

5/11/95 11:00
4/5/95
90 Trenches
W.P.I.

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

04-336895

P 50575

A 33083

DISTRICT 4th

DATE 3/13/95

HOWARD COUNTY HEALTH DEPARTMENT

BUREAU OF ENVIRONMENTAL HEALTH

~~XX401903X~~ 313-2640

DATE SYSTEM APPROVED 5/22/95

INSPECTOR [Signature]

INDEXED

Olen Ketterman IS PERMITTED TO INSTALL X ALTER

ADDRESS 14960 Route 144, Woodbine, Maryland 21797 PHONE 442-1336

SUBDIVISION Warfield Estates LOT 33 ROAD 14551 ~~325~~ MacClintock Drive

PROPERTY OWNER Kenneth Rose

**BUILDING PERMIT SIGNED
AND RETURNED**
12221 600157478 - CARPORT ROOF

ADDRESS

Design Reference: Low Pressure Dosing System Specifications as Submitted by S/E Engineering, Inc. and Approved 8/02/94 by the Howard County Health Department.

Maximum Sewage Design Flow: 450 Gallons per day - Specific for 3 Bedroom House ONLY

Average Percolation Time: 25 min/inch

Design Loading Rate: 0.5 Gallons per square foot per day of either single sidewall or bottom area (whichever is larger).

Septic Tank Capacity: 1500 Gallon Top Seamed, Two Chambered

Pump Pit Capacity: Use Dual Pump System or Submit Specification Sheet for pump chamber with 1 days capacity above High Water Alarm, if single pump system used. (1000 gallon Top Seamed minimum required)

TRENCHES - Trench to be 3 feet wide. Inlet maximum depth 1 foot below original grade. Bottom maximum depth 3 1/2 feet below original grade. 6 inches of gravel below distribution pipe (then 2 feet of sand fill (See Approved Plans) Soil Cap to provide 18 inches Total Cover above drain pipe. Total length of trench to be installed; 300 Linear Feet Total - 4 trenches (each trench 75 feet long).

LOCATION - Place high point of Center Manifold for upper trench 34 feet from right (483.90') property line at a point on that property line 100 feet from its intersection with the rear (25.00') property line as viewed from MacClintock Drive. Install laterals on contour in both directions away from Center Manifold. NOTE: LPD design assumes all laterals are at same elevations, if otherwise, submit calculations for varied perforation size and spacing per trench, to demonstrate balanced dosing through-out system.

NOTES - All trenches to be same length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank and pump chamber.

PLEASE CALL FOR INSPECTION BEFORE AND AFTER SANDFILL IS INSTALLED, AS WELL AS TIME OF LATERAL PLACEMENT AND FINAL PUMP TEST.

*****Note: Any variance from approved plans and specifications requires health department review and approval prior to installation.*****

PLANS APPROVED BY Ronald J. Pinkley DATE 02/13/95

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: 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.

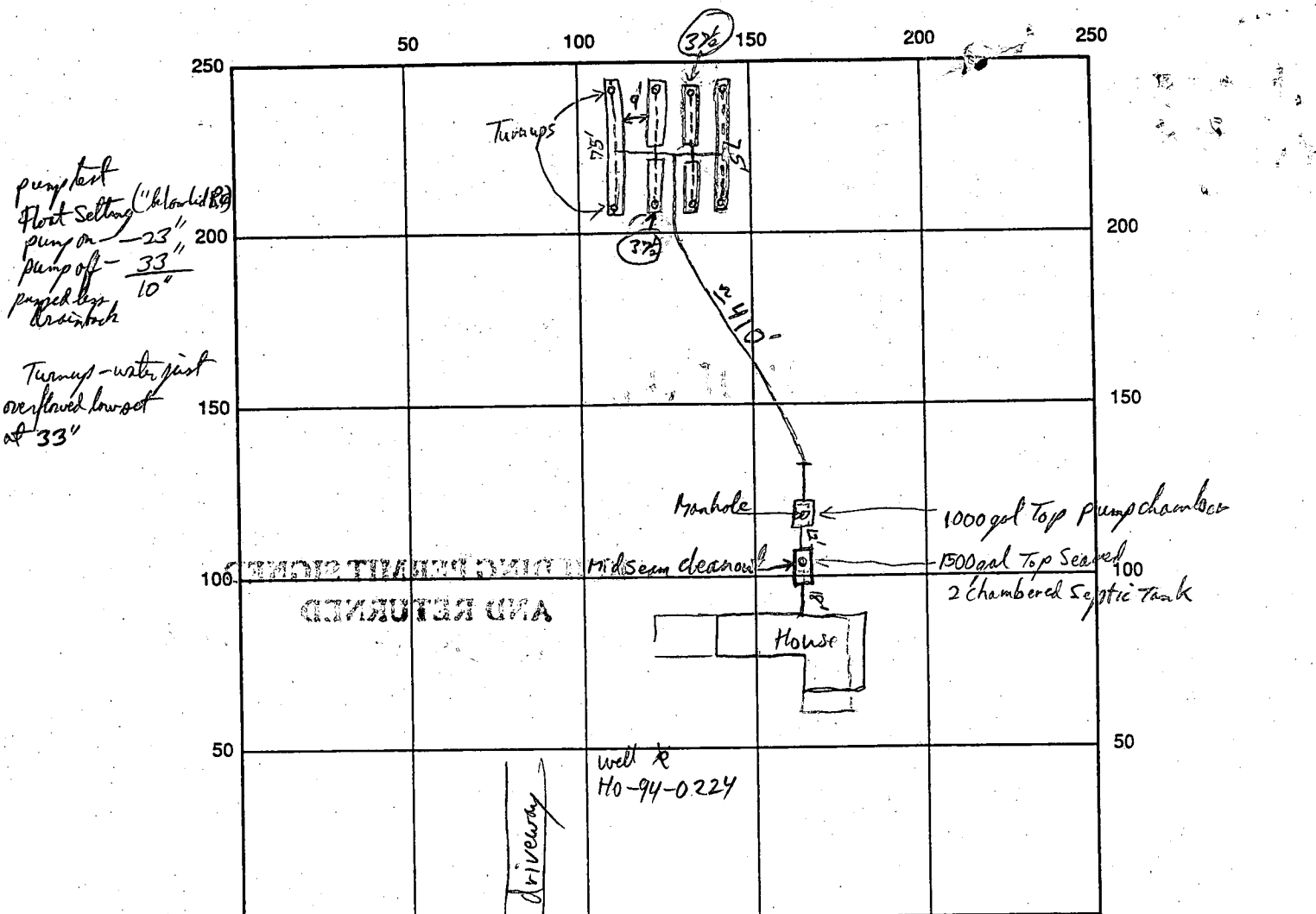
NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

***INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**

*CALL 481-9833 FOR INSPECTION OF SEPTIC SYSTEM.

