

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 # M14000584
BUILDING PERMIT #

BUILDING ADDRESS: 2826 Hunt Valley Dr. SUITE/APT:
SUBDIVISION:
CENSUS TRACT: SECTION: AREA:
LOT: TAX MAP: PARCEL:
BLOCK: ZONE:
PROPERTY ID: MAP COORDINATES:
TYPE OF IMPROVEMENTS: USE:

OWNERS NAME: Phil Bourne
ADDRESS: 2826 Hunt Valley Dr.
CITY: Glenwood
STATE: MD ZIP CODE: 21738
HOME PHONE: 307-680-8900 WORK PHONE:

<u>CHECK ONE</u>	<u>HOW MANY</u>
SINGLE FAMILY DWELLING <input type="checkbox"/>	<u>2</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: Total Comfort Htg & AC, Inc.
LICENSEE NAME: James E. Aaron
ADDRESS: P.O. Box 643
CITY: Smithsburg
STATE: MD ZIP CODE: 21783
PHONE: 301-824-3700 HVACR LICENSE NO: 5833-01

New

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

Replacement

- Heating
 Air Conditioning
 Heating and Air Conditioning

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

Permit Fee = # of Zones x \$40 = 80.00
Technology Fee (10% of Permit Fee) = 8.00
Plus Application Fee \$50.00
Total Fees Due = 138.00

Rooms

Permit Fee = # of Rooms x \$80 = _____
Technology Fee (10% of Permit Fee) = _____
Plus Application Fee \$50 \$50.00
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.

James E. Aaron 6/10/14
SIGNATURE OF LICENSEE DATE
James E. Aaron
PRINT NAME OF LICENSEE
jaaron@myactv.net
Email Address

Validation

Check Number: 5153
Cash: _____
Receipt Number: 3121014

HEALTH: R-R 7/10/14

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

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

* Existing house but installing geothermal



Load Short Form AH1

TOTAL COMFORT HTG. & A/C, INC.

M 14000584

Job:
Date: 2014
By:

PO BOX 643, SMITHSBURG, MD 21783

Project Information

For: BOURNE RESIDENCE
2826 HUNT VALLEY DR, GLENWOOD, MD

Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	12	91	Construction quality	Simplified
Inside db (°F)	70	75	Fireplaces	Semi-loose
Design TD (°F)	58	16		0
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	25	36		

HEATING EQUIPMENT

Make WaterFurnace
Trade ENVISION SERIES DUAL CAPACITY
Model NDV/NDH049A1*1
AHRI ref 963188

Efficiency 4.45 COP
Heating input 12.8 kW
Heating output 43564 Btuh
Temperature rise 25 °F
Actual air flow 1600 cfm
Air flow factor 0.029 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make WaterFurnace
Trade ENVISION SERIES DUAL CAPACITY
Model NDV/NDH049A1*1
Coil
AHRI ref 963188

Efficiency 17.91 EER
Sensible cooling 34933 Btuh
Latent cooling 14971 Btuh
Total cooling 49905 Btuh
Actual air flow 1600 cfm
Air flow factor 0.070 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.87

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
FIRST FLOOR	3556	54676	24558	1600	1714
AH1	3556	54676	22919	1600	1600
Other equip loads		0	0		
Equip. @ 0.96 RSM			22002		
Latent cooling			3501		
TOTALS	3556	54676	25503	1600	1600

Bold/italic values have been manually overridden

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



Right-Suite® Universal 2013 13.0.13 RSU02149

2014-Jun-16 09:39:07

Page 1

...cuments\Wrightsoft HVAC\Project\BOURNE 2014.rup Calc = MJ8 Front Door faces: N

PO BOX 643, SMITHSBURG, MD 21783

Project Information

For: BOURNE RESIDENCE
2826 HUNT VALLEY DR, GLENWOOD, MD

Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	12	91		Simplified
Inside db (°F)	70	75	Construction quality	Semi-loose
Design TD (°F)	58	16	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	25	36		

HEATING EQUIPMENT

Make WaterFurnace
Trade ENVISION NZ SERIES DUAL CAPACI...
Model NDZ038A1
AHRI ref 1296152

Efficiency 4.13 COP
Heating input 8.8 kW
Heating output 29935 Btuh
Temperature rise 23 °F
Actual air flow 1200 cfm
Air flow factor 0.038 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make WaterFurnace
Trade ENVISION NZ SERIES DUAL CAPACI...
Cond NDZ038A1
Coil NAH036*
AHRI ref 1296152

