03-30666
6. TAX MAP NUMBER: 230, PARCEL: 1
7. ELECTION DISTRICT: 3
8. DEED REFERENCE: 18110 / 462
9. PLAT REFERENCE: 4341
10. EXISTING / PRIOR USE: SINGLE-FA
11. PROPOSED USE: SINGLE-FAMILY RE
12. WATERSHED: MIDDLE PATUXENT RIV
13. BOUNDARY BASED ON A BOUNDARY JULY OF 2021.
14. TOPOGRAPHY AND OFF SITE PLAN I
15. THE PURPOSE OF THIS SITE PLAN I WELLS WHICH WILL BE USED FOR ( EXISTING DWELLING.

T RECENT

~~3641 Cameron Ct~~  
~~Approved 8/13/21 (SP)~~  
~~Staked by driller~~



M 21000835

# Load Short Form

## AHU 1

TOTAL COMFORT HTG. & A/C, INC.

Job:  
Date: 2016  
By:

12009 MARGARET DRIVE, HAGERSTOWN, MD 21742 Phone: 301-745-3700

### Project Information

For: MILLER RESIDENCE  
3641 CAMERON CT., ELLICOTT CITY, MD

### Design Information

	Htg	Clg		Infiltration	
Outside db (°F)	12	91	Method		Simplified
Inside db (°F)	70	75	Construction quality		Average
Design TD (°F)	58	16	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	25	24			

#### HEATING EQUIPMENT

Make WaterFurnace  
Trade 5 SERIES  
Model NDV/NDH049J1\*(1,2,4)  
AHRI ref 203466716

Efficiency 4.1 COP  
Heating input 11.7 kW  
Heating output 40089 Btuh  
Temperature rise 23 °F  
Actual air flow 1600 cfm  
Air flow factor 0.030 cfm/Btuh  
Static pressure 0 in H2O  
Space thermostat  
Capacity balance point = 0 °F

#### COOLING EQUIPMENT

Make WaterFurnace  
Trade 5 SERIES  
Cond NDV/NDH049J1\*(1,2,4)  
Coil  
AHRI ref 203466716

Efficiency 18.75 EER  
Sensible cooling 35152 Btuh  
Latent cooling 15065 Btuh  
Total cooling 50217 Btuh  
Actual air flow **1600** cfm  
Air flow factor 0.047 cfm/Btuh  
Static pressure 0 in H2O  
Load sensible heat ratio 0.92

Backup:  
Input = 15 kW, Output = 52865 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
FIRST FLOOR	2204	36164	27090	1095	<b>1286</b>
BASEMENT	1676	16701	6605	505	<b>314</b>
AHU 1	3880	52865	33694	1600	<b>1600</b>
Other equip loads		0	0		
Equip. @ 0.96 RSM			32481		
Latent cooling			2959		
<b>TOTALS</b>	<b>3880</b>	<b>52865</b>	<b>35441</b>	<b>1600</b>	<b>1600</b>

*Bold/italic values have been manually overridden*

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



# Load Short Form

## AHU 2

TOTAL COMFORT HTG. & A/C, INC.

Job:  
Date: 2016  
By:

12009 MARGARET DRIVE, HAGERSTOWN, MD 21742 Phone: 301-745-3700

### Project Information

For: MILLER RESIDENCE  
3641 CAMERON CT., ELLICOTT CITY, MD

### Design Information

	Htg	Clg		Infiltration	
Outside db (°F)	12	91	Method		Simplified
Inside db (°F)	70	75	Construction quality		Average
Design TD (°F)	58	16	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	25	24			

#### HEATING EQUIPMENT

Make WaterFurnace  
Trade 5 SERIES INDOOR SPLITS  
Model NDZ026H1  
AHRI ref 10271930

Efficiency 3.79 COP  
Heating input 5.7 kW  
Heating output 19310 Btuh  
Temperature rise 23 °F  
Actual air flow 800 cfm  
Air flow factor 0.039 cfm/Btuh  
Static pressure 0 in H2O  
Space thermostat  
Capacity balance point = 0 °F

#### COOLING EQUIPMENT

Make WaterFurnace  
Trade 5 SERIES INDOOR SPLITS  
Cond NDZ026H1  
Coil SRAA026\*  
AHRI ref 10271930

Efficiency 17.01 EER  
Sensible cooling 16192 Btuh  
Latent cooling 6939 Btuh  
Total cooling 23131 Btuh  
Actual air flow **800** cfm  
Air flow factor 0.064 cfm/Btuh  
Static pressure 0 in H2O  
Load sensible heat ratio 0.86