PERMIT SIGNED
AND RETURNED 10-28-99
Jessie H. 010 120855
DWIN

1133083



pump test
 float setting ("blowid 89)
 pump on - 23"
 pump off - 33"
 pump legs
 brass lock

 Turnups - water just
 overflawed low set
 at 33"

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE
 MacClintock Dr

SEPTIC TANK LEVEL 1000 gal Top Sealed Pump Chamber
1500 gal Top Sealed 2 Chambered ST. CLEANOUTS Manhole on P.C.

DISTRIBUTION BOX LEVEL pressure dosed manifolds (see detail Plans)

DRAIN FIELD/TILE DEPTH 3 1/2 FT. TRENCH WIDTH 3 FT. INLET DEPTH 1 FT.

EFFECTIVE GRAVEL DEPTH Sand Depth 24" / 6" FT. TOTAL LENGTH 300 Lin FT. (37 1/2' each lateral (Trench pipes 3 1/2' to Turnup))

NUMBER OF TRENCHES 8 LATERALS 8 TOTAL ONE SIDE INLET/BOTTOM AREA 900 SQ. FT.

DRYWALL INSIDE DIAMETER _____ FT. EFFECTIVE DEPTH BELOW INLET _____ FT.

ABSORBENT AREA _____ SQ. FT. Sand is Sand Mount Quality Sand
Trench spacing = 12 ft Center to Center

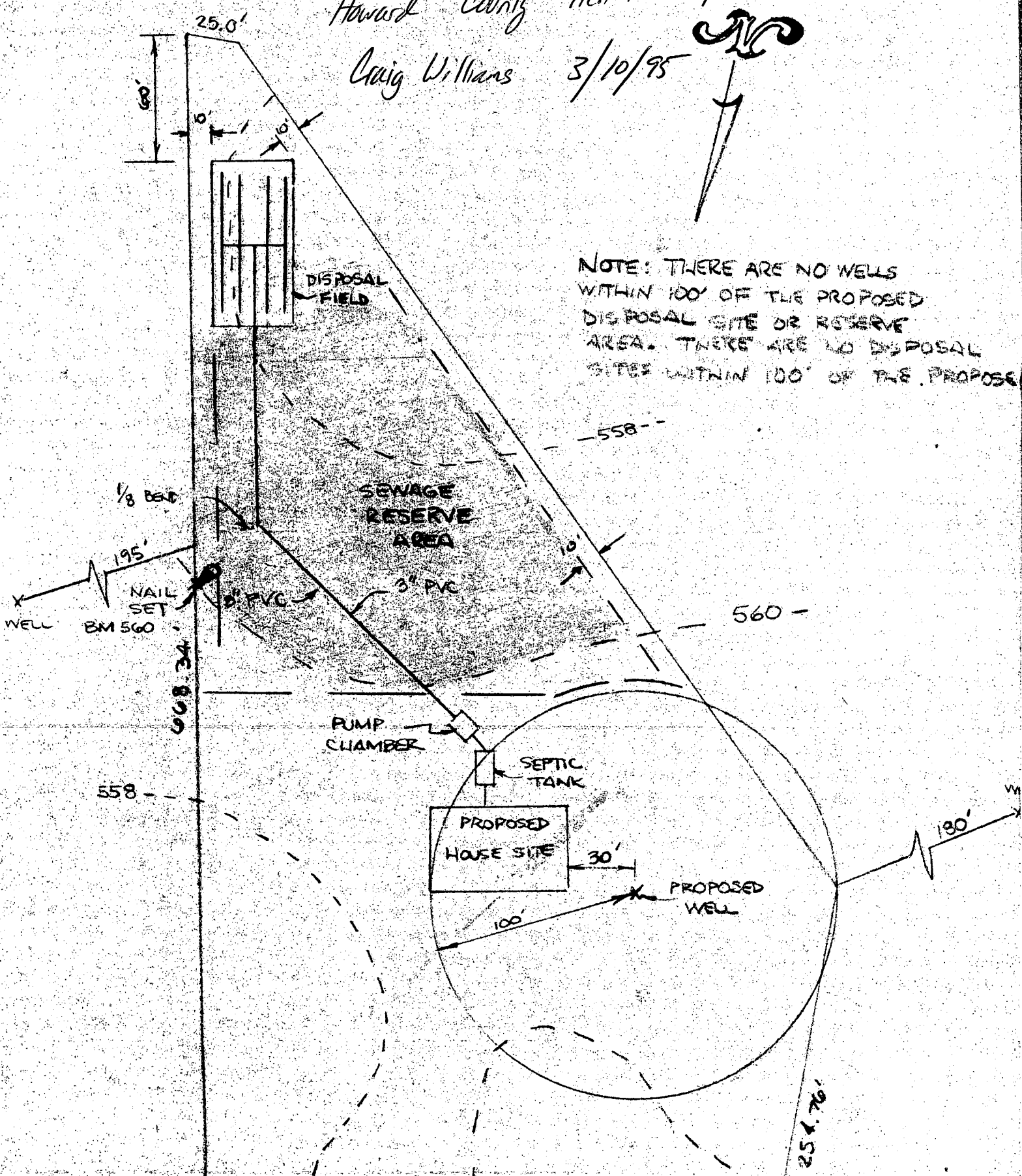
REMARKS: Pump Chamber & Septic Tank and House connection and last 20 ft of pressure 3" Sch. 40
are OK to cover RP 4/5/95 First 3 laterals sand + gravel filled, placing geo Textile fabric, 4th lateral being spread
ready for sand fill (Just penetrating good sandier soils at bottom 3-4 inches of Trenches) Supply line already
installed & covered. Sand Placed OK - ready for gravel, all lateral pipes already assembled & drilled OK RP 5/11/95
Last lateral trench OK to cover 5/15/95 Clean Box & Controls Installed in Basement OK, Pump Test OK RP
WPT - Pit less Napter OK at 4 1/2 ft RP 4/5/95 Pump Test OK