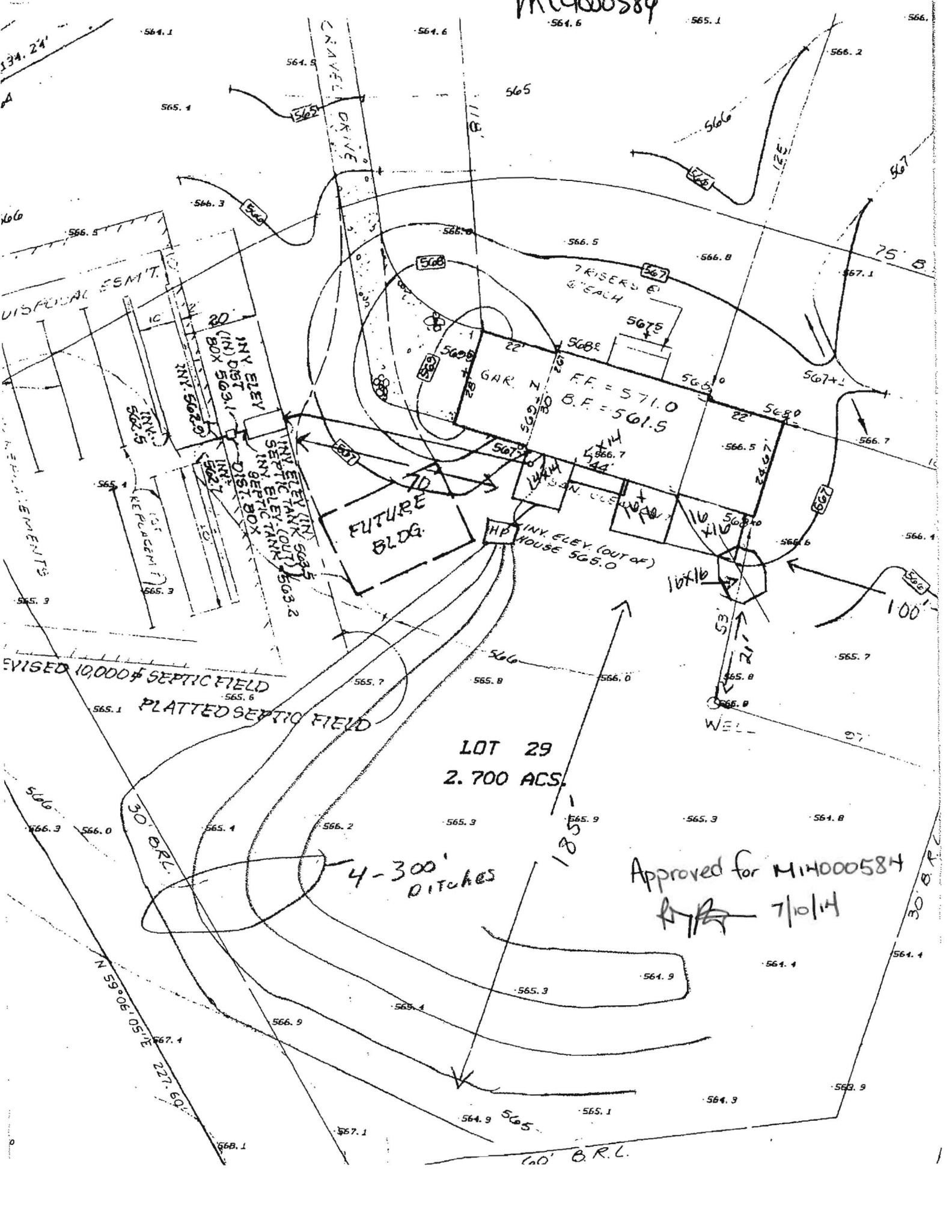
Efficiency 17.02 EER
Sensible cooling 24453 Btuh
Latent cooling 10480 Btuh
Total cooling 34933 Btuh
Actual air flow 1200 cfm
Air flow factor 0.050 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.88

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
SECOND FLOOR	1760	31718	25341	1200	1279
AH2	1760	31718	23781	1200	1200
Other equip loads		0	0		
Equip. @ 0.96 RSM			22830		
Latent cooling			3253		
TOTALS	1760	31718	26083	1200	1200