Backup:  
Input = 6 kW, Output = 19480 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
SECOND FLOOR	1044	20595	12511	800	<b>800</b>
AHU 2	1044	20595	12511	800	<b>800</b>
Other equip loads		0	0		
Equip. @ 0.96 RSM			12061		
Latent cooling			2076		
<b>TOTALS</b>	<b>1044</b>	<b>20595</b>	<b>14137</b>	<b>800</b>	<b>800</b>

*Bold/italic values have been manually overridden*

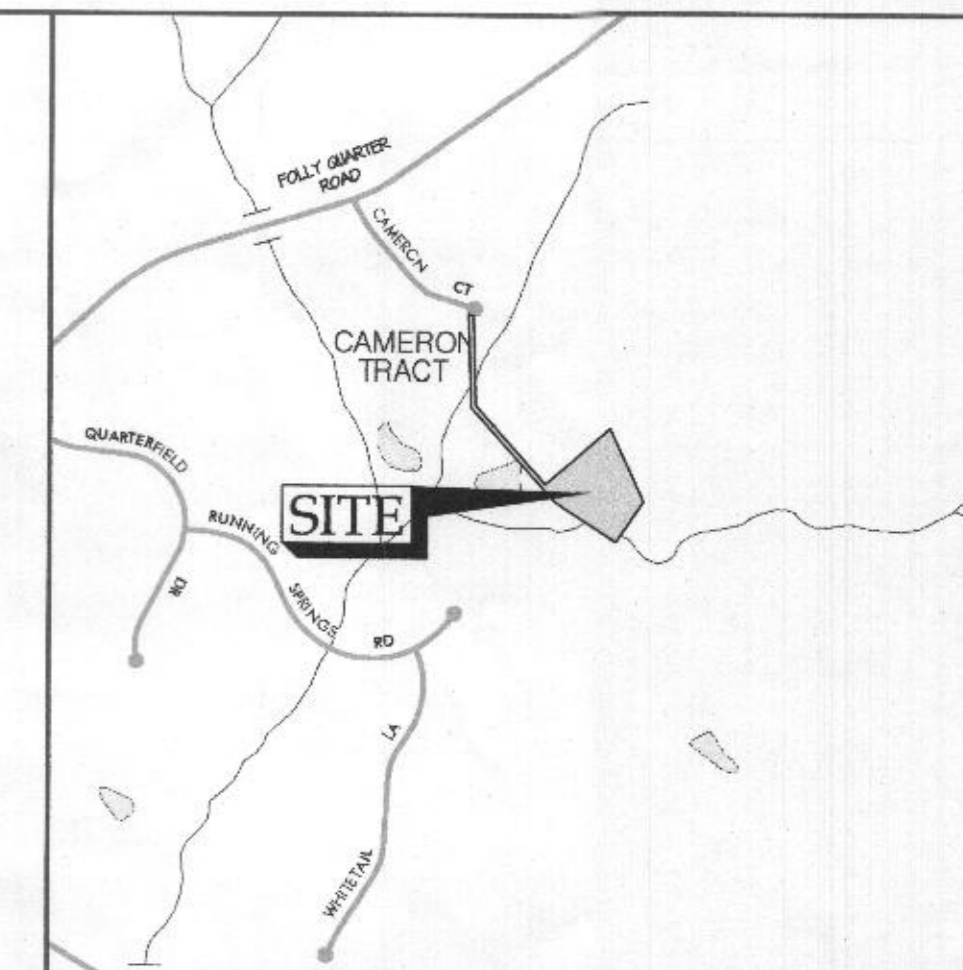
Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

CAMERON COURT  
50' RAD. R/W

JOHN LEE CARROLL JR  
GENEVIEVE ANNE CARROLL ETAL  
3855 MANOR LANE  
TM:23 P. 130 LOT PAR A  
TAX ACCT. 03-322181  
DEED REF. 11371/456  
PLAT REF. 12421

MICHAEL SAIDENKY  
JOANNA SAIDENKY  
3633 CAMERON COURT  
TM:23 P. 124 LOT 9  
TAX ACCT. 03-306658  
DEED REF. 1610/265  
PLAT REF. 4341

MES H EACKER  
GERALD L EACKER  
3633 CAMERON COURT  
TM:23 P. 124 LOT 11  
TAX ACCT. 03-306674  
DEED REF. 1020/19  
PLAT REF. 4341



VICINITY MAP  
SCALE: 1" = 1000'