DATE SYSTEM APPROVED 5/22/95 INSPECTOR RP Muller 6/22/95

Approved Septic System Plan
 Howard County Health Department
 Craig Williams 3/10/95



NOTE: THERE ARE NO WELLS WITHIN 100' OF THE PROPOSED DISPOSAL SITE OR RESERVE AREA. THERE ARE NO DISPOSAL SITES WITHIN 100' OF THE PROPOSED



C1 4584

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 A33083

STACO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Rose last name, Kenneth first name, STREET OR RFD MacClintock, TOWN Glenwood, SUBDIVISION WARFIELD EST, SECTION, LOT 33

WELL LOG

GROUTING RECORD

C3

Not required for driven wells. STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES (Y) NO (N)

PUMPING TEST HOURS PUMPED (nearest hour) 3

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), Check if water bearing. Includes handwritten entries: SAND, GRAY Mica Rock, 0 47, 47 165.

TYPE OF GROUTING MATERIAL CEMENT (CM) BENTONITE CLAY (BC). NO. OF BAGS 17 NO. OF POUNDS 1598. GALLONS OF WATER 102. DEPTH OF GROUT SEAL (to nearest foot) from 0 to 45 ft.

PUMPING RATE (gal. per min. to nearest gal.) 12. METHOD USED TO MEASURE PUMPING RATE Bucket. WATER LEVEL (distance from land surface) BEFORE PUMPING 22 WHEN PUMPING 59.

CASING RECORD. gasing types insert appropriate code below. ST CO STEEL CONCRETE PL OT PLASTIC OTHER.

TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible.

MAIN CASING TYPE ST. Nominal diameter top (main) casing (nearest inch) 6. Total depth of main casing (nearest foot) 51.

IN HARD ROCK AREAS, IDENTIFY SPECIFICALLY WHERE SATURATED FRACTURES WERE OBSERVED. WELL HYDROFRACTURED YES (Y) NO (N).

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

PUMP INSTALLED DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES (NO).

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

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).

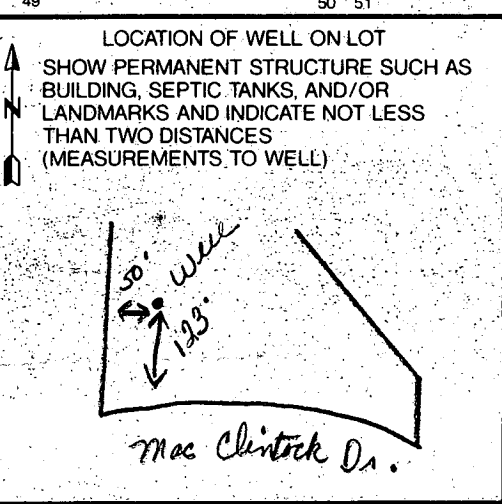
CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL.

DEPTH (nearest ft.) 49 165. SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) from to.

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO 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.

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



DRILLERS IDENT. NO. 24. DRILLERS SIGNATURE Joseph Mayne. SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee).

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.

4/22/94
3:30
(2:00 AM)

APPLICATION

PERCOLATION TESTING (NO ADDTN'L FEE)

A 33083

P _____

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 313-2640

TO RETEST PLATTED EASEMENT TO CONFIRM WATER TABLE & TRY TO REMOVE SYSTEM FIRST DESIGNATION.

DISTRICT _____

DATE _____

TO: THE COUNTY HEALTH OFFICER
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER DILAWAR LAKHANI Kenneth ROSE

ADDRESS 6110 CAMELBACK LANE PHONE 410-313-3065 WORK
COLUMBIA, MD. 21045 301-530-8395

AGENT OR PROSPECTIVE BUYER _____

ADDRESS _____ PHONE _____

PROPERTY LOCATION:

SUBDIVISION WARFIELD ESTATE LOT NO. # 33

ROAD AND DESCRIPTION 3335
14547 MACCLINTOCK DRIVE

TAX MAP _____ PARCEL # _____

SIZE OF LOT _____ TYPE BLDG. BLDG. PERMIT SIGNED AND RETURNED 2/3/95
Serial # 57409-SFD 3Bw
(SINGLE FAMILY DWELLING OR COMMERCIAL)

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 M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. Dilawar Lakhani
(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR _____ DATE _____

DISAPPROVED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____

REASONS FOR REJECTION OR HOLDING _____

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # _____ DATE _____

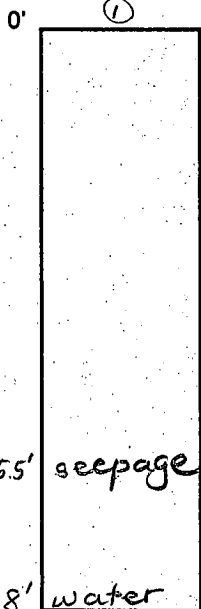
SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # _____ DATE _____