Bold/italic values have been manually overridden

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

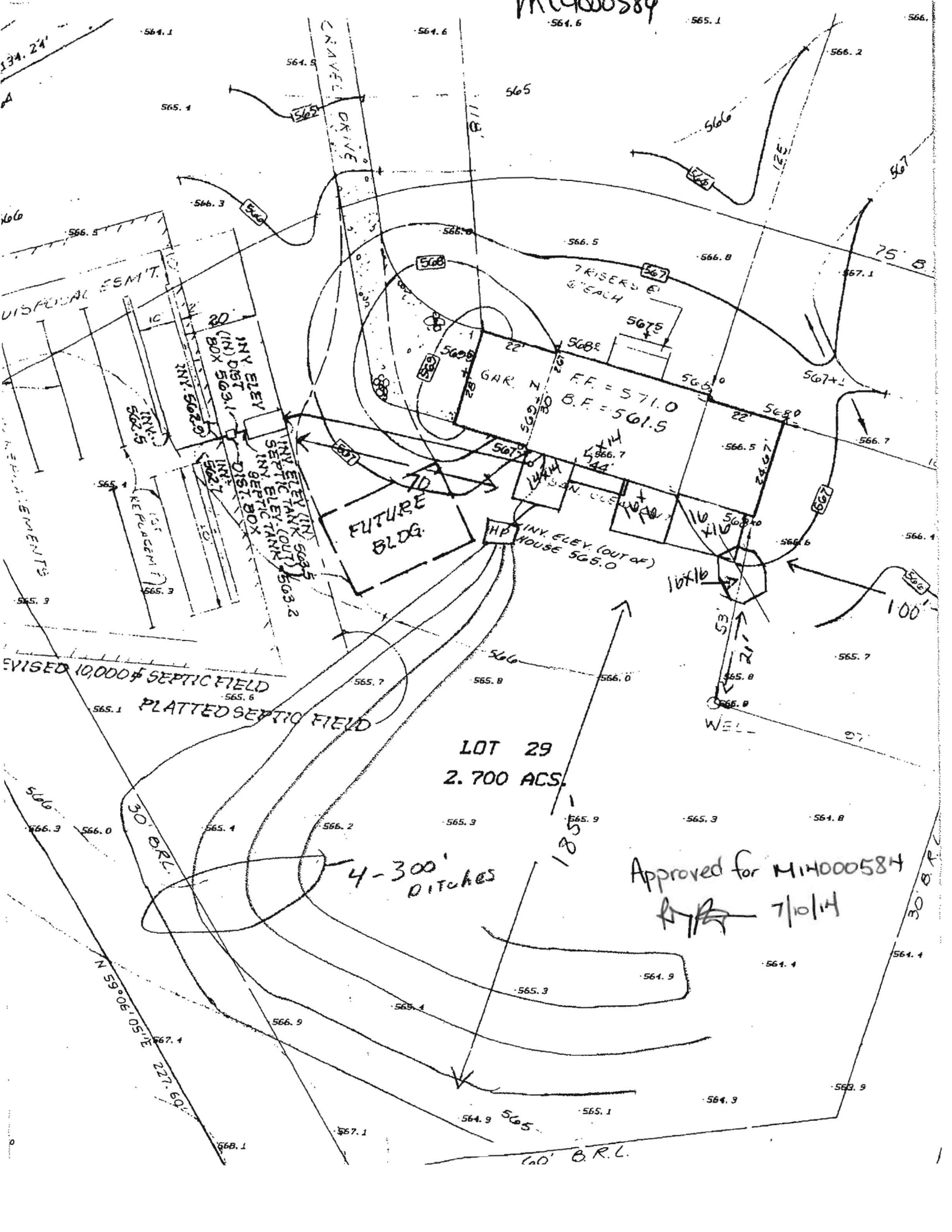
M14000584



LOT 29
2.700 ACS.

4-300'
DITCHES

Approved for M14000584
RJR 7/10/14



5/23/94 ASAP

PERMIT 04-349539

SEWAGE DISPOSAL SYSTEM
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 50205 E

A 41134

DISTRICT 4th

DATE 8/10/94

DATE SYSTEM APPROVED 5/23/94

INSPECTOR DKS

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
~~XXXXXX~~ 313-2640

INDEXED

Jack Fyock Septic Service IS PERMITTED TO INSTALL ALTER

ADDRESS _____ PHONE 988-9270

SUBDIVISION Wellington LOT 29 ROAD 2826 Hunt Valley Drive

PROPERTY OWNER Philip Bourne

ADDRESS _____

SEPTIC TANK CAPACITY 1000 ¹²⁵⁰ GALLONS

NUMBER OF BEDROOMS 3 ⁴

240 SQUARE FEET PER BEDROOM

Handwritten calculations:
240 x 4 = 960
960 + 240 = 1200

LINEAR FEET OF TRENCH REQUIRED 180 ²⁴⁰

TRENCHES - Trench to be 2 feet wide. Inlet 4 1/2 feet below original grade. Bottom maximum depth 8 1/2 feet below original grade. Effective area begins at 4 1/2 feet below original grade. 4 feet of stone below distribution pipe.

LOCATION - Place the distribution box 120 feet from the front lot line and 100 feet from the right (North) side of the lot as seen when facing the lot from Hunt Valley Drive. Run the trenches toward both the front line and the back line. The tank and the trench must be at least 100 feet from the well.