SITE NOTES

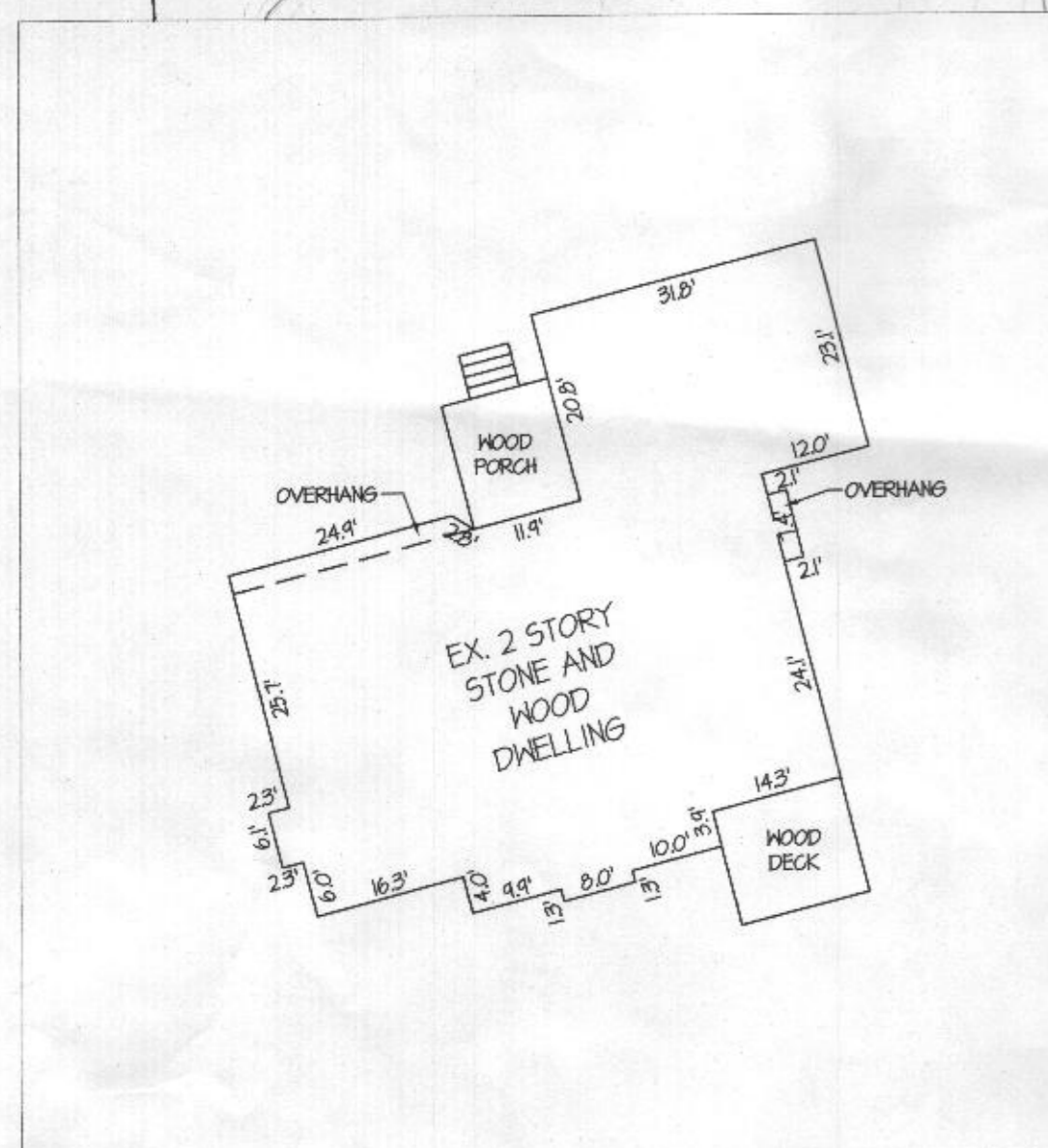
- PROJECT NAME: CAMERON TRACT - LOT 10 (3641 CAMERON COURT)
- OWNER/DEVELOPER:  
NEIL P. MILLER  
3641 CAMERON COURT  
ELLCOTT CITY, MD 21042  
443-995-4878  
NEIL.P.MILLER@GMAIL.COM
- PLAN PREPARED BY:  
JRO ASSOCIATES, LLC  
3337 EDWARDS LANE  
MIDDLE RIVER, MD 21220  
JROASSOCIATESLLC@GMAIL.COM  
(410) 493-2809
- GROSS SITE ACREAGE: 4.298 AC.
- EXISTING ZONING: RC-DEO (RURAL RESIDENTIAL)
- TAX ACCOUNT NUMBER: 03-306666
- TAX MAP NUMBER: 230, PARCEL: 124, LOT 10
- ELECTION DISTRICT: 3
- DEED REFERENCE: 18110 / 462
- PLAT REFERENCE: 4341
- EXISTING / PRIOR USE: SINGLE-FAMILY RESIDENTIAL
- PROPOSED USE: SINGLE-FAMILY RESIDENTIAL
- WATERSHED: MIDDLE PATUXENT RIVER
- BOUNDARY BASED ON A BOUNDARY SURVEY PERFORMED BY JRO ASSOCIATES, LLC IN JULY OF 2021.
- TOPOGRAPHY AND OFF SITE PLANIMETRICS BASED ON HOWARD COUNTY GIS.
- THE PURPOSE OF THIS SITE PLAN IS FOR USE IN OBTAINING A PERMIT TO DRILL 3 WELLS WHICH WILL BE USED FOR GEOTHERMAL HEATING AND COOLING OF THE EXISTING DWELLING.