THIS IS NOT A PERMIT

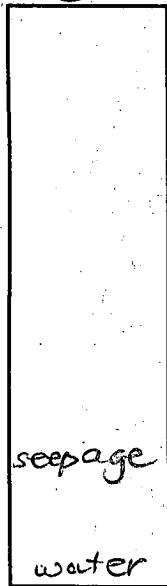
33083

COUNTY #

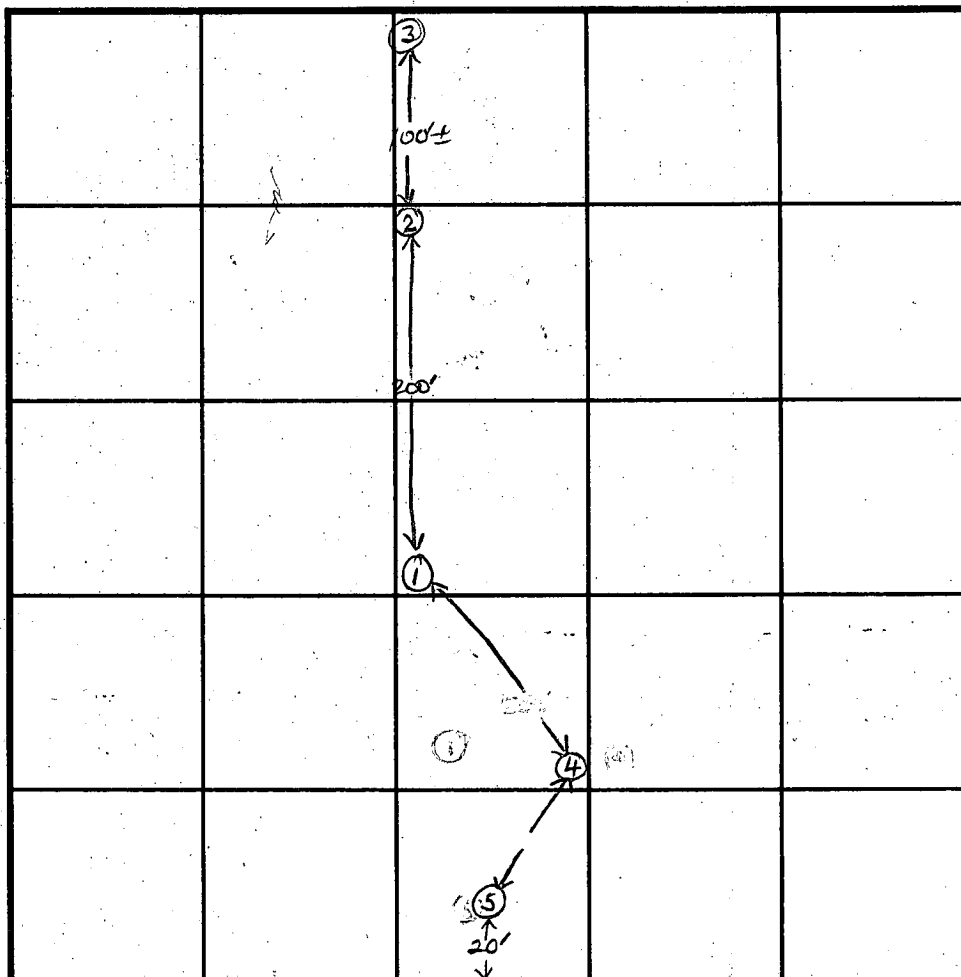
SOIL PROFILE



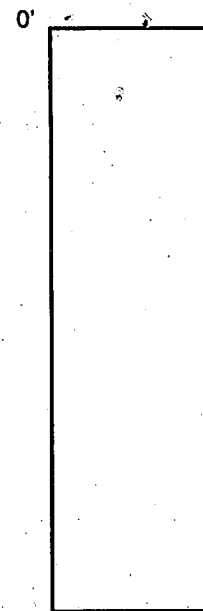
②



③



SOIL PROFILE



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

MacClintock Lane

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
4/22/94	1	water at 8'	seepage at 5.5'				Considers
	2	water at 10.5'	seepage at 5.0'				
	3	water at 7.5'	seepage at 5.0'				
	4	water " 9.0'	seepage " 5.5'				
	5	" " 8.0'	" " 5.0'				
		1'	4:08	LITTLE P6NC		AFTG 30 MIN	(4)

REMARKS _____

TYPE OF SOIL _____

TESTED BY CWILLIAMS KIM SOE ALSO PRESENT OKSTENMAN, CHAKRAN

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT./BEDROOM _____

APPLICATION

RE SUBDIVISION
3/12/84
1308

System First before Building Permit
SEWAGE DISPOSAL TESTING
STATE OF MARYLAND - DEPARTMENT OF HEALTH AND MENTAL HYGIENE
R/H
33083
P _____

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

DISTRICT _____
DATE August 26, 1983

Aug 30, 1983
9:08

LOT 17B TO BE DIVIDED IN TWO, EACH
LOT ABOUT 3 ac IN SIZE

SYSTEM FIRST BEFORE
BUILDING PERMIT

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 Wesley L. Johnson / John and Barbara Barton
ADDRESS 7734 WASH Blvd Baltimore PHONE 799-7839

PROPERTY LOCATION:
SUBDIVISION WARFIELD ESTATES LOT NO. 17B ³³ See F-8490
ROAD AND DESCRIPTION 14547 - MACCLINTOCK DRIVE

SIZE OF LOT 3.1 Acres TYPE BLDG. S.F.D. 4 BED ROOMS
(NUMBER OF BEDROOMS)

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 M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT. Wesley L. Johnson
(SIGNATURE OF APPLICANT)

APPROVED BY Frank Shinn FOR tile field DATE 3/13/84

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING 8/30/83 HOLD FOR REVIEW (WATER)

POSSIBLY WET SEASON TESTS R/H 9/2/83

9/2/83 FS said Hold for Review in Wet Season (1 FEB - 30 APR)

3/12/84 BORDERLINE SITUATION HOLD FOR REVIEW WITH FS

THIS IS NOT A PERMIT

Retest

APPLICATION

A 33083

SEWAGE DISPOSAL TESTING

STATE OF MARYLAND - DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P _____

HOWARD COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES

P. O. BOX 476 ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 992-2330

DISTRICT _____

DATE August 26, 1983

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 Wesley L. Johnson

ADDRESS 7734 Woodburn Rd Lot 682 PHONE 799-7529

PROPERTY LOCATION:

SUBDIVISION Woodburn Estates LOT NO. 1733 Sec F-8490

ROAD AND DESCRIPTION 14547 Woodburn Rd

SIZE OF LOT _____ TYPE BLDG. _____ (NUMBER OF BEDROOMS)

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 M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT.