NOTES - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank. OK MR 9/14/93

PLANS APPROVED BY Raymond Hodges DATE 1/25/90

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

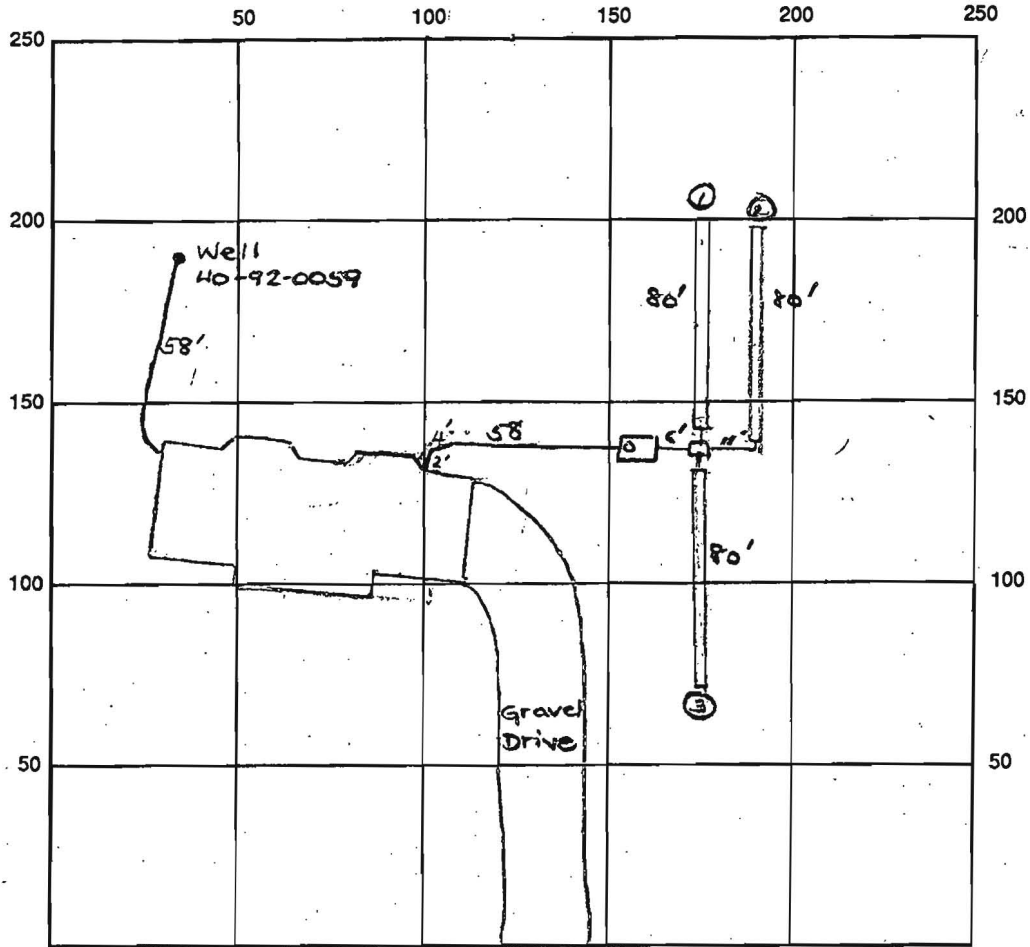
PERMIT VOID AFTER TWO YEARS

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**

A 41134



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE
Hunt Valley Drive

SEPTIC TANK LEVEL OK - 1250 gal CLEANOUTS 1 on tank

DISTRIBUTION BOX LEVEL OK - baffle in

DRAIN FIELD/TITLE DEPTH 8.5 FT. TRENCH WIDTH 2 FT. INLET DEPTH 4.5 FT.

EFFECTIVE GRAVEL DEPTH 4 FT. TOTAL LENGTH 240' total $\begin{matrix} 240 \\ +4 \\ \hline 244 \end{matrix}$

NUMBER OF TRENCHES 3 ONE SIDEWALL/BOTTOM AREA 1960 SQ. FT. $\begin{matrix} 244 \\ \times 8 \\ \hline 1952 \end{matrix}$

DRYWALL INSIDE DIAMETER FT. EFFECTIVE DEPTH BELOW INLET FT.

ABSORBENT AREA 1960 SQ. FT.

REMARKS: 5/23/94 OK to continue work. DKS

Later - OK to cover all work. DKS

DATE SYSTEM APPROVED 5/23/94 INSPECTOR [Signature]

APPLICATION

SEWAGE DISPOSAL TESTING

STATE OF MARYLAND · DEPARTMENT OF HEALTH AND MENTAL HYGIENE

HOWARD COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES
P. O. BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE 992-2330

A 41134

P _____

DISTRICT 4TH

DATE December 18, 1987
FEB 26 1988

*5/10/88
per OK'd
pending approval
[Signature]*

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER G. Oliver Goldsmith, et ux Philip Bourne

ADDRESS Route 27, Longwood Farm, Glenwood, MD 21737 PHONE 301-384-7964
301-442-2121

PROPERTY LOCATION Wellington East 1 Area LOT NO. 29 Preliminary
SUBDIVISION Longwood Farm 25 Sec. 1

ROAD AND DESCRIPTION Southwest Quadrant of intersection of Roxbury Mills Rd. (Rt. 97) and
Union Chapel Road (2826 Hunt Valley Drive)

SIZE OF LOT 3+ Acres TYPE BLDG. SFD Residential
(NUMBER OF BEDROOMS) *
* Undetermined at this time

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE
FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY
WITH ALL MOSHA REQUIREMENTS IN TESTING THIS LOT.