LEGEND

- BOUNDARY LINE
- ADJOINER BOUNDARY LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING DWELLING
- EXISTING EDGE OF PAVING
- EXISTING WOODLINE (FROM GIS)
- EXISTING SEPTIC
- NATURAL WATERS, STREAM OR DRAINAGE DITCH
- EXISTING WELL (FROM FIELD LOCATION)
- PROPOSED GEOTHERMAL WELLS

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	50.00'	26.96'	26.63'	N 71°56'09" W	107°53'21"



INSET  
SCALE: 1" = 20'

PLAN  
SCALE: 1" = 50'



**JRO ASSOCIATES, LLC**  
LAND PLANNING | SURVEYING | ENGINEERING  
3337 EDWARDS LANE  
MIDDLE RIVER, MD 21220  
PHONE: (410) 493-2809  
CONTACT: JUSTIN R. OTTENMEYER, P.L.S.  
MARYLAND LICENSED  
PROFESSIONAL LAND SURVEYOR  
WWW.JROASSOCIATES.COM  
E-MAIL: JROASSOCIATESLLC@GMAIL.COM

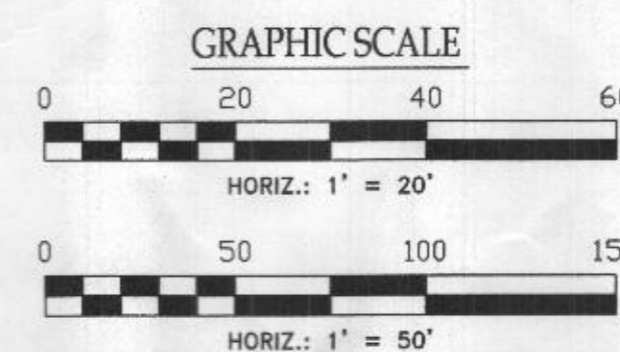


**811 MISS UTILITY LAW**

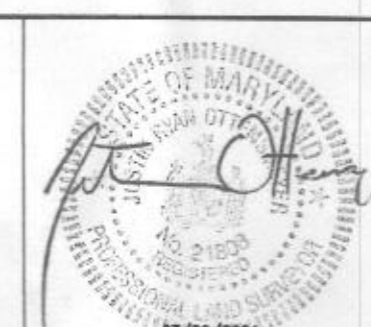
LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF MARYLAND SENATE BILL 811, KNOWN AS THE MISS UTILITY LAW, WHICH WENT INTO EFFECT ON 10-1-10, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM, 1-800-257-7777 NO LESS THAN 2 DAYS, NOR MORE THAN 10 DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

DATE	REVISION	BY

**SURVEYOR'S NOTE:**  
THIS BOUNDARY SURVEY WAS REASONABLY PREPARED OR APPROVED BY ME AND THE SURVEYING WORK REFLECTED IS IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH BY THE STATE OF MARYLAND IN SECTION 3-108 OF THE REAL PROPERTY ARTICLE OF THE ANNOTATED CODE OF MARYLAND.  
**NOTE:**  
BEARINGS SHOWN REFER TO PLT C.M.P. 4342



OWNER/DEVELOPER:  
NEIL P. MILLER  
3641 CAMERON COURT  
ELLCOTT CITY, MD 21042  
443-995-4878  
NEIL.P.MILLER@GMAIL.COM



JUSTIN R. OTTENMEYER, CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO.: 21808 EXP. DATE: 12/15/2021

**SITE PLAN  
CAMERON TRACT**

LOT 10  
3641 CAMERON COURT, ELLCOTT CITY, 21042

ELECTION DISTRICT 3 HOWARD COUNTY, MD

PROJECT NO. 21-031 SHEET NUMBER:  
DATE: 07/20/2021 1 OF 1