(SIGNATURE OF APPLICANT)

APPROVED BY _____ FOR [Signature] DATE _____

REJECTED BY _____ FOR _____ DATE _____

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

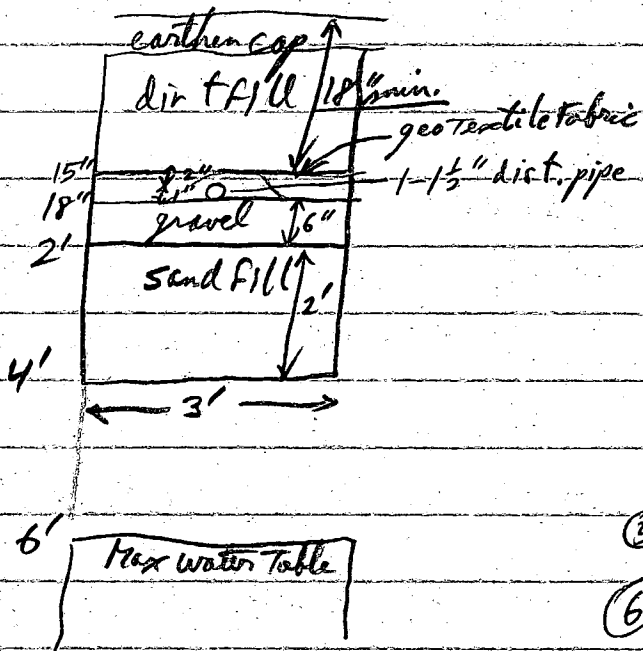
THIS IS NOT A PERMIT

6/14/94
R.J. Pinkley

Design Waterfield Estates Lot 33

Parameters Max water table @ 6'
Perc @ 4' = 20-25 min/inch

assumptions
 (A) some perc rates at and below 4' = very slow rates between surface and 3 1/2 ft and seasonal
 (B) Max water table seasonal 6' ↑
 system Design 300 sq ft / Bdr = 100 Lin Ft. / Bdr (including capillary fringe)

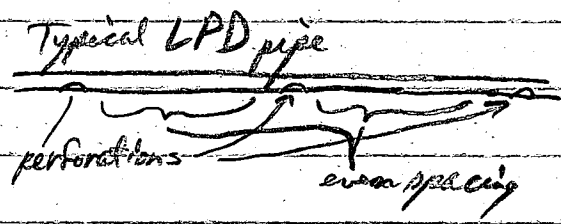


- ① Trench 3 ft wide
- ② Max Bottom = 4 ft Max.
- ③ Depth of Sand Fill = 2 ft minimum (I/A grade sand)

$$\frac{100}{60} (\text{Uniformity Coefficient}) =$$

 Ave size passing 10% = .25 in. - .50

- ④ gravel fill over sand = 6"
- ⑤ LPD pipe = 1-1/2" diameter
- ⑥ perforation size = 5/16" diameter
- ⑦ perforation spacing = 3 1/2 - 10'
- ⑧ Balance - No more than 10% variance from low to high during trench.



- ⑨ Min 2" gravel cover over top of LPD pipe.
- ⑩ geotextile fabric over gravel
- ⑪ 18" min earth fill over top of geotextile fabric (may need Septic Tank)
- ⑫ Top Seamed pump chamber an earthen cap over field area
- ⑬ Recommend: A (alternating) 10) Normal Trench Spacing LPD system designed (9 ft between nearest sidewalls at 150 percent of Normal in successive trenches) (75% of Total Trench Size for each half of Drain Field)
- ⑭ Can choose 2 separate fields or have on line trenches alternate (ie. all even / or all odd) in one large area.

Require this type if can only fit 2 systems in available perc area

SANITARY/ENVIRONMENTAL ENG., INC.

Consulting Engineers
 1414 Washington Road
 WESTMINSTER, MARYLAND 21157
 (410) 876-7740

JOB LAKHANI
 SHEET NO. _____ OF _____
 CALCULATED BY JDC DATE 2/12/94
 CHECKED BY _____ DATE _____
 SCALE _____

TDH -
 Elev. difference 557.00 to tank
553.83
3.17 OK

3.17 ✓

Distal Pressure

2.00 ✓

Friction loss -

2" line - 8' + ball valve + L + Union + L + L
 8 + 1.3 + 7 + 2 + 7 + 7 = 33'

$$F = 0.0984 \frac{Q^{1.85}}{d^{4.87}} = 0.0984 \frac{2258.8}{34.33} = 6.47' / 100'$$

$$6.47 \times 0.33 = 2.1' \quad (2") \quad \underline{2.10} \quad \checkmark$$

3" line - 260' + 1/8 bend + L
 260 + 6 + 10 = 276'

$$F = 0.0984 \frac{2258.8}{234.9} = 0.9462' / 100'$$

$$2.76 \times 0.9462 = 2.6 \quad (3") \quad \underline{2.60} \quad \checkmark$$

9.87 ✓

(10' TDH) ✓

Calculations for Ron Pinkley

0.0000 0.0000

Final Plan
OK 9/1/94

[Signature]
3/10/95
P.H.

SPECIFICATIONS
LOW PRESSURE DOSING SYSTEM

Lot 33, Warfield Estates
MacClintock Drive
Howard County, MD

1. Design Criteria

- Design Flow - 450 GPD
- 1 - 1500 Gal. Compartmented Septic Tank (Top Seam)
- 1 - 1,000 Gal. Pump Chamber (Top Seam)
- 4 - 75' x 3' Sand Lined Trenches
- Center Feed Low Pressure Dosing System
- Dose - 260 Gallons (101 Gal. Returned)
- Pumping Rate - 65 GPM
- TDH - 10'

2. Sewage Treatment

One 1500 gallon compartmented top-seam septic tank is to be installed in series with a 1,000 gallon top-seam pump chamber. The pump chamber is to provide 18" of depth for pump submergence, 10-1/2" for pump cycle dose, and 6" for the high water alarm. The remaining depth and freeboard will provide one day's flow of emergency storage.

The above capacities and tank measurements and elevations shown on the drawing are based upon top-seam septic tanks and pump chambers as manufactured by Mayer Bros., Inc. Elkridge, MD (410) 796-1434.

- 3. A quick disconnect union and a ball valve shall be provided on the pump discharge line as shown on the drawing.
- 4. Pressure piping from the pump chamber to the laterals is to be 3" Schedule 40 PVC.
- 5. Distribution laterals are to be 1-1/2" Schedule 40 PVC.
- 6. The pressure supply line, from the pump chamber to the manifold, is to be installed with a continuous slope back to the pump chamber to assure complete drainage of effluent from the supply line following each pump cycle.