APPROVED BY [Signature] FOR [Signature] DATE 1/25/90

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

field shot spot elevations each hole? [Signature]
Specs written 1/25/90

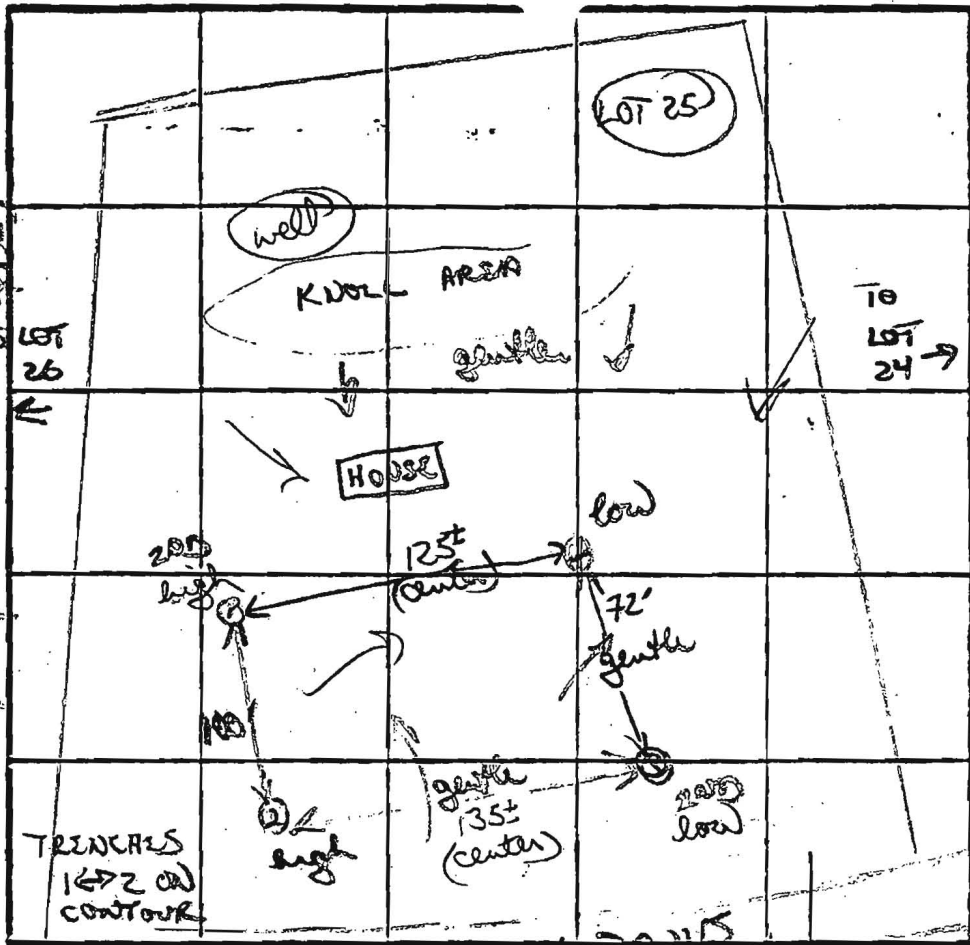
BLDG. PERMIT SIGNED
AND RETURNED 6/3/95
Serial # 48049-SFD

THIS IS NOT A PERMIT

INLET 4 1/2
 MAX D. 8 1/2
 X = 15 1/2 MIN
 228 1/2

SOIL PROFILE

chunky gully
 brown clay
 3 1/2'
 clay silt
 lean
 5-5 1/2'
 to mostly
 purple
 powdery
 silty
 lean
 13' D



③
 brown/yellow
 gummy chunky
 clay 3'
 patchy chunky
 orange purple
 clay loam
 mix 5 1/2-6'
 to mostly
 purple/orange
 silty lean
 ↓ 10'
 sunned
 black hard
 frogs
 1 1/2' hard

②
 Brown chunky
 patchy orange
 clay (heavy)
 4 1/2-5'

to orange tan
 clay/silt
 mix 6 1/2-7'

to mostly
 grey/white
 silt lean
 w/ patchy
 veins sunned
 silt rock
 (10-15%) 8 1/2'
 12 1/2' D

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME	
			START	STOP	START	STOP		
	①	4' S	1236	1245	1245	108	25 MIN	
		13' D	bottom (see profile)					
	②	5' S 6 1/2 S	1237 140	1256 145	244" movement 145	152	7 MIN	
		12 1/2' D	bottom (see profile)					
	③	3' S	1239	1247	1247	1258	11 MIN	
		1 1/2' D	hard bottom (see profile)					
	④	3' S	1241	1247	1247	1255	8 MIN	
		6 1/2' M	1241	1254	1254	122	28 MIN	
		12' D	bottom (see profile)					
		> 10K soil keep due to slow times						

similar
 to 3 w/
 purple
 powdery
 silty
 lean
 6 1/2-7'
 ↓
 12' D
 patchy
 clay
 this
 depth