© 1995-96 H.C.H.D.

Specifications
Low Pressure Dosing System
Lot 33, Warfield Estates
Howard County, MD

-2-

7. A submersible pump to remove 65 gallons per minute against 10' total dynamic head is to be provided. The pump should be a Goulds Model WE 0311 M, 1/3 hp, 115 volts, single phase, or equal.

The pump control box is to be located above ground in a weatherproof enclosure or in the house.

8. The high water level sounding alarm is to be on a separate electrical circuit. The alarm is to be located in the house.

9. Trench sand is to have an effective size between 0.25 and 0.50 mm with a uniformity coefficient no greater than 3.5. A list of suppliers of approved sand is available upon request from the Individual Wells and Septics Program, MD Department of the Environment (410) 631-3652.

10. Trench gravel is to be 3/4" to 2" in diameter, washed and free of fines. Gravel is to be inspected and approved prior to placement. Following covering of the laterals with gravel, a layer of geotextile fabric is to be applied. Crushed limestone is not an acceptable substitute for gravel.

11. The one and one half inch (1-1/2") laterals are to be 34'-6" long with 5/16" perforations 7'0" apart as shown on the drawing.

12. A test of the pumping system and distribution piping may be required by the Howard County Health Department prior to covering the system.

Note: The above specifications and accompanying drawing have been prepared based upon determination of soils and site conditions as made by personnel of the Howard County Health Department.

S/E Engineering, Inc.

8/6/94

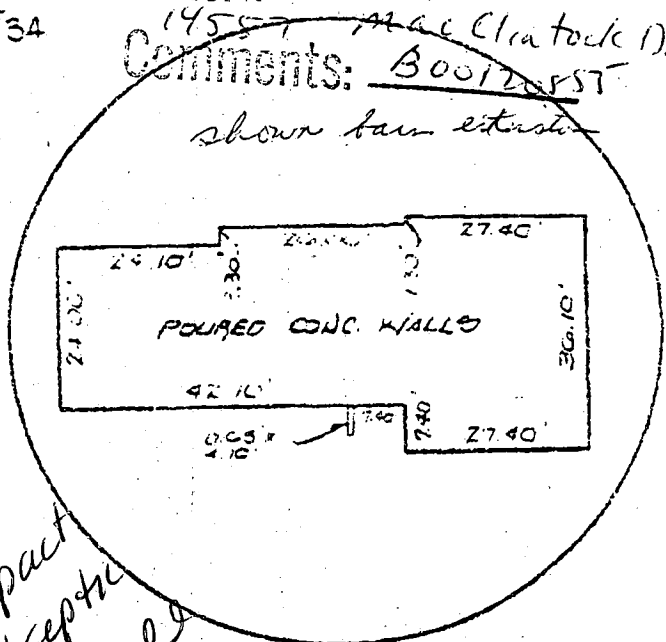
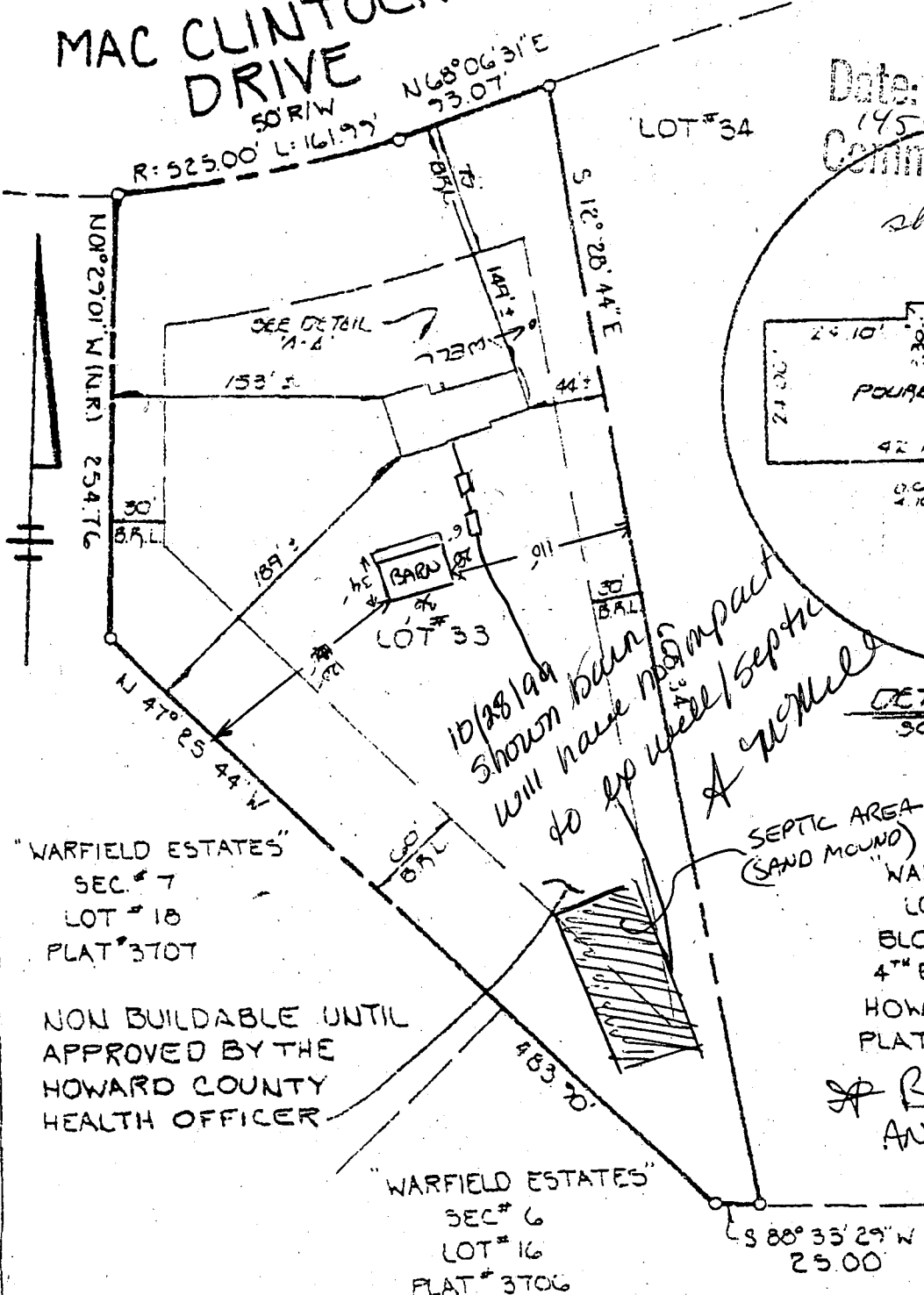
GENERAL NOTES:

- THIS PLAT IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM IN SO FAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR RE-FINANCING. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS PLAT IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS PLAT DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINE, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR RE-FINANCING.
- SUBJECT PROPERTY IS SHOWN IN ZONE C ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 2400440020B EFFECTIVE DATE: DECEMBER 11, 1986

MAC CLINTOCK DRIVE

REVISED

Date: 10-29-99
 14557 Mac Clintock Dr
 Comments: BOULDERS
 shown bar estate



DETAIL 'A-A'
 SCALE: 1" = 30'

10/28/99
 shown barn
 will have no impact
 do no well/septic
 A well

"WARFIELD ESTATES"
 SEC. # 7
 LOT # 18
 PLAT # 370T

NON BUILDABLE UNTIL
 APPROVED BY THE
 HOWARD COUNTY
 HEALTH OFFICER

LOT # 33
 "WARFIELD ESTATES"
 LOTS # 33 & 34
 BLOCK 'B' SEC. # 7
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MD.
 PLAT REFERENCE: # 5735

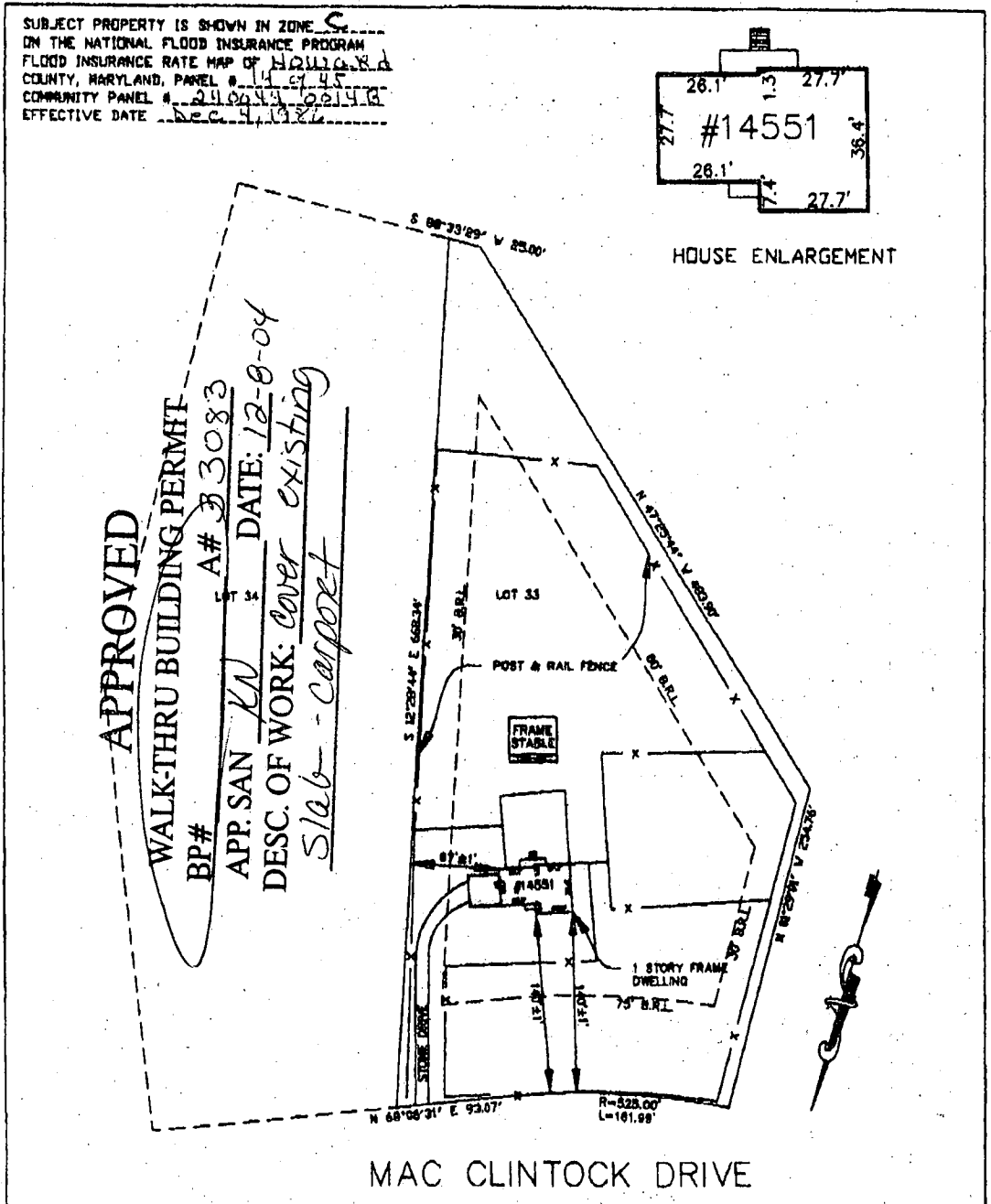
* BARN IS 200'+ FROM
 ANY ADJOINING RESIDENCE

"WARFIELD ESTATES"
 SEC. # 6
 LOT # 16
 PLAT # 370G

BRL: BUILDING RESTRICTION LINE

12-8-04 PLAN
 NOT TO SCALE, HOWEVER,
 IMPROVING UPON EXISTING
 "FOOTPRINT". OWNER
 AWARE FUTURE
 UPGRADES ON
 PROPERTY MAY/
 WILL REQUIRE
 SCALED DRAWING!
 No well or
 septic issues.