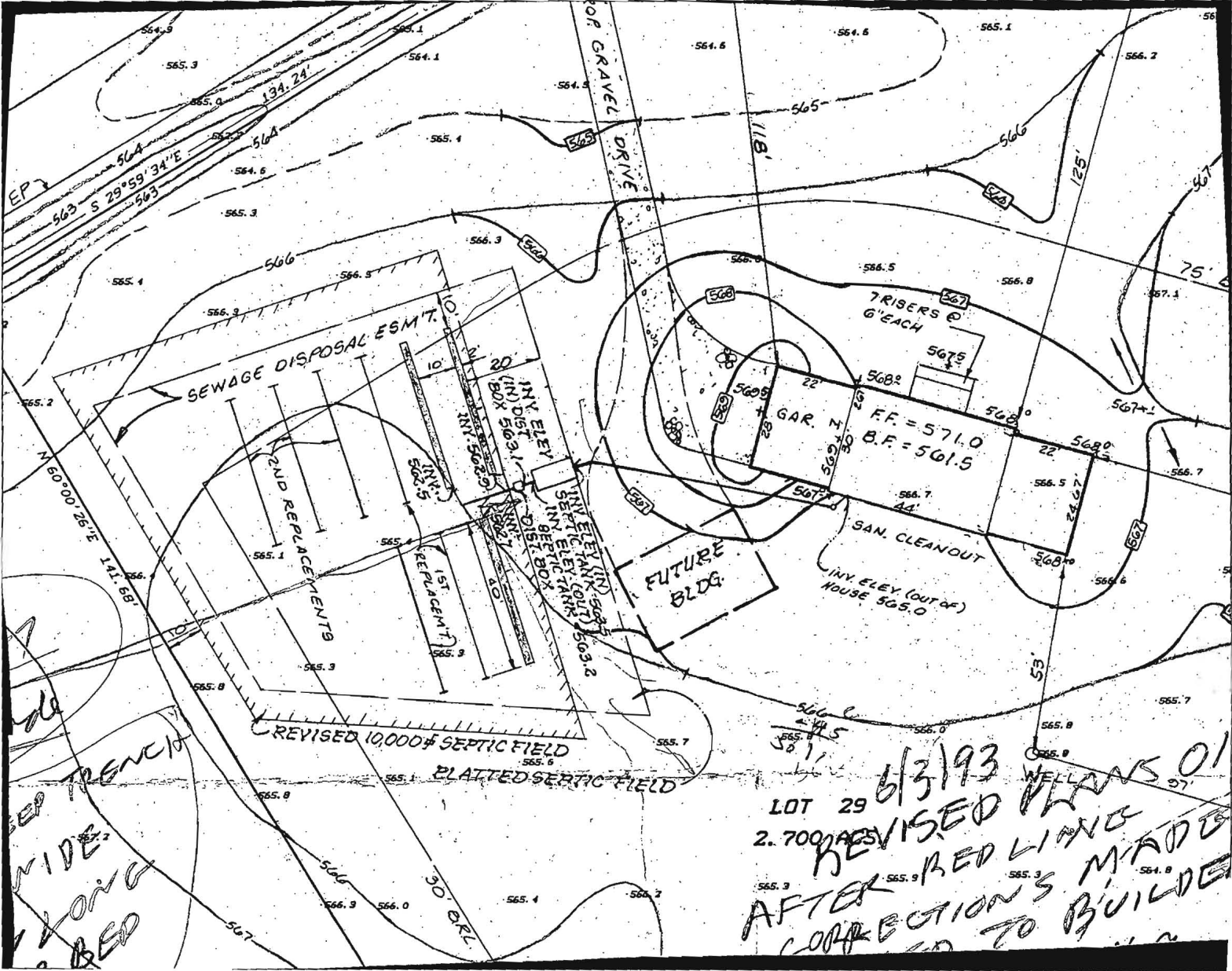
REMARKS: Dig started as staked - open field. Tops may be off on lot corners

TYPE OF SOIL: heavy clays 4-5' clay/silt lean 6 1/2-7', mostly silty lean w/ patchy frogs, hard bottom

TESTED BY: D. Nufon

ALSO PRESENT: Chip, Kamm

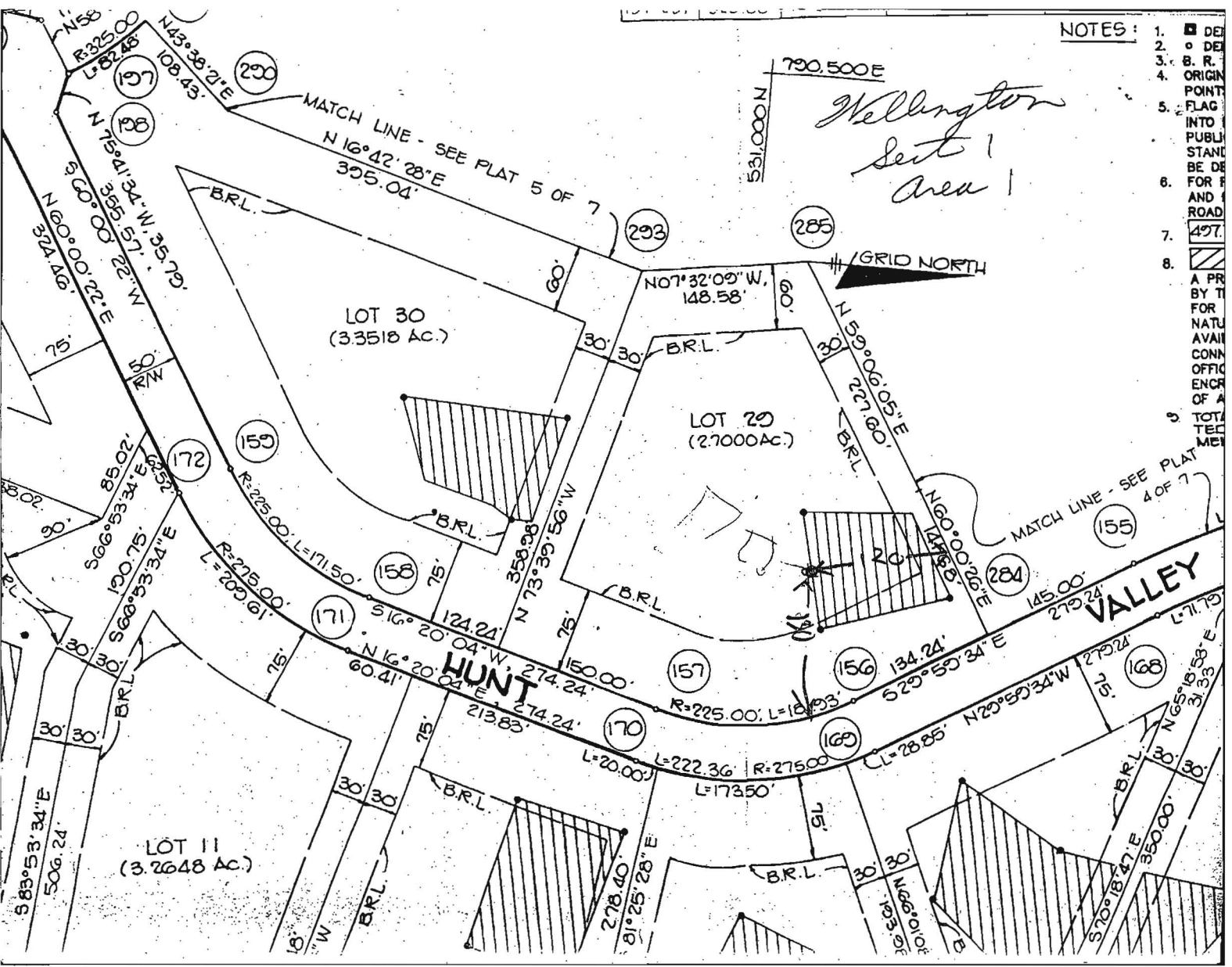
EH-12-1079



NOTES:

1. DEF
2. DE
3. B. R.
4. ORIGIN
5. FLAG
6. INTO
7. PUBLIC
8. STAND
9. BE DE
10. FOR F
11. AND
12. ROAD
13. 197
14. A PR
15. BY T
16. FOR
17. NATU
18. AVAI
19. CONN
20. OFFIC
21. ENCR
22. OF A
23. TOTAL
24. TEC
25. MEI

*Wellington
sect 1
Area 1*



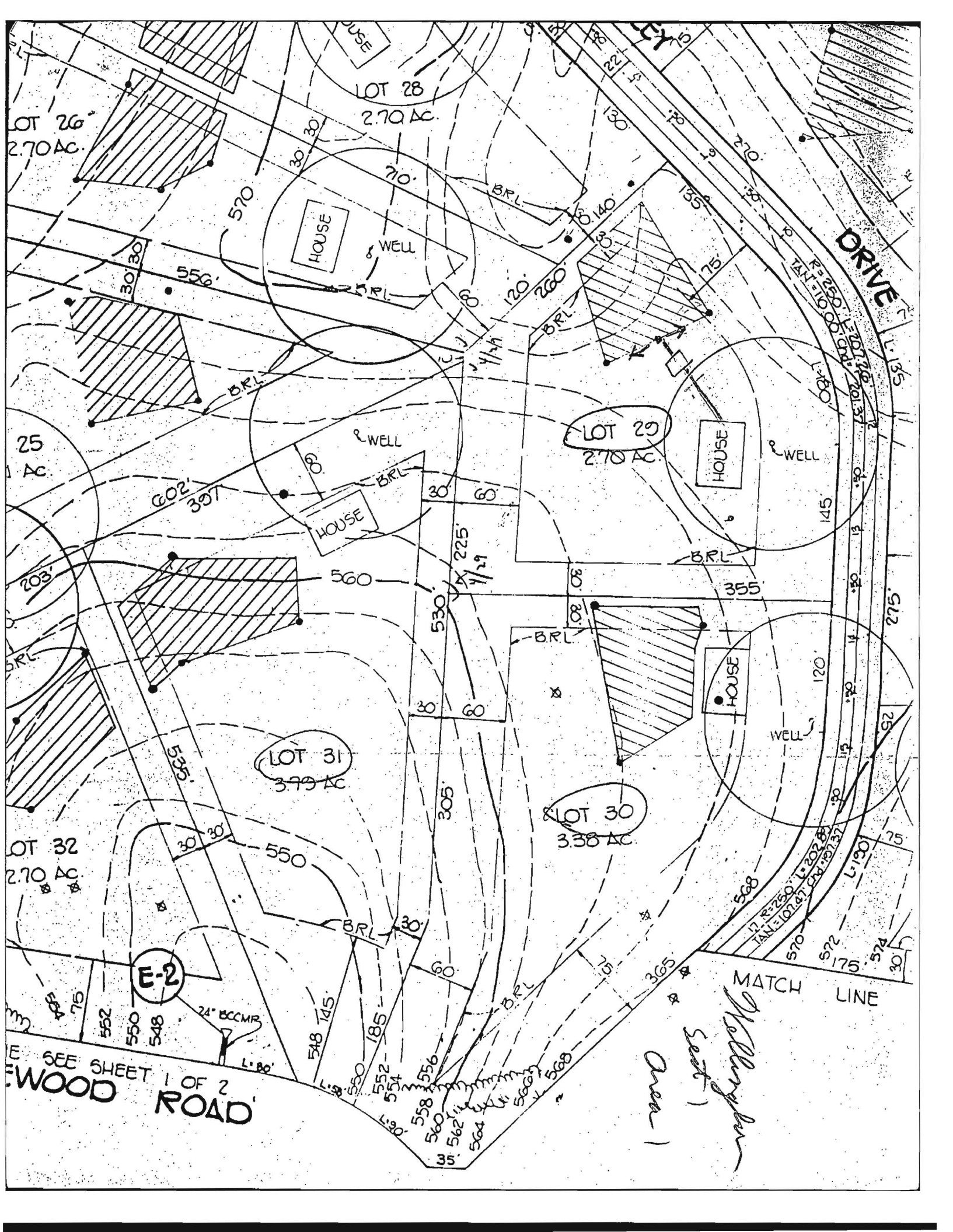
VALLEY

HUNT

GRID NORTH

MATCH LINE - SEE PLAT 5 OF 7
N 16° 42' 28" E
355.04'

MATCH LINE - SEE PLAT 4 OF 7



C1 5189 SEQUENCE NO. (DENV 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)

COUNTY NUMBER A# 41134

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 050792

Depth of Well 225 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" H0-12-0059

OWNER CLARK ASSOCIATES STREET OR RFD HUNT VALLEY DR TOWN GLENWOOD SUBDIVISION WELLINGTON SECTION LOT 29

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: SAND Stone 0 37, GLENWOOD MILGA 37 225, ROCK.

GROUTING RECORD WELL HAS BEEN GROUTED (Y) NO (N) TYPE OF GROUTING MATERIAL CEMENT (CM) BENTONITE CLAY (BC) NO. OF BAGS 9 NO. OF POUNDS 846

CASING RECORD MAIN CASING TYPE SH Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 40

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

DEPTH (nearest ft.) 1 H0 2 39 3 225

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...

DRILLERS IDENT. NO. 238 DRILLERS SIGNATURE March 2 Morgan

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

OTHER CASING (if used) diameter inch depth (feet) from to

SLOT SIZE 1 2 3 DIAMETER OF SCREEN from to

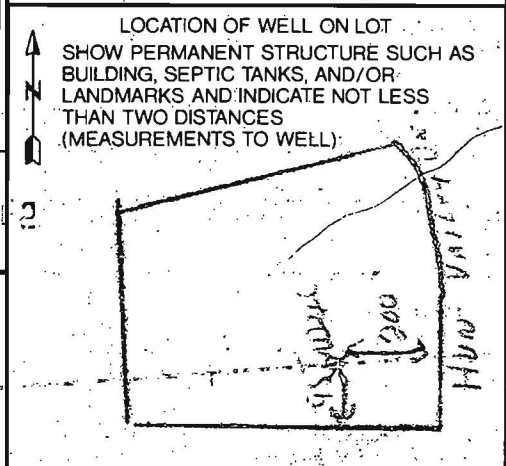
GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

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

TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min. to nearest gal.) 12 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 34 WHEN PUMPING 34 TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED DRILLER WILL INSTALL PUMP YES (NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: CAPACITY: GALLONS PER MINUTE (to nearest gallon) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE (nearest foot)



COUNTY