(SAW ENGINEER -
 STAMPED DRAWING
 NOT TO SCALE)



NOTE: ALSO KNOWN AND DESIGNATED AS
 LOT 33 AS SHOWN ON A PLAT OF LOT
 33 AND 34, BLOCK D "WARFIELD ESTATES"
 SECTION SEVEN RECORDED IN HOWARD COUNTY
 MARYLAND ON PLAT CMP NO. 5735

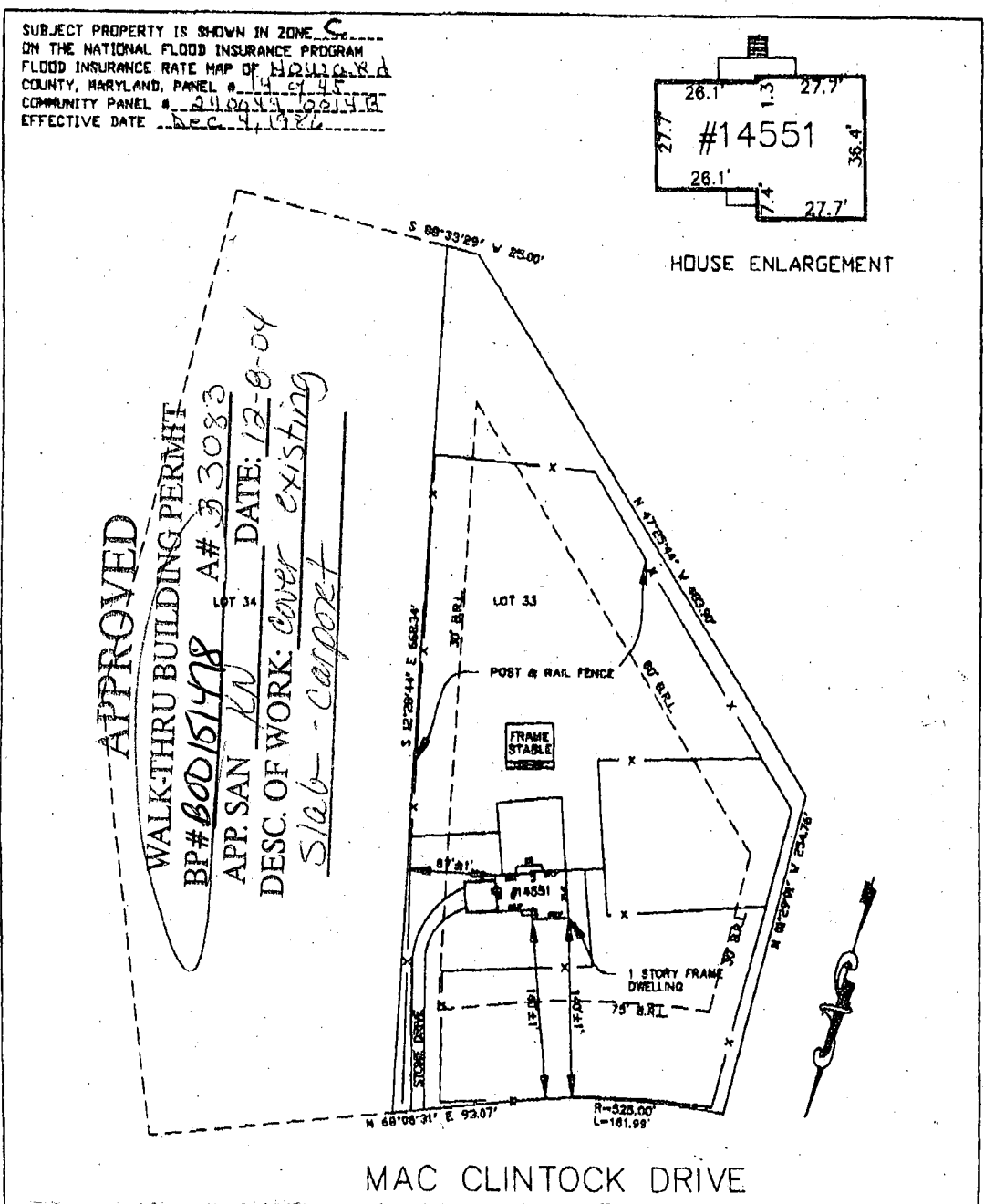
- 1) The plat is of benefit to a consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing or re-financing.
- 2) The plat is not to be relied on upon for the establishment or location of fences, garages, building, or other existing or future improvements.
- 3) The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or re-financing.



LOCATION DRAWING		SCALE:
#14561 MAC CLINTOCK DRIVE HOWARD COUNTY MARYLAND		1"=100'
JOHN C. MELLEMA SR., INC.		DATE:
LAND SURVEYORS		10-25-04
3409 EAST DRIVE BALTIMORE, MARYLAND 21227 (410)847-7488		JOB NO:
		04756

12-8-04 PLAN
 NOT TO SCALE, HOWEVER,
 IMPROVING UPON EXISTING
 "FOOTPRINTS" OWNER
 AWARE FUTURE
 UPGRADES ON
 PROPERTY MAY
 WILL REQUIRE
 SCALED DRAWING
 No well or
 septic issues

P. 02



(SAW ENGINEER -
 STAMPED DRAWING
 NOT TO SCALE)

NOTE: ALSO KNOWN AND DESIGNATED AS
 LOT 33 AS SHOWN ON A PLAT OF LOT
 33 AND 34, BLOCK D "WARFIELD ESTATES"
 SECTION SEVEN RECORDED IN HOWARD COUNTY
 MARYLAND ON PLAT CMP NO. 5735

- 1) The plat is of benefit to a consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing or re-financing;
- 2) The plat is not to be relied on upon for the establishment or location of fences, garages, building, or other existing or future improvements;
- 3) The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or re-financing.

CASE NO. 70230LL



LOCATION DRAWING		SCALE:
#14551 MAC CLINTOCK DRIVE HOWARD COUNTY MARYLAND		1"=100'
JOHN C. MELLEMA SR., INC.		DATE:
LAND SURVEYORS		10-25-04
3409 EAST DRIVE BALTIMORE, MARYLAND 21227 (410)247-7488		JOB NO:
		